

State of Iowa

FORTIETH ANNUAL REPORT

OF THE BOARD OF

Railroad Commissioners

FOR THE

YEAR ENDING DECEMBER 3, 1917

JNO. A. GUIHER, Chairman
DWIGHT N. LEWIS, Commissioner
CHARLES WEBSTER, Commissioner

GEO. L. McCAUGHAN, Secretary

Published by
THE STATE OF IOWA
Des Moines

ERRATA.

No. 8074—1917.

ELECTRICAL INTERFERENCE BETWEEN TRANSMISSION, TELEPHONE AND TELEGRAPH LINES.

On page 11, the Decision and Order of the Board in the above case is marked "Decided December 30, 1917." This should be "Decided December 30, 1916."

No. 8099—1917.

TRAVELERS' PROTECTIVE ASSOCIATION, BY C. R. ROHDE, AND IOWA STATE MANUFACTURERS' ASSN. VS. A. T. & S. F. RY. CO., ET AL.

On December 1, 1917, the Board suspended its opinion and order of November 3, 1917, in the above case, as reported on pages 138 to 142 of this Report, pending argument on carriers' petition for rehearing.

LETTER OF TRANSMITTAL.

TO THE HONORABLE W. L. HARDING,

Governor of Iowa.

In accordance with the provisions of Section 2114, Code of Iowa, 1897, we herewith submit to you the Fortieth Annual Report of this Commission, for the year ended December 3, 1917.

Respectfully submitted,

Jno. A. Guiher, Chairman,
Dwight N. Lewis, Commissioner,
Charles Webster, Commissioner.

December 3, 1917.

ROSTER.

JNO. A. GUIHER, Chairman.
 DWIGHT N. LEWIS, Commissioner.
 CHARLES WEBSTER, Commissioner.
 GEO. L. McCAUGHAN, Secretary.

GENERAL OFFICE.

E. W. LUDLOW.....Chief Clerk
 F. W. FOSS.....Reporter
 L. C. DONOHUE.....File Clerk
 H. A. FRANKLIN.....Stenographer
 HALE DICKERSON.....Stenographer
 W. E. KERSEY.....Clerk

RATE DEPARTMENT.

A. T. SINDEL.....Chief Clerk
 W. F. PARSONS.....Rate Clerk
 J. L. Smith.....Rate Clerk
 CYNTHIA TAYLOR.....Tariff Clerk and Stenographer

ENGINEERING DEPARTMENT.

THOS. H. BOYLAN.....Signal Engineer
 HOWARD S. PHELPS.....Electrical Engineer
 FANNIE FLANAGAN.....Stenographer
 MARIE FLOOD.....Stenographer

STATISTICAL DEPARTMENT.

LACEY WALKER.....Statistician
 FLORENCE NELSON.....Stenographer

COMMERCE COUNSEL'S DEPARTMENT.

J. H. HENDERSON.....Commerce Counsel
 WALTER CONDRAN.....Assistant Commerce Counsel
 EDNA J. BAILEY.....File Clerk and Stenographer
 HELEN PELTON.....Stenographer

REPORT OF THE RAILROAD COMMISSIONERS

For the period covered by this report there have been disposed of by the Commission, by formal order or otherwise, 613 complaints, distributed as follows: Involving Railroad Companies, 546; against Express Companies, 14. In addition to these there were 13 applications for permission to condemn additional right-of-way by Railroad Companies and 40 cases involving electric transmission lines.

COMPARATIVE EARNINGS AND OPERATING EXPENSES IN IOWA, ENCLUDING MILEAGE AND EARNINGS PER MILE

Year Ended June 30	Mileage-including mileage rights	Earnings	Expenses	Net earnings	Net earnings per mile of road
1878	4,157.15	\$69,714,496.07	\$12,565,966.23	\$ 8,148,545.84	\$1,900.12
1879	4,085.04	21,440,709.44	12,004,430.77	8,436,278.67	1,925.88
1880	4,977.01	24,837,545.35	13,982,663.77	10,854,881.58	2,181.00
1881	5,425.98	28,462,181.91	16,788,404.39	11,673,777.52	2,149.63
1882	6,327.43	33,023,936.03	20,612,396.05	11,511,539.98	1,816.44
1883	7,014.25	34,433,354.77	22,827,460.50	11,605,894.27	1,654.46
1884	7,349.23	35,735,271.85	23,359,916.03	12,444,355.82	1,654.45
1885	7,478.43	36,123,537.45	22,665,381.04	13,030,006.41	1,742.34
1886	7,594.07	36,063,169.54	22,921,555.19	13,161,351.44	1,739.87
1887	7,597.50	37,329,730.62	24,132,590.71	13,197,139.91	1,672.50
1888	8,346.31	37,395,386.68	26,397,103.02	10,998,422.76	1,377.73
1889	8,346.00	37,188,359.75	25,226,309.30	11,892,050.45	1,430.19
1890	8,412.72	41,318,153.09	27,336,282.83	14,021,840.70	1,696.75
1891	8,415.10	43,102,399.35	28,639,292.77	14,463,106.58	1,719.15
1892	8,607.34	43,741,636.32	29,657,006.54	14,082,389.96	1,675.02
1893	8,401.79	43,003,639.51	32,622,104.43	12,381,066.09	1,474.81
1894	8,489.88	40,669,679.22	28,099,531.63	12,679,147.59	1,492.50
1895	8,480.33	35,935,916.47	24,726,073.45	11,199,838.02	1,309.25
1896	8,465.67	41,841,292.55	28,735,632.59	13,105,659.96	1,542.85
1897	8,478.63	38,269,568.04	25,336,714.35	12,932,788.66	1,513.54
1898	8,484.19	45,314,595.90	29,813,031.67	15,501,564.23	1,801.84
1899	8,514.31	48,466,138.44	31,470,771.69	16,995,366.75	1,994.54
1900	9,171.49	52,074,571.77	35,469,424.92	16,605,146.79	1,815.04
1901	9,263.00	54,764,635.95	37,449,971.10	17,314,664.85	1,831.69
1902	9,485.22	59,170,929.34	39,876,480.47	19,294,945.87	2,041.12
1903	9,405.00	57,150,083.09	40,792,847.60	16,433,235.46	1,730.55
1904	9,893.02	57,692,095.10	42,694,060.85	14,998,034.25	1,529.89
1905	9,893.77	58,474,377.69	41,934,330.94	16,519,846.72	1,681.11
1906	9,827.28	65,876,083.69	49,710,690.54	19,145,692.92	1,948.34
1907	9,817.23	73,836,331.54	51,112,377.66	21,713,954.28	2,311.82
1908	9,823.34	67,748,279.33	49,491,027.91	18,257,251.62	1,897.01
1909	9,839.22	69,446,313.65	50,673,878.42	18,771,440.23	1,897.93
1910	9,781.05	74,890,955.34	59,081,354.54	15,809,416.80	1,616.23
1911	9,871.81	78,672,412.92	60,628,526.43	18,043,886.49	1,848.08
1912	9,901.86	79,255,831.43	59,791,773.03	19,564,103.77	1,966.79
1913	9,939.20	83,276,192.41	65,192,511.42	21,112,680.99	2,124.18
1914	10,018.92	88,537,613.50	66,338,471.61	22,199,141.89	2,215.02
1915	10,002.29	88,444,255.31	65,293,463.21	23,060,801.50	2,307.53
1916	9,994.34	92,350,828.89	68,368,176.42	23,882,652.47	2,390.12
*1916	9,942.75	98,288,402.67	70,904,673.45	27,383,729.22	2,754.14

*Year ended December 31.

The foregoing table shows an apparent decrease in mileage of steam railways of 51.59 miles. This is accounted for as follows: Atlantic Southern Railway Co., a decrease of 36.60 miles on account of line abandoned; Chicago Anamosa & Northern, a decrease of 33.70 miles on account of line abandoned; Crooked Creek Railroad & Coal Co., a decrease of 17.61 miles on account of line sold to Ft. Dodge, Des Moines & Southern; Dubuque & Sioux City, an increase of .02 mile on account of remeasurement of tracks; Minneapolis & St. Louis Railroad Co., an increase of 36.88 miles on account of 36.60 miles of Iowa Central & Western Ry. being merged with this Company and .28 mile additional track laid during previous years but not reported heretofore; and an apparent decrease of .58 mile is caused by omission of Omaha Bridge & Terminal Co. which was formerly reported in this mileage.

TERMINAL COMPANIES—ALL IN IOWA

Year ended June 30	Mileage—all tracks	Gross earnings	Operating expenses	Net earnings	Net earnings per mile of road	Amount out-standing—stock	Amount out-standing—debt
1908	50.27	\$503,062.18	\$335,440.58	\$167,621.60	\$ 3,334.42	\$2,800,000.00	\$ 721,500.00
1909	52.18	457,940.53	292,909.62	165,030.91	3,178.19	2,800,150.00	671,000.00
1910	60.24	359,700.88	76,070.63	283,630.25	4,709.33	2,800,150.00	671,000.00
1911	46.90	328,812.91	107,847.09	220,965.82	4,712.00	1,040,600.00	671,000.00
1912	48.63	337,949.04	110,900.59	227,048.45	4,662.03	918,200.00	671,000.00
1913	49.67	345,005.14	106,857.89	238,147.25	4,805.39	918,200.00	671,000.00
1914	49.25	355,222.28	110,839.74	244,382.54	4,982.47	884,800.00	671,000.00
1915	51.32	302,078.66	111,837.23	190,241.43	4,887.40	949,800.00	671,000.00
1916	51.43	455,407.50	109,789.02	345,618.48	5,339.70	966,600.00	671,000.00
*1916	51.61	474,112.48	191,738.99	282,373.49	5,471.49	807,000.00	671,000.00

*Year ended December 31.

The reports of the Terminal Companies show an increase in mileage of .18 mile on account of .09 mile of new line constructed by the Des Moines Terminal Company and .09 mile of new line constructed by the Des Moines Western Railway Company.

BRIDGE COMPANIES—ENTIRE LINE

Year ended June 30	Mileage	Gross earnings	Expenses	Net earnings	Net earnings per mile of road	Amount out-standing—stock	Amount out-standing—debt
1908	29.29	\$873,727.38	\$122,468.61	\$651,258.77	\$ 22,416.93	\$9,875,800.00	\$ 1,274,462.40
1909	27.67	675,873.45	119,665.96	556,207.49	20,105.00	9,875,800.00	2,750,000.00
1910	27.70	638,415.39	129,665.96	508,749.43	18,330.19	9,875,800.00	2,750,000.00
1911	31.58	679,262.55	25,089.58	654,172.97	20,721.43	9,875,800.00	2,750,000.00
1912	32.38	497,445.45	18,447.12	478,998.33	14,793.60	9,875,800.00	1,600,000.00
1913	35.78	415,889.90	48,873.95	367,015.95	10,287.51	9,875,800.00	1,600,000.00
1914	36.28	567,785.64	30,581.07	537,204.57	14,807.18	9,875,800.00	-----
1915	37.11	682,519.71	17,507.15	665,012.56	17,922.36	9,875,800.00	-----
1916	37.38	543,438.31	20,953.20	522,485.11	13,977.66	9,875,800.00	-----
*1916	37.33	530,975.61	20,491.96	510,483.65	13,396.29	9,875,800.00	-----

*Year ended December 31.

The mileage of the Bridge Companies shows a decrease of .05 mile on account of remeasurement of tracks of the Omaha Bridge & Terminal Company.

ELECTRIC INTERURBAN COMPANIES—COMPARATIVE STATISTICS

Year Ending June 30	Mileage—single track	Gross earnings from operation	Operating expenses	Net earnings from operations	Net earnings per mile
1903	98.27	\$ 228,444.55	\$ 122,630.87	\$ 95,813.68	\$ 975.10
1904	102.41	342,520.44	217,280.41	125,239.03	1,222.91
1905	151.41	497,644.00	316,795.05	180,848.95	1,194.43
1906	183.30	629,076.31	394,489.54	234,586.77	1,282.64
1907	184.51	770,338.35	476,755.34	293,583.01	1,591.15
1908	245.12	942,780.00	601,746.11	341,033.89	1,390.06
1909	391.01	1,338,278.22	734,583.61	603,694.61	1,447.02
1910	373.92	1,450,136.27	651,853.73	798,282.54	1,322.48
1911	343.25	1,095,691.89	1,100,354.31	595,637.08	1,735.29
1912	342.74	1,823,191.65	1,272,340.09	550,851.56	1,607.19
1913	394.23	2,330,383.21	1,456,024.17	874,359.04	2,203.98
1914	427.73	2,682,162.84	1,722,672.17	959,490.67	2,244.48
1915	472.48	2,923,082.07	1,895,925.80	1,027,156.27	2,173.86
1916	483.21	3,130,604.10	1,967,476.15	1,163,127.95	2,387.11
*1916	491.10	3,263,620.29	2,131,591.38	1,428,028.92	2,900.65

*Year ended December 31.

ELECTRIC INTERURBAN COMPANIES—Continued

Year Ended June 30	Stock			Debt		
	Mileage	Amount out- standing	Amount per mile	Mileage	Amount out- standing	Amount per mile
1908	192.57	\$ 6,709,300.00	\$ 35,359.60	188.47	\$ 3,912,000.00	\$20,756.61
1909	370.83	13,785,310.32	37,172.23	304.45	9,534,700.00	31,329.43
1910	365.69	14,773,081.11	37,808.22	388.59	11,268,000.00	28,999.46
1911	389.84	14,955,987.40	38,407.03	326.54	12,112,900.00	31,326.73
1912	401.30	16,225,904.00	40,443.40	377.90	13,272,544.50	35,155.48
1913	462.87	18,437,328.00	39,822.43	433.02	16,215,900.00	38,332.05
1914	636.17	19,722,724.00	31,018.29	585.45	23,903,205.30	40,821.47
1915	669.68	15,334,762.07	28,391.17	442.35	18,810,000.00	42,508.67
1916	480.51	15,483,002.52	32,222.12	476.64	20,647,000.00	41,219.79
*1916	401.10	16,820,178.73	34,370.37	484.42	20,740,500.00	42,778.91

*Year ended December 31.

Electric Interurban Railway Companies report an increase of 7.79 miles since the last report, which is accounted for as follows:

Ft. Dodge, Des Moines & Southern reports 4.65 miles new line constructed and 4.9 miles which was previously reported as side track is now reported as main line mileage; The Cedar Rapids & Iowa City Railway reports a decrease of .01 mile on account of rearrangement of track at terminal at Cedar Rapids; The Interurban Railway Company reports 2.99 miles of line sold; the Waterloo, Cedar Falls & Northern reports 1.24 miles new line constructed.

The entrance of the United States into the great war makes the transportation systems of the country of more importance than ever before. It is probable that their carrying capacity will be strained to an extent heretofore unheard of. In order that the railroads perform their full duty, it is essential that their physical property be kept up in the best possible condition, and the efforts of this Board will be directed to that end. However, there are many things which in normal times are highly desirable but add nothing to the efficiency of a railroad as a transportation agency nor to the protection of life of employes or the public, such as new depots and the like, and it is not the intention of this Commission to make orders compelling the expenditure of railroad funds during the war for any purposes but those which, in the judgment of the Commission, are necessary for the protection of life or which will assist in the expeditious handling of

war traffic. It will, of course, be considered that the prosperity of the community, in the transaction of ordinary business not directly connected with the war, is a vital and necessary condition in its prosecution.

Among those things which the Board believes should have the attention of the General Assembly, is legislation giving this Board power to remove obstructions to the view of approaching trains at highway crossings. It frequently occurs that a high bank, a clump of trees or something in the nature of a temporary obstruction to the view is located on private ground near an intersection of the highway by a railroad track. These obstructions are often times of great danger and there is no way in which their removal can be ordered by public authority.

TRACK SCALES.

The Commission respectfully calls attention to its former recommendations regarding inspection of track scales and endorses them. It is also suggested that, when such authority over track scales is granted, proper equipment be authorized for the supervising body.

ORGANIZATION OF THE BOARD.

E. D. Chassell having been appointed by Governor George W. Clarke to fill vacancy left by Commissioner J. H. Wilson, deceased, qualified on December 16, 1916, took the oath of office and assumed the duties thereof on that date.

Commissioner Thorne having resigned January 3, 1917, Governor George W. Clarke appointed Dwight N. Lewis to fill the vacancy. Mr. Lewis qualified on January 3, 1917, took the oath of office and assumed the duties thereof on that date.

On January 3, 1917, the Board organized, electing Jno. A. Guhier chairman and Geo. L. McCaughan secretary.

Commissioner Chassell having resigned November 5, 1917, Governor W. L. Harding appointed Mr. Charles Webster, of Waucoma, Iowa, to fill the vacancy. Mr. Webster qualified on November 5, 1917, took the oath of office and assumed the duties thereof on that date.

Decisions and Rulings in General Cases.

No. 8072—1917.

WESTERN DEMURRAGE & STORAGE BUREAU, CHICAGO, ILLINOIS, *Petitioner.*

IN THE MATTER OF THE APPLICATION OF WESTERN DEMURRAGE & STORAGE BUREAU FOR INCREASE IN DEMURRAGE RATES ON IOWA INTRASTATE SHIPMENTS. DOCKET D-770.

Decided December 28, 1916.

DEMURRAGE CHARGES—APPLICATION FOR INCREASE.

As an emergency measure the demurrage charge of \$1.00 per car per day, for time beyond the first 48 hours free time is changed to \$1.00 for the first succeeding 24 hours after 48 hours free time. \$2.00 for the next succeeding 24 hours, \$3.00 for the next 24 hours and \$5.00 for the next succeeding 24 hours and each succeeding day, excluding Sundays and other legal holidays computing over time.

PER DIEM CHARGES TO BE PAID BY ONE ROAD FOR THE USE OF CARS BELONGING TO ANOTHER—JURISDICTION.

The commission suggests the wisdom of a substantial increase in the per diem charges, but holds that neither it, nor the Interstate Commerce Commission, has any direct jurisdiction over the subject matter of per diem charges. The commission further suggests that adequate jurisdiction should be immediately lodged with the Interstate Commerce Commission giving control over the interchange of cars between carriers.

M. W. Rotchford, Chicago, Ill., for petitioner. C. O. Dawson, T. M., Commercial Club, Ottumwa, Iowa. W. B. Martin, Commr., Dubuque Shippers' Assn., Dubuque, Iowa. H. F. Sundberg, T. M., Commercial Club Cedar Rapids, Iowa. C. A. Shoemaker, Supt., C. G. W. Rd. Co., Des Moines, Iowa. C. M. Thomas, of Warfield-Pratt-Howell Co., Des Moines, Iowa. A. A. McKowen, D. F. & P. A., Wabash Ry., Des Moines, Iowa. R. O. Youngerman, T. M., Mason City Brick & Tile Co., Mason City, Iowa. G. A. Bertholf, T. M., Herring Motor Co., Des Moines, Iowa. C. H. Hill, Supt., Western Demurrage & Storage Bureau, Des Moines, Iowa. S. W. Fisher, Com. Agt., Ft. D. D. M. & S. Rd. Co., Boone, Iowa. O. G. Mars, Dem. Inspector, C. M. & St. P. Ry. Co., Savanna, Ill. D. I. Forsyth, Gen'l Car Acct., Wabash Ry., St. Louis, Mo. J. F. Waterbury, Mgr. Farmers Grain Co., Akron, Iowa. R. R. Pollock, Pres., Farmers Grain Co., Akron, Iowa. W. J. Goodwin, Goodwin Tile & Brick Co., Des Moines; Redfield Brick & Tile Co., Redfield, Iowa. Frank M. Myers, Secy., Farmers Grain Dealers' Assn. of Iowa. B. E. Morton, Director, Farmers Grain Dealers' Assn. of Iowa. S. J. Cottingham, Director, Farmers Grain Dealers' Assn. of Iowa. W. H. Benn, T. M., Sioux City Terminal Co., Sioux City, Iowa. O. A. Talbott, Keokuk, Iowa. W. P. Johnson, Des

Moines Coal & Coke Co., Des Moines, Iowa. J. J. Grosenbaugh, Coon Rapids, Iowa. Jas. Petars, Farmers Grain Co., Dawson, Iowa. Geo. A. Wells, Secy., Western Grain Dealers Assn., Des Moines. J. C. Maus, Supt. Dem. & Weighing, I. C. R. R., Chicago, Ill. J. C. Davis, Atty., C. & N. W. Ry. Co., Des Moines. F. H. Hammill, Asst. Genl. Supt., C. & N. W. Ry. Co., Boone, Iowa. M. J. Golden, A. G. F. A., C. & N. W. Ry. Co., Chicago, Ill. E. E. Betts, Supt. Trans., C. & N. W. Ry. Co., Chicago, Ill. Mr. Holloway, Chief Clerk, Western Demurrage & Storage Bureau, Chicago, Ill. Dwight N. Lewis, Asst. Commerce Counsel, Des Moines, Iowa. G. A. Wrightman, Secy., Iowa State Mfgs. Assn., Des Moines. W. J. Gorman, T. M., Douglas Co., Cedar Rapids, Iowa. John J. Fry, T. M., J. C. Hubinger Bros. Co., Keokuk, Iowa. T. A. Goodwin, Supt. Car. Dept., C. & N. W. Ry. Co., Chicago, Ill. A. H. Davies, Chief Demurrage Inspector, C. M. & St. P. Ry. Co., Chicago, Ill.

The railway companies serving Iowa ask for what is called a sliding scale of demurrage charges, allowing the same free time as exists today during the first forty-eight hours, then a demurrage charge of \$1.00 for the next succeeding twenty-four hours, \$2.00 for the next, \$3.00 for the next, and \$5.00 for the next, and each succeeding day. At the present time the charges for over time, beyond the two days' free time, amounts to \$1.00 per car per day. The advance proposed is very substantial in character and is suggested as an emergency measure during the present car shortage period, which is said to be very serious throughout the entire United States. This change in demurrage rates has already been adopted by the Interstate Commerce Commission on interstate traffic, and by a large number of states commissions on state traffic. Our attention is especially called to the result of higher demurrage charges in California.

At the present moment there is an enormous increase in shipping throughout the whole country. The carriers' equipment, which may have been more nearly adequate during ordinary seasons, is not equal to the extraordinary demands of the present day.

It was stated by witnesses on behalf of the carriers that one of the controlling factors producing the present car shortage is the retention of western cars by eastern railway companies. This is a misuse of equipment. It differs in some respects from the misuse by a shipper, in that the shipper retaining a car is not using it in transportation service, but for storage facilities; while the eastern railroads may be using these cars in transportation. On the other hand, many of these cars may be on sidings in the east awaiting opportunities to unload, and the warehouse facilities there may be inadequate to meet present conditions. However that may be, it is conceded by all parties that these western cars should be returned to the western railroads. And we understand the Interstate Commerce Commission, and the eastern carriers themselves, recognize the justice of this proposition.

Two methods to compel carriers to return foreign equipment have been adopted: First, an increase in the per diem (or payment one carrier makes to another per day for foreign cars retained on its line) from 45 cents to 75 cents; and second, specific orders directing foreign

cars to be returned to their owners. The second method involves spotting cars to unload and then moving them away to make way for another car to be loaded, and further it necessitates a long empty haul, which, under normal conditions, would be frequently obviated by the natural movement of freight. This forced return of foreign equipment may be necessitated by the present extreme situation, but it is unfortunate that such a method is required, for it is not economical and not efficient.

The other method suggested for compelling railway companies to return foreign equipment is an increase in the so called "per diem charge" for cars held in service, although belonging to other companies. The automatic effect of an increase of this character is the same as an increase in the demurrage charge, provided the increase is large enough.

In support of the large increase proposed in the demurrage rates, the carriers' witnesses testified that cars were earning, and were therefore worth, from \$4.00 to \$6.00 per day at the present time. They admitted that this earning was due to the entire plant, roadbed, equipment, etc., but it was urged that unless they had the car, the railroad plant would not earn this money. If it be true that these cars are worth any sum like that named, it is certainly folly to expect the per diem charge recently established of 75 cents per day, to have any substantial effect on the situation. A blockade, or sudden change in the war situation in Europe, or other factors, may cause a change; but a 75 cent per diem charge will not cause a railway company to release cars that are worth, from \$4.00 to \$6.00 per day.

We suggest the wisdom of a substantial increase in "per diem" charges. But unfortunately neither this Commission, nor the Interstate Commerce Commission has any direct jurisdiction over the subject. We believe that adequate jurisdiction should be lodged immediately with the Interstate Commerce Commission, giving control over the interchange of cars between carriers.

A further method of helping to relieve the situation, and the only one over which we have jurisdiction, is the proposed increase in demurrage rates. We do not see how this will have any substantial effect on the wrongful detention of western cars by eastern railroads. But there is ground for complaint against one shipper using a car for warehouse purposes, which another shipper needs to ship his produce in. A freight car is a means of transportation and should be so used.

For these reasons we approve the petition of the carriers for an increase in demurrage rates as prayed for, as an emergency measure only, with the exception that Sundays and other legal holidays shall be excluded from the computation of over time. The purpose of the increased demurrage rate is primarily to prevent the misuse of cars, and delay occasioned by a holiday cannot be so construed.

With this modification, the carriers petition is granted. The new demurrage rates as proposed shall become effective after proper notice, and shall remain in effect up to and including April 30, 1917, unless this order is vacated at an earlier date.

No. 8073—1917.

SUMNER LIGHT AND POWER CASE.

IN THE MATTER OF APPLICATION FOR FRANCHISE TO CONSTRUCT TRANSMISSION LINE BETWEEN SUMNER AND HAWKEYE, IOWA, BY SUMNER LIGHT AND POWER COMPANY. DOCKET E-121.

Decided December 30, 1916.

SYLLABUS BY THE COMMISSIONERS.

The Sumner Light & Power Company has built a transmission line paralleling, partly, the telephone line of the Hawkeye Cooperative Telephone Company. This has caused a serious interference with the operation of the line of the said telephone company.

Commission holds that while there is such an interference, it does not justify the abandonment of the transmission line.

In this particular case the McClure device or metallic circuit having already been constructed, this Commission is helpless, under the laws as they exist at the present time, to grant relief by way of an award of damages. That is a function exercised by our courts.

This will not be construed as a precedent for cases involving the original issuance of franchises, nor for those cases in which it has been prescribed as one of the conditions upon which the franchise was issued that the transmission line should bear such cost.

For Sumner Light & Power Co.—W. W. McClure, Attorney, Sumner, Iowa; Chas. R. Hurlence, Sumner, Iowa.

For the Hawkeye Co-operative Telephone Co.—W. J. Ainsworth, Attorney, West Union, Iowa; Edward Eitel, Hawkeye, Iowa; F. P. Boeckenhauer, Hawkeye, Iowa.

The Sumner Light & Power Company, on February 3, 1914, filed its petition asking that it be permitted to use certain highways for its high potential electric transmission line. Notice of the petition was properly given and the hearing fixed for three P. M., March 26, 1914, at the office of Wm. R. McClure, at the town of Sumner, Iowa. Two members of the Commission, as then constituted, Mr. Palmer and Mr. Ketchum, went to the town of Sumner on the day fixed for the hearing, but did not go to Mr. McClure's office. They were informed that no objections were being made to the petition, and it being, therefore, only a formal matter, the two Commissioners left Sumner, by train, for Oelwein. Soon after the train had left, the petitioners learned that the Hawkeye Co-operative Telephone Company had been at McClure's office at the time fixed in the notice, to make objections to a franchise being granted to the Sumner Light & Power Company. The Commissioners were called, by wire, at Oelwein, and notified of the facts, and they answered that they would return to Sumner unless the parties could reach an agreement with reference to the location of the line. A conference was then held by the parties, and a written agreement was entered into as follows:

"The Sumner Light & Power Company do hereby agree to construct the transmission line as proposed in the same manner and under the same conditions as the transmission line that is now being conducted between the cities of Cresco and Decorah. This agreement is made with the Hawkeye Co-operative Telephone

Company and its stockholders and patrons in order that any and all objections that the said Hawkeye Co-operative Telephone Company and certain parties who has signed a petition addressed to the Railroad Commissioners, objecting to part of the proposed route of said Sumner Light & Power Company will not be filed, but withdrawn, the said Sumner Light & Power Company do hereby agree to build the said transmission line as above stated.

This agreement was not then filed with the Railroad Commissioners, but the two Commissioners were notified that an agreement had been reached under which no objections would be filed. On the 28th day of March, 1914, the franchise was issued as petitioned. Soon thereafter the construction of the line of the Sumner Light & Power Company was commenced. As early as August 7th, 1914, the Telephone Co. complained to this Commission that the Light and Power Company had not constructed its line in accordance with the contract under which the Telephone Company had agreed to withdraw its objections, and on that day filed its objections and the agreement above set out.

The Telephone Company insisted upon its objections. A hearing was fixed and held by two members of the Commission, at its offices, on March 16, 1915, at which time both parties were represented by their officers and attorneys. The testimony was taken and the matter submitted.

It is, of course, unfortunate that the mistake was made in stating to the Commissioners at the time fixed for the original hearing, that no objections would be filed. We believe such statement was not made with any purpose of misrepresentation.

For convenience, the Sumner Light & Power Company will be called the "Transmission Co.," and the Hawkeye Co-operative Telephone Company will be the "Telephone Co."

The Telephone Co. in this case was occupying the highway under the permissive rights granted to it by the statutes of this state. The Transmission Co. petitioned, under the provisions of the statute, for the right to build its line along the same highway. For a short distance their lines are parallel, one on each side of the road. The telephone line is what is known as a grounded line, and the showing is that since the transmission line has been built, the grounded wires of the Telephone Co. are so affected that the use of the telephone is rendered unsatisfactory, and at times impossible, by reason of the noises and buzzing on the wire. That before the transmission line was built, the telephone furnished satisfactory service.

The Telephone Co. asks that the Transmission Co. be denied the right to build its line on the first six and one-half miles of the highway from Hawkeye, giving as reason therefor that the Telephone Co. and its grantor is now using, and has for fifteen years used the same highway proposed to be used by the Transmission Co.; that the operation of a transmission line along the same highway, and within 100 feet of the telephone line, will render the telephone line useless and will be dangerous to the public, and it will be impossible to safeguard the crossing; that it will destroy the use of the telephone line without due process of law, and that there are other feasible reasonable locations for the transmission line which will not interfere with any telephone line.

On the hearing of the matter, the Telephone Co. contended that the Transmission Co. should be precluded from operating its line on the highway until it has complied with its agreement. That the Transmission Co. failed in its agreement in that it did not build a three phase line, did not transpose it, and did not put on a static wire; did not so construct its lines as to overcome "loss of electricity and induction;" did not use the most modern appliances for overcoming induction, and did not use any of the methods now in use for preventing induction, and failed to construct its lines in the same manner in which the Cresco-Decorah line was built.

Conduction is defined to be the discharge or escape of electricity into the earth from the wires or plant of one electric company by which the wires or plant of another electric company are affected. It occurs from any cause which leads a current of electricity from the wires or generators of a plant to the earth. Its effect may be only slight, or it may be such as to make the use of the telephone impracticable. This condition is liable to occur where electric lines use the earth as a return circuit. The effect of conduction upon a grounded system may be practically overcome by the use of what is known as the McCluer device. This consists of a wire suspended upon the telephone poles and to which the wires of the telephone company are connected at both ends, and which serves as a return circuit in place of the earth. Conduction may be more completely avoided and overcome by a complete metallic circuit.

Where the wires of two or more electric lines are suspended parallel to each other, the more powerful and changing current in the wires of one line induces a current upon the other wire, which produces variations in the weaker line corresponding to those upon the stronger wire. This is called induction. In many instances its effect is such as to prevent the successful transmission of messages over telephone wires. The injury to a telephone line, due to induction, can be avoided by making the telephone line a full metallic circuit, and eliminating the effect of the parallelism by transposition. That is, for illustration, where a power line and a telephone line are parallel, one on each side of the highway, the telephone line a full metallic circuit, the lines are so built that for certain regular distances the outside wire of the one line is so transposed on its poles or cross-arms that it becomes an inside wire of the line, and the inside wire is carried to the outside of the pole, and becomes the outside wire. If such transposition is properly done by each of such parallel lines, ordinarily, the interference by induction is overcome.

The use of the earth for the purpose of forming the return section of an electric circuit is a right which is common and universal, and of which no person can be permitted to have an exclusive privilege or monopoly. Such use enables what is known as a grounded telephone line to be built, using but a single wire, the return circuit being furnished by grounding or connecting each end of such wire with the earth. The earth, then, is a conductor forming a part of an electric circuit, acting as, and performing the same office of a wire used for the return section of an electric circuit. It may be likened to a great wire to

which all persons may of right freely attach the two ends of their wires, and thus complete the electric circuit of their telephone or other electric line. If two or more electric lines used one line in common for their return circuits, it would seem that the line of higher power would, to some extent, disturb the line of weaker power, and the degree of disturbance would depend upon the degree of power used by the line of higher power.

The testimony introduced shows, without conflict, that the transmission line was built on the opposite side of the highway from the telephone, on 25 foot poles, 50 poles to the mile; 30 foot poles over all crossings; 2 No. 6 wires, transposed once every mile; insulators sufficient for a 25,000 volt circuit, but the line only carrying 13,200 volts circuit; the line properly guyed, insulated, and well built. There is no showing that there are any modern appliances or methods in use to prevent induction which were not used in the construction of this transmission line. The showing is that the transmission line was built a single phase line, not a three phase line, and that no static, lightning, or overhead wire was used.

The engineer in our employ reports that the transmission line should equip its line with insulators of a higher voltage rating than the insulators now used by it.

The only testimony offered in the hearing as to the use or value of the static wire or overhead lightning wire, is that the purpose of such wire is primarily to arrest and carry off the lightning. It is put there for the protection of the plant and the users of the power. It takes the place of lightning arresters. Its function is to carry to the earth the charges induced by lightning discharges.

A single phase line is one constructed with but two wires. A three phase line is one built with three wires. If the same voltage is to be carried by a single phase line and a three phase line, it is apparent that in the case of the single phase line two wires are carrying the whole load, while in a three phase line the load is carried by three wires, it is also apparent that each of the different systems is carrying no more or less than the same load; the total in each case is the same. It is the voltage, electro-motive force, electric pressure, or potential which causes what is called electro-static induction. The total electro-static induction of either a single phase system or a three phase system, when each line is carrying the same voltage, must be the same.

So far, then, as induction is concerned, it makes no practical difference whether the transmission line is a single phase or three phase system. If the transmission line had been built as a three phase system, it would have had the same effect upon the telephone plant as the single phase line that was built. This statement is based upon the assumption that each of such lines was equally well built.

Manifestly, the only interest the Telephone Co. could have in the transmission line being built like the line between Cresco and Decorah, would be for the protection of its telephone line; to avoid interference. If, then, the failure to put on a static wire, and the building of a single phase system instead of a three phase line, did not affect the

telephone line more than a three phase line with a static wire would have affected it, it is very clear that the Telephone Co. cannot be heard to complain if such failure in no manner injures it, and the performance of which would in no manner be beneficial to the Telephone Co. One cannot have redress who has sustained no injury, and where no injury is threatened, unless the performance of the act would have been beneficial. Thus, we reach the conclusion, if we grant the contract is one which this Commission could in any way enforce, that the enforcement of it would be an idle thing in so far as concerns the building of a single phase system, and the failure to provide an overhead or static wire. If the Telephone Co. had been contracting for the building of a line for it, no doubt it might enforce its contract, either by action for specific performance, or by action for damages sustained; or, it might refuse to accept the line as built. But in this case it does not stand in such position.

As to the objection that the operation of a transmission line along a highway will be dangerous and impossible to safeguard the crossings, it is enough to say that our statute provides for the construction of transmission lines, and such crossings, properly safeguarded, are being continually built and maintained, in the cities and towns, and throughout the country. Such objection is not good.

The testimony on the part of the complainant shows that it has three rural lines, one of which parallels the transmission line for six miles, and two lines paralleling it for two and one-half miles. These are grounded lines, and they are seriously affected by the operation of the transmission line—"practically put out of business." The two witnesses who testified on behalf of the Telephone Co. say that in addition to the grounded lines above described the Telephone Co. has on the same poles, and paralleling the transmission line, a toll line, which is a metallic circuit, and that the transmission line "didn't seem to affect the toll line. It is not interfered with by this power line." Upon this showing by the complainants, it is very clear that their grounded lines are interfered with, but that its toll line, which is a metallic circuit, is not interfered with or injuriously affected by the operation of the transmission line which parallels the lines of the Telephone Co. From these facts, we are justified in reaching the conclusion that the transmission line, in so far as concerns a metallic circuit telephone line, is properly constructed, is properly insulated and transposed, and that the trouble is with the grounded telephone lines.

There was no attempt on the part of the complainants to show that a transmission line could be so constructed as to avoid interference with a grounded telephone line, except that they showed no interference in the Cresco-Decorah line. But on the part of the Transmission Co. there was testimony to the effect that there was no way to build a transmission line parallel with a grounded telephone line, along the same highway, so as to prevent noises or interference on the grounded line. The two witnesses for the complainant testified that on the grounded lines between Cresco and Decorah, and which were paralleled by a three phase "wish bone construction" transmission line, the telephone line was not

interfered with. Mr. Hurmence, the manager of the transmission line, testified that he had talked over the line of the complainant, and also over the telephone line between Cresco and Decorah, and "couldn't see much difference between using that line and the one between Cresco and Decorah. I found noises in them." We give greater weight to the testimony of Mr. Hurmence on this matter than to the two witnesses for complainant, because he seemed to be equally as honest as the witnesses for complainant, and he has had five years' experience in the telephone business. They had no experience. In addition to that, he is corroborated by experience, which makes it evident that, with rare exceptions, a grounded telephone line cannot be operated satisfactorily parallel with a transmission line.

The only person who described the condition of the lines of the Telephone Co., and the telephone lines between Cresco and Decorah, was Mr. Hurmence, and of them he said, speaking of the lines between Cresco and Decorah, they "were up in good shape, wires all pulled up, insulators all on, and a well constructed line. * * * The trees were trimmed away from the wires." Of the lines of the Hawkeye Co-operative Telephone Company he said:

"This telephone line, from a telephone standpoint, is in bad condition. Had been broken and spliced, and there was shock or high joint that would not let the current pass through readily. There was no spring in the line and it was not pulled up. The wire, when put in, was not galvanized. The line is a continuous rusty wire and the line is not trimmed out. There was no trimming done at all."

Since the hearing of this case, we have had the lines of both the companies involved in this matter examined by an electrical engineer in our employ. From his report, we learn that where the wires of the Telephone Co. enter the houses they are fastened to the wood, and no insulating bushing is used, and that in some places, where examined by him, the wires of its line were resting on wood between the brackets and poles, and were not insulated.

The physical condition of the line of the Telephone Co. will probably account, in some considerable measure, for the "noises."

The only testimony on the subject shows that the transmission line was built, in all respects, like the line from Cresco to Decorah, except it is a one phase line; the same system; no wire was put above, and "wish bone construction" was not used. Neither of which things have anything to do with induction, which causes the noise.

In nearly all cases, the troubles to a grounded telephone line consequent upon such line being parallel to a transmission line along a highway, may be overcome by making the telephone line a full metallic circuit, and properly transposing the line. The only evidence as to the cost of making the telephone line a full metallic circuit, is, "It would not cost more than \$15.00 a mile at the most," and that it would cost the transmission line at least \$3000.00 to rebuild it as a three phase line and put on a static wire. From our investigation, and the evidence in this case, such expenditure on the part of the transmission line would

be valueless to it and afford no relief to the Telephone Co. Since this testimony was taken prices of material have advanced, so that the figures given above should not be accepted.

The relief asked by the Telephone Co. partakes very largely of the nature of an application for an injunction. We think a court would not be justified in granting an injunction upon a petition containing such allegations, and supported only by the proofs offered in this case, and in that respect the powers of this Commission are no greater than the powers of a court. It being possible, at small cost, to so modify or change the system of the telephone line that both it and the transmission line could use the same highway, without substantial interference with or destruction of the property of either, the transmission line should not be denied the right to the use of the highway. If the Telephone Co. is entitled to recover damages for any interference caused by the transmission line, and for the cost of so changing its plant as to avoid interference caused by the transmission line, such relief cannot be granted by this body, but must be found in the courts.

This Commission cannot be bound by contracts entered into between electrical lines, fixing the manner in which a transmission line shall be built. To permit the manner of building such lines to be a matter of contract between the companies interested might lead to very unsatisfactory results.

If, however, we were inclined to give consideration to the contract between the parties, there is the question as to the power of this Commission to enforce such contract. Such power and jurisdiction, however, is in the court, and relief by the Telephone Co., if it is entitled thereto, should be sought in that forum.

Under the laws of this state, we have no jurisdiction over the Telephone Co., and, therefore, no power to make or enforce any orders affecting it.

We have reached the conclusion that the insulation of the transmission line would be improved if it would use insulators of a higher voltage rating, and we, therefore, order that the Sumner Light & Power Company insulate its line with insulators of a higher voltage rating than is now being used by it.

We recommend to the Hawkeye Co-operative Telephone Company that it improve its line by placing glass insulators where its wires are now resting on wood between the brackets and poles, and we would suggest that insulating bushing be used where the wires pass through the walls of the houses, and that the trees along its lines should be properly trimmed, so as not to interfere with the line.

This decision shall not be adopted by this Commission as a precedent for cases involving the original issuance of franchises where the Commission has power to prescribe the terms and conditions upon which said franchises shall be granted, nor where said terms have been prescribed in the franchises as issued, nor in regard to future changes that may be necessitated on the transmission line involved in this case, in order to reduce interference of a substantial character.

The objections of the telephone company should be, and they are hereby, dismissed.

No. 8074—1917.

ELECTRICAL INTERFERENCE
BETWEEN

TRANSMISSION, TELEPHONE AND TELEGRAPH LINES

DECISION AND ORDER

INCLUDING

RULES FOR CONSTRUCTION OF HIGH TENSION LINES.

Decided December 30, 1917.

SYLLABUS BY THE COMMISSION.

A distinction is made between electric companies as follows: A street railway company, or other electric company connected with public travel, may have a superior right to that of a telephone or telegraph company in the public highways. Between electric companies, however, having similar or equal franchises in the highway, the one first constructed has the right of prior occupancy. This does not give any monopoly to the first company, but protects it from substantial interference by a new company. If the interference is unimportant, and not substantial, no right of action accrues.

Although substantial interference may be produced in other electric lines occupying the highways, the Commission declines to forbid the use of the public highways by high power transmission lines, wherever the said interference can be substantially eliminated by changing the location or construction of the said telephone or telegraph lines at a reasonable expense. If permitted to occupy the public highways of the state, there are certain conditions with which the transmission lines must comply.

Before the construction of the high power transmission lines on the public highways of the state, the telephone lines on metallic circuits, the rural telephone lines on grounded circuits, and the telegraph lines on grounded circuits, which were properly constructed and in good condition, were giving satisfactory service to their patrons.

Commission holds that if the removal of substantial interference necessitates the installation of metallic circuit, substations and re-location of telephone or telegraph lines, the cost of the same shall be borne by the transmission line company. Other expenses that may be required shall be apportioned equitably between the companies. And further, that this Commission has the power to prescribe these as the terms and conditions upon which franchises to transmission line companies shall be granted. This does not apply to franchises already issued in which that is not made as one of the conditions upon which the said franchises are granted.

Rules are prescribed for the construction of electric lines at crossings and parallels.

John A. Reed of Cedar Rapids, Ia., for the Iowa Railway & Light Company; J. C. Hume, of Cummins, Hume & Bradshaw, Des Moines, Ia., for Transmission Lines; H. L. Beyer of Grinnell, Ia.; P. C. Holdoegel of Rockwell City, Ia., and C. C. Deering of Des Moines, Ia., for Iowa Independent Telephone Association; H. W. Byers, of Clark, Byers & Hutchinson, Des Moines, Ia., for Ingham Township Mutual Telephone Co., Dumont, Ia.; Salina Switchboard Association, East Pleasant Plain, Ia.; West Point Mutual, Bristow, Ia.; Fenton Mutual Telephone Co., Fen-

ton, Ia.; Farmers Mutual Telephone Co., Jefferson, Ia.; Wesley Chapel Telephone Co., Silver City, Ia.; Lockridge Telephone Co., Lockridge, Ia.; Shell Rock Exchange, Clarksville, Ia.; Charles City and Farmers Mutual Telephone Co., Charles City, Ia.; Springville Switchboard Co., Springville, Ia.; Farmers Mutual, Birmingham, Ia.; Willow Telephone Co., Gilman, Ia.; Farmers and Business Mutual, Grand Mound, Ia.; Farmers Mutual, Jesup, Ia.; Central Telephone Co., LeGrand, Ia.; Albert City Farmers Telephone Co., Albert City, Ia.; Archer and Filby and Primghar Telephone Co., Archer, Ia.; Woodburn and Jay Telephone Co., Woodburn, Ia.; Butlerville Telephone Co., Montour, Ia.; Laurens Telephone Co., Laurens, Ia.; Grant Township Mutual Telephone Co., Boxholm, Ia.; Emerson Mutual Telephone Co., Geo. Cross, Mgr.; Fayette County Mutual Telephone Co., F. A. Kiel, Pres.; J. L. Parrish, of Parker, Parrish & Miller, Des Moines, Ia., for Iowa Telephone Co., Subsidiary American Telephone and Telegraph Co.; W. W. Stearns of Charles City, Ia., for Northern Iowa Gas & Electric Co.; C. A. Butcher of Cedar Falls, Ia., for Cedar Valley Light & Power Co.; A. W. Jones of Peterson, Ia., for Peterson Power & Milling Co.; M. Silverman of Chicago, Ill., for Kimball-McKinney Syndicate; Jesse A. Miller of Des Moines, Ia., for Western Union Telegraph Company; C. Shaw of Chicago, Ill., for Postal Telegraph Co.; James C. Davis of Des Moines, Ia., for Chicago & North Western Railway Co.; A. J. Farrelly of Des Moines, Ia., for Chicago & North Western Railway Co.; F. W. Sargent of Des Moines, Ia., for Chicago, Rock Island & Pacific Railway Co.; F. Roblin of Des Moines, Ia., for Chicago, Rock Island & Pacific Railway Co.; H. G. Morgan, for Illinois Central Railroad; Frank Lane of Decatur, Ill., for Wabash Railroad; W. F. Stipe for Farmers' Mutual Telephone Co. of Clarinda; Farmers' Mutual Assessment Association of Page County; Emerson Mutual Telephone Company of Mills County; F. Q. Stuart for Lucas County Mutual Telephone Co., and its associated companies, 35 or 40 in number; J. F. Eisele of Malcom, Ia., for Malcom Central Telephone Co.; Harold S. Osborn of New York City, Telephone Engineer, American Telephone & Telegraph Co.; J. M. Drabelle of Cedar Rapids, Ia., Electrical Engineer, Iowa Railway & Light Co.; Robert A. Chetwood of New York City, Plant Engineer, Western Union Telegraph Co.; Wm. Bennett, (C. & N. W. Ry. Co.), Chicago, Ill.; C. H. Hubbell, (C. R. I. & P. Ry.), Chicago, Ill.; E. A. Patterson, (C. M. & St. P. Ry.), Milwaukee, Wis.; F. T. Wilbur, (Illinois Central R. R.), and J. P. Church, (Wabash Railroad), Decatur, Ill., for Association of Railway Telegraph Superintendents; Wm. G. Raymond of Iowa City, Ia., Dean Electrical Engineering Department, University of Iowa; O. J. Ferguson of Lincoln, Nebr., Professor of Electrical Engineering, University of Nebraska; A. H. Ford of Iowa City, Ia., Professor of Electrical Engineering, University of Iowa; R. H. Fair of Omaha, Neb., Construction Engineer, Iowa Telephone Co.; Kenneth L. Wilkinson of East Orange, N. J., American Telephone and Telegraph Co.; John Lelsenring, Electrical Engineer, Illinois Traction System; C. A. Sears of Keokuk, Ia., General Superintendent, Mississippi River Power Co.; John B. Taylor, Consulting Engineer, appearing as witness for Iowa Railway & Light Co.; G. W. Gordon of Oskaloosa, Ia.,

Manager Oskaloosa Home Telephone Co.; F. E. Ferguson of Laurens, Ia.; F. D. Hall of Springville, Ia.; Edwin Gayther of Charles City, Ia., Secretary, Charles City and Mutual Farmers' Telephone Co.; N. Frederickson of Guthrie Center, Ia.; Thomas H. Doogan of Lockridge, Ia., President, Lockridge Telephone Co.; D. W. Crofut of Le Grand, Ia.; L. F. Evans of Clarinda, Iowa, Manager, Farmers' Mutual Telephone Co.; George Cross of Emerson, Ia., for the Emerson Mutual Telephone Co.; E. L. Gaines of Montezuma, Iowa, Local Manager, Interior Telephone Co.; A. J. Adams of Chariton, Ia., Plant Manager, Lucas County Mutual Telephone Co.; F. D. Mahoney of Charles City, Ia., Manager, Cedar Valley Hydraulic Co.; W. C. Robinson of Des Moines, Ia., Electrical Engineer, Des Moines Electric Co.; F. J. Rupe of Des Moines, Ia., Telephone Engineer, Iowa Telephone Co.

(The representatives of a large number of other telephone companies were present; but they failed to enter their appearances of record.)

The evidence in this proceeding conclusively shows that prior to the advent of the high power transmission lines on the public highways of this state, the metallic circuit and grounded circuit telephone and telegraph lines which were in good physical condition were giving satisfactory service to their patrons. The same is true at the present time of such telephone and telegraph lines as are not paralleled in close proximity for a considerable distance by high power transmission lines. The said transmission lines have very seriously interfered with the operation of such telephone lines, frequently rendering it very difficult, and occasionally impossible, to use the telephones, unless certain changes are made in the location and construction of either or both the transmission and telephone lines. A substantial interference has also been occasioned on telegraph lines, unless certain precautions are taken.

The chief question raised in this investigation concerns the issue as to who shall bear the costs of any changes that may be required in telephone and telegraph lines, where crossings or parallels with transmission lines may occur, in order to reduce the hazard or interference which otherwise would exist. This presents a new issue for this Commission to determine; and we can find but few decisions by other tribunals very closely in point.

By Chapter 174 of the Acts of the 35th General Assembly, this Commission was given power to grant franchises, on such reasonable terms as it might prescribe, to companies organized for the purpose of constructing and operating high power transmission lines within the state of Iowa. Our jurisdiction extends also over the construction, maintenance, and operation of such properties outside of cities and towns as are owned by companies obtaining franchises from this Commission.

During the past few years a large number of transmission lines have been constructed in the state.

Recently many complaints have been made to the Commission by telephone companies that great injury was being done to them by these transmission lines, where parallels existed. Because of the large number of these complaints, their similarity, and the complicated and technical character of some of the questions involved, this Commission set the

whole subject of electrical interference for a general investigation. A notice was issued to all interested parties. A copy of this notice, together with a set of rules as to matters not seriously controverted, will be found in a footnote (Note A). These rules are hereby adopted. They contain several broad generalizations which will have to be further interpreted when it comes to applying them to particular cases; and they deal very little with actually contested questions of large importance.

At the conclusion of the investigation a committee was appointed to endeavor to find other remedies for the interference complained about; but up to the present time no successful solution of the problem has been presented to the Commission.

In order to intelligently consider the principal question at issue in this proceeding, it will be necessary to know some of the facts connected with the telephone, telegraph and transmission line industries in this state, as these facts were developed at the hearing. This evidence has been made of record and will be of much value in our future investigations as an administrative tribunal. For our present purposes we need only state a few conclusions of fact, established by the weight of the evidence presented.

By the term transmission line industry, we refer to the transmission of high voltages of electricity (ranging from 5,000 to 110,000, and more in some instances) for light, heat and power, the same being sold to cities or individuals at points somewhat distant from the place of production.

Interference between electric lines results either from conduction or induction. We were assured by eminent experts who took the stand and were uncontradicted, that all forms of electrical interference come under one of these classes or the other. Conduction is the result of direct electrical contact between two circuits. An example of this is where two currents return partially or wholly through the earth, using the ground as a part of the electrical circuit in either case. This permits actual contact of the currents. Induction is the transfer of electrical energy from one circuit through the air, inducing a current in another circuit. Inductive effects are not produced by a constant current, but are produced by an alternating or varying current. In these definitions we have used the language of witnesses in this case.

In this discussion we will use the term substantial interference as meaning an interference of that magnitude which causes a real damage of a positive and definite character to the operation of a telephone or telegraph line, rendering it impossible for the said line to give reasonably satisfactory service to its patrons.

Incidental interference is that amount which will always exist where there is a parallel of electric lines, but which is not of sufficient magnitude to prevent each company from rendering reasonably satisfactory service to its patrons. We cannot hope to eliminate all interference, and a transmission line company should not be held liable for injury suffered by reason of what we have described as incidental interference, for that is one of the inconveniences that must be endured for the sake of other benefits that may inure to society.

In this investigation we are only concerned with the situation outside of cities and towns, as that is the extent of our jurisdiction. The interference occurs chiefly in the public highways.

Prior to the coming of the high power transmission line, we have had in our public highways the wires of the Iowa Telephone Company (a part of the American Telephone and Telegraph Company), the Postal Telegraph and Cable Company, independent telephone companies, the Western Union Telegraph Company, many electric lighting companies, several thousand farmers' telephone companies, and a few interurban railroads. Complaints about interference between these systems were not frequent, so far as we are advised.

One of the attorneys for the transmission lines in this proceeding (Mr. J. C. Hume of the firm of Cummins, Hume & Bradshaw) stated in his brief filed with the Commission:

"It is a matter of common knowledge, however, that, at the present time, practically the only interferences of electric lines upon the rural roads of Iowa are those where high tension transmission lines of electric companies interfere with the low tension lines of telephone and telegraph companies."

A high power transmission line gathers electrical energy in large, non-natural and turbulent quantities, capable of causing instant death under some circumstances, and frequently rendering very great interference with the satisfactory operation of telephone and telegraph lines in close proximity to them.

On the other hand, like many other forces of nature, this powerful electric fluid or energy gathered in large quantities, when properly harnessed and safe-guarded, is capable of rendering a great service to humanity. For that reason we must, if possible, make way for its economical development and use.

The type of construction for telephone lines generally prevailing within the cities and towns of Iowa is the metallic circuit.

The type of construction of telephone lines generally prevailing in Iowa outside of cities and towns is the grounded circuit.

The type of construction of telegraph lines prevailing in this state, both inside and outside of cities and towns, is the grounded circuit.

The metallic circuit is the one general adopted by the branch of the American Telephone and Telegraph Company on its rural lines as well as city lines operating in Iowa. But their percentage of rural lines in this state is extremely small; it was estimated at the hearing that this did not exceed one or two per cent.

At the present time there are probably between 150,000 and 200,000 rural telephones in Iowa. And it was testified, without contradiction, that over 95 per cent of these are on grounded circuits.

There were some peculiar conflicts in the evidence as to the satisfactory character of the service ordinarily rendered by a grounded circuit telephone line. Some of the officials and experts of the transmission line companies testified that a grounded circuit line was physically incapable of giving good, satisfactory service to its patrons; while other experts in the employ of these transmission line companies testified that they knew

of grounded circuit telephone lines rendering good, satisfactory service, although they were paralleled by high power transmission lines for several miles. It was claimed that the grounded circuit telephone line was rapidly disappearing in the East. One expert from New York City testified that he could not remember of ever seeing a grounded circuit telephone line in New York, Pennsylvania, or the New England States. Later this same gentleman stated in answer to a question by a member of the Commission that he could not remember of ever seeing a metallic circuit telephone line in those states. He had seen rural telephone lines there, but not so as to distinguish between them, whether they were metallic or grounded circuits.

As a matter of fact, the telephone industry has received its highest development in the state of Iowa. The number of telephones per 1,000 inhabitants in Iowa is almost double the average in the United States. The number of telephones per 1,000 inhabitants in the state of Iowa, according to a special report of the Census Bureau in 1912, was greater than any other state in the Union.

The number of rural telephones in the state of Iowa is greater than the total number in all the New England states combined, added to all those in New York, Pennsylvania and New Jersey. That statement we believe to be a fair deduction from the following reports of the United States Census Department.

The Bureau of the Census, in 1907, in attempting to ascertain the rural telephones, used those in the country and in towns of less than 4,000, the number so located being 174,155 in Iowa at that time, while the number of such telephones in the six New England states, and in New York, Pennsylvania and New Jersey, all added together, was only 164,932.

The Census Department made a further segregation of such telephones in the country and in towns of less than 4,000, stating those owned, first, by commercial companies and, second, by mutual and independent farmer or rural lines. Confining our comparison to the latter class, we find that the number of telephones in Iowa was almost twice as great as the number in the New England states, New York, Pennsylvania and New Jersey combined. In Iowa the number was 101,869. In the nine great eastern states the total was 52,331.

In 1912 the Census Department abandoned the method used in 1907, this time making a different segregation. They reported the number of telephones belonging to companies reporting annual incomes less than \$5,000, including farmer or rural lines. In regard to such a classification, the Bureau stated in their report, (page 28 of Special Report on Telephones and Telegraphs in 1912 made by the Bureau of the Census, Department of Commerce and Labor): "The group of companies with incomes of less than \$5,000 is composed largely of the small farmer and rural lines, but also includes the systems that are located in the smaller cities and towns." The total of such telephones in Iowa in 1912 was 137,331, while the total in the New England states and in New York, New Jersey and Pennsylvania combined, amounted to 131,745.

The low cost of the construction and maintenance of a grounded circuit telephone system has rendered this large development possible in Iowa.

And the best proof of the character of the service rendered is the evidence of those who actually use the telephones. That it has been satisfactory is evidenced by the large development of the industry in the state. This was further confirmed by numerous witnesses who took the stand during this investigation, who were actual users of such telephones.

In the absence of a transmission line, a telephone line on a metallic circuit gives better service than a grounded circuit telephone line, because the former lacks the cross talk common to the grounded circuit. Brick or stone houses are better than frame houses, perhaps, but we would not thereby be justified in stating that the brick or stone house was the prevailing standard of construction in rural districts, although there might be some brick and stone houses in the country, and that type of construction might well be the standard of construction in the congested centers of cities and towns.

In close proximity to a transmission line, a metallic circuit telephone is not better than the grounded circuit telephone line was before the building of the transmission line.

The metallic circuit system is no more permanent than the grounded circuit. It deteriorates just as rapidly, if not more so, because a broken insulator or leak on the grounded circuit, according to the testimony of the chief witness for the American Telephone and Telegraph Company in this case, does not increase the noise on the grounded circuit, but it does on the metallic circuit close to a transmission line. It must not be understood that a leak in the grounded circuit does not detract from its efficiency, for it does make a voice on the line less audible. The only point made in this connection is that a leak will cause a greater disturbance on a metallic circuit close to a transmission line than on the grounded circuit prior to the construction of a transmission line in its vicinity.

It costs less to maintain a grounded circuit telephone line than a metallic circuit.

It is our conclusion from the evidence as a whole that, where not paralleled by a high power transmission line, the grounded circuit rural telephone lines in good physical condition have been giving adequate and satisfactory service to the several hundred thousand people in this state who have been using them for many years.

We find that the grounded rural line, in the absence of a transmission line, can give adequate service and can be constructed and maintained much more economically than a metallic circuit.

Overbuilding a telephone or telegraph line by a high power transmission line carrying voltages of 5,000 or over, we consider extremely hazardous, and should never be permitted except when the most modern safeguards are adopted, and then only under extraordinary circumstances and where absolutely necessary.

Crossings of telephone and telegraph lines by high power transmission lines are hazardous except where certain precautions are adopted, as are fully set out in Note A.

A transmission line built alongside of and parallel to a telegraph line, for a considerable distance, causes some interference with the operation of the telegraph line, but this is not of a substantial character provided the transmission line and the telegraph line are both well constructed and there is an adequate separation of the wires of the two systems; this is true whether the telegraph line is a metallic or grounded circuit.

The interference with telephone lines could be practically eliminated by requiring transmission lines to keep off the public highway and along private rights of way, when the highway is already occupied by a telephone line. A separation of several hundred feet is the most effective remedy which has been devised up to the present time.

In a recent publication of the "Proceedings of the American Institute of Electrical Engineers," filed with the documentary evidence in this case, a paper was printed bearing directly upon the subject of Inductive Interference; this was written by Messrs. A. H. Griswold and R. W. Mastick. In the paper these gentlemen dealt with the great difficulties surrounding the subject of the removal of substantial interference between transmission lines and telephone lines, even when the telephone line was on a metallic circuit. They expressed the belief that "future parallels will undoubtedly be short, owing to the increasing tendency of both power and telephone companies to seek private rights of way. Were this not so, the problem of mitigation of residuals would be as difficult to combat in the future as it is at present."

One representative of the American Telephone and Telegraph Company testified in this proceeding that when a power line was being constructed they spent a great deal of their time in trying to arrange routes for the power company so that it would "as far as possible keep away from our lines."

Compelling transmission lines to go on private rights of way or on a more circuitous route, where a given highway is already occupied by a telephone line, would frequently entail a large expenditure of money, which would probably be prohibitive in some cases, whereas a comparatively small expense on the telephone line would so reduce the interference that it would not be substantial in magnitude. And that would enable both lines to be built and maintained along the public highway. For these reasons, we hold that, while this interference is substantial, it does not justify the forbidding of the transmission line from occupying the same highways which are traversed by telephone lines.

Parallels of transmission and telephone lines should be avoided, if possible, without too much expense. But where it is reasonably necessary to have a parallel the two lines in all cases should be separated by at least the width of the highway.

A transmission line constructed in close proximity to, and parallel for a substantial distance with, a telephone line having a metallic circuit, will ordinarily cause a substantial interference with the operation of said telephone line, unless the wires of both systems are properly transposed with reference to each other and there is a separation of the two lines by at least the width of the highway. A better remedy would be a separation of several hundred feet. If the two lines are separated by the width of

the highway only, and proper transpositions are made, there will remain a very appreciable amount of interference, and the telephone line will not be able to render as good service as it did before the coming of the transmission line; however, if these conditions as complied with, we find that the interference then remaining is, under ordinary conditions, not of a substantial character, *provided the transmission system throughout is properly constructed.* The provision we have added is extremely important. If the transmission line could be perfectly balanced, both as to voltages and current, there would be no interference, theoretically. But that is an ideal condition, impossible of attainment, in the present state of the art. However, in the present condition of affairs, it is possible to so closely approximate that condition as to render interference un-substantial in character. And it is this approximate condition which is produced by what we have termed "proper construction." This involves an analysis of several factors which are set out more at length in Note A. There is no great difference of opinion in this record as to the propriety of requiring proper construction on the part of the transmission company. The only question of importance which is seriously in issue at this time is the question who should pay for the moving of the telephone line to the other side of the road, if that is necessitated by the presence of telephone lines on both sides of the highway, and who should pay for the work of transposing the wires on the telephone line so as to balance with the transpositions on the power line.

If a transmission line parallels a grounded circuit telephone line in close proximity for a considerable distance, it generally causes a very substantial interference with the operation of the telephone line, unless some change is made, such as putting the telephone system on a metallic circuit, and transposing the wires. There was some conflict in the evidence as to the amount of the interference which is produced; and there may be a few rare exceptions. But considering the evidence as a whole, we conclude, and we hereby find that the usual, natural, probable result of paralleling a transmission line carrying 5,000 volts or more, and a grounded circuit telephone line, within fifty to seventy feet of each other for a considerable distance, is the production of a substantial interference with the operation of the telephone line, and that the damage suffered is not incidental and inconsequential in character, but it is definite, positive and material.

When such an interference exists, there are three things which should be done:

- 1st. The two systems should be separated by at least the width of the highway.
- 2nd. The telephone line should be equipped with a metallic circuit.
- 3rd. The wires of the telephone line and of the power line should be properly transposed with relation to each other.

If the foregoing conditions are complied with, and the transmission line is properly constructed, some interference will still remain in the operation of the telephone line, but it will not be, under ordinary circumstances, of sufficient magnitude to be considered substantial; the telephone line will be able to give reasonably satisfactory service.

The total cost of putting a telephone line on the opposite side of the highway (if not already there), of installing the metallic circuit and of transposing the wires of the telephone line, is not large; but it is substantial, and the question who should bear this expense presents an important problem.

Not only must the transmission line be properly constructed, but certain changes are necessitated in the construction of the telephone line, or else substantial interference is produced.

A serious conflict of opinion arises as to the liability of the transmission line company for damages in the absence of negligent construction or operation of its own line.

This raises two important legal questions which were presented to counsel for argument:

(a) Does the prior occupancy of a highway by any telephone or other electric line give such company a superior right to the use of said highway such as to protect it against interference of a substantial character by a subsequent company of a similar or equal character, said subsequent company having no connection with public travel?

(b) If the said interference can be substantially eliminated at a reasonable expense, which company should bear the said expense, the company originally occupying the said highway, or the new company?

RELATIVE RIGHTS IN THE PUBLIC HIGHWAY.

Counsel for the telephone lines claim that a telephone company has rights in the public highway which are superior to those of a transmission line. The telephone, in a certain sense, has been held to lighten the travel on the highway, rather than to constitute an additional burden or servitude, in that communications are conveyed between parties without the use of messengers who otherwise would use the highways for the same purpose. See: *Pierce v. Drew*, 136 Mass. 75, 49 Am. Rep. 7; *Julia Bldg. Ass'n v. Bell Tel. Co.*, 88 Mo. 258, 57 Am. Rep. 398; *Magee v. Overshiner*, 150 Ind. 127, 49 N. E. 951; *Kirby v. Citizens Tel. Co.*, 17 So. Dak. 362, 97 N. W. 3; Pond on *Public Utilities*, Secs. 278, 280. Communication by wire accomplishes the same purpose with greater expedition, and generally, if local, with less cost, than communication by mail or by special messenger, on foot, on a horse, in a carriage or automobile. Communication by telephone has many of the advantages of a personal visit, enabling the immediate interchange of information and desires, without the attendant cost in time and money. The telephone is a more efficient use of the public highway than the methods that are necessitated in the absence of the telephone. There is some distinction in the service rendered by a telephone or telegraph company and that of an electric company selling its service by contract to individual consumers or to a city. There is a responsibility, coupled with statutory penalties resting upon telephone and telegraph companies for the prompt and accurate delivery of messages. The hazard to the public is also different. The current of ordinary telephone lines ranges from 22 volts to 110 volts; while a quite usual current on transmission lines is 13,200 volts; and the currents range from 2,200 to over 100,000 volts. There is only a nominal

hazard in the telephone line, compared to the hazard occasioned by a possible faulty construction or improper maintenance of a high power transmission line, which may endanger life and property. The transmission company furnishes light and power, but it ordinarily does not furnish these on the rural highways traversed by the transmission line. The trend of development of the industry indicates that a large rural business will be created in a few years, and to a reasonable extent this must be anticipated in considering this case. For these reasons the counsel for the independent telephone companies urge, very ably, that the telephone line has a right superior to the transmission line in the public highway, that while the transmission line adds a burden and constitutes an additional servitude upon the public highway, the telephone line is using the highway for highway purposes, and is relieving it of burdens, instead of adding thereto. With equal propriety it might be urged that the transmission line facilitates the carrying of a substitute for coal and therefor relieves the burden of the highway in the transportation of freight. There are no decisions on this point owing to the newness of this industry. There are decisions, however, which hold that a telephone line does not use the highway for the purpose of facilitating ordinary travel.

This constitutes a very interesting and important issue, which it may be well to bear in mind in the consideration of the problems here under consideration. But for the purposes of this case, it will not be necessary to decide that question. We hold that the telephone line, by reason of the character of the industry, has rights in the highway which are, at least, not inferior to those of the transmission line, and in this respect the issues presented are different from those involved in cases between telephone companies and street railroads or other utilities directly facilitating travel in the public highways. This distinction must be kept clearly in mind or confusion is inevitable.

In considering the relative rights of these electric companies in our public highways, a second proposition concerns the effect of prior occupancy. This issue will be discussed at considerable length, as it is fundamental to the entire controversy.

We will consider what constitutes substantial interference, the effect on the issue involved resulting from the two basic factors; connection with public travel, and priority of occupancy; this will be followed by a statement of the conclusions reached by the Commission, and a review of the cases bearing upon those propositions.

What Constitutes Substantial Interference?

It is generally recognized that, even though a superior right is possessed by one company, mere inconsequential interference gives no right of action.

The courts have clearly held that interference occasioned by a current of practically the same grade or power ordinarily is not substantial, and gives no right of action. *Louisville Home Telephone Co. v. Cumberland Tel. & Tel. Co.*, 111 Fed. 663, 49 C. C. A. 524. (There are exceptions to this, however. In *Northern Telephone Co. v. Iowa Telephone Co.*, 98 N.

W. 113, the court required the defendant company to further separate its line from the line of the plaintiff, because the proximity between them caused interference.)

On the other hand, the interference with a low tension telephone line occasioned by a high tension line may be, and ordinarily is, very substantial in character.

This was conclusively established by the testimony offered in the present proceeding. The transmission line companies take issue chiefly on who is responsible for the interference.

The principle that interference between a low tension and high tension line, by induction, may be substantial was clearly held in the case entitled *Western Union Telegraph Co. v. Los Angeles Electric Co.*, 76 Fed. 178, as will be more fully set out later (the court holding that an allegation in a petition describing inductive effects was sufficient to raise the issue of substantial interference.)

A difficult problem arises as to who is responsible for the interference and should bear the cost of its removal.

Controversies between electrical companies in the public highways have passed through three important stages. They first arose in regard to interference between telephone and electric light wires; this was followed by controversies between telephone or light companies and electric railways with their higher power lines; and we are now entering upon a period of probable conflict between telephone or light companies and the high tension transmission lines.

A long series of electric cases has been called to our attention. Although the issue of interference occasioned by electric railways is not directly involved in this proceeding, it will be necessary to consider decisions on that issue because of their relation to the present controversy.

In the use of the highways by electric companies there are two basic factors involved, which have been recognized by the courts:

CONNECTION WITH PUBLIC TRAVEL.

A. A company facilitating ordinary travel solely, and not furnishing power for machinery or other purposes, has a right to the use of the public highway superior to that of a telephone, or other electric company not connected with public travel.

PRIORITY OF OCCUPANCY.

B. Where no superior right to the use of the public highway exists by reason of the character of the industry, priority of occupancy is controlling.

In the light of the evidence which has been introduced and the decisions of the courts bearing upon these issues, the Commission has reached the following conclusions:

A company facilitating ordinary travel, such as an electric interurban railway company, on the public highways over which this Commission has jurisdiction, has priority over another electric company in the public highways not connected with the ordinary travel, even though the latter was there previously; and, in the absence of negligence on the part of

said company facilitating public travel, the other electric company must bear the cost of adjusting itself to the new situation, so far as any interference on the public highway is concerned.

An electric railway company, or any other company connected with public travel, has not a superior right as to any interference occasioned by the leakage of electricity spreading out beyond the public highway to the telephone receivers of private parties on their own premises. Off of the public highway electric railway and telephone companies are on a parity, the first company in the field having priority of right under the well established doctrines of the case.

And further, an electric company not connected with the travel on the highways does not have a superior right even on the highway.

REVIEW OF THE CASES.

Because of the importance of the issue, and it being a case of first instance before this Commission, and because it will so vitally affect a new industry which will probably extend its operations throughout the entire state, somewhat extended reference to, and extracts from, the cases in support of the foregoing propositions will be made.

Where no substantial interference exists, no cause of action arises; and those cases involving substantial interference fall into two classes, which are governed by different principles, as follows:

1st. Cases involving the rights of electric companies facilitating ordinary travel, such as electric railways.

2nd. Cases involving conflicts between electric companies not connected with ordinary travel.

Two other classes of cases not directly in point have been called to our attention by counsel for the transmission lines and telephone lines, claiming that they involve the same fundamental principles as those which must guide us in this proceeding; these are drainage cases, and some negligence cases, the only new group presented under the latter head involving companies engaged in blasting rock.

Cases have been relied upon in support of the proposition that the transmission line company is not liable to the telephone company for interference. Many of these decisions contain *dicta* that are much more sweeping than the doctrines announced by other courts upon facts squarely presenting the issue involved in this proceeding. Of course it is impossible to find cases in point on all fours, but where there is a broad distinguishing principle which causes different conclusions to be reached by the courts in the said decisions, such cases cannot be considered as precedents for this proceeding.

In *Louisville Home Telephone Co. v. Cumberland Tel. & Tel. Co.*, 111 Fed. 683, 49 C. C. A. 524, and in *Chicago Tel. Co. v. Northwestern Tel. Co.*, 199 Ill. 324 (65 N. E. 329), the facts at issue concerned telephone companies, both the complainants and defendants operating low potential telephone wires. The court in the *Louisville* case stated:

"The affidavits of experts and practical men show that the practice of constructing a system of lines by one company over the lines of another is very common in many cities which are enumerated, especially where both are telephone systems, and no substantial inconvenience has been found to result."

An entirely different issue is presented in this proceeding. We are not dealing with a conflict between two telephone lines, but with a telephone line and a high tension line of 5,000 volts or more.

In the two cases cited the courts held that the interference occasioned by overbuilding or paralleling low potential telephone wires with another set of low potential telephone wires is very small and inconsequential. This is in accordance with a well-established fact, about which there is but little conflict in the authorities to our knowledge.

No court and no commission, so far as we are aware, has ever claimed that the interference attendant upon the over-building or paralleling of a telephone line by an electric line, of high tension (whether street railway, electric light, or power), is inconsequential in character. In fact, precisely the opposite has been repeatedly stated by the courts, as will be seen in the following pages; and it is conclusively shown by the record in this proceeding.

Further, any discussion of these issues which fails to distinguish between an interference occasioned by a street railway company having a superior right to the use of the streets for facilitating public travel, and an interference by a light, telephone, telegraph, or other electric company not having such superior right, utterly fails to recognize a plain, simple distinction which has been recognized universally, without one exception, in the cases whenever that issue has been discussed, so far as we have observed.

In the case entitled *Cumberland Tel. & Tel. Co. v. United Electric Ry. Co.*, 42 Fed. 273, 12 L. R. A. 544, the relative rights of a telephone company and electric railway to the use of the streets were involved. An injunction was denied.

In a later case, between precisely the same parties, an important distinction has been made by the Supreme Court of Tennessee. While an injunction against continued operation will not lie, the Tennessee Supreme Court held that the cost of installing the McCluer device on the telephone line should be borne by the railway company. *Cumberland Tel. & Tel. Co. v. United Electric Ry. Co.*, 93 Tenn. 492; 29 S. W. 104; 27 L. R. A. 236.

This case has attracted wide comment. We will have occasion to discuss these two leading cases more at length hereafter.

The *Cumberland Case* just referred to (decided by the Tennessee Supreme Court), makes a distinction between damage occasioned by induction and conduction, holding that the telephone company could recover for injuries occasioned by the latter, but not for those caused by induction. The reason for the denial of damages for injury resulting from induction was because it was occasioned by obstruction (by wires of the telephone company) of the railway company's superior right to the use of the street for purposes of public travel. A street railroad com-

pany has a right to the street which is superior to that of a telephone company, the court stated. This distinction, of course, does not apply to an electric company not so engaged. Another telephone company, or an electric light and power company, has no superior claim to the use of the streets. As between companies on an equality, prior occupancy controls.

I.

The following decisions state the distinction between the rights of telephone and street railway companies to the use of the public highways, which makes cases turning upon the rights of electric railways on the public highway not parallel to the present proceeding.

In a Tennessee case the court held that a "city has no right to allow the streets to be used for any purpose inconsistent with these rights of travel and transportation. Telephone poles have no connection with travel and transportation; and have no just right on our streets, and are at best mere tenants at will." *East Tenn. Tel. Co. v. Knoxville Street R. R. Co.* (From Private Prints) 3 Am. Elec. Cases 400 (1890).

In *Hudson River Telephone Co. v. Watervliet Turnpike & R. Co.*, 56 Hun. 67; 29 N. Y. St. Rep. 694; 8 N. Y. Sup. 497, 9 N. Y. Sup. 177; 61 Hun. 140; 39 N. Y. St. Rep. 952; 15 N. Y. S. 753; 125 N. Y. 393; 3 Am. El. Cases 387; 4 Am. El. Cases 275 (1892), a referee's report showed that the electrical interference with the telephone line could be obviated as follows:

- 1st. Partially, but not wholly, by adopting the McCluer System.
- 2d. Wholly, by plaintiff making each of its circuits a metallic one.
- 3d. Wholly, by defendant adopting the double trolley or storage battery.

The referee held against the telephone company as a matter of law. On appeal from the report of the referee, the court held neither party had no exclusive right to the street, and yet that the railway company could not adopt a power which would spread out and damage other property by conduction or leakage. This was reversed by the Court of Appeals on this ground:

"The plaintiff is not using the streets for one of the purposes to which they have been dedicated as public highways, while the defendant is occupying them in such a manner as to expedite public travel and promote the public use to which they were originally devoted." (4 Am. Elec. Cases 282.)

The telephone company's rights in the streets were therefore held subservient to the right of its use for public travel.

In the Canadian case entitled *Bell Tel. Co. of Canada vs. Montreal Street Ry. Co.*, 10 Queb. Off. Law Rep. Sup. Ct., 162, the superior right of the street railway company, because of its connection with public travel, was clearly expressed by the court in the following words:

"The dominant purpose of a street is for public passage and any appropriation of it by legislative authority to other objects will be deemed to be in subordination to this use, unless a contrary intent is clearly expressed. While both companies are

exercising privileges which make for the public benefit, those of the defendant expedite public travel and promote the public use to which streets are devoted." (*Id.* 172.)

In the *Cincinnati Inclined Ry. Case* the court held that public travel is the chief purpose for which a street is laid out, and the right of a telephone company to use the streets is subservient to the use of the streets for public travel. New modes of travel are justified, and a telephone company must readjust its methods in order to meet these new conditions.

Cincinnati Inclined Plane Ry. vs. Telegraph Assoc. etc., 48 Ohio St. 390; 27 N. E. 890; 12 L. R. A. 534.

II.

A second class of cases involves the controversies between electric companies having no superior rights over each other in the use of the public highways. In these cases the principles which have been adopted are different from those we have been considering, where one of the parties to each case is an electric railway.

Priority in the occupancy of a street, entitles a telephone company to continue its operations unmolested by substantial interference from another telephone, electric, or other company, not having a superior right in the street.

This proposition is sustained by the following decisions, which illustrate the practical application of the doctrine as distinguished from electric railway cases.

A prior right to the streets by one light company does not give an exclusive right to that company, but the second company's rights to the occupancy of the street are subordinate to those of the first company "and must be exercised in such a manner as not to interfere with them." *Rutland Light Co. v. Marble City, etc.*, 65 Vt. 377 (1893) 20 L. R. A. 821. In this case the lower court's order was reversed, and the petitioner was held entitled to an injunction against the maintaining of the new company's wires so as to interfere with those of the first company.

Priority in the reasonable, lawful use of a portion of the highway by a telephone company creates a right to continue its operations unmolested. An electric light company cannot string its wires in such close proximity to those of a telephone company already in operation as to interfere with or impair the efficiency of the telephone service. *Paris Electric Light Co. v. Southwestern Tel., etc., Co.*, 27 S. W. 902; 5 Am. Elec. Cases 262 (Tex. 1894).

Prior occupancy by one telephone company of one side of a street does not give exclusive right to it; but it does entitle the said company to protection against interference occasioned by another line in close proximity, giving rise to possible breakages, and to cross talk, caused by the proximity of the wires, and "upon the character thereof—that is, of what composed—and the force of the electric current employed in connection with the use of each thereof." *Northern Tel. Co. v. Iowa Tel. Co.* (Iowa, 1904), 98 N. W. 113.

Interference by induction from electric light wires caused the court to compel the removal of the latter to the other side of the street, in *Bell Telephone Co. v. Belleville Electric Light Co.*, 12 Ont. 571 (1886); 2 Am. Elec. Cases 330.

In a Nebraska case, an electric light company was enjoined from placing its arc light wires on the same side of the street and parallel to telephone wires, because of interference by induction with the latter. Also for placing its incandescent light wires within eight feet of the telephone wires, for the same reason. Also it was ordered that in no case should the wires of the new company run parallel for more than 300 feet. Also the electric light company was required to install heavy guard wires suspended across the wires every hundred feet, midway between the telephone and electric light wires, so as to prevent the upper wires from falling upon the lower. This injunction was confined solely to streets where prior occupancy was held by the telephone company. *Nebraska Tel. Co. v. York, etc., Co.*, 27 Neb. 284; 43 N. W. 126.

"It is certainly true that the company which with authority first occupies a reasonably sufficient space for its works along a street border, thereby acquires the right not to be molested in its possession." *Consol. Elect. Light Co. v. People's El. L. & G. Co.*, 94 Ala. 372, 10 So. 440; 4 Am. Elec. Cases 250 (1892).

The Illinois Public Utilities Commission has had occasion to pass upon substantially the same issue as is presented in this proceeding, in the case entitled, *In the Matter of the Application of the Central Illinois Light Company to Remove Four 50 Kilowatt Transformers in its Farmington-Cuba Circuit, etc.* (Jan. 6, 1916), 11 Off. Pub. Serv. Rep. 534. In this case the defendant had placed four transformers in its line for the purpose of reducing the voltage and relieving certain inductive interference occasioned in certain telephone lines, a number of which were on grounded circuits. These transformers seriously impaired the service of the transmission line; and yet their removal would cause serious inductive interference with the telephone lines. The Commission found that the said interference could be reduced or removed by other means. On this state of facts the Commission decided:

"There exists means of overcoming inductive disturbances in several ways, individually applicable to the different circuits and local situations. Such correction of the trouble, however, will involve considerable expense, which it seems is unavoidable. Inasmuch as the telephone circuits possess priority, the Commission finds that the expense entailed in correcting the aforesaid inductive disturbances should be borne by the petitioner."

In *Western Union Telegraph Co. v. Burlington Traction Co.*, P. U. R. 1916-C, page 245, the telegraph line had been constructed prior to the building of the transmission line. The Vermont Commission in this case required the transmission line to separate its poles 30 feet from the telegraph line, and none of the expense of making this change was cast upon the said telegraph company. This was ordered, although the poles of the telegraph company were in very poor condition, many of them requiring replacement in the near future because of their decay at the

ground line occasioned by freezing and thawing, as well as fires. This was required also notwithstanding the fact that "the high tension line, when considered without reference to proximity or parallelism with any other line, might be regarded as fairly well constructed for the purpose for which it is used."

The Wisconsin Commission has had cases before it involving interference of transmission lines paralleling grounded circuit telephone lines, and has reached conclusions somewhat analogous to ours as to the substantial character of the interference. But the Commission has declared it has no jurisdiction to act, and suggests the advisability of legislation giving them jurisdiction over transmission lines. *Ebenezer Tel. Co. v. Milwaukee L. H. & T. Co.*, Pub. Util. Rep. 1915-A, 174; *Platteville Etc., v. Lancaster Electric Light Co.*, Pub. Util. Rep., 1915-A, 298.

In *Cumberland Tel. & Tel. Co. v. United Electric Ry. Co.*, et al., supra, the federal court held that the street railway company, though constructed later than the telephone company, should not be required to indemnify the latter company for expenses incurred in protecting itself against interference by the high power line of the street railway company. The court did not give an extended discussion of that issue, however. And, insofar as this decision of the Federal Court deals with the question whether the defendant company is liable to damages or not, the statement of the court is dictum. In that case it was a court of equity sitting, and there was no issue as to damages. It was an injunction proceeding. In a later case between the same parties before the Supreme Court of Tennessee, the question of damages was raised and passed upon by the court. This subsequent decision has been repeatedly referred to and cited in many text books and decisions of courts, both state and federal, without any criticism of the principle yet having been made of a valid character so far as we have been able to find.

In this subsequent case decided by the Supreme Court of Tennessee (*Cumberland Tel. & Tel. Co. v. The United Electric Railway Co.*, 93 Ten. 492) the issue did not concern a prayer for an injunction and the court recognized the fact that an injunction should properly be denied. Referring to the injunction cases, the court said that it was clear the telephone companies were not threatened with irreparable injury, that they had an adequate remedy at law, and to have enjoined the railway companies would have inflicted irreparable injury upon them and upon the public. (*Id.* 526.)

Again, this later decision clearly recognized the superior right of the railway company in the public highway. The court described the telephone company's right to the streets was to use them in the erection and operation of a plant, with the proviso that the ordinary use of the streets be not thereby obstructed, and the court held that the electric street railway should constitute a use of the street within the original purposes of its dedication, "and therefore an ordinary use." (*Id.* 502, 504.) For these reasons the court held that the telephone company had no cause of action because of the inductive interference of the street railway; because that interference occurred on the street where the railway was entitled to operate unobstructed by the rights of the telephone company. (*Id.* 506.)

However, there was an interference developed in the case which did not occur on the public street or highway. This interference was occasioned off the highway, where the railway had no higher right than the telephone company. The court described this interference to be due to conduction on the premises of the telephone company or of the subscribers of the telephone company. The court held that while the interference occasioned on the highway gave no cause of action to the complainant telephone company, but off of the highway where the street railway had no superior right, interference gave a just cause of action to the telephone company. In this case it was found that the adoption of the McCluer device eliminating the grounded circuit of the telephone line removed the interference, and it was held that the railway company must pay the cost of the said addition to the telephone line. This was true whether the street railway company was negligent or not negligent.

In a small work concerning Conflicting Uses of Electricity, by George F. Deiser (Philadelphia, 1911), an analysis of the relative rights of the companies is given of some length, and the *Cumberland Cases* receive extended consideration. Mr. Deiser attempts to make a summary of the holdings of the courts which may be interpreted more broadly than intended by the author unless attention is given to other portions of his text. The summary largely involves the rights of street railway companies as opposed to those of other electric companies, rather than the rights between electric companies having similar franchises. The latter phase of the subject is summarized in an earlier portion of the work. On page 56 of the book the cases discussed are, almost exclusively, between companies having similar franchises. There he correctly states the doctrine as follows:

"The principle established is, that electric companies exercising similar franchises have equal rights, but priority in time carries superiority of right. Both franchises, in a court of equity, will be so controlled as to admit of the operation of both, but if conflict be unavoidable, the company last in the field must give way, and the fact that the second company has secured a public contract does not alter the situation. Should interference be unavoidable, the later occupant must give way to the former. And the first licensee may restrain interference whether due to induction or to direct contact of wires."

In support of this principle numerous cases are cited. Later in the work, where he makes a general summary of principles involving both telephone companies and street railways, he states as to the case entitled *Cumberland Tel. & Tel. Co. v. United Electric Ry. Co.*, supra, decided by the Supreme Court of Tennessee:

"It is believed that this decision represents the trend of the sounder legal thought upon the subject."

And then he presents, on page 81, the principles involved, summarizing them under seven propositions, the fifth summary being as follows:

"The railway company is not liable for injuries to the lines of the telephone company on the same streets due to induction, or conduction."

The seventh summary is as follows:

"If the telephone company can protect its line by the adoption of the McCluer device (a large copper wire, attached at both ends to the outgoing (from its exchange telephone wires), the cheapest effective remedy for injury by conduction, and capable of being applied alone by the telephone company, it is the right and duty of the telephone company to resort to the device, and it may recover the cost of installing it from the railway company."

When these principles are reconciled, you have a doctrine analogous to what we find, and have described in this opinion.

In *Western Union Tel. Co. v. Los Angeles Elec. Co.*, 76 Fed. Rep. 178; 6 Am. Elec. Cases 202, interference with "ordinary travel" was raised as an issue by one party, but was not passed upon by the court.

The Circuit Court in this case held that a company with a franchise for the conveyance of electricity for lighting purposes, and for machinery, is subservient to that of a telephone company having prior occupancy. The court held that the petition of plaintiff was adequate. The interference claimed by the telephone company was by induction. As to whether this constituted a substantial interference the court stated:

"In support of its first contention, defendant suggests that there is no statement in the bill of the distance at which an electric current upon one wire will affect, by induction, another wire. This, I think, is a matter of evidence, which need not be specifically set forth. The ultimate fact, in this connection, essential to complainant's case, and which should be alleged, is that defendant's wires have been placed so near to complainant's wires as to seriously impair the efficiency of the latter; and this situation, I think, is sufficiently shown. The bill alleges as follows:

"Said defendant has placed its poles in an exact line with those of your orator on said Second Street, and its wires so far as they are strung, and in so far as they will be strung if the line of defendant is continued to Alameda Street, are directly under the wires of your orator, and in many places so near to the wires of the telegraph line of your orator aforesaid as to interfere with the working of your orator's wires, in consequence of the stronger electric current sent over the wires of said defendant, the Los Angeles Electric Company."

"Furthermore, the bill, after alleging that the electrical currents to be transmitted over defendant's wires will be much stronger than those used by complainant, and that the instruments necessarily employed by complainant in the transmission of messages are delicate and sensitive, and must be adjusted with reference to the current generated by the batteries in its main office, and the condition of the wires over which the signals are to be transmitted, proceeds thus:

"And therefore the induced current over the defendant's line will disarrange, distort and mutilate the telegraph signals of your orator's line by interposing a foreign and stronger current, not under the control and not within the knowledge of the transmitting operator, and will result in serious errors in the transmission and reception of the telegraphic messages of your orator."

"From these quotations it appears the bill does expressly and directly allege that the operation of defendant's line will seriously and prejudicially affect complainant's line."

Western Union Telegraph Co. v. Los Angeles Electric Co., 76 Fed., 178, 181.

The lower court in a Pennsylvania case held the interference of the later company of not sufficient importance to justify the cause of action. This was reversed by the Supreme Court of Pennsylvania, which stated:

"As between two corporations exercising similar franchises upon the same streets, priority carries superiority of right. Equity will adjust the conflicting interests as far as possible and control both so that each company may exercise its own franchises as fully as is compatible with the necessary exercise of the other's. But if interference and limitation of one or the other are unavoidable, the latter must give way, and the fact that it is under contract with the city for work of a public nature does not alter its position, or give it any claim to preference.

"Moreover, the standard of damages indicated by the court that the defendant in the construction and operation of its line must not do 'any wanton, negligent or unnecessary damage,' and must keep its lines clear from those of the plaintiff 'wherever it can be done without extra cost,' is altogether too broad. Equity will enjoin not only wanton or negligent damage, but all interference which is not strictly unavoidable; and in regard to keeping defendant's wires clear of those in bona fide use by the plaintiff and necessary for its business, the injunction must be absolute without regard to extra cost of other methods." *Edison Elec. Light & Power Co. v. Merchants & Mfrs. Elec. Light, Heat & Power Co.*, 200 Pa. St. 209; 49 Atl. 766; 86 Am. St. Rep. 712, 713, 714.

In *Western Union Tel. Co. v. Guernsey, etc.*, 46 Mo. App. 129, it was claimed that the defendant Guernsey Light Company's wires interfered with the Telegraph Company in the following manner: first, by possible contact; second, by induction; and third, by endangering the employes of the telegraph company. The Guernsey Light Co. claimed, and one member of the Supreme Court of Missouri held, that the telegraph company at a light expense could prevent the apprehended dangers, this being done by inserting in each of its wires where it enters a building a "fusible plug," at a cost of four or five cents each, or a total cost of five or ten dollars for the entire street. However, the majority of the court held that the injunction should be granted.

The original temporary injunction required the electric light wires to be kept at a distance of at least three feet from the telegraph wires. In the permanent injunction this space was extended to eight feet.

III.

Counsel for the transmission lines urge that the Iowa Supreme Court has adopted principles governing the collection of surface waters on a dominant estate and casting them upon an adjoining servient estate, which should guide us in this proceeding. Though the cases are not in point, there is some analogy in the principles involved and we will consider them briefly. The leading decision in this state on the subject of drainage was written by Judge Dillon in the *Livingston Case* (*Livingston v. McDonald*, 21 Iowa 160). Since then some modification has been made by legislative act. We understand the rule laid down in the *Livingston Case*, as subsequently modified, to be substantially as follows: that a person cannot collect a large amount of water and discharge this upon his neighbor's premises "in greatly increased or unnatural quantities to the substantial injury of the latter." The full force of this rule, however, must be recognized. The adjacent owner cannot complain unless the flow of water cast upon his property is in such greatly increased or unnatural quantities as to be the cause of substantial injury to his premises, or unless the said water is diverted from its natural channel and from the line which it pursued in the course of nature. Of course, no tiling or drainage could be done without some increase in the flow at the particular point where the tile empties the water onto the estate of the adjacent owner. But that does not mean that the owner of a dominant estate can drain a large pond or lake on to a servient estate, and it does not mean that the flow can be greatly increased in unnatural quantities, and it does not mean that it can be changed from its natural course.

To the extent we have described, the doctrine of the *Livingston Case* was quoted with approval by the Supreme Court of Iowa in *Obe v. Pattat*, 151 Iowa 723, and that decision has recently been quoted with approval in *Jontz v. Northup*, 157 Iowa 6, decided October 23, 1912. See also *Falcon v. Boyer*, 157 Iowa 745.

A line must be drawn somewhere. Where the question is close, it may be difficult to determine whether the injury is substantial or not. This is just as difficult in connection with parallel electric lines as it would be difficult in connection with drainage of surface waters on to a servient estate. It is just as important, however, that there should be some limit somewhere in connection with the damage that can be done without creating liability in dealing with these electrical interferences, as it is with the drainage of water; and the courts and commissions have been trying to make an intelligent and just distinction between the two classes of cases. For instance, it has been held that the interference occasioned by one telephone line on the same side of the street as another telephone line in somewhat close proximity, might cause some little interference, but not of a substantial character, and those facts created no just cause of action. *Louisville Home Telephone Co. v. Cumberland Tel. & Tel.*, 111 Fed. 663.

The courts of recent years have been liberal in regard to the drainage of surface waters, being desirous of making possible the proper drainage of swamp and wet lands which is essential to the development of an agricultural state. In the same way we must be liberal in regard to the interference of electric lines. The wide and diversified uses of electricity in the home, on the farm, and in the factory, make it a great public necessity and justly demands liberal treatment. In this investigation it has been disclosed that nothing so far has been devised which will remove all interference of a transmission line with the operation of a telephone line. Even though a metallic circuit is installed, transpositions are properly made, and the best, most modern and efficient electrical machinery is used, yet there will remain a hum on the telephone wires that is unpleasant and undesirable. Notwithstanding that fact, we feel that the best interests of the public will be subserved by permitting the operation and general use of transmission lines and their construction on the public highways of the state, provided proper steps are taken to prevent the great and unreasonable interference of which we have received such extensive proof.

IV.

Counsel for the transmission lines strongly urge that the telephone and telegraph companies have no cause of action unless negligence is established. They state the proposition in the following words:

Where the interference is electrical "and not physical" in character, and is the result of either induction or conduction ordinarily incident to the use of electricity, and is not caused by negligent construction or faulty or defective appliances, the damage done is *damnum absque injuria*. It is difficult to distinguish between electrical and "physical" interference. Whatever occurs is certainly not spiritual in character, but is a physical effect produced by physical forces. However, this distinction will be considered.

Another well-established maxim must be reckoned with in this connection; it is that you must so use your own property as not to injure the legal rights of another—*Sic utere tuo ut alienum non laedas*. *Louden v. Cincinnati*, 90 Ohio St. 144; 106 N. E. 970, L. R. A. 1915 E, 356, 369.

In the language quoted from a decision cited by counsel, it is held that "if one do a lawful act upon his own premises he cannot be held responsible for injurious consequences that may result from it unless it was so done as to constitute actionable negligence." *Birmingham Traction Co. v. Southern Bell Telephone & Telegraph Co.*, 24 Southern 731.

The case of the *Birmingham Traction Company v. Southern Bell Telephone and Telegraph Company*, involved a misconduct or abuse of its franchise by the Traction Company, giving a just cause of action to the Telephone Company. The case hinging upon the proposition of misconduct or negligence did not present the issue where that factor was lacking.

The counsel cite numerous decisions which they claim support the general principle above stated. A leading case in Indiana cited is entitled *Citizens Telephone Co. v. Fort Wayne & Southern Railway Co.*

(Ind.-1912) 100 Northeastern 209. This case involved interference occasioned by a street railway and a telephone line occupying the same street with the railroad, the interference being both by induction and conduction, and occurring on the highway. The court quotes with approval *Panton v. Holland* (1819) 17 Johnson (N. Y.) 99, 8 American Decisions 369, that: "no man is answerable in damages for the reasonable exercise of a right when it is accompanied by a cautious regard for the rights of others, when there is no just ground for the charge of negligence or unskillfulness, and when the act is not done maliciously." But, as that court stated:

"This principle is subject to many modifications, and a mere legislative grant must be exercised in strict conformity to private rights."

It seems to be quite well established that a grant can be given to a street railway company in the public highway that will cause interference by induction or conduction with a telephone line on the same highway. In other words, the telephone company, in locating in the highway, does so at its own peril so far as future improved methods of facilitating public travel may interfere with the exercise of its functions.

However, there seems to be a well recognized distinction between the situation as above set forth and the one where the later utility does not have a superior franchise; for instance, the street railway company does not have a superior right to the telephone company off of the public highway, as is elsewhere outlined more fully in this opinion, in regard to the *Cumberland Case*, *supra*.

Our interpretation of the *Cumberland* decision corresponds fully to the interpretation placed upon it by the court itself in the aforesaid case of *Citizens Telephone Co. v. Fort Wayne, etc., R. Co.*, the said Indiana court stating:

"Under the doctrine of this case, a telephone company may not only recover damages caused to its property by the railroad company's negligent use of its franchise, but the case further lays down the rule that the railroad company, in the absence of negligence, is liable for damage to property located outside the streets, as for a taking of property without compensation."

The Indiana court, however, added that the courts of that state had laid down a different rule from the one announced in the *Cumberland Case*. It was different in that negligence must occur. To that extent the Indiana case is a precedent in conflict with the *Cumberland Case* and with what we believe to be the weight of authority, as well as the better doctrine. Where two companies, having equal or similar franchises or rights in a public highway, make use of this force electricity, the later company to occupy the highway must do so with proper regard to the company already located in the said highway.

In the *Cumberland Case* the distinction was carefully drawn between the operation of the telephone company's plant, which caused no injurious disturbance of natural electric conditions anywhere, while the railway company's plant caused large and turbulent artificial currents of the electric fluid to be generated and poured into the streets beyond

the defendant's control, (511); and the court held that it was not material that the injurious act was done upon the premises of one other than the injured party.

Various analogous cases are gathered together by the court.

A cocoa mat maker used a delicate chemical to bleach his matting. Another manufacturer using sulphate of ammonia caused vapors which escaped in the air, which combined with the bleacher's chemicals and blacked his mats, and it was held that the manufacturer of the cocoa mats had the right to use any chemical he pleased which would not hurt anybody else; and that he had the right to have the air come to his lands pure and untainted; that he was not required to use another chemical just as good or better which would not have been affected by the sulphate of ammonia. *Cooke v. Forbes*, L. R., 5 Eq. Cas. 166.

A manufacturer was enjoined from discharging refuse from his works into a surface stream which corroded the boilers of a factory below, which used the water for steam purposes. *Merrifield v. Lombard*, 13 Allen 16, (S. C. 90 Am. Dec., 172).

A manufacturer of copper had to close down his plant because vapors were given off, injuring growing crops, fruit trees and flowers. The same was true of a manufacturer of lead. *St. Helen's Smelting Co. v. Tipping*, 11 House of Lords Cas. 642; *App. of Penn. Land Co.*, 96 Penn. St. 116 (S. C., 42 Am. Rep. 534).

A party was prevented from using a well for a sink because the sewerage percolated through and injured water in a deep well used in the manufacture of ale. *Ballard v. Tomlinson*, L. R., 29 Ch. Div. 115 (S. C., 24 Am. Law Rep. 634).

See also: *Kinnaird v. Standard Oil Co.*, 89 Ky. (S. C., 25 Am. St. 545), and *Olines v. Staffordshire, etc., Co.*, L. R., 8 Ch. App. Cas. 126; *Gould on Waters*, Sec. 219; *Acquaenock Water Co. v. Watson*, 29 N. J. Eq. 372.

The same claim was presented to the Supreme Court of Tennessee as we have presented in this investigation, that the injury is not of a direct physical character. In reply to this, the learned court quotes from *Taylor on Corporations*, as follows:

"To constitute a taking of property, it is not necessary that any material thing be actually taken; it is enough if any right of the owner respecting the thing owned be impaired, so that he cannot apply the thing to all the uses of which it was formerly capable. The Legislature cannot authorize either a direct or a consequential taking or injury to property without compensation; and if a corporation voluntarily, for its own benefit, so constructs a work as necessarily to injure the property (i. e., the thing owned) of an individual, or deprive him of any right he may possess regarding the thing which he owns, or his rights therein, it will be bound to compensate him for his damages, even though the work be properly and lawfully constructed."

Taylor on Corp., Secs. 173, 473,

and numerous cases cited. The Tennessee court adds the following in its own language:

"It can make no difference that no material thing was taken or that the loss resulted, not from contact of material things, but through the agency of the subtle and impalpable electric fluid. The important consideration is that a thing of value has been taken from plaintiff for the benefit of defendant, as the representative of the public, and for that thing compensation must be made."

The court specifically dissents from the opinion of Judge Brown in the injunction case reported in 42 Federal 273, to the effect that the injury is analogous to the smoke that fills our lungs and soils our garments, the dust that enters our dwellings and stores and damages our furniture and noxious odors and impure water, which are the necessary penalties we pay for living in cities and for which there is no legal remedy in ordinary cases. In this later case, the court said the injury is the direct result of an injurious act and of a graver character than a mere inconvenience. (*Id.* 533).

A principle analogous to that stated by counsel for the transmission lines has received recognition in a series of decisions in New York. The issue was early raised in connection with the blasting of rock. It was there held that where one resorts to blasting upon his own premises and casts debris upon the land of another, he is liable for damages irrespective of whether there was any negligence involved. On the other hand, it was held that where a party in blasting is adapting his property to a lawful use and causes damage by reason of the concussion and vibration in the air, he is not liable for injury inflicted upon a neighbor, provided there was no negligence involved in the act. *Stancourt Laundry Co. v. Lamura*, 147 N. Y. Supp. 895, Lawyers' Reports Annotated 1915-E-358, note. A series of other cases are there cited in support of a similar proposition. In subsequent New York and Indiana cases, this principle is frequently referred to. In a recent decision of the Supreme Court of Iowa, entitled *Watson v. Mississippi River Power Company* (1916), 156 Northwestern 188, the same issue is raised. The doctrine is stated in the following words from *Beasmer v. Doak*, 152 Ala. 166:

"If one, in blasting upon his own lands, invades the premises of his neighbor, by throwing stone and debris thereon, he is liable for the resulting injury, but for any other injury, such as may result from the mere concussion of the atmosphere, sound, or otherwise, there is no liability unless it is shown that the work was done negligently, and that the injury was the result of negligence, and not the result of blasting according to the usual methods and with reasonable care." (*Id.* 190.)

The Iowa court declines to adopt the New York rule; but, instead, adopts the principle which has been followed quite generally by other courts. This other line of cases holds that "Where the work of blasting is done in a situation where it is necessarily dangerous to persons or property, whether the injury proceeds from the impact of rocks thrown or from atmospheric concussion, irrespective of the care or skill used," recovery may be had. Thompson on *Negligence*, Section 764.

The discussion of the Iowa Supreme Court is very significant upon this issue. In reply to the contention that there is no actual physical invasion of the property, the court says:

"Physical invasion of the property of another does not necessarily imply an actual breaking or entering of the plaintiff's close by the wrongdoer in person, or casting upon his premises any particular kind of missile or other particular thing or substance. The employment of force of any kind which, when so put in operation, extends its energy into the premises of another to their material injury, and renders them uninhabitable, is as much a physical invasion as if the wrongdoer had entered thereon in person and by overpowering strength had cast the owner into the street." *Watson v. Miss. & Co.*, *supra*, page 191.

Further in reply to the argument of the Mississippi River Power Company that it was engaged in the construction of a great work of general utility, the court said:

"The individual citizen may be deprived of his home or other property by the proper exercise of the power of eminent domain, but it ought not to be said it can be lawfully destroyed without compensation in the interest of a mere business enterprise simply because such enterprise is of great magnitude and general public interest." (*Id.* 192.)

As was stated by the Supreme Court of Ohio in *Louden v. Cincinnati*:

"If one may knowingly destroy his neighbor's property in the improvement of his own, it is little consolation to the neighbor to know that his property was destroyed with due care and in a scientific manner." (*Id.* 90 Ohio State 144, 106 N. E. 970.)

It cannot be stated that the blasting of rock was certain to cause injury to a neighbor. There are cases where the injury does not happen. On the other hand, the injury was a natural result that would probably happen. Likewise, when a transmission line company builds adjacent to a telephone line, it does so knowing the natural probable effect on the said telephone line, the effect which results in the vast majority of cases, according to the weight of the testimony adduced before the commission. There are exceptions where that result has not occurred, but there are few, comparatively speaking.

Witness after witness gave sworn testimony as to the substantial interference occasioned by a transmission line being constructed near a telephone line, and for a while it seemed the hearing could be carried on indefinitely with cumulative evidence of that character; but it was suggested that it was unnecessary to proceed further along that line. On the other hand, there are a few instances where such a result did not occur, and there are instances where the blasting of rock has undoubtedly caused no substantial injury to neighbors.

This claim that negligence must exist in the construction or operation of the defendant's property, before the complainant has a lawful cause of action, is not supported in the numerous decisions we have cited, where electric companies have been compelled to refrain from interfering substantially with companies having prior occupancy, under like

franchises; and in some of these cases the issue of negligence was specifically raised and passed upon. *Western Union Telegraph Co. v. Burlington Traction Co.*, *supra*; *Edison Electric Light & Power Co. v. Merchants' and Mfrs.' Elec. Light & Power Co.*, *supra*; *Cumberland Tel. & Tel. Case* (decided by the Supreme Court of Tennessee, *supra*.)

A further problem is raised by the claim that a transmission line has coordinate rights with the telephone line, and that the former must be guilty of some negligence in the exercise of its rights, or the aforesaid principle of *damnum absque injuria* applies.

The telephone companies occupying the public highways, do so under different statutory provisions than those applying to transmission lines. The rights of the transmission lines in the highway have not been defined by the courts.

At the time of the act, under which these franchises to transmission line companies are granted, was under consideration by the legislature, the state was covered by a veritable net work of telephone and telegraph lines. The possible hazard to life and limb and property and the interference with other users of the public highway, the complicated and unsettled state of the art of high power transmission, all made it imperative that if franchises should be granted such companies, the responsibility should be lodged somewhere for the prescribing of the terms and conditions upon which such franchises might be granted. That responsibility has been placed upon this Board.

It, therefore, becomes eminently fitting and proper to determine how the rights of parties already in the highway may be safeguarded from substantial interference.

The telephone companies owning lines which have been constructed and placed in operation, have already acquired certain rights in our public highways which must be respected. The transmission line companies have not acquired the right to occupy the highways, except as authorized by this Commission, and this Commission may grant their "application either as a whole or in part, or upon such conditions as to terms and location as to the Commission may seem right and just." Sec. 2120-N of the Supplement to the Code.

SUMMARY.

Cost of Eliminating Interference.

It is very easy to misapply the doctrine of the cases, or text writers, on this subject by failing to give heed to the question whether the remarks relate to a company having superior rights, or to those of a company on a parity with the other company. A second source of confusion is failure to note whether the relief sought is an absolute injunction against all operation, or mere protection against interference.

The law in regard to this subject has been accurately summarized by Mr. Francis Raymond Stark in the *Cyclopedia of Law and Procedure* in the following language:

"In a proper case a telegraph or telephone company may have relief by injunction against injury to its lines by induction or conduction from the lines of a high tension company not having a prior or otherwise superior right in the streets; but if the latter company cannot guard against the interference except at great expense, and the telegraph or telephone company can do so by the adoption of a safe and comparatively inexpensive device, an injunction will not be granted, although the telegraph or telephone company may recover the cost of procuring and installing such device." 37 Cyc. 1649 (1911).

We have found no case which holds that a telephone line, or any other electric company, must pay the cost of any mechanical device which will protect it from induction or conduction, occasioned by proximity to high tension electric wires, when the latter do not have superior rights (as facilitating public travel), and do not have the advantage of prior occupancy. That a company having prior occupancy does not have to pay such costs, has been held, as to boxes or conduits, for the wires of one or the other system at crossings (*Neb. Tel. Co. v. York Gas Co.*, *supra*); as to guard wires (*idem*); as to the removal of the wires of one or the other system to the other side of the highway (*Bell Telephone Co. v. Bellville Elec. Light Co.* *supra*); as to slugs (*Western Union Tel. Co. v. Guernsey, etc.*, *supra*); and as to the McCluer device (*Cumberland Tel. & Tel. Co. v. United Electric R. Co.—the Tennessee Case—supra*); Deiser on *Conflicting Uses of Electricity*, 82. All of these have been quoted from extensively on the preceding pages.

OUR JURISDICTION.

By act of the Iowa State Legislature, this Commission is given power of supervision not only over the location of transmission lines, but also over their construction, maintenance, and future operation. Further, the Iowa statute specifically prescribes that the transmission lines shall be constructed "so as not to interfere with the use by the public of the highways or the streams of the state." (Secs. 2120-n, 2120-p, 2120-r Supp. Code of Iowa.)

A telephone company as a part of the public, has a right to its location in the public highway, and is entitled to protection by the proper state authorities from being molested or interfered with substantially by a high tension transmission line.

If a new invention, like the transmission line for the transfer of light, heat and power for long distances, is an economic benefit to society, it should be able to pay its own way. These principles may not apply to telephone lines within city limits. That issue is not before us, and is not decided.

What is reasonable in towns or cities may not be reasonable in the country. It may be reasonable to require all wooden structures to be rebuilt with fireproof material in the congested districts in the towns and cities in Iowa. But it would be unreasonable to make a similar requirement of the farm houses in Iowa.

From the foregoing, we reach the following conclusions:

A telephone or telegraph company, because of prior occupancy, does not have a right in the highway superior to that of a company facilitating ordinary travel.

But a telephone or telegraph company having prior occupancy, does have a right in the highway superior to that of another telephone or electric company exercising an equal or similar franchise. This superiority does not go to the extent of giving an exclusive right to the first company. But this superiority does carry with it the right to be protected from unreasonable interference by the later company.

A telephone or telegraph company having been the first to build its line in a given public highway or along a certain private right of way, is entitled to continue the usual, ordinary operation of its plant in that location without any interference of a substantial character from any transmission line constructed at a later date in close proximity to its said line.

Ordinarily a high tension transmission line causes substantial interference with the operation of a telephone line paralleling for a considerable distance, and in close proximity to, the transmission line, unless the transmission line is properly constructed, well balanced as to both voltages and current, the telephone line is on a metallic circuit, the two lines are separated by at least the width of the highway, and they are properly transposed with relation to each other.

There may be exceptions, but what we have stated is the rule; it is the usual, natural, probable condition. And the interference is not inconsequential; but it is definite, positive, and material.

The weight of authority would be against an injunction by a court, or, what would be an analogous action, a refusal by this Commission to grant a franchise, thereby causing the abandonment of a transmission line, when a reasonable, practical method exists whereby the interference can be substantially eliminated at slight expense.

The welfare of society demands that the latter course be pursued, and the weight of authority supports this doctrine.

It is of prime importance that these electric companies should cooperate with each other in reducing the interference; and it will be our purpose to enable, if possible, both classes of companies to occupy the public highways in common. The telephone companies should move to the opposite side of the road where necessary to make room for the proper construction of a transmission line; and ordinarily a telephone line on a grounded circuit should be made metallic; and proper transpositions should be installed. If it be found necessary to make the grounded circuit telephone line metallic for part or all of its length in order to remove the interference; and to install proper transposition to render the telephone service reasonably satisfactory; then the cost of removal, transposition, and making metallic shall be borne by the transmission line company. The equitable division of other necessary expenses shall be determined by the Commission after considering all of the factors involved.

If, as is frequently the case, the telephone line is in a dilapidated, worn out condition, poles rotted, insulators gone, etc., no part of the cost of rehabilitating the line should be borne by the transmission line company. That is an expense which must be met by the telephone company in all cases. This principle will be observed in the apportionment of costs.

This Commission has no power to order a telephone company to install a metallic circuit or the McCluer device, to move its line to the other side of the highway, to fix up its line, or to transpose its wires; it has no power to award or collect damages; and it has no power to enforce contracts. But the Commission can prescribe the terms and conditions upon which transmission franchises shall be granted, and it has power to direct the manner of construction, maintenance and operation of transmission lines. It will endeavor to protect telephone and telegraph companies from all unreasonable interference, provided they do their part. And it will grant franchises to transmission line companies on condition that they comply with these requirements for the protection of other electric companies from unjust and unreasonable interference.

In this proceeding we make no findings as to transmission lines of less than 5,000 volts, for the record is insufficient upon which to base intelligent conclusions upon that subject.

IOWA BOARD OF RAILROAD COMMISSIONERS,
CLIFFORD THORNE, *Chairman*.
E. D. CHASSELL, *Commissioner*.

ATTEST: GEORGE L. MCCAUGHAN, *Secretary*.
Des Moines, Iowa, December 30, 1916.

NOTE A:

The notice for the hearing in this proceeding contained the following statement:

The Commission particularly desires information and discussion on the following subjects:

- 1st. The various causes of substantial interference with the service of telephone and telegraph lines by high power transmission lines.
- 2nd. The various methods of preventing interference with telephones and telegraph lines by high power transmission lines, together with approximate cost of same.
- 3rd. The technical difference between induction and conduction.
- 4th. Accepted standard of construction for electric transmission lines.
 - (a) In cities and towns.
 - (b) In rural districts outside of cities and towns.
- 5th. Accepted standard of construction for telephone lines.
 - (a) In cities and towns.
 - (b) In rural districts outside of cities and towns.
- 6th. Accepted standard of construction for telegraph lines.
- 7th. Under what circumstances, if any, and on what conditions, should overbuilding be permitted?

8th. What methods should be adopted for safety of employes and public, as well as protection of electric lines, against interference, where transmission lines and telephone, or other electric lines, cross each other? Give methods and devices in detail with cost of same.

9th. In case of a paralleling of a telephone or telegraph line by a high power transmission line, what steps are necessary to be taken by either, or both lines, for the protection of the safety of employes, and of the public, and for the protection of the telephone and telegraph lines, from interference by the transmission line, of a substantial character? Give methods and devices in detail, with cost of same.

In addition to the above enumerated subjects, the Commission will hear discussion of any other questions arising from the exercise of its jurisdiction under the provisions of Sections 2120-n to 2120-t, inclusive, Code Supplement, 1913.

Immediately following the discussion of the questions in relation to the construction and operation of electric transmission lines, hereinbefore set out, the Commission will hear arguments of attorneys representing various interests affected, on legal questions arising from the exercise of its power under the provisions of Section 2120-n to 2120-t, inclusive, Code Supplement, 1913, with particular reference to the following:

(a) Does the prior occupancy of a highway by any telephone or other electric line give such company a superior right to the use of said highway such as to protect it against interference of a substantial character by a subsequent electric company of a similar or equal character, said subsequent company having no connection with public travel?

(b) If the said interference can be substantially eliminated, at a reasonable expense, which company should bear the said expense, the company originally occupying the said highway, or the new company?

Prior to the public hearings a committee was appointed composed of representatives of the following companies:

Iowa Section National Electric Light Company,
The Western Union Telegraph Company,
American Telephone & Telegraph Company,
Iowa Telephone Company,
Association Railway Telegraph Superintendents,
Iowa Independent Telephone Association,
Postal Telegraph & Cable Company.

This committee filed with the Commission a proposed set of rules to govern the construction where crossings or parallels occur. These rules are largely taken from the report of the Committee on Overhead Line Construction of the National Electric Light Association at its thirty-fourth annual convention, the Rules Adopted by the Idaho State Railroad Commission, and the Report by the Committee on Inductive Interference to the Railroad Commission of the State of California.

It will be noted that none of the farmer lines were represented on the committee which drafted the rules. There are several thousand farmer telephone companies operating in the state of Iowa.

Subject to a few modifications, especially in regard to grounded circuit telephone lines, the rules as presented by the aforesaid joint committee are hereby adopted.

The rules as modified are as follows:

RULES FOR THE CONSTRUCTION OF OVERHEAD HIGH TENSION LINES CROSSING OR PARALLELING OVERHEAD TELEPHONE AND TELEGRAPH LINES; AND FOR CROSSINGS OF ELECTRIC LIGHT AND POWER LINES OVER RAILROADS.

SCOPE.

These rules are intended to be observed in so far as they apply in the construction, operation and maintenance in all cases of conflicts as hereinafter defined, between high tension lines and telephone and telegraph lines, and further these rules shall apply to crossings of electric light and power lines over railroad tracks and rights of way.

The art of high tension transmission has not reached a stage of development where there is unanimity of opinion among power engineers as to the best methods to employ for various features of crossing construction. It is therefore recognized that some cases of conflict will arise in which the rules will be inapplicable as to certain features, and in such cases it will be necessary for the parties at interest to make special agreements as to the methods to be followed; and in case they fail to agree the matter may be referred to the State Railroad Commission for determination.

It should also be recognized that the rules are, in general, minimum requirements, especially with regard to clearance and strength, and that in practice the construction should be somewhat better than these minimum requirements.

DEFINITIONS.

High Tension Line. For the purposes of these rules, high tension lines are defined as follows:

- (a) Constant potential, alternating current circuits, not grounded, exceeding 5,000 volts between conductors.
- (b) Constant potential circuits with one side or neutral grounded, exceeding 2,500 volts to ground alternating, or 750 volts to ground direct current.

Conflicts. Conditions constituting conflicts are as follows:

- (a) *Crossings:* Any point of crossing between overhead high tension lines and overhead telephone or telegraph lines.
- (b) *Overbuilding or Overbuild:* A section of any length where a high tension line or lines and telephone or telegraph line or lines follow substantially the same course and the horizontal separation between the two classes of lines is less than the height of the taller pole line; provided, however, that lines on opposite sides of a highway, street or alley are not conflicting in the sense of overbuilding, if

separated by a distance of not less than sixty (60) per cent of the height of the taller pole line, but in no case less than twenty (20) feet.

- (c) *Parallel:* Wherever overhead high tension lines and overhead telephone or telegraph lines follow substantially the same course and the physical and electrical characteristics of the parallel are such that there is a probability of substantial inductive interference with the telephone or telegraph service, conditions of conflict exist. The length and separation of parallel which are likely to give such inductive interference depend greatly on local conditions, and cannot be specified with certainty without specifying details of wave shape, balance of power circuits, etc., which are not usually known in advance.
- (d) *Transposition:* By transposition is meant a point where the line wires interchange pin position. In a three phase line three transpositions in the same angular direction or rotation constitute a spiral or barrel.

GENERAL RULES REGARDING CONFLICTS.

Neither class of line (high tension on one side against telephone or telegraph on the other side) shall be located in such proximity to lines of the other class as to create a condition of overbuilding as defined under Conflicts above, except in very short sections where it is impossible to do otherwise.

At crossings between the two classes of lines and in unavoidable cases of overbuilding the methods of construction shall conform to the rules given in Section 1 hereof.

New parallels between high tension lines and long distance telephone or telegraph lines shall not be created in any case where the use of another route involving less parallelism is equally practicable, all things considered.

In the case of a proposed parallel with telephone and telegraph lines, a reasonable increase of initial construction cost will be justified in order to avoid interference; however, this matter can only be determined in specific cases after all characteristics of the proposed parallel are known.

Where long distance telephone or telegraph service is involved in parallels, the construction, operation and maintenance of the system involved in such parallels shall be in accordance with the rules given in Section 2, insofar as they are applicable to the conditions involved in any specific case; but they may be modified by the State Railroad Commission.

The methods of construction provided for in Appendix "A" hereof shall be used in electric light and power lines at crossings over railroad tracks and rights of way.

SECTION 1.

POWER LINE CROSSINGS WITH TELEPHONE AND TELEGRAPH LINES.

- Scope:* These rules shall apply to crossings of lines carrying Class A wires over Class C lines and subject to the conditions of Paragraph No. 3, to Class C lines over Class A lines and to overbuilding as hereinbefore defined.
- Classification: Class A:* This includes all circuits hereinbefore defined as high tension. *Class C:* Telephone, telegraph or signal wires employed in the service of the public, not exceeding 375 volts to ground.
- Relative Position of Lines:* At crossings Class A conductors shall, wherever practicable and right-of-way and ground contour will permit, be above Class C conductors. Where it is necessary to employ the reverse arrangement the Class C line shall conform, insofar as mechanical strength is concerned, to the requirements of these specifications. (Nothing herein shall be construed to prohibit the crossing under of Class C lines by high voltage trolley contact wires and their associated feeders.)
- The length of the crossing span where practicable shall be not greater than the normal span of the line.
- The poles or towers shall be located as far as practicable from inflammable material or structures.
- The poles or towers supporting the crossing span, and the adjoining span on each side, preferably shall be in a straight line.
- The use of nets, baskets, cradles, overhead bridges or dropouts is prohibited as dangerous, due to sleet and snow loads and from high winds.
- Clearance:* The vertical clearance between crossing conductors and conductors crossed shall be maintained under all conditions of loading and temperature not less than the values shown in the following table.

Voltage of Circuit.	Length of Crossing Span		
	Less than 150'	150' to 300'	More than 300'
Below 7,500	4	5	8
7,500 to 70,000	6	6	8
Exceeding 70,000	7	8	10

- The separation of Class A conductors shall be not less than the following:

Line Voltage	Separation	
	With Pin Insulators	With Suspension Insulators
Not exceeding 6,600 volts	14½ in.	.....
Exceeding 6,600 but not exceeding 14,000	16 in.	.....
Exceeding 14,000 but not exceeding 27,000	30 in.	36 in.
Exceeding 27,000 but not exceeding 35,000	36 in.	42 in.
Exceeding 35,000 but not exceeding 47,000	45 in.	54 in.
Exceeding 47,000 but not exceeding 70,000	60 in.	72 in.
Exceeding 70,000 but not exceeding 110,000	77 in.	96 in.

Note: This requirement does not apply to wires of the same phase or polarity between which there is no difference of potential.

With constant potential, direct-current circuits not exceeding 750 volts, the minimum spacing shall be ten inches (0' 10").

10. When supported by insulators of the disc or suspension type, the crossing span and the next adjoining spans shall be attached at the crossing poles, or towers by double strings of disc insulators. These strings may be used either in the strain or suspension position. One additional unit shall be added to each string when used in the strain position.

11. The clearance in any direction between conductors supported on pin insulators and the pole, or tower, shall be not less than:

Line Voltage	Clearances
Not exceeding 14,000 volts.....	9 inches
Exceeding 14,000 but not exceeding 27,000.....	15 inches
Exceeding 27,000 but not exceeding 35,000.....	18 inches
Exceeding 35,000 but not exceeding 47,000.....	21 inches
Exceeding 47,000 but not exceeding 70,000.....	24 inches
Exceeding 70,000 but not exceeding 110,000.....	30 inches

For conductors supported by disc type insulators and not dead ended at the poles or towers, the above clearances shall be increased by $\frac{3}{4}$ the length of the string of insulators unless suitable provision is made to prevent the conductors from swinging.

12. *Conductors:* The normal mechanical tension in the conductors generally shall be the same in the crossing span and in the adjoining span on each side, and the difference in length of the crossing and adjoining spans generally shall not be more than fifty per cent of the length of the crossing span.

13. The conductors shall not be spliced in the crossing span nor in the adjoining span on either side.

14. The method of supporting the conductors at the poles or towers shall be such as to hold the wires, under maximum loading, to the supporting structures, in case of shattered insulators, or wires broken or burned at the insulator, without allowing an amount of slip which would materially reduce the clearance specified in paragraph No. 8.

15. Lines using wood crossarms shall be double armed at crossing poles. Where single steel arms are used they shall be suitably connected to a well made ground.

16. *Guy:* Wood poles supporting the crossing span shall be guyed in both directions if practicable and right-of-way conditions permit and be head guyed away from the crossing span. The next adjoining poles shall be head guyed in both directions if practicable. Braces or push guys may be used.

17. Strain insulators shall be used in guys from wooden poles carrying any power wire less than 6,600 volts. Strain insulators shall not be used in guying steel structures, nor required on wood poles carrying wires all of which are 6,600 volts or more.

18. *Clearing:* The space around the poles or towers shall be kept free from inflammable material, underbrush and grass.

19. *Temperatures:* In the computation of stresses and clearances and in erection, provision shall be made for a variation from -20 degrees Fahrenheit to +120 degrees Fahrenheit. A suitable modification in the temperature requirements shall be made for regions in which the above

limits would not fairly represent the extreme range of temperature.

20. *Loads:* The conductors shall be considered as uniformly loaded throughout their length, with a load equal to the resultant of the dead load plus the weight of a layer of ice one-half inch ($\frac{1}{2}$ " in thickness, and a wind pressure of 8.9 pounds per square foot on the ice-covered diameter, at a temperature of 0 degrees Fahrenheit.

21. The weight of ice shall be assumed as 57 pounds per cubic foot (.033 pounds per cubic inch).

22. Insulators, pins and conductor attachments shall be designed to withstand, with the designated factor of safety, a pull in the direction of the crossing equal to the tension in the conductors under the maximum loading.

23. The poles or towers shall be designed to withstand, with the designated factor of safety, the combined stresses due to their own weight, the wind pressure on the pole or tower, and the above wire loading on the crossing span and the next adjoining span on each side. The wind pressure on the poles or towers, shall be assumed at 5 pounds per square foot on the projected area of round poles and 13 pounds per square foot on plane structures, and one and one-half ($1\frac{1}{2}$) times the projected area of latticed structures.

24. The poles or towers supporting the crossing span shall be designed to withstand at all times without failure the unbalanced stress due to the combined pull, toward the crossing of all conductors supported, the pull in each conductor being taken as the tension due to the specified load.

25. *Crossarms:* Crossarms on the crossing poles or towers, including their fastenings to the poles or towers shall be designed:

- (a) To withstand with the designated factor of safety (paragraph 27) the stresses produced by the conductors under the specified loading (paragraph 20).
- (b) To withstand at all times without failure, the unbalanced stresses due to the combined pull in one direction of the several conductors supported, the pull of each conductor being taken as the tension in that conductor due to the specified load. (Paragraph 20.)

26. The poles or towers may be permitted a reasonable deflection under the specified loading, provided that such deflection does not reduce the clearance specified in paragraph No. 8 more than 25 per cent or produce stresses in excess of those specified in paragraphs Nos. 23 and 24.

FACTORS OF SAFETY.

27. The ultimate unit stress divided by the allowable unit stress shall be not less than:

Wires and cables	2
Pins	2
Insulators, conductor attachments, guys	3
Wood crossarms	4
Wood poles, side guyed	4
Wood poles, not side guyed.....	6
Structural steel	2 $\frac{1}{2}$
Reinforced concrete poles and crossarms	4
Foundations	3

28. *Conductors:*

Conductors shall be of copper, copper covered steel, aluminum, steel reinforced aluminum, galvanized steel or other corrosion resisting material, provided however that galvanized steel shall not be used in localities where conditions are such that excessive corrosion would occur.

29. The minimum sizes for conductors of the crossing and adjoining spans shall be as follows:

Copper or copper covered steel:

Spans less than 100' No. 6 B & S. solid, medium hard drawn.

NOTE: Where impracticable to obtain 100 foot span due to difficulties in pole location No. 6 B. & S. medium hard drawn copper may be used in spans up to 125 feet in length.

Spans 125' and over No. 4 B. & S. medium hard drawn.

Aluminum:

No. 6 copper equivalent steel reinforced aluminum (No. 4 Al. S. R.)

subject to the same limitations as No. 6 B. & S. M. H. D. copper.

Not reinforced No. 1 B. & S. Gauge.

Galvanized Steel:

Spans of any length $\frac{1}{4}$ " diameter.

For crossings 150 feet or more, all conductors to be stranded. All aluminum conductors and all galvanized steel conductors to be stranded.

30. *Insulation:* The conductors of Class A lines as heretofore defined shall be considered to be insulated when mounted upon, or fastened to, insulators mounted upon any structure and shall not be required to be covered throughout any portion of their length by any insulating material of any kind. Insulators on power lines shall be the product of reputable and well-known makers, and at crossing supports shall be preferably of porcelain, although by agreement of both parties other material may be used.

31. The insulators shall be so designed that their dry flash-over voltage is not more than 75% of their puncture voltage, at 60 cycles frequency.

32. Insulators shall be designed to withstand without flash-over at a frequency of 60 cycles the voltage as shown in the following table:

Voltage of Circuit	Dry	Wet
5000	20000	15000
7500	30000	22000
11000	40000	30000
22000	75000	55000
33000	105000	75000
44000	135000	95000
55000	160000	115000
66000	185000	135000
88000	235000	170000
110000	285000	205000
150000	375000	270000
200000	490000	355000

For intermediate voltages obtain the dry flash-over by interpolation. By the term "wet" is meant a condition equivalent to a precipitation of 1.5 inch of rain per minute, at an angle of 45 degrees to the axis of the insulator.

33. Each completed pin insulator for line voltages of over 15,000 and each completed suspension insulator disc shall be subjected to a factory test at dry flash-over voltage and at a frequency of 60 cycles for 3 consecutive minutes, or this test may conform to any other method generally sanctioned by good modern practice.

34. Strain insulators when used in guys, shall be of the interlocking type and of a mechanical strength at least equal to that of the guy in which they are installed.

35. Test voltages above 35,000 volts shall be determined by the A. I. E. Standard Spark-Gap Method, below 35,000 volts by transformer ratio.

36. *Pins:* Insulator pins shall be of steel, wrought iron, or malleable iron and shall be galvanized or otherwise protected from corrosion. Cast iron pin bases may be used. Pins of locust, eucalyptus or other equally durable wood may be used, provided conditions are such that digestion or rapid deterioration of wood pins does not occur.

37. *Guys:* Guys shall be galvanized or copper covered stranded steel cable, not less than 5-16 inch in diameter, or galvanized rolled rods of equivalent tensile strength.

38. *Anchors and Anchor Rods:* Anchors shall, if soil is wet, boggy or sandy, and of such character that patent anchors would not hold, be of the log type. Approved patent anchors may be used in suitable soils. Anchor rods shall be not less than $\frac{3}{4}$ inch diameter, galvanized, and not less than 6 feet long.

39. *Wood Poles:* Wood poles shall be of selected timber peeled free from defects, which would decrease their strength or durability, and well proportioned from butt to top.

40. *Concrete:* All concrete and concrete material shall be in accordance with the requirements of the Report of the Joint Committee on Concrete and Reinforced Concrete.

41. *Structural Steel:* Structural steel shall be in accordance with the Manufacturers' Standard Specifications.

42. The design and workmanship shall be strictly in accordance with first-class practice.

43. The form of the frame shall be such that the stresses may be computed with reasonable accuracy, or the strength shall be determined by actual test.

44. The section used shall permit inspection, cleaning and painting, and shall be free from pockets in which water or dirt can collect.

45. The length of a main compression member shall not exceed 180 times its least radius of gyration. The length of a secondary compression member shall not exceed 220 times its least radius of gyration.

46. The minimum thickness of metal in galvanized structures shall be one-quarter inch ($\frac{1}{4}$ ") for main members and one-eighth inch ($\frac{1}{8}$ ") for secondary members.

The minimum thickness of painted material shall be one-quarter inch ($\frac{1}{4}$ ") for main members and three-sixteenth inch ($\frac{3}{16}$ ") for secondary members.

47. *Protective Coatings:* All structural steel shall be thoroughly cleaned at the shop and be galvanized, or given one coat of approved paint.

48. *Painted Material:* All contact surfaces shall be given one (1) coat of paint before assembling.

All painted structural steel shall be given two (2) field coats of an approved paint.

The surface of the metal shall be thoroughly cleaned of all dirt, grease, scale, etc., before painting, and no painting shall be done in freezing or rainy weather.

49. *Hardware and structural materials* which require galvanizing shall be galvanized in accordance with the specifications of the American Telephone and Telegraph Company.

50. *Foundations:* Foundations for poles and towers, supporting the crossing spans, shall be adequate to withstand the designated factor of safety (Par. 27) the maximum stress to which they are subjected when the structures and conductors, which they support are loaded as set forth in paragraphs 20, 21, 22, 23, 24, 25 and 26.

In no case shall poles be set directly in the ground to depths less than those shown in the following table:

Length of Poles in feet	Depth in Earth	Depth in Rock
25	4.5	3.0
30	5.0	3.5
35	5.5	4.0
40	6.0	4.0
45	6.5	4.5
50	7.0	4.5
55	7.5	5.0
60	8.0	5.0

51. When located in soft or swampy ground, the setting of poles shall be suitably reinforced. This may be done by setting in barrels of broken stone or gravel, or in stone or timber footings, or by other equally effective method.

SECTION 2. POWER LINE PARALLELS WITH TELEPHONE AND TELEGRAPH LINES.

1. The specific means of avoiding or reducing inductive effects which are outlined below shall be applied to each case insofar as is necessary for the sufficient reduction of the inductive interference. In case the parties at interest shall, in any case, fail to agree upon the application of these means to a specific case the matter shall be referred to the State Railroad Commission.

2. *Notification of Proposed Parallels:* The party proposing to build a new telephone, telegraph or power line which will create a parallel, or to generally reconstruct such existing line shall give due notice (at least thirty days whenever possible) of its intention to the other party, including detailed information of the location and character of the proposed line. Such notice shall be in writing.

3. *Separation of Lines:* In locating new lines or reconstructing existing lines, power lines shall be separated from telephone and telegraph lines with as great a distance as practicable and a uniform separation shall be maintained throughout the parallel unless a substantial increase

of separation for a considerable portion of the distance can be obtained by departing from this rule. In all cases the separation must be by at least the width of the highway, unless special permission to construct the line otherwise shall first be secured from the State Railroad Commission.

4. *Conductor Arrangement:* Except for changes at authorized transpositions, each line involved in a parallel shall maintain a uniform arrangement of conductors throughout the parallel section, if possible.

5. *Transpositions:* An adequate system of transpositions shall be installed in the power circuit or circuits and also in the telephone or telegraph circuits provided these are metallic. If the telephone line is on a grounded circuit it shall be equipped with a metallic circuit unless a special order to the contrary is made by the State Railroad Commission.

Within the limits of the parallel the transpositions in each line shall be located with due regard to those in the other line, if any, and with due regard to the limits of the parallel in order to form as nearly as practicable a balanced system; outside the limits of the parallel, power circuits isolated from ground shall be transposed in such manner approximately every two miles as will equalize the electrostatic capacities to ground of the several conductors. The owner of the telephone or telegraph line involved in any parallel shall have the right to specify the location and electrical characteristics of the transpositions to be installed in the power line, except that he may not specify more frequent power transpositions than is indicated in the following table. This provision does not apply to lines of more than 70,000 volts potential, which cases must be given special consideration because of the large expense of transpositions and the severity of the inductive effects.

Kind of Line	For Power Lines	
	on Suspension Pin Insulators	on Suspension Insulators
	Distance in Miles	Distance in Miles
Telephone	Average 1/6	Average (Note 1)
Telegraph	1	1

Note 1: To be determined by the Commission in case of disagreement.

Note 2: In many cases existing transposition systems in the telephone line can be utilized with little or no change if the power line transpositions are so designed as to coordinate with them.

6. *Power Apparatus:* The power company shall, so far as practicable, use in connection with any power line involved in a parallel with telephone or telegraph lines or located on or in close proximity to any public highway, only those types of apparatus such as generators, motors, switches, transformers and transformer connections and lightning arresters, as will produce the minimum amount of inductive disturbance in a telephone or telegraph circuit. This rule shall be construed as prohibiting, in such cases, the use of grounded single-phase and grounded open-star transformer connections, and grounded star connected three-phase transformer banks unless these are provided with closed delta secondary or tertiary winding.

It shall also be construed that in purchasing new generators and motors the power company shall make every effort to obtain apparatus giving as nearly as possible pure sine waves of voltage at fundamental frequency, and in no case shall the deviation therefrom exceed the limit fixed by the Standardization Rules of the American Institute of Electrical Engineers; and further, in order that the wave shapes of voltage and current may be distorted as little as practicable by transformers, the main line transformers employed shall have an exciting current as low as is consistent with good practice, and in no case shall the exciting current at rated voltage exceed ten per cent of the full load current. Such transformers shall not be operated at more than ten per cent above their rated voltage.

To avoid high frequency oscillations, electrolytic lightning arresters shall be charged by metallic contact through a charging resistance rather than through an arc between the horn gaps.

7. *Balance of Power System:* The owner of any power system which is involved in a parallel with telephone or telegraph lines shall construct, maintain and operate the power system in such a manner that the currents in, and the voltage to ground of, the line conductors will be kept as closely balanced as may be practicable. Some of the means for attaining this are:

- (a) The proper distribution among the phases of single phase loads on polyphase circuits.
- (b) For switching on the system while under load the use only of oil switches having all poles interconnected for simultaneous action; except that infrequently operated switches at small substations may be of the air brake type with poles mechanically interconnected for simultaneous action.
- (c) With power system electrically isolated from ground the installation of reliable indicating devices, so that the operator may be immediately informed of abnormal conditions on the line.
- (d) The installation, wherever neutral ground connections are employed, of suitable devices for measuring the current in the neutral under normal operating conditions at the main generating and substations.
- (e) The re-arrangement of line conductors causing unbalance in the voltage between the power wire and ground, when these cause serious interference with the telephone circuits. This may include the extension of two wires only of a three phase line unless these are insulated from the three phase line by a transformer.
- (f) The maintenance of the power circuit free from leaks caused by branches of trees, defective insulators, or other similar causes.

8. *Other Operating Rules:* The power company shall adopt operating rules which shall particularly outline the procedure for operating employees during times when the power system is subjected to such abnormal unbalances as render the parallel telephone or telegraph lines inoperative. This will usually occur with an open, grounded or short circuited line or transformer winding. Such rules shall in general provide for the discontinuance of operation of the power line until the fault

is remedied, excepting only those cases where it is clear that the service rendered the public by continuing service over this section of power line is relatively of greater importance than that rendered by the telephone or telegraph lines. In formulating such rules, consideration should be given to the matter of discontinuance of the power service only during daylight hours in cases where the faulty condition must continue through a day or more.

When it is necessary to throw power on a defective section of power line, in order to locate the defect, care shall be taken to avoid as far as possible repeated energizing of the section of line which parallels the telephone or telegraph circuits until the fault has been cleared.

SECTION 3. APPORTIONMENT OF EXPENSES.

The division of expenses between the various companies involved in any given crossing or parallel for the construction required above in order to reduce interference or hazard, shall be by special agreement between the parties, in harmony with the decision of the State Railroad Commission in the proceeding entitled "Electrical Interference Between Transmission, Telephone and Telegraph Lines," dated December 30, 1916; but in case the said parties cannot agree, the same shall be referred to the State Railroad Commission for determination.

APPENDIX "A." RAILROAD CROSSINGS.

1. Where electric light and power lines cross over railroad tracks and rights-of-way the requirements of Section 1 shall be observed in the construction of the electric light and power lines.

2. Clearances from and over tracks shall be as follows:

Track clearances where electrical conductors cross railroads.
(Measured upon a line perpendicular to center line of track.)

Side:

- (a) Between main track and pole or tower, 12½ feet.
- (b) Between siding and pole or tower, 8½ feet.

Vertical:

The numbers in following table represent the clearance in feet to be provided by the conductors or wires at the heads of columns, above places specified at the side of the table, for spans not exceeding 150 feet.

Nature of Crossing	Signal, Guys, Spans, overhead ground wires supply lines less than 300 volts to ground	300 volts to ground up to 15,000 volts	15,000 to 50,000 volts	Trolley Contact wires (not feeder cables) (a)
Crossing above track of railroads handling standard freight cars where brakemen are permitted on top....	25	28	30	22

(a) Associated feeder conductors, 25 feet.

(End of Rules Prescribed for Crossings and Parallels.)

SUMMARY OF EVIDENCE.

A summary of some features of the evidence, in addition to that given in the opinion, may be of some value.

It was established, as stated in the text of the opinion, that interference of a substantial character usually results from a close parallelism of a transmission line and a telephone line for a considerable distance, unless the two lines are separated by at least the width of the highway, the telephone line is on a metallic circuit, the wires of the two lines are properly transposed with relation to each other, and both lines are properly constructed and in good condition. There may be exceptions.

Two injurious effects are produced by this interference: First, noise is produced in the telephone circuit, and second, the apparatus of the telephone circuit is frequently broken down if the inductive interference is of sufficient magnitude. These effects vary with different types of machines, and with different machines of the same type.

These facts are not fundamental to the operation of the power circuit, but are frequently due to the character of the construction of the power apparatus in a given case.

In the event that substantial interference exists with a telephone line on a metallic circuit, it was suggested by a practical operating official that the following steps should be taken:

First, see if the telephone line is in good operating condition; if not, then so fix it, especially as to insulation. If substantial interference still exists, then examine the transposition scheme and determine whether that properly balances the two systems. If not, and it be decided that the transposition scheme is at fault, then correct the transposition. If interference still continues, examine the balance of the power circuit. This involves a critical investigation of the power apparatus itself, and occasioned a large number of suggestions. An effort should be made to improve the balance in both the currents and the voltages of the power circuit. The voltages may be unbalanced, although the currents are balanced. The wave shape of the current should be as nearly perfect as it can be.

As stated by a leading witness, the electrical balance of the power line, meaning by that the prevention of the flow of current in the earth, and the maintenance of equality in the voltages between the different wires of the power circuit and the earth must be maintained in as high a degree as possible.

You should try to prevent, so far as possible, transient or abnormal conditions which produce instantaneous high frequent irregularities or unbalances in the power circuit.

In order to balance the currents, it is well to eliminate connections between the power line and the ground, so far as possible.

Instantaneous high voltages, due to lightning or switching operations of the power circuit, may break down the insulators, and deterioration in the insulators is going on all the time. When the power circuit is grounded, that may put the telephone line out of use, or may so seriously interfere with its practical use as to constitute substantial interference.

Transformers with grounded neutral connection let the current flow

into the ground. These are frequently placed on three-phase lines. On single phase lines the low voltage distributing wires carrying the current from house to house are frequently grounded. One witness testified that all forms of neutral grounded connections, whenever they caused interference, are objectionable.

In order to prevent grounds occasioned by frequent excessive voltages, it is necessary that the insulators be of as great strength as possible. It is generally understood that the voltage break down of the insulator should be about four or five times the operating voltage.

Proper Transpositions.

If there are no grounded connections, then proper transpositions of the wires of the power circuit should be given careful consideration.

Transpositions should be so spaced that in any given parallel there are completely balanced sections; there must be three equal sections, or multiples of three, in order to produce a balance of a three-phase circuit in any given parallel. These three sections are commonly called a "barrel." These sections should be, ordinarily, not over a mile in length. In a single phase circuit there should be two transpositions, or multiples of two, in each parallel. It has been stated by some that shorter transpositions have tended to reduce interference.

If the wires are turned over "clockwise," to the right, in one part of a so-called "barrel;" they should be turned the same direction in the balance of that "barrel;" and if turned in the opposite direction in a part they should be so turned in the balance.

A witness testified that transpositions should be properly placed on a power circuit, where there are no parallels, as well as where there are parallels with telephone lines.

Improving the Wave Shape.

The noise in the telephone line is occasioned, to a very large extent, by little irregularities in the wave shape of the power voltages and currents. These irregularities are caused by the machine generating electrical energy and can be very materially reduced by using better apparatus.

The manufacturers of this apparatus have indicated to the representative of the American Telephone and Telegraph Company that they intend to give greater consideration to this in the future. It is difficult to improve an old type of apparatus already constructed, but some devices have been made which help.

Wishbone Construction.

In the configuration of the power circuit conductors, it is claimed that the equilateral triangle or wishbone construction is much preferable to the verticle or to the flat construction.

Drainage Coils.

Drainage coils on a telephone line have been used to lead off the static induction induced from a transmission line on the telephone line.

Lightning Arresters.

A fourth wire is frequently placed above the three wires of a three phase system. This is sometimes called a lightning arrester, or a static wire. This tends to reduce the amount of trouble on the high tension line due to lightning and lightning discharge during a storm. It also tends to limit the field of influence of the power circuit; and, when properly installed, tends to reduce inductive interference with parallel telephone lines.

It is quite common practice for a power company to take a two wire circuit directly off from a three wire circuit. This unbalances the system and is bad construction where interference is caused. One remedy is to continue the third wire; another is to insert a transformer (which is ordinarily used in power work to change the voltage from one value to another) between the three phase circuit and the two wire circuit, which serves to insulate the latter from the three phase circuit. A similar unbalance is created if a single phase line and a two phase line are taken directly off the same machine, without transformers.

A greater separation and shorter parallels constitute the best methods for reducing electrical interference.

Some of the foregoing propositions are subject to controversy. A summary of evidence given in this footnote, and no portion of the same, is essential to, or a part of, the decision rendered in this proceeding.

During the progress of the investigation, a committee was appointed, composed of the following gentlemen:

William G. Raymond, of the State University, Chairman; C. A. Wright, of Iowa State College, representing Iowa Farmers' Mutual Telephone Protective Association; J. M. Drabelle, of Cedar Rapids, representing the National Electric Light Association, Iowa Section; P. J. Howe, of New York City, representing the Western Union Telegraph Company; F. A. Fish, of Ames, representing the Iowa State College; William Bennett, of Chicago, representing the Association of Railway Telegraph Superintendents; H. S. Osborne, of New York City, representing the American Telephone and Telegraph Company and the Iowa-Telephone Company; Chas. C. Deering, of Des Moines, representing the Iowa Independent Telephone Association.

The purpose of appointing the committee was to investigate electrical interference between transmission, telephone and telegraph lines, and to devise, if possible, some less expensive or more efficient methods for reducing or eliminating interference between these electric lines.

Experiments and research work are being carried on by the American Telephone and Telegraph Company, the federal government, and by a committee in the state of California; but, so far as we are able to ascertain, no experimental apparatus has been constructed for investigating the interference between grounded telephone lines and transmission lines.

If in the future any of these committees are able to devise any new and less expensive methods that will tend to solve this problem of electrical interference, they will be rendering a great service to all interested parties. As yet nothing new of any substantial value has been reported to the Commission.

Guher, Commissioner.

I concur in all of the rules adopted by the majority of this Commission for overhead high tension lines, and overhead telephone and telegraph lines, and for crossings of electric light and power lines over railroads, as adopted December 30, 1916, except that I do not concur in Section 3 of *General Rules Regarding Conflicts*, said Section 3 appearing under the head of "Apportionment of Expenses," and reading as follows:

"The division of expenses between the various companies involved in any given crossing or parallel for the construction required above in order to reduce interference or hazard, shall be by special agreement between the parties, in harmony with the decision of the State Railroad Commission in the proceeding entitled 'Electrical Interference Between Transmission, Telephone and Telegraph Lines,' dated December 30, 1916; but in case the said parties cannot agree, the same shall be referred to the State Railroad Commission for determination."

And I dissent from the ruling of the majority, which provides as follows:

"If it be found necessary to make the grounded circuit telephone line metallic for part or all of its length, in order to remove the interference, and to install proper transposition to render the telephone service reasonably satisfactory, then the cost of removal, transposition and making metallic shall be borne by the transmission line company."

Without going into all the details of this matter, I want to discuss it briefly. The question dealt with in the majority opinion on this subject is the matter of interference, by induction, to grounded telephone lines, caused by what are known as transmission lines, where the same are each in the highway and are parallel for a considerable distance.

Where the wires of two or more electric lines are suspended parallel to each other, the more powerful and changing current in the wires of one line induces a current upon the other wire, which produces variations in the weaker line corresponding to those upon the stronger wire. This is called induction. In many instances its effect is such as to prevent the successful transmission of messages over telephone wires. The injury to a telephone line, due to induction, can be avoided by making the telephone line a full metallic circuit, and eliminating the effect of the parallelism by transposition. That is, for illustration, where a power line and a telephone line are parallel, one on each side of the highway, the telephone line a full metallic circuit, the lines are so built that for certain regular distances the outside wire of the one line is so transposed on its poles or cross arms that it becomes an inside wire of the line, and the inside wire is carried to the outside of the pole, and becomes the outside wire. If such transposition is properly done by each of such parallel lines, ordinarily, the interference by induction is overcome.

The use of the earth for the purpose of forming the return section of an electric circuit is a right which is common and universal, and of which no person can be permitted to have an exclusive privilege or

monopoly. Such use enables what is known as a grounded telephone line to be built, using but a single wire, the return circuit being furnished by grounding or connecting each end of such wire with the earth. While such construction is cheap, yet it has the objectionable feature that every other person may rightfully construct the same kind of line in the same community, using the earth for his return circuit; and it has the further objectionable feature in that, if it be parallel with other electric using lines, it cannot be transposed.

In nearly all cases, the troubles of a grounded telephone line, consequent upon such line being parallel to a transmission line along a highway, may be overcome by making the telephone line a full metallic circuit and properly transposing the line.

The Nebraska Railway Commission, *In re Lincoln Telephone and Telegraph Company*, in its ruling made July 15, 1915, and reported in *Public Utilities Reports*, Vol. 1915-D, 803, said:

"The first type of telephone that became commercially successful was that commonly referred to as the grounded system * * * Under favorable conditions, this system affords efficient service at a minimum of investment and operating cost. In the operation of such plants, however, serious disadvantages developed, the most serious arising from interference with the talking circuit from electrical currents in the earth. It was found that these currents cause cross-talk between the lines, bring noises of various kinds to the talking circuit, and at times make intelligent communication impossible. Cross-talk is also caused by induction between the wires themselves, and if there are a large number of wires on one pole line this trouble is aggravated. The introduction of currents from an electric generating plant into the field of a telephone system invariably creates havoc with the service * * * The complete metallic circuit overcomes almost entirely the trouble from earth currents, and at the same time, through a transposition of the wires at certain intervals makes possible the prevention of induction from one circuit to another * * * The installation of a metallic system, it will be seen from the above, is a logical step in the development of a telephone plant, and may be rendered imperative by changing physical conditions. While grounded plants are still in very general use, they are rapidly being replaced with metallic equipment * * * The public is gradually demanding a higher standard of service * * * Sooner or later, the patrons of any company will demand metallic service * * * The increasing use of electricity for light, heat and power, makes the future of any grounded plant more or less uncertain and precarious."

And to the same effect the State Public Utilities Commission of Illinois, on October 12, 1916, adopted rules for overhead electrical construction in the state of Illinois known as General Order No. 30. What are known as transmission lines in the state of Iowa are known in the state of Illinois as supply systems, or lines, and telephone lines are known in

Illinois as signal systems, and in "*General Recommendations for the Construction and Operation of Supply Systems and Signal Systems Whose Lines Are Involved in Parallels*," the said Commission, in Section 712 of said General Order, announces as follows:

"Grounded telephone circuits are not regarded as a standard or satisfactory type of construction."

Their announcement is not explained, and I suppose the reasons for such statement are, in part at least, the reasons given by the Nebraska Commission, above quoted.

Under Code Section 2158, any person, firm or corporation may construct a telephone line along the public roads of the state, if so constructed as not to incommode the public in the use of the highway. It would scarcely be claimed that the telephone line first in occupancy of a highway might prevent a second line from being built in and along the same highway. Or if, as the result of the building of a second line, cross-talk and interference occurred to the extent that the first line was substantially interfered with, that the second line should cease operation, or, as an alternative, that it should bear the expense of making the first line a metallic circuit. The principle involved in the illustration just given was announced by our Supreme Court in a case between two telephone companies which were occupying the same public highway. The Court said:

"One trouble to be apprehended is cross-talk, and this is explained as the appropriation by one wire of a message being transmitted over another and nearby wire * * *. Now neither company has the exclusive right to the highway or the streets. Neither has the exclusive right to a particular side of the street or highway. Undoubtedly, the appellee, being first in possession, is entitled to be protected from unreasonable interference." *Northern Telephone Co. v. Iowa Telephone Co.*, 98 N. W. Rep., page 113.

That is, a telephone company occupying a part of a highway cannot be ousted by a subsequent company. It must be permitted to remain and have the right and opportunity to operate its line, but it cannot insist that another company shall not occupy the same highway, even though the operation of the second line might incidentally and naturally "interfere" with the operation of the prior line.

By Chapter 174, Acts of the 35th General Assembly, it was provided that this Commission may grant to any individual or corporation engaged in the manufacture, sale, etc., of electric current for light, power or heating purposes, the right to erect along the highways the poles and necessary construction to conduct the electric current for that purpose.

The rules adopted by the majority of this Commission, and in which I concur, for the construction of transmission lines, provide for a very modern equipment and all approved modern appliances to minimize and prevent interference by induction.

"Where a person is making a lawful use of his own property, or of a public franchise, in such manner as to occasion injury to another, the question of his liability will depend upon the fact whether he has made use of the means which in the progress of science and improvement have been shown by experience to be the best; but he is not bound to experiment with recent inventions, or to adopt expensive devices, when it lies in the power of the person injured to make use himself of an effective and inexpensive method of prevention." *Cumberland Telephone & Telegraph Co. v. United Electric Railway Co.*, 12 L. R. A., 544-50; *Hoyt v. Jeffers*, 30 Michigan, 181.

In a discussion of this subject by Deiser, in his "Law of Conflicting Uses of Electricity," in the first paragraph of page 88, I find this statement, which, it seems to me, is especially pertinent:

"As to injuries inflicted by a railway or other electrical company upon another electrical company using a lower voltage by induction, this in normal cases is an injury resulting from the proper exercise of an electrical franchise, and gives rise to no action unless wantonly done or unless done by placing wires in undue proximity to each other. But if the company injured could protect itself by the use of proper modern devices, it has no standing to require its antagonist to bring its own plant up to a higher degree of efficiency than it is willing to provide for itself."

And on the same page of the same work, I want to call attention to the following:

"Telephone and telegraph companies may procure a certain degree of immunity from disturbance through induction by using the McCluer device or the complete metallic circuit. Such a company therefore can obtain no relief from the courts unless it can show that it is maintaining its plant at a state of efficiency consistent with modern development in electrical apparatus. The Canadian cases suggest a test in this connection that seems final. A company not making use of such appliances is certain to be disturbed sooner or later by some electrical franchise, such as railway, electric light or electric power. It cannot hope to exclude forever all other franchises from its territory merely because it fears disturbance when it has voluntarily kept its own apparatus at a low state of efficiency."

The fact that the Telephone Company was engaged in operating its line long prior to the location, construction and operation of the transmission line, is not controlling in this case.

"One having the prior right must yield his right and submit to damage and inconvenience to some extent for the good of his neighbor and of society." *Thompson on the Law of Electricity*, Page 57. *Lake Shore & M. S. Ry. Co. v. Chicago, L. S. & S. B. Ry. Co.*, 92 N. E., 989 (48th Indiana Appellate Court, 584).

It is upon this principle that civilized society is founded. One must submit to some inconvenience, surrender some liberty, that his neighbor may live in the same community.

"Prior occupancy of a street by an electrical company, with its poles and wires, does not, of itself confer upon the company an exclusive franchise or right to occupy such street, and another company of a similar character, which has obtained a valid franchise, may likewise occupy the streets with its poles and wires. The prior occupant, however, * * * * * does acquire a right which is in the nature of an exclusive one on the continual occupation of the space occupied by its poles and wires, subject to proper control by the state or municipal authorities, and this right must be recognized by the subsequent company in the construction of its line. * * * It is subject to such incidents as result from the exercise of the rights of other companies who have acquired a valid franchise of a similar character. It is implied in such grants as were here made to the first company that the grant is subject to such limitations as will enable another company to enjoy a like franchise, and no property right is invaded by the adoption of such measures by the second company as will enable it to exercise its privilege, provided there is no unreasonable and unnecessary invasion of the operations of the first occupant. For the property right of the first is not to a monopoly. It is bound to exercise its privilege in such a way as to give room to another coming in under the power reserved." *2nd Edition Joyce on Electric Law*, Sec. 372-A.

Joyce, in his work on Electric Law, devotes one chapter to the subject of conduction and induction—interference of wires in which chapter there is an analysis and discussion of the cases involving interference between electric light and other wires, in which he discusses the federal cases, and the cases from Alabama, Illinois, Indiana, Iowa, Minnesota, Missouri, Nebraska, Pennsylvania, Texas and Vermont. And, in Section 517, the author announces his conclusion as follows:

"Upon the question of interference by the electric wires of one company with the wires of another electrical company, the following general rule may be stated, being clearly sustained by the weight of authority. As between different electrical companies, prior authority to one of the companies to occupy, or prior occupation of the streets, will not confer upon such company an exclusive right. The right of the prior licensee however, must not be substantially invaded by the later company. Such subsequent licensee is under the duty to so maintain its wires and lines as not to interfere with the right of the prior occupant of the streets, to properly maintain and operate its lines and to transact the business it is authorized by its franchise to transact." *Vol. 2, P. 831 2nd Edition Jones on Electric Law*.

"Whenever telephone companies occupy the public streets with their poles and wires, there will, as a matter of course, be some

interference between them. The thing to be guarded against is such an interference as will prevent the practical operation of any one telephone system * * *. To grant any one company the exclusive right to use the streets would be to establish a monopoly." *Chicago Telephone Co. v. Northwestern Telephone Co.*, 65 N. E., 329 (199 Ill., 324).

The state of the art and the development of the telephone, and the general use of electricity produces such a condition that a metallic circuit is regarded as a necessary part of a properly equipped telephone apparatus, in an area where electricity is used for lights, heat or power. And it may be taken as an established principle of law that a telephone company which has not made its line a metallic circuit, or used the McCluer device, will have no standing in court against an electrical company operating in the streets or highways under the provisions of the statutes of this state, where the claimed interference is only incidental and natural to the operation of its line, and not the result of negligence, unskillfulness, or malice.

"While the prior occupancy by a telephone company of space in a street for its poles and wires, under a franchise granted for such purpose, will entitle it to the continual enjoyment thereof, without substantial impairment so long as it continues to perform its obligations, its right to such place is not absolutely exclusive, but is subject to the right of another company to enjoy a like privilege therein granted under the power reserved by the municipality, provided there is no unreasonable or unnecessary interference with the operation of its own line and it will suffer no serious injury therefrom. It is implied in such grants to the first company that the grant is subject to such limitations as will enable another company to enjoy a like franchise and no property right is invaded by the adoption of such measures by the second company as will enable it to exercise its privilege, provided there is no unreasonable or unnecessary invasion of the operations of the first occupant." *Louisville Home Telephone Co. v. Cumberland Telephone & Telegraph Co.*, 111 Fed., 663.

Under the statute of this state permitting telephones to occupy the highway, it is no violation of its right for the state to permit a transmission line to occupy a part of the same highway. The grant given to the telephone company was the right to operate a telephone line. It was not specified that it might operate a grounded telephone line without interference. All the evidence taken in the hearing of this matter is to the effect that a telephone line may be operated on the opposite side of the highway from a transmission line. The only thing required is that a metallic line be used, instead of a grounded system.

When the statute gave the right to the telephone lines to build in the highway, and the company constructed grounded telephone line in such highway, such company did so with knowledge that the state had the right to grant a similar privilege to other electric using companies, and the obligation of the company having the telephone line was to use such

system, appliances and devices as would permit another electric using line to exercise a similar right in the same highway.

In the case of *Cumberland Telegraph & Telephone Co. v. United Electric Ry. Co.*, 93 Tennessee, Page 492, which was a law action to recover damages sustained by the telephone company on account of, first—conduction or leakage; second—induction; third—expense of raising line to avoid conflict of poles and wires, the court, in discussing the claim for damages for induction, said:

"The loss by induction cannot be imputed to any fault or negligence of the defendant. Its plant was, as regards this matter, properly constructed and operated. Defendant could not obviate induction without abandoning the streets where it occurred."

Recovery was not permitted for the claimed damages on account of induction.

To adopt the rule announced by the majority of this Commission, would be to say that the grounded telephone lines may disregard the development of the telephone and continue to use a grounded line, subjecting itself to interference of modern uses of electricity, or that other uses of electricity must not be had in that neighborhood, the result of which would be to give to it the exclusive use of that highway.

"Where a right is common and universal and capable of being exercised by all at the same time, there is no applicability of the rule that he who in its enjoyment is prior in point of time is prior in right. He who is first in the field does not thereby gain a monopoly of use." *Cincinnati Incline Plane Ry. Co. v. City & Suburban Telegraph Ass'n*, 48 Ohio State, 399.

In the case of *Eastern and South African Telegraph Co. v. Cape Town Tramways Co.*, which was an action brought by the telegraph company against the tramway company for damages for disturbance of the telegraph line, caused by working of the tramway line, and the cost of the appliances to prevent such interference, it was shown that there was a short piece of tramway line which was constructed and operated without express statutory authority. The telegraph line worked without difficulty until the electric tramway began operation, when the disturbance was so serious as to render the use of the telegraph line impossible while the cars were running. None of the apparatus was damaged, but the working of the apparatus was so interfered with as to take away its utility for the time of the interruption. The difficulty was completely overcome by laying what is called a twin core cable for several miles; the two wires rectifying one another's action. The cost of this remedy formed a large part of the claim in the suit. The Supreme Court of Cape Town denied relief to the telegraph company, and it appealed to the House of Lords, which said:

"Certainly there is here no injury of the same genus or species with the tangible and sensible injuries which have hitherto founded liability on the principle in question and which have always constituted some interference with the ordinary use of property. Now the kind and degree of interference with the respondent's property is pretty well illustrated by the fact that

It can only take place if the cable is constructed without certain precautions, for, given the cable as it now is, and there is no injury * * *. It cannot be predicated of the electric escape in question that it is destructive of telegraphic communication generally, but only that it affects instruments made in a certain way. Now, if the instrument be taken as it was when the injury occurred, its nature is such that to insure its immunity from disturbance is a somewhat serious liability to cast on neighbors * * *. The appellants, as licensees to lay their cable in the sea, and as owners of the premises in Cape Town, where the signals are received, cannot claim higher privileges than other owners of land, and cannot create for themselves, by reason of the peculiarity of their trade apparatus a higher right to limit the operations of their neighbors than belongs to ordinary powers of land who do not trade with telegraphic cables. If the apparatus of such concerns requires special protection against the operations of their neighbors, that must be found in legislation; the remedy at present invoked is an appeal to a common law principle which applies to much more usual and less special conditions. A man cannot increase the liabilities of his neighbor by applying his own property to special uses, whether for business or pleasure." *Law Reports Appeal Cases*, 1902, page 381. (The same case is reported in Vol. 2, *British Ruling Cases*, Page 114.)

The telegraph company was not allowed to recover.

It seems to me this Cape Town Case is very applicable to the matter presented to this Commission. The telegraph or cable line worked satisfactorily until the electric tramway or street car line was put into operation, when the irregularity of the current from the car line so interfered with the recording of the signals that they were confused and unreadable. When the twin cable, that is, a metallic circuit, was provided by the telegraph company, the trouble was overcome. The complete apparatus, the line built to meet modern requirements, is not affected.

Attention should be called to the fact that the Cape Town Case, which was decided in 1902, was cited with approval, and largely followed, in the case of the *Lake Shore & M. S. Ry. Co. v. Chicago, L. S. & S. B. Ry. Co.*, 48th Indiana Appellate Court, 584, which was decided in November, 1910.

In *The Belle Telephone Co. of Canada v. The Montreal Street Railway Co.*, which was a law action to recover \$27,827.07 for converting its earth circuit system to a McCluer, or common return system, the court said:

"The current to work a telephone is minute * * *. The apparatus is extremely sensitive in responding to other currents. Even the light current used for telegraphing cannot be grounded near a telephone 'ground' without creating disturbance in the latter * * *. Currents escaping from the defendant's system are apt to, and in fact do, enter the exchanges of the telephone company working on the earth return system. But this only occurs when the telephones have wires leading to the earth or to

the water pipes. Remove the connection made between the exchange and each individual telephone and there is no longer any invasion of the premises, either of the telephone company or of the subscriber * * *. The invitation, indeed the inducement to enter, is removed * * *. When the circuits of the telephones are bunched on a common return (the McCluer) there can be a grounding at the exchange of the common return wire. Plaintiff is thus not deprived of the use of the earth; it only cannot be utilized with efficiency of service if tapped at the thousands of points at which there are telephones.

"To sustain plaintiff's pretention would involve the laying down of the opinion that the earth beneath the streets would have to be preserved for the passage of a current so delicate and so sensitive that it cannot maintain its effective existence if brought into contact or conflict with, or even near to, another current of any superior force." Vol. 10, *Quebec Official Law Reports, Superior Court*, 162.

In addition to the foregoing authorities, I want to call attention to the note on the subject of induction, conduction and electrolysis, on page 135 of *American Annotated Cases*, 1916-A, wherein practically all of the cases relating to this subject have been collected and examined, and the author of said note, on page 136, says:

"The weight of authority on the question of induction appears to be in favor of the rule of nonliability."

On the same page he makes further statement that this rule has not, however, passed unchallenged.

The present widespread and ever increasing application of electricity to commercial uses makes it necessary that every person or corporation who carries electricity along the highways shall so construct the lines as not to impair the exercise by another electric line of its right to use the highway. Any electric circuit, whether it be for telephonic, telegraphic, or power transmission, which employs the ground as a permanent return, renders immunity from interference almost impossible. And it is the duty of the management of the telephone companies, and of the high power companies, to so work together that they may make such disposition and accommodation for their lines as may be economical and mutually advantageous for minimizing or preventing interference.

A telephone line already built in the highway is entitled to that location; and its right thereto should be protected. No other electric using line is entitled to that location without making proper compensation therefor. Our statute authorizes the building and operation of the telephone line; the grounded system is not necessary to its maintenance and operation. There is another method, the use of which will permit others to use the same highway.

The grounded system of telephone is least efficient in meeting and overcoming electrical interference. Indeed, by using grounded lines, and grounding its line at the telephone of every patron, it continually invites the subtle and numberless currents with which the earth becomes

charged. A person may use any kind of telephone apparatus he wishes, so long as his line is in a community in which there are no other electric lines. But it certainly cannot be right for a person to use the equipment which is least efficient in overcoming electrical interference, and then because he happens to be in the highway first, require other people who have modern equipment to stay out of the highway, or pay the expense of making his plant modern. Such action, if permitted, is equivalent, in principle, to giving an exclusive right to the use of the highway. To adopt such holding and make such a rule would be to require the new franchise holder to either stay out or rebuild the grounded line in such a manner that it shall be consistent with the modern development in the art of telephony. The statement of such proposition, it seems to me, discloses the weakness of the position of the majority in this case.

If by reason of its prior occupancy, a grounded telephone line using the highway is authorized by this Commission to say to another electric line which is properly equipped with modern appliances, and which in its operation incidentally affects the telephone, it must either remove from the highway or pay the expense of putting the telephone line in such condition that it will not be affected, we thereby allow such telephone line to become an obstruction in the highway. It will stand in the way of improvement and progress; and be a continual menace to every other person who wishes to use the street or highway for the operation of electrical lines built according to modern methods of construction. Such a telephone line will stand in the way of, and be a charge upon, every person who wishes to use transmission lines to furnish the power to run machinery and light his home.

In my opinion, no general rule on the subject of priority of use of a highway should be adopted by this Commission. Each case, as it arises, should be examined into by this Commission, and such order made as is warranted by the facts of the case.

I have treated this matter, in this opinion, as though the unavoidable result of a parallel between transmission lines and grounded telephone lines, separated by the width of the highway, would be such interference as would prevent the reasonably satisfactory use of the telephone line. In the hearing of this case, however, there was showing to the effect that in some cases telephone lines paralleled by transmission lines, separated by the width of the highway, were not substantially interfered with. The witnesses testifying to such facts seemed to be fair and entitled to credit. If this be the case, it is an additional reason why there should be no rule requiring the transmission line, as a condition precedent, to pay the expense of converting the grounded line into a metallic circuit.

JOHN A. GUIHER,
Commissioner.

ELECTRICAL INTERFERENCE BETWEEN TRANSMISSION, TELEPHONE AND TELEGRAPH LINES.

RULING ON RE-HEARING.

Decided November 3, 1917.

The original decision *held*, generally, that under certain conditions the transmission line companies shall be required to move and make metallic grounded telephone and telegraph lines. That opinion provides for the rehabilitation of a deteriorated telephone or telegraph line by its owner, but does not specifically state that the owner of a grounded line shall make improvements in the construction of such a line if its initial construction was inferior.

In order to make the meaning of the original opinion more clear, it has been modified and the course of reasoning by which this was arrived at is briefly analyzed as follows: A decision in a case of this kind can best be reached by a comprehensive reference to the physical facts and phenomena involved, as now understood, rather than by technical analyses of cases decided by courts many years ago when knowledge on the subject of electricity was much less than at present. No man's property should be permitted to stand in the way of progress, but the property of the individual should not be sacrificed for the good of society at large. The old doctrine that the individual must suffer all the loss, that society may benefit, has gone. The beneficiaries are now expected to give reasonable compensation. A man suffering the loss of an arm in an industrial occupation is compensated for the same and the expense is charged to the cost of production, ultimately being paid by numerous consumers. Until the requirement of the public becomes sufficiently imperative to warrant its paying a fair price for property taken, improvements better be deferred.

The science of electricity is new. Courts must take cognizance of physical facts as well as abstract law to render decisions which will stand as precedents. A large number of legal decisions in cases involving electrical interference have evidently been based upon the belief, by the court, that electric effects are transmitted *through* a wire. The field of electrical influence of a high tension electric transmission line is almost as clearly defined as the zone of influence surrounding many industrial plants; as for example, a boiler factory or an unsanitary slaughter house. This field established by a high tension transmission line varies in extent under different conditions and extends considerable distance *beyond* the transmitting wire.

The wires of a transmission system, when not electrified, generally cause no more interference to a telephone or telegraph line, even though suspended closely adjacent to the latter, than would a metal water pipe similarly situated. The instant that the high tension wires become electrified, their influence becomes effective and may impair or destroy the usefulness of neighboring telephone or telegraph lines. The distortion, from prescribed standards, of the form of the electric waves present on the transmission system, and other operating conditions are wholly beyond the power of telephone or telegraph companies to control.

On re-hearing, the Commission, modifying its original decision, *held*, in order that a grounded telephone or telegraph line may benefit under the principles herein outlined, it must be in good usable condition at the time the electric transmission line assumes the burden of moving it or making it a metallic system. *Held*, the transmission line company shall furnish the labor and additional material required to move and metalize the grounded line, but it will not be required to furnish any material to take the place of material which ought to have been used for the proper *initial* construction of the grounded line involve).

Chairman Gulther dissenting:

Adheres to the position expressed in his dissenting opinion filed on original hearing.

For the Transmission Lines—J. C. Hume, Des Moines, Iowa; Jno. A. Reed, Atty., Cedar Rapids, Iowa. For the Telephone and Telegraph Companies—Jesse A. Miller, Western Union Telegraph Co., Des Moines, Iowa; H. W. Byers, Des Moines, Iowa; J. L. Parrish, Iowa Telephone Co., Des Moines, Iowa; Harold L. Beyer, Iowa Independent Telephone Assn., Grinnell, Iowa.

This cause came up for rehearing on a petition of the high tension electric transmission line companies and was heard June 19, 1917.

Very little new light was thrown upon the dispute by the new cases cited or by their discussion. It is not essential that the case be reviewed in detail at this time, that having been done in the original opinion. The merits of a cause of this kind can best be reached by a broad comprehensive reference to the physical facts and phenomena involved, as now understood, rather than by technical analyses of cases decided by the courts many years ago when the sum of human knowledge on the subject of electricity was much less than at the present time.

While it is admitted that no man and no man's property should be permitted to stand in the way of progress, it is also true that the property of the individual should not be ruthlessly sacrificed for the good of society at large without his receiving reasonable compensation therefor. The cabin of an early settler may be dismantled or displaced to make way for a school house or a railway line. The ancestral home of descendants of a pioneer may be condemned by the state to enlarge a university campus, but in these cases compensation will be awarded by an impartial jury. The old doctrine that the individual must suffer and bear all the loss that society may benefit has gone with many other ancient heresies. The beneficiaries are now expected to give reasonable compensation. If a man now loses an arm in an industrial occupation, instead of at once becoming an object of charity, he is compensated for his loss and the expense is charged up to the cost of production, ultimately to be easily paid in small installments by numerous consumers. The construction of new school houses, railroads and transmission lines is the result of society's demand for improved service, but until the requirements of the public become sufficiently imperative so that it can afford to pay a fair price for property taken for its use, the improvements had better be deferred.

The science of electricity is new. Man has penetrated its mysteries but a little way and a large part of his knowledge has been very recently acquired. Electrical phenomena now well understood were as sealed books to the highest courts a few years ago. Courts must take cognizance of the physical facts as well as of the abstract law in order to render decisions which will stand as precedents. In comparatively modern times Sir Matthew Hale, one of the most learned and upright judges of England, rendered a decision confirming the belief in witchcraft. This decision would be quoted in the courts today, except that the field of human knowledge has been enlarged on the subject of witchcraft

until it is no longer a matter for litigation in courts of enlightened lands.

A large number of legal decisions in cases involving electrical interference have evidently been based upon a belief of the courts that the electric effects are transmitted through a wire, as water or similar liquids are carried through a tube. They have therefore decided that an electric line is entitled only to the use of the space that it occupies, which conclusion literally construed would permit a single-wire grounded telephone line between poles to occupy a cylindrical space about one-eighth of an inch in diameter. The practical common sense of the contestants compels them to concede a larger space. Many of the decisions rendered are based largely on cases decided about the close of the last century, when knowledge of the laws of electrical phenomena was much less clearly defined than at the present time. This doctrine of confining an electric line to the actual space occupied, in the opinion of this Commission, is fallacious. Courts in numerous later decisions have recognized the necessity of prohibiting too close proximity of conflicting electric lines.

The field of electrical influence of a high tension electric transmission line is almost as clearly defined as the zone of influence of a boiler factory or of an unsanitary village slaughter house, neither of which would be permitted by the Iowa Courts to continue operations near a hospital or in a residential district even though the title to the lands occupied might be vested in the operating companies. If present laws are not construed by the courts to prohibit it, within the next few years legislation will doubtless be necessary to prevent the construction of high tension lines even upon rights of way to which they hold title within a destructive proximity to established lines carrying weaker currents. The field of influence established by a high tension transmission line varies in extent under different conditions and extends considerable distance beyond the outer circumference of the transmitting wire. In this respect it differs from a pipe line transmitting water, petroleum or gas.

The wires of a transmission system, when not electrified, would generally cause no more interference to a telephone or telegraph wire, even though suspended closely adjacent to the latter, than would a water pipe when similarly situated. However, the instant that the high tension wires become electrified their influence becomes effective and it may seriously impair or destroy the usefulness of neighbor telephone or telegraph lines. The causes of this interference may be in line construction or they may be in transformer or in generator constructions. The character and frequency of the electric waves transmitted determine to a great extent their liability to cause interference. This is recognized by the "Radio Communication Laws of the United States and the International Radio Telegraphic Convention." This radio telegraph code not only defines the waves to be used, but also, in certain localities, fixes the exact time of each hour in the day when commercial and government messages may be transmitted, thus regulating the use of the air in a similar manner to that in which a traffic policeman controls the movement of vehicles at the intersection of crowded streets. Without this

legal restriction a powerful radio station might entirely destroy the usefulness of all weaker stations within the sphere of its influence. The relation that exists between the large and small radio station is to a certain extent similar to that which exists between the high tension transmission line and the grounded circuit telephone or telegraph line.

The distortion of the form of the electrical waves present on the transmission system, from prescribed standards, and other causes which may be due to operating conditions at generating stations or other points on the high tension system often unfavorably affect the weaker currents of the telephone or telegraph line. These and many other causes are wholly beyond the power of telephone or telegraph companies to control.

The decision of December 30, 1916, provides that under certain conditions the transmission line companies shall be required to move and make metallic the grounded lines. That opinion provides for the rehabilitation of a depreciated grounded line by its owners, but does not specifically state that owners of a grounded line shall make improvements in construction of a grounded line of which the initial construction was inferior. In order to make the meaning of the original opinion more clear, the Commission now further states: In order that a grounded line may benefit, under the principles herein outlined, it must be in good usable condition at the time that the electric transmission company assumes the burden of moving it or making it a metallic system. If faultily constructed of unsuitable material, or in a badly depreciated condition from long use or other causes, these facts must be given due consideration and the grounded line company shall furnish such material and do such work as the Commission may require for the improvement or rehabilitation of the grounded line. The transmission line company shall furnish the labor and additional material required to move and metallize the grounded line, but it will not be required to furnish any material to take the place of material that ought to have been used for the proper initial construction of the grounded line involved.

This Commission now reaffirms its decision of December 30, 1916, with the modification herein made.

(Signed) E. D. CHASELL,
Commissioner.

CONCURRENCE.

I concur in the modified opinion written by Commissioner Chasell, but have reached the conclusion through a somewhat different line of reasoning. In my opinion, regardless of the legal rights of occupants of highway, this Commission, under the law, may make reasonable conditions precedent to the granting of a franchise to a transmission line company.

(Signed) DWIGHT N. LEWIS,
Commissioner.

That part of the ruling on rehearing contained in the paragraph beginning with the words, "The decision of December 30, 1916," meets with

my approval in that it is an improvement on the rule adopted December 30, 1916. I have no reason to abandon the position taken in my dissenting opinion originally filed in this case.

(Signed) JNO. A. GUIHER,
Chairman.

No. 8075—1917.

BLOUNT-EVANS COMPANY, DES MOINES, IOWA, *Complainant,*

v.

INTER-URBAN RAILWAY COMPANY, *Defendant.*

Decided December 30, 1916.

SWITCHING RATES—STATUTES—JURISDICTION OF THE COMMISSION.

The jurisdiction of the railroad commission to make an order granting the petitioner's prayer was challenged by the defendant railroad company. *Held* that, under the statutes of the State the Commission clearly has jurisdiction to make such order. Following the cases of *Iowa State Manufacturers' Assn., v. C. & N. W. Ry. Co.*, 35 Ann. Rep. Ia. Ry. Com. 3, and *Frank Cator & Sons v. C. B. & Q. Rd. Co.*, 35 Ann. Rep. Ia. Ry. Com., 57.

SWITCHING RATES—EXTENSION OF SWITCHING LIMITS.

The defendant railroad company's tariffs on file with the commission showing that it granted industrial switching rates to eleven industries located on its tracks, some of which are situated similarly to complainant's plant. *Held*, the industrial vicinity of Des Moines should be extended to include all plants on the Urbandale line of defendant's railroad company within 1½ miles west of Beaver Valley Junction within the corporate limits of Des Moines.

REPARATION.

Petitioner's prayer for reparation on various shipments made under the Iowa Distance Tariff rates, held not warranted under the evidence and application dismissed, without prejudice.

APPLICATION FOR REHEARING.

(Rehearing was granted in this case July 4, 1917 and the ruling therein, extending the switching limits in the city of Des Moines to include complainant's plant, was suspended and made inoperative pending rehearing.)

NOTE: See same case on rehearing, *post*.

For the complainant—Dwight N. Lewis, Asst. Commerce Counsel; J. H. Duro, Mgr., Blount-Evans Co., Des Moines.

For the defendant—Emil Schmidt, Pres., Des Moines, Ia.; J. L. Parrish, Atty., Des Moines, Ia.; Will Clapper, Traffic Manager, Des Moines, Ia.

DECISION.

The Blount-Evans Company owns and operates a coal mine located on the Urbandale branch of the Inter-Urban Railway Company, about one mile west of Beaver Valley Junction.

At this time the defendant Railway Company is charging the full distance tariff for shipments from the said coal mine to other industries within the city of Des Moines.

There are no other coal mines located on railroads within the corporate limits of the city of Des Moines which do not have industrial switching rates to industries within the said city.

The Beck Coal Mine, located on the Chicago, Rock Island & Pacific Railway, has industrial switching rates to other industries, although it is situated 4.82 miles from the depot of the said railway in the said city. The Des Moines Coal Company having a mine located on the Chicago Great Western Railway 3.4 miles from the depot of the said company in the city of Des Moines, also has industrial switching rates to other industries in the said city.

The tariffs on file with this Commission show that the Inter-Urban Railway Company grants industrial switching rates to eleven industries on its tracks, some of them being similarly situated to the plant belonging to the complainant in this case.

The defendant company raises the question of jurisdiction of this Commission to make an order granting the prayer of petitioner. This same issue has been repeatedly raised in other cases of a similar character. We have had occasion to discuss, somewhat at length, the authority of the Commission under these circumstances, especially in our decision rendered in the Des Moines Switching Case, dated January 14, 1913, (*Iowa State Manufacturers Association v. Chicago & North Western Railway Company, et al.*, 36 Iowa Com. 3). Also in the case of *Frank Cram & Sons v. The C. B. & Q. Railroad Company*, decided May 1, 1916.

It will not be necessary to repeat that discussion at this time. Suffice it to say that the Commission holds its jurisdiction is clear under the statutes of the state.

We find that the industrial vicinity of Des Moines should be extended so as to include all plants on the Urbandale line (or whose industry tracks leave the said Urbandale line) of the defendant Railway Company within one and one-half miles west of Beaver Valley Junction within the corporate limits of the city of Des Moines.

The petitioner in this case also asks reparation on various shipments made for which the Iowa distance tariff rates were charged. The Commission did not find sufficient evidence to make the order for reparation, as prayed for, at this time, and dismisses the said application without prejudice, the petitioner having full right to bring a new action before the Board in regard to said claims.

RULING ON PETITION FOR REHEARING.

Now at this time to-wit, the 24th day of January, A. D. 1917, this Commission having examined the petition for rehearing in this cause does now and hereby grant the rehearing petitioned for and does further order that so much of the ruling of this Commission made on December 30, 1916, as enlarges the extension of switching limits and industrial vicinity of Des Moines so as to include all plants on the Urbandale Line within one and one-half miles west of Beaver Valley Junction be and the same is hereby suspended and the same shall be inoperative and of no effect pending the rehearing by this Board.

BLOUNT-EVANS COMPANY, DES MOINES, IOWA, Complainant,

v.

INTER-URBAN RAILWAY COMPANY, Defendant.

Decided July 6, 1917.

SWITCHING RATES—EXTENSION OF SWITCHING LIMITS—FINANCIAL CONDITION OF RAILROAD CONSIDERED.

This case was originally decided December 30, 1916, (see *Blount-Evans Co. v. I. U. Ry. Co.*, ante 71) when an order was made extending to reparation on the original hearing; the application was dismissed without prejudice for want of evidence. On January 24, 1917, order was entered suspending the ruling made in the original case pending rehearing. The commission found that the defendant railroad has earned less than a fair rate upon its investment; that it had been operating at a loss; that its indebtedness had constantly increased; that its operating expenses have exceeded its operating revenues by about 10 per cent; that its financial condition is not due to improper use or manipulation of its property or finances; nor due to the character of its situation of its property or earnings in other sections of the country. Held, that the order of the commission made December 30, 1916, extending the industrial vicinity of Des Moines, be canceled and set aside.

REPARATION—DISCRIMINATION—CONSTRUCTION OF STATUTE.

Section 2126 of the Code of Iowa 1897, provides that the commission may order reparation only where something has been done or omitted to be done in violation of the provisions of any law cognizable by the Board. The evidence offered to support the claim for reparation showed the charges made by defendant for hauling from plaintiff's mine were at rates fixed by the Iowa Distance Tariff; and it was not claimed or shown that others situated on defendant's line similarly to complainant's mine were charged other or different rates than charged complainant; that the defendant company has done no act in violation of the provisions of the laws of the State in assessing freight charges against complainant. Held, complainant is not entitled to reparation and its petition is therefor denied.

For the complainant—J. H. Henderson, Commerce Counsel; E. H. Scott, Asst. Commerce Counsel; J. H. Duro, Mgr. Blount-Evans Co., Des Moines.

For the defendant—W. H. McHenry, Atty., Des Moines, Ia.; Will Clapper, T. M., Des Moines, Ia.; C. T. Baker, Supt. Transportation, Des Moines, Ia.; W. L. Wilson, Chief Engineer, Des Moines, Ia.; F. C. Chambers, Mech. & Elec. Engr., Des Moines, Ia.

RULING ON PETITION FOR REHEARING.

The Inter-Urban Railway is an electric line reaching from Des Moines to Perry, a distance of 35 miles, and also reaching from Des Moines to Colfax, a distance of 25 miles. In the city of Des Moines its principal freight station is located at West Second and Grand Avenue. The line of road extends to the north, crossing the Des Moines River at a point about 1.61 miles north of Second Street and Grand Avenue, and the line to Perry, Iowa, again crosses the Des Moines River near a junction point called Beaver Valley Junction, about 3.69 miles from its Des Moines station.

Its yards and switching limits extend from the first crossing of the Des Moines River to the second crossing of the Des Moines River, above referred to, and extending north a distance of about one mile and east a distance of a little more than a half mile, and within these switching limits are located the greater part of the industries upon its line in the city of Des Moines.

The Blount-Evans Company, the complainant in this case, is the owner of what is known as the American Coal Company Mine, located on what is known as the Urbandale Branch of the Des Moines City Railway, over which the Inter-Urban Railway operates freight service, and at a point about one mile west of Beaver Valley Junction, the western limit of the switching district above described. Complainant formerly owned and operated a coal mine on the Perry line of said railroad west of the Des Moines River, and west of said switching limits.

An application was filed by Blount-Evans Company, of Des Moines, Iowa, claiming that under the law of this state, and the former orders of this Commission fixing the industrial vicinity and switching limits in the city of Des Moines, the Inter-Urban Railway Company was discriminating, or has discriminated against it, in that the said railway company has charged the Iowa Distance tariff for all coal hauled from its said American Coal Company Mine, and from the mine formerly operated by it on the Perry Branch of said railway, while other coal mines on other lines in the industrial vicinity of Des Moines were granted a switching rate for a like service, and claiming that other industries similarly situated to the coal mines of the complainant, and upon the line of said Inter-Urban Railway, were granted a switching rate by the Inter-Urban Railway, and claiming that such discrimination by Inter-Urban Railway Company and against the said complainant, is a violation of the statutes of this state, as well as a violation of the rulings of this Commission as to switching services of railroads in the city of Des Moines, and therefore, the complainant is entitled to have the switching limits of said railway so extended as to include the complainant's mine, and that Inter-Urban Railway Company be required to make reparation and return to us all of the money heretofore paid by said complainant to said railway company in excess of a reasonable switching charge.

The cause was heard, and on December 30, 1916, this Commission filed a ruling that the industrial vicinity of Des Moines should be so extended as to include all plants on the Urbandale line (or whose industry tracks leave the said Urbandale Line) of the defendant railway company within one and one-half miles west of Beaver Valley Junction within the corporate limits of the city of Des Moines. And also found there was not sufficient evidence to make the order for reparation as prayed for. The application for reparation was dismissed without prejudice, leaving the applicant the right to bring new action before the Board thereafter.

On January 24, 1917, the Commission granted a rehearing to Inter-Urban Railway Company on so much of its ruling as provided for the extension of switching limits and the industrial vicinity of Des Moines, and pending the rehearing, suspended the ruling and order of December 30, 1916. Afterwards, on the 24th day of February, 1917, the com-

plaintant filed a petition for rehearing, asking that the order for rehearing be so amended as to include rehearing upon the claim for reparation. This application was granted, and the cause was set down for full hearing upon its merits as to all matters included within the petition.

Our statute makes the following provision for the investigation on a claim for reparation, by section 2136 of the Code, which reads as follows:

If in any case in which an investigation shall be made by the board it shall be made to appear to the satisfaction of such board, either by the testimony of witnesses or other competent evidence, that anything has been done or omitted to be done, in violation of the provisions of this chapter, or of any law cognizable by the board, by any common carrier, or that any injury or damage has been sustained by the party complaining or by other parties, in consequence of any such violation, it shall be the duty of the board forthwith to cause a copy of its report in respect thereto to be delivered to such carrier, together with a notice to it to cease from such violation, or to make reparation for the injury found to have been done, or both, within a reasonable time, to be fixed by the board. And if within the time fixed it shall be made to appear to the board that such carrier has ceased from such violation of law, and has made reparation for the injury found to have been done, in compliance with the report and notice of the board, or to the satisfaction of the party complaining, a statement to that effect shall be entered of record by it, and the carrier shall thereupon be relieved from further liability or penalty for such particular violation of law.

Reparation can only be ordered under this statute where "anything has been done or omitted to be done in violation of the provisions of this chapter or of any law cognizable by the Board." The showing by the complainant in this case in support of its claim for reparation is that the railway charged; it for hauling coal from its mine a rate fixed by the Iowa Distance Tariff. It is not claimed or shown by the complainant that upon the part of the lines upon which complainant's mine is situated any other person was charged any other or different rate than the rate charged complainant. The claim of the complainant resolves itself into the proposition that several industries only a short distance east of its mine were given a switching tariff, and that other coal mines, on other lines of railroad within the city limits of Des Moines, were given a switching tariff where such mines were located a greater distance from the business part of the city of Des Moines than is the mine of complainant, and therefore, complainant was discriminated against, and is entitled to reparation on account of past charges, and to be included within the switching district and have the benefit of a switching tariff. The Inter-Urban has no connection with any railroads that do not reach Des Moines over their own rails, and has, therefore, no opportunity of serving, in competition with its connections, the territory in Des Moines which they reach and serve. Its participation in the transportation of freight on other than switching rates to and from Des

Moines is confined to traffic originating at or terminating at points on the Inter-Urban, such traffic as moves between points on other lines and locations on its rails within the city of Des Moines between which and Highland Junction no connecting line switching charges are published, and such interstate traffic as moves under through rates. The evidence in this case shows that under existing rates the complainant can reach every industry in Des Moines upon the lines of the Inter-Urban Railway at a less freight charge than any other mines located upon the railroads. Upon these facts we find that the railway company has done no act in violation of the provisions of the laws of the State of Iowa in the freight charges it has made against the complainant. The complainant is not entitled to have reparation and its petition therefore is denied.

The Commission also finds that the Inter-Urban Railway Company has in past years been earning less than is considered a fair return upon the investment. That it has, in fact, been operating at a loss. Its indebtedness has been constantly increasing. Our investigation of its affairs has disclosed no improper use or manipulation of its property or its finances. It seems to have been carefully and economically handled. Its financial condition is not due to the character of the property or its earnings in other sections of the country. It is a short line railroad, wholly within a small territory close to Des Moines. It has also shown to our satisfaction that during the year prior to the rehearing the operating expenses of this railroad have exceeded the operating revenues by about ten per cent.

The showing made by the railroad is that the granting of the petition would, in its application to the situation, cause the revenues of this railroad to be very much decreased and seriously affect the operation of the road.

The railroad involved herein serves industries lying in the north part of the city; no other road enters or operates in that district of the city of Des Moines, and the conditions are so unlike the conditions in the other industrial districts of Des Moines that the application of the same rule would not be just.

For all of these reasons the Commission has reached the conclusion that the complainant is not entitled to have reparation, and that it is not entitled to have the switching limits of the city of Des Moines so enlarged as to include its mine.

The order of this Commission made December 30, 1916, providing that the industrial vicinity of Des Moines be so extended as to include all plants on the Urbandale line (or whose industry tracks leave the said Urbandale line) of the defendant railway company within one and one-half miles west of Beaver Valley Junction within the corporate limits of the city of Des Moines is hereby and now cancelled and set aside.

Commissioner Lewis having represented Blount-Evans Company on the original hearing took no part in the case on rehearing.

No. 8076—1917.

H. B. BRACEWELL, CORYDON, IOWA, *Complainant*,

v.

CHICAGO, ROCK ISLAND & PACIFIC RAILWAY COMPANY, *Defendant*.

Decided December 30, 1916.

CROSSINGS—APPLICATION FOR OVERHEAD HIGHWAY CROSSING—NECESSITY FOR.

Where there are two adequate public grade crossings over defendant's tracks, to and from the same places that could be served by the proposed crossing, which grade crossings it is not practicable to close—*Held*, there is no necessity for the viaduct petitioned for.

HIGHWAYS—RIGHT ACQUIRED BY USER—JURISDICTION OF COMMISSION.

Defendant railroad contended there was no legally established highway at the point of proposed crossing and therefore that the commission had not jurisdiction. *Held*, the public had the right of highway by user; and that the commission, in addition thereto had jurisdiction under section 2017 of the Supplemental Supplement to the Code, 1915, giving it power to condemn sufficient lands to carry out its orders.

For the complainant—H. F. Garrett, County Atty., Corydon, Ia.; Dwight N. Lewis, Asst. Commerce Counsel.

For the defendants—F. W. Sargent, Attorney, Des Moines, Ia.; W. P. Brady, Right of Way Agent, Des Moines, Ia.

The Board of Supervisors of Wayne County petitioned this Commission to require the above named railroad to construct and maintain an overhead crossing where the railroad crosses the highway on the boundary line between the city of Corydon and Benton Township.

The west boundary line of the city of Corydon is the east line of Benton Township, upon which line the petitioners claim there is a highway which was established and used by the public long prior to the location and construction of the St. Paul & Kansas City Short Line Railroad, now a part of the Chicago, Rock Island and Pacific System. That where the railroad crosses said highway it made a cut about eleven feet deep; that it is impracticable to make a grade crossing at this point, and that an overhead crossing should be built and maintained, adequate for the accommodation of the public.

The railroad denies that there is any legally established highway at the place mentioned in the petition, and, therefore, denies the jurisdiction of this Commission. It also claims there is no public necessity for the proposed crossing. That there are already two public crossings of its tracks which afford all reasonable and adequate means for crossing its tracks, and of traveling to and from the same places which would be reached by means of the proposed overhead crossing.

As to the contention of the railroad that the highway in question has never been legally established, we believe the position is not well taken, and that the weight of evidence and the authorities, show that the public has the right of a highway acquired by user, and in addition thereto, this Commission has the power to order condemnation of sufficient lands to carry out its orders. (See Code Section 2017, Supplemental Supple-

ment of 1915.) However, since we feel this cause should be determined upon the other branch of the case, we think it unnecessary to further discuss this question.

Section 2917 of the Code, as it appears in the Supplemental Supplement of 1915, provides, among other things, as follows:

"* * * Wherever a railroad now crosses an established highway * * * * * when it is desired by any citizens of or the Board of Supervisors of any County * * * * * for the safety of the public using such highway, to change, alter, relocate, or vacate an established highway where the same crosses a railroad, * * * * * the Board of Railroad Commissioners, upon application * * * * * are authorized and empowered * * * * * to determine the necessity for such crossing * * * * * and generally to make such orders in respect thereto as are equitable and just * * * * *"

Under this statute the question of first importance is whether there is necessity for the overhead crossing.

At the point where the railroad crosses the highway the cut is about eleven feet deep and nearly 150 feet wide, in which cut there are three tracks, the main line, a passing track and a team track.

The construction of a wooden bridge or viaduct, with proper earth approaches, would cost four thousand dollars or more. About 600 feet north of the center of the proposed viaduct is the track of the Chicago, Burlington & Quincy Railroad, running nearly parallel with the line of the defendant. West of the highway in question the houses are but few in number. South of the proposed crossing the houses are scattered; a very small part of the population of Corydon is north of the tracks, and about 95% of the population of the city of Corydon is southeast of the proposed viaduct. A little less than 600 feet east of the highway in question is the street upon which the Chicago, Burlington & Quincy Railroad station is located, upon which street there is a grade crossing which is as safe as the ordinary grade crossing in a town. The street leading from the Chicago, Burlington & Quincy Railroad station to the business part of the city is a paved street connecting with other paved streets leading to the business center of the town. There are no paved streets west of the street upon which the Chicago, Burlington & Quincy station is situated. The business center of Corydon is some four blocks east, and six or seven blocks south of the Chicago, Burlington and Quincy station. The Rock Island station is one block east of the Chicago, Burlington & Quincy station, and the street leading to it is paved. One block east of the Rock Island station is another grade crossing, which is as safe as the ordinary grade crossing. All of the traffic from the north and northwest, with the business part of Corydon, reaches its objective point in as short a distance by the present crossing as it would by the proposed crossing, and it reaches the paved streets much sooner. The travel from the west of the city would not use the proposed crossing. A careful examination of that part of the city north and south of this crossing has led us to believe that the streets leading to such proposed crossing will not probably be paved in the near future.

To make a sufficient overhead crossing at the point proposed will require the floor of the structure to be about 14 feet higher than the top of the present cut, which would introduce a much heavier grade than there is at present between the center of the town and the northwest corner of the city. Heavy traffic would avoid the viaduct at all times, and so long as the grade crossings are maintained, they would be used by the greater part of the traffic.

In addition to these objections, if the viaduct would be constructed, the north end of the approach thereto would be so close to the tracks of the Chicago, Burlington & Quincy Railroad that a new danger would be introduced for people using the viaduct and going over it from the south. Especially would this be true as to strangers in that community, who, by reason of seeing the viaduct, would be justified in concluding that the viaduct crossed all tracks in the near vicinity. And thus there would be introduced a real danger, such as has been introduced in one or two other places in this state.

The paving of this town in the direction of the stations has evidently been built with reference to such depots, and the present locations of these stations will probably be continued for many years.

It would be of little benefit to build the proposed viaduct and permit the present grade crossings to be continued. It is not at this time practical to close the present grade crossings.

We reach the conclusion that there is no necessity at this time for the viaduct, as petitioned.

No. 8077-1917.

L. E. BAUMAN, JUDD, IOWA, *Complainant*,

v.

ILLINOIS CENTRAL RAILROAD COMPANY, *Defendant*.

Decided December 30, 1916.

STATION—DISCONTINUANCE OF AGENT AT.

Order for reestablishing agent denied on the ground of close proximity of other agency stations, and because the amount of business done does not justify the expense.

For the complainant—L. E. Bauman, Judd, Ia.; Fred Brown, Judd, Ia.; Dwight N. Lewis, Asst. Commerce Counsel.

For the defendant—T. H. Sullivan, Superintendent, Ft. Dodge, Ia.; H. G. Powell, D. F. A., Omaha, Nebr.

This is a petition for the re-establishment of an agency at the station called Judd. On April 3, 1916, the Illinois Central Railroad Company discontinued Judd as an agency station. There is no village at Judd. There is the railroad station building, and one family living in another house, the family consisting of husband, wife and two children. This man does a general merchandising business, and, among other things, buys and ships grain, and also ships in a small amount of coal and tile. The shipments in carload lots to this station amount to something like

one hundred cars per year. The freight in less than car lots was, during the continuance of the agency at this point, a very small amount. The passenger traffic amounted to but little.

The station of Judd is about eight miles east of Ft. Dodge, and two and one-half miles west of Duncombe, which is also a station on the Illinois Central Railroad. It is about two and one-half miles north and a half mile east of Evanston, a station on the Chicago Great Western Railroad, and about five miles north and west from the station called Brushy, on another railroad.

With the showing as to the amount of business, and the proximity of other stations, we have reached the conclusion that we should not be justified in requiring the Illinois Central Railroad Company to re-establish its agency at Judd.

The railroad company in question has offered to permit the person operating the elevator at this point to seal his own cars and permit him to have the keys to the station building. And while we recognize that if a full station agent was maintained at Judd it would be somewhat more convenient for the persons using this station, yet, at the same time, the business done at the station is not sufficient to justify such expense.

The petition is, therefore, dismissed.

No. 8078—1917.

L. N. CARTER, ET AL, SARGENT BLUFFS, IOWA, *Complainants*,

v.

CHICAGO, MILWAUKEE & ST. PAUL RAILWAY CO., *Defendants*.

Decided December 30, 1916.

CROSSINGS—HIGHWAY AND RAILWAY AT GRADE—APPLICATION FOR SUBWAY.

Where proposed subway under railroad with head clearance of 13 feet, would make the grade of the highway excessive; where highway is not of such general use as to warrant paving, without which, the floor of subway would be difficult to drain and subject to "wash" to the serious injury of the highway; where the proposed subway is but a short distance from a growing town, which will probably require a viaduct or subway within a few years at a more suitable location not far from the proposed subway—*Held*, application denied and recommendation made that the matter be further examined into.

For the complainants—L. N. Carter, Sargent Bluffs, Iowa; J. H. Ames, Bridge Engr., State Highway Commission; J. H. Henderson, Commerce Counsel.

For the defendants—Jno. N. Hughes, Atty., Cedar Rapids, Ia.; W. E. Wood, District Engineer, Chicago.

This is an application on the part of certain citizens of Woodbury County, asking that the Chicago, Milwaukee & St. Paul Railway Company be required to build a subway or under track crossing at a point on the line of its railroad between Sections 4 and 9, Township 88 North, Range 47, West Fifth P. M., Iowa.

The Commission, after an examination of this proposed site for subway, found that the location of the proposed subway is on a hillside;

that the grade crossing as maintained at present is an ordinarily fair crossing of the kind. We have reached the conclusion that the construction of a subway at this point is not practical. If such subway were constructed and the railroad track left at its present elevation, and there was a clearance of thirteen feet in the subway, the grade of the highway from the subway to the west for a distance of about thirty rods, would be excessive. The highway at this point is not of such general use as that the public would be justified in paving the same, and, in our judgment, if the subway was constructed without paving the floor of it, it would be difficult to drain the same and it would be subject to "wash" to such an extent as to seriously injure the highway.

The State Highway Commission estimates the cost of a wood trestle at this point at \$2,815.00. The railroad company's estimate for a like structure is practically the same; and for a concrete structure at this point is \$7,591.00. The point at which this subway is petitioned for is only a short distance from the station of Morning Side. It is quite probable that within a very few years, in view of the present growth of Morning Side, that it will be necessary to construct a subway or viaduct over this railroad at some point not far from the location of the subway proposed in this matter. In our judgment, the construction of the subway as now asked would be but a temporary relief, and not such full relief as that community will be entitled to in the very near future, and in our judgment, we would not be justified in requiring the expenditure of the amount necessary to build the subway as petitioned. Without question, a more suitable location for a subway or a viaduct can be found within a short distance from the proposed site.

We recommend that this matter be further examined into. The particular subway petitioned for herein is now refused.

No. 8079—1917.

JOHN KNOX, ET AL, PRINCETON, IOWA, *Complainant*,

v.

DAVENPORT, ROCK ISLAND & NORTHWESTERN RAILWAY COMPANY, *Defendant*.

Decided December 30, 1916.

CROSSINGS—HIGHWAY OVER RAILROAD AT GRADE—SEPARATION OF GRADES—ADJUSTMENT OF COSTS.

Grade crossing found unusually dangerous and the separation of grades necessary to the public safety and convenience—*Held*, defendant company shall elevate its tracks 4.4 feet above the present level and build a subway thereunder according to certain plans filed with the commission, one-half the cost thereof to be paid by Scott County when the subway is completed. (See same case on rehearing, 40 Ann. Rep. Ia. Ry. Comm. 84.)

For the complainants—Dwight N. Lewis, Asst. Commerce Counsel; Dr. John Knox, Princeton, Ia.

For the defendant—O. B. Grant, Genl. Mgr., Davenport, Ia.

For the C. & Q. Rd Co.—D. T. Willis, Engineer.

For the County Board of Supervisors—S. A. Wilson, Supervisor; Thos.

Glynn, Supervisor; Chris Marti, Supervisor; Henry Gertz, Supervisor. C. F. Zoeckler, Supervisor; J. M. Malloy, County Engineer.

For the Iowa State Highway Commission—J. H. Ames, Bridge Engineer, Ames, Ia.

May 18, 1916, the Board of Supervisors of Scott County, Iowa, filed a petition asking this Commission to determine the necessity for a highway crossing at a point on the Davenport, Rock Island & Northwestern Railway Company about a half a mile north of Princeton, Iowa, and whether the same should be at grade, or otherwise. May 29th, 25 freeholders of Scott County filed a like petition. On June 22nd, a petition was filed by 165 persons representing themselves to be citizens of Scott and Clinton Counties, asking that the railroad be required to construct at the point in question "an under-grade crossing or subway, with a 14 foot vertical clearance and 24 foot horizontal clearance."

The crossing in question is such an unusually dangerous one that no question should be raised as to the necessity for a separation of the grade of the railroad and of the highway. The real question with this Commission has been whether the crossing should be by subway or by viaduct.

The general direction of the railroad is north and south, and at a point about one and one-half miles north of Princeton the railroad passes through a cut, which, at its shallowest point, is twenty feet deep, and when about a hundred feet north of the cut crosses the highway at an angle of about 35 degrees. The top of the rail at this crossing is some six or seven feet higher than the general level of the highway both east and west of the crossing. The cut through which the railroad passes is through a high narrow ridge, running in a general direction from west to east, the ridge terminating a few rods east of the cut.

The highway in question is the principal road from Davenport to Clinton. It passes through Princeton, and going north, goes around the east end of the ridge just referred to, and turns toward the west when it crosses the railroad. From there it follows along the base of the north side of this ridge. The cut is very narrow, being through a solid rock formation, and its line is curved. A person approaching this crossing from the west is unable to see a train coming from the south until he is within a very few feet of the track, and persons approaching the crossing from opposite directions are unable to see each other until they are within the lines of the right of way.

The highway from Davenport to Clinton is now very free from hills; almost a level road. A viaduct can be built over the cut by changing the location of the highway a few rods south of its present location, and the approach to it from the west, can, at comparatively small expense, be made a very easy grade. Its approach from the east would be more expensive, but without unusual expense in such matters a very good approach can be made. It has been estimated that the cost of such viaduct would be \$7,984.00. This overhead crossing would introduce the biggest hill between Davenport and Clinton, and for this reason, the people who would use it most object to this mode of crossing.

The Iowa Highway Commission, on July 24, 1916, submitted a plan and estimate for a viaduct, at the point of the present highway crossing, providing for elevating the tracks at that point 4.4 feet above the present elevation. It also provided for a vertical clearance of 12 feet, horizontal clearance of 24 feet, concrete abutments, steel girders, and properly drained. The heaviest grade from the center of the subway to the point in the highway where the descent into the subway begins to be 2.69 per cent. The estimated cost of this construction, including the raising of the railroad, is \$14,573.00. This plan is objected to by the railroad on account of its cost, and is objected to by some of the people of the community because there may be occasional times when it cannot be used because of high waters of the Mississippi River. Under the evidence, we believe the high water trouble would not occur more than once in ten years, and then not be of sufficient depth to prevent the use of this crossing. This plan has the advantage of leaving the road almost level. Its principal disadvantage is that drivers of automobiles may have collisions in or near this subway, because of the curve in the highway just near the end of the east approach to the subway.

We reach the conclusion that the plan for the subway above described and referred to should be, and the same is hereby adopted. As to the question of payment for the same, Section 2017 of the Supplemental Supplement to the Code, gives this Commission the power to make such division of the expense as is equitable and just. The estimated cost of the overhead crossing is \$7,984.00, and of the subway, \$14,573.00. The viaduct would be fully as safe as the subway. The added cost for the subway will not benefit the railroad in any particular. The cost of the subway will be nearly twice that of the viaduct. Considering all these matters, we feel that the expense of this improvement should be borne in equal parts by the railroad and Scott County.

It is, therefore, ordered that the Davenport, Rock Island & Northwestern Railway Company shall, on or before September 1, 1917, construct a subway on its line where it crosses the highway about a half a mile north of the town of Princeton, in Scott County, Iowa, being just north of a cut where the line of said railroad passes through what is called "Stone Hill." Said subway to have vertical clearance of 12 feet, a horizontal clearance of 24 feet; the railroad track to be elevated 4.4 feet above the present elevation, and all according to the plans for the same proposed by the Iowa Highway Commission, and filed with this Commission July 25, 1916. It is further ordered that one-half of the cost of the same shall be paid by Scott County, when said subway has been completed.

This Commission requests the Iowa Highway Commission to superintend the construction of said improvement. It is also provided that the part of the cost of said subway paid for by Scott County, or any other person or community, shall not be considered a part of the value of the property of said railroad upon which it shall be entitled to receive a return.

JOHN KNOX, ET AL, PRINCETON, IOWA, *Complainant*,

v.

DAVEYPORT, ROCK ISLAND & NORTHWESTERN RAILWAY COMPANY, *Defendants*.
On Petition for Re-hearing.

Decided September 22, 1917.

CROSSINGS—HIGHWAY OVER RAILROAD AT GRADE—SEPARATION OF GRADES—APPORTIONMENT OF COSTS.

Rehearing was asked by the Board of Supervisors of Scott County on the grounds that the ruling filed December 30, 1916 in the original case (40 Ann. Rep. Ia. Ry. Comm. 81) failed to consider that the highway in question was established before the railroad involved, and therefore the railroad company should be required to pay the entire expense of constructing the subway. *Held*, the construction of the highway prior to the construction of the railroad was duly considered on former hearing and that no reason is shown on rehearing for making any change in the division of the costs. Original ruling adhered to.

Held, further, it appearing that Scott County has not made adequate provision in its levy of taxes and does not have the money at this time to pay its portion of the costs assessed to it on original hearing, the construction of said subway may be postponed until 1918.

(See original case, 40 Ann. Rep. Ia. Ry. Comm. 81.)

For the Complainant—John Knox, Princeton, Ia.

For the Railway Company—O. B. Grant, G. M., Davenport, Ia.

For Scott County—Realf Otteson, Ass't Co. Atty., Davenport, Ia.; J. M. Malloy, County Engineer; S. A. Wilson, Supervisor; Chas. Schick, Supervisor; John Bragonia, Supervisor.

For the State Highway Commission—J. H. Ames, Bridge Engineer, Ames, Ia.

For the People—A. E. Carroll, Davenport, Ia.; C. W. Pinco, Princeton, Ia.; A. H. Schmalz, Princeton, Ia.

On March 15, 1917, petition for re-hearing was filed in this case, by Scott County, Iowa, through its Board of Supervisors, in which it was claimed that the ruling filed in this case on December 30, 1916, failed to take into account the fact that the highway in question was established before the railroad which is involved was constructed, and that prior to the time of the construction of the railroad the said highway was perfectly safe, a good level road, and that the unusually dangerous condition in said highway was caused by the railroad only; and asking that this Commission require the railroad to pay the expense of constructing the subway to remove the dangerous condition at said highway crossing. Hearing on this petition was had at the said railroad crossing on July 20, 1917.

This Commission now finds that the matter of said highway having been located and constructed prior to the time of the construction of the railroad was duly considered on the former hearing, and from all the evidence submitted on rehearing, we find there is no reason for making any change in the division of expense or cost of construction of subway, and our original ruling in relation thereto is now adhered to.

It appearing upon the hearing, however, that Scott County had not made provision in the levy of its taxes for the expenditure of such an

amount for this improvement in the year 1917, and that it does not have the money at this time which can be used for this purpose without neglecting other needed improvements which were contemplated at the time the taxes were levied, this Commission has reached the conclusion that the construction of said subway may be postponed until the summer of 1918, and the time for the completion of said subway in compliance with our former order herein is now and hereby extended to September 1st, 1918. In all other respects, the ruling heretofore made is adhered to.

No. 8080—1917.

W. W. GOODYKOONTZ, BOONE, IOWA, *Complainant*,

v.

CHICAGO, MILWAUKEE & ST. PAUL RAILWAY COMPANY, *Defendant*.

Decided March 16, 1917.

CROSSINGS—RAILROAD BRIDGE OVER STREET—NECESSITY FOR—APPROVAL OF PLANS FOR—CROSSING OF ADJACENT STREET.

Held, proposed viaduct over Fourth street is necessary for the public safety and convenience; plans approved therefor; that the Commission's order requiring defendant railroad company to construct said viaduct shall be effective only on condition that the city of Boone shall vacate Fifth street within the lines of the right-of-way of defendant company.

For the Complainant—W. W. Goodykoontz, Boone, Ia.; M. J. Lockard, Mayor, Boone, Ia.

For the Defendant—Jno. N. Hughes, Solicitor, Cedar Rapids, Ia.; W. E. Wood, District Engineer, Chicago.

On the 27th of October, 1915, the city of Boone, Iowa, filed its petition stating that it is a city of more than 7,000 population, and asking that the Chicago, Milwaukee & St. Paul Railway Company be required to construct a viaduct over and across Fourth Street in said city, that the public safety and convenience may be subserved. Subsequently negotiations were taken up with the railroad company by the city. No agreement being reached, the city of Boone on July 25, 1916, asked this Commission to proceed with the matter.

A hearing was fixed for December 22, 1916, at which time the applicants contended that a viaduct should be built of such span and in such manner as to give the public the use of the full width of Fourth Street. After examination of the premises, and hearing of testimony, the case was taken under advisement and to give the Chicago Milwaukee & St. Paul Railway Company representatives opportunity to present plans for such viaduct.

On January 11, 1917, the city of Boone filed a certified copy of the resolution passed by its city council January 5, 1917, and published in the Boone News-Republican on January 9, 1917, which provides as follows:

SEC. 1. That a necessity exists for the immediate construction of an overhead bridge or viaduct by the Chicago, Milwaukee and St. Paul Railway Company over and across Fourth Street in the city of Boone, Iowa, for the protection and safety of the public, the present wooden structure being inadequate and insufficient, an obstruction to traffic on the said Fourth Street in the city of Boone, Iowa, and a hindrance to the permanent improvement of the said street.

SEC. 2. That the said overhead bridge or viaduct, as referred to in Section One hereof, shall be of steel and concrete construction and be the full width of Fourth Street, to-wit; seventy (70) feet, and the support thereof at either end shall be wholly outside of the street lines at the points where the right-of-way of said railway crosses said Fourth Street, and the same may be provided with a support in the center of the street which shall not exceed three (3) feet in width and opposite the said center support on either side the curbing which shall hereafter be constructed, shall be so placed as to provide driveways each not less than fifteen (15) feet in width. It is also provided that the said overhead bridge or viaduct may be provided with supports outside curb lines, which shall be of steel construction. It is also further provided that said bridge shall be so constructed that when the street is brought to the established grade there shall be a clearance or headroom of not less than thirteen (13) feet; and that same when so constructed shall be maintained and said street improved as may be provided by the laws of Iowa, including provisions for sidewalks on both sides of said street, as may be ordered by the City Council of the city of Boone, Iowa.

On February 7, 1917, the Chicago, Milwaukee and St. Paul Railway Company filed a plan for a viaduct to be constructed by it upon the following conditions:

FIRST: That the plan be approved by the Board of Railroad Commissioners.

SECOND: That Fifth Street be vacated by the City Council and an ordinance properly vacating the same be passed.

THIRD: That the grade be fixed so that the grade of the railroad will not have to be changed from its present height.

FOURTH: The Railway Company, in addition to building the viaduct, will dedicate a street thirty feet in width easterly of the right of way and adjoining the alley.

The Commission having examined the plan as filed by the railway company finds that it is in all respects as provided by the resolution of the City Council of Boone as above set out except that it has a clearance of 12½ feet instead of 13 feet.

From our examination of the premises, we find that Fifth Street should be vacated within the right of way lines of said railroad. This we find notwithstanding the objections thereto by some of the citizens of the city of Boone. The elevation of said railroad at the Fifth Street crossing is not such as to permit a practical crossing at that point.

Upon consideration of all the facts, this Commission has determined that it is necessary for the public safety and convenience, that the Chicago, Milwaukee and St. Paul Railway Company shall build a bridge or viaduct at the point where its railroad crosses Fourth Street in the city of Boone, Iowa, which bridge shall have a clearance of not less than 12½ feet above the grade of said Fourth Street as the same is now established, and that the said railway company shall build said bridge according to the plans approved herein, and it is also ordered that the said railway company shall dedicate to the public for the purposes of a street, a strip of land thirty (30) feet wide east and west and the length to be from Fourth Street to Sixth Street; being a thirty (30) foot strip immediately west of the west line of the alley which is east of the line of said railroad, all as shown by said plan for said viaduct and street. That the plan for said bridge filed with this Commission by the Chicago, Milwaukee and St. Paul Railway Company, February 7, 1917, be and the same is hereby approved and the approval of this Commission has been endorsed thereon. This order shall be effective only upon the condition that the city of Boone shall vacate so much of Fifth Street in said city as is within the lines of the right of way of the Chicago, Milwaukee and St. Paul Railway Company and that the grade of Fourth Street be so fixed that the grade of the railroad will not be changed from its present height. That the said railroad company shall construct said bridge and have the same completed within four (4) months from the date of the vacation of Fifth Street as hereinbefore provided.

No. 8981—1917.

W. A. WILSON, BIRMINGHAM, IOWA, *Complainant*,

vs.

CHICAGO, BURLINGTON & QUINCY RAILROAD COMPANY, *Defendant*.

Decided March 27, 1917.

CROSSINGS—FARM—CONSTRUCTION OF STATUTE.

Application for private crossing under section 2022 of the Supplement to the Code, 1913. The plaintiff owns 16 acres of land on one side of the railroad and on the other side a triangular tract containing about 12 square rods, or .075 of an acre, each parcel abutting upon the same highway; he lives on neither tract and in traveling from his residence to the 16-acre tract, by highway, he is required to go 80 feet farther than would be necessary if a private crossing connected the two tracts. *Held*, the ultimate object of the statute under which this proceeding is brought is to enable the owner of land situated on both sides of a railroad to cultivate and use the lands as one farm, with the least interference on account of division of the lands by the railroad into two parts; that the small tract in the instant case is not farmed or used in connection with the 16 acre tract, and to grant this petition would further reduce the already questionable usefulness of the small tract and would be ordering a fruitless thing, neither beneficial nor convenient to complainant, a burden upon the railroad and an added danger to the public using the railroad; that the relief asked does not come within the reason and the spirit of the statute. Petition dismissed.

For the Complainant—W. A. Wilson, Birmingham, Iowa.

For the Defendant—M. F. MacLaren, Supt., Burlington, Iowa.

An application has been filed by W. A. Wilson, of Birmingham, Iowa, asking that the Chicago, Burlington & Quincy Railroad Company be required to give him a private or farm crossing at a point where he claims to own land on both sides of the railroad. Section 2022, Code Supplement, insofar as it applies to this case, is as follows:

"When any person owns land on both sides of any railway * * * the corporation owing the same shall, when requested to do so, make and keep in good repair a sufficient causeway or other adequate means of crossing the same, and one cattle guard on each side thereof connected by cross fences to the right of way fence on each side of the right of way, at such reasonable place as may be designated by the owner."

The location in question is at the north side of Birmingham. The railroad runs almost due north and south through the town. From the depot building it runs slightly west of north. The east boundary of the station grounds is Liberty Street, which runs north and south, and parallel with the station grounds. The station grounds extend north of the depot building a distance of about 800 feet, from which point north the right of way is 100 feet wide, leaving a narrow strip of land between the right of way and Liberty Street. At a point about 1,200 feet north of the station building Liberty Street turns to the northwest, crossing the railway at a point about 1,500 feet north of the depot building, at an angle of about thirty degrees. The complainant lives east of Liberty Street. Formerly he owned the narrow strip of land between Liberty Street and the right of way, containing about one and one-half acres, and also owned a tract of about sixteen acres on the west side of the railway and immediately west of the narrow tract just above described. While he owned these two tracts the railroad company provided him with a farm crossing enabling him to pass from one tract to the other. The north end of the sixteen acre tract on the west side of the railway abuts on Liberty Street, or Libertyville Road, as it is called after it crosses the railway and continues northwest. The complainant is yet the owner of the sixteen acre tract west of the railroad, but has sold all of the strip of land between the railroad and Liberty Street, except a triangular piece at the north end thereof, the base and perpendicular lines of this triangle being about five rods, the tract containing about twelve square rods. Mr. Wilson can reach his sixteen acre tract from the highway by going about 80 feet north of the point at which he asks for his private crossing. There is no obstacle to prevent his passing from the highway to his land except the ordinary side ditch of the highway, where a twelve inch box culvert would be sufficient to make an easy crossing.

The situation then, is that Mr. Wilson owns on one side of the railroad sixteen acres of land, and on the other side a triangular tract containing about twelve square rods. He does not live upon either of these tracts, and each of them abut upon the same highway. Traveling from his residence to his sixteen acre tract, by the highway, it is necessary

for him to go a distance of about 80 feet farther than would be necessary if he had a private crossing connecting the two tracts of land.

If he were given a private crossing it would be necessary for him to open and close two gates when he crossed from one tract to the other. The necessary walking to do this would be about the same distance as would be required to cross the track by the highway. The tract east of the railroad is smaller than is generally considered practical to farm or garden, or pasture, and it is not used for either of these purposes. If a driveway should be made across it, its use for any purpose would be practically destroyed.

The statute clearly provides that the owner of the land on both sides of the railway shall have a crossing connecting the several parts of his land, without requiring him to go into the public highway to reach the portion of his lands across the track, and to give him more convenient access than is usually afforded by a public highway, even though one side of his land may abut thereon. *Mattice v. C. G. W. Ry. Co.* 130 Ia., 749; *Herrestrom v. N. & N. W. Ry. Co.*, 129 Ia., 507. The ultimate object being to enable the owner to cultivate and use his lands with the least interference on account of the railroad which divides his lands into two parts; to enable him to use the same as one farm. The private crossing provided by the statute is for the benefit and convenience of the land owner.

In this case the small tract east of the railway is not farmed or used in connection with the sixteen acre tract west of the railroad. It does not have the appearance of having been used for any purpose, and, as we understand Mr. Wilson, when he sold the land on the east side of the railway he reserved this small three cornered piece to be used in connection with a private crossing to reach his land, west of the track. If he had no other means of reaching the land west of the track, or if, to reach the same, it was necessary for him to travel any considerable distance, we would feel there was merit in his claim; but when it is necessary for him to travel only 80 feet farther on the highway to reach the same land, and he is thereby relieved of opening and closing two right of way gates, which he would be required to do if he used the crossing he now asks, and when to grant his petition would be to further reduce the already questionable usefulness of a small three cornered tract, we feel that we would be ordering a fruitless thing; that the relief asked does not come within the reason and spirit of the statute. Again, it is recognized that the introduction of each new crossing, whether private or public, is an added danger to the operation of the railroad as well as an added burden. Upon all the facts we think that the granting of the request would serve no useful purpose, would not be beneficial or convenient to complainant, and would be a burden upon the railroad, and an added danger to the public using the railroad.

"It is a maxim of our legal authors, as well as a dictate of common-sense, that the law will not attempt to do an act which would be vain, nor to enforce one which would be frivolous. The law will not force any one to do a thing vain and fruitless." *Brooms Legal Maxims*, 8th Edition, 209; *Watmough v. Francis*, 7 Pa. St., 205-14; *Manhattan Life*

Insurance Company v. Smith, 44 Ohio St., 156-71; *In the Matter of the Application of 34th Street Railway for the Appointment of a Commission*, 162 N. Y. 343-7.

Upon all the facts, and the law, we find that the establishment of the crossing as asked would be a "vain and fruitless thing." The petition is, therefore, dismissed.

No. 8082—1917.

IN THE MATTER OF RE-ORGANIZATION OF THE CHICAGO, ROCK ISLAND & PACIFIC RAILWAY COMPANY. APPLICATION FOR AUTHORITY TO ISSUE PREFERRED STOCK.

Decided June 18, 1917.

STOCK ISSUE—RE-ORGANIZATION PLAN—APPROVAL OF ISSUE AND PLAN BY COMMISSION.

The plan for re-organization and the purpose for the issuance by the Chicago, Rock Island & Pacific Railway Company, of \$30,000,000 par value, 7% preferred stock and of \$35,000,000.00 par value 6% preferred stock, approved.

WHEREAS, The Chicago, Rock Island & Pacific Railway Company has filed with the Board of Railroad Commissioners of the State of Iowa its application in writing asking for an Order and Certificate of this Board approving the plan and purpose for the issuance by said Railway Company of \$30,000,000 par value of 7% preferred stock and \$35,000,000 par value of 6% preferred stock, and

WHEREAS, The Chicago, Rock Island & Pacific Railway Company has attached to and made a part of said written application a copy of the re-organization plan and agreement of said Company, dated November 14, 1916, as amended November 26, 1916, which written application and plan and agreement for re-organization together set forth in detail the purposes for which said stock is to be issued and the general plan of the issuance thereof, and

WHEREAS, This Board has examined into said plan and agreement and into the matters and things set forth in said written application,

NOW THEREFORE, The Board of Railroad Commissioners of the State of Iowa, do hereby find that the plan and purpose for the issuance of preferred stock, as thus set forth in said application, should be and the same is hereby approved, and the Board does on this 18th day of June, 1917, at the office of said Board in the Capitol Building, at Des Moines, Iowa, all members of the Board being present, approve the plan and purpose for the issuance of preferred stock as set forth in the written application therefor filed with this Board by The Chicago, Rock Island & Pacific Railway Company. A copy of said written application, together with the plan and agreement of re-organization, dated November 14, 1916, as amended November 26, 1916, which together explain the plan and purpose for the issuance of said preferred stock is attached to this Order and by reference made a part hereof, the copy of said written application thus attached to this Order being marked "Exhibit A" and the copy of said plan and agreement for reorganization being marked "Exhibit B."

And this Board does after due, full and complete consideration of said application and said plan and agreement for re-organization at this time, to-wit, June 18, 1917, authorize the issuance of preferred stock according to the plan, in the manner and for the purposes as set forth in said Exhibit B." And the Board does hereby authorize and approve the plan and times in the future as the Board of Directors of The Chicago, Rock Island & Pacific Railway Company may determine upon, or as may be determined upon by the joint re-organization committee referred to in said plan and agreement, copy of which is attached to this Order and marked "Exhibit B." And the Board does hereby authorize and approve the plan and purpose for the issuance of said preferred stock, not to exceed, however, the amounts set forth in said written application and said plan and agreement, copies of which are attached hereto and marked "Exhibits A and B" respectively.

No. 8083—1917.

W. W. BALL, AMES, IOWA, *Complainant*,

v.

FRT. D. D. M. & S. RD. CO., *Defendants*.

Decided July 18, 1917.

Hearing at Des Moines, March 8, 1916.

STATION—NON-AGENT.

Held, the business of the station was insufficient to warrant an order requiring a regular agent.

STATION HOUSE—UNFIT CONDITION OF.

Held, the depot was not properly maintained for the use of the public; that the earnings of the station are sufficient to enable defendant railroad to employ someone, on part time, to keep the depot open, warmed and lighted, a reasonable time before the arrival and after the departure of trains carrying passengers; that shippers desiring to obtain cars should be provided with free telephone service from Napier to Kelly station or other billing station, and proper notice of freight delivery at Napier should be promptly given shippers and the patrons using this station.

For the complainant—W. W. Ball, Ames, Ia.; J. C. Judge, Luther, Ia.; A. V. Smith, Napier, Ia.; H. G. Shedd, Napier, Ia.; Eland Bates, Napier, Ia.; E. B. Ball, Napier, Ia.

For the railroad company—W. R. Dyer, Atty., Boone, Ia.; C. E. Carson, Supt., Boone, Ia.

Complaint was made in this case in the form of letter signed by W. W. Ball, R. F. D. No. 3, Ames, which stated that the fact that the respondent R. R. Co. did not have an agent at Napier Station, was a great inconvenience to the traveling public. Complaint was also made of the unfit condition of the waiting room for use of patrons of the company.

The Railroad Company in reply stated that, in the judgment of the operating officials, the amount of business at Napier did not warrant the continual services of an agent. It was said further,

"We have had an arrangement in effect there for some two years whereby the man who operates the grain elevator located about two hundred feet from the depot is to take care of the station for us, handle our freight business and keep up fires. We feel that this is all that is warranted at Napier and that it should satisfy Mr. Ball or any other fair-minded man."

Hearing was had at due notice at the office of the R. R. Commission, March 8, 1916.

The testimony at the hearing developed the fact that the depot had not been maintained in proper condition for the use of the traveling public, that it had not been properly lighted nor cleaned and that it had not been protected from use by tramps and others who had made the place a nuisance. It was also developed that the freight received and forwarded for 1913 was \$4,556.97, for 1914 \$4,803.29, and for 1915 \$5,319.11. The passenger business is small, having not more than \$1,000 a year.

As stated in this Board's decision in the Page Center case on October 20, 1916.

"The average sum paid by railroads in the western district of the United States for station employes and expenses, as shown in 'Statistics of Railways of the United States, 1913, Interstate Commerce Commission,' pages 53 and 55, is 4.53% of the total operating revenues."

Assuming that the passenger business would be \$1,000 for 1915 would make a total earning at Napier for that year of \$6,319.11, 4.53% of this amount would be \$286, or less than \$24 per month. This would not be sufficient to employ a regular agent and it is our opinion that the record does not disclose sufficient business at this station to warrant an order of this Board requiring the employment of a regular agent.

However, the testimony clearly indicated that this depot has not been properly maintained for the use of the public. It is our opinion that the earnings of this station are sufficient to enable the respondent company to employ some person, on part time, to look after the needs of its patrons, to keep the depot open and at proper times warmed and lighted a sufficient time before the arrival and after the departure of trains or cars carrying passengers, and that shippers desiring to obtain cars for the shipment of produce, should be provided with free telephone service from Napier to Kelly station or other billing station, that shippers should be promptly notified of freight delivery at Napier, and that every consideration should be given the patrons using this station consistent with the earnings of the railroad company.

We recommend that the respondent railroad company take such action at once as will bring the operation of this station in line with the opinion herein expressed. If this is not done within thirty days from date hereof, upon information to that effect, this Board will issue an order.

No. 8084—1917.

CHICAGO & NORTH WESTERN RY. *et al.*

IN THE MATTER OF APPLICATION FOR INCREASE OF MINIMUM WEIGHTS ON GRAIN PRODUCTS. DOCKET B-918.

Hearing at Des Moines, Iowa, Feb. 20, 1917. Decided July 23, 1917.

MINIMUM WEIGHTS ON FLOUR, ETC.

Owing to commercial conditions, a 24,000 lb. minimum on carloads of flour and other mill-stuffs not found unreasonably low for intra-state traffic in Iowa. Petition of carriers for a 40,000 lb. minimum denied.

APPEARANCES:

For the Carriers—James C. Davis, Esq.

For the Shippers—J. H. Henderson, Commerce Counsel; E. H. Scott, Asst. Commerce Counsel; C. E. Childe, Commissioner, Traffic Bureau, Sioux City Commercial Club.

OPINION.

On January 6th there was filed in the office of the Iowa Railroad Commission the following petition:

"Your petitioners, Railroad Companies operating in the State of Iowa, respectfully submit that the present minimum, under the Iowa tariffs, on grain products of all kinds, is 24,000 lbs., while the minimum in most of the adjoining states and the minimum on interstate shipments is in excess of the minimum provided for in the Iowa tariffs.

Petitioners respectfully ask your Honorable Body to adopt, as a part of the Iowa Classification, Rule 1050-B, as same appears on page 14 of Supplement No. 20 to Circular No. 1-M of Western Trunk Lines, issued December 20th, 1916, and effective February 1st, 1917, which is hereby referred to and made a part hereof as fully as if set out herein at length.

Respectfully submitted,

CHICAGO & NORTH WESTERN RAILWAY COMPANY.

By JAMES C. DAVIS, *Attorney for Iowa.*

Said Company representing itself and other railroads operating in the State of Iowa."

Rule 1050-B of Supplement No. 20 to W. T. L. Rules Circular 1-M referred to in the petition and made a part thereof, in a general way provides in Sec. B for a 40,000 lb. minimum on cereal products in cars 40 feet 6 inches and under in length, inside measurement, with a sliding scale for cars of greater length, except as to wheat flour. As to wheat flour, item 1060 W. T. L. Rules Circular 1-M, provides for a minimum weight on wheat of 40,000 lbs. any length car. Supplement No. 6 to this circular, effective August 1, 1916 by item 1060-A, provided a 40,000 lb. minimum on wheat flour on any cars 40 feet 6 inches and under in length, with a sliding scale. This latter item as to wheat flour was suspended by the Interstate Commerce Commission in I. & S. 889. Rule 1060-B, effective February 1, 1917, as shown in Supplement 20, cancelled 1060-A, but does not specifically refer to wheat flour which has the effect

of restoring the 40,000 lb. minimum on wheat flour on interstate traffic in any length car.

After due publication and notice, hearing was had on the application in the office of the Board at Des Moines, February 20, 1917, all Commissioners being present.

The issuance of the notice for hearing brought to the office a large number of protests from the retail merchants of the state, the protests largely coming through the Retail Merchants' Associations. These protests, while not exactly alike, agreed generally in that an advance from 24,000 lbs. to 40,000 lbs. minimum weight on grain products, especially on flour, would work to the advantage of the jobber, and large millers that sell to the jobber, and against the dealer who could not afford to buy the larger car, thus bringing about an unjust discrimination against the small dealer; that if such an advance was granted, the consumer in the end must pay for the additional expense necessary to handling the smaller lots. These protests came from Waterloo, Fairfield, Council Bluffs, Des Moines, Sioux City, Bedford and others. Some of the large grain shippers of the State filed with the Commission their statements endorsing application of the Railway Cos. for increase in the minimum weight on the grain products in the interest of decreasing the car shortage, at that particular time, so distressing to shippers all over the country. Various farmers, grain dealers' companies and co-operative societies of the state, filed their protests with the Commission against any increase in the minimum weight on carloads of grain products.

Mr. M. J. Golden, Asst. General Freight Agent of the C. & N. W. Ry. Co. testified:

That for the year ending June 30th, 1916, "stations on the Chicago & North Western Railway, in Iowa, loaded 394 carloads of flour, destined to stations on various lines in Iowa, and the total number of tons of flour loaded in these 394 cars was 5,039.

"The average load per car was 15.3 tons."

He also testified that the Chicago & North Western had no box cars in service with a capacity of less than 40,000 lbs. During 1916 the average loading of flour was 45,400 lbs. on the Chicago & North Western. Mr. Golden did not believe the average loading in less than car lots on the Chicago & North Western would be less than 10,000 lbs., "and it might greatly exceed that."

Mr. C. A. Lahey, Asst. Freight Traffic Manager of the C. M. & St. P. Ry. Co. testified, that upon his line in the northwestern part of the state they had flour mills and that he had made a canvas of the millers and grain dealers and found there was no pronounced opposition to the increased minimum weight, "There was some opposition on the part of the millers to an increase beyond 30,000 lbs." For the year ending June 30, 1916, the average load of mill products on the C. M. & St. P. system was 23 tons, on Iowa traffic 17.5 tons, and the average haul in Iowa was 88 miles in 1915. The average system haul was 244 miles. Witness did not believe the average loading on wheat flour would be as great as 17.5 tons.

Mr. M. A. Patterson, Asst. General Freight Agent of the C. R. I. P. Ry. Co., testified that the average loading for LCL freight on the Iowa

division of the Rock Island for the month of December, 1916, was 9,811 lbs. Their divisions varied from 8,040 lbs. to 10,573 lbs.

Witness did not believe it was fair "to make a comparison with the tonnage on these LCL shipments and carload shipments, these cars being sent out to give efficient service to jobbers. * * * Today we have only two sizes of box cars, 60,000 to 80,000 lbs. Out of a total of 32,203 box cars, we have 9,572 of 60,000 lbs. capacity, and 22,463, or about 70% of 80,000 capacity. The statement shows 168 cars of 50,000 lb. capacity, but these are all in the work service."

The average loading of flour in Iowa was about 31,000 lbs., and on interstate traffic 41,000 lbs. Witness testified that the great bulk of the business done in Iowa is on interstate traffic. Only about 10% of the gross income in Iowa is credited to local business.

Mr. W. G. Wagner, Asst. General Freight Agent of the C. B. & Q. R. R., testified that the Burlington system owns but 152 box cars of a lower capacity than 80,000.

"These cars are of 60,000 lbs. capacity, and are practically all condemned by this time and out of service. The company owns approximately 31,000, 80,000 lbs. capacity box cars."

Mr. Wagner filed an exhibit showing that 515 cars of grain products moved within Iowa on his line for the year ending June 30, 1916, the average weight of which was 27,200 lbs., that if these cars had been loaded to 40,000 lbs. it would have only required 360 cars to have moved such products; that the average loading of grain products on the C. B. & Q. system during the year ending June 30, 1916, was 41,200 lbs., and if the Iowa loading had averaged the same as the interstate, there would have been required but 325 cars, a saving of 190 cars on Iowa intrastate traffic.

Representatives of the starch manufactories and of the Wholesale Grocers' Associations appeared at the hearing favoring the proposed increase. The witness for the Wholesale Grocers' Associations for Iowa and Nebraska stated:

"Naturally we take the stand as jobbers, that the retailer and the merchant is better off to buy small quantities, as he needs his goods, rather than to invest more money than he should invest. But then the retailer has a right to do just as he pleases."

Messrs. P. A. Ketels and C. E. Childe representing the Sioux City milling interests, testified as to shipping mixed cars of flour and other mixed milling stuffs; that such mixed shipments were necessary because under the present minimum of 24,000 lbs. the average dealer could not handle a carload of flour, and that with the present high price of flour, this condition was aggravated so, that if a 40,000 lb. minimum was ordered, carload business on flour and other mill products in Iowa would be practically at an end. The average small dealer is not only unable to buy so large a quantity of flour for financial reasons, but his trade would not be sufficient to take such flour before it had deteriorated.

Mr. R. P. Purchase, of the Des Moines Fuel and Feed Co., a corporation operating the Interstate Fuel & Feed Co. at Council Bluffs, the Mason City Fuel & Feed Co., and the Creston Fuel & Feed Co., all dis-

tributing points for less than car load shipments, testified that from Council Bluffs carloads are principally shipped in 24,000 lb. cars. He testified to going out among thousands of customers in Iowa, that he had talked with a great many, and in addition had written a letter, with a form for reply, had sent these out to 220 customers and receiving 96 answers. Of these customers who received flour in carloads, 60 averaged 24,000 lbs., 23 averaged 30,000 lbs. and 3 averaged 40,000 lbs. Only 7 of the number answering stated that they could handle carloads of flour and feed in 40,000 lb. loads, 3 said they could handle in 30,000 lb. lots. The others said they would be unable to handle carloads of these commodities.

He testified further:

"There are about 2,000 small dealers in the state. I really believe a large per cent of these fellows would be forced out of business, because I absolutely know they haven't got the finances to swing a large car. In our case, from our viewpoint, I cannot see that it is going to injure us at all. When they cut out the small jobber, it is going to force more buying from such towns as Des Moines, Mason City and Creston. I might also state in reference to the remarks yesterday regarding the minimum from Minnesota, Kansas and Omaha mills, shipping in this territory, the statement was made they were continuing to ship 40,000 lbs. and the buyers were continuing to buy them, but I never seen the mills from other states so ambitious to establish jobbing connections than in the last six months. They make very liberal concessions to any one to take their flour and maintain their brand in the state. I talked with a man from one of the Minneapolis mills last night, and he told me he lost over 50% of his business last year in Iowa as a result of the increase of the minimum in the price (weight?) of flour."

Mr. C. A. Godfrey, with the Beaver Valley Milling Co. of Des Moines, agreed with the testimony of other witnesses, protesting against the proposed increase. He said:

"My contention is, that the result of a 40,000 lb. minimum will result in practically an LCL business in Iowa, because I positively know most of my trade cannot buy a 40,000 lb. car of flour. We do sell quite a few 24,000 lb. cars, but you talk 40,000 lb. cars and they cannot buy it."

Mr. Frank M. Myers, Secretary of the Farmers' Grain Dealers' Association of Iowa, composed of 240 members, representing many thousands of farmers, objected to the proposed increase in the minimum on grain products. These farmers' organizations operate elevators for the grain business primarily, but also handle coal, feed, flour and lumber as side lines. The average capital being about \$10,000.

Mr. J. A. Cunningham, Secretary of the Iowa State Retail Merchants' Association, testified that there were in Iowa 3,271 general stores, of which 813 have a capital of less than \$1,000, 577 a capital of between \$1,000 and \$3,000, 455 a capital of \$3,000 to \$5,000, and 1,426 with a capital of \$5,000 or over. There were 444 bakeries with rating not given. There are 2,761 grocers, 1,350 with less than a \$1,000 capitalization,

612 from \$1,000 to \$3,000 capital, 323 with \$3,000 to \$5,000 capital, 476 capital of \$5,000 or more. Flour and feed men in Iowa, 299, flour and grain mills in Iowa, 275. It was developed from the testimony of Mr. Cunningham that, even though in normal times, if the ordinary grocer could handle a car of flour at 40,000 lbs. it would be impossible for him to do so now with the greatly increased price of that commodity.

Mr. George A. Wrightman, Secy.-Treas., Iowa State Mfgs.' Assn., was asked by the examining attorney for the carriers, whether he would agree with a recent statement made by the Interstate Commerce Commission as follows:

"Within reasonable limits business may be required to adapt itself to the car, but when there is a conflict between the increased size of the car and the necessities of business, business may not be required unreasonably to adapt itself to the car."

Mr. Wrightman replied he would subscribe to a rule of that kind and desired that to be known as his position.

Mr. C. E. Haas, of Le Mars, salesman for the Plymouth Milling Company, an Iowa company, testified that he had many customers in some twenty counties in northwestern Iowa, but that he did not know of any one of his customers who could afford to buy a 40,000 lb. car of flour and feed. If the minimum should be raised to 40,000 lbs., flour would have to go on LCL basis which he regarded as unsanitary on account of other freight in cars. Adopts testimony of previous witnesses.

Mr. C. E. Childe, of Sioux City, representing all the Sioux City millers, states he would make no objections to advance in minimum rates on flour except for commercial conditions. Witness convinced it would be severe injury for the retailers, consumers and the carriers to attempt at this time to increase the flour minimum from 24,000 to 40,000 lbs. Referred to testimony of Patterson and Golden for the carriers, with reference to load weights of less than car load cars viz., 10,000 to 12,000 lbs. Witness said:

"It is obvious that merchandise carloads with only ten and twelve thousand pounds, it would take twice as many merchandise cars to carry the flour in that manner."

Mr. Childe testified that it was in evidence in the Nebraska case, known as order No. 19, that the average LCL car weighed about 10,000 lbs., that the average freight rate obtained by the carriers was something lower than 3rd class.

He submitted a table as follows:

	Rate	Earnings of car of flour 10,000 lbs.	Earnings of flour 24,000 lbs.
3rd class Ia. Distance 25 miles,	\$11.30	\$11.30	\$12.72
3rd class Ia. Distance 50 miles,	13.30	13.30	15.12
3rd class Ia. Distance 75 miles,	14.70	14.70	17.52
3rd class Ia. Distance 100 miles,	16.00	16.00	19.44
3rd class Ia. Distance 125 miles,	17.80	17.80	21.12
3rd class Ia. Distance 150 miles,	19.50	19.50	22.80

Mr. Childe testified that flour moving to a point of consumption is really a movement of freight which utilizes equipment which otherwise moved out empty, which is similar to the movement of merchandise.

These cars come back loaded with grain or hay. The car of flour, while it moves but 24,000 lbs. in an 80,000 lb. capacity car, nevertheless when the big car gets to destination, it is available for loading 80,000 lbs. of grain. Witness also called attention to items 410-F and 1060-B Supplement 20, W. T. L. Rules Circular 1-M which authorizes 5th class on 20,000 lb. minimum on all of cereal products described under that heading in the Western Classification. In every instance, testified the witness, the earnings per car 20,000 lb., 5th class, in Iowa, would be less than 24,000 lbs. flour rate, except for distances over 150 miles.

When the schedule of the Iowa distance tariff rates was first adopted, June 28, 1888 and July 5, 1888, there was no rule fixing the minimum weight on flour and other mill products in carloads. On March 1, 1893 the minimum weight was fixed at 20,000 lbs. and on July 1, 1896 the minimum was fixed at 24,000 lbs. When the Commission adopted the new Iowa Classification, No. 13, effective August 1, 1907, rule 5 raised the minimum to 30,000 lbs., but the Board issued an amendment, No. 6, effective September 23, 1907, making exception to rule 5 as to flour, restoring the 24,000 lb. minimum, which has since remained in effect.

There is no dispute as to certain facts developed in this hearing;

First: The standard box car now in use by carriers generally is a 40 foot car with a carrying capacity of the commodities in dispute in excess of 40,000 lbs. There are practically no cars in active service on any of the larger systems of railways operating in Iowa of a capacity of less than 30,000 lbs., and there are very few of less than 40,000 to 80,000 lbs. capacity.

Second: The local flour and feed mills of Iowa produce but a small proportion of flour and grain products consumed in Iowa, perhaps not more than 25%. These smaller mills supply a limited territory, the evidence indicating that the average haul would not exceed 88 miles.

Third: The average local dealer in flour and other mill stuffs in the towns and villages of Iowa, is running his business upon a very small capital, making it financially impossible for him to purchase a 40,000 lb. car of flour at the present abnormally high prices, also at the prices obtaining prior to the present application for an increase in the minimum weight; that a great many of said local dealers cannot now use the 24,000 lb. minimum except that a portion of a car be made up of feed and other mill products.

Fourth: Even though the local dealer might be financially able to buy a car of flour upon the 40,000 lb. minimum basis, his market is not such that he could dispose of the flour before it deteriorated. Furthermore, it would require additional capital to provide proper storage room.

Fifth: The present minimum in Iowa on flour and other mill stuffs is 24,000 lbs. while upon interstate traffic, to and from Iowa towns, the minimum is 40,000 lbs. on flour, and on other mill stuffs 40,000 lbs. on cars 40 feet 6 inches and under in length, with a sliding scale for other size cars.

The question for this Board to determine, in view of the facts submitted, is whether or not the present minimum, applied to flour and other mill stuffs in Iowa, is unreasonably low and whether the carriers'

application for a minimum of 40,000 lbs. should be found reasonable and just under all the facts and circumstances.

We find that the 24,000 lb. minimum on flour and other mill stuffs obtains in the following neighboring states: Kansas, Missouri, Nebraska and North Dakota; while the 30,000 lb. minimum is effective in the states of Illinois, Minnesota and South Dakota.

In I. & S. Docket No. 76, 25 I. C. C. 442, the Interstate Commerce Commission in discussing minimum weights, on page 607, gave expression to a rule for testing reasonableness of minimum weights, which rule we believe should be the basis of our own finding in the present case. We quote the ruling referred to:

"Minimum Weights. In establishing the minimum weight for a commodity, the test of the physical ability to load a certain weight into a car of given size is not sufficient. If it is in the interest of efficient and economical railway operation to increase the size of cars used, such rate of increase should not exceed the ability of business to adapt itself to the larger cars. The minimum weight for shipments of heavy, low-grade commodities that move in great volume is not calculated to disturb commercial conditions to the same extent that they might be disturbed by a correspondingly high minimum of traffic of a different character. Generally speaking freight cars should be made to fit the business. Within reasonable limits business may be required to adapt itself to the car, but when there is a conflict between the increased size of the car and the necessities of business, business may not be required unreasonably to adapt itself to the car. Statistics for the United States, as well as for leading countries of Europe, show that increases in the size of cars have been accompanied by less economical utilization of car space. The minimum weights prescribed in the three great classifications in the United States have been based quite uniformly upon commercial conditions rather than physical dimensions. The commercial minimum is the real thing and established methods and customs governing business at any particular time should be given proper weight in the establishment of minimum weights at that time."

In I. & S. No. 555, 35 I. C. C. 497, on page 575, the Commission held that the carriers had justified an advance in the minimum on grain products to 40,000 lbs. However, this ruling has been called in question in the re-opened case of the Kansas City Millers Club, et al. v. The A. T. & S. F. Railway Co. et al. I. C. C. Docket No. 8354 and it was ordered by the Interstate Commerce Commission that I. & S. Docket No. 555 heretofore referred to, in so far as it related to the minimum carload weight of grain products, be reopened for further consideration in connection with Docket No. 8354. So that, it is by no means settled that the interstate minimum on flour and grain products shall be 40,000 lbs. but on the contrary this whole matter is up for consideration now by the Interstate Commerce Commission.

The evidence in this case clearly indicates that the average local dealer in Iowa is not financially able to handle a car of flour of 40,000 lbs. Our small dealers with a limited territory not exceeding 60 to 80

miles distance, would find it impractical, if not impossible, to dispose of flour in carloads should the minimum be advanced to 40,000 lbs. With the larger mills operating in the various large cities of the west, with their well advertised brands of flour, the small mill in Iowa would find it impossible to compete, should the minimum be advanced to a point where there would be no more demand for carloads from the local dealer.

It has always seemed to be the policy of the carriers in this country to so adjust rates, rules, and regulations as to favor the larger manufacturing centers. Perhaps this is but natural, as the carrier thereby gets a long haul on the raw material with a long return haul on the finished product. This policy however, should not be permitted to be carried to such an extent that the small manufacturer or the small dealer is made to pay an excessive charge for the product which he handles, and which excessive charge must necessarily be reflected in the price paid by the consumer.

While Iowa is one of the greatest grain producing states in the union, it is not one of the greater producers of wheat and our local mills must largely purchase their wheat at distant points. In such cases the carriers get haulage of the raw material and shipments out of the finished products. Wheat flour is a staple article of food and no undue or excessive burdens should be placed upon it to hamper its free movement as expeditiously and as cheaply as is consistent with a reasonable return to the carrier for the service performed.

It was shown in uncontroverted testimony that the earnings on a car of flour at the present rates and minimum exceed the average earnings for a car of less than carload merchandise. In the latter case, the railroad company must pay for loading and unloading, adding to the terminal cost, while in the carload movement of flour, the carrier has practically no terminal expense except the setting of the car in position for loading and unloading.

It was shown by one of the witnesses for the carriers that if the shipments of flour in Iowa had been advanced to a higher minimum weight it would have saved the use of a much larger number of cars. We do not believe that it would have saved the use of a larger number of cars, for under the increased minimum the flour and feed would not have moved in carload quantities, which would have increased the number of merchandise cars necessary to carry the increased amount of less than carload movement of flour and other mill stuffs. If this conclusion is correct this would not only have required more cars for the business, but an additional burden of terminal expense upon the carriers.

It is the opinion of witness testifying in behalf of shippers that if the minimum weight in Iowa on flour and mill stuffs is increased the effect would be the closing of a large number of the small mills in Iowa and the virtual abandonment of any considerable movement of carloads of flour and other mill stuffs between points in Iowa.

We do not believe we would be justified taking any action that would result in financial disaster to the mills now operating in Iowa, even though they are small and of limited capacity. The carriers insist that in the interest of uniformity, this Board should adopt the 40,000 lb. minimum as petitioned for. We find, however, that this 40,000 lb.

minimum now applied on interstate traffic, is by no means finally settled but is open at the present time for investigation by the Interstate Commerce Commission in the case cited.

This Commission also favors uniformity but we desire uniformity to be upon a fair and reasonable basis. We do not believe that rates, rules, regulations or practices should be made to the detriment or annihilation of the small manufacturer or dealer, even though the heavily capitalized and concentrated plants in the larger shipping centers may not find such rates, rules, regulations or practices burdensome or unreasonable. The consumer is seldom, if ever, given consideration in the matter of rate or traffic adjustments, but we believe he should be remembered, at least, in so important a matter as a traffic adjustment on the shipments of wheat flour, and that some one at least should make an effort to protect him from increasing cost.

It is in evidence in this case that the cost of flour to the consumer in Iowa will be materially increased by the adoption of an increased minimum. This would be the indirect result because of the inability of the local dealer to handle flour in so large a quantity. The demand for larger cars for enlarged business is true, but this demand is measured by the necessities of commerce. The Interstate Commerce Commission has repeatedly held, that minimum weights shall be fixed upon the necessities of business as well as upon loading capacity.

Wheat flour is one of the necessities of human life and at this time, above all others, in our history, we should have most convincing reasons for adopting any rule or making any order that would in any way hamper or curtail the largest possible manufacture and the freest possible movement of so important a commodity. Such evidence, proof or argument has not been submitted to the Board by the carriers in this case upon whom the burden of proof must rest.

We have therefore reached the conclusion that the petition of the carriers herein should be and is hereby denied.

No. 8085—1917.

MEN'S PROGRESSIVE ASSOCIATION, Mt. Zion, Iowa, Complainant,

v.

THE CHICAGO, ROCK ISLAND & PACIFIC RAILWAY COMPANY, Defendants.

Decided July 23, 1917.

Hearing at Des Moines, November 4, 1915.

SCALES FOR WEIGHING LIVE STOCK—STATION FACILITIES.

Petition for stock scales at Mt. Zion. Held, stock weighing scales at shipping point are not a necessity in the transportation of live stock, provisions being made for weighing the stock at the market, upon which weights the freight charges are assessed; that such scales at the station would be largely for the use of the stock buyer and the producer.

SCALES FOR WEIGHING LIVE STOCK—DISCRIMINATION.

Discrimination for failure to maintain stock scales not alleged nor was any evidence submitted on that point. Held, under the facts presented and in view of the holding in the case of *Great Northern Railway Co. v. Minnesota*, 235 U. S. 349, order requiring scales would not be justified. Petition dismissed.

For the Complainant—Dwight N. Lewis, Asst. Commerce Counsel; G. V. Barker, J. P. Syfert, G. W. Workman, and C. R. Walden.

For the Railway Company—A. W. Eberhart, D. F. A.; C. W. Jones, General Manager.

The Men's Progressive Association of Mt. Zion, a station on the line of the C. R. I. & P. Ry. with terminals at Des Moines and Keokuk, wrote the Board requesting that some action be taken to procure for that station stock scales. Correspondence followed with the Railway Co., and on February 10, 1915, C. W. Jones, General Manager, advised the Commission as follows:

"I have checked up the situation at Mount Zion and find the stock yards consist of two pens, one covered, no scales. The town has a population of 77; there is very little shipping from that station—in fact, for the entire year of 1914 there were but 19 cars of live stock moved from Mount Zion consisting of ten cattle, two hogs and seven sheep. The business offered at that town does not justify stock scales, and we certainly feel we should not be asked to furnish facilities of this character that are not needed or used by the railroad in handling of live stock, but simply for the convenience of the farmers and the stock buyer at a shipping point offering less than two cars of live stock per month."

On April 19, 1915, formal petition was filed by the Men's Progressive Association of Mt. Zion, a village of about 100 inhabitants, bearing the signatures of H. B. Sherrod, as president, J. M. Barker, vice-president, and J. L. Syfert, secretary, and other members of the Association, thirty-six in all. This formal petition recited:

First: That the complainant association was a volunteer organization of business men and shippers of freight, residing at or near Mt. Zion.

Second: The petitioners requested that the Board require the respondent railway company to provide stock scales at Mt. Zion.

Third: That the stock shipped by the petitioners and others might be weighed at the time shipment was made and for such other and further orders as the Commission might deem just and equitable.

The answer of the Rock Island was made by Mr. C. W. Jones, Gen. Mgr. for receivers, on the day of April 28, 1915, denying that the railway company would be justified in placing stock scales at Mt. Zion.

After due notice, hearing was had in the office of the Railroad Commission at Des Moines, on November 4, 1915.

But little testimony was taken at this hearing, but the case of complainants was largely made of affidavits signed by W. G. Wolf, Clem Perkins, and John E. Nelson, farmers residing near Mt. Zion. The affidavits uniformly stated that the affiant was a farmer living near Mt. Zion and that because of lack of facilities at Mt. Zion he was compelled to drive his stock to Keosauqua or Stockport for shipment to market; that if the freight service through Mt. Zion were such that stock could be put on the Chicago market more conveniently, a great deal of stock would be shipped from Mt. Zion; that a pair of stock scales at Mt. Zion are necessary for shipping purposes. The affidavits also referred to freight train service

concerning which no complaint had previously been filed. There was also an affidavit signed by Findlay & Fellows stating they were shippers and buyers in Van Buren County, Keosauqua, Mt. Zion and vicinity; and, "that it would be a great convenience and benefit to us and to the farmers in the neighborhood if a pair of stock scales were installed at the said town of Mt. Zion, Iowa; that it is impossible for us to receive stock at said point now as there is no means of weighing at said point."

The railway company, through its representatives, reiterated its opinion that the business was insufficient to the building of stock scales and denied that the Board of Railroad Commissioners had authority to make an order for stock scales under the evidence submitted.

No evidence was submitted nor were any allegations made, claiming discrimination. The case being entirely developed along the lines of convenience to the public.

There is no specific statute in Iowa authorizing this Board to make an order requiring installation of stock weighing scales at railway stations. Section 2113 of Supplement to Code 1913, gives this Board general supervision over the railroads of this State and it would be under this provision of the statute that this Commission would have authority, if any, to make an order in this case.

Such stock weighing scales as are asked for herein are not a necessity in shipping stock over the railroad as ample provision is made at markets for the weighing of stock, but would be a convenience to the stock raiser for the better and more satisfactory manner in dealing with the stock buyers located at the station. The weights so ascertained would not be conclusive either as to the weight of the car upon which the freight charges would be based or upon the weight of the stock at the market to which consigned. Such scales would be largely for the information of the shipper and for making settlement between the farmer or producer and the stock buyer at the station.

The Minnesota Railroad Commission made an order in a case similar to this, requiring the respondent railway company to install stock weighing scales at the village of Bertha on the line of the Great Northern Railway. The order of the Minnesota Commission was based largely upon the theory that the village of Bertha was being unjustly discriminated against by reason of stock scales provided at other stations. The order of the Commission was sustained by the Minnesota Supreme Court (122 Minnesota, 55, 57-58) and was appealed to the U. S. Supreme Court. In disposing of this case, the latter Court said:

"The business of a railroad is transportation and to supply the public with conveniences not connected therewith is no part of its ordinary duty. The obvious purpose of the challenged order was to enforce installation at Bertha of a scale like those at Eagle Bend and Hewitt and dedicated to same use. Under admitted facts, unless justified by alleged unlawful discrimination, we think this was an arbitrary and unreasonable exercise of power. It is no answer to say, as counsel do, that the Commission

has 'general authority to require railroad companies to supply the necessary demands of the public along transportation lines; that it has a right to require the company to build and maintain such facilities as are necessary for the public needs.' The demands upon a carrier which lawfully may be made are limited by its duty, and the present record conclusively shows the required structure had no direct relation thereto." Further the Court says, "Conceding power to inhibit discrimination the Commission could not exercise it unreasonably by needlessly taking property or, what comes to the same thing, obliging incurrence of expense wholly unnecessary. It by no means follows, simply because a railroad voluntarily supplies a convenience at some stations which attracts trade, that it can be commanded positively to do likewise at other places along the line. A railroad's possessions are subject to its public duty but beyond this and within charter limits, like other owners of private property, it may control its own affairs.

Discontinuing the use of existing scales would abate the alleged discrimination and probably entail little, if any, outlay. The Commission's order precluded use of this method to bring about lawful conditions and therein, we think, was plainly arbitrary and unreasonable."

The judgment of the Supreme Court of Minnesota was reversed. (*Great Northern Railway v. Minnesota*, 238 U. S. Reports, 340, 345-347).

It is our opinion, under the facts presented in this case and in view of the decision of the U. S. Supreme Court herein quoted, that this Board would not be justified in making an order requiring stock weighing scales at Mt. Zion and the case is therefore dismissed.

Commissioner Lewis, having appeared for the complainant in this case, takes no part in this finding.

No. 8086—1917.

CITY OF FORT DODGE, IOWA, *Complainant*.

v.

MINNEAPOLIS & ST. LOUIS RAILROAD COMPANY, *Defendant*.

Decided July 24, 1917.

VIADUCTS OVER RAILROAD TRACKS—NECESSITY FOR—APPROVAL OF PLANS FOR.

Complainant city passed a resolution of necessity requiring defendant railroad company, under section 779 of the Code of Iowa, to build a portion of a proposed viaduct over its tracks and right of way. At the point where a viaduct is sought to be constructed defendant's tracks intersect Third Street in what is known as Soldier Creek Valley, which valley is between 500 and 600 feet wide. Soldier Creek is on the north side of said valley at the foot of a hill 120 feet high, 25 feet of which height is very precipitous, 40 or 50 feet very steep, the remainder of the height, more gradual in ascent. The railroad tracks are on the south side of the valley, about 25 feet higher than Soldier Creek. The hill immediately south of the tracks is about 50 feet higher than the tracks, 35 feet of which is very abrupt. The valley separates the main, from a smaller part of the city. *Held*, the presence of the railroad tracks does not make necessary the proposed viaduct; that if

there were no tracks in the valley the reason for the viaduct would still exist; that, if there is a necessity for the proposed structure it is because of the natural physical conditions for which the railroad company is not responsible. (*Citing State ex rel. City of St. Paul v. St. P. M. & M. Ry. Co. et al*, 64 N. W. (Minn.) 1149).

VIADUCTS—CONSTRUCTION OF STATUTE.

Section 779 of the Code, on which the proceeding is based, provides the total expense of construction of such viaducts shall be borne by the railroad company, while the resolution of necessity passed by the complainant city required the railroad company to construct not to exceed 800 feet of the proposed viaduct, or about three-fourths of the total length. *Held*, a railroad located in a canyon across which it is impracticable to build a highway cannot be required to build three-fourths of a viaduct from 46 to 80 feet high, made necessary by the natural contour of the earth, to which condition the presence of the railroad tracks do not contribute.

VIADUCTS—CONSTRUCTION OF STATUTE.

Section 2017 of the Code of Iowa provides that when a railroad crosses over or under an existing highway it shall put the road in as good repair and condition as before the alteration. *Held*, under the facts there is no violation of the provisions of this statute, no road being interfered with, the street existing of record, but where, in fact, there is no road.

(On petition for rehearing of the above case, further testimony was introduced and arguments heard on September 6, 1917. Petition for rehearing dismissed.)

For the City—J. F. Ford, Mayor; C. H. Smith, Commissioner; A. H. Northrup, Commissioner; M. J. Mitchell, City Solicitor.

For the Railroad Company—B. B. Burnquist, Atty., Fort Dodge, Iowa.

The City of Fort Dodge, Iowa, having taken the necessary steps to require the Minneapolis & St. Louis Railroad Company to erect a viaduct over its tracks, at Third Street, in said city, application was made to this Commission to examine and determine if such viaduct be necessary for the public safety and convenience, and asking approval of the plans of said viaduct, which had been adopted and approved by the City of Fort Dodge.

The city, by its resolution of necessity, requires the railroad company to build the portion of the "viaduct over its tracks and right of way, and approaches thereto, not exceeding a distance of eight hundred feet." The railroad company objects to this proceeding, assigning numerous reasons, a part of which are as follows:

"That said plans and specifications show on their face that the contemplated construction is a structure, which will greatly exceed in cost, height and length any reasonable or necessary demand under existing conditions, and said plans and specifications show on their face that the necessity for building of said bridge is not the location of the tracks of the Minneapolis & St. Louis Railroad Company, but that said contemplated improvement is planned by the city of Fort Dodge for the sole purpose of spanning a wide valley with said bridge for the convenience of its citizens, irrespective of the location of the tracks of said company.

That the physical situation is such that no grade crossing could be constructed at this point at the present time.

That the said contemplated improvement is not for the purpose of making safer, or connected with in any way, the crossing of said railroad company's tracks."

Notice of a hearing was given, and, on April 17, 1917, this Commission, at the City of Fort Dodge, made an examination of the premises, and heard all parties in interest.

The general direction of Third street is north and south, and at the point where the viaduct is sought to be constructed it crosses what is known as Soldier Creek Valley, the general direction of which is east and west. The floor of this valley is between five and six hundred feet wide. On the south of Soldier Creek Valley is the main part of Fort Dodge. North of the creek is a smaller part of the city, locally known as Round Prairie. Soldier Creek is on the north side of the valley, at the foot of a hill, the height of which is 120 feet. About 25 feet of this height is very precipitous; some 40 or 50 feet is very steep, and the remainder of the height is a more gradual ascent.

The railroad tracks are located on the south side of the valley, their level being about 25 feet higher than Soldier Creek. The rise from the creek to the tracks is very gradual. The hill immediately to the south of the tracks is about 50 feet higher than the railroad track, about 35 feet of which is very abrupt. The remainder of the height is not so abrupt, but is too steep for a city street for traffic.

Before the railroad was built there was no road on the line of Third Street for wheel traffic, and its natural condition was such that its use as a street was impracticable without the construction of a viaduct across the valley. Neither the city nor the county bridged the creek for wagon use before that time.

The engineer who drew the plans for the viaduct testified that if there was no railroad in the valley the same necessity for a bridge would exist. The fact of the presence of the railroad does not require any longer or higher bridge than is required to properly bridge the valley.

The proposed plans call for a reinforced concrete bridge 930 feet long, divided into six spans, with concrete walls at each end to be filled with earth, for approaches, which approaches have a total length of 98 feet, making the total length of the structure 1028 feet. The north end of the bridge to be about 12 feet higher than the south end; the width is 35½ feet, with 25 foot roadway and sidewalks on each side. The floor of the span over Soldier Creek is 80 feet above the creek. The next span south is 65 or 70 feet above the earth. The next span south, 66 feet, the next span to the south 64 feet, and the span over the railroad track is 46 feet higher than the track or ground elevation spanned by this arch. There are two other tracks under this span, one of which is one foot lower and the other four feet lower than the track first mentioned, and all on a right of way 100 feet wide. The engineer estimated the cost of constructing this viaduct at \$80,000. We believe his estimate is much too low, in view of present prices.

About the year 1902 an iron bridge was built on this street, under agreement between Webster County, the city of Fort Dodge, and the two railroad companies then owning the three tracks, now owned by the Minneapolis & St. Louis Railroad Company. This bridge is about 800 feet long and 26 feet wide. At the north end 25 feet lower, and at the south end 21 feet lower than the proposed structure. The old bridge is yet in use, and its span over the railroad gives a clearance of about 25 feet above the top of the rail. It is claimed, and it is probably true, that the viaduct in its present condition is not safe for present traffic. Our investigation leads us to believe that it can be put in a safe condition at comparatively small expense for the kind of traffic heretofore using it. It is also true that the approaches to this bridge are so steep that it is not practicable for heavy modern traffic.

In 1891 the city of Fort Dodge asked this Commission to require the companies then owning the tracks now complained of to erect a crossing over their lines on Second Street (now called Third Street). The application was made under Section 1262 of the Code of 1873, which, with its various amendments, is now Section 2017 of the Supplemental Supplement, being our general crossing statute. The Commission then passing upon the application, among other things, said:

"The highway before the road was built was practicable only for persons traveling on foot. It is still so, and probably has always been. For teams, it was and is impracticable."

The ruling then states that the city desires to open Third Street, has bridged the creek and begun an embankment across the flat in the direction of the railroad; and finds and orders "after the city shall have constructed practicable roadways at each side and up to the right of way at the proper elevation to cross the railroads, that the railroad companies should construct and build a bridge and such other roadway over the right of way as may be suitable for the street crossing." *Iowa Railroad Commissioners' Report, 1892, p. 802.* It appears that Fort Dodge never constructed the roadway as provided in the foregoing case.

In 1899 the city of Fort Dodge having then become a city of more than 7,000 population took the necessary procedure under Section 770 Code, to cause a viaduct to be constructed on Third Street over the railroads, and the railroads refusing to build such viaduct, application was again made to this Commission to require the roads to build such structure. The roads then answered the complaint in substantially the same manner the Minneapolis & St. Louis now answers this complaint. This Commission, as then constituted, said of the conditions:

"From a personal inspection of Third Street and the place where it is proposed to construct and build the viaduct the Board is convinced that this proposed viaduct is not made necessary by reason of the construction of the railway tracks crossing this street and the operation of trains thereon; but that it is made necessary by reason, and on account of the surface of the ground between the banks on each side thereof being very much lower, so much so that it is unfit for traveling, except perhaps, for foot passengers." *Iowa Railroad Commissioners' Report 1900, p. 78.*

The Commission at that time declined to find and determine that the viaduct as planned by the city was necessary for the public safety and convenience. It disposed of the case by finding that Fort Dodge and the two railroad companies ought to agree as to the construction of a viaduct, and that the railroads should construct a viaduct "over the right of way of the two companies and the approach thereto extending from the companies' right of way on Third Street being the south approach to and upon said viaduct." This conclusion was reached in June, 1900, and in July, 1901, Webster County, the city of Fort Dodge, and two railroads, agreed upon the construction of a bridge, which was built about 1902, as before stated.

Code Section 770 provides that no "viaduct shall be required until the Railroad Commissioners shall have examined and determined the same to be necessary for the public safety and convenience, and the plans of said viaduct prepared as hereinafter provided shall have been approved by the said Board."

The plan presented for the approval of this Commission is very evidently intended to provide a better connection between the two parts of the city which are separated by a canyon about 600 feet wide and a hundred feet deep, the walls of which are too perpendicular to admit of a practical highway being made of earth. This plan calls for one span 80 feet in height, and the span over the railroad track is 46 feet high, being a clearance twice as great as is required for the operation of trains. Can it be said that this plan is necessary for the public safety? The present viaduct has a clearance of 25 feet over the railroad tracks, which is surely sufficient to insure public safety. There is no question but that the plan presented would be convenient for the public, but it cannot be said that it is necessary for the public safety. Code Section 770 contemplates the building of a viaduct over or under a railroad in a city where the construction and operation of the railroad makes the use of a grade crossing dangerous and inconvenient to the public, and where such viaduct is necessary for the safety and protection of the public. In the present case there is an entire absence of any showing that any person has ever been injured or been in any danger of an injury by reason of said railroad, or that any person has been seriously inconvenienced thereby. If there was no railroad in the valley the reason for the viaduct would still exist. The presence of the railroad does not make the viaduct any more necessary than does the existence of Soldier Creek, which is a little stream only a few feet wide. The railroad in this instance is only an incident, and not a cause. Neither the viaduct planned, nor the one now in existence has been made necessary by reason of the construction and operation of the railroad. If there is a necessity for the proposed structure, it is because of natural physical causes for which the railroad company is in no way responsible.

The section under which this proceeding was had provides for the total expense of construction of such viaduct to be borne by the railroad. We have in mind that the resolution of the City Council of Fort Dodge asks that the railroad be required to construct not to exceed 800 feet of the proposed viaduct, which would be more than three-fourths of the total

length. We are certain that Section 770 will not permit of such construction. It cannot be that a railroad located in a canyon across which it is not practicable to build a highway, can be required to build three-fourths of a viaduct from 46 to 80 feet high, made necessary by the natural contour of the earth, and to the necessity of which the railroad did not contribute. We find that the viaduct as planned is not necessary for the public safety, and we decline to approve the plans for said viaduct which have been submitted to us.

The only other section of our statute making specific provision for crossing of railroads, is Section 2017, Supplemental Supplement to the Code. The material parts of said section in the consideration of this case, are as follows:

"Any such corporation may raise or lower any turnpike, plank road, or other road, for the purpose of having its railroad cross over or under the same, and, in such cases, such corporation shall put such road, as soon as may be, in as good repair and condition as before such alteration * * * * *"

When it is desired by any citizen of, or the Board of Supervisors of any county, or by the township trustees of any township, or by any railroad company operating a railroad in this state, for the safety of the public using such highway, to change, alter, relocate, or vacate an established highway * * * * * the Railroad Commissioners of this state * * * * * are authorized and empowered, after hearing, upon reasonable notice, to determine the necessity for such crossing, the location thereof, whether the same shall be at grade or otherwise, the manner in which the same shall be constructed, maintained or changed, the division of expense thereof, and generally to make such orders in respect thereto as are equitable and just. * * * * *"

This statute provides that when a railroad crosses over or under an existing highway, it shall, as soon as may be, put the road in as good repair and condition as before the alteration. No complaint can be made of the road in question for violation of this provision of the statute. No road was interfered with. The street was crossed at a place where a road existed of record, but where, in fact, there was no road. For all practical purposes, the railroad did not disturb the street. The other part of the statute provides, among other things, for building viaducts where there is necessity for such crossing for the safety of the public using such highway, giving this Commission the authority to make a division of the cost and to make such orders in respect thereto as are equitable and just. Concerning the necessity and the safety of the public with reference to this crossing, our discussion and findings with reference to the provisions of Section 770 are applicable here. And it would be neither equitable nor just to grant the application of Fort Dodge for a viaduct over the tracks of the railroad 46 feet high, at the cost of the railroad, when no act of the railroad made such a viaduct necessary.

Some question has been raised whether Section 2017, Supplemental Supplement, is applicable to the present case. There is no reason why we should now decide that question.

If it should be conceded that, under the general powers of this Commission, it would have the right, in a proper case, to make an order for a viaduct, we believe that in its facts this case is not one where such power should be exercised.

During the hearing of this application, in response to a question, the attorney for the city stated: "I think the M. & St. L. should pay the cost of the south approach and that part of the structure over its right of way."

Our attention has been called to a Minnesota case, in which the court said:

"Under the charter provisions of the company which built the tracks now used by the Great Northern Company, it had the right and authority to construct its railway upon and across any public or private way, road or street, subject however, to the duty, liability and obligation to put such way, road or street, in such condition and state of repair as not to impair or interfere with its proper use."

This is in essential features not unlike the provisions of the first sentence of our Code Section 2017, above referred to.

The case referred to was a mandamus proceeding to compel the railway companies to construct a bridge over their respective tracks where they crossed two streets in the city of St. Paul. It was shown that the railroads were in a valley or gorge about 50 feet deep and 600 feet wide, the sides of which were precipitous and could not be ascended or descended except by pedestrians, and then with great difficulty. That as they were in a state of nature the sides and bottom of the valley could not have been used for ordinary streets. It was impassable, except for persons on foot, unless bridged or graded from side to side. The first railroad was built in this valley in 1862. There are now 25 tracks within the sides of the valley, the floor of which has been raised by grading, all of which tracks are from 30 to 40 feet below the rim of the valley. If the natural obstacles in the way of crossing could not be removed, surface crossings would not be feasible. If the tracks were out of the way, the natural obstacles would remain. The necessity for the valley to be bridged existed without regard to the railroads. Upon this state of facts the court said:

"Bridging the tracks that the streets may be open to the public is proper, necessary and expedient, not because of the presence of the tracks, but because of natural surface features of the ground and lay of the land topographically. The natural conditions would remain if every track were removed, and such removal would have no effect upon the propriety, necessity or expediency of bridging the valley, instead of improving the street in some other way. So that the necessity and expediency in question arose independently of and was entirely unaffected by the respondents' tracks or their frequent use." *State, Ex Rel., City of St. Paul v. St. P. M. & M. Ry. Co. et al.*, 64 N. W., 1140.

Upon the peculiar facts in this case, and for the reasons stated, we believe this application should be, and the same is hereby dismissed. If the city was so improving Third Street by a roadway or a viaduct that the railroad was to be the obstacle to be overcome, a different question would be presented.

RULING ON PETITION FOR REHEARING.

Decided November 3, 1917.

For the complainants—M. J. Mitchell, City Solicitor; J. F. Ford, Mayor. For the defendant—B. B. Burnquist, Atty., Ft. Dodge, Iowa.

Upon the petition for rehearing, further evidence was introduced in this complaint and the same was reargued on September 6, 1917, and after hearing all of the evidence, the argument of counsel, and having duly considered the whole matter, this Commission finds no reason to change its former ruling in this case, and the petition for rehearing is therefore dismissed.

No. 8087—1917.

CITIZENS OF OGDEN, IOWA, Complainants,

v.

CHICAGO & NORTH WESTERN RAILWAY COMPANY, Defendant.

Decided Aug. 3, 1917.

STREETS—DANGEROUS CROSSING OF RAILROAD AT GRADE.

The town of Ogden petitioned for reasonable protection at certain streets crossing defendant's railroad tracks at grade, alleging grade crossings could be avoided in some cases by subways; in others, by viaducts; and that other grade crossings should be equipped with gates or other protection. With the petition for crossing protection was joined another petition by the same parties asking an order requiring the defendant railroad company to build a new freight and passenger depot, alleging inadequacy of the present building.

The ground on which Ogden is situated is quite level. The deepest cut made by the railroad through the territory in question is about four feet, and the greatest fill or embankment does not exceed two feet. At one of the crossings in question there are two tracks; at three crossings, three tracks; at one crossing, four tracks; and at another crossing, five tracks. *Held*, on account of the level character of the ground at the several crossings, the number of tracks to be crossed, and the great length of approaches required to make a proper grade to the proposed viaducts or subways, such protection would not be feasible. *Held*, that defendant railroad company shall protect the crossings at Fourth Street with proper gates, and, First and Seventh Streets with electric bells or other sufficient crossing protection, upon the condition that the town of Ogden shall close the grade crossings at Third, Fifth and Sixth Streets.

DEPOT BUILDING—INADEQUACY.

The present station building is found to be old, too small for the public needs, poorly heated, ill ventilated, improperly lighted, and not reasonably susceptible to such remodeling and repairs as would make it adequate. *Held*, that the defendant railroad company shall build, within six months, a good, sufficient and adequate freight and passenger station.

For the complainants—Dr. Sickler, Mayor; Frank Porter, Atty.; W. D. Miller, Publisher; Henry Ehlers, Councilman; Wm. Bakley, Councilman; Chas. Erickson, Councilman; Dwight N. Lewis, Asst. Commerce Counsel.

For the railway company—J. C. Davis, Atty., Des Moines, Iowa; F. H. Hammill, Asst. Genl. Supt., Boone, Iowa; F. J. Byington, Supt., Boone, Iowa.

January 4, 1915, the municipal officers, and a large number of other residents of the town of Ogden, Iowa, joined in a petition to this Commission, stating that the main line of the Chicago & North Western Railway Company runs parallel with, and only a short distance from, the main business street of the town; that nine of the streets of the town cross said tracks at grade; that accidents, which might have been prevented by reasonable crossing protection, have occurred at the different crossings; the grade crossings are dangerous, and some of such grade crossings can be avoided by making subways under the railroad; at other places by viaducts over the railroad, at moderate expense; where viaducts or subways are not practicable, the grade crossing should be equipped with gates or other protections.

The tract of ground upon which Ogden is built is quite level. From Seventh Street, in the west part of the town to the street crossing farthest east, the deepest cut made by the railroad is only about four feet; the greatest fill or embankment is not to exceed two feet. To make an overhead crossing the clearance between the top of the rail and the beams supporting the floor of the viaduct should be at least twenty-two feet. The floor of the structure carrying it will be about two feet, making the top of the floor of the bridge twenty-four feet above the top of the rail. This road is double-tracked, and in the town there are additional tracks. At one crossing there are only two tracks; at three crossings there are three tracks; at one crossing there are four tracks, and at four crossings there are five tracks. These conditions mean that the bridges will be very long and their approaches will extend far into the cross streets in order to secure an easy and proper grade for the approach.

To make the proper under-track crossing the vertical clearance should be at least thirteen feet. The roof would necessarily have to be heavy in order to carry the rail traffic. In modern construction at least two feet is required over the top of the subway to properly carry the track. This would mean that the floor of the subway would be about fifteen feet below the present street levels, and the approaches to these subways would necessarily extend long distances into the cross streets in order to have a proper grade for the approaches. Of course, viaducts or subways can be built, but, on account of the level character of the land at these crossings, we consider them not feasible. The conditions such structures would create in the town of Ogden would not be tolerated by its citizens. The elevation of the track at what is known as Eighth Street, being the west corporate line of the town, is such that a subway is more practical than at either of the other crossings. At this crossing there are three tracks, making the subway and its approaches very long and expensive.

Hearing of this protected crossing application was fixed for October 1, 1915, at Ogden, at which time and place the municipal officers and a large number of other residents of Ogden, substantially the same persons who filed the original petition in this matter, filed a petition asking that the Chicago & North Western Railway be required to build a new station building, alleging that the present depot is wholly inadequate to accommodate the public using such station and waiting for their trains; that lights are not provided for the platform and station grounds; shelter is not provided for passengers who take the westbound trains, and that passengers for such trains are required to cross over two tracks and wait in the open.

Without any formal agreement to do so, it was the understanding of the petitioners and the representatives of the railroad that the application for a new station should be considered with the petition for protected crossings, and that possible orders might be made with reference to street crossings which would take into consideration a new location of the freight and passenger station. Upon the part of the applicants it was stated that Fifth, Sixth, and Seventh Streets might be closed, if a subway were built at Eighth Street; Second Street to be closed if First Street is protected, and Fourth Street to be protected by gates or other safe method; Third Street to be open to foot traffic only.

The Attorney for the railway company asked two weeks' time in which to take up the proposition of the new station building with the officers of the company, when propositions would be made by it as to protection of crossings, and possibly as to new depot. The petitioners being willing that this request be granted, the hearing was adjourned.

We have no record of what occurred between the parties, but have been informed that within the two weeks asked by the railroad it did make a proposition to the town council of Ogden, involving the construction of a new station building, the closing of certain street crossings, and the protection of other crossings by the railroad, which proposition was acceptable to the town. Afterwards, some question arose as to the title the railroad would acquire to so much of the street as would be included by its right of way line, and the town failed to meet the proposition of the company.

In an informal way, some of the municipal officers of Ogden later presented the matter of their failure to make an adjustment with the railway company, to this Commission. It seemed to the Commissioners to whom the matter was presented that the cause of the disagreement was more a matter of form than of substance. Having the hope that the matter would be adjusted by the parties, we have allowed this matter to rest until this time. This having failed, we believe the case should be determined.

Ogden is a town of about 1,300 people, in a very fertile country, devoted almost entirely to agriculture. Practically all of its business houses, and a large part of its residences, are south of the tracks of the Chicago & North Western Railway. The present station building is on the north side of the track, between Third and Fourth Streets. It is old, too small to meet the present needs of the public, poorly heated, ill ventilated, not

properly lighted, and lacks nearly all of the facilities a passenger station should have; and the building is such that it is not susceptible of such remodeling and repairs as would make it adequate, without practically rebuilding it.

The railroad has sufficient ground upon which to erect a passenger and freight station proper and adequate for such a town, on the south side of its tracks, between Sixth and Eighth Streets. If the depot should be so located, a great deal of the crossing of tracks now necessary would be eliminated. The public school building is north of the tracks. The Lincoln Highway, one of the greatest automobile routes across the continent, is so laid out and built that it crosses this railroad in the town of Ogden. These facts demand consideration.

There are more grade crossings in this town than are necessary to properly accommodate the traffic. While grade crossings are the rule in this state, and our courts have frequently declared such to be the policy of this state, yet, the danger of such crossings must be recognized, and wherever such crossings can be eliminated without serious inconvenience to the public, or unreasonable expense, it should be done. In towns like Ogden, where it is not practicable to make separation of the grades of the streets and the railroad, the crossings should be reduced to a reasonable number, and these protected by gates, crossing men, or other reasonable and sufficient manner to insure safety to persons using such crossings.

The railroad in question is one of the heavy trunk line carriers crossing the state. Of necessity, many of its trains must make high speed. People living in towns along it have many advantages, and there are also some inconveniences, among others being the fact they cannot use streets crossing the railroad with the freedom they would if there were no railroad to cross. In consequence of this, the ordinary right to make and use streets at pleasure must to some extent be surrendered by the particular community for the good of the general public.

The use of Third Street as a crossing for vehicles has, in a large measure, been abandoned by the town of its own motion. Its water tower having been erected in the intersection of Third and Locust Streets, being the first intersection north of the railroad track; but the crossing is yet open for pedestrians.

In our judgment, Third, Fifth and Sixth Street crossings should be closed. Fourth Street should be protected by gates, and First and Seventh should be protected by electric bells or some other sufficient and efficient manner of protection.

It is, therefore, and hereby ordered, that the Chicago & North Western Railway Company shall build at Ogden, Iowa, within six months from the time of this order, a good, sufficient and adequate freight and passenger station, in all respects suitable for such town.

It is further ordered that the Chicago & North Western Railway Company shall protect the crossings at Fourth Street with proper gates, and First and Seventh Street with electric bells, or other sufficient crossing protection, upon the condition that the town of Ogden shall close the grade crossings where Third, Fifth and Sixth Streets cross the said railroad tracks.

Commissioner Lewis having appeared for the city of Ogden, while Assistant Commerce Counsel, takes no part in this opinion.

RULING ON PETITION FOR REHEARING.

CITIZENS OF OGDEN, IOWA, *Complainants*,

v.

CHICAGO & NORTH WESTERN RAILWAY COMPANY, *Defendant*.

Decided November 3, 1917.

STREETS—DANGEROUS CROSSING OF RAILROAD AT GRADE—CONDITIONAL ORDER TO BUILD NEW DEPOT.

The petition for rehearing asked an order to have Speckelmire and Howe Streets included in the Commission's ruling on original hearing as streets not to be opened across the tracks of defendant company, and also that the Commission require "as a condition to the construction of the station referred to, that the controversy in the matter of the surface crossing be determined." *Held*, that Speckelmire and Howe Streets should not be opened to cross the tracks of defendant company. *Held*, that while the Commission is not justified in making an order for the building of a new station condition upon the closing of certain streets as provided in the original opinion, it will so construe its former ruling, as not to "take the necessary steps to require the construction of said station until after said streets are closed as provided in said ruling."

For the complainants—Dr. Sickler, Mayor of Ogden; Frank Porter, Atty.; W. D. Miller; Henry Ehlers, Councilman; William Bakley, Councilman; Chas. Erickson, Councilman; D. N. Lewis, Asst. Commerce Counsel.

For the defendants—J. C. Davis, Atty., Des Moines; F. H. Hammill, Asst. Genl. Supt., Boone; F. J. Byington, Supt.

A petition for rehearing in this case asking that the Commission require that Speckelmire and Howe Streets be included in the ruling of this Commission as streets which are not to be opened crossing the tracks of the railroad company and also asking that the Commission require "as a condition to the construction of the station referred to, that the controversy in the matter of the surface crossings be determined." Upon the hearing of this petition for rehearing, the Commission has determined and now finds that Speckelmire and Howe Streets should not be opened to cross the tracks of the said railway company.

Upon the proposition of making the building of the station conditioned upon the closing of certain streets as provided in the opinion heretofore filed in this case, this Commission does not now feel justified in fixing such a condition, but the Commission does now inform the City of Ogden that it will so construe its ruling heretofore filed that it will not order or take the necessary steps to require the construction of said station until after said streets are closed as provided in said ruling, and the railroad company will not be required to commence the construction of the new station prior to April 1, 1918.

Commissioner Lewis took no part in this ruling.

No. 8088—1917.

MAURICE O'CONNOR, FOR PEOPLE OF VAIL, IOWA, *Complainant*,

v.

CHICAGO & NORTH WESTERN RAILWAY COMPANY, *Defendant*.*Decided September 7, 1917.*

DRAINAGE—STATUTES—JURISDICTION OF COMMISSION.

The tracks and bridges of defendant company are so constructed as to cause the waters of a small creek to back up during heavy rains and to flood eight or nine blocks of plaintiff town; that by reason thereof, cellars and lower floors of buildings are damaged. The adequacy of the railroad service and the safety and convenience and accommodation of the railroad to the public using it as a common carrier, is not questioned. *Held*, the commission has no jurisdiction of the subject matter and cannot require the railroad company to construct or reconstruct its railroad so as to relieve the land owners of damages from flood waters. Following *Brosnan v. C. R. I. & P. Ry. Co.*, 49, Ann. Rep. Ia. Ry. Comm. 117.

For Complainant—Maurice O'Connor, Atty., Vail.

For the Railway Company—J. C. Davis, Atty., Des Moines; Geo. E. Hise, Asst. Atty., Des Moines.

The petition in this case sets out that the town of Vail is situated on the line of the Chicago & North Western Railroad; that the tracks and the bridges of said railroad have been so constructed that they cause the waters of a small creek to be backed up and impounded at times of heavy rains, so that they overflow and flood, once or twice a year, about eight or nine blocks of said town. By reason of the flooding of the cellars and lower floors of the buildings the property owners are damaged. This Commission is asked to "take such action as may be necessary to relieve said town and the people thereof from further injury and damage caused by the obstructions to the natural flow and escape of the water kept and maintained through and across the south part of said town by said railway."

The defendant claims that the stream crossed by its bridge "at flood times is always out of its banks and overflows lands to the south and that this is a condition which is neither created nor aggravated by the construction of the railway and cannot be improved by any change in the bridge."

In our view of this case it will not be necessary to consider any controversy as to the facts. No question is raised of the adequacy of service or safety of the railroad or concerning the convenience or accommodation of the public using the road for carrier purposes. Under the acts complained of does this Commission have jurisdiction to require the railroad company to so construct or reconstruct its road as to relieve the land owner of damages from such flood waters?

Complainant insists that the Commission has jurisdiction of this case under Sec. 2113 of Supplement Code. He quotes the section as follows: "when in the judgment of the Board any railway corporation falls in any respect to comply with * * * the laws of the State; or when in its judgment any repairs are necessary * * * for the health and convenience of the public * * * or change in the mode of oper-

ating its road or conducting its business and expedient in order to promote the security, convenience, and accommodation of the public, the Board may make an order prescribing such improvements and changes."

Concerning this claim we think the "laws of the state" referred to in the statute necessarily mean those laws which have been enacted for the protection of the public using the road for transportation purposes and other such laws as apply specifically to railroads. Our attention has not been called to any law in this state providing the manner in which a railroad shall be constructed in order to avoid flooding the lands of other persons. The contention that this Commission has jurisdiction in this case under the provision of the statute in relation to "repairs" which are necessary, is, we think, not applicable in this case. We believe the "repairs" here provided for mean such repairs as are necessary in order to properly operate the road. The orders which this Commission may make on account of "the health and convenience of the public" are orders in relation to a change in the stations or station houses or in the equipment of the railroad. This part of the statute, we think, is not applicable to the present case, as no complaint whatever is made of any injury to the health or convenience of the public connected with the operation and use of the railroad for transportation purposes, and no claim is made that the road is unsafe by reason of such overflow.

In our judgment, this Commission does not have the power to make orders against a railroad company where the order affects only private or individual rights; that the jurisdiction of this Commission relates to railroads in their capacity as common carriers and to matters affecting the public as distinguished from private or individual rights. We have been unable to find any authority of this Commission to exercise supervision over the construction or maintenance of a railroad save such supervision as concerns the safety of and the adequacy of the service rendered by the railroad to the public in its capacity of a common carrier.

In the case of *Brosnan vs. the C. R. I. & P. Ry. Co.*, lately decided by this Commission, we have more fully discussed the principles and the rulings of the Courts in relation to a like question, and we believe the facts in this case bring it within the principles of that case.

In our judgment, this Commission does not have the power to provide the relief here asked, and this complaint is, therefore, dismissed.

No. 8089—1917.

JERRY BROSNAN, DES MOINES, IOWA, *Complainant*,

v.

CHICAGO, ROCK ISLAND & PACIFIC RY. CO., *Defendant*.*Decided September 7, 1917.**Hearing at Des Moines, July 11, 1917.*

DRAINAGE—STATUTES—JURISDICTION OF COMMISSION—DAMAGES.

The complaint is on account of injury to land caused by the flow of surface water through culverts under defendant's roadbed. Order is asked requiring the company to construct such drainage as will pre-

vent overflow of the plaintiff's land. *Held*, the commission has not all the powers of a court; that it has no power to grant injunctions or award damages for injuries done by changes in natural water courses; that its power is confined to the making of orders, the object of which is to obtain security, convenience and adequate service of railways for the public using such roads for transportation purposes.

DAMAGES—DRAINAGE—PUBLIC RIGHT AS DISTINGUISHED FROM PRIVATE RIGHT—
— CHARTER RIGHTS AND OBLIGATIONS OF RAILROADS.

The jurisdiction of the commission relates to railroads as common carriers and to matters affecting public rights as distinguished from private rights. *Held*, the right sought to be enforced by plaintiff is a private right, not affecting the railroad as a common carrier nor affecting the security, convenience or accommodation of the public; that the statutes do not prescribe the manner of railroad drainage, hence there is no violation of the charter obligation of the company or of the laws governing the operation of railroads in that respect.

NOTE—The above case was followed in *Morris O'Connor v. C. & N. W. Ry. Co.*, 40 Ann. Rep. Ia. Ry. Comm. 116.

For the Complainant—J. H. Henderson, Commerce Counsel; Jerry Brosnan, Des Moines.

For the Railway Company—F. W. Sargent and R. E. Bailey, Des Moines.

Jerry Brosnan, whose land lies immediately south of the Chicago, Rock Island & Pacific Railway in the vicinity of Thirty-fifth Street, Des Moines, Iowa, complains that the railway has been so constructed as to change the course of drainage and the discharge of water upon his lands at a different place and manner than the natural drainage and that the flow of water on his land has been increased, by reason of which acts he has been greatly damaged.

Near the northwest corner of Brosnan's land is a large culvert in the embankment of the C. R. I. & P. Ry. North and a little west of this culvert, is a like culvert in the roadbed of the C. M. & St. P. Ry. Through these openings the water from the land that lies to the north flows onto the Complainant's land. The only complaint is on account of the injury to Brosnan's land. He asks this Commission to require the Railway Company to construct such drainage as will prevent his land from being overflowed.

The defendant challenges the jurisdiction of the Iowa Railroad Commission in this case and asks that the complaint be dismissed.

There is no statute in this State specifically covering the question here involved and our jurisdiction, if any, must be found in Sec. 2112 of the Code and 2113 Supplement to the Code.

This Commission does not have all the powers of a court. It has no power to grant an injunction or to award damages for injuries done by changes in water courses. By Code Sec. 2112, it is given "the general supervision of all railroads," and it is its duty to "investigate any alleged neglect or violation of the laws of the State by any railroad corporation doing business therein." Sec. 2113, Supplement to the Code, more specifically recites the powers and duties of the Commission as follows:

1. To examine into and inspect the condition of each railroad, its equipment and the manner of its conduct and management with regard to the public safety and convenience in the State.

2. To make semi-annual inspection of its bridges, report to the company if unsafe, and prevent trains being run over bridges when they are unsafe.

3. To require railroads to provide shelter for its patrons at stations where two or more tracks are operated and to require roads to connect their tracks by proper switches upon such conditions as the Board may determine.

4. When, in its judgment, any railroad fails "to comply with its charter or articles of incorporation or the laws of this State" this commission may make orders prescribing the duty of such railroad.

5. It may make orders for repairs on the road when necessary.

6. It may make orders for addition to the rolling stock.

7. Make orders for addition to or change in its stations or station houses or of equipment thereof for the health or convenience of the public.

8. Make changes in the rates of fare for transporting freight or passengers.

9. Make orders for such changes in the mode of operating the road or conducting its business as is "reasonable and expedient to promote the security, convenience, and accommodation of the public."

The only part of Sec. 2113 under which complainant could, with reason, claim that this Commission has jurisdiction of the matter of his complaint is found in the 9th division of the Section as we have separated it. It will be observed that the orders we may make under that provision as to the operation of the road or the conduct of its business are to be such orders as are reasonable in order to promote the security, convenience, and accommodation of the public. Can it be said that the relief asked by Brosnan is reasonably necessary to the security, convenience, or accommodation of the public?

A careful reading of these sections shows that the object to be attained is the security, convenience and adequate service of the railway to the public using the road for transportation purposes. Anything which tends toward insecurity or inadequacy of service to the public using the road for carrier purposes may be remedied. If the claim is made that this Commission can make orders against the railroad because it has failed to comply with the laws of the State or has acted in violation of the laws of the State, it should be noticed that such failure to observe a violation of laws must certainly refer to a violation of laws enacted for the protection of the public using the road for transportation purposes. It could not, for illustration, have reference to violation of the criminal laws, such as violations of laws prohibiting the transportation of liquors or other like laws.

"Commissions created by statute have no jurisdiction other than that conferred by statute."—*Sheldon vs. Sill*, 8, Howard 411. "When those things are mentioned of which a court has jurisdiction, no other is implied."—*Marbury vs. Madison*, 1, Cranch 137. In *Cyc.*, Vol. 33, p. 47, speaking of railroad commission it is said, "It may be stated as a general rule that since such bodies are statutory tribunals of limited jurisdiction they can exercise only such powers as they are authorized to exercise by the statute."

The power of this Commission to make orders was challenged in *State of Iowa vs. Mason City & Ft. Dodge Railway Co.*, 85 Iowa, 516, in which case the railroad was built through a farm diagonally, dividing it into two nearly equal parts. The land was used for pasture and it was necessary for the owner to drive a large amount of live stock across the railroad track twice a day. The railroad refused to provide an adequate crossing. Upon application the Commission ordered an adequate crossing. The railroad company claimed that the Commission was without jurisdiction to make such an order, that the commission had only the power to make rules, orders and regulations, affecting the railroad in its capacity as a common carrier and as to matters affecting the public as distinguished from private or individual rights. The court, after quoting Sec. 1268, (now 2022 of the Code,) being the Section requiring the railroad to make an adequate farm crossing where the land has been cut in two by the construction of a railroad, said, "The Section of the Statute quoted is a part of the law under which the Defendant company accepted the franchise and constructed its railway * * * * *. Its obligation to provide such a crossing arises out of its acceptance of corporate rights under the general laws of the State. * * * * *. Our conclusions then are that the railroad commissioners, in cases where a person owns land on both sides of a railroad, have authority to make inquiries and orders as to a means of an adequate crossing for the same and that a violation of the law by the corporation in respect thereto involves a public right. * * * * *. Our holding is based on the relation and obligation of the corporation to the people at the inception of its incorporation and in no way involves contractual or business relations directly between the corporation and the individual."

The charter of a corporation consists of its articles of incorporation taken in connection with the law under which it was organized.—*Chicago Board of Trade vs. Building Co.*, 136, Illinois, Appellate 606. This being true and the statutes of this State providing that a railroad shall build an adequate crossing for the person who owns land on both sides of the railroad, it is a violation of its charter for the company to fail to build such crossing and of such violation this Commission was given specific jurisdiction by Sec. 2113, as pointed out above.

In the case of *State vs. C. M. & St. P. Ry. Co.*, 152, Iowa, 317, the railroad claimed this Commission had no authority to order it to accept coal loaded in the cars of other railroads. The Court said, "It certainly would be a great inconvenience to the public to be compelled to unload and re-load in the Defendant's equipment every car of coal that the dealer might wish to send out over the Defendant's road, simply because the coal was received by him in cars belonging to a private person or another road." This case was a service case and came clearly within the provisions of Code Sec. 2113, which authorizes this Commission to make such reasonable orders as will promote the convenience and accommodation of the public.

The cases above cited hold that the jurisdiction of this Commission relates to railroads in their capacity as common carriers and to matters affecting the public as distinguished from private or individual rights.

The right sought to be enforced by Brosnan is entirely a private right, in no way affecting the railroad as a carrier nor the security, convenience, or accommodation of the public. The statute does not prescribe the manner in which a railroad shall be drained, hence there is no violation of its charter or of the law governing the operation of railroads.

In our judgment, this Commission does not have the power to order the relief asked by Mr. Brosnan and his complaint is therefore dismissed.

NO. 8090—1917.

CHICAGO, BURLINGTON & QUINCY RAILROAD COMPANY, CHICAGO, ILL.,

Complainant.

v.

SUPERVISORS OF CLARKE AND LUCAS COUNTIES, IOWA, *Defendants.*

CROSSINGS—PROPOSED NEW HIGHWAY ACROSS RAILWAY—APPLICATION FOR APPROVAL OF CROSSING.

County Supervisors tentatively located a highway across defendant's railroad, subject to the approval of the railroad commission. Held, grade crossing at the proposed point would be dangerous on account of a curve and deep cut in the railroad close to where highway crosses the tracks; that an overhead crossing would require the relocation of the highway and to make the road practicable for loads, many thousands of dollars would have to be expended for grading; that while the new road would be convenient for the private use of farmers, testimony did not show the proposed highway would be used to any considerable extent for general public travel. Petition denied.

FARM CROSSINGS—PROPER CONDITION OF.

It was ordered that a certain farm crossing on the county line, built for the convenience of farmers owning land on both sides of the railway, be improved by the railroad company and made suitable for the passage of heavy farm loads and machinery.

For the Complainant—J. P. Cummings, Supt., Ottumwa, Ia.; G. A. Laubenfels, District Engr., Burlington, Ia.

For Lucas County—W. A. Elliott, Member Board Supervisors; N. E. Allen, Member Board Supervisors; F. J. Yengel, Member Board Supervisors; H. A. Selk, County Engineer.

For Clarke County—O. J. Swan, Member Board Supervisors; F. H. Friday, Member Board Supervisors; M. C. Foster, Member Board Supervisors; John Harlan, County Engineer.

For Iowa State Highway Commission—L. M. Martin, Highway Engr., Ames, Ia.

DECISION OF THE BOARD.

In the matter of the proposed establishment of a new highway along the Lucas and Clarke County line over and across the Chicago, Burlington & Quincy right of way. File A-2453.

The Board of Supervisors of Clarke and Lucas Counties tentatively located a highway along the county line between said counties over and across the main line of the Chicago, Burlington & Quincy Railroad, subject to the approval of the railway crossing by the Board of Railroad

Commissioners of the State of Iowa. The point at which it is proposed to locate this highway crossing over the Chicago, Burlington & Quincy Railroad is between the towns of Lucas and Woodburn, at the place where the main line intersects the county road running north and south between Lucas and Clarke Counties. It is about three-fourths of a mile south of the Blue Grass Trail, a county highway extending east and west, and about half a mile north of a transstate highway running east and west. It is now proposed to locate a township road north and south along the county line, about one and one-half miles in length, connecting the two east and west highways now in use. At the south end this proposed highway will terminate on connecting with the east and west, and about half a mile north of a transstate highway running on the county line.

Three farmers live on the proposed new road to the north of the railroad, one in Lucas County and two in Clarke County. Their outlet to market towns is through the Blue Grass Trail, now reached by them over a private road about twenty feet wide, on the county line. A small creek, which is dry part of the year, crosses the county line, running in a southeasterly direction about half way between the railroad and the Blue Grass Trail. Another creek crosses the proposed highway to the south of the railroad, and during high water the farmer who lives south of the creek is unable to cross the stream to reach that part of his farm lying between the creek and the railway. West of the proposed crossing the railway passes through a deep cut, on a curve, which makes it impossible for persons standing at the proposed crossing to see trains approaching from the west until they reach a point within about three hundred feet. Between the railway and the Blue Grass Trail there are two hills. It is necessary to pass over both, making two ascents and descents, in order to travel from the proposed crossing to the Blue Grass Trail. These hills are of rather steep grade, three of them from six to ten per cent, and the fourth one, which is about four hundred feet long, was estimated by the Iowa Highway Commission engineer to have a grade of fully fourteen per cent. At a point about four hundred feet west of the proposed crossing, an overhead crossing could be constructed at an expense of \$8,000.00 or \$10,000.00. As the proposed county line road, if established, will be a township road, only a limited amount of funds will be available for grading and repairs. The east and west roads now established are the natural routes of travel for the residents thereon to the town of Lucas and Woodburn. For occasional visiting or exchanging work with neighbors to the north and south, the proposed highway would be useful. The testimony at the hearing did not prove that the proposed highway would be used to any considerable extent for general public travel. It was alleged that it might help to secure a rural mail route, if established.

The new road would be convenient for the private use of the farmer living on the south road and owning land north of the creek, as the bridge would be useful in times of high water. The bridge over the north creek would be important to the three farmers living north of the railway track, enabling them to more easily get out to the Blue Grass Trail. The testimony indicated that the bridges would be more important than

the crossing. Three children of Mr. Waynick, living north of the track, now attend school in Lucas County and go through the fields to the school house located about two and one-half miles southeast from their home. They are compelled to cross the creek on the railroad bridge at times of high water. If the road were opened and the south creek bridged, they would probably attend a country school located about two and three-fourths miles southwest of their home in Clarke County. It does not appear that they would be obliged to travel much farther if they were to attend the school at Woodburn by taking the route north to the Blue Grass Trail and then going west to Woodburn.

It was suggested at the hearing on the premises, by Mr. L. M. Martin, State Highway Engineer, that it would be very expensive to grade the proposed road and that it is doubtful as to whether the township would have enough money to do the grading or to keep the highway in repair. Mr. Martin suggested that the road be relocated. Starting north of the north hill, he recommended that it diverge from the county line to the east about forty rods, taking a southerly direction and returning to the county line near the proposed crossing, thus avoiding the hills. Under ordinary conditions, it would not be practicable to haul loads of any size over the hills to the north of the railway unless an expenditure of many thousands of dollars were made for grading. If at some time in the future a north and south road farther south on the county line is opened, and a consequent increased demand makes it necessary to require a highway across the railroad, it will then be necessary to construct an overhead crossing at the point named west of the county line, because a grade crossing would be a constant menace to life and property. State and local authorities are attempting to co-operate to reduce the number of dangerous railroad crossings, and it would be very bad policy to create new death traps of this character. If the overhead crossing were constructed, it would also be necessary to relocate the highway north of the railroad around the hills east of the county line in order to secure practical grades for either heavy or light travel going to or coming from the Blue Grass Trail.

At the present time there is a farm crossing on the county line, and another one some distance west, on the same farm, for the convenience of the farmer owning land on both sides of the railway. The farm crossing on the county line is not in good condition. If properly graded, the county-line farm crossing, as now located, will answer every purpose for convenience of land owners in passing to and from lands on the south side of the track. Improvement of the highway from the Blue Grass Trail south about a half a mile, and the construction of one bridge, would afford every facility for reaching the Blue Grass Trail, which appears to be the natural outlet of the three farmers living north of the track. Suitable schools can doubtless be reached conveniently by that route.

This Commission, therefore, finds that it would be unwise to establish a grade crossing in such a dangerous location; and that it would be unreasonable to order an expensive overhead crossing for the small amount of public travel liable to use the highway as proposed.

It is, therefore, ordered that, within sixty days from date hereof, the present farm crossing be improved by the railway company to make it suitable for the passage of heavy farm loads and machinery, and that the case be dismissed as to the establishment of a highway crossing.

NO. 8991—1917.

CITIZENS OF CROMWELL, IOWA, *Complainants*,

v.

CHICAGO, BURLINGTON & QUINCY RAILROAD COMPANY, *Defendant*.

Decided September 22, 1917.

Hearing at Des Moines, Ia., Dec. 10, 1912.

TRAIN SERVICE—ALLEGED INADEQUATE PASSENGER.

Citizens of Cromwell allege inadequate passenger train service in that while people of Cromwell can reach the county seat, Creston, about midday, there is no train returning from Creston to Cromwell on the same day, which stops at Cromwell, notwithstanding train No. 9 leaves Creston at 7:27 P. M., passing Cromwell without stopping at 7:35 P. M. Cromwell has a population of 179 people; it is about five miles from Cromwell to Creston by rail and about four and one-half miles by wagon road. Two east-bound trains stop at Cromwell daily and two west-bound trains stop at Cromwell daily. There was no testimony that any considerable number of patrons would use the train requested, locally between Cromwell and Creston, or who would patronize train No. 9, should it be required to stop at Cromwell. Considering the request made by the National Council of Defense that railroads acting in connection therewith, be not required by public authorities to make improvements and carry on projects involving expenditure of money and labor, except when absolutely necessary for war purposes or public welfare—*Held*, no showing has been made in the instant case of absolute necessity for the train service requested and the case is dismissed without prejudice.

For the Complainants—J. H. Henderson, Commerce Counsel; F. V. Sparr, S. H. Manatrey, David Gault, L. M. Randolph, Cromwell, Iowa; W. H. Peake, McPherson, Iowa; Dr. M. B. Reed, Cromwell, Iowa.

For C. B. & Q. R. R. Co.—W. D. Eaton, Atty., Burlington, Iowa; E. R. Puffer, G. F. A., Chicago; P. S. Eustis, P. T. A.; W. G. Wagner, A. G. F. A.

On September 5, 1912, the citizens of Cromwell, Union County, which, by the 1915 state census, is shown to have a population of 179, filed with Board of Railroad Commissioners by Commerce Counsel, J. H. Henderson, complaint alleging inadequate passenger train service and for cause of complaint made the following allegation:

"That Creston, six miles east of Cromwell, is the next station east, and is the county seat of Union County. That the next nearest station is Prescott, on the same line of railroad, eight miles distant. That while the people of Cromwell may go to their county seat, Creston, about the middle of the day, there is no train upon which they may return to Cromwell on that same day, which stops at that station, notwithstanding there is a train known as No. 9 which leaves Creston at 7:27 P. M. and passes through Cromwell about 7:35 P. M. That the respondent railroad company is failing to provide adequate passenger train service

for said town of Cromwell, and that the people thereof are unable by the present train schedule to go to their county seat and return the same day, and that said railroad company is thereby failing to promote the security, convenience and accommodation of the public."

On October 28, 1912, the railway company filed its answer in which it said:

"That the town of Cromwell therein referred to, is a very small hamlet and produces very little business. That train No. 9, the stoppage of which has been sought by the complainants herein, is a through interstate train, performing through service, and that under the conditions surrounding the operation of said train it would be unreasonable to require the stoppage of the same at said town of Cromwell. That to require this defendant to so stop said train would place an unlawful burden upon interstate commerce. Defendant further shows to the Commission that it would be unlawful, as well as unjust and unreasonable, for this Commission to order this defendant to stop said train at Cromwell. Defendant further states that the passenger facilities now furnished at said station are adequate and reasonable, in view of all the circumstances."

Pursuant to notice to all interested parties, the Board held hearing in the case in its office at Des Moines, on December 10, 1912, at which time considerable testimony was taken and exhibits filed. At the same time testimony was taken in the case of Citizens of McPherson against the same railroad company in a similar matter.

In presenting this case Judge Henderson, Commerce Counsel, said:

"I am directed to say that the citizens of Cromwell while they would prefer to have a train going east to Creston in the forenoon, will be content to have the 2:05 train as it is, which will give them several hours in Creston, provided No. 9, or some train equivalent thereto, stops at Cromwell, so that they can get home in the afternoon of the same day."

The facts, as elicited in the testimony, indicated that there were a number of citizens in Cromwell who desired to go to Creston, the county seat, to transact business and return the same day but were unable to do so by using the passenger train service afforded by the Chicago, Burlington & Quincy Railroad Company.

The railroad company contended that No. 9 was an interstate, through train, running on fast schedule, and that the passenger business to be accommodated by the running of an additional train would not be sufficient to pay actual expenses of operating the train and, in support of the latter contention referred to, an experiment was made by the railroad company in compliance with an order of the Iowa Railroad Commission of December 2, 1908, in case No. 3622. In that case the railroad company put on another train which was run until December 31, 1910, a period of two years, but upon a showing that the train was not earning expenses, the Commission authorized the discontinuance of the experiment.

No member of the present Commission was a member of the Board which heard this complaint but the record is clear and complete. We find that Cromwell is a small town as shown by the census of 1915, having a population of 179, a decrease in population from the census of 1910 when it was shown to have 268. It is about five miles by rail from Cromwell to Creston, the county seat, and from four and one-half to five miles by wagon road. Two passenger trains stop at Cromwell, going east, daily, one at 2:05 P. M. and the other at 7:10 P. M. Two passenger trains stop at this station going west daily, one at 1:56 A. M. and the other at 11:51 A. M.

There seems to be little complaint as to adequacy of passenger train service except the inability to go to Creston and return the same day. There is no testimony indicating that there would be any considerable number who would use a train, as requested, locally between Cromwell and Creston or patronize No. 9 should it be required to stop at Cromwell.

In the case of Gladson v. Minnesota, 166 U. S., 427-429, it was found that the cost of stopping a passenger train at a station in Minnesota was from \$1.25 to \$1.60 and the time consumed from five to seven minutes. In the case of Lake Shore & Michigan Southern Railway Co. v. Ohio, 173 U. S., 285, it was found that the average time required to stop a train for the purpose of receiving and letting off passengers, was about three minutes. No. 9 is a heavy, through interstate train and it would probably cost in the neighborhood of \$1.50 to make the stop. This we can only assume from reading the cases already decided and not from any proof submitted in the instant case.

Many cases were cited by Counsel with reference to the power of a State Board of Railroad Commissioners to interfere with the operation of through interstate passenger trains. It is unnecessary to cite these cases at this time but it is clear, from the holdings of the Supreme Court of the United States that the State, through its legislature and by its duly accredited administrative board, may require adequate passenger train service even though such requirement may result in the stopping of through interstate trains to accommodate local business.

The National Council of Defense, through Secretary Lane, early in this year requested that the railroads organize a war board for the purpose of expediting traffic so that the government might not be impaired in its movement of military necessities. The Railway War Board was organized and is co-operating with the National Council of Defense. A number of State Commissioners met with this War Board in an informal conference in May of this year. Hon. C. E. Aitchison, formerly a member of the Railroad Commission of Oregon and now special solicitor for the National Association of Railroad Commissioners at Washington, D. C. has been the special representative of the State Railroad Commissions in conference with the Railroad War Board. In July, 1917, this War Board acting in connection with the National Council of Defense, circularized the State Commissions suggesting, that during the war, the railroads be required by public authorities to make no improvements and to carry on no projects involving the expenditure of money and labor except when absolutely necessary for war purposes or public welfare. The circular mentioned as among the non-essentials,

the erection of new stations, the elimination of grade crossings, and the continuance of passenger service which was merely convenient and was not justified by public necessity.

The State Commissions throughout the Union have responded to these suggestions and are endeavoring, during the war period, to confine their orders requiring expenditure of money or labor to absolute public necessity rather than public convenience. It may be necessary before peace is finally declared that many passenger trains now operating upon main and branch lines be temporarily abandoned in order that greater efficiency may be had in the movement of food products and other necessities, military stores and troops.

No such showing has been made in this case as would indicate an absolute necessity for the train service requested and we have therefore reached the conclusion that, under all the circumstances and conditions as they exist at this time, we should make no order herein. The case is therefore dismissed without prejudice.

No. 8092—1917.

CITIZENS OF MCPHERSON, IOWA, *Complainants*,

v.

CHICAGO, BURLINGTON & QUINCY RAILROAD CO., *Defendant*.

Decided Sept. 22, 1917.

Petition filed at Des Moines, Ia., March 7, 1912.

TRAIN SERVICE—ALLEGED INADEQUATE PASSENGER.

Upon consideration of the same things that are involved in the case of *Citizens of Cromwell v. C. B. & Q. Rd. Co.*, 40 Ann. Rep. Ia. Ry. Comm. 124, petition dismissed without prejudice.

This complaint is similar to the one presented by the citizens of Cromwell against the same railroad and without going into the merits of the case and without determining whether, under ordinary conditions, an order might be made, the case is dismissed for the reasons stated in the complaint of the Citizens of Cromwell v. Chicago, Burlington & Quincy R. R. Co.

No. 8093—1917.

W. T. WARNOCK, *et al.*, GUERNSEY, IOWA, *Complainants*,

v.

CHICAGO & NORTH WESTERN RY. CO., *Defendant*.

Decided Sept. 22, 1917.

Petition filed at Des Moines, Ia., Aug. 21, 1913.

TRAIN SERVICE—ALLEGED INADEQUATE PASSENGER.

Without holding a hearing, upon consideration of the same things that are involved in the case of *Citizens of Cromwell v. C. B. & Q. Rd. Co.*, 40 Ann. Rep. Ia. Ry. Comm. 124, petition dismissed without prejudice.

The petitioners in this matter requested additional passenger trains on the branch line operating from Belle Plaine to Miami or Consol.

At the time the complaint was made and at the present time there is one passenger train each way per day. The train leaving Belle Plaine at 8:15 A. M. arrives at Consol 11:56 A. M. Leaves Consol 12:06 P. M. and arrives at Belle Plaine 4:00 P. M.

A number of petitions were received by the Commission requesting additional train service. The railway company contended that the passenger train service was now maintained at a loss, and that it could not comply with the request of the petitioners. No hearing was had in the case, and in examining the record as made, the present Commission, no member of which was a Commissioner when this case was filed, believes that it is unnecessary at this time to hold such hearing. We are of the opinion that this case, at this time, should be dismissed, and it is so ordered.

It should be understood, however, that in thus disposing of this case, at this time, we are not holding, that under ordinary conditions an additional passenger train might not be required to be operated upon this branch line of the railway company. Upon this we express no opinion.

Practically all State Railroad Commissions are co-operating with the National Council of Defense, with special reference to the Railroad War Board, in making no orders requiring railroad companies to expend labor or money unless the public welfare absolutely requires it or to make orders requiring additional train service wherever it may be possible to transact the necessary business on the present schedule.

No. 8094—1917.

M. McDONALD, ET AL, TYRONE, IOWA, *Complainants*,

v.

CHICAGO, BURLINGTON & QUINCY RAILROAD CO., *Defendant*.

Decided September 22, 1917.

Petition filed at Des Moines, Ia., Nov. 2, 1912.

TRAIN SERVICE—ALLEGED INADEQUATE PASSENGER.

Without holding a hearing, upon consideration of the same things that are involved in the case of *Citizens of Cromwell v. C. B. & Q. Rd. Co.*, 40 Ann. Rep. Ia. Ry. Comm. 124, petition dismissed without prejudice.

Originally this case was brought before the Commission on September 18, 1912, by a letter from Miss M. McDonald, a school teacher at Tyrone, who desired that she might go to Albia after the close of school and return to her school work in the morning on No. 3, leaving Albia at 8:19 A. M. and arriving at Tyrone about 8:35 A. M.

The railroad company declined to accede to the request, stating that Tyrone consisted of one small store and a house, and that the average passenger receipts at the station were \$1.76 per day divided among three trains. Later a petition was filed, on November 2, 1912, bearing the names of about 150 signers. The petition recited that Tyrone, nine miles west of Albia, Iowa, was without train service going west except one train at 3:16 P. M. The petitioners desired that passenger train No. 3, going through Tyrone about 8:35 A. M., be required to stop on flag.

No member of the present Commission was a member of the Board at the time this petition was filed.

Tyrone is a small village, the state census of 1915 according it a population of 50. It has one passenger train No. 79 going west at 3:16 P. M. and two passenger trains going east daily, No. 178 at 9:52 A. M. and No. 4 at 5:40 P. M., the latter being a flag stop.

No hearing has been had in this case and, at this time, we do not believe one is required. It is quite evident from reading the records in this case, that Tyrone is not such a station as to absolutely require additional train service at this time, although it might be a great convenience to a few persons. In view of the fact, too, that, during the war in which we are at present engaged, it is necessary to conserve all of our transportation facilities to the utmost, we have determined to dismiss this case without prejudice to the right of the petitioners to again present this matter when the war has closed.

State Commissions generally throughout the Union are co-operating with the National Council of Defense in not requiring railroad companies to expend either labor or money for facilities or service which are not absolutely required for the welfare of the public. The Iowa Commission is no exception to the general rule.

No. 8095—1917.

JOHN HAMMILL, FOR H. H. LEE, BRITT, IOWA, *Complainant*,

v.

MINNEAPOLIS & ST. LOUIS RAILROAD COMPANY, *Defendant*.

Decided September 22, 1917.

CROSSINGS—FARM—APPLICATION FOR SUBWAY.

Application under section 2022 of the Supplement to the Code, 1913, for a subway farm crossing, connecting the separate parcels of a farm through which defendant's railroad runs. The applicant has one reasonably adequate grade crossing and while it was shown that an under-track crossing would be more convenient, no particular conditions are shown to distinguish the instant case from the many grade crossing cases where either subway or overhead crossings have been denied. *Held*, the facts in the instant case bring it clearly within the reasoning of the cases of *Michalek v. Cedar Rapids and Iowa City Railway & Light Co.*, 173 Ia., 231, *Johnson v. Ft. Dodge, D. M. & S. Rd. Co.*, 38 Ann. Rep. Ia. Ry. Comm. 11, and *McDonald v. C. M. & St. P. Ry. Co.*, 38 Ann. Rep. Ia. Ry. Comm. 7. Petition dismissed.

For the Complainant—John Hammill, Atty., Britt, Iowa.

For the Defendant—W. H. Bremner, Solicitor, Minneapolis, Minn.

The petitioner in this case is the owner of the Southwest Quarter of Section 23, Township 96 North, Range 25, West of the Fifth P. M., Iowa, being in Hancock County. The track of the defendant was built about thirty years ago, crossing the land in question diagonally, leaving on one side about one hundred acres, and on the other side about sixty acres. Soon after the road was built a grade farm crossing was made, which has been maintained to the time of the hearing in this case, and over which the complainant can pass from one part of his farm to the other. This crossing is near the north end of quite a cut, and the view of approaching trains from the south is not very good. Evidently, the

crossing has been constructed at the place pointed out by the land owner. To the north of the crossing the view of the track is unobscured for a long distance. About 75 or 100 feet north of the present crossing a better grade crossing could be constructed and the view of approaching trains from the south would be improved, the track at this point being about level with the ground on each side. Some 200 feet north of the present crossing there is a fill which, at its highest point, is about 15 feet high, and it is through this embankment that the petitioner asks that the railroad be required to construct for him an undertrack crossing. The crossing now maintained is reasonably adequate, and, as suggested above, a much better crossing can be had by moving north about 100 feet. It has been shown that the undertrack crossing would be more convenient, but no peculiar conditions have been shown which distinguish this case from the many grade crossing cases.

This petition is filed under the provisions of Section 2022, Code Supplement, 1913, which is as follows:

"When any person owns land on both sides of any railway, or when the railway runs parallel with the public highway, thereby severing the farm from the public highway, the corporation owing the same shall, when requested to do so, make and keep in good repair a sufficient causeway or other adequate means of crossing the same and one cattleguard on each side thereof connected by cross fences to the right of way fence on each side of the right of way at such reasonable place as may be designated by the owner. If such person desires more than one crossing or desires an overhead or underground crossing over or under said railway, he shall serve or cause to be served a notice in writing upon such railway company setting forth his demand, with a plat of the land showing the place and manner of the desired crossing or crossings. If such railway company, within thirty days after having been served with such notice, has failed and refused to construct such crossing or crossings, such person may apply to the board of railroad commissioners of this state which shall have full authority to determine all questions growing out of such demand, and upon hearing, after due notice, make such order as it may deem just and equitable."

This Commission had occasion to consider this Section, and in the case of Johnson v. Ft. Dodge, Des Moines & Southern Railroad Company, Railroad Commissioners Report 1915, Page 11, we said:

"Under the Code provision prior to the amendment, this Commission exercised the power to require more than one grade crossing or to require overtrack or undertrack crossings where the physical conditions were such that one grade crossing was not adequate; and the courts frequently granted such relief when the facts warranted such action. The amended statute provides that if a person through whose farm a railroad passes desires more than one crossing, or desires an overhead or underground crossing, the Railroad Commission of this state shall have full power and authority to determine all questions growing out of such demand, and make such order as it may deem just and equi-

table. This statute recognizes and gives to the Railroad Commission the same power with reference to providing for overhead or undertrack crossings which the Railroad Commission and the courts of this state had already been exercising for many years, although they were not specifically authorized to do so."

In the case of McDonald v. Chicago, Milwaukee & St. Paul Railway Company, Railroad Commissioners' Report 1915, Page 7, where the same question was before this Commission, we said:

"This statute by its very terms implies that there is a difference between an adequate crossing and an overhead or undertrack crossing, and it only provides for additional crossings, or for overhead or undertrack crossings, when, by reason of the peculiar facts or circumstances of the case, it is just and equitable that the land owner should have an overhead or undertrack crossing."

After these cases had been determined by this Commission, the Supreme Court of Iowa had the same section before it for consideration, in the case of Michalek v. Cedar Rapids & Iowa City Railway & Light Company, 173 Iowa, page 231, where it was held:

"In our construction of the statute heretofore we have held that such adequate crossing ordinarily means a grade crossing. We have held also, that where an adequate grade crossing was practicable the plaintiff was not entitled to an underground crossing, although an underground crossing might be, as it usually is, of much greater convenience and advantage to the plaintiff. * * *

"We hold, therefore, that the power of the court to enforce the provisions of Section 2022, as re-enacted by the 35th General Assembly, is neither more nor less than it was prior to such re-enactment. The question, then, is resolved to this: Is an adequate grade crossing practicable within the boundaries of plaintiff's farm? If yea, then plaintiff is not entitled to an underground crossing. If no, then he is entitled to such underground crossing of necessity and not of discretion."

The evidence in this case shows that an adequate grade crossing is practicable. In its facts this case comes clearly within the reasoning of the case of Michalek v. Cedar Rapids & Iowa City Railway & Light Company, 173 Iowa, supra, and within the reasoning in the cases of Johnson v. Ft. Dodge, Des Moines & Southern Railroad Company and of McDonald v. Chicago, Milwaukee & St. Paul Railway Company, above cited.

We, therefore, find that the plaintiff is not entitled to the crossing as asked, and his petition should be, and the same is hereby dismissed.

No. 8096—1917.

CLAYTON WILSON, AFTON JUNCTION, IOWA, *Complainant*,

v.

CHICAGO, BURLINGTON & QUINCY RAILROAD Co., *Defendant*.*Decided September 22, 1917.**Petition filed at Des Moines, Ia., April 29, 1913.*

TRAIN SERVICE—ALLEGED INADEQUATE PASSENGER.

No hearing had. Petition dismissed.

This was the request by the complainant that the railroad company be required to stop their fast, through train No. 9 at Afton Junction on flag.

The complainant said:

"This is a great summer resort and people come here by the hundreds to spend the afternoons in the park, bathing, fishing, playing baseball, etc. There are from three to five hundred people that will come here every Sunday if we can find some way to get them back home. There was as many as 800 people here in one day last summer."

The railroad company in response to this complaint or petition said they could not perform the service requested.

No hearing has been had in this case and no member of the present Commission was a member of the Board at the time the complaint was filed. We have, however, reached the unanimous conclusion that this complaint should be dismissed.

No. 8097—1917.

WHAT CHEER CLAY PIPEDUCTS COMPANY, WHAT CHEER, IOWA, *Complainant*,

v.

CHICAGO & NORTH WESTERN RAILWAY Co., AND CHICAGO, BURLINGTON & QUINCY RAILROAD Co., *Defendants*.*Decided September 22, 1917.**Hearing at Des Moines, Iowa, Nov. 11, 1914.**Rehearing at Des Moines, Iowa, Sept. 14, 1916.*

TRACK CONNECTIONS—APPLICATION FOR.

Upon due consideration of the request of the National Council of Defense that railroads acting in accord therewith, be not required by public authorities to make improvements involving expenditure of money and labor, except when absolutely necessary for war purposes or the public welfare, it is understood that the questions at issue are not finally determined, and the case is therefore dismissed without prejudice to the rights of the complainant or others to renew petition for track connection at subsequent date.

For the Complainants—Geo. Wrightman, Secy., Iowa State Mfrs. Assn., Des Moines Iowa; C. W. Emery, Sales Mgr., What Cheer, Iowa.
For the C. & N. W. Ry. Co.—J. C. Davis, Atty., Des Moines, Iowa;
M. J. Golden, A. G. F. A., Chicago, Ill.

For the C. B. & Q. R. R. Co.—W. G. Wagner, A. G. F. A., Chicago, Ill., H. A. Pence, D. F. A., Burlington, Iowa; C. H. Laubenfels, Engr., Burlington, Iowa.

It appears from the records of this case that sometime in 1913 Mr. C. W. Emery, sales manager for the petitioners, verbally presented a request for track connection at Stark, Iowa, to the late Commissioner Ketchum. Subsequently correspondence was had between the petitioners and Railroad Commission without definite result. We are unable to find in the papers, anywhere, formal petition reciting facts upon which the petitioner bases his request for track connection. There is a mass of letters detailing and giving information of various sorts, but the whole case is so disconnected and the correspondence so varied that it is difficult to set out the facts upon which the request for track is made. It may be said, however, in a general way that the petitioner is a large manufacturer of drain pipe, sewer pipe and other like articles; that the plant is located at What Cheer, upon the line of Chicago & North Western Railway Company; that in order to reach the towns which are located upon the Chicago, Burlington & Quincy Railroad it would be necessary to have a track connection at Stark station, 20 miles south of What Cheer; that the petitioner desired that such track connection be required in order that they might seek a market upon the line of the Chicago, Burlington & Quincy Railroad and that, under present conditions, the petitioner was unable to meet the competition of Des Moines and Fort Dodge manufacturers in that territory.

The Board as constituted at that time held a hearing in this case November 11, 1914. We do not have a transcript of the testimony taken in the case at that time, but from the exhibits and statements filed it was indicated that there are approximately 150 towns on the C. B. & Q. R. R. which the petitioners desired to reach by way of a track connection at Stark. The matter was held in abeyance by the Commission and on September 14, 1916, another hearing was held. There appeared for the railroads Messrs. James C. Davis and M. J. Golden for the C. & N. W. Ry. Co. and Messrs. W. G. Wagner, H. A. Pence, and G. H. Laubenfels for the C. B. & Q. R. R. Co. For the petitioners, Mr. Geo. Wrightman, Secy. Iowa State Mfrs. Association, and Mr. C. W. Emery.

Subsequent to this hearing one of the members of the Board was deceased and another resigned, necessitating the appointment of two new members on the Commission.

We find that the petitioner is shipping in the neighborhood of 100 cars per month the year around. About one-third of the business is sewer pipe and the other two-thirds drain tile. The petitioner is located on a switch track of the C. & N. W. Ry. but also has access to the Rock Island system at What Cheer by paying a switching charge. At Wright station, 27 miles south of What Cheer, there is a track connection between the C. & N. W. and the M. & St. L. If there were track connection at Stark, witness for complainants testified that they could get to markets on the line of the C. B. & Q. R. R., "east of Ottumwa, down through the southern part of the state, and this line that runs from Oskaloosa to Burlington."

It was shown in the testimony that the cost of this track connection would be about \$2700. Witness for the carrier testified that upon the branch from Tracy to Burlington on the C. B. & Q., a distance of 106 miles, there are eight drain tile producing points and these points are all nearer the point of consumption on the Burlington road than a shipment from What Cheer would be through Stark. Furthermore the shipment would move on a single line haul while from Stark shipment would move upon the 80% combination of locals.

Many compilations of rates were introduced, indicating what the charge would be from various producing points to C. B. & Q. consuming points as compared with the rate present and what it would be, if the Stark track connection were put in from What Cheer. It is not necessary to set these out.

While the Western Grocer Co. and one or two others joined in the application for track connection at Stark, they made no appearance at the hearing and this is practically an application by the What Cheer Clay Products Company for track connection for their own convenience. However, such a track connection is of public interest, if it would enable the consuming public to obtain necessary commodities which they might not otherwise be able to purchase. This would be particularly true in this case, if there were no tile producing plants located upon the line sought to be connected to the line upon which the complainant is located. The evidence indicates, however, that there are many tile producing plants located upon the line of the C. B. & Q. R. R. Furthermore the C. & N. W. and Rock Island systems, which are available to the complainant, together have nearly 4,000 miles of railway in Iowa in addition to which there is a track connection at Wright with the M. & St. L. which also gives a large distributing territory to the complainant.

It can only be conjectured what business the complainant might obtain upon the line of the C. B. & Q. should this track connection be constructed. We do not believe, however, that the evidence disclosed the probability of sufficient business to warrant this Board in making an order requiring construction of track connection at Stark at this time. The cost of building this track was estimated, in September, 1916, to be about \$2700. It is well known that the cost of materials entering into the construction of such a track has largely increased since that date.

The National Council of Defense, working in connection with the Railroad War Board, has asked that State Commissions be slow to order railroad companies to expend money or labor in any work or improvement not absolutely required by public necessity in order that the resources of the carriers may be conserved to meet the greater demands for the movement of troops and military stores, food stuffs and other public necessities to which program practically all of the Railroad Commissions of the Nation have given assent.

In disposing of this case at this time we desire it understood that we are not finally determining the question at issue. We do hold, however, that, under the existing circumstances, and with the testimony that is before us, we would not, at this time, be justified in requiring the rail-

road companies, defendants in this case, to build and operate the track petitioned for. This case is therefore dismissed without prejudice to the right of complainant and others to renew petition for track connection at a subsequent date.

No. 8098—1917.

WESTERN COAL & MINING CO., *Complainant*,

v.

CHICAGO GREAT WESTERN RAILROAD COMPANY, *Respondent*.

Petition filed Sept. 18, 1912. Hearing at Des Moines, Ia., Dec. 11, 1912.
Decided October 11, 1917.

SYLLABUS BY THE COMMISSION.

[SWITCHING RATES—DISCRIMINATION—AUTHORITY OF COMMISSION TO EXTEND SWITCHING LIMITS.]

Upon complaint that the respondent railway company was charging a line haul from a coal mine, located near a station called Coalville, on shipments of coal to the city of Fort Dodge, a distance of about six and one-half miles, instead of a switching rate, the Commission *Held*: that it was not unjust discrimination to grant switching rates to a group of industries while at the same time distance tariff rates applied upon the products of another and non-competing industry located nearby; that the Board of Railroad Commissioners was without authority to extend the industrial switching limits of Fort Dodge to include other and nearby regularly established stations.

For the Complainant—J. H. Henderson, Commerce Counsel; Dwight N. Lewis, Assistant Commerce Counsel; Ray Files, Attorney for Complainant.

For the Respondent—O. M. Brocket, Attorney; J. G. Morrison, Ass't. to Vice President, C. G. W. R. R. Co.

The complainant in this case was a corporation organized under the laws of the state of Iowa, principal place of business at Fort Dodge, and engaged in the mining, selling, shipping and distributing of coal from a mine located on a spur, switch or branch track of the Chicago Great Western Railroad, about six and one-half miles distant from the city of Fort Dodge and about a mile and a half to two miles south of a station called Gypsum, located on the Chicago Great Western Railroad. This spur, branch or switch track extended from Gypsum to the mine of complainant, located in or near a village called Coalville.

The complainant alleged excessive charges for transportation of coal from their mine, located at Coalville to the city of Fort Dodge. The claim being made that this should properly be considered a switching service which should be charged for at a switching rate but, instead, the respondent railroad company was exacting the regular Iowa distance tariff for a haul of ten miles. It was contended and not disputed that the in movement of empty cars and out movement of loaded cars was handled by a switching crew. The complainant also contended that a number of gypsum manufacturing plants, located in the vicinity of their mine, were accorded switching rates to Fort Dodge. There was also something said about interline switching but no complaint was made

of the interline switching rate, the only complaint being that the Iowa distance tariff rate was charged on the transportation of coal from the mine of complainant to Fort Dodge, instead of an industrial switching rate, which was contended by complainants should not exceed two dollars per car. The complainants also asked the Board to establish the industrial switching limits of Fort Dodge so that their mine should be included therein. The claim was also made that the switching yards of the defendant company had been extended to include one mile east and one mile south of Gypsum, leaving only the complainants mine outside the switching zone.

In answering the complaint, the respondent company stated that there were a number of plants manufacturing gypsum products which were located in the immediate vicinity of the station known as Gypsum and others located between that station and Fort Dodge, a very small percentage of the products of which are consigned by such plants to points in the city of Fort Dodge, and admitted that for such service a switching rate was charged. The respondent denied that their practices, under the circumstances, constituted any unlawful discrimination against the complainant, also, that on everything except gypsum products, the regular Iowa distance tariff rate is charged from the station of Gypsum to points in the city of Fort Dodge and from said city of Fort Dodge to said station of Gypsum. The respondent averred that the transportation service for the complainant was performed by a switching crew, yet such crew performed such duties as a road crew and the service was a line haul and not a switching service.

The railroad company stated that the city of Fort Dodge and the village of Gypsum were each independent stations on the line of the railway and that trains operated between said stations and through said stations on regular schedule time, and under train rules and orders; that the Board of Railroad Commissioners had no power or jurisdiction to fix and determine the boundaries of the industrial vicinity of any industry, group of industries, station, village or city so as to include therein another separate industry, group of industries, station, village or city, or the territory between the same. The company further stated that the business offered by the complainant was not sufficient to make the present service compensatory at the rates as charged.

The issues being made up, the case was called for hearing December 11, 1912, and much testimony was taken.

It was testified that there was no other business than the said coal business on the Coalville spur or switch track; that there were no other coal mines operated in the immediate vicinity; that there were no coal mines located near Fort Dodge whose products were transported to Fort Dodge upon a switching rate and that the only industries situated outside the town of Fort Dodge having switching rates to the city of Fort Dodge and included within the industrial vicinity thereof, were gypsum plants.

Decision in this case was apparently withheld by the Board of Railroad Commissioners, as it then existed, pending decision of the courts on an appeal taken from a decision of this Board in a similar case in which it was held that the Cardiff Gypsum plant, located about one

half mile east of the town of Gypsum, was entitled to an industrial shipping rate to Fort Dodge. In the Cardiff Gypsum case, the decision of the Board of Railroad Commissioners was taken into the District Court of the State of Iowa, in and for Webster County, by the Attorney General and Commerce Counsel of Iowa, and a thorough hearing was had upon all the issues of the case. In the April term, 1914, Judge Kamrar held that the Board exceeded its authority in attempting to establish industrial switching rates from said gypsum plant to points in the city of Fort Dodge. The court found that gypsum was a regular station with depot, stores, postoffice, etc., distant about four and one half miles from Fort Dodge; that although switching crews might perform service for this plant to the city of Fort Dodge they were always under the general dispatcher's control, working on train time as train crews. The court held that inasmuch as there was nothing to indicate that the Iowa distance tariff rates were unreasonable and unlawful these rates are presumed to be lawful and reasonable, and that the order of the Commission in attempting to fix switching rates from the Cardiff Gypsum plant, one-half mile east of the station of Gypsum to the city of Fort Dodge, was unreasonable and unjust. The court very learnedly discussed the general powers of the Commission with especial reference to the specific statute under which the request for switching rates had been made.

The facts in the instant case are quite similar to those in the Cardiff Gypsum case except that the distance from the station at Gypsum to the complainant's mine was much greater than the distance from Gypsum to the Cardiff Gypsum plant. The Attorney General and the Commerce Counsel did not appeal from the decision of the District Court to the Supreme Court.

No member of the present Commission was a member of the Board at the time this case was filed and heard, but the record is quite complete. It is found upon investigation that the coal mine of the complainants was abandoned either the latter part of 1913 or early in 1914, and that in November, 1914, the Chicago Great Western Railroad Company removed the track and rails from the mine of the complainant and village of Coalville to Gypsum, since which time no line of railway has been operated to the village of Coalville.

The trustee for the creditors of the Western Coal & Mining Co. has requested that this Board render an opinion in this case, inasmuch as, with the assets of the Western Coal & Mining Co., listed with the receiver, is a claim against the Chicago Great Western Railroad Co. for refund on account of excessive charges on transportation of coal from the mine to the city of Fort Dodge.

It is the opinion of this Board that no unjust discrimination against the complainant is shown in the record in this case; that under all the facts and circumstances as they are disclosed by such record, this Board would be without authority to extend the industrial switching limits of Fort Dodge to include the mine of the complainant. The petition herein is therefore denied.

Commissioner Lewis, having assisted in the presentation of this complaint before the Board of Railroad Commissioners in 1912 as Assistant Commerce Counsel, takes no part in this finding.

No. 8099—1917.

TRAVELERS' PROTECTIVE ASSOCIATION, BY C. R. ROHDE, AND IOWA STATE MANUFACTURERS' ASSOCIATION, *Complainants*,

v.

ATCHISON, TOPEKA & SANTA FE RAILWAY COMPANY, *et al.*, *Defendants*,

Petition filed Sept. 11, 1916. Hearing at Des Moines, Iowa, Feb. 27, 1917; April 5, 1917.

Decided November 3, 1917.

SYLLABI BY THE COMMISSION.

[BAGGAGE—STATUTORY PROVISION FOR AMOUNT CARRIED FREE—NO AUTHORITY IN COMMISSION TO INCREASE AMOUNT.]

Held, that the statute providing for the free carriage of 150 pounds of ordinary baggage would not permit the Board to grant to commercial baggage free carriage to the limit of 200 pounds;

[BAGGAGE—CARRIERS' STORAGE RULES.]

Held, that free storage time now provided by the carriers not unreasonable nor unjust;

[BAGGAGE—RATES FOR EXCESS.]

Held, the evidence does not indicate present excess baggage rates in Iowa to be unjust or unreasonable, taking into consideration the service performed and comparing the charges therefor with first class freight and express rates, except that the minimum is fixed at ten cents per 100 pounds where the passenger fare paid does not exceed sixty cents.

For the complainants—G. W. Wrightman, Sec. Iowa State Mfgs. Assn., Ralph H. Jordon, Irwin-Phillips Co., Keokuk, Iowa; J. H. Henderson, Commerce Counsel, Des Moines; C. R. Rohde Waterloo, Iowa.

For the defendants—A. P. Humburg, Atty., Ill. Cent. R. R., Chicago; G. H. Carr, Atty, C. G. W. R. R., Des Moines; F. W. Sargent, Atty., C. R. I. & P. Ry., Des Moines.

This complaint, filed by a committee of the Traveler's Protective Association and the Iowa State Manufacturers' Association, requested this Commission to grant a hearing at an early date to consider; First, transportation rates on excess commercial baggage; Second, allowing 200 pounds free baggage with a full-fare ticket, instead of 150 pounds as at present; Third, free storage time allowed over Saturdays, Sundays, and holidays. Specifically, the petitioners asked that this Commission fix a rate on transportation charges on sample baggage in excess of 200 pounds at one-eighth of the passenger fare expressed in cents per hundred pounds; the minimum charge for any shipment of excess baggage to be twenty-five cents. In the matter of storage, the first twenty-four hours should be free of charge; the second twenty-four hours, or fraction thereof, twenty-five cents for each piece; for each succeeding twenty-four hours, or fraction thereof, ten cents for each piece; provided, that baggage shall be held free when received after twelve o'clock noon on Friday

and claimed before twelve o'clock noon on Monday; or when received at any hour Saturday and claimed before the same hour Monday; or when, received at any hour Sunday and claimed before midnight Monday. Other provisos suggested were as follows:

"If baggage is not claimed within the time above specified storage charge shall commence twenty-four hours after receipt of the baggage.

"In allowing storage, legal holidays shall be considered the same as Sundays, and when a legal holiday falls on Saturday or Monday, or is observed on either of these days, the Sunday and legal holiday combined shall be considered the same as one Sunday, viz:

Baggage arriving at any hour after Friday noon, when Monday is a legal holiday, shall be held free until noon on Tuesday;

Baggage received at any hour on Friday, when Saturday is a legal holiday, shall be held free until the same time on the following Monday;

Baggage received on a Saturday which is a legal holiday shall be held free until midnight Monday;

(When Monday is a legal holiday the free period shall be extended to the same hour on Tuesday;

No deduction shall be made for Sundays or legal holidays after charge for storage has begun."

The railway companies duly acknowledged receipt of the complaint and were represented by counsel and witnesses at the various hearings. Much testimony was presented by both sides to this controversy. The carriers in a general way claimed that many of the things set forth in the petition, as supplemented, were mere repetitions of rules and charges now in effect, further that the following requests, First; the allowance of 200 pounds free baggage with full-fare ticket, Second; a reduction in the basis of the rate applied, Third; request for additional free storage time, were each and all unreasonable and improper, and to grant them would give commercial travelers an unlawful preference over other passengers. It was contended by the carriers that the granting of complainants' prayer would accentuate the present disparity and discrimination against interstate commerce and in favor of intrastate commerce, in that; the present interstate passenger rate is 2.4 cents per mile, while the Iowa intrastate passenger rate is but 2 cents per mile, and the present basis for excess baggage rate, both on interstate and intrastate traffic, is the same, and that the present free storage period is already too long and should not be extended.

The testimony of witnesses for the complainants was largely with respect to the convenience it would be to commercial travelers to be allowed the free storage time as asked for, as it would then enable the commercial travelers at times to leave their baggage on the road over Sunday while they return to their homes or house headquarters; that if they could carry 200 pounds of baggage free, it would save a number of excess charges because many of the traveling men did not carry to exceed 200 pounds of sample baggage. With reference to the charges for excess

baggage, the particular claim was made that the Iowa rate should be reduced because the rates charged in Minnesota and Missouri were somewhat less. These latter rates had been fixed by the Railroad Commissioners of the states named. In Missouri, however, the baggage rate is based upon 15% of the maximum passenger fare of 2½¢ per mile. The present rate in Iowa is 16.2-3% based upon a maximum passenger fare of 2¢ per mile.

No objection is made by the complainants to the twenty-five cent minimum charged which is the same in all of the states and on interstate traffic, but are desirous that the minimum rate for the short haul should be lessened.

The carriers in their testimony introduced a number of exhibits showing what the excess baggage rates charged were for a given period; what the charges would have been if assessed on first class freight rates and what they would have been if the express rate had been applied. One of the exhibits indicated that on the average distance haul of 57.4 miles, the average revenue for each shipment per mile on the basis of the Iowa and Interstate excess baggage charge would have been \$.0095; on the basis asked by the complainants, \$.0059; on the basis of the Iowa first class freight rate \$.0193; on the basis of the Iowa express charge, \$.0267. Attention was called to the fact that baggage is an expedited service, is handled in the car with express and hauled upon passenger trains. The exhibit from which these figures are made, was taken from actual business during the seven days, November 12th to 18th, both inclusive, 1916, for the following railroads: Chicago, Burlington & Quincy Railroad Company; Chicago Great Western Railroad Company; Chicago & North Western Railway Company; Chicago, Milwaukee & St. Paul Railway Company; Chicago, Rock Island & Pacific Railway Company; Chicago, St. Paul, Minneapolis & Omaha Railway Company; Illinois Central Railroad Company; Minneapolis & St. Louis Railroad Company; Wabash Railway Company.

A number of tables showing different comparisons were introduced all of which indicated that the present excess baggage rate applying in Iowa as well as upon interstate traffic for equal distances made a less charge than would accrue by the application of express rate or first class freight rate. While no direct testimony was offered by carriers indicating the exact cost of handling baggage upon the passenger trains, witnesses testified that it required: "Ten moves for each piece of baggage weighing over 150 pounds." These included, trucking; weighing; reloading; trucking to the train; loading into car; inspecting; checking and placing into position; arriving destination; removed from its place ready to be loaded; reloaded and retrucked to the baggage room; unloaded from truck; reweighed and stored in place. This work done in addition to the clerical work necessary when the passenger comes with his ticket to get the check made out and later turns in his check for the delivery of his baggage. This requires twelve entries, viz.: train number, description of baggage, tag number, form and number of ticket, destination, kind of check taken up and number, time checked, checkman's name; and

then on the train; baggageman's record, kind of check, number, description, or if a special check, route and destination, and in case of bad order, making note thereof.

The Iowa statute, Sec. 2077 of the Supplement to the Code of Iowa, 1913, provides that:

"All railroad corporations * * * shall be limited to compensation per mile for the transportation of any person with ordinary baggage not exceeding 150 pounds in weight as follows" and then provides for a maximum passenger rate of 2¢; 2½¢ or 3¢ according to the classification of the road.

Under the terms of this statute, this Commission would not be authorized in extending the limit of free carriage of baggage to 200 pounds, and we cannot agree that the contention of the complainants that commercial baggage is entitled to greater consideration or a less charge than other baggage belonging to other patrons of the carriers. This Board could not, in view of our strong anti-discrimination statute, permit a different rate for the hauling of commercial baggage than would apply upon any other baggage. The section of the law just referred to provides for the carrying free of ordinary baggage to the limit of 150 pounds. In view of that statute, we could not require railroad companies to carry free more than 150 pounds of ordinary baggage, and, if that is true, then we certainly could not make an order requiring the railroads to carry free 200 pounds of commercial baggage.

With reference to extra free time for storage; it may be said also that we could not grant the commercial baggage privileges which should not be accredited to other baggage. While it may be true that at some stations there might be available space in the baggage room, yet that does not lessen the liability of the carrier as to warehousemen nor lessen the risk incident to storage. The real business of a railroad company is transportation, and storage can only be incidental in the matter of receiving or delivering transported property. Storage should be kept at the minimum consistent with proper accommodation to the public.

In view of what the testimony disclosed at this hearing and from the further fact that the rules for storage, applying in Iowa, are the same as upon interstate traffic, we do not find the present rules to be unreasonable or burdensome on patrons of the railroads whether commercial or ordinary travelers.

Concerning the excess baggage rates, we find that with the exception of a few nearby states, the excess baggage rates applying in Iowa are upon the same basis as applies upon interstate business. The fact that the Iowa passenger rate is two cents per mile while the interstate is 2.4 cents per mile would make a less charge upon excess baggage than would apply upon interstate traffic for same distance hauls. We are therefore of the opinion that the testimony would not justify this Commission in finding the present excess baggage rates applying in Iowa unjust and unreasonable, except in so far as they exceed a minimum of ten cents per hundred pounds where the fare paid by the passenger does not exceed sixty cents.

Order will be issued dismissing this complaint as to, First; the extra free storage time requested. Second; the 200 pounds free baggage instead of 150 pounds as provided by statute, and Third; change of excess baggage rate except as herein noted.

ORDER.

The Board of Railroad Commissioners of the State of Iowa at its office in Des Moines, Iowa, this 3rd day of November, 1917, enter the following order in the case of Travelers' Protective Association, by C. R. Rohde, and Iowa State Manufacturers' Association, v. Atchison, Topeka & Santa Fe Railway Company, et al.

It appearing that the Board having entered upon and completed its investigation into the matters complained of herein concerning the transportation and storage of commercial baggage, and, upon their findings as made in decision rendered on this date, it is ordered that such complaint be dismissed, except that the carriers of passengers, operating within Iowa, parties to said complaint, shall on or before December 1, 1917, so amend their schedules with reference to excess baggage rates applying to business beginning and terminating within Iowa, that the minimum rate shall not exceed ten cents per hundred pounds where the passenger fare does not exceed sixty cents.

No. 8100—1917.

CEDAR FALLS COMMERCIAL CLUB *et al.*, Complainants,

v.

CHICAGO GREAT WESTERN RAILROAD COMPANY, Defendant.

Decided November 3, 1917.

TRAIN SERVICE—DISCONTINUANCE OF TRAINS.

Complainant company for a long time operated four trains each way daily between Cedar Falls and Cedar Falls Junction. Complaint was made of the discontinuance of two of these trains each way daily. The evidence showed that one of the discontinued trains for the period commencing April 1, 1916, ending March 31, 1917, carried an average of less than ten passengers each round trip, and that the other train discontinued, during the same period carried an average of about twelve passengers each round trip; that the earnings did not equal the expense of said trains; that Cedar Falls is served by three other railroads operating numerous passenger and freight trains; that Cedar Falls Junction is served by main line trains making connection with numerous trains to Cedar Falls via Waterloo. Considering that the country is at war and that the railroads are an absolute necessity to the proper conduct of the war and that they must be permitted and encouraged to use their whole equipment "mere matters of convenience which are desirable in times of peace and for the purposes of peace will have to wait until peace comes." *Held*, defendant railroad company is not required to reinstate the discontinued trains.

For the complainants—E. H. Scott, Asst. Commerce Counsel; C. M. Parker, Atty., Cedar Falls.

For the defendant—Geo. H. Carr, Atty., Des Moines; J. A. Gordon, G. M., Chicago; A. L. Craig, G. P. A., Chicago; C. A. Shoemaker, Supt., Des Moines.

RULING.

A petition was filed in this cause by the Cedar Falls Commercial Club and Iowa State Teachers College, Cedar Falls, making complaint that the Chicago Great Western Railroad Company had for a long time operated four trains each day from Cedar Falls to Cedar Falls Junction on the line of the Chicago Great Western Railroad and four trains each day from Cedar Falls Junction to Cedar Falls; that about the month of April, the said railroad company discontinued the train leaving Cedar Falls at 8:05 A. M. arriving at Cedar Falls Junction at 8:31 A. M. and the train leaving Cedar Falls at 9:05 P. M. and arriving at Cedar Falls Junction at 9:30 P. M. and returning to and arriving at Cedar Falls at 10 P. M. It will be observed that this leaves two trains each way per day between said points.

On the hearing of this case, it was shown that one of the trains which has been discontinued, and to which complaint has been filed, during the year commencing April 1, 1916, and ending March 31, 1917, carried an average of less than ten passengers for each round trip during said year, and that the other train which has been discontinued, during the same time carried an average per day of about twelve passengers each round trip. The showing is that upon the whole service, the earnings of the railroad company from such service did not equal the expense of said trains.

Upon the trial of the case, it was also shown that by reason of the discontinuance of said trains, the International Harvester Company which has a distributing plant at Cedar Falls, was unable to reach its patrons with express packages with as much dispatch as if the said trains had been continued. And there was some showing that freight did not arrive at and was not taken away from Cedar Falls with the same promptness, by reason of the discontinuance of said trains, as the patrons of the railroad were accustomed to have when said trains were being operated.

The showing is that Cedar Falls is on the main line of the Illinois Central Railway and also on the line of the Rock Island Railroad running from Cedar Rapids to St. Paul upon which two railroads there are numerous passenger and freight trains each day. That the Waterloo, Cedar Falls & Northern Railway reaches the city of Cedar Falls and that between that city and Waterloo, this railroad company operates twenty-four passenger trains each way every day between the hours of 6:15 A. M. and 11:45 P. M. That the distance from Cedar Falls to Waterloo is about the same distance as from Cedar Falls to Cedar Falls Junction and that the same trains on the Chicago Great Western Railroad can be reached at Waterloo which are reached at Cedar Falls Junction.

For all of these reasons, we reach the conclusion that the Chicago Great Western Railroad Company should not be required to reinstate the said trains which have heretofore been discontinued.

We recognize that the service given by the Chicago Great Western Railroad Company prior to the discontinuance of said trains was very convenient for the people of Cedar Falls. We think it could hardly be claimed that it was necessary, and the showing certainly is that the trains were not well patronized.

In addition to these facts, this Commission thinks it should so regulate and control the service to be furnished by railroad companies at this time as to avoid the expenditure of large sums of money either directly or indirectly simply for the convenience of a few people. This country is now at war and the railroads are absolutely necessary to the proper conduct of that war, and where the public safety and public necessity is not manifestly and eminently endangered, we cannot be expected to order the railroads to operate trains where their operation is a mere matter of convenience and not a matter of necessity. The railroads of this state must be permitted and encouraged to use their whole equipment, including their funds to carry on what is now the supreme business of this country—the business of war—and to facilitate the distribution of food, fuel and other necessities of life. Mere matters of convenience which are desirable in times of peace and for the purpose of peace will have to wait until peace comes.

The application is hereby dismissed.

No. 8101.—1917.

LEGISLATIVE BOARD OF IOWA BROTHERHOOD OF RAILWAY TRAINMEN, *Complainants.*

v.

ATCHISON, TOPEKA & SANTA FE RAILWAY COMPANY, ET AL, *Defendants.*

Petition filed March 14, 1917, Hearing at Des Moines, Iowa, March 30, 1917; April 12, 1917; May 15, 1917.

Decided November 3, 1917.

SYLLABI BY THE COMMISSION.

Agreement reached between complainants and defendants wherein it is conceded, 1st, that the Commission has jurisdiction; 2d, that on all switches where night service is established and switches are not connected up with interlocking plants, there shall be switch lights used; 3d, that to properly protect slow order track, railroads shall use the caution and danger signal combination as recommended by the American Railway Association.

Held: that the testimony did not indicate necessity for conductor pilot for light engines running as trains on steam railroads.

Held: that testimony did not disclose the necessity for an additional employee on freight motors for electric lines.

For Complainants: Arthur Moad, B. of R. T. Legislative Rep. Ft. Dodge, Iowa; Robert McBirnie, B. of R. T. Legislative Rep., Boone, Iowa; Jas. Stedman, B. of L. F. & E., Eagle Grove, Iowa; J. A. Gibson, O. R. C., Valley Junction, Iowa.

For Defendants: Frank S. Payne, Gen'l Manager C. A. & S. Ry. Co., Centerville, Iowa; J. P. Houston, M. & St. L. R. R., Oskaloosa, Iowa; J. A. Devitt, M. & St. L. R. R. Oskaloosa, Iowa; C. A. Shoemaker, C. G. W.

Railroad, Des Moines, Iowa; C. W. Jones, Jacob W. Dickinson, Receiver of C. R. I. & P. R. R. Co., Des Moines, Iowa; F. W. Sargent, Jacob W. Dickinson, Receiver C. R. I. & P. R. R. Des Moines, Iowa; F. H. Ustick, Gen'l Supt. C. B. & Q. R. R., Burlington, Iowa; L. G. Campbell, Trainmaster, Boone, Iowa; E. F. Winslow, Supt. C. R. & I. C. Ry., Cedar Rapids, Iowa; S. R. Dyer, Ft. D. Des Moines & S. R. R., Boone, Iowa; W. H. McHenry, Inter-Urban Ry. Co., Des Moines, Iowa; J. F. Campbell, Chicago & North Western Ry., James C. Davis, Chicago & North Western Ry., Des Moines, Iowa; C. D. Cass, W. C. F. & N. Ry., Waterloo, Iowa; C. T. Baker, Inter-Urban, Des Moines, Iowa; C. E. Carson, Ft. D. D. M. & S., Boone, Iowa; J. M. C. Hamilton, A. T. & S. F. Ry. Co., Ft. Madison, Iowa; A. H. Allison, A. T. & S. F. Ry. Co., Marceline, Mo; H. Hobson, A. T. & S. F. Ry. Co., Topka, Kansas; J. D. M. Hamilton, A. T. & S. F. Ry. Co., Kansas City, Mo; F. J. Hanlon, M. C. & C. L. R. R., Mason City, Iowa; W. H. Eckart, Supt. Wabash R. R., Moberly, Mo; R. H. Sullivan, Supt. I. C. R. R., Fort Dodge, Iowa; H. G. Duckartz, I. C. R. R., Dubuque, Iowa; C. A. Bemler, C. M. & St. P., Dubuque, Iowa.

Messrs. J. A. Gibson, of the Order of Railway Conductors; Geo. F. Finnicum of the Brotherhood of Locomotive Engineers; Arthur Moad, of the Brotherhood of Railway Trainmen and Jas. Stedman, of the Brotherhood of Locomotive Firemen and Enginemen, composing the Legislative Board of Iowa Brotherhood of Railway Trainmen on March 14, 1917, filed the following:

"Representing the four railroad brotherhoods we are asking that you gentlemen arrange for a hearing on the following matters:

1. We contend that on all switches where night service is established and switches are not connected up with interlocking plants, there should be switch lights used.

2. We contend that to properly protect slow order track all railroads should use the caution and danger signal combination as recommended by the American Railway Association.

3. We contend that light engines making movements over Divisions as trains, should have conductor pilots.

4. We contend that there should be two men on freight motors on interurban lines.

Our contention is that all four of these matters are of great importance in the safe operation of railroads and we understand you gentlemen have authority to order such safety measures as you deem necessary."

After due notice had been given, full hearing was had in the matter on March 30, 1917. At this hearing it developed that there were some points upon which there was no practical disagreement between railway companies and the trainmen, and, upon suggestion of the Board, the railroad companies named a committee of four which would act together with a committee from the trainmen to see if satisfactory agreement could not be reached, and the same was done with matters relating to operation of electric interurban lines.

The following committee for the steam railroads was announced:

C. W. Jones, for Jacob M. Dickinson, Receiver of the Chicago Rock Island & Pacific Railroad.

F. H. Hammill, Asst. Gen. Supt. C. & N. W. Ry., C. H. Marshall, Supt. Iowa Div. C. M. & St. P. Ry. Co., F. H. Ustick, Genl. Supt. C. B. & Q. R. R. Co.

For the Complainants: J. A. Gibson, O. R. C., of the C. R. I. & P. Ry. Co.; Geo. E. Finnicum, B. of L. E., of the C. M. & St. P. Ry. Co.; Jas. Stedman, B. of L. F. & E., of the C. & N. W. Ry. Co.; Arthur Moad, B. of R. T., of the I. C. R. R. Co.

As a Committee on part of the Complainants for the Interurban Roads:

J. A. Gibson, Robt. McBirnie, Geo. E. Finnicum, and Arthur Moad.

For the Interurban Roads, defendants: C. H. Crooks, Ft. Dodge, D. M. & Southern; Frank S. Payne, Centerville, Albia & Southern; E. F. Winslow, Cedar Rapids & Iowa City; C. T. Baker, Inter-Urban.

The Board thereupon fixed April 12, 1917, to hear the report of the various committees. Upon the date named, committees representing the trainmen and the steam railroads submitted the following report:

"To the Honorable Board of Railroad Commissioners of the State of Iowa:

The undersigned, a joint committee representing the four train service organizations and the railroads operating in Iowa, to whom was referred the complaint filed by John A. Gibson, George E. Finnicum, Arthur Moad, and James Stedman, presented to your Honorable Body on March 14th, 1917, respectfully submit that they have conferred and agreed upon the following joint recommendations to your Honorable Body:

1st. It is conceded that this Commission has jurisdiction of the subject matter of the complaint, with authority to enter such reasonable orders as may be necessary in the premises.

2nd. In the matter of paragraph 1 of the complaint, 'that on all switches where night service is established and switches are not connected up with interlocking plants, there should be switch lights used', we recommend that lights should be maintained during the night on all switches not otherwise protected by electric automatic signals or interlocking plants, on all main tracks where regular night train service is maintained.

3rd. As to paragraph 2 of the complaint, to-wit, 'That to properly protect slow order track all railroads should use the caution and danger signal combination as recommended by the American Railway Association', we recommend that where track is unsafe for ordinary speed of trains, because of bad order or repair work, such place shall be protected by a caution signal, placed at a sufficient distance from the bad track to warn the engineer, and enable him to bring his train under control before reaching such bad track, and a proceed signal

shall be placed beyond such bad track, indicating that same has been passed. Such signals shall be placed on engineman's side for single track and for double track where current of traffic is to the right; where current of traffic is to the left, on double track, such signals shall be placed on the fireman's side.

We report that the foregoing are reasonable and proper rules for the operation of railways. We further report that a majority of the railroads in Iowa have adopted the foregoing provisions as rules governing the operation of their respective roads, and we have assurance that those roads in Iowa which have not adopted the foregoing rules will immediately comply with same.

We further recommend, if, after notice of this report, there are any railroads in Iowa which fail to adopt and operate under rules substantially as above recommended, that proper proceedings be taken by your Commission to require such railroads as fail to adopt said rules to adopt and operate under same.

Respectfully submitted.

J. A. Gibson, O. R. C.

Jas. Stedman, B. of L. F. & E.

Arthur Moad, B. of R. T.

W. J. Morris, B. of L. E.

Committee representing Train Service Organizations.

C. W. Jones,

Chairman of Committee Representing Railroads.

Dated at Des Moines, Iowa, April 11th, 1917."

Committees representing the electric railways submitted the following report:

"As per the agreement made by train service employees, and representatives of the electric lines of Iowa, as suggested by your Honorable Body, at a meeting held March 30, 1917:

We, the Committee, of train service employees and representatives of the electric lines, meeting in joint conference April 9th, with the interest of safe operation of Iowa railroads in mind and a desire to formulate uniform rules regarding slow order track and proper switch light regulation, beg to recommend the following agreement for your approval.

1st. In the matter of Paragraph (1) of the complaint, 'To equip all main line switches with switch lights, excepting that electric lines will not be required to equip switches with switch lamps when in city streets or alleys or in case switches where no switch stands are used.'

2nd. As per paragraph (2) of the complaint, to-wit: 'That electric lines conform to their present form of protection for the safety of bad order track provided they use some safe form.'

3rd. As to paragraph (4) of the complaint, no agreement was reached at the conference.

Respectfully submitted,

J. A. Gibson, O. R. C.
 Arthur Moad, B. of R. T.
 Robt. McBirnie, B. of R. T.
 W. J. Morris, B. of L. E.
 C. T. Baker, I. U. Ry.
 C. H. Crooks, Ft. D., D. M. & S.
 E. F. Winslow, C. R. & I. C. Ry.
 F. S. Payne, C. A. & S. Ry."

On the date of hearing, the complainants offered the following additional to the original proposition, number three of the petition:

"With regard to request concerning light engine movements, whenever a light engine is moved over any part of any railroad in the state of Iowa, said engine shall be equipped with a crew consisting of not less than three men, to-wit: one engineer, one fireman and one conductor or flagman, to protect such movement. Provided that where there is no conductor or flagman available, then and in that case it would be permissible to run light engines with but two men.

Said conductor or flagman must be qualified to receive and execute train orders as prescribed by the company's rules over whose line light engine movement is to be made.

The word available mentioned in paragraph one is understood to mean that where there are no men to do this work at terminals or at any other point that could be transferred to the point where the movement is to be made."

The Board continued the hearing to May 15th so far as the steam railroads were concerned on proposition No. 3 of the complaint and proceeded to take testimony upon proposition four of the complaint which affected the operation of electric interurban railways. Full hearing was had upon this proposition as was true of proposition four concerning which latter testimony was taken on May 15th.

Opportunity was given all parties to introduce such evidence as they might desire, and, at the conclusion of the various hearings, the whole matter was submitted to the Board.

The Commissioners have gone carefully into the evidence in this case, and, while it is true that a third man on the locomotive when running extra, and that a second man on the electric locomotive might at times be convenient, we find nothing in the testimony indicating that such extra employees are an absolute necessity for the safe operation of engines or trains, either to property or the lives of employees or passengers.

At this time, with our nation at war, with the rapidly mounting cost of operation of railways, and with the necessity for equitable distribution of men in the various industries, we certainly would not be warranted in making any order requiring steam or electric railway companies to incur the additional expense in providing for employees not absolutely

necessary for the safe and expeditious handling of passenger and freight traffic. We concur in the agreements reached by the railway companies and employees and shall insist that these agreements be strictly observed by the carriers. As to proposition 3 and 4 of the original complaint, they are dismissed without prejudice, subject to the right of the complainants, when conditions may have changed, to renew the complaint before this Board.

No. 8102—1917.

C. E. BRENTON, DALLAS CENTER, IOWA, *Complainant*,

v.

CHICAGO & NORTH WESTERN RAILWAY COMPANY, *Defendant*,

Decided January 22, 1917.

ABANDONMENT OF SIDING—REASONABLE STATION SERVICE.

Protest was made against the abandonment of what was known as Rubens Siding—*Held*, the facts do not warrant an order requiring the maintenance of the siding for the use of the people in the immediate vicinity, reasonable service being furnished by other close by stations.

For the complainant: J. H. Henderson, Commerce Counsel; C. E. Brenton, Dallas Center; Shannon B. Charlton, Rolfe; Fred Hoffert, Rolfe; M. T. Blessing, Rolfe.

For the defendant: J. C. Davis, Atty., Des Moines; J. P. Cantillon, Superintendent.

This is an old case, heard in November, 1912, long before any member of the Commission, as at present constituted, became a member of this Board. We understand it has been delayed by reason of agreements for continuances, and agreements looking toward an adjustment of the matter, and the long delay is not to be attributed to neglect on the part of the Commission which heard it.

A number of persons residing in the neighborhood of Rubens Siding, on the Chicago & North Western Railway, in Pocahontas County, joined in a protest against the abandonment of siding. The railroad company answered that it maintained a station at Rolfe, two and four-tenths miles east of this siding, at which station the protestants can be conveniently and adequately served. That the limited use of said siding by the people around it did not justify its further maintenance.

From the record in this case we learn this part of the Chicago & North Western railroad was built about the year 1882, when a station was located and maintained at the point known in this case as Rubens Siding. About 1886, what is now known as the Minneapolis & St. Louis Railroad built its line crossing the Chicago & North Western Railway at a point about two and four-tenths miles east of Rubens Siding, after which the station building was moved to the said crossing of the Minneapolis & St. Louis, which station is now called Rolfe, at this time a town of about one thousand population. Since the removal of the station building from the point now known as Rubens Siding there has been neither station building, nor agent, nor elevator at said siding. A switch and stock yards were maintained at Rubens Siding until about

June, 1912, when the switch was removed. There are no dwelling houses at this point, and it is in a purely agricultural community.

The protestants only asked that the switch and stock yards be maintained. They want the switch because a large amount of grain and live stock can be loaded and unloaded at that point, and thereby save hauling and driving a distance of two and four-tenths miles, and return. They also claim that the switch was located and used at the time some of the parties bought their lands in that neighborhood, and that they bought their lands, in part, because of the convenience of loading facilities afforded by reason of the switch. The representative of the Charlton estate claimed to have, and offered to load at this switch fifty thousand bushels of grain that year, and stated that the switch would be a great convenience for loading grain every year.

The record shows that the switch in question was removed in 1912, and also shows the cars loaded and unloaded at this switch for the five years previous to August, 1912, as follows:

	Cattle	Hogs	Hay	Coal	Tile	Total
Aug. 1, 1907 to Aug. 1, 1908.....	13	5				18
Aug. 1, 1908 to Aug. 1, 1909.....	18	4				22
Aug. 1, 1909 to Aug. 1, 1910.....	9	6				15
Aug. 1, 1910 to Aug. 1, 1911.....	14	3	8			25
Aug. 1, 1911 to Aug. 1, 1912.....	18	1	4	3	14	40

The coal and tile shipments of the last year, in the above statement, are explained as having been used by a contractor who was building a large drainage ditch near this siding.

The general manager of this railroad made an order for the investigation of all isolated and non-revenue producing sidings, and for advice whether or not, from an operating standpoint, it was advisable to retain them. It was under this order and investigation that Rubens Siding was removed.

At every switch connected with the main line it is necessary to keep a light every night. Switch lights some times go out. When this occurs, it is necessary for approaching trains to stop. There are other elements of danger in every switch, and there is also the expense of maintenance.

The principal complainant in this matter was the Charlton estate, whose lands lie both north and south of the railroad, Rubens Siding being about sixty rods from the east line of such lands. These lands are between Rolfe and Havelock, stations on the Chicago & North Western Railway, Havelock being a fraction more than eight miles west of Rolfe. From Rolfe station to the east line of the lands of said estate, is about three miles. To the approximate center of these lands is about four miles, and to the most distant part of the land is about six and one-half miles. From Havelock to the approximate center of these lands is about six miles. From Plover, a station on the Minneapolis & St. Louis Railroad, it is five miles to the main tract of this land, and from Pocahontas, a station on the Chicago, Rock Island & Pacific Railway, to the nearest point of this land, is about six and one-half miles.

All the foregoing facts are fully established by the record. Under these facts, should the railroad be required to maintain the switch for the use of the people in its immediate vicinity?

The stations Rolfe and Havelock are less than nine miles apart. This is not an unusual distance. As originally located, these stations were but about seven miles apart. After that, the Minneapolis & St. Louis crossed this line, and it seemed to the Chicago & North Western Railroad entirely necessary that its station be moved to the crossing in order to furnish to the public reasonably adequate service. The judgment of the company has been justified by the growth of Rolfe. It is reasonably certain that the Railroad Commission would have ordered the maintenance of a station by this road at the crossing if it had not done so voluntarily.

The distance necessary to be traveled by the protestants to reach railroad stations at which they can load and unload is not unreasonable. The public is entitled to reasonably adequate service. If certain individuals are receiving such service, their protests cannot be sustained. Even though this switch was maintained for years, and has been a great convenience to these protestants, yet it may be that to require the railroad to continue to maintain the same would be objectionable as against public necessity, and a hindrance to what may be necessary for the railroad. Our Supreme Court, where the application was for the restoration of a station, said:

"It appears to us that the owners of the road should not be interfered with in the management of their property, including the location of their stations, where, as this case, there is no competent evidence that any patron of the road has been deprived of reasonable facilities for transacting business with the defendant."

State v. D. M. & K. C. Ry. Co., 87 Iowa, Page 644.

The service demanded by the protestants in this case is largely a special service, or privilege. It would not be reasonable to require the railroad to render such service to all persons similarly situated.

Upon the merits of this case we believe it should be, and the same is hereby, dismissed.

No. 8103—1917.

Des Moines (Western Railway Company, v. Chicago Great Western Railroad Company, condemnation in Polk County.

On December 21, 1916, the Board held hearing in the above case and on January 9, 1917 issued certificate of authority to condemn the following described real estate:

The right to construct, maintain and operate a crossing of the right of way and tracks of the Chicago Great Western Railroad Company in Southeast Sixteenth Street, in Des Moines, Iowa, and in lots twenty-seven and twenty-eight of Brooks & Company's Addition to the city of Des Moines, Iowa; and to use for the purpose of said crossing so much of the right of way of the Chicago Great Western Railroad Company over said lots twenty-seven and twenty-eight as lies within the distance of ten feet on either side of the center line of the Des Moines Western Railway Company's track as now marked by location survey across said lots twenty-seven and twenty-eight.

This certificate was filed with the Clerk of the District Court of Polk County as provided by law.

No. 8104—1917.

Dubuque and Sioux City Railroad Company, v. Aloys Polffer, condemnation in Dubuque County.

On February 9, 1917, the Board held hearing in the above case and issued certificate of authority to condemn the following described real estate:

All that part of Lots 66, 67, 68, 69, 70, 71, 72, 73, 74 and 75 in Center Grove, Dubuque County, Iowa, which is included between the present northerly right of way line of the Dubuque & Sioux City Railroad Company, and a line fifty feet northerly from and parallel to said northerly right of way line.

This certificate was filed with the Clerk of the District Court of Dubuque County as provided by law.

No. 8105—1917.

Des Moines Terminal Company, v. Success Investment Company, condemnation in Polk County.

On January 9, 1917, the Board held hearing in the above case and on February 16, 1917 issued certificate of authority to condemn the following described real estate in Polk County:

All that part of lot one of the official plat of the northeast quarter of section eight, township seventy-eight north, range twenty-four west of the fifth P. M., Polk County, Iowa, described as follows: Commencing at a point where the north line of the right of way conveyed to the St. Louis, Des Moines & Northern Railway Company is intersected by a line parallel with and thirty-three feet easterly (measured at right angles) from the center line of the Eighteenth Street or Bloomfield road viaduct; thence easterly along the northerly line of said railroad right of way a distance of three hundred eighty-six and one-tenth feet; thence northwesterly parallel with and ten feet distant northerly (measured at right angles) from the center line of the Des Moines Terminal Company's north track as now marked by location survey over and across said lot one to the southerly line of Locust Street; thence southwesterly along the southerly line of Locust Street on a thirty-seven degree, thirty-two minute curve, forty-seven and sixty-five hundredths feet (measured along actual arc of curve) to the end of said thirty-seven degrees, thirty-two minute curve; thence southerly along the west line of said lot one to the north line of the right of way conveyed to the St. Louis, Des Moines & Northern Railway Company; thence westerly along the north line of said railroad right of way to the point of commencement.

Said certificate was filed with the Clerk of the District Court of Polk County as provided by law.

No. 8106—1917.

Dubuque & Sioux City Railroad Company, v. C. B. Nash Co., et al, Council Bluffs, Iowa, Condemnation in Pottawattamie County.

On July 10, 1917 the Board held hearing in the above case and on July 11, 1917 issued certificate of authority to condemn the following described real estate in Pottawattamie County:

A strip of land fifty feet wide, being twenty-five feet in width on each side of the center line of the wye track of the Dubuque & Sioux City Railroad Company, as said center line has been located over and across part of the Northwest Quarter of the Northeast Quarter of Section Twenty-six and part of the Southwest Quarter of the Southeast Quarter of Section Twenty-three

both in Township Seventy-five North, Range Forty-four West in Pottawattamie County, Iowa, said located center line of said wye track intersecting the east line of said Northwest Quarter of the Northeast Quarter of Section Twenty-six at a point eighty-eight feet south of the north line of said section Twenty-six and running thence northwesterly in a straight line two hundred twenty-seven feet; thence continuing northwesterly along a curve to the left having a radius of 416.4 a distance of one hundred twenty-six feet to a point in the east line of North Fifteenth Street in the City of Council Bluffs, Iowa, two hundred five feet north of the south line of said Section Twenty-three, said strip of land containing .4 of an acre more or less; also, a tract of land located in the Southwest Quarter of the Southeast Quarter of said section twenty-three, bounded and described as follows: Beginning at the point of intersection of the west line of said North Fifteenth Street, with the north line of the alley which runs along the north side of Lots one to nine, in Belmont Addition; thence west along said north line of the alley to the east line of North Sixteenth Street; thence north along said east line six feet to the southerly line of the right of way of the said Dubuque & Sioux City Railroad Company; thence easterly along said southerly line to the west line of Fifteenth Street; thence south along said west line 54 feet to the point of beginning, containing .41 of an acre, more or less.

That said real estate belonging to said William J. Wagner is described as follows: A triangular tract of land, being part of Lots One and Two in Belmont Addition to the City of Council Bluffs, Pottawattamie County, Iowa, bounded and described as follows: Beginning at the northeast corner of said Lot One; thence west eighty feet to the northwest corner of said Lot Two; thence southeasterly to a point in the east line of said Lot One, forty-one feet south of the northeast corner of said Lot One; thence north forty-one feet to the point of beginning.

Said certificate was filed with the Clerk of the District Court of Pottawattamie County, as provided by law.

No. 8107—1917.

Dubuque & Sioux City Railroad Company, v. Michael Morrissey, Ryan, Iowa, condemnation in Delaware County.

On July 3, 1917, the Board held hearing in the above case and on July 10, 1917 issued certificate of authority to condemn the following described real estate in Delaware County:

A tract of land one hundred feet wide located in the southeast quarter of Section Thirteen, Township Eighty-seven North, Range Six West, lying on the easterly side of and adjoining the present right of way of the Dubuque & Sioux City Railroad Company, said tract of land being bounded and more particularly described as follows: Beginning at the point of intersection of the north line of said Southeast Quarter with a line fifty feet easterly from and parallel to the center line of the main track of said railroad and running thence southerly parallel to said center line of track 738.1; thence easterly at a right angle one hundred feet; thence northerly parallel to said center line of track eight hundred feet to the north line of said southeast quarter; thence west along said north line 117.6 feet more or less to the point of beginning, containing one and seventy-six hundredths acres more or less.

Said certificate was filed with the Clerk of the District Court of Delaware County as provided by law.

No. 8108—1917.

Dubuque & Sioux City Railroad Company, v. Johanna Mulhall, Fort Dodge, Iowa, condemnation in Webster County.

On June 27, 1917 the Board held hearing in the above case, and on June 28, 1917 issued certificate of authority to condemn the following described real estate in Webster County:

Lot Four, Block Thirty-nine, Original Town of Fort Dodge, Iowa.

Said certificate was filed with the Clerk of the District Court of Webster County as provided by law.

No. 8109—1917.

Dubuque & Sioux City Railroad Company, v. Estate of Owen Conway, et al., Fort Dodge, Iowa, condemnation in Webster County.

On June 27, 1917, the Board held hearing in the above case, and on June 28, 1917 issued certificate of authority to condemn the following described real estate in Webster County:

Beginning at a point where the east line of Seventh Street reaches the right-of-way of the Dubuque & Sioux City Railroad Company, now used and occupied by the Illinois Central Railroad Company; running thence easterly along the line of the right of way of said railroad one hundred seventy-five feet; thence northeasterly along the west side of Eighth Street a distance of fifty feet; thence running in a straight line across to the east line of Seventh Street to a point fifty feet north of the point of beginning; thence south along the east line of Seventh Street to point of beginning, being a tract of land fifty feet wide, containing twenty-three hundredths of an acre, being a strip of land parallel with the said right of way fifty feet wide in Lot One on Conway's Subdivision, in the City of Fort Dodge, Iowa; also, beginning at a point where the east line of Eighth Street reaches the aforesaid right of way; thence running along said right of way in an easterly direction three hundred ninety feet; thence north twenty-five feet; thence northwesterly parallel to the right-of-way to a point on the east side of Eighth Street as it now exists and distant twenty-five feet from the point of beginning; thence southwesterly twenty-five feet to the point of beginning, being a tract of land twenty-five feet wide in what is platted as Lot Two of Conway's Subdivision in the City of Fort Dodge, Iowa.

Said certificate was filed with the Clerk of the District Court of Webster County as provided by law.

No. 8110—1917.

Dubuque & Sioux City Railroad Company, v. James Drennan, Storm Lake, Iowa, condemnation in Webster County.

On June 27, 1917, the Board held hearing in the above case, and on June 28, 1917 issued certificate of authority to condemn the following described real estate in Webster County:

Lot Three, Block Thirty-nine, in the Original Town of Fort Dodge, Iowa. Said certificate was filed with the Clerk of the District Court of Webster County as provided by law.

No. 8111—1917.

Dubuque & Sioux City Railroad Company, v. C. F. Duncombe, et al., Fort Dodge, Iowa, condemnation in Webster County.

On June 27, 1917, the Board held hearing in the above case, and on June 28, 1917 issued certificate of authority to condemn the following described real estate in Webster County:

Beginning at a point on the north line of the right of way of Dubuque & Sioux City Railroad Company now leased by the Illinois Central Railroad Company three hundred ninety feet easterly from the point where Eighth Street of Fort Dodge, Iowa, running south on the east side of said street meets the right of way of the Dubuque & Sioux City Railroad Company now leased by the Illinois Central Railroad Company; thence running along the north side of said right of way seven hundred thirty feet to the west point of Lot Seven in Block One Hundred Twenty; thence running on the south and west sides of Lots Five, Six and Seven one hundred eighty feet, and on the south side of Lot Eight two hundred eighty-five feet; thence running along the west side of the street met at said point north twenty-five feet; thence in a straight line parallel with the right of way twenty-five feet north of same, west to a point twenty-five feet north of the place of beginning, thence south twenty-five feet to the point of beginning, being on the south side of the land belonging to the J. F. Duncombe estate, land unused and vacant seven hundred thirty feet, on Lots Five, Six and Seven in Block One Hundred Twenty, one hundred eighty feet, two hundred eighty-five feet on the south side of Lot Eight in Block One Hundred Twenty, being a tract of land twenty-five feet wide adjacent to the right of way on the north and eleven hundred ninety-five feet long.

Said certificate was filed with the Clerk of the District Court of Webster County as provided by law.

No. 8112—1917.

Dubuque & Sioux City Railroad Company, v. L. Mulmed, et al., Fort Dodge, Iowa, condemnation in Webster County.

On June 27, 1917, the Board held hearing in the above case, and on June 28, 1917 issued certificate of authority to condemn the following described real estate in Webster County:

Lot Seven of Block Forty, of the Original Town of Fort Dodge, Iowa.

Said certificate was filed with the Clerk of the District Court of Webster County as provided by law.

No. 8113—1917.

Dubuque & Sioux City Railroad Company, v. Martin Ertl, et al., Fort Dodge, Iowa, condemnation in Webster County.

On June 27, 1917, the Board held hearing in the above case, and on June 28, 1917 issued certificate of authority to condemn the following described real estate in Webster County:

Lot No. Four, in Block "I," in Duncombe and Baehring's Addition to the Town of Ft. Dodge, Iowa.

Said certificate was filed with the Clerk of the District Court of Webster County as provided by law.

ELECTRIC TRANSMISSION LINE FRANCHISES

No. 8114—1917.

Cedar Valley Hydraulic Company, Waterloo, Iowa. Application for transmission line in Floyd County.

On April 14, 1916, the Board held a hearing on the above application for franchise to construct an electric transmission line in Floyd County. At this hearing certain objections were made by telephone companies operating in the vicinity of the proposed transmission line. The Commission withheld decision in this case to give the Cedar Valley Hydraulic Company an opportunity to come to an agreement with the operators. Upon being advised that no agreement could be reached between the parties involved, the Commission on May 4, 1917 granted a franchise upon the following route:

Commencing at the South limits of Charles City, Iowa, between Section Seven, Township Ninety-five, Range Fifteen and Section Twelve, Township Ninety-five, Range Sixteen, thence South along public highway to a point between Section Thirteen, Township Ninety-five, Range Sixteen and Section Eighteen, Township Ninety-five, Range Fifteen to intersection with public highway running southeast through Section Eighteen, thence south and east along highway through Sections Eighteen, Seventeen, Twenty, Twenty-nine, Twenty-eight, Thirty-three and Thirty-four, Township Ninety-five, Range Fifteen; thence South and East and along and through sections Three, Two, Eleven and Twelve, Township Ninety-four, Range Fifteen to County Line between Sections Twelve and Thirteen, Township Ninety-four, Range Fifteen; also from the City Limits of Charles City, Iowa, west along highway in Section Eleven, Township Ninety-five, Range Sixteen through Sections Ten, Nine, Eight and Seven, Township Ninety-five, Range Sixteen to intersection of public highway running north and south between Section Seven, Township Ninety-five, Range Sixteen and Section Twelve, Township Ninety-five, Range Seventeen, thence one-half mile South along aforesaid highway between aforesaid Sections to intersection with highway running west between Sections Twelve and Thirteen, Township Ninety-five, Range Seventeen, thence due west along aforesaid highway between aforesaid Section and Sections Eleven and Fourteen, Ten and Fifteen, Nine and Sixteen, Eight and Seventeen, Seven and Eighteen, Township Ninety-five, Range Seventeen; also between Sections Twelve and Thirteen, Eleven and Fourteen, Township Ninety-five, Range Eighteen to confines of the town of Rockford.

No. 8115—1917.

Iowa Light Heat & Power Company, Carroll, Iowa. Application for transmission line in Carroll County.

On December 7, 1916, the Board held hearing on the above application for franchise to construct an electric transmission line in Carroll County. There being no objections on file at date of hearing the commission on January 22, 1917, granted a franchise upon the following route:

Commencing at the intersection of the highway extending north and south along the east line of Section Twenty-six, Township Eighty-four North, Range Thirty-five, west of the 5th P. M. in Carroll County, Iowa, with the corporation line of the City of Carroll, Iowa, thence running south along said highway to the southeast corner of Section Thirty-five, Township Eighty-four North, Range Thirty-five West of the 5th P. M. in Carroll County, Iowa; thence extending west along the highway extending east and west along the south lines of Sections Thirty-five, Thirty-four, Thirty-three, and Thirty-two, all in Township Eighty-four North, Range Thirty-five West of the 5th P. M. in Carroll County, Iowa, to the south-west corner of said Section Thirty-two last described.

No. 8116—1917.

Peoples Gas and Electric Company, Burlington, Iowa. Application for an electric transmission line in Louisa and Des Moines Counties.

The above application came on for hearing on December 7, 1916, and was continued to January 16, 1917, at which time hearing was held. Certain objections having been filed, the Commission withheld its decision pending an adjustment of the differences between the objectors and the transmission company. On May 4, 1917 the Commission having been advised by both the applicant and the objectors that a satisfactory agreement had been reached, franchise was granted upon the following route:

Commencing at the West corporate limits of the Town of Wapello, Iowa, thence on the west side of, parallel to and abutting upon the right of way of the Chicago, Rock Island & Pacific Railway Company to the north corporate limits of the town of Morning Sun, Iowa; also beginning at the south corporate limits of the town of Morning Sun, Iowa, thence west of, parallel to and abutting upon the right of way of the Chicago, Rock Island & Pacific Railway Company to a point where it intersects the highway running along the south side of Section 9, Township 72 North, Range 3 West of the 5th P. M., thence east on said highway to its intersection with the highway running north and south along the east side of Sections 9 and 16, Township and Range last aforesaid, thence south on said highway to the point where same intersects the right of way of the Chicago, Rock Island & Pacific Railway Company, thence on the west side of, parallel to and abutting upon the right of way of said railway company to the north corporate limits of the town of Mediapolis, Iowa, all of said proposed right-of-way lying in Louisa and Des Moines counties, Iowa.

No. 8117—1917.

Mark Durst and Godfrey Durst, Danbury, Iowa. Application for transmission line in Woodbury County.

The Board held hearing on February 13, 1917, on the above application for franchise to construct an electric transmission line. On March 9, 1917, franchise was granted upon the following route:

Commencing at a point on the north side and from two to four feet south of the north line thereof of the public highway between Sections Twenty-three and Twenty-six, Township Eighty-six, Range Forty-two, two thousand and twenty-eight feet east of the west lines of said sections and running in a direct line west and parallel to said north line along and on said highway between said Sections Twenty-three and Twenty-six, and Sections Twenty-two and Twenty-seven all in said township, to the west side of the half section line between said Sections Twenty-two and Twenty-seven, and thence south

across said east and west highway to a point thereon on the west side of E street in the incorporated town of Danbury, Iowa; and also from a point two-thousand feet east of the west line of said Sections Twenty-three and Twenty-six, and running south across the said public highway on to and across the land of petitioners a distance of one hundred and twenty feet, and also running west from said point two thousand feet east of the said west line along the land of petitioners to a point fourteen hundred feet east of the said west line, and thence across the said highway south at said point and on to land of petitioners a distance of ninety feet.

No. 8118—1917.

Schmidt Brothers, Elkader, Iowa. Application for transmission line in Clayton and Delaware Counties.

On February 13, 1917, the Board held hearing on the above application for a franchise to construct an electric transmission line. The Commission granted franchise on March 9, 1917, upon the following route:

Leave the town of Elkader, in an easterly direction and continue through section Twenty-three, Boardman Township on highway No. 620 N. S., to where it opens into and continues as road No. 649 N. S. continuing on said last named road in a southeasterly direction for about one mile in Section Twenty-six, then turn south and continue over private way, crossing the C. M. & St. P. Ry., and the Turkey River, following the south bank of said stream to the point where the line opens into and continues on highway No. 894 and 897 N. S. still in Section Twenty-six, thence through the southwest corner of Section Twenty-five on same road until it opens into and continues through Section Thirty-six still in a general southeasterly direction. Thence on road No. 117 N. S. lying between Sections One and Two in Cox Creek Township until said road strikes No. 2 N. S. and ends, thence on No. 3 N. S. in an easterly direction through Section One of said Township and continuing on said road through the east half of section Twelve of said township, thence easterly through the southwest corner of Section Seven, Volga Township, thence southeasterly on roads No. 84 N. S., alteration 196 N. S., and 82 N. S. through the center of Section Eighteen, thence southeasterly on 62 N. S. to the center of the junction line of Sections Nineteen and Twenty, thence south on road No. 542 N. S. between Sections Nineteen and Twenty, and Twenty-nine and Thirty to where said road last named enters and ends in road No. 58 N. S., crossing the C. M. & St. P. on said 58 N. S., and continuing on said road through Section Thirty to the town of Littleport, Clayton County, Iowa.

Leave No. 62 N. S. at the point where road No. 542 N. S. branches south, between Sections Nineteen and Twenty, Volga Township, and continue on 62 N. S. until it opens into and continues as road 166 O. S. through Section Twenty, thence in an easterly direction until said road opens into and continues as road 188 O. S. through Section Twenty-one, thence through Section Twenty-eight, then through Sections Twenty-seven and Twenty-six, crossing the C. M. & St. P. Ry., on said road 188 O. S., thence on 419 N. S. through Section Twenty-six until said road opens into and continues as road No. 3 N. S. in Sections Twenty-six and Thirty-five, following the Turkey River in said Section Thirty-five to the town of Elkport, Clayton County, Iowa, thence through the town of Elkport to the town of Garber, crossing the Turkey River and the C. M. & St. P. Ry., all of which is within the incorporated areas of said towns.

Leave the town of Garber, Clayton County, Iowa, near the center of Section Thirty-six, Volga Township and continue in a southerly direction on road 672 N. S. and continue on said road to where it opens into and continues as highway 418 N. S. 834 N. S. and 418 N. S. through Section One, Elk Township, thence in a southeasterly direction through Section Seven, Mallory Township on roads No. 835 N. S. and 609 N. S. and 172 N. S., thence easterly and south-

easterly through Section Seventeen on road 172 N. S., thence south through Section Twenty in said township on road No. 476 O. S., then continuing south through Section Twenty-one on road No. 3 N. S., thence south through Sections Twenty-eight and Thirty-three to the Clayton County Line, thence south on the center line of Section Four, Colony Township, Delaware County to Colesburg, an incorporated town in said County.

No. 8119—1917.

Iowa Electric Company, Cedar Rapids, Iowa. Application for transmission line in Washington, Johnson and Muscatine Counties.

On December 12, 1916, the Commission held hearing on the above application for franchise to construct an electric transmission line, and on January 22, 1917, granted franchise upon the following route:

A strip of land twenty-five feet in width located as follows: Commencing at the South corporate limits of the City of Iowa City, thence lying east of and abutting upon the east line of the right of way of the Chicago, Rock Island & Pacific Railway Company to the south line of Section Three, Township Seventy-seven North, Range Seven West of the 5th P. M.; thence west across said railroad right of way; thence abutting upon the west side of said right of way to the intersection with a public highway running east and west along the south side of the north half of the north half of section ten, township and range last aforesaid.

Also commencing at the west corporate limits of the incorporated town of Nichols; thence north of and abutting upon the north boundary line of said right of way to the west line of Section Seventeen, Township Seventy-seven North, Range Four west of the 5th P. M.; thence south across said railroad right of way, and thence abutting upon the south boundary line of said railroad right of way to the public highway along the west side of Section Seven, Township Seventy-seven North, Range Seven West of the 5th P. M.; thence North across said right of way, north of and abutting upon the north line of said railroad right of way to the public highway on the west side of Section Nineteen, Township Seventy-seven North, Range Eight West of the 5th P. M.; thence south across said right of way; thence southerly of, and abutting upon the said railroad right of way to the east corporate limits of the town of Wellman, Iowa.

Also a strip of land twenty-five feet in width lying west of and abutting upon the railroad right of way between the east and west center section lines of Sections Fifteen and Twenty-two, Township Seventy-eight North, Range Six west of the 5th P. M.

Also over, along and upon the following public highways, to wit: On the public highway running along the south boundary line of the north half of corner of Section Ten, Township Seventy-seven North, Range Six West of the 5th P. M., from the said railroad right of way to its intersection with the public highway running along the South boundary line of the north half of the north half of Section Ten, and the north half of the north half of Section Eleven, Township Seventy-seven North, Range Six West of the 5th P. M.; thence easterly on said highway to its intersection with the said railroad right of way in the north half of said Section Eleven. Also on the public highway lying on the west side of Sections Seven and Eighteen, Township Seventy-seven North, Range Seven West of the 5th P. M., where said highway crosses said railroad right of way.

Also on the public highway along the west side of Section Nineteen, Township Seventy-seven North, Range Eight, West of the 5th P. M., where same crosses said railroad right of way. Also along and upon the public highway lying in the north half of Section Sixteen, Township and Range last aforesaid, lying north of, parallel to and abutting upon said railroad right of way.

Also along that part of the public highway along the west side of Section Eleven, south of the railroad right of way and along the south sides of Sections Eleven and Twelve, all in Township Seventy-seven North, Range Five West of the 5th P. M. Also along the south sides of Section Seven and the east side of that part of Section Eighteen, Township Seventy-seven North, Range Four, West of the 5th P. M., lying north of the south boundary line of said railroad right of way.

There is excepted from the route hereinbefore described any portion thereof, included within the corporate limits of any incorporated city or town.

The railroad right of way hereinbefore referred to, being the right of way of the Chicago, Rock Island and Pacific Railway Company, formerly the Burlington, Cedar Rapids and Northern Railroad Company.

No. 8120—1917.

Iowa Railway & Light Company, Cedar Rapids, Iowa. Application for transmission line in Linn and Benton Counties.

On December 12, 1916, the Board held hearing on the above application for a franchise to construct an electric transmission line, and on January 28, 1917, franchise was granted upon the following route:

Commencing at the north line of the right of way of the Chicago, Rock Island & Pacific Railway Company, thence across said right of way and on a strip of land twenty-five feet in width along the east line of Section Three, Township Eighty-three North, Range Eight West of the 5th P. M., Linn county, Iowa, to its intersection with a public highway, said twenty-five foot strip being twelve and one-half feet on each side of the east line of said section; thence south and southwesterly on said public highway along said east line of said Section Three, to its intersection with the south line of the north half of Section Ten, Township and Range last aforesaid; thence southwesterly on a strip of land twenty-five feet in width lying north of and abutting upon the north line of the right of way of the Chicago, Milwaukee & St. Paul Railway Company to its intersection with the public highway running along the east and west center section lines of Sections Sixteen, Seventeen and Eighteen, Township Eighty-three North, Range Eight West of the 5th P. M.; thence west on said highway to the east line of Section Thirteen, Township Eighty-three North, Range Nine West of the 5th P. M.; thence south on the public highway along the east line of said Section Thirteen, to the north boundary line of the right of way of the said Chicago, Milwaukee & St. Paul Railway Company; thence west on a strip of land twenty-five feet in width, lying north of and abutting upon the north boundary line of said railroad right of way last aforesaid to the east line of Section Fourteen, township and range last aforesaid; thence west on the public highway along the north boundary line of said railroad right of way to the west end thereof; thence upon a strip of land twenty-five feet in width lying north of and abutting upon said railroad right of way to the west line of said Section Fourteen.

Also along and upon a strip of land twenty-five feet in width, the center line of said strip, being the east and west center section line of Section Thirteen, Township and Range last aforesaid. Also along and upon the public highway from the west side of the unincorporated town of Atkins and lying south of and parallel to the right of way of the said Chicago, Milwaukee & St. Paul Railway Company, to the west line of said Section Fourteen, township and range last aforesaid; also along and upon the public highway along the west side of said Section Fourteen, commencing at the north boundary line of said railroad right of way and extending to the southwest corner of said Section Fourteen; thence west on the public highway along the south boundary line of Sections Fifteen, Sixteen, Seventeen and Eighteen, township and range last aforesaid, and Sections Thirteen, Fourteen, Fifteen, Sixteen, Seventeen, and Eighteen, Township Eighty-three North,

Range Ten west of the 5th P. M., and Sections Thirteen, Fourteen, Fifteen, Sixteen, Seventeen and Eighteen, Township Eighty-three North, Range Eleven West of the 5th P. M.; thence North on the highway along the east side of Section Thirteen, Township Eighty-three North, Range Twelve West of the 5th P. M., to its intersection with the first highway running east and west on the north side of said railroad right of way; thence west on said public highway to the east corporate limits of the town of Keystone, Benton County, Iowa.

Also along and upon a strip of land twenty-five feet in width lying between south line of Section Fourteen and the south corporate limits of the town of Van Horne, with the center of said strip being the north and south center line of Section Fourteen, Township Eighty-three North, Range Eleven West of the 5th P. M. Also along and upon the following public highways; on the public highway along the east side of Section Fourteen, Township Eighty-two North, Range Eleven West of the 5th P. M., commencing at the North corporate limits of the town of Blairstown, thence north along the east line of Sections Fourteen and Eleven to the center section line of Section Eleven, thence west on the center section line of said section Eleven, to the west line thereof, thence north along the west side of Sections Two and Eleven, Township and Range last aforesaid, and Sections Thirty-five, Twenty-six, Twenty-three and Fourteen, Township Eighty-three North, Range Eleven West of the 5th P. M.; thence east along the north line of said Section Fourteen, township and range last aforesaid to the west corporate limits of the town of Van Horne, Benton County, Iowa.

Also upon all of the streets, avenues and alleys, included in the plat of the unincorporated town of Atkins, and streets leading thereto, which plat is included in that part of the south half of Section Fourteen, Township Eighty-three North, Range Nine west of the 5th P. M., which lies south of the right of way of the Chicago, Milwaukee & St. Paul Railway Company. Also all of the streets, avenues and alleys, and highways leading thereto which are included in the plat of the unincorporated village of Newhall, which is situated in that part of the southwest quarter of Section Thirteen, Township Eighty-three North, Range Ten West of the 5th P. M., lying south of the right of way of the Chicago, Milwaukee & St. Paul Railway Company.

There is excepted from the route hereinbefore described any portion of said route included within the limits of any incorporated city or town, and all of said right of way is located in Benton and Linn Counties, Iowa.

No. 8121—1917.

People's Gas & Electric Company, Burlington, Iowa. Application for transmission line franchise in Des Moines County.

On August 1, 1917, the Commission held hearing on the above application for franchise to construct electric transmission line. The Commission on September 24, 1917, granted franchise upon the following route:

Beginning at a point on the Deems Farm in Township Seventy North, Range Three West, Des Moines County, to run in a southerly direction across the Agency Road thence following a westerly direction to a point in Township Sixty-nine North, Range Three West, Des Moines County, to the northwest corner of the northeast quarter of the northeast quarter of Section Four; thence in a southerly direction to the southeast corner of the southwest quarter of the northeast quarter of Section Four where the county farm is located.

No. 8122—1917.

Northern Iowa Gas & Electric Company, Humboldt, Iowa. Application for transmission line franchise in Palo Alto County.

On April 10, 1917, the Commission held hearing on the above application for franchise to construct an electric transmission line. On April 20, 1917, the franchise was granted upon the following route:

Starting at the city limits of the incorporated town of Graettinger at the south line approximately one-half mile east of the north and south line between Sections Eight and Nine, Township Ninety-seven North, Range Thirty-three West, thence south along said road to the north line of Section Sixteen, thence west along the east and west public road to the west side of Section Sixteen aforesaid, thence south along the public road between Sections Seventeen and Sixteen; Twenty and Twenty-one; Twenty-nine and Twenty-eight; Thirty-two and Thirty-three, Township Ninety-seven North, Range Thirty-three West, thence south along same public road between Sections Five and Four, Eight and Nine, Seventeen and Sixteen, and further south along this road about one-half mile between Sections 20 and 21 to the Chicago, Milwaukee & St. Paul Railway right of way, Township Ninety-six North, Range Thirty-three West from the east line of Section Twenty between Sections Twenty and Twenty-one, thence east along the public road between Sections Sixteen and Twenty-one, Fifteen and Twenty-two, Fourteen and Twenty-three, to the point where the public road runs southeast through Section Twenty-three, Township Ninety-six North, Range Thirty-three West to the west city line of the city of Emmetsburg.

Starting at a point on the west line of Section Thirty-three, Township Ninety-seven North, Range Thirty-three West, thence east along the public road between Sections Twenty-eight and Thirty-three; and Twenty-seven and Thirty-four to a point about a half mile east of the west line of said section Thirty-four, thence in a northerly direction along the public road through Sections Twenty-seven and Twenty-six to the north and south line between Sections Twenty-six and Twenty-five, thence north along the public road between said Sections Twenty-six and Twenty-five to the town of Osgood.

Beginning at the point of intersection of the line between Sections Seventeen and Eighteen, Township Ninety-six North, Range Thirty-four West, with the north corporation line of the town of Ruthven, Iowa, thence north along the public highway to the north line of said Section 17, thence east along the public road between Sections Eight and Seventeen; Nine and Sixteen; Ten and Fifteen; Eleven and Fourteen; Twelve and Thirteen, Township Ninety-six, Range Thirty-four, and between Sections Seven and Eighteen, Eight and Seventeen, Township Ninety-six, Range Thirty-three West.

No. 8123—1917.

Northern Iowa Gas & Electric Company, Humboldt, Iowa. Application for transmission line franchise in Humboldt County.

On April 10, 1917, the Commission held hearing upon the above application for franchise to construct an electric transmission line. On April 20, 1917, franchise was granted upon the following route:

Beginning at a point in the public highway at the southeast corner of Section Thirty-two, Township Ninety-two, Range Twenty-nine, and running thence due north along the public highway between said Section Thirty-two and Section Thirty-three, Township Ninety-two, Range Twenty-nine, to the north side of said Section Thirty-two, thence west along the public highway about 40 rods to the first highway leading north, thence due north along the public highway to the south corporation line of the town of Rutland, Iowa.

No. 8124—1917.

Iowa Falls Electric Company, Cedar Rapids, Iowa. Application for transmission line franchise in Worth County.

On June 19, 1917, the Board held hearing on the above application for franchise to construct an electric transmission line. On June 28, 1917, franchise was granted upon the following route:

Commencing at the south corporate limits of the town of Northwood, Worth County, Iowa; thence south on the public highway through the east half of Section Thirty-two, Township One Hundred North, Range Twenty West of the 5th P. M., to the south line of said Section Thirty-two; thence east on the North Twenty-five feet of Sections Four and Five, Township Ninety-nine North, Range Twenty West of the 5th P. M., to the right of way of the Chicago, Rock Island & Pacific Railway Company; thence south on a strip of land twenty-five feet in width lying west of and abutting upon the right of way of the aforesaid railway company to the North corporate limits of the town of Kensett, Iowa.

Also along and upon a strip of land twenty-five feet in width lying west of and abutting upon the right of way of the Chicago, Rock Island and Pacific Railway Company, commencing at the south corporate limits of the town of Kensett and extending to the north corporate limits of the town of Manly on the south line of Section Sixteen, Township Ninety-eight North, Range Twenty West of the 5th P. M.; thence west along the public highway along the north line of Section Twenty-one, township and range last aforesaid, but outside of the corporate limits of said town of Manly, to a point opposite the continuation of the west line of said corporate limits of Manly.

No. 8125—1917.

Iowa Falls Electric Company, Cedar Rapids, Iowa. Application for transmission line franchise in Hancock and Cerro Gordo Counties.

On March 14, 1917, the Board held hearing on the above application for franchise to construct an electric transmission line. The Commission granted on March 30, 1917, franchise upon the following route:

A strip of land of the uniform width of twenty-five feet, lying north of and abutting upon the right of way of the Chicago, Milwaukee & St. Paul Railway Company, commencing at the east corporate limits of the town of Garner, Hancock County, Iowa, and extending to its intersection with the public highway along the south line of Section Eleven, Township Ninety-six North, Range Twenty-two West of the 5th P. M.; thence east on said highway to the west corporate limits of the city of Clear Lake, Cerro Gordo County, Iowa.

Also along and upon all of the streets, highways, avenues, and alleys of the unincorporated town of Ventura, which is located on the said railroad right of way aforesaid in Sections Seventeen and Eighteen, Township Ninety-six North, Range Twenty-two West of the 5th P. M.

Also along and upon the public highway on the west side of Section Seventeen, Township Ninety-six North, Range Twenty-two West of the 5th P. M., from the said twenty-five foot strip on the north side of said railroad right of way in a southerly direction over and across said railroad right of way.

No. 8126—1917.

Commonwealth Utilities Company, Mankato, Minn. Application for transmission line franchise in Kossuth and Winnebago Counties.

On June 5, 1917, the Commission held hearing on the above application for franchise to construct an electric transmission line. The Commission on June 13, 1917, granted franchise upon the following route:

Commencing at a point on the public highway at the southwest corner of Section Six, Township Ninety-nine North, Range Twenty-seven West of the 5th P. M.; thence east upon said highway to Winnebago County line; thence east on the public highway a distance of one mile to southwest corner of Section Five, Township Ninety-nine, Range Twenty-six; thence south on the public highway to corporate limits of the town of Buffalo Center. Also commencing at a point on the public highway at the southwest corner of Section Five, Township Ninety-nine, Range Twenty-six West of the 5th P. M.; thence east on the public highway to southwest corner of Section One, Township Ninety-nine, Range Twenty-five West of the 5th P. M.; thence south on the public highway to southwest corner of Section Twenty-four, Township and Range last aforesaid; thence west on the public highway to corporate limits of the town of Thompson, Iowa. Also commencing at a point on the public highway at the southwest corner of Section Thirteen, Township Ninety-nine, Range Twenty-five West of the 5th P. M.; thence east on said highway to southwest corner of Section Thirteen, Township Ninety-nine, Range Twenty-four West of the 5th P. M.; thence north on the public highway to northwest corner of said Section Thirteen; thence east on the public highway to southeast corner of the west one-half of Section Ten, Township Ninety-nine, Range Twenty-three, West of the 5th P. M.; thence following public highway north and east through Sections Ten and Eleven, Township and Range last aforesaid, to corporate limits of Lake Mills, Winnebago County, Iowa.

No. 8127—1917.

Iowa Southern Utilities Company, Centerville, Iowa. Application for transmission line franchise in Ringgold and Taylor Counties.

On April 16, 1917, the Commission held hearing on the above application for franchise to construct an electric transmission line. The Commission granted on May 4, 1917, franchise upon the following route:

Commencing at a point on the public highway at the southeast corner of Section Thirty-six, Township Seventy North, Range Thirty-two West of the 5th P. M., thence west on the public highway for a distance of approximately three miles to the point where the said highway is intersected by the highway running north and south between Sections Thirty-three and Thirty-four; thence north on said highway to the northeast corner of Section Sixteen; thence west on public highway for a distance of one mile; thence north on the public highway running between Sections Eight and Nine for a distance of one mile; thence west on the public highway between Sections Five and Eight to the corporate limits of the town of Lenox, all in Township Seventy North, Range Thirty-two West of the 5th P. M.

Also commencing at a point on the public highway at the northeast corner of Section Ten, Township and Range last aforesaid, thence west on said highway a distance of approximately three miles to the northwest corner of Section Nine, said township and range.

Also commencing at a point on the public highway at the northwest corner of Section Ten, thence south on said highway for a distance of one mile, all in township Seventy North, Range Thirty-two West of the 5th P. M. in Taylor County, Iowa.

Commencing at a point on the public highway at the southeast corner of the west half of Section Five, Township Sixty-eight North, Range Thirty West of the 5th P. M. Thence west on said highway to the northwest corner of Section Seven, thence south to the southwest corner of said Section Seven, all in township and range last aforesaid. Thence west on the public highway between Sections Twelve and Thirteen, Township Sixty-eight, Range Thirty-one West of the 5th P. M., a distance of one-half mile, thence south on the

public highway for a distance of approximately three-fourths of a mile, thence west on the public highway a distance of one mile to the highway running north and south on the half section line of Section Fourteen; thence south on said highway to a point in the highway near the southwest corner of the east half of Section Thirty-five, township and range last aforesaid; also

Commencing at the northeast corner of the west half of Section Twenty-three, thence west on the public highway to the northwest corner of said Section Twenty-three, thence south a distance of one-half mile to the southwest corner of the northwest quarter of Section Twenty-three; thence west on the public highway to the corporate limits of the town of Maloy, all in township Sixty-eight, Range Thirty-one West; also

Commencing on a strip of land not exceeding twenty-five feet in width south of and parallel to the north line of Section Twenty-two to its intersection with the right of way of the Chicago Great Western Railroad Company; thence on a strip of land not exceeding twenty-five feet in width parallel to and abutting upon the east line of the right of way of said Chicago Great Western Railroad Company to the corporate limits of the town of Maloy; also

Commencing at the point on the public highway at the northwest corner of the east half of Section Three, Township Sixty-seven North, Range Thirty-one West, thence south on the public highway to the southwest corner of the east half of Section Ten; thence east on the public highway to the corporate limits of the town of Redding; also

Commencing at a point on the public highway at the northwest corner of the east half of Section Ten, thence west on the public highway for a distance of approximately three and one-half miles to the northwest corner of Section Seven, Township and Range last aforesaid; thence south on the public highway to the corporate limits of the town of Blockton; also

Commencing at a point on the public highway at the northwest corner of the east half of Section Thirty-five Township Sixty-eight, Range Thirty-one West of the 5th P. M., thence east on public highway for a distance of approximately two and one-half miles to the southeast corner of Section Thirty, Township Sixty-eight, Range Thirty, West of the 5th P. M.; thence north on the public highway to the unincorporated village of Delphos, and over and upon all of the streets, alleys and highways of the said village of Delphos.

No. 8128—1917.

Cedar Valley Electric Company, Waterloo, Iowa. Application for transmission line franchise in Franklin County.

On June 26, 1917, the Commission held hearing on the above application for franchise to construct an electric transmission line. The Commission granted on July 2, 1917, franchise upon the following route:

Commencing as a starting point on the highway at the section corner common to Section Twenty-one, Twenty-two, Twenty-seven and Twenty-eight, Township Ninety-two North, Range Twenty West of the 5th P. M., thence north on the highway between Sections Nos. Twenty-one and Twenty-two, Fifteen and Sixteen, Nine and Ten, and Three and Four, to the north line of the township, thence north along the highway between Sections Nos. Thirty-three and Thirty-four, Twenty-seven and Twenty-eight; Twenty-one and Twenty-two; Fifteen and Sixteen; and Nine and Ten, to the south line of the north half of Sections Nine and Ten, in Township Ninety-three North, Range Twenty West of the 5th P. M., all in Franklin County, Iowa.

No. 8129—1917.

Iowa Light, Heat & Power Company, Grinnell, Iowa. Application for transmission line franchise in Carroll, Sac and Calhoun Counties.

On June 5, 1917, the Commission held hearing on the above application for franchise to construct an electric transmission line. The Commission granted on June 13, 1917, franchise on the following route:

Commencing on the highway extending east and west along the south line of Section Thirteen, Township Eighty-four North, Range Thirty-five West of the 5th P. M. in Carroll County, Iowa, at the southwest corner of the east half of said section, thence running west along said highway to the southwest corner of said Section Thirteen, thence north along the highway extending north and south along the west lines of Sections Thirteen, Twelve, and One, of Township Eighty-four North, Range Thirty-five West of the 5th P. M. in said county, and along the west lines of Sections Thirty-six, Twenty-five, Twenty-four, Thirteen, Twelve, and One, in Township Eighty-five North, Range Thirty-five West of the 5th P. M. in said county to the north line of said county, thence north along the highway extending along the west line of Sections Thirty-six, Twenty-five and Twenty-four in Township Eighty-six North, Range Thirty-five West of the 5th P. M. in Sac County, Iowa, to the corporate line of the incorporated town of Auburn, Sac County, Iowa.

Also commencing on the highway extending east along the south line of Section Thirteen, Township Eighty-six North, Range Thirty-five West of the 5th P. M. in Sac County, Iowa, at the point where said highway intersects the east corporation line of the town of Auburn aforesaid, thence extending east along the highway along the south line of said section Thirteen to the southeast corner thereof in Sac County, Iowa, thence north along the highway extending north and south along the county line between Sac and Calhoun Counties, Iowa, and along the east side of said Section Thirteen last described, to the southeast corner of the north half of said Section Thirteen; thence along the highway extending east and west through the centers of Sections Eighteen, Seventeen, Sixteen, Fifteen, Fourteen and Thirteen, in Township Eighty-six North, Range Thirty-four West of the 5th P. M. in Calhoun County, Iowa, to the corporate limits of the incorporated city of Lake City, in Calhoun County, Iowa.

No. 8130—1917.

Iowa Southern Utilities Company, Centerville, Iowa. Application for transmission line franchise in Ringgold County.

On June 5, 1917, the Board held hearing on the above application for franchise to construct an electric transmission line and on June 13, 1917, issued franchise upon the following route:

Beginning at a point on the public highway at the northeast corner of the west half of Section Two, Township Sixty-seven, Range Thirty-one West, thence along the public highway for a distance of one mile, thence south along the public highway for a distance of one-half mile to the center of section Three, Township Sixty-Seven, Range Thirty-one West, all in Ringgold County.

No. 8131—1917.

Iowa Falls Electric Company, Cedar Rapids, Iowa. Application for transmission line franchise in Hamilton County.

On May 22, 1917, the Board held hearing on the above application for franchise to construct an electric transmission line. The Commission on June 28, 1917, granted franchise upon the following route:

Along and upon the public highway located on the north line of the west half of Section Thirty-three, Township Eighty-eight North, Range Twenty-four West of the 5th P. M.; also along and upon a strip of land twenty feet in width located ten feet on each side of the north and south center section line of said Section Thirty-three, and Sections Four, Nine, Sixteen, and the north half of Section Twenty-one, and the north and east lines of the west half of southeast quarter of said Section Twenty-one, all in Township Eighty-seven North, Range Twenty-four West of the 5th P. M.; also along and upon that portion of the public highway which runs in a north and south direction through the east half of Section Twenty-eight, township and range last aforesaid, as lies north of the corporate limits of the incorporated town of Jewell, all in Hamilton County, Iowa.

No. 8132—1917.

Cedar Valley Electric Company, Waterloo, Iowa. Application for transmission line franchise in Black Hawk County.

On June 5, 1917, the Board held hearing on the above application for franchise to construct an electric transmission line. The Commission on June 13, 1917, granted franchise upon the following route:

Commencing at a point on the public highway at the west corporate limits of the city of Waterloo, Iowa, in Section Twenty-eight, Township Eighty-nine, North, Range Thirteen, thence following the public highway south and west through Sections Twenty-eight, Twenty-nine, and Thirty, to the southwest corner of Section Thirty, Township and Range last aforesaid; thence west on the public highway along the south line of Sections Twenty-five and Twenty-six, Township Eighty-nine North, Range Fourteen West of the 5th P. M. to center section line of Township Twenty-six; thence north on the public highway running through Sections Twenty-six and Twenty-three, township and range last aforesaid to south line of Section Fourteen; thence West on the public highway along the south line of Sections Fourteen, Fifteen, Sixteen, Seventeen and Eighteen to the west line of Black Hawk County, all in Black Hawk County, Iowa.

No. 8133—1917.

Cedar Valley Electric Company, Waterloo, Iowa. Application for transmission line franchise in Grundy County.

On June 5, 1917, the Board held hearing on the above application for franchise to construct an electric transmission line. The Commission on June 13, 1917, granted franchise upon the following route:

Commencing at the southeast corner of Section Thirteen, Township Eighty-nine North, Range Fifteen West of the 5th P. M.; thence west on the public highway to southwest corner of Section Fifteen, township and range last aforesaid; thence north on the public highway to southwest corner Section Three; thence west to southwest corner of Section Four, township and range last aforesaid; thence north on the public highway along the west line of Section Four, to north line of Grundy County, all in Grundy County, Iowa.

No. 8134—1917.

Cedar Valley Electric Company, Waterloo, Iowa. Application for transmission line franchise in Butler County.

On June 5, 1917, the Board held hearing on the above application for franchise to construct an electric transmission line. The Commission on June 13, 1917, granted franchise upon the following route:

Commencing at a point on the highway at the southwest corner of Section Thirty-three, Township Ninety North, Range Fifteen West of the 5th P. M.; thence north on the highway between Sections Thirty-two and Thirty-three, Township Ninety North, Range Fifteen West of the 5th P. M. to an intersection with the easterly and westerly highway running through Section Thirty-two; thence westerly on the highway through Sections Thirty-two and Thirty-one, Township Ninety North, Range Fifteen West of the 5th P. M.; thence westerly on the highway through Sections Thirty-six and Thirty-five, Township Ninety North, Range Sixteen West of the Fifth P. M.; thence westerly on the highway between Sections Twenty-six and Thirty-five, Twenty-seven and Thirty-four, Twenty-eight and Thirty-three, Twenty-nine and Thirty-two, Township Ninety North, Range Sixteen West of the Fifth P. M. to a point on the highway at the intersection with the highway running north between Section Twenty-nine and Thirty, Township Ninety North, Range Sixteen West of the 5th P. M.; thence north on the highway between Sections Twenty-nine and Thirty, Township Ninety North, Range Sixteen West of the 5th P. M.; to the intersections with the highway running westerly through Section Thirty, Township Ninety North, Range Sixteen West of the 5th P. M.; thence westerly on the highway through Section Thirty, Township Ninety North, Range Sixteen West of the 5th P. M. to the corporate limits of the city of Parkersburg, all in Butler County, Iowa.

No. 8135—1917.

Iowa Railway & Light Company, Cedar Rapids, Iowa. Application for transmission line franchise in Greene County.

On June 20, 1917, the Board held hearing on the above application for franchise to construct an electric transmission line, at which time the Board of Supervisors of Greene County appeared as objectors. Later the said Board of Supervisors formally withdrew their objections and on September 7, 1917, the Commission granted franchise upon the following route:

Along and upon the public highways located as follows: upon that part of the north line of the south one-quarter of Section Five lying between the west line of said Section Five and the east line of the right of way of the Chicago, Milwaukee & St. Paul Railway Company; also on the south line of Section Six, and the east and west lines and approximately the north line of the south half of said Section Six, said Sections Five and Six being in Township Eighty-three North, Range Thirty west of the 5th P. M.; also the south line of Sections One and Two, to its intersection with a highway located approximately on the north and south center section line of said Section Two; thence north on said highway to the north line of said Section Two; thence west along the north line of Section Two, to a point where said highway turns to the northwest, east of the northeast corner of said Section Two, said Sections One and Two being in Township Eighty-three North, Range Thirty-one West; thence northwesterly to the west line of Section Thirty-five; thence north on the west line of Sections Thirty-five and Twenty-six and thence west on the north line of Section Twenty-seven; thence north on the west line of Section Twenty-two; thence west on the north line of Section Twenty-one, and east on the north line of said Section Twenty-two on the right of way of said railway company aforesaid; also along the west side of Sections Sixteen and Nine, and also the highway commencing at the southwest corner of Section Four, thence running north and northwesterly parallel to the said railroad right of way to the north line of said Section Five; thence east across said railroad right of way, said Sections Thirty-five, Twenty-seven, Twenty-six, Twenty-two, Twenty-one, Sixteen, Nine, Five and Four being in Township Eighty-four North, Range Thirty-one West; thence along the west side of

Sections Thirty-three and Twenty-eight; to the point where said road turns to the west about the center of the said west line of said Section Twenty-eight; thence west and north on said highway to the south corporate limits of the town of Churdan, Iowa; also along and upon all of the streets, avenues and alleys of the unincorporated town of Farlin, all in Greene County, State of Iowa.

No. 8136—1917.

Iowa Electric Company, Cedar Rapids, Iowa. Application for transmission line franchise in Johnson and Washington Counties.

On June 20, 1917, the above application for a franchise to construct an electric transmission line came on for hearing, at which time it developed that proper publication had not been made in Washington County. The portion of the application relating to Johnson County was heard on that date and hearing upon the portion of the application relating to Washington County was continued to July 3, 1917 to allow for legal publication of notice. Hearing on the latter portion of the publication was duly held on July 3, 1917, and on the same date the Commission granted franchise upon the following route:

A strip of land twenty-five feet in width lying east of and abutting upon the east line of the right of way of the Chicago, Rock Island & Pacific Railway Company, commencing at the south corporate limits of Iowa City, and extending to a point at or near the intersection of the north line of the south half of the south half of Section Three, Township Seventy-seven North, Range Six West of the 5th P. M. (except so much thereof as is included in public highways); thence west across said railroad right of way to the public highway lying close to and on the west side of said railroad right of way and running in a northerly and southerly direction.

Also along and upon the east side of said public highway last aforesaid, commencing at the point where said right of way crosses said railroad right of way, as above set forth, and extending to the south line of the right of way of said railroad company, which runs in a northeasterly and southwesterly direction through the Northwest Quarter of Section Ten, township and range last aforesaid.

Also along and upon the east side of the public highway lying east of and abutting upon said railroad right of way, commencing at or near the north line of Section Twenty-eight, Township Seventy-nine North, Range Six West of the 5th P. M., and extending in a southerly direction for approximately thirteen hundred feet, all of the aforesaid route being in Johnson and Washington Counties, State of Iowa.

No. 8137—1917.

Cedar Valley Electric Company, Waterloo, Iowa. Application for transmission line franchise in Franklin County.

On June 25, 1917, the Board held hearing on the above application for franchise to construct an electric transmission line. The Commission on July 2, 1917, granted franchise upon the following route:

Commencing at the west corporate limits of the village of Chapin, Iowa, at the common corners of Sections Twenty-eight, Twenty-nine, Thirty-two, and Thirty-three, in Township Ninety-three, Range Twenty West, in Franklin County, Iowa, and running thence west on the highway between Sections Twenty-nine and Thirty-two, in said township and range, about one-half mile to the right of way of the Chicago, Rock Island & Pacific Railway.

No. 8138—1917.

Iowa Southern Utilities Company, Centerville, Iowa. Application for transmission line franchise in Wayne, Decatur, and Ringgold Counties.

One June 3, 1917, the Commission held hearing on the above application for franchise to construct an electric transmission line. The Commission on July 23, 1917, granted franchise upon the following route:

Beginning at a point on the public highway near the southeast corner of the northeast quarter of Section four, Township sixty-eight, Range Twenty-one, Wayne County, Iowa, thence north on the public highway for a distance of approximately one-half mile, thence west along the public highway for a distance of approximately six and one-fourth miles to a point on the north side of Section Four, Township Sixty-eight, Range Twenty-two, in Wayne County, Iowa, thence due west on private right of way for approximately three miles to the northeast corner of Section One, Township Sixty-eight, Range Twenty-three, Wayne County, Iowa, thence west along the public highway for a distance of six miles to the dividing line between Wayne and Decatur Counties, Iowa.

Also beginning at a point on the public highway near the northeast corner of the northwest quarter of Section Two, Township Sixty-eight, Range Twenty-two, in Wayne County, Iowa, thence south along the public highway for approximately one mile, thence angling along said public highway in a southwesterly and westerly direction to the corporate limits of the town of Allerton, Iowa.

Also beginning at a point on the public highway near the northwest corner of Section Three, Township Sixty-eight, Range Twenty-two, in Wayne County, Iowa, thence, south along the public highway approximately one-fourth of a mile, thence west along the public highway approximately two miles;

Also beginning at the northwest corner of Section Five, Township Sixty-eight, Range Twenty-two in Wayne County, Iowa, thence south along the public highway approximately one-fourth mile;

Also beginning at the northeast corner of Section Six, Township Sixty-eight, Range Twenty-one in Wayne County, Iowa, thence north along the public highway for a distance of two miles to the town of Corydon, Iowa.

Also beginning at a point on the public highway near the northeast corner of Section One, Township Sixty-eight, Range Twenty-four in Decatur County, Iowa, thence west along the public highway approximately one-fourth mile to a turn in the public highway, thence west along private right of way for approximately one-half mile, thence west along the public highway for a distance of approximately three-fourths of a mile, thence west along private right of way for a distance of approximately three-fourths of a mile, thence west along the public highway for a distance of approximately two and three-fourths miles to a point near the northwest corner of the northeast quarter of Section Five, Township Sixty-eight, Range Twenty-four in Decatur County, Iowa;

Thence north along the public highway for approximately one mile, thence west along the public highway for approximately one-fourth mile, thence west on private right of way approximately two miles, said private right of way being located between Sections Thirty-two, Thirty-one and Thirty-six on the south end Sections Twenty-nine, Thirty and Twenty-five on the north, said sections being located in Township Sixty-nine, Ranges Twenty-four and Twenty-five in Decatur County, Iowa, thence west along the public highway for a distance of approximately three miles to the corporate limits of the town of Leon, Iowa, except on private right of way for a distance of approximately one-fourth mile between Sections Thirty-four and Twenty-seven in Township Sixty-nine, Range Twenty-five, Decatur County, Iowa;

Also beginning at a point on the public highway at the west corporate limits of the town of Leon, Iowa, near the northeast corner of the southeast quarter of the southwest quarter of Section Twenty-nine, Township Sixty-nine, Range Twenty-five, Decatur County, Iowa, thence west along the public highway approximately three-fourths of a mile, thence north along the public highway ap-

proximately three-fourths of a mile, thence west, north and west along the public highway for a distance of approximately one mile to a point near the northeast corner of the southeast quarter of the southeast quarter of Section Twenty-four, Township Sixty-nine, Range Twenty-six, Decatur County, Iowa, thence west on private right of way for a distance of approximately one mile, thence west on the public highway for a distance of approximately six miles; thence south on the public highway for approximately one-fourth mile, thence west on the public highway for approximately two miles to the northwest corner of Section Twenty-seven, Township Sixty-nine, Range Twenty-seven, in Decatur County, Iowa, thence west on private right of way approximately one and one-half miles to the northwest corner of the northeast quarter of Section Twenty-nine, Township Sixty-nine, Range Twenty-seven in Decatur County, Iowa, thence south on private right of way approximately one-half mile, thence west on the public highway for approximately one mile to the center of Section Thirty, Township Sixty-nine, Range Twenty-seven, Decatur County, Iowa, thence south on private right of way and along the public highway to a point near the southeast corner of the southwest quarter of Section Thirty-one, Township Sixty-nine, Range Twenty-seven, Decatur County, Iowa, thence west along the public highway to the dividing line between Ringgold and Decatur Counties, Iowa;

Also beginning at a point on the public highway near the southeast corner of Section Thirty-six, Township Sixty-nine, Range Twenty-eight in Ringgold County, Iowa, thence west along the public highway for a distance of approximately eleven miles to the corporate limits of the town of Mt. Ayr, Ringgold County, Iowa;

Also beginning at a point on the public highway near the northeast corner of the southeast quarter of Section Thirty-one, Township Seventy, Range Thirty, Ringgold County, Iowa, thence north along the public highway for a distance of approximately one and one-half miles to the northeast corner of Section Thirty, Township Seventy, Range Thirty, Ringgold County, Iowa, thence east along the public highway for a distance of approximately twelve miles to the town of Ellston, Iowa;

Also beginning at a point on the public highway near the northeast corner of Section Twenty-six, Township Seventy, Range Thirty, Ringgold County, Iowa, thence north along the public highway for a distance of approximately four miles to the town of Shannon City, Ringgold County, Iowa;

Also beginning at a point on the public highway near the southeast corner of the southwest quarter of Section Twenty-one, Township Seventy, Range Twenty-nine, Ringgold County, Iowa, thence north along the public highway approximately one-half mile to the corporate limits of the town of Tingley, Iowa. No. 8139—1917.

Ottumwa Railway and Light Company, Ottumwa, Iowa. Application for transmission line franchise in Wapello and Jefferson Counties.

On July 17, 1917, the Board held hearing on the above application for franchise to construct an electric transmission line. The Commission on August 3, 1917, granted franchise upon the following route:

Beginning at a point on the easterly corporate limits of the City of Ottumwa, Wapello County, Iowa, located on the north and south center line of Section Twenty-nine, Township Seventy-two, north of Range Thirteen West, in said County of Wapello, and between seventy-five and one hundred and twenty-five feet south of the main tracks of the Chicago, Burlington & Quincy Railroad Company, as now located upon its right-of-way in the southeast quarter of said Section Twenty-nine, thence in an easterly direction through Auditor's Lot Ten, located in the south half of the southeast quarter of said Section Twenty-nine, to a public highway known as the "Ottumwa and Agency Road," which is located south of the said right of way, and in the southeast quarter of the southeast quarter of said Section Twenty-nine, thence on and along the southerly side of said highway for a distance of approximately twenty-four hundred feet, thence crossing said "Ottumwa and Agency Road" diagonally to the opposite

side thereof, thence southeasterly along the north side of said highway, crossing Sugar Creek to the south line of the Southwest quarter of Section Twenty-eight, thence along the north line of the northwest quarter and of the northeast quarter of Section Thirty-three, in said county, to approximately where said north line strikes the southerly line of the right of way of the Chicago Burlington & Quincy Railroad Company, thence southeasterly along the southerly line of said right of way of said railroad company through the northeast quarter of Section Thirty-three, thence along the southerly line of said railroad right of way through the northwest quarter of Section Thirty-four, thence across the southwest corner of the northeast quarter, and across the southeast quarter of said Section Thirty-four, thence along the southerly side of said railroad right of way where the same passes over and through the southwest quarter and the southeast quarter of Section thirty-five, thence in an easterly direction along the north line of the south half of the southwest quarter of Section Thirty-six, thence along the north line of the south half of the southeast quarter of Section Thirty-six, all in Township Seventy-two, north of Range Thirteen West, thence along the south line of the said right of way of the Chicago, Burlington & Quincy Railroad Company where the same passes over and through the southwest quarter and the southeast quarter of Section Thirty-one, and the southwest quarter and the southeast quarter of Section thirty-two, the southwest quarter and the southeast quarter of Section Thirty-three, the southwest quarter and the southeast quarter of Section Thirty-four, the southwest quarter and the southeast quarter of Section Thirty-five, the southwest quarter and the southeast quarter of Section Thirty-six, all in Township Seventy-two, north of Range Twelve West, in Wapello County, Iowa, thence along the southerly line of said right of way of the Chicago, Burlington & Quincy Railroad Company where the same passes over and through the southwest quarter of Section Thirty-one, Township Seventy-two, north of Range Eleven West, in Jefferson County, Iowa, to the west limits of the town of Batavia, in said Jefferson County, Iowa.

No. 8140—1917.

Northern Iowa Gas and Electric Company, Humboldt, Iowa. Application for transmission line franchise in Humboldt County.

On July 31, 1917, the Board held hearing on the above application for franchise to construct an electric transmission line. The Commission on September 7, 1917, granted franchise upon the following route:

Beginning at the west end of the highway between Sections Five and Eight, Township Ninety-one North, Range Twenty-eight, west of the 5th P. M., Humboldt County, Iowa, and running thence east on north side of the highway to the southwest corner of Section Six, Township Ninety-one, Range Twenty-seven, west of the 5th P. M., Humboldt County, Iowa; thence south on the east side of the highway for a distance of one mile; thence east on the south side of the public highway to the northwest corner of Section Sixteen, Township and Range last aforesaid; thence south on public highway to the north corporate limits of the town of Thor, Iowa.

Also beginning at a point on the public highway at the northeast corner of the southeast quarter of Section Sixteen, Township Ninety-one North, Range Twenty-seven West; thence south on the public highway a distance of one-half mile; thence east on the public highway a distance of three miles to the east line of Humboldt County, all in Humboldt County, Iowa.

No. 8141—1917.

Northern Iowa Gas and Electric Company, Humboldt, Iowa. Application for transmission line franchise in Wright County.

On July 31, 1917, the above application for franchise to construct an electric transmission line came on for hearing and was continued at the request of the applicant until August 7, 1917, at which time hearing was held. The Commission on September 7, 1917, granted franchise upon the following route:

Beginning at a point where the public highway running between Sections Eighteen and Nineteen, Township Ninety-one, Range Twenty-six, west of the 5th P. M., intersects the west county line of Wright County; thence east along the said public highway to a point where the same crosses right of way of the Chicago & North Western Railway Company; thence upon a strip of land not to exceed twenty-five feet in width parallel to and abutting upon the right of way of said Chicago & North Western Railway Company through Sections Twenty, Twenty-one and a part of Twenty-seven to the west corporation line of the town of Eagle Grove, Iowa, in Township Ninety-one, Range Twenty-six, west of the 5th P. M., Wright County, Iowa.

No. 8142—1917.

Peoples Gas and Electric Company, Burlington, Iowa. Application for transmission line franchise in Des Moines County.

On August 1, 1917, the Board held hearing on the above application for franchise to construct an electric transmission line and on September 24, 1917, the Commission granted franchise upon the following route:

Beginning at the southwest corner of the southeast quarter of the southeast quarter of Section Thirty-three, thence to run in a westerly direction to the southwest corner of the southeast quarter of Section Thirty-two, thence in a northerly direction to the C. B. & Q. Railroad tracks to a point two thousand feet more or less, north of the southeast corner of the southeast quarter of the southwest quarter of Section Twenty-nine. Thence in a straight westerly direction along the south line of the C. B. & Q. right of way to a point about two thousand feet north of the southwest corner of the southwest quarter of the southwest quarter of Section Thirty, to the limits of the town of Middleton, Iowa. All of the above in Township Seventy North, Range Three West, Des Moines County, Iowa.

No. 8143—1917.

Iowa Railway and Light Company, Cedar Rapids, Iowa. Application for transmission line franchise in Muscatine County.

On August 14, 1917, the Board held hearing on the above application for franchise to construct an electric transmission line. The Commission on September 24, 1917, granted franchise upon the following route:

Along and upon a strip of land twenty-five feet in width lying easterly of and abutting upon the right of way of the Chicago, Rock Island & Pacific Railway Company, commencing at the north corporate limits of the town of Nichols and extending to its intersection with the public highway along the north side of Section Twenty-six, Township Seventy-eight North, Range Four, West of the 5th P. M.; thence west across said right of way on said public highway aforesaid; thence north on a strip of land twenty-five feet in width

lying westerly of and abutting upon said railroad right of way to the south corporate limits of the town of West Liberty, except so much thereof as is included in public highways.

Also along and upon the following public highways, to-wit: Along and upon the public highway located on the easterly side of said railroad right of way aforesaid, commencing at the north corporate limits of said town of Nichols and extending in a northeasterly direction so far as said highway abuts upon said railroad right of way, being approximately two and one-third miles in length. Also upon the public highway on the east side of Section Fourteen, Township Seventy-eight North, Range Four, West of the 5th P. M., all of said route being in Muscatine County, State of Iowa.

No. 8144—1917.

Iowa Falls Electric Company, Cedar Rapids, Iowa. Application for transmission line franchise in Wright County.

On March 13, 1916, the Board held hearing on the above application for franchise to construct an electric transmission line. The Commission on September 24, 1917, granted franchise upon the following route:

A strip of land twenty-five feet in width located twelve and one-half feet on each side of the west line of the following lands: The northeast quarter of the northeast quarter of Section Thirty-three and the southeast quarter of the southeast quarter of Section Twenty-eight, Township Ninety-two, Range Twenty-three, West of the 5th P. M., lying south of the right of way of the Chicago, Rock Island & Pacific Railway Company, all in Wright County, Iowa.

No. 8145—1917.

Des Moines Electric Company, Des Moines, Iowa. Application for transmission line franchise in Polk County.

On October 2, 1917, the Board held hearing on the above application for franchise to construct an electric transmission line and on October 3, 1917, franchise was granted upon the following route:

Beginning on 58th Street of the City of Des Moines at the north city limits of said city and proceeding north along the public highway between Section Twenty-four, Township Seventy-nine, Range Twenty-five and Section Nineteen, Township Seventy-nine, Range Twenty-four; between Section Thirteen, Township Seventy-nine, Range Twenty-five, and Section Eighteen, Township Seventy-nine, Range Twenty-four; between Section Twelve, Township Seventy-nine, Range Twenty-five and Section Seven, Township Seventy-nine, Range Twenty-four; between Section One, Township Seventy-nine, Range Twenty-five and Section Six, Township Seventy-nine, Range Twenty-four; between Section Thirty-six, Township Eighty, Range Twenty-five and Section Thirty-one, Township Eighty, Range Twenty-four, to the Hyperion Road, thence due north across said Hyperion Road and on a line between said Sections Thirty-six and Thirty-one and between Sections Twenty-five, Township Eighty, Range Twenty-five and Section Thirty, Township Eighty, Range Twenty-four, to a point approximately forty-seven hundred feet north of the intersection of said highway known as 58th Street, and the Hyperion Road, at which point the Camp Dodge sub-station is located. Said route north of the Hyperion Road being along a private right of way already acquired and across state property.

Also beginning at the point where the public highway known as the White Pole Road intersects the north city limits of Valley Junction, Iowa, thence along the public highway in a general northwesterly direction, following the meanderings of said highway across the southwest quarter of Section Two, Township Seventy-eight, Range Twenty-five, the northeast quarter of Section Three, Township Seventy-eight, Range Twenty-five, and the east half of Section Thirty-five, Township Seventy-nine, Range Twenty-five, to the public highway known as Hickman Avenue on the line between Sections Thirty-five and Twenty-six; thence east on said highway approximately four hundred feet to the public highway between Sections Twenty-five and Twenty-six in Township Seventy-nine, Range Twenty-five, thence north on the public highway between said Sections Twenty-five and Twenty-six to the north line of said sections, thence east on the highway known as Douglas Avenue between Sections Twenty-four and Twenty-five, Township Seventy-nine, Range Twenty-five, to the west city limits of the City of Des Moines.

CLASSIFICATION MATTERS CLOSED DURING 1917

- No. 8146, 1917.
Board of Railroad Commissioners, Des Moines, Iowa. Definition of Pea and Slack Coal.
For definition adopted see Supplement No. 19 to Iowa Classification No. 15. Filed June 28, 1917. Closed October 3, 1917.
- No. 8147, 1917.
Board of Railroad Commissioners, Des Moines, Iowa. Classification of auto belt attachment.
The Commission ruled that this article is ratable under item 3, page 85 of Iowa Classification No. 15, as machinery N. O. S. Filed June 29, 1917. Closed October 12, 1917.
- No. 8148, 1917.
Board of Railroad Commissioners, Des Moines, Iowa. Classification of Concrete Building Blocks.
For classification adopted see Supplement No. 19 to Iowa Classification No. 15. Filed August 27, 1917. Closed November 2, 1917.
- No. 8149, 1917.
Northwestern Lumbermen's Association, Minneapolis, Minn. Classification of Wooden Fence Posts.
Granted. See Supplement No. 19. Filed May 2, 1917. Closed October 3, 1917.
- No. 8150, 1917.
3-P Auto Tractor Company, Davenport, Iowa. Classification of Tractor attachments used on Ford cars.
Granted. See Supplement No. 19. Filed September 10, 1917. Closed November 2, 1917.
- No. 8151, 1917.
Advertising Novelty Company, Newton, Iowa. Classification of Automatic Farm Gates.
Withdrawn. Filed September 19, 1917. Closed October 2, 1917.
- No. 8152, 1917.
Kratzer Carriage Company, Des Moines, Iowa. Classification of Bus Bodies.
For rating granted see Supplement No. 19. Filed September 10, 1917. Closed October 3, 1917.
- No. 8153, 1917.
C. E. Childe, Sioux City, Iowa. Classification of hogs in double deck cars.
For classification granted see supplement No. 19. Filed August 15, 1917. Closed October 3, 1917.

- No. 8154, 1917.
Davenport Commercial Club, Davenport, Iowa. Transfer charges on L. C. L. shipments.
Withdrawn. Filed September 10, 1917. Closed October 2, 1917.
- No. 8155, 1917.
George Birrell, Inc., Muscatine, Iowa. Classification of Button Blanks.
For rating granted see Supplement No. 19. Filed September 10, 1917. Closed October 3, 1917.
- No. 8156, 1917.
Automatic Button Company, Muscatine, Iowa. Classification of Buttons.
Granted. For rating granted see Supplement No. 19. Filed September 10, 1917. Closed October 3, 1917.
- No. 8157, 1917.
W. B. Martin, Dubuque, Iowa. Classification of Window Glass.
For rating granted see Supplement No. 19. Filed September 10, 1917. Closed October 3, 1917.
- No. 8158, 1917.
John McCord, Kingsley, Iowa. Classification of egg cases returned.
Denied. Filed April 23, 1917. Closed October 12, 1917.
- No. 8159, 1917.
Western Mfg. Co., Oskaloosa, Iowa. Classification of Air and Water Service Machines.
For rating granted see Supplement No. 19. Filed May 24, 1917. Closed October 3, 1917.
- No. 8160, 1917.
National Biscuit Company, Chicago, Ill. Classification of Bakery goods in fibre cans.
For rating granted see Supplements Nos. 19 and 21. Filed August 30, 1917. Closed October 3, 1917.
- No. 8161, 1917.
Chicago Great Western Railroad Company. Emergency Switching Rate.
On account of washout of Minneapolis and St. Louis Railroad Company's bridge between Valley Junction and the Hawkeye Portland Cement Company's Plant, the Commission advised the Chicago Great Western Railroad Company that the Board would not consider as a precedent the establishment of a temporary switching rate of \$1.50 per car for 45 days, from Rock Island connection at Des Moines to the plant of the Hawkeye Portland Cement Company. Filed March 16, 1917. Closed June 5, 1917.
- No. 8162, 1917.
Davenport Commercial Club, Davenport, Iowa. Classification of type setting or type casting machines.
For rating granted see Supplement No. 19. Filed August 24, 1917. Closed October 3, 1917.
- No. 8163, 1917.
Corrugated Fibre Company, Chicago, Ill. Change in Rule 41 of Iowa Classification No. 15.

The Commission ordered the cancellation of Rule 41 and the adoption of Rule 42 of Western Classification No. 54 with all amendments. See Supplement No. 19. Filed August 9, 1917. Closed October 3, 1917.

No. 8164, 1917.

Jacob E. Decker & Sons, Mason City, Iowa. Classification of Green Hams, Salted.

For classification granted see Supplement No. 19. Filed August 3, 1917. Closed October 3, 1917.

No. 8165, 1917.

Ford Motor Company, Des Moines, Iowa. Classification of Automobile parts.

For classification granted see Supplement No. 19. Filed August 7, 1917. Closed October 3, 1917.

No. 8166, 1917.

Chicago & North Western Railway Company, et al. Classification on Tallow.

For classification granted, see Supplement No. 19. Filed April 9, 1917. Closed October 3, 1917.

No. 8167, 1917.

Sioux City Commercial Club, Sioux City, Iowa. Classification of Automatic Stock Fountains.

For rating granted, see Supplement No. 15. Filed March 28, 1917. Closed April 25, 1917.

No. 8168, 1917.

Economy Hog and Cattle Powder Company, Shenandoah, Iowa. Classification of Animal and Poultry Dip.

For rating granted, see Supplement No. 16. Filed March 28, 1917. Closed April 25, 1917.

No. 8169, 1917.

W. G. Haskell, Cedar Rapids, Iowa. Commodity rate on Crushed Stone, Gravel, etc., when used in public road work.

Withdrawn. Filed March 10, 1917. Closed April 25, 1917.

No. 8170, 1917.

Chicago & North Western Railway Company, et al. Minimum charge on high explosives.

Granted. See Supplement No. 16. Filed March 5, 1917. Closed April 25, 1917.

No. 8171, 1917.

Northey Manufacturing Company, Waterloo, Iowa. Classification of Ice Cream Cabinets C. L.

For rating granted, see Supplement No. 16. Filed March 5, 1917. Closed April 25, 1917.

No. 8172, 1917.

Board of Railroad Commissioners, Des Moines, Iowa. Classification of Cigars and Cigarettes.

For classification granted, see Supplement No. 16. Filed March 8, 1917. Closed April 25, 1917.

No. 8173, 1917.

E. F. McFarland, Sioux Rapids, Iowa. Classification of Portable Skating Rink outfits.

For rating granted, see Supplement No. 16. Filed March 5, 1917. Closed April 25, 1917.

No. 8174, 1917.

Ford Manufacturing Company, St. Louis, Mo. Classification of Lathing.

For rating granted, see Supplement No. 16. Filed March 5, 1917. Closed April 25, 1917.

No. 8175, 1917.

The Northwestern Chemical Company, Marietta, Ohio. Classification of Anti-Freeze Compound.

For rating granted, see Supplement No. 16. Filed March 5, 1917. Closed April 25, 1917.

No. 8176, 1917.

Chicago & North Western Railway Company, Des Moines, Iowa. Petition for application of Rule 6-B to certain items of Supplement No. 13.

Granted. Filed March 2, 1917. Closed April 25, 1917.

No. 8177, 1917.

Davenport Commercial Club, Davenport, Iowa. Classification of Wooden Ladders.

For classification granted, see Supplement No. 16. Filed March 1, 1917. Closed April 25, 1917.

No. 8178, 1917.

Kratzer Carriage Company, Des Moines, Iowa. Classification of Hearse, Funeral and Undertaking Bodies.

For rating granted see Supplement No. 16. Filed February 21, 1917. Closed April 25, 1917.

No. 8179, 1917.

Kratzer Carriage Company, Des Moines, Iowa. Classification of Cabs for Freight or Delivery Bodies.

For rating granted see Supplement No. 16. Filed February 21, 1917. Closed April 25, 1917.

No. 8180, 1917.

Kratzer Carriage Company, Des Moines, Iowa. Classification of Automobile and Vehicle Bodies.

For rating granted see Supplement No. 16. Filed February 21, 1917. Closed April 25, 1917.

No. 8181, 1917.

Lindquist Brothers, Keokuk, Iowa. Classification of Cedar Chests. Denied. Filed February 17, 1917. Closed April 25, 1917.

No. 8182, 1917.

Burnham Mfg. Company, Charles City, Iowa. Classification of hay and hog racks combined.

For rating granted see Supplement No. 16. Filed February 17, 1917. Closed April 25, 1917.

No. 8183, 1917.

Leonard Hi-oven Range Company, Cedar Rapids, Iowa. Classification of Elevated Ovens.

The Commission ruled that these ovens were already rated in item 28, page 139 of Iowa Classification No. 15. Filed February 10, 1917. Closed October 12, 1917.

No. 8184, 1917.

Cook Laurance Crockery Company, Cedar Rapids, Iowa. Classification of Fish Globes.

For rating granted see Supplement No. 16. Filed February 17, 1917. Closed April 25, 1917.

No. 8185, 1917.

Walter Huncke, Des Moines, Iowa. Change in Rule 35.

Denied. Filed January 29, 1917. Closed April 25, 1917.

No. 8186, 1917.

Carr, Ryder & Adams, Dubuque, Iowa. Classification of Medicine Cabinets.

For rating granted see Supplement No. 16. Filed January 20, 1917. Closed April 25, 1917.

No. 8187, 1917.

Commerce Counsel of Iowa. Rate on Water, Carloads.

This case was set for hearing, but was postponed indefinitely at the request of the complainants who later withdrew their petition. Filed January 18, 1917. Closed March 23, 1917.

No. 8188, 1917.

Commercial Club of Ottumwa, Ottumwa, Iowa. Special rate on Water.

Withdrawn by complainants. Filed January 12, 1917. Closed March 23, 1917.

No. 8189, 1917.

Board of Railroad Commissioners, Des Moines, Iowa. Classification of Cabinets, Boxed.

Withdrawn. Filed January 10, 1917. Closed April 25, 1917.

No. 8190, 1917.

Western Oil Jobbers' Association, Marshalltown, Iowa. Classification of Oil Barrels, Iron and Wood, mixed.

For rating granted see Supplement No. 13. Filed October 7, 1917. Closed December 30, 1917.

No. 8191, 1917.

The Collis Company, Clinton, Iowa. Classification of Broom Rings.

For rating granted see Supplement No. 13. Filed October 7, 1916. Closed January 19, 1917.

No. 8192, 1917.

The Collis Company, Clinton, Iowa. Classification of Steel Hoops for Concrete Reinforcement.

For rating granted see Supplement No. 16. Filed October 7, 1916. Closed April 25, 1917.

No. 8193, 1917.

The Collis Company, Clinton, Iowa. Classification of Dolly Trucks.

For rating granted see Supplement No. 16. Filed October 7, 1916. Closed April 25, 1917.

No. 8194, 1917.

The Collis Company, et al., Clinton, Iowa. Classification of Cooling Racks, Wood and Steel.

For rating granted see Supplement No. 16. Filed October 7, 1916. Closed April 25, 1917.

No. 8195, 1917.

The Collis Company, Clinton, Iowa. Classification of Duck and Goose Steamers.

For rating granted see Supplement No. 13. Filed October 7, 1916. Closed January 19, 1917.

No. 8196, 1917.

The Collis Company, Clinton, Iowa. Classification of Feeding Tank Trucks.

For rating granted see Supplement No. 13. Filed October 7, 1916. Closed January 19, 1917.

No. 8197, 1917.

H. J. Heinz Company, Pittsburgh, Pa. Classification of Kraut Brine.

For rating granted see Supplement No. 13. Filed October 5, 1917. Closed January 19, 1917.

No. 8198, 1917.

Carr & Baal, Des Moines, Iowa. Classification of Colonnade Bookcase Pedestals.

For rating granted see Supplement No. 13. Filed October 4, 1916. Closed January 19, 1917.

No. 8199, 1917.

William Warnock Company, Sioux City, Iowa. Classification of Trailer Truck Attachments.

For rating granted see Supplement No. 13. Filed October 4, 1916. Closed January 19, 1917.

No. 8200, 1917.

Baker Ice Machine Company, Omaha, Nebr. Classification of Calcium Chloride of, in mixed C. L. with Refrigerating Apparatus.

For rating granted see Supplement No. 13. Filed September 30, 1917. Closed January 19, 1917.

No. 8201, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Railway Track Tools. Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8202, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Picks. Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8203, 1917.

Board of Railroad Commissioners, Des Moines, Iowa. Declared valuation and carriers' liability.

Docketed for discussion, but no action taken by the Commission. Filed September 7, 1916. Closed September 11, 1917.

No. 8204, 1917.

Kratzer Carriage Company, Des Moines, Iowa. Classification of Automobile and Vehicle Bodies, finished.

Denied. Filed September 8, 1916. Closed January 19, 1917.

No. 8205, 1917.

Kratzer Carriage Company, Des Moines, Iowa. Classification of Farm Bodies for Self-propelled Vehicles.

For rating granted see Supplement No. 13. Filed September 8, 1916. Closed January 19, 1917.

No. 8206, 1917.

Kratzer Carriage Company, Des Moines, Iowa. Classification of Hearse, Funeral and Ambulance Bodies.

For rating granted see Supplement No. 13. Filed September 8, 1916. Closed January 19, 1917.

No. 8207, 1917.

Dubuque Shippers' Association, Dubuque, Iowa. Classification of Paper Towels.

For rating granted see Supplement No. 13. Filed September 7, 1916. Closed January 19, 1917.

No. 8208, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Lamps and Lanterns, Gas Generating.

Withdrawn. Filed September 12, 1916. Closed January 19, 1917.

No. 8209, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Mauls and Sledges.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8210, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Oil Lamps.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8211, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Iron and Steel Blanks.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8212, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Insulators.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8213, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Iron and Steel articles.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8214, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Headlights.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8215, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Mirrors.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8216, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Copal.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8217, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Hydrogen Dioxide of, and Peroxide of.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8218, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Electrical Appliances.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8219, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Buck Saw Frames.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8220, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Molasses, Black Strap.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8221, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Zinc Nails and Spikes.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8222, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Concrete Post Molds.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8223, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Sausage Casings.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8224, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Oil Strainers.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8225, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Oilcloth, Scrap or Waste.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8226, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Outfits, Sand Blast Cleaning.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8227, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Posts.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8228, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Portable Prisons.

Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

- No. 8229, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Radiator Guards or Shields.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8230, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Salt Rakers.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8231, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Blacksmiths' Drills.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8232, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Rubber, Scrap.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8233, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Stove Cover Lifters.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8234, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Terne Plate.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8235, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Boot and Shoe Findings.
For rating granted see Supplement No. 13. Filed September 7, 1916.
Closed January 19, 1917.
- No. 8236, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Boots and Shoes, Rubber and Canvas.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8237, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Asbestos Binders and Covers.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8238, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Agricultural Implement Parts.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8239, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Candelilla Wax.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8240, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Wheel Flanges, Rims and Rings.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

- No. 8241, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Water Closets.
For rating granted see Supplement No. 13. Filed September 7, 1916.
Closed January 19, 1917.
- No. 8242, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Gear Frame Side Bars.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8243, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Knees, Sled or Sleigh.
Denied. Filed September 7, 1916. Closed January 19, 1917.
- No. 8244, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Mattocks.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8245, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Hatchets and Hammers.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8246, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Coal Drills.
Denied. Filed September 7, 1916. Closed January 19, 1917.
- No. 8247, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Adzes.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8248, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Tongue Depressing Blades.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8249, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Crow Bars.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8250, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Bars, Claw and Crow.
C. L.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8251, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Iron and Track Tools.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8252, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Stall Guards.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8253, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Automatic Animal Sprayers.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

- No. 8254, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Wooden Sprags.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8255, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Sodium (Soda),
Fluoride of.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8256, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Shoes, Pile.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8257, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Saw Blades.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8258, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Sky Lights and Sky
Light Frames.
For rating granted see Supplement No. 13. Filed September 7, 1916.
Closed January 19, 1917.
- No. 8259, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Electrolyzers.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8260, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Electric Stoves or
Ranges.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8261, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Asbestos Filler Blocks.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8262, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Channel Pins.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8263, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Chocolate, Chocolate
Coating, Chocolate Confectionery and Cocoa, C. L.
For rating granted see Supplement No. 13. Filed September 7, 1916.
Closed January 19, 1917.
- No. 8264, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Buttermilk.
For rating granted see Supplement No. 13. Filed September 7, 1916.
Closed January 19, 1917.
- No. 8265, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Lamps.
Dismissed without prejudice. Filed September 7, 1916. Closed January
19, 1917.

- No. 8266, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Clip Boards.
For rating granted see Supplement No. 13. Filed September 7, 1916.
Closed January 19, 1917.
- No. 8267, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Animal and Poultry
Foods and Medicines.
For rating granted see Supplement No. 13. Filed September 7, 1916.
Closed January 19, 1917.
- No. 8268, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Rugs, N. O. S.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8269, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Carbon Removing
Compounds.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8270, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Bird Houses.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8271, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Anvil Blocks.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8272, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Grain Drill Tubes.
For rating granted see Supplement No. 13. Filed September 7, 1916.
Closed January 19, 1917.
- No. 8273, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Hand Churns.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8274, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Cotters or Spring
Keys.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8275, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Concrete Surface
Hardener.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8276, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Dies, Iron or Steel.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.
- No. 8277, 1917.
E. G. Wylie, Des Moines, Iowa. Classification of Featherbone.
Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8278, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Ice Cream Freezers and Ice Crushing Machines, combined.

For rating granted see Supplement No. 13. Filed September 7, 1916. Closed January 19, 1917.

No. 8279, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Aluminum Foil. Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8280, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Friction Fabric. Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8281, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Cedar Chests.

For rating granted see Supplement No. 13. Filed September 7, 1916. Closed January 19, 1917.

No. 8282, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Books or Magazine Racks.

For rating granted see Supplement No. 13. Filed September 7, 1916. Closed January 19, 1917.

No. 8283, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Glass.

For rating granted see Supplement No. 13. Filed September 7, 1916. Closed January 19, 1917.

No. 8284, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Bamboo Handles.

For rating granted see Supplement No. 13. Filed September 7, 1916. Closed January 19, 1917.

No. 8285, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Iron, Scrap. Withdrawn. Filed September 7, 1916. Closed January 19, 1917.

No. 8286, 1917.

Western Grocer Company, Marshalltown, Iowa. Application for Mixture of Cigars and Cigarettes with Groceries, N. O. S.

For rating granted see Supplement No. 13. Filed September 6, 1916. Closed January 19, 1917.

No. 8287, 1917.

Iowa-Nebraska Wholesale Grocers' Association, Marshalltown, Iowa. Classification of Cigars and Cigarettes.

For rating granted see Supplement No. 14. Filed July 11, 1916. Closed January 19, 1917.

No. 8288, 1917.

Royer-Myers Manufacturing Company, Janesville, Iowa. Classification of Cement Mixing Machines.

Dismissed without prejudice. Filed August 25, 1916. Closed January 19, 1917.

No. 8289, 1917.

Commercial Club, Traffic Bureau, Cedar Rapids, Iowa. Classification of Bananas in Banana Carriers.

The Commission ruled that a bunch of bananas extending above the top of the crate with the portion protruding completely covered by paper or burlap, is ratable as in containers not completely enclosing the fruit. Filed July 14, 1916. Closed September 12, 1917.

No. 8290, 1917.

Thompson Manufacturing Company, Des Moines, Iowa. Classification of Stove Pipe Reducers.

For rating granted see Supplement No. 13. Filed August 8, 1916. Closed January 10, 1917.

No. 8291, 1917.

National Oats Company, Saint Louis, Missouri. Classification of Cereal Products and Preparations.

Pending hearing on this case Index No. 218 of Supplement No. 13 to Iowa Classification No. 15 was suspended at the request of complainants, petition was withdrawn and suspension of the above item was made permanent.

No. 8292, 1917.

Commercial Club, Traffic Bureau, Cedar Rapids, Iowa. Classification of Gelatin.

For rating granted see Supplement No. 13. Filed July 14, 1916. Closed January 19, 1917.

No. 8293, 1917.

W. D. Lindsay, Chicago, Ill. Application for Mixture of Nails with Plaster Board, C. L.

Denied. Filed June 8, 1916. Closed January 19, 1917.

No. 8294, 1917.

E. G. Wylie, Des Moines, Iowa. Classification of Sound Warning Signals.

For rating granted see Supplement No. 13. Filed May 17, 1916. Closed January 19, 1917.

No. 8295, 1917.

Commercial Club, Traffic Bureau, Omaha, Neb. Application for elimination of minimum weights on Cooperage.

For rating granted see Supplement No. 13. Filed May 1, 1916. Closed January 19, 1917.

No. 8296, 1917.

Aluminum Manufacturing Company, Des Moines, Iowa. Classification of Aluminum Kitchen Utensils.

Denied. Filed April 24, 1916. Closed October 12, 1917.

No. 8297, 1917.

Churchill Drug Company, Burlington, Iowa. Classification of Animal Condiment.

For rating granted see Supplement No. 16. Filed April 8, 1916. Closed April 25, 1917.

No. 8298, 1917.

Chicago & North Western Railway Company, et al. Classification minimum weights, Grain Products.

Dismissed without prejudice. Filed March 14, 1916. Closed January 19, 1917.

No. 8299, 1917.

C. A. Saunders, Manilla, Iowa. Classification on Cow and Calf.

For rating granted see Supplement No. 13. Filed March 8, 1916. Closed January 19, 1917.

No. 8300, 1917.

Kennedy & Parsons, Omaha, Nebr. Classification of Excelsior.

Dismissed without prejudice. Filed February 2, 1916. Closed January 19, 1917.

No. 8301, 1917.

J. G. Cherry Company, Cedar Rapids, Iowa. Classification of Egg Case Flats.

For rating granted see Supplement No. 19. Filed September 3, 1914. Closed October 3, 1917.

CLASSIFICATION, RATES AND RULES

On December 30, 1916, the Commission took under consideration the cases heard at the semi-annual rate and classification hearing, November 8, 1916, and made the following rulings thereon.

Kennedy & Parsons, Omaha, Neb.:

Application for Class D rate on Excelsior, C. L.
Dismissed without prejudice.

C. A. Saunders, Manilla:

Application for rating on Cow and Calf, LCL.
Granted.

Chicago & North Western Ry., et al.:

Application for increase in minimum weights on grain products.
Dismissed without prejudice at request of carriers.

Churchill Drug Company, Burlington:

Application for 5th class rating on Animal Condiments.
Continued to April, 1917, hearing.

Aluminum Mfg. Co., Des Moines:

Application for rating on Aluminum Cooking Utensils.
Continued to April, 1917, hearing.

Commercial Club, Traffic Bureau, Omaha, Neb.:

Application for change in rating on Cooperage.
Granted.

E. G. Wylie, Des Moines:

Application for change in rating on Sound Warning Signals.
Granted.

American Cement & Plaster Company, Chicago, Illinois:

Application for note to be added to Index 124, Sup. No. 11 to Iowa Classification No. 15 providing mixture of nails with plaster board.
Granted.

Commercial Club, Traffic Bureau, Cedar Rapids:

Application for 3rd class LCL and 5th class CL rating on Edible Gelatine.
Granted.

National Oats Company, St. Louis, Mo.:

Application for rating on Cereal products and preparations.
Commission ordered that molasses feed be added to Item 15, page 29, Iowa Classification No. 15 and made the following addition to Rule 36—"If rating provided in Circular of Western Trunk Lines is used, the minimum weight named in connection with such rating in said circular shall also apply."

Thompson Mfg. Company, Des Moines:

Application for rating on Stove Pipe Reducers.
Granted.

Commercial Club, Traffic Bureau, Cedar Rapids:

Application for rating on bananas in banana carriers.
Denied.

Royer-Myers Mfg. Company, Janesville:

Application for rating on Cement Mixing Machines.
Dismissed without prejudice.

Dubuque Shippers Ass'n, Dubuque:

Application for change in wording of rule regarding cigars and cigarettes.
Granted.

- E. H. Draper, Marshalltown:
Application for rating on Cigars and Groceries in same box.
Granted.
- E. G. Wylie, Des Moines:
Application for same rating on Scrap Iron as appears in Western Classification.
Continued to April, 1917, hearing.
- E. G. Wylie, Des Moines:
Application for rating on Bamboo Handles.
Granted.
- E. G. Wylie, Des Moines:
Application for rating on bent glass.
Granted.
- E. G. Wylie, Des Moines:
Application for rating on Book or Magazine Racks.
Granted.
- E. G. Wylie, Des Moines:
Application for change in rating on Cedar Chests.
Granted.
- E. G. Wylie, Des Moines:
Application for rating on Friction Fabric.
Continued to April, 1917, hearing.
- E. G. Wylie, Des Moines:
Application for rating on Aluminum Foil.
Continued to April, 1917, hearing.
- E. G. Wylie, Des Moines:
Application for mixture of Ice Cream Freezers and Ice Crushing machines.
Granted.
- E. G. Wylie, Des Moines:
Application for rating on Featherbone.
Continued to April, 1917, hearing.
- E. G. Wylie, Des Moines:
Application for rating on Iron or steel dies.
Continued to April, 1917, hearing.
- E. G. Wylie, Des Moines:
Application for rating on Concrete Surface Hardener.
Continued to April, 1917, hearing.
- E. G. Wylie, Des Moines:
Application for change in rating of Cotter or spring keys.
Continued to April, 1917, hearing.
- E. G. Wylie, Des Moines:
Application for change in rating on churns.
Continued to April, 1917, hearing.
- E. G. Wylie, Des Moines:
Application for rating on Grain Drill Tubes.
Granted.
- E. G. Wylie, Des Moines:
Application for rating on Anvil Blocks.
Continued to April, 1917, hearing.
- E. G. Wylie, Des Moines:
Application for rating on Bird Houses and Bird House Poles.
Continued to April, 1917, hearing.
- E. G. Wylie, Des Moines:
Application for rating on Carbon Removing Compounds.
Continued to April, 1917, hearing.
- E. G. Wylie, Des Moines:
Application for rating on Rugs N. O. S. to conform to rating carried in Western Classification.
Continued to April, 1917, hearing.
- E. G. Wylie, Des Moines:
Application for change in rating on Dog Biscuits and Dog Cakes.
Granted.

- E. G. Wylie, Des Moines:
Application for rating on Clip boards.
Granted.
- E. G. Wylie, Des Moines:
Application for change in rating on Lamps.
Dismissed without prejudice.
- E. G. Wylie, Des Moines:
Application for rating on Buttermilk.
Granted.
- E. G. Wylie, Des Moines:
Application for car load mixture on Chocolate, Chocolate Confectionery and Cocoa.
Granted.
- E. G. Wylie, Des Moines:
Application for rating on Skylights and Skylight Frames.
Granted.
- E. G. Wylie, Des Moines:
The following applications for ratings were continued to April, 1917, hearing:
Rating on Channel Pins; Asbestos, filler blocks; Electric stoves or ranges; Electrolytic Cells (Electrolyzers); Saw Blades; Shoes, pile, iron or steel; Sodium, (Soda) Flouride of; Sprags, wooden; Sprayers, animal, automatic; Stall Guards; Iron track tools; Bars, claw or crow; Bars, tamping, iron or steel; Matlocks; Mauls; Picks or Sledges, car load; Crow bars and Railroad Tamp bars; Tongue depressing blades; Adzes; Hatchets and hammers; Matlocks; Gear Frame Side Bars; Wheel Flanges, Wheel rims, or Side locking wheel rings; Wax, Candelilla; Steel lugs for tractors; Binders or covers, book or loose leaf; Boots and Shoes, rubber and canvas, felt or wool; Terne Plate; Stove Cover Lifters; Rubber scrap; Blacksmith's drills; Salt Rakers; Radiator guards or shields; Portable prisons; Posts, N. O. S.; Sand blast cleaning outfits; Oilcloth scrap or waste; Oil strainers; Sausage, Pickled; Zinc nails or spikes; Molds, Concrete Post; Molasses, black strap; Buck saw frames; Electric appliance batteries; Hydrogen, Dioxide of, Peroxide of; Gums, Copal, N. O. S.; Mirrors; Headlights; Iron or steel, plate or sheet; Insulators; Iron and steel and articles of, blanks; Lamps and lamp fixtures; Mauls and sledges; Lamps and lanterns, gas generating.
- E. G. Wylie, Des Moines:
Application for rating on Water Closets, boxed or racked.
Granted.
- E. G. Wylie, Des Moines:
Application for rating on coal drills.
Denied.
- E. G. Wylie, Des Moines:
Application for rating on Knees, sled or sleigh.
Denied.
- E. G. Wylie, Des Moines:
Application for rating on Boot and Shoe Findings, fibreboard.
Granted.
- Dubuque Shippers Ass'n, Dubuque:
Application for rating on paper towels.
Granted.
- Kfatzler Carriage Company, Des Moines:
Application for rating on Hearse, Funeral or Ambulance Bodies.
Granted in part.
- Kratzer Carriage Company, Des Moines:
Application for rating on farm bodies for self-propelling vehicles.
Granted.
- Kratzer Carriage Company, Des Moines:
Application for reduced rating on Automobile and vehicle bodies.
Denied.

Iowa Railroad Commission:

Iowa Railroad Commission, docketed on its own motion the matter of alternative rates dependent upon declared valuation and the elimination of clauses in classification and tariffs attempting to limit liability.

Continued to April, 1917, hearing.

E. G. Wylie, Des Moines:

Application for rating on Picks.
Continued to April, 1917, hearing.

E. G. Wylie, Des Moines:

Application for rating on Railway track tools.
Continued to April, 1917, hearing.

Baker Ice Machine Company, Omaha, Neb.:

Application for mixture of Brine Material, Chloride of Calcium or Salt with refrigerating machinery in car loads.
Granted.

Wm. Warnock Company, Sioux City:

Application for rating on truck attachments.
Granted.

Carr & Baal, Des Moines:

Application for rating on Colonnade Bookcase Pedestals.
Granted.

H. J. Heinz Company, Pittsburgh, Pa.

Application to add Kraut Brine to Item 51, Page 24, Iowa Classification No. 15.

Granted.

Collis Company, Clinton:

Application for rating on feeding tank trucks.
Granted.

Collis Company, Clinton:

Application for rating on Steel Poultry steamers.
Granted.

Collis Company, Clinton:

Application for rating on Steel Dolly Trucks.
Continued to April, 1917, hearing.

Collis Company, Clinton:

Application for rating on Cooling Racks.
Continued to April, 1917, hearing.

Collis Company, Clinton:

Application for rating on Steel hoops for concrete re-inforcement.
Continued to April, 1917, hearing.

Collis Company, Clinton:

Application for rating on Steel Broom Rings.
Granted.

Western Oil Jobbers Ass'n, Marshalltown:

Application for rating on Oil Barrels, Iron and wood mixed, second hand, empty.
Granted.

SUPPLEMENT No. 13, IOWA CLASSIFICATION.

The Commission directed the Secretary to prepare a Supplement to Iowa Classification No. 15 and embody therein all changes ordered above, and also to include all changes which appear in Supplement No.'s 11 and 12, such Supplement to be known as Supplement No. 13 to Iowa Classification No. 15, dated December 30th, 1916, effective March 5th, 1917, except as noted.

In accordance with the above instructions the following Supplement was prepared, promulgated, and published as provided by law;

SUPPLEMENT NO. 13 CANCELS SUPPLEMENTS NOS. 11 AND 12, SUPPLEMENTS 6 AND 13 IN EFFECT AND CONTAINS ALL CHANGES TO IOWA CLASSIFICATION NO. 15 AND SCHEDULE OF REASONABLE MAXIMUM RATES OF CHARGES FOR THE TRANSPORTATION OF FREIGHT AND CARS.

Dated December 30, 1916.

Effective March 5, 1917 (except as noted)

By order of the Board of Railroad Commissioners of the State of Iowa,
GEORGE L. McCAUGHAN, Secretary.

Des Moines, Iowa, December 30, 1916.

CHANGES.

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Cinders 70	Cinders 71
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{ Vehicles and Parts of—Cont'd.	{ Automobiles—Continued.
{ Automobiles—Continued.	{ Automobiles—Continued.

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146	March 1, 1916	146	8	Reissue in Supplement No. 9.
147	March 1, 1916	147	8	
148	March 1, 1916	148	8	
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160	June 26, 1916	160	10	
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182	Aug. 15, 1916	182	11	
183	Aug. 15, 1916	183	11	
184	Aug. 15, 1916	184	11	
185	Aug. 15, 1916	185	11	
December 11, 1916				Commodity rate on excelsior wood and excelsior bolts, reissue in Supplement No. 12.

Index No.	Date Effective	Article	L.C.L.	C.I.
186	March 5, 1917	Animal and Poultry Foods and Medicines:		
	Cancel item 2,	ΔBiscuits, Dog (Dog cakes):		
	page 17.	In bags, barrels or boxes.....4		
		In packages named, min. wt. 30,000 lbs.		B
187	March 5, 1917	Pickles (kraut, kraut brine, dill weed, cucumber, tomato, cauliflower and onion) and canned tomatoes:		
	Cancel item 51,	In tin cans, boxed, or in barrels, kegs		
	page 24. Include	or kits.....4		
	in bracket with	In tin cans, crated.....4		
	items 1 and 2,	In glass or stone, boxed.....4		
	page 25.	In pails or tubs.....4		

A Reductions.

B Change other than reduction or increase.

Index No.	Date Effective	Article	L.C.L.	C.L.
188	March 5, 1917	Cedar Chests: S. U., in boxes or crates.....1½ S. U., in packages named, C. L. min. wt. 12,000 lbs. (subject to Rule 6-B).....3		
		K. D. flat: In boxes or crates.....2 In packages named, C. L. min. wt. 24,000 lbs. ....4		
189	March 5, 1917	Feed, N. O. S., including Clover Meal, Gluten Meal, Ground Alfalfa, Corn Germ, Feed and Molasses Feed: In bags .....4 In bulk .....4	Core-Tariff Rates	
190	March 5, 1917	Cooperage: Cancel item 22 to 26, inclusive, 28, 29 and 30, page 35, items 8 and 18, page 26.		
		Barrels, empty: Apple, Coffee, Flour, Lime.....1 Beef, Cider, Glucose, Liquor, Molasses, Pork, Syrup, Vinegar.....1 Barrels, Oil:.....1 Half Barrels (Subject to Rule 6-B).....1 Hogsheads .....1 Tierces .....1		D Min. Wt. 14,000 lbs.
191	March 5, 1917	Buttermilk, other than Condensed or Evaporated: In glass or earthenware packed in barrels or boxes .....4 In milk shipping cans .....4 In bulk in barrels.....4 Δ In tank cars, C. L. actual weight (subject to Rule 33).....4		B
192	March 5, 1917	Glass: Cancel item 31, page 58.		
		Window, other than Plate, not framed nor leaded: Plain: Δ Bent: Packed in boxes .....1 Packed in boxes C. L. min. wt. 30,000 lbs. ....3		
193	March 5, 1917	Groceries: Cancel item 23, ΔGelatin, edible: In barrels, drums or boxes.....3 In glass, boxed .....1		5
194	March 5, 1917	Skylights and Skylight Frames, Metal: Cancel item 1, page 74.		
		Skylight Frames: Copper or copper and iron or steel combined: S. U. or in S. U. sections, loose or in packages .....D1 K. D. flat, in boxes, bundles or crates K. D. flat, loose or in packages, C. L. min. wt. 24,000 lbs. (subject to Rule 6-B) .....3 Iron or Steel: S. U. or in S. U. sections, loose or in packages .....1½ K. D. flat, in boxes, bundles or crates.2 K. D. flat, loose or in packages, C. L. min. wt. 24,000 lbs. (subject to Rule 6-B) .....4 Copper, Iron or Steel or Copper and Iron or Steel combined: K. D. flat, loose or in packages, mixed C. L. min. wt. 24,000 lbs. (subject to Rule 6-B).....3 Skylight Frames and Ventilators combined: S. U. or in S. U. sections, loose or in packages.....1½ Frames, K. D. flat, ventilators, S. U. in boxes, bundles or crates.....1½		

†Changes other than reduction or increase.
ΔReductions.

Index No.	Date Effective	Article	L.C.L.	C.L.
		Skylights and Skylight Frames, Metal—Continued Skylight Frames and Ventilators combined—Continued Frames, K. D. flat, ventilators, flat or K. D. flat, in boxes, bundles or crates .....2 Frames, K. D. flat, ventilators, S. U. flat or K. D. flat, loose or in packages, C. L. min. wt. 24,000 lbs. (subject to Rule 6-B) .....4		
		Skylight Frames and Skylight Frames and Ventilators combined, Frames K. D. flat, Ventilators, S. U. flat or K. D. flat, loose or in packages, mixed C. L. min. wt. 24,000 lbs. (subject to Rule 6-B) .....4		
195	March 5, 1917	Vinegar and Pickles, kraut, kraut brine, cucumber, dillweed, tomato, cauliflower and onion .....5		
196	March 5, 1917	Refrigerating Apparatus, consisting of Machinery, K. D. Iron Pipe Coils, Manifolds or Headers, Oil Interceptors, S. U. or K. D. (consisting of Steel Shell, Insulated Paper, Crushed Flint, Charcoal and Sponges), Liquid Receivers, Ice Pans or Cans, Channel Bars, Iron Pipe, Iron Pipe Connections packed, Iron Pipe Fittings packed, Bolts and Nuts packed, and valves. *Note: Brine material, Chloride of Calcium or Salt may be loaded in mixed carloads with Ice and Refrigerating Machinery.		A Min. Wt. 24,000 lbs.
197	March 5, 1917	Water Closets, boxed or racked.....1 Cancel item 14, page 119.	ΔC. L. min. wt. 24,000 lbs.	4
198	March 5, 1917	Signals, Sound Warning: Cancel item 8, page 133.	ΔHorns: Automobile, Bicycle, Motorboat or Motorcycle: In barrels or boxes.....1½ In packages named, min. wt. 18,000 lbs. (Subject to Rule 6-B).....2	
199	March 5, 1917	Groceries, Assorted, N. O. S. and Cigars packed in same box: Cancel Index 79, Supp. No. 6.		
		In fiberboard, pulpboard or double-faced corrugated boxes meeting the requirements of Rule 41, with all flaps firmly glued throughout the entire area of contact, and all seams covered with paper sealing strips meeting the requirements of Section 11-B, Rule 41, firmly glued to all surfaces with which they come in contact, see Note .....1 Note: Packages having united measurements (length, width and depth added) of less than thirty (30) inches, will not be accepted.		
200	March 5, 1917	Agricultural Implements, Parts of: *Grain Drill Tubes, Flexible iron or steel: In barrels, boxes or crates.....3 Loose or in packages, min. wt. 20,000 lbs. ....A		
201	March 5, 1917	Barrels, second-hand, empty: Iron and wood.....½ of 4 ΔMixed C. L. actual weight.....D		
202	March 5, 1917	Bodies: *Farm, for self-propelling vehicles: K. D. flat.....1 C. L. min. wt. 20,000 lbs.....A		
203	March 5, 1917	Bodies, Automobile: *Hearse or Funeral: S. U., crated .....3t1 *Ambulance: S. U., crated .....D1		

*Additions.
†Changes other than reduction or increase.

Index No.	Date Effective	Article	L.C.L.	C.I.
204	March 5, 1917	Boards: *Clip, wooden, without fixtures, in boxes or crates	2	
205	March 5, 1917	*Book or Magazine Racks, wooden, K. D. flat or folded flat, in wooden boxes or crates	2	
206	March 5, 1917	Boot and Shoe Findings: Counters, Heels, Soles or Taps: *Fibreboard, in barrels or boxes.....	2	4
207	March 5, 1917	*Chocolate, Chocolate Coating, Chocolate Confectionery and Cocoa: In packages named for L. C. L. shipments, mixed C. L., min. wt. 20,000 lbs.....	2	3
208	March 5, 1917	*Colonnade book case pedestals in the white unfinished, doors not glazed, fitted nor hung, crated.....	2	
209	March 5, 1917	*Freezers, Ice Cream, and Ice Crushing Machines combined: Without motors, in boxes or crates, or on skids	1	
		With motors, in boxes or crates, or with motors detached and in boxes or crates, other parts in boxes, crates or on skids	1	
		In packages or on skids as specified for L. C. L. shipments, C. L. min. wt. 24,000 lbs.....	1	A
210	March 5, 1917	Handles: *Bamboo, in bundles.....	D1	
211	March 5, 1917	Live Stock, L. C. L.: *Cow and Calf, six months or under, Calf not crated, 2,500 lbs.....	1	
212	March 5, 1917	*Paper Towels: In boxes, bundles or crates.....	2	
		In packages named, straight or mixed C. L. min. wt. 24,000 lbs.....	2	5
213	March 5, 1917	*Steel Broom Wings: In bundles	4	
214	March 5, 1917	*Steel Poultry Steamers: Crated	1	
215	March 5, 1917	*Steel Feeding Tank Trucks: Crated	1	
216	March 5, 1917	*Stove Pipe Reducers: Nested, in crates (see note).....	4	
		Note: Must be placed one within the other so that each upper article will not project above the next lower article more than one-third (1-3) of its height.		
217	March 5, 1917	Vehicle parts, self propelling: *Truck attachments, consisting of frame with rear wheels, axle, springs, drive shaft and sprocket chains: S. U., loose or in packages.....	1½	
		K. D., loose or in packages.....	1	
		Loose or in packages, C. L. min. wt. 20,000 lbs., (subject to Rule 5-B).....	1	A
ADD TO RULE 36				
218	March 5, 1917	If rating provided in Circular of Western Trunk Lines is used the minimum weight named in connection with such rating in said Circular shall also apply.		
219	March 5, 1917	REFER TO CLASSIFICATION OF RAILROADS AND APPLICATION OF SCHEDULE AND CLASSIFICATIONS THERETO, PAGE III AND PAGE 3 OF SUPPLEMENT NO. 5, AND MAKE ADDITIONS, CHANGES AND ELIMINATIONS AS FOLLOWS: CLASS "A" RAILROADS		
Additions:				
Add Clinton, Davenport & Muscatine Railway Company.				
Add Minneapolis & St. Louis Railroad Company.				

*Additions.

Index Date
No. Effective

Changes:

Change Cedar Rapids & Iowa City Railway & Light Company to read Cedar Rapids & Iowa City Railway.

Change Mason City & Clear Lake Traction Company to read Mason City & Clear Lake Railroad Company.

Change Tama & Toledo Electric Railway to read Tama & Toledo Railway Company.

Change Wabash Railroad to read Wabash Railway Company.

Eliminations:

Eliminate Iowa & Illinois Railway account absorbed by the Clinton, Davenport & Muscatine Railway Company.

CLASS "B" RAILROADS

Additions:

Add Centerville, Albia & Southern Railway Company.

Add Muscatine, Burlington & Southern Railroad Company.

Eliminations:

Eliminate Manchester & Oneida Railway account changed to Class "C" railroad.

Eliminate Minneapolis & St. Louis Railroad account changed to Class "A" railroad.

CLASS "C" RAILROADS

Additions:

Add Atlantic Northern Railway Company.

Add Manchester & Oneida Railway Company.

Eliminations:

Eliminate Atlantic Northern & Southern Railway.

Eliminate Crooked Creek Railroad & Coal Company and foot-note account that company absorbed by the Ft. Dodge, Des Moines & Southern Railroad.

Eliminate Davenport & Muscatine Railway account that company absorbed by the Clinton, Davenport & Muscatine Railway Company.

Eliminate Muscatine North & South Railway account succeeded by the Muscatine, Burlington & Southern Railroad Company.

Eliminate Southern Iowa Traction Company account succeeded by the Centerville, Albia & Southern Railway Company.

‡Carrier is applying Class "B" Road Rates.

†Carrier is applying Class "A" Road Rates.

On January 19, 1917, the Commission directed the Secretary to prepare a supplement to Iowa Classification No. 15 regarding rating and package requirements on Cigars and Cigarettes, said Supplement to be known as Supplement No. 14 to Iowa Classification No. 15, dated January 19, 1917, effective March 19, 1917.

In accordance with the above instructions the following Supplement was prepared, promulgated and published as provided by law.

BOARD OF RAILROAD COMMISSIONERS OF THE STATE OF IOWA,
SUPPLEMENT NO. 14.

SUPPLEMENTS NOS. 6, 13 AND 14 IN EFFECT AND CONTAIN ALL
CHANGES TO IOWA CLASSIFICATION NO. 15 AND SCHEDULE OF
REASONABLE MAXIMUM RATES AND CHARGES FOR THE
TRANSPORTATION OF FREIGHT AND CARS.

Dated January 19, 1917. Effective March 19, 1917.

Index No.	Date Effective	Article	L.	C.	L.	C.	L.
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220	Mch. 19, 1917	Cigars and Cigarettes: In Breboard, pulpboard or double-faced corrugated boxes meeting the require- ments of Rule 41, with all flaps firmly glued throughout the entire area of contact, and all seams covered with pa- per sealing strips meeting the require- ments of Rule 41, firmly glued to all surfaces with which they come in con- tact					1
		Note: Packages having united measure- ments (length, width and depth added) of less than thirty (30) inches, will not be accepted. In wooden boxes constructed of built-up 3 ply veneer, ends, sides, top and bot- tom each of one solid board and the box protected with not less than twelve battens or cleats of lock corner con- struction; battens to be not less than 3/4 x 2 inches; boxes to be nailed on all edges with cement coated nails not less than 1 1/2 inches in length					1

By order of the Board of Railroad Commissioners of the State of Iowa,
GEO. L. McCAUGHAN, Secretary.
Des Moines, Iowa, January 19, 1917.

SEMI-ANNUAL RATE AND CLASSIFICATION HEARING
APRIL 24, 1917.

On April 24, 1917, after published notice as required by law, the Com-
mission held public hearing for the purpose of considering all applica-
tions for changes in its schedule of maximum weights and classifications
of freight. Chairman Guither presided. After full hearing all cases were
taken under advisement.

On April 25, 1917, the Commission took under consideration all cases
heard at the semi-annual rate and classification hearing April 24, 1917,
and made the following rules thereon:

Churchill Drug Company, Burlington:

Application for 5th class C. L. rating on animal condiments in boxes,
barrels or bags. The Commission granted 4th class C. L. rating with a
note that Charcoal, Bicarbonate of Soda or Saleratus, in boxes may be
shipped in mixed C. L.

Aluminum Mfg. Company, Des Moines:

Application for rating on Aluminum Cooking Utensils.
Continued until October, 1917, hearing.

National Oats Company, St. Louis, Mo.:

Application for corn tariff rates and minimum weights on Cereal Prod-
ucts and preparations, N. O. S. Pending hearing on this case Index No.

118 of Supplement 13 to Iowa Classification No. 15, was suspended. At
the request of the complainants, the complaint was withdrawn and sus-
pension of the above item was made permanent.

Walter Huncke, Des Moines:

Application for change in Rule 36, Iowa Classification No. 15.
Denied by the Commission.

Board of Railroad Commissioners:

The Commission docketed on its own motion matter of alternative rates
based upon declared valuation, the elimination of clauses in the classi-
fication and tariffs attempting to limit liability.

Continued to October, 1917, hearing.

Collis Company, Clinton:

Application for 3rd class L. C. L. rating on Steel Dolly Trucks crated.
Granted 2nd Class L. C. L.

Collis Company, Clinton:

Application for 3rd class L. C. L. rating on Cooling Racks.
Granted 2nd Class L. C. L.

Collis Company, Clinton:

Application for 3rd class L. C. L. rating on steel hoops for concrete re-
inforcement.
Granted.

Board of Railroad Commissioners:

Application for cancellation Item 1, page 141, of Iowa Classification No.
15, as obsolete.

Withdrawn.

Cook Laurance Crockery Company, Cedar Rapids:

Application for first-class rating on Fish Globes.
Granted.

Leonard Hi-Oven Range Company, Cedar Rapids:

Application for 3rd class L. C. L. rating on elevated ovens.
Continued until October, 1917, hearing.

Burnham Mfg. Company, Charles City:

Application for 3rd class L. C. L. and Class A., C. L. rating on combined
hay and stock racks.
Granted.

Lindquist Brothers, Keokuk:

Application for first-class L. C. L. rating on Cedar Chests.
Denied.

Kratzer Carriage Company, Des Moines:

Application for change in classification on Freight or Delivery bodies
for self-propelling vehicles.
Granted in part. For full text of rating granted see files in the above
case.

Kratzer Carriage Company, Des Moines:

Application for classification on Cabs for Freight or Delivery bodies.
Granted in part.

Kratzer Carriage Company, Des Moines:

Application for a double first-class rating on hearse or funeral bodies,
S. U.
Granted.

Davenport Commercial Club, Davenport:

Application for change in Classification on Ladders.
Granted.

Chicago & North Western Ry., et al.:

Application for the amendment of Index Nos. 188, 196, 197, 202, 209, and
212, by addition of the words: "Subject to Rule 6-B" and the amend-
ment of Index No. 201 by the addition of "Minimum weight 16,000 lbs.,
subject to Rule 6-B."

Granted with the exception of Index No. 201, which was amended to read, "Minimum weight 15,000 lbs., subject to Rule 6-B."

Northwestern Chemical Company, Marietta, Ohio:

Application for Classification on anti-freezing compounds.
Granted.

Ford Mfg. Company, St. Louis, Mo.:

Application for rating on Lathing, Wood Veneer and Strawboard combined.

The Board granted same classification which appears in Western Classification No. 54.

E. F. McFarlin, Sioux Rapids:

Application for 5th class C. L. rating on Portable Skating Rink Outfits.
Granted 4th class, C. L.

North Star Egg Case Company, Quincy, Ill.:

Application for 4th class C. L. rating on Egg Case Flats.
Continued to October, 1917, hearing.

H. F. Sundberg, Cedar Rapids:

Application for ruling that a bunch of bananas extending above the top of the crate with the portion protruding completely covered by paper padding and burlap, is ratable in less than car loads at first class.
Denied.

Board of Railroad Commissioners:

The Board of Railroad Commissioners docketed on their own motion the matter of changing shipping requirements on Cigars and Cigarettes in conformity with those carried in Western Classification No. 54.
Granted.

Carr, Ryder & Adams Company, Dubuque:

Application for Classification on Medicine and Toilet Cabinets.
Granted.

Northey Manufacturing Company, Waterloo:

Application for Classification on Ice Cream Cabinets.

The Commission granted the same Classification which appears in Western Classification No. 54.

Chicago & North Western Ry., et al.:

Application for a minimum charge of \$1.00 on a shipment of high explosives.
Granted.

Economy Hog & Cattle Powder Company, Shenandoah:

Application for Classification on Animal and Poultry Dip.
Granted.

Traffic Bureau of Sioux City, Commercial Club for Phillip Bernard Co., Sioux City:

Application for classification on Automatic Stock Fountain.

The Commission granted the same Classification which appears in Western Classification No. 54.

SUPPLEMENT NO. 15, IOWA CLASSIFICATION.

The Commission directed the Secretary to prepare a supplement to Iowa Classification No. 15 and embody therein the changes ordered above in the application of the Traffic Bureau of the Sioux City Commercial Club, for classification of Automatic Stock Fountains, such supplement to be known as Supplement No. 15 to Iowa Classification No. 15, dated April 25, 1917, and effective May 15, 1917.

In accordance with the above instructions the following supplement was prepared, promulgated and published as provided by law.

BOARD OF RAILROAD COMMISSIONERS OF THE STATE OF IOWA.
SUPPLEMENT NO. 15.

SUPPLEMENTS NOS. 6, 13, 14 AND 15 IN EFFECT AND CONTAIN ALL CHANGES TO IOWA CLASSIFICATION NO. 15 AND SCHEDULE OF REASONABLE MAXIMUM RATES AND CHARGES FOR THE TRANSPORTATION OF FREIGHT AND CARS.

Dated April 25, 1917.

Effective May 15, 1917.

Index No.	Date Effective	Article	L.C.L.	C.L.
221	May 15, 1917	Fountains, Stock, Automatic Troughs and Tanks combined, Watering (Box Watering Fountains), Iron or Steel, with or without Fire Boxes:		
		Loose	1 1/2	
		In Crates	1	
		*Carload min. wt. 12,000 lbs. (Subject to Rule 6-B)		3
		Cast Iron:		
		In corrugated paper boxes	2	
		Not nested-in barrels, boxes or crates	3	
		Nested in crates	4	5

By order of the Board of Railroad Commissioners of the State of Iowa.
GEO. L. McCAUGHAN, Secretary.

Des Moines, Iowa, April 25, 1917.

1 Advance.

*Reduction.

SUPPLEMENT NO. 16, IOWA CLASSIFICATION.

On April 25, 1917, the Commission directed the Secretary to prepare a supplement to Iowa Classification No. 15 and to embody therein all changes ordered on this date, and include all changes appearing in Supplements Nos. 6, 13, 14, and 15 to Iowa Classification No. 15, such supplement to be known as Supplement No. 16 to Iowa Classification No. 15 dated April 25, 1917, and effective July 2, 1917, except as noted.

In accordance with the above instructions the above supplement was prepared, promulgated and published as provided by law.

SUPPLEMENT NO. 16 CANCELS SUPPLEMENTS NOS. 6, 13, 14 AND 15 SUPPLEMENT 16 IN EFFECT AND CONTAINS ALL CHANGES TO IOWA CLASSIFICATION NO. 15 AND SCHEDULE OF REASONABLE MAXIMUM RATES OF CHARGES FOR THE TRANSPORTATION OF FREIGHT AND CARS.

Dated April 25, 1917.

Effective July 2, 1917 (except as noted)

By order of the Board of Railroad Commissioners of the State of Iowa.
GEORGE L. McCAUGHAN, Secretary.

Des Moines, Iowa, April 25, 1917.

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16	Sept. 15, 1913	Reissue, Index No. 16,	Supplement No. 1.
17	Sept. 15, 1913	Reissue, Index No. 17,	Supplement No. 1.
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19	Sept. 15, 1913	Reissue, Index No. 19,	Supplement No. 1.
20	Sept. 15, 1913	Reissue, Index No. 20,	Supplement No. 1.
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26	Sept. 15, 1913	Reissue, Index No. 26,	Supplement No. 1.
27	Sept. 15, 1913	Reissue, Index No. 27,	Supplement No. 1.
28	Sept. 15, 1913	Reissue, Index No. 28,	Supplement No. 1.
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33	Sept. 15, 1913	Reissue, Index No. 33,	Supplement No. 1.
34	Sept. 15, 1913	Reissue, Index No. 34,	Supplement No. 1.
35	Sept. 15, 1913	Reissue, Index No. 35,	Supplement No. 1.
36	Feb. 2, 1914	Reissue, Index No. 36,	Supplement No. 2.
38	Feb. 2, 1914	Reissue, Index No. 38,	Supplement No. 2.
39	Feb. 2, 1914	Reissue, Index No. 39,	Supplement No. 2.
40	Feb. 2, 1914	Reissue, Index No. 40,	Supplement No. 2.

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41	Feb. 2, 1914	Reissue, Index No. 41,	Supplement No. 2.	
42	Feb. 2, 1914	Reissue, Index No. 42,	Supplement No. 2.	
43	Feb. 2, 1914	Reissue, Index No. 43,	Supplement No. 2.	
44	Feb. 2, 1914	Reissue, Index No. 44,	Supplement No. 2.	
45	Feb. 2, 1914	Reissue, Index No. 45,	Supplement No. 2.	
46	Feb. 2, 1914	Reissue, Index No. 46,	Supplement No. 2.	
47	Feb. 2, 1914	Reissue, Index No. 47,	Supplement No. 2.	
48	Feb. 2, 1914	Reissue, Index No. 48,	Supplement No. 2.	
49	Feb. 2, 1914	Reissue, Index No. 49,	Supplement No. 2.	
51	Feb. 2, 1914	Reissue, Index No. 51,	Supplement No. 2.	
52	Feb. 2, 1914	Reissue, Index No. 52,	Supplement No. 2.	
53	Feb. 2, 1914	Reissue, Index No. 53,	Supplement No. 2.	
54	July 25, 1914	Reissue, Index No. 54,	Supplement No. 3.	
55	July 25, 1914	Reissue, Index No. 55,	Supplement No. 3.	
56	July 25, 1914	Reissue, Index No. 56,	Supplement No. 3.	
57	July 25, 1914	Reissue, Index No. 57,	Supplement No. 3.	
58	July 25, 1914	Reissue, Index No. 58,	Supplement No. 3.	
59	July 25, 1914	Reissue, Index No. 59,	Supplement No. 3.	
60	July 25, 1914	Reissue, Index No. 60,	Supplement No. 3.	
61	July 25, 1914	Reissue, Index No. 61,	Supplement No. 3.	
62	July 25, 1914	Reissue, Index No. 62,	Supplement No. 3.	
63	July 25, 1914	Reissue, Index No. 63,	Supplement No. 3.	
64	July 25, 1914	Reissue, Index No. 64,	Supplement No. 3.	
65	July 25, 1914	Reissue, Index No. 65,	Supplement No. 3.	
66	July 25, 1914	Reissue, Index No. 66,	Supplement No. 3.	
67	July 25, 1914	Reissue, Index No. 67,	Supplement No. 3.	
68	July 25, 1914	Reissue, Index No. 68,	Supplement No. 3.	
70	July 25, 1914	Reissue, Index No. 70,	Supplement No. 3.	
71	July 25, 1914	Reissue, Index No. 71,	Supplement No. 3.	
72	July 25, 1914	Reissue, Index No. 72,	Supplement No. 3.	
73	July 25, 1914	Reissue, Index No. 73,	Supplement No. 3.	
74	July 25, 1914	Reissue, Index No. 74,	Supplement No. 3.	
75	July 25, 1914	Reissue, Index No. 75,	Supplement No. 3.	
81	July 25, 1914	Reissue, Index No. 81,	Supplement No. 4.	
82	May 22, 1915	Reissue, Index No. 82,	Supplement No. 6.	
83	May 22, 1915	Reissue, Index No. 83,	Supplement No. 6.	
84	May 22, 1915	Reissue, Index No. 84,	Supplement No. 6.	
86	May 22, 1915	Reissue, Index No. 86,	Supplement No. 6.	
88	May 22, 1915	Reissue, Index No. 88,	Supplement No. 6.	
89	May 22, 1915	Reissue, Index No. 89,	Supplement No. 6.	
90	May 22, 1915	Reissue, Index No. 90,	Supplement No. 6.	
91	May 22, 1915	Reissue, Index No. 91,	Supplement No. 6.	
92	May 22, 1915	Reissue, Index No. 92,	Supplement No. 6.	
93	May 22, 1915	Reissue, Index No. 93,	Supplement No. 6.	
94	May 22, 1915	Reissue, Index No. 94,	Supplement No. 6.	
95	May 22, 1915	Reissue, Index No. 95,	Supplement No. 6.	
96	May 22, 1915	Reissue, Index No. 96,	Supplement No. 6.	
98	May 22, 1915	Reissue, Index No. 98,	Supplement No. 6.	
98 1/2	May 22, 1915	Reissue, Index No. 98 1/2,	Supplement No. 6.	
99	May 22, 1915	Reissue, Index No. 99,	Supplement No. 6.	
100	May 22, 1915	Reissue, Index No. 100,	Supplement No. 6.	
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104	May 22, 1915	Reissue, Index No. 104,	Supplement No. 6.	
105	May 22, 1915	Reissue, Index No. 105,	Supplement No. 6.	
106	Aug. 10, 1915	Reissue, Index No. 106,	Supplement No. 7.	
107	Aug. 10, 1915	Reissue, Index No. 107,	Supplement No. 7.	
108	Aug. 10, 1915	Reissue, Index No. 108,	Supplement No. 7.	
109	Aug. 10, 1915	Reissue, Index No. 109,	Supplement No. 7.	

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136	Aug. 10, 1915	136	7
137	March 1, 1916	137	8
138	March 1, 1916	138	8
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141	March 1, 1916	141	8
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158	March 1, 1916	158	8
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160	June 26, 1916	160	10
161	Aug. 15, 1916	161	11
162	Aug. 15, 1916	162	11
163	Aug. 15, 1916	163	11
164	Aug. 15, 1916	164	11
165	Aug. 15, 1915	165	11
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184	Aug. 15, 1916	184	11
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186	March 5, 1917	186	13
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189	March 5, 1917	189	13
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RULE 37.

L.C.L. C.L.

The minimum charge on a single shipment shall be twenty-five (25) cents, except that the minimum charge on High Explosives will be \$1.00. Packages marked for two or more consignees will not be accepted as a single shipment.

Vehicle Parts:

Racks, Hay and Stock, combined:

S. U. Loose

K. D. in boxes, bundles or crates

Index No.	Date Effective	Article	L.C.L.	C.L.
227	July 2, 1917	Cedar Chests:		
		S. U. in boxes or crates	1½	
		S. U. in packages named, C. L., min. wt. 12,000 lbs. (Subject to Rule 6-B)		3
		K. D. flat:		
		In boxes or crates	2	
		In packages named, C. L., min. wt. 24,000 lbs. (Subject to Rule 6-B)		4
228	July 2, 1917	Animal and Poultry Dip:		
		Liquid:		
		In metal cans completely jacketed	3	
		In metal cans in boxes or crates	4	
		In bulk or barrels	4	
		In packages named, straight or mixed C. L., min. wt. 30,000 lbs.		C
		Other than Liquid:		
		In barrels or boxes	3	
		In packages named, straight or mixed C. L., min. wt. 30,000 lbs.		A
		Liquid and Other than Liquid:		
		In packages named for L. C. L. shipments, mixed C. L., min. wt., 30,000 lbs.		A
229	July 2, 1917	Cigars and Cigarettes:		
		In boxes, strapped with wood, iron or wire straps at the ends, and corded in the center; cord to pass in and out through each and every board of the four sides of the box, to be tightly drawn and secured with metal seals (other than lead)	1	
		In tight-jointed, wire-bound, wooden boxes, bound with not less than three (3) continuous wires, the end wires being firmly stapled through each board to the end cleats of the box; the wires between the ends to be stapled to each board and clinched on the inside or deeply imbedded in the wood; the ends of each binding wire to be brought together and tightly twisted or drawn at one edge of the box securely sealed with metal seals (other than lead), bearing name or initials of shipper	1	
		In wooden boxes constructed of built-up 3-ply veneer, ends, sides, top and bottom each of one solid board and the box protected with not less than twelve battens or cleats of lock corner construction; battens to be not less than ¾x2 inches; boxes to be nailed on all edges with cement coated nails not less than 1½ inches in length	1	
		In fibreboard or pulpboard boxes, complying with Rule 41, sides, top and bottom in one piece, ends recessed and made of four flaps, flaps securely stitched to sides, top and bottom with flat wire and further secured with double-headed steel rivets not more than three (3) inches apart, flaps secured by a screw and cap, the neck projecting from the inside through each flap and the cap punctured through neck so that it cannot be unscrewed. Side seam in box to be sealed with cord and metal seal (other than lead) showing initials or name in full of shipper and point of origin, and further sealed with paper seal not less than three (3) inches wide, extending entire length of seam and having a resistance of not less than 60 pounds to the square inch, Mullen test, see note 2	1	

•Increase.

†Changes other than reduction or increases.

Index No.	Date Effective	Article	L.C.L.	C.L.
		Cigars and Cigarettes—Continued		
		In fibreboard, pulpboard or double-faced corrugated strawboard boxes, subject to the requirements of Rule 41, corded lengthwise and crosswise, the cord passing in and out of top, sides and ends, and around the bottom, tied in a double knot and securely fastened with metal seals (other than lead) showing initials or name in full of shipper, and point of origin, see notes 1 and 2	1	
		In fibreboard, pulpboard or double-faced corrugated boxes meeting the requirements of Rule 41 and further sealed with two or more metal straps, not less than 29 gauge and not less than ¾ inch in width, encircling the box at least once around the end and once around the side, and drawn taut to prevent slipping. The ends of straps must pass through metal sleeve and be crimped therein. The straps must also be crimped at crossing or intersections. On boxes exceeding 24 inches in length, metal straps must not be more than 12 inches apart. See Note 2	1	
		In solid fibreboard or pulpboard boxes meeting the requirements of Rule 41, and constructed with four flaps on each end, flaps overlapping each other 2 inches or more and secured by metal staples or stitches not more than 2 inches apart, see note 2	1	
		In fibreboard, pulpboard or double-faced corrugated boxes meeting the requirements of Rule 41, with all flaps firmly glued throughout the entire area of contact, and all seams covered with paper sealing strips meeting the requirements of Section 11-B, Rule 41, firmly glued to all surfaces with which they come in contact, see note 2	1	
		In tin packages with wire drawn through sides and ends of top and bottom and sealed	1	
		In zinc lined boxes; locked, corded and sealed, enclosed in crates and strapped with iron bands	1	
		In boxes not conforming to above specifications and requirements		D1
		Note 1—Fibreboard, pulpboard or double-faced corrugated strawboard boxes containing cigars or cigarettes must be further sealed with a fibre paper strip not less than two inches by six inches having a resistance of not less than 60 pounds pressure to the square inch (Mullen test), securely glued to the box and cover at opposite sides lengthwise and crosswise of seam or opening.		
		Note 2—Packages having united measurements (length, width and depth added) of less than thirty (30) inches, will not be accepted.		
230	July 2, 1917	Ladders N. O. S., Painters', Scaffolds N. O. S., and Carpenters' Folding Extension Horses: (see Note)		
		Not over 20 feet long	1	
		Over 20 feet and not exceeding 30 feet in length		D1
		Over 30 feet in length		2½ ti
		Carload min. wt. 10,000 lbs. (Subject to Rule 6-B)		

Index No.	Date Effective	Article	L.C.L.	C.L.
		Ladders N. O. S., Painters', Scaffolds N. O. S., and Carpenters' Folding Extension Horses, see Note—Continued		
		*Note—Ladders exceeding 22 feet in length when loaded in box car not more than 36 feet in length by 8 feet 6 inches wide and 8 feet high, through center side doorway, 6 feet wide by 7 feet 6 inches high, by the use of end door or window, will be charged at actual weight and authorized ratings, subject to a minimum charge of 1,000 pounds at first class rate. (Exception to Rule 17.)		
231	July 2, 1917	Refrigerating Apparatus, consisting of Machinery, K. D., Iron Pipe Coils, Manifolds or Headers, Oil Interceptors, S. U., or K. D. (consisting of Steel Shell, Insulated Paper, Crushed Flint, Charcoal and Sponges), Liquid Receivers, Ice Pans or Cans, Channel Bars, Iron Pipe, Iron Pipe Connections, packed, Iron Pipe Fittings, packed, Bolts and Nuts, packed, and Valves.		
		●C. L., min. wt. 24,000 lbs. (Subject to Rule 6-B). (See Note).....		A
		Note: Brine material, Chloride of Calcium or Salt may be loaded in mixed carloads with Ice Refrigerating Machinery.		
232	July 2, 1917	Water Closets:		
		Boxed or racked.....1		
		●C. L., min. wt. 24,000 lbs. (Subject to Rule 6-B).....		4
233	July 2, 1917	●The minimum charge for a shipment over two or more railroads shall be twenty-five (25) cents, except that the minimum charge of High Explosives shall be One Dollar (\$1.00). In case it is necessary to transfer less than carload freight from one depot to another, then the actual cost of service may be added to the joint rate as heretofore provided, but if the same depot is used by both railway companies there shall be no transfer charge.		
234	July 2, 1917	Bananas, prepaid or guaranteed:		
		In baskets with solid or slatted wooden tops.....1		
		In barrels, boxes or banana carriers (crates or drums). (See Note).....1		
		In containers, other than paper bags, not named or not completely enclosing the freight.....D1		
		In packages or in bulk, C. L., min. wt. 20,000 lbs.		3
		*Note: Extending beyond Banana carrier (crates or drums) ratable as in containers not completely enclosing the freight.		
235	July 2, 1917	Vehicle Parts:		
		Automobile Parts:		
		Bodies:		
		Freight, See Note:		
		Finished or not finished:		
		In boxes or crates:		
		Packages exceeding 44 inches in height.....D1		
		Packages exceeding 34 inches but not exceeding 44 inches in height.....1½		
		Packages not exceeding 34 inches in height.....1		
		Loose or in packages, straight or mixed C. L., min. wt. 10,000 lbs., (Subject to Rule 6-B)....		2
		*Additions.		
		●Increases.		

Index No.	Date Effective	Article	L.C.L.	C.L.
		Vehicle Parts—Continued		
		Automobile Parts—Continued		
		Bodies—Continued		
		Freight, See Note—Continued		
		Finished or not finished—Continued		
		Note: Bodies for Platform, Stake or Dump Trucks or Wagons, not lettered, may be shipped without being boxed or crated.		
236	July 2, 1917	Barrels, Second-hand, Empty:		
		Iron and Wood.....½ of 4		
		●Mixed C. L., min. wt. 15,000 lbs. (Subject to Rule 6-B).....		D
237	July 2, 1917	Vehicle Parts:		
		Bodies:		
		Farm, for self-propelling vehicles:		
		K. D. flat.....1		
		●C. L., min. wt. 20,000 lbs. (Subject to Rule 6-B).....		A
238	July 2, 1917	Vehicle Parts:		
		Bodies:		
		△Hearse, Funeral or Undertaker:		
		S. U., crated.....D1		
		Ambulance:		
		S. U., crated.....D1		
239	July 2, 1917	Freezers, Ice Cream and Ice Crushing Machines, combined:		
		Without motors, in boxes or crates, or on skids.....1		
		With motors, in boxes or crates, or with motors detached in boxes or crates, other parts in boxes, crates or on skids.....1		
		●In packages or on skids as specified for L. C. L. shipments, C. L., min. wt. 24,000 lbs. (Subject to Rule 6-B).....		A
240	July 2, 1917	Paper Towels:		
		In boxes, bundles or crates.....2		
		●In packages named, C. L., min. wt. 24,000 lbs. (Subject to Rule 6-B).....		5
241	July 2, 1917	By order of the Board of Railroad Commissioners of the State of Iowa, dated April 25, 1917, Case No. B-810, its order of February 27, 1917, suspending the effective date of Index 218, Supplement No. 13, addition to Rule 36, was made a permanent order of suspension. Index No. 218 of Supplement No. 13 did not, therefore become effective.		
242	July 2, 1917	Lathing:		
		*Wood veneer and strawboard combined, asphalted:		
		In bundles, boxes or crates.....3		
		In packages named, C. L., min. wt. 30,000 lbs.		5
243	July 2, 1917	Compound:		
		*Anti-freezing:		
		In metal cans in barrels or boxes.....2		
		In bulk in barrels.....3		
		In packages named, C. L., min. wt. 36,000 lbs.		5
244	July 2, 1917	Refrigerators:		
		*Ice Cream, Milk or Oyster:		
		In boxes or crates.....2		
		In packages named, C. L., min. wt. 15,000 lbs. (Subject to Rule 6-B)....		4
245	July 2, 1917	*Skating Rink Outfits, Portable, consisting of Tents, Tent Poles and Stakes, Platform, K. D., in sections, Settees or Chairs, Folding Lumber, and Roller Skates: (See Note)		
		In mixed C. L., min. wt. 20,000 lbs. (Subject to Rule 6-B).....		4
		Note: Musical Instruments not exceeding one Piano or Organ may be included with Skating Rink Outfits.		
		*Addition.		

Index No.	Date Effective	Article	L.C.L.	C.L.
245	July 2, 1917	*Steel Dolly Trucks, crated.....	2	
247	July 2, 1917	*Steel or Wood and Steel Cooling Trucks, K. D., crated.....		2
248	July 2, 1917	*Steel Wire Hoops for concrete reinforcement, in bundles.....	3	
249	July 2, 1917	Vehicle Parts: Automobile Parts: *Cabs for Freight or Delivery Bodies, see Note: Finished or not finished: S. U., in boxes or crates.....	D1	
		K. D., in boxes or crates.....	1	
		C. L., min. wt., 10,000 lbs. (Subject to Rule 6-B).....		2
		Note: May be shipped in mixed C. L. with Automobile Bodies, freight, at 2d class min. wt. 10,000 lbs. (Subject to Rule 6-B.)		

250 July 2, 1917
Cancels Index 219, Supp. 13.
Amends page iii of Classification and Cancels page 3 of Supp. No. 6. "Classification of Railroads and Application of Schedule and Classification Thereof."

CLASSIFICATION OF RAILROADS AND APPLICATION OF SCHEDULE AND CLASSIFICATION THEREOF.
CLASS "A" RAILROADS

Additions:
Add Clinton, Davenport & Muscatine Railway Company.
Add Minneapolis & St. Louis Railroad Company.

Changes:
Change Cedar Rapids & Iowa City Railway & Light Company to read Cedar Rapids & Iowa City Railway.
Change Mason City & Clear Lake Traction Company to read Mason City & Clear Lake Railroad Company.
Change Tama & Toledo Electric Railway to read Tama & Toledo Railway Company.
Change Wabash Railroad to read Wabash Railway Company.

Eliminations:
Eliminate Iowa & Illinois Railway account absorbed by the Clinton, Davenport & Muscatine Railway Company.

CLASS "B" RAILROADS

Additions:
Add Iowa Southern Utilities Company.
Add Muscatine, Burlington & Southern Railroad Company.

Eliminations:
Eliminate Manchester & Onelda Railway account changed to Class "C" Railroad.
Eliminate Minneapolis & St. Louis Railroad account changed to Class "A" Railroad.
Eliminate Centerville, Albia & Southern Railway Company account succeeded by Iowa Southern Utilities Company.

CLASS "C" RAILROADS

Additions:
Add Atlantic Northern Railway Company.
Add Creston, Winterset & Des Moines Railway.
Add Manchester & Onelda Railway Company.

Eliminations:
Eliminate Atlantic Northern & Southern Railway.
Eliminate Chicago, Anamosa & Northern Railway.
Eliminate Crooked Creek Railroad & Coal Company and footnote account that company absorbed by the Ft. Dodge, Des Moines & Southern Railroad.
Eliminate Davenport & Muscatine Railway account that company absorbed by the Clinton, Davenport & Muscatine Railway Company.
Eliminate Muscatine North & South Railway account succeeded by the Muscatine, Burlington & Southern Railroad Company.
Eliminate Southern Iowa Traction Company account succeeded by the Centerville, Albia & Southern Railway Company.

*Addition.

†Carrier is applying Class "A" Road Rates.

‡Carrier is applying Class "B" Road Rates.

SUPPLEMENT NO. 17, IOWA CLASSIFICATION.

On June 29, 1917, the Commission directed the Secretary to prepare a supplement to Iowa Classification No. 15 for the purpose of correcting certain typographical errors in Iowa Classification No. 15 and in Supplements Nos. 13 and 16 thereto, said supplement to be known as Supplement No. 17 to Iowa Classification No. 15 dated June 29, 1917, and effective July 2, 1917.

In accordance with the above instructions the following supplement was prepared, promulgated and published as provided by law.

BOARD OF RAILROAD COMMISSIONERS OF THE STATE OF IOWA.
SUPPLEMENT NO. 17.

SUPPLEMENTS NOS. 16 AND 17 IN EFFECT AND CONTAIN ALL CHANGES TO IOWA CLASSIFICATION NO. 15, AND SCHEDULE OF REASONABLE MAXIMUM RATES OF CHARGES FOR THE TRANSPORTATION OF FREIGHT AND CARS.

Dated June 29, 1917.

Effective July 2, 1917.

Index No.	ARTICLE	L. C. L.
251	*Steel or Wood and Steel Cooling Trucks, K. D., crated.....	2
252	Second column, page 152 of Classification reads: ‡Vehicles and Parts of—Continued. †Automobiles—Continued. Change to read: ‡Vehicles and Parts of—Continued. †Automobiles—Continued.	
253	‡Vehicles, Parts of: Bodies, self-propelling vehicle: ‡Hearse, Funeral or Undertaker: S. U., crated..... Ambulance: S. U., crated.....	D1 D1
	*Addition. †Changes other than reductions or increases.	

By Order of the Board of Railroad Commissioners of the State of Iowa.

GEO. L. McCAUGHAN, Secretary.

Des Moines, Iowa, June 29, 1917.

SUPPLEMENT NO. 18, IOWA CLASSIFICATION.

On October 2, 1917, the Commission directed the Secretary to prepare a supplement to Iowa Classification No. 15 and embody therein the changes ordered in a complaint of the Iowa State Manufacturers Association, Des Moines, v. C. & N. W. Ry. et al, transfer charges on L. C. L. freight at junction points. Said supplement to be known as Supplement No. 18 to Iowa Classification No. 15 dated October 2, 1917, effective November 1, 1917.

In accordance with the above instructions the following supplement was prepared, promulgated and published as provided by law:

BOARD OF RAILROAD COMMISSIONERS OF THE STATE OF IOWA.
SUPPLEMENT NO. 15.

SUPPLEMENTS NOS. 16, 17 AND 18 IN EFFECT AND CONTAIN ALL CHANGES TO IOWA CLASSIFICATION NO. 15, AND SCHEDULE OF REASONABLE MAXIMUM RATES OF CHARGES FOR THE TRANSPORTATION OF FREIGHT AND CARS.

Dated October 2, 1917.

Effective November 1, 1917.

Index No. 254 cancels Index No. 233 of Supp. 16, which canceled Rule 5 of Joint Rate Order No. 4, page 177 of Schedule and Classification.

5. Transfer charges for less than carload shipments:

In case the carriers do not use the same depot, or there are no joint track connections between two or more railroads handling a joint shipment and it is necessary to transfer less than carload freight from one depot to another by dray, the actual cost of drayage may be added to the joint rate as heretofore provided. In case the same depot is used by both railway companies, or the said carriers have joint track connections at point of transfer, there shall be no transfer charges added to the transportation charges assessed on the joint shipment.

6. Minimum Charge:

The minimum charge for a shipment over two or more railroads shall be as per Rule 37 of the Classification, plus the additional cost of transfer where necessitated under Rule 5 hereof.

By Order of the Board of Railroad Commissioners of the State of Iowa.

GEO. L. McCAUGHAN, Secretary.

Des Moines, Iowa, October 2, 1917.

SEMI-ANNUAL RATE AND CLASSIFICATION HEARING
OCTOBER 2, 1917.

On October 2, 1917, the Commission held a public hearing for the purpose of considering all petitions for changes in its schedule of maximum rates and classification of freights. Chairman Guher presided. After full hearing all cases were taken under advisement.

On October 3, 1917, the Commission took under consideration the cases heard at the Semi-annual Rate and Classification Hearing, October 2, 1917, and made the following rulings thereon:

Aluminum Mfg. Company, Des Moines:

Application for classification of Aluminum Cooking Utensils. Dismissed. North Star Egg Case Company, Quincy, Ill.:

Application for fourth class L. C. L. rate on Egg Case flats in bundles. Granted third class in bundles, fourth class in boxes.

Leonard Hi-Oven Range Company, Cedar Rapids:

Application for a third class L. C. L. rate on elevated ovens. Commission ruled that elevated ovens are ratable under Item 28, Page 139, Iowa Classification No. 15.

Chicago & North Western Ry. Company:

Application for Western Classification rating on Tallow. Granted rating in Items 4 and 5, page 64, Supplement No. 5 to Western Classification No. 54 except with C. L. Minimum weight, 26,000 lbs.

Ford Motor Company, Des Moines:

Application for same rating and package requirements on automobile parts as appears in Western Classification No. 54. Granted.

Board of Railroad Commissioners:

Docketed by Board of Railroad Commissioners for discussion of rating on Green Hams packed in salt. Commission ruled that 5th class carload minimum weight, 26,000 lbs., should apply on green salted hams.

Corrugated Fibre Company, Chicago, Ill.:

Application for adoption of Rule 42 in Western Classification No. 54 as amended in effective supplements. Granted.

Davenport Commercial Club, Davenport:

Application for second class L. C. L. rating on type-casting or setting machines. Granted same as Item 16, Page 271, Western Classification No. 54. National Biscuit Company, Chicago:

Application for rating on bakery goods in fibre cans. Granted same as Items 19 to 23 incl., page 124, Western Classification No. 54.

Dultmier Mfg. Company, Manning:

Application for rating on Wagon Poles or tongues, finished. Continued to April 1918, hearing.

Western Mfg. Company, Oskaloosa:

Application for first class L. C. L. rating on air and water service machines boxed or crated and bolted. Granted, with small parts detached and boxed.

John McCord, Kingsley:

Application for raising limit on empty egg cases returned, from thirty days to one year. Denied.

Automatic Button Company, Muscatine:

Application for first class L. C. L. rating on buttons in boxes or bags. Granted Buttons in boxes or double bags, L. C. L. 1st.

Geo. Birrell, Inc., Muscatine:

Application for rating on button blanks. Granted same as Item 6, page 146, Western Classification No. 54.

Davenport Commercial Club, Davenport:

Application for absorption of switching charges on L. C. L. shipments of 6,000 lbs. or more at junction points where there are track connections. Withdrawn.

Sioux City Commercial Club, Sioux City:

Application for minimum weight on hogs in double deck cars. Granted. Sioux City Commercial Club, Sioux City:

Application for class D. rating on Lard tubs and kits. C. L. minimum weight, 24,000 lbs. Continued pending decision of I. C. C. in L. & S. 1096.

Kratzer Carriage Company, Des Moines:

Application for double 1st class, L. C. L. and 1st class C. L. Bus Bodies. Granted 1st Class C. L. Minimum weight, 10,000 lbs. (subject to Rule 6-B) L. C. L. rating denied.

Underwood Candy Company, Oskaloosa:

Application for commodity rate on Ice, car load. Continued to April 1918, hearing.

Advertising Novelty Company, Newton:

Application for rating on Automatic Farm Gates. Withdrawn.

3 P Auto Tractor Company, Davenport:

Application for rating on Tractor attachments. Granted same as Item 6, page 40, Supplement 13, Western Classification No. 54.

Northwestern Lumbermen's Association, Minneapolis, Minn.:

Application for fourth class L. C. L. rating on wooden fence posts. Granted.

Board of Railroad Commissioners:

Docketed by Board of Railroad Commissioners for commodity rate on Cement or Concrete building blocks. Granted brick commodity rate.

E. F. Elmsberg, Parkersburg:

Application for specific rating on Auto belt attachments. Commission ruled that article was ratable as Machinery. N. O. S.

Board of Railroad Commissioners:

Docketed by Board of Railroad Commissioners for purpose of rewording definition of Pea and slack, soft coal. Granted following description: Soft coal which has been passed through bar screen not exceeding one and one-half (1½) inches between bars, or its equivalent, a two (2) inch mesh or a two (2) inch round perforation, will be classed as pea and slack. Northern Sugar Corporation, Mason City:

Application for Starch Commodity Rates on Maple Sugar substitutes. Continued to April, 1918, classification hearing at request of applicant.

W. B. Martin, Dubuque:

Application for Western Classification rating on window glass. Granted.

SUPPLEMENT NO 19, IOWA CLASSIFICATION.

On October 3, 1917, the Commission directed the Secretary to prepare a supplement to Iowa Classification No. 15 and to embody therein all changes ordered on this date, together with all changes appearing in Supplement No.'s 17 and 18 to Iowa Classification No. 15, such Supplement to be known as Supplement No. 19 to Iowa Classification No. 15, dated October 3, 1917, effective November 20, 1917, except as noted.

In accordance with the above instructions the following supplement was prepared, promulgated and published as provided by law.

SUPPLEMENT NO. 19 CANCELS SUPPLEMENTS 17 AND 18, SUPPLEMENTS 16 AND 19 IN EFFECT AND CONTAIN ALL CHANGES TO IOWA CLASSIFICATION NO. 15 AND SCHEDULE OF REASONABLE MAXIMUM RATES OF CHARGES FOR THE TRANSPORTATION OF FREIGHT AND CARS.

Dated October 3, 1917. Effective November 20, 1917 (Except as noted)

By order of the Board of Railroad Commissioners of the State of Iowa.

GEORGE L. McCAUGHAN, Secretary.

Des Moines, Iowa, October 3, 1917.

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No.	Date Effective	Index No.	Supplement No.
251	July 2, 1917	Release, Index No. 251	Supplement No. 17.
252	July 2, 1917	Release, Index No. 252	Supplement No. 17.
253	July 2, 1917	Release, Index No. 253	Supplement No. 17.
254	Nov. 1, 1917	Release, Index No. 254	Supplement No. 18.

†RULE 41.

255 Nov. 20, 1917 Fibreboard, Pulphoard or Double-faced Corrugated Containers, Index 57, Strawboard Containers, Supp. 16, which Ratings—See Sections 1, 14, 16 and 17. cancelled Rule Material—See Sections 2, 3, 4, 5, 14 and 16, 14-A, page 5 of Construction—See Sections 6, 14, 16 and 17. Classification. Fastening—See Sections 10, 11, 12, 13, 14 and 15. Interior Packing—See Sections 7, 8 and 15. Certificates—See Sections 9, 14, 16 and 17. Testing—See Section 18.

Rule 41—Continued

Fibreboard, Pulp-Section 1. (a) Unless otherwise provided, rating applying on articles in Wooden-Boxes will also apply on the same articles in Fibreboard, Pulpboard or Double-Faced Corrugated Strawboard Boxes, with or without wooden frames, or in Ironbound or Wirebound Fibreboard Boxes, provided the following requirements and specifications are fully complied with:

(b) Subject to the provisions of Rule 14 and unless otherwise provided in separate descriptions of articles, or in the Interstate Commerce Commission Regulations for the Transportation of Dangerous Articles other than Explosives by Freight (see Rule 40), when the requirements and specifications of Rule 41 are not fully complied with the freight rates on articles in Fibreboard, Pulpboard or Double-faced Corrugated Strawboard Boxes, with or without wooden frames, or in Ironbound or Wirebound Fibreboard Boxes, shall be increased 20%, with a minimum increase of 2 cents per 100 pounds above the rates applicable on such articles in boxes that do comply with the requirements and specifications of Rule 41.

Specifications for Three-Ply or more Fibreboard or Pulpboard Boxes without Frames.

Section 2. (a) Fibreboard or Pulpboard used in making Fibreboard or Pulpboard Boxes, without frames, must be three ply or more, all plies firmly glued together, the outer ply waterproofed and not single ply less than .016 of an inch in thickness; except that the board forming the innermost side of a Triple Slide Box need not be waterproofed nor comply with Mullen Test requirements; and

Weight Limit 40 lbs.

(b) When the combined board is not less than .060 of an inch in thickness, having a resistance of not less than 175 pounds to the square inch, Mullen Test, and the outside dimensions of the box, length, width and depth, added do not exceed 60 inches, the gross weight of the box and its contents shall not exceed 40 pounds; or

Weight Limit 65 lbs.

(c) When the combined board is not less than .080 of an inch in thickness, having a resistance of not less than 200 pounds to the square inch, Mullen Test, and the outside dimensions of the box, length, width and depth, added do not exceed 65 inches, the gross weight of the box and its contents shall not exceed 65 pounds; or

Weight Limit 90 lbs.

(d) When the combined board is not less than .100 of an inch in thickness, having a resistance of not less than 275 pounds to the square inch, Mullen Test, and the outside dimensions of the box, length, width and depth added, do not exceed 70 inches, the gross weight of the box and its contents shall not exceed 90 pounds.

Specifications for Corrugated Strawboard Boxes without Frames. Triple Slide Boxes.

Section 3. (a) Double-Faced Corrugated Strawboard used in making Double-Faced Corrugated Strawboard Boxes, without frames, must be made of corrugated strawboard with outer and inner facings of fibreboard or pulpboard, both facings having proper bending qualities, firmly glued to the corrugated sheet and the outer facing water proofed, except that the board forming the innermost slide of a Triple Slide Box need not be waterproofed nor comply with Mullen Test requirements; and

Weight Limit 40 lbs.

(b) When the outer facing is not less than .016 of an inch in thickness, having a resistance of not less than 85 pounds to the square inch, Mullen Test, and the inner facing is not less than .016 of an inch in thickness, having a resistance of not less than 65 pounds to the square inch, Mullen Test, the combined board having a resistance of not less than 175 pounds to the square inch, Mullen Test, and the outside dimensions of the box, length, width and depth added, do not exceed 60 inches, the gross weight of the box and its contents shall not exceed 40 pounds, or

Rule 41—Continued

Weight Limit 65 lbs.

(c) When the outer facing is not less than .018 of an inch in thickness, having a resistance of not less than 85 pounds to the square inch, Mullen Test, and the inner facing is not less than .018 of an inch in thickness, having a resistance of not less than 85 pounds to the square inch, Mullen Test, the combined board having a resistance of not less than 200 pounds to the square inch, Mullen Test, and the outside dimensions of the box, length, width and depth, added, do not exceed 65 inches, the gross weight of the box and its contents shall not exceed 65 pounds; or

Weight Limit 90 lbs.

(d) When the outer facing is not less than .030 of an inch in thickness, having a resistance of not less than 135 pounds to the square inch, Mullen Test, and the inner facing is not less than .030 of an inch in thickness, having a resistance of not less than 135 pounds to the square inch, Mullen Test, the combined board having a resistance of not less than 275 pounds to the square inch, Mullen Test, and the outside dimensions of the box, length, width and depth added, do not exceed 70 inches, the gross weight of the box and its contents shall not exceed 90 pounds; or

Double Boxes, Weight Limit 90 lbs.

(e) When two complete Double-Faced Corrugated Strawboard Boxes, one fitted closely inside the other and each box made of Double-Faced Corrugated Strawboard fully complying with the requirements and specifications shown in Section 3 (a) and (b) of this Rule, are used and the outside dimensions of the box, length, width and depth added, do not exceed 70 inches, the gross weight of the box and its contents shall not exceed 90 pounds; or

Double Strength Boxes, Weight Limit 90 lbs.

(f) When boxes are made of Double Strength Corrugated Strawboard (Double-Faced Corrugated Strawboard and Single-Faced Corrugated Strawboard), glued together so as to make one piece, each facing being not less than .018 of an inch in thickness, having a resistance of not less than 85 pounds to the square inch, Mullen Test, the combined board having a resistance of not less than 275 pounds to the square inch, Mullen Test, and the outside dimensions of the box, length, width and depth added, do not exceed 70 inches, the gross weight of the box and its contents shall not exceed 90 pounds.

Specifications for Single-Ply Fibreboard or Pulpboard Boxes with Wooden Frames. Weight Limit 50 lbs.

Section 4. (a) Single-Ply Fibreboard or Pulpboard used in making Fibreboard or Pulpboard Boxes with wooden frames, must have the outer surface waterproofed; and

(b) When the single-ply board is not less than .060 of an inch in thickness, having a resistance of not less than 225 pounds to the square inch, Mullen Test, all edges of the sides, top and bottom of the box being reinforced by a wooden frame made of strips not less than $\frac{3}{4}$ by $\frac{3}{4}$ inch, or $\frac{3}{4}$ by $1\frac{1}{2}$ inches, with cross strips not less than $\frac{3}{4}$ by $\frac{3}{4}$ inch, or $\frac{3}{4}$ by $1\frac{1}{2}$ inches, and not more than 14 inches apart, the gross weight of the box and its contents shall not exceed 50 pounds; or

Weight Limit 100 lbs.

(c) When the single-ply board is not less than .060 of an inch in thickness, having a resistance of not less than 250 pounds to the square inch, Mullen Test, all edges of the sides, top and bottom of the box being reinforced by a wooden frame made of strips not less than $\frac{3}{4}$ by $1\frac{1}{2}$ inches or $\frac{1}{2}$ by 2 inches, with cross strips not less than $\frac{3}{4}$ by $1\frac{1}{2}$ inches or $\frac{1}{2}$ by 2 inches and not more than 14 inches apart, the gross weight of the box and its contents shall not exceed 100 pounds; or

Weight Limit 200 lbs.

(d) When the single-ply board is not less than .080 of an inch in thickness, having a resistance of not less than 300 pounds to the square inch, Mullen Test, all edges of the sides, top and bottom of the box being reinforced by a wooden frame made of strips not less than $\frac{3}{4}$ by $1\frac{1}{2}$ inches or $\frac{3}{4}$ by $2\frac{1}{2}$ inches, with cross strips not less than $\frac{3}{4}$ by $1\frac{1}{2}$ inches or $\frac{3}{4}$ by $2\frac{1}{2}$ inches and not more than 12 inches apart, the gross weight of the box and its contents shall not exceed 200 pounds.

Rule 41—Continued

Specifications for Strawboard or Three-Ply or more Fibreboard or Pulpboard Boxes with Wooden Frames.	Section 5. (a) Three-Ply or more Fibreboard or Pulpboard, or Double-Faced Corrugated Strawboard may be used in the construction of Fibreboard, Pulpboard or Strawboard Boxes, with wooden frames, provided:
Weight Limit 50 lbs.	(b) That three-ply or more Fibreboard or Pulpboard as specified in Section 2 (a) and (b), or Double-Faced Corrugated Strawboard as specified in Section 3 (a) and (c), is used in making wooden frame boxes as specified in Section 4 (a) and (b) of this Rule. The gross weight of the box and its contents shall not exceed 50 pounds.
Weight Limit 100 lbs.	(c) That three-ply or more Fibreboard or Pulpboard as specified in Section 2 (a) and (c), or Double-Faced Corrugated Strawboard as specified in Section 3 (a) and (c), is used in making wooden frame boxes as specified in Section 4 (a) and (c) of this Rule. The gross weight of the box and its contents shall not exceed 100 pounds.
Weight Limit 200 lbs.	(d) That three-ply or more Fibreboard or Pulpboard as specified in Section 2 (a) and (d), or double thickness of Double-Faced Corrugated Strawboard as specified in Section 3 (a) and (b) is used in making wooden frame boxes as specified in Section 4 (a) and (d) of this Rule. The gross weight of the box and its contents shall not exceed 200 pounds.
Specifications for Wirebound Fibreboard Boxes.	Section 5. (a) Three-ply or more Fibreboard or Pulpboard must be used in the construction of Wirebound Fibreboard Boxes.
	(b) There must be four wood cleats not less than 1 1/2 by 1 1/2 inch, with mortised joints, making a tight-fitting frame at each end of box. The body must be made in one piece with an overlap of not less than one inch, making a tight joint when closed by twisting the ends of binding wires together. The body must encircle the end frames. The binding wires must be continuous and not more than 3 inches apart. The binding wire at each end must be firmly fastened to each cleat by staples at intervals of not more than three inches, driven through the fibreboard and into the cleats. The other wire or wires must be firmly fastened to the board by staples, clinched on the inside and not more than three inches apart. The Fibreboard or Pulpboard ends must be firmly fastened to the inside of cleats with nails or staples, not more than three inches apart.
Weight Limit 50 lbs.	(c) When three-ply or more Fibreboard or Pulpboard as specified in Section 2 (a) and (b) is used in making wirebound fibreboard boxes, the binding wires must be not less than No. 16 gauge. The outside dimensions of the box, length, width and depth added, must not exceed 60 inches, and the gross weight of the box and its contents must not exceed 50 pounds.
Weight Limit 100 lbs.	(d) When three-ply or more Fibreboard or Pulpboard as specified in Section 2 (a) and (c) is used in making Wirebound Fibreboard Boxes, the binding wires must be not less than No. 16 gauge. The outside dimensions of the box, length, width and depth added, must not exceed 65 inches, and the gross weight of the box and its contents must not exceed 100 pounds.
Weight Limit 150 lbs.	(e) When three-ply or more Fibreboard or Pulpboard as specified in Section 2 (a) and (d) is used in making Wirebound Fibreboard Boxes, the binding wires must be not less than No. 14 gauge, and when the end of the box exceeds 10 inches in width an additional cleat or batten not less than 1 1/2 by 1 1/2 inch must be placed vertically at the center of each end and secured by nails driven through end cleats into the additional cleat or batten. The outside dimensions of the box, length, width and depth added, must not exceed 70 inches, and the gross weight of the box and its contents must not exceed 150 pounds.

Rule 41—Continued

Specifications for Ironbound Fibreboard Boxes.	(f) Three-ply or more Fibreboard or Pulpboard must be used in the construction of Ironbound Fibreboard boxes.
	(g) There must be four wood cleats not less than 1 1/2 by 1 1/2 inch, with mortised joints, making a tight-fitting frame at each end of box. The body must be made in one piece with an overlap of not less than one inch, making a tight joint when closed and must encircle the end frames. The iron bands must be continuous, not less than 3/4 inch wide, not more than 3 inches apart and must be firmly fastened to the Fibreboard or Pulpboard by staples clinched on the inside not more than three inches apart. The bands at each end must be firmly fastened to each cleat by cement-coated nails at intervals of not more than three inches, driven through the bands and Fibreboard or Pulpboard and into the cleat. Ends of center bands must be securely fastened together. The Fibreboard or Pulpboard ends must be firmly fastened to the inside of cleats with nails or staples, not more than three inches apart.
Weight Limit 50 lbs.	(h) When three-ply or more Fibreboard or Pulpboard, as specified in Section 2 (a) and (b), is used in making Ironbound Fibreboard Boxes, the bands must be not less than No. 25 gauge. The outside dimensions of the box, length, width and depth added, must not exceed 60 inches, and the gross weight of the box and its contents must not exceed 50 pounds.
Weight Limit 100 lbs.	(i) When three-ply or more Fibreboard or Pulpboard, as specified in Section 2 (a) and (c), is used in making Ironbound Fibreboard Boxes, the bands must be not less than No. 27 gauge. The outside dimensions of the box, length, width and depth added, must not exceed 65 inches, and the gross weight of the box and its contents must not exceed 100 pounds.
Weight Limit 150 lbs.	(j) When three-ply or more Fibreboard or Pulpboard, as specified in Section 2 (a) and (d), is used in making Ironbound Fibreboard Boxes, the bands must be not less than No. 26 gauge, and when the end of the box exceeds 10 inches in width an additional cleat or batten not less than 1 1/2 by 1 inch must be placed vertically at the center of each end and secured by nails driven through end cleats into the additional cleat or batten. The outside dimensions of the box, length, width and depth added, must not exceed 70 inches, and the gross weight of the box and its contents must not exceed 150 pounds.
Packing requirements against Sifting.	Section 7. All articles, except as provided for by Section 8, liable to loss from sifting or leakage must be in cans, cartons or other receptacles, so packed in the box as to completely fill it.
Packing requirements for Glassware, or other Fragile Articles or Articles in Glass or Earthenware.	Section 8. (a) Glassware, other fragile articles or articles in glass or earthenware, packed in Fibreboard, Pulpboard or Double-Faced Corrugated Strawboard Boxes:
Weight Limit (Fragile articles, etc.) 65 lbs.	(b) When the gross weight of the package exceeds 65 pounds, will not be accepted for transportation.
Liquids in Glass or Earthenware Containers.	(c) Liquids in glass or earthenware containers, exceeding one quart measure, will not be accepted for transportation in Fibreboard, Pulpboard or Double-Faced Corrugated Strawboard Boxes, except as provided in Section 8 (d) of this Rule.

Rule 41—Continued

(d) Liquids in glass or earthenware containers, exceeding one quart measure and not exceeding one gallon capacity, will be accepted in Double-Faced Corrugated Strawboard Boxes, when the quantity does not exceed four gallons and the gross weight of the box and its contents does not exceed 65 pounds; and each such container must be enclosed in a double-faced corrugated strawboard carton and all sides of box must be lined with one piece of double-faced corrugated strawboard properly scored; such cartons and liners must be made of corrugated strawboard with outer and inner facings of fibreboard or pulpboard not less than .016 of an inch in thickness, both facings having proper bending qualities, firmly glued to the corrugated sheet; inner and outer flaps of cartons and containers must meet or overlap; or

Each such glass or earthenware container must be enclosed in a scored shell of double-faced corrugated strawboard and all sides of box must be lined with one piece of double-faced corrugated strawboard properly scored; the top and bottom of box must also have a liner of double-faced corrugated strawboard extending to both sides and ends of the box, placed inside of the flaps; such shells and liners must be made of corrugated strawboard with outer and inner facings of fibreboard or pulpboard not less than .016 inch in thickness, both facings having proper bending qualities, firmly glued to the corrugated sheet; inner and outer flaps of containers must meet or overlap; or

When two complete double-faced corrugated boxes as described in Section 3 (a) and (e) of this Rule, or double strength corrugated boxes as described in Section 3 (a) and (f) of this Rule are used, the sides, top and bottom of box need not be lined but all inner and outer flaps must meet or overlap.

(e) Glassware or other fragile articles, when gross weight of the box and its contents does not exceed 30 pounds, must be enclosed in corrugated strawboard or cork lined paper wrappers or separated by double-faced corrugated strawboard or tight-fitting flexible wooden partitions and so packed in the box as to completely fill it; or

When gross weight of the box and its contents is over 30 pounds, but not exceeding 65 pounds, must be enclosed in corrugated strawboard or cork lined paper wrappers, or separated by double-faced corrugated strawboard or tight fitting flexible wooden partitions and so packed in the box as to completely fill it, and all sides, top and bottom of box must be lined with double-faced corrugated strawboard unless double corrugated strawboard boxes as described in Section 3 (a) and (e) of this Rule or double strength boxes as described in Section 3 (a) and (f) of this Rule are used.

(f) When articles are in glass or earthenware and the gross weight of the box and its contents does not exceed 30 pounds, each bottle, jar or similar receptacle must be enclosed in single-faced corrugated strawboard or cork lined paper wrapper and so packed as to completely fill the box, or separated by tight fitting double-faced corrugated strawboard or flexible wooden partitions touching all sides, top and bottom of the box. All sides, top and bottom of box must be lined with double-faced corrugated strawboard unless double corrugated strawboard boxes as described in Section 3 (a) and (e) of this Rule or double strength boxes as described in Section 3 (a) and (f) of this Rule are used, or when the inner flaps of boxes meet and the outer flaps meet or overlap 2 inches or more, top and bottom need not be lined; or

Rule 41—Continued

Packing Requirements, Articles in Glass or Earthenware, over 30 lbs., but not exceeding 65 lbs.

When the gross weight of the box and its contents is over 30 pounds, but not exceeding 65 pounds, each bottle, jar or similar receptacle must be separated by tight fitting double-faced corrugated strawboard or flexible wooden partitions touching all sides, top and bottom of the box. All sides, top and bottom of box must be lined with double-faced corrugated strawboard unless double corrugated strawboard boxes as described in Section 3 (a) and (e) of this Rule or double strength boxes as described in Section 3 (a) and (f) of this Rule are used; or

Packing Requirements, Articles in Glass or Earthenware Containers, one pint or less capacity, not exceeding 65 lbs.

When the gross weight of the box and its contents does not exceed 65 pounds and the glass or earthenware containers are of one pint or less capacity, each such container must be enclosed in a carton or wrapper and then enclosed in a second carton which must be completely filled. Contents of the containers in the second carton must not exceed the equivalent of six pints. Each second carton must be separated by tight fitting double-faced corrugated strawboard or flexible wooden partitions touching all sides, top and bottom of the box; sides, top and bottom of the box must be lined with double-faced corrugated strawboard unless double corrugated strawboard boxes as described in Section 3 (a) and (e) of this Rule or double strength boxes as described in Section 3 (a) and (f) of this Rule are used; when such second cartons are made of double-faced corrugated strawboard and completely fill the box, partitions will not be required and the sides, top and bottom of the box need not be lined.

Certificate of Box Maker.

Section 9. (a) All Fibreboard, Pulpboard or Double-Faced Corrugated Strawboard Boxes, with or without wooden frames, or Ironbound or Wirebound Fibreboard Boxes, that are made to conform to the requirements and specifications of this Rule, must bear certificate of box maker, labeled, printed or stamped in ink, showing that the boxes do so conform; this certificate to be not less than 2¼ by 4 inches, and to be a facsimile of the following in form and style of type and wording:
(Name and address of box maker, and figures showing thickness, resistance, dimension limit and gross weight limit, to be inserted by box maker)

For Boxes complying with Section 2 of this Rule.

CERTIFICATE OF BOX MAKER	
This box is made of three ply or more fibreboard or pulpboard, outer ply waterproofed	
Thickness not less than	each ply.....inch combined board.....inch
Resistance (Mullen Test)	Combined Board.....Lbs. per sq. inch
Dimension Limit:	
	Length, width and depth added.....inches
	Gross weight limit.....pounds
*	

* Insert box maker's name and address.

Rule 41—Continued

For Boxes complying with Section 3 (a), (b), (c) and (d) of this Rule.

CERTIFICATE OF BOX MAKER	
This box is made of double faced corrugated strawboard	
Thickness	{ outer face waterproofed...inch
Not less than	{ inner face.....inch
Resistance	{ outer face.....lbs. per sq. inch
(Mullen Test)	{ inner face.....lbs. per sq. inch
	{ Combined board.....lbs. per sq. inch
Dimension Limit:	
Length, width and depth added.....inches	
Gross weight limit.....pounds	
*.....	

* Insert box maker's name and address.

For Boxes complying with Section 3 (a) and (e) of this Rule.

CERTIFICATE OF BOX MAKER	
This is a double box	
Each box is made of double faced corrugated strawboard	
Thickness	{ outer face waterproofed..616 inch
Not less than	{ inner face.....616 inch
Resistance	{ outer face... .85 lbs. per sq. inch
(Mullen Test)	{ inner face... .65 lbs. per sq. inch
	{ Combined board.....
	{175 lbs. per sq. inch
Dimension Limit:	
Length, width and depth added....76 inches	
Gross weight limit.....90 pounds	
*.....	

* Insert box maker's name and address.

For Double Strength Boxes complying with Section 3 (a) and (f) of this Rule.

CERTIFICATE OF BOX MAKER	
This double strength box is made of double faced corrugated strawboard and single faced corrugated strawboard glued together	
Thickness of each facing not less than..613 inch	
Outer face waterproofed	
Resistance	{ Each facing..85 lbs. per sq. inch
(Mullen Test)	{ Combined board.....
	{275 lbs. per sq. inch
Dimension Limit:	
Length, width and depth added....76 inches	
Gross weight limit.....90 pounds	
*.....	

* Insert box maker's name and address.

Rule 41—Continued

For Single Ply Fibreboard or Pulpboard Wooden Frame Boxes complying with Section 4 of this Rule.

CERTIFICATE OF BOX MAKER	
This wooden frame box is made of single ply fibreboard or pulpboard, outer surface waterproofed	
Thickness not less than.....inch	
Resistance (Mullen Test).....lbs. per sq. inch	
Frame	{ strips not less than...inch by...inch
Cross	{
Cross pieces spaced not more than.....inches	
Gross weight limit.....pounds	
*.....	

* Insert box maker's name and address.

For Corrugated Strawboard Wooden Frame Boxes complying with section 5 (a), (b) and (c) of this Rule.

CERTIFICATE OF BOX MAKER	
This wooden frame box is made of double faced corrugated strawboard	
Thickness	{ outer face waterproofed...inch
Not less than	{ inner face.....inch
Resistance	{ outer face.....lbs. per sq. inch
(Mullen Test)	{ inner face.....lbs. per sq. inch
	{ combined board.....
	{lbs. per sq. inch
Frame	{ strips not less than...inch by...inch
Cross	{
Cross pieces spaced not more than.....inches	
Gross weight limit.....pounds	
*.....	

* Insert box maker's name and address.

For Three Ply or more Fibreboard or Pulpboard Wooden Frame Boxes complying with Section 5 (a), (b), (c) or (d) of this Rule.

CERTIFICATE OF BOX MAKER	
This wooden frame box is made of three ply or more fibreboard or pulpboard, outer ply waterproofed	
Thickness not less than	{ each ply.....inch
	{ combined board...inch
Resistance (Mullen Test):	
Combined Board.....lbs. per sq. inch	
Gross weight limit.....pounds	
*.....	

* Insert box maker's name and address.

Rule 41—Continued

For Double Thickness Double Faced Corrugated Strawboard Boxes with Wooden Frames complying with Section 5 (a) and (d) of this Rule.

CERTIFICATE OF BOX MAKER	
This wooden frame box is made of two thicknesses of double faced corrugated strawboard	
Each thickness	outer face waterproofed..
Not less than	.....016 inch
	inner face.....016 inch
Resistance of Each thickness (Mullen Test)	outer face..85 lbs. per sq. inch
	inner face..85 lbs. per sq. inch
	combined board.....175 lbs. per sq. inch
Gross weight limit.....	200 pounds
*.....	

* Insert box maker's name and address.

For Wirebound Fibreboard Boxes complying with Section 6 of this Rule.

CERTIFICATE OF BOX MAKER	
This wirebound fibreboard box is made of three ply or more fibreboard or pulpboard, outer ply waterproofed	
Thickness	each ply.....inch
	combined board.....inch
Resistance (Mullen Test):	Combined board.....lbs. per sq. inch
	Dimension limit:
Length, width and depth added.....inches	
End frame:	
Strips not less than.....inch by.....inch	
Binding wire.....Gauge	
Gross weight limit.....	pounds
*.....	

* Insert box maker's name and address.

For Ironbound Fibreboard Boxes complying with Section 8 of this Rule.

CERTIFICATE OF BOX MAKER	
This ironbound fibreboard box is made of three ply or more fibreboard or pulpboard, outer ply waterproofed	
Thickness	combined board.....inch
	Not less than each ply.....inch
Resistance (Mullen Test):	Combined board.....lbs. per sq. inch
	Dimension limit:
Length, width and depth added.....inches	
End frames:	
Strips not less than.....inch by.....inch	
Iron band.....gauge	
Gross weight limit.....	pounds
*.....	

* Insert box maker's name and address.

Rule 41—Continued

- Boxes to show (b) description of contents. Boxes must also show description of contents.
- Reference to Rule (c) on Shipping Orders and Bills of Lading. When shipments are tendered for transportation in Fibreboard, Pulpboard, or Double-Faced Corrugated Strawboard Boxes conforming to the requirements and specification of this Rule, the shipper must certify on shipping orders and bills of lading as follows:
- "The fibre boxes used for this shipment conform to the specifications set forth in the box maker's certificate thereon, and all other requirements of Rule 41 of Iowa Classification."
- Joint or Seam Construction of Fibreboard or Pulpboard Boxes. (a) Joints or seams of boxes, made of Fibreboard or Pulpboard as specified in Section 2 of this Rule, must be secured as follows:
- Lapped Joint or Seam Glued. (b) The sides of the box forming the joint or seam must lap not less than 1½ inches and be firmly glued together throughout the entire area of contact and when the joint or seam is over 18 inches in length a metal rivet, staple or stitch must also be placed at each end of the joint or seam; or
- Lapped Joint or Seam Stitched. (c) The sides of the box forming the joint or seam must lap not less than 1½ inches and be fastened together with metal rivets, staples or stitches not more than 3 inches apart, but when the length of the joint or seam is more than 18 inches, the metal rivets, staples or stitches must not be more than 2½ inches apart.
- Joint or Seam Construction for Strawboard Boxes. (a) Joints or seams of boxes, made of Double-Faced Corrugated Strawboard, as specified in Section 3 of this Rule, must join and be secured together by a cloth or paper sealing strip not less than 2 inches in width and having a resistance of not less than 60 pounds to the square inch, Mullen Test, extending the entire length of the joint or seam and firmly glued to the box.
- Outer Joints, Openings or Seams must be tightly closed. (a) Boxes, without wooden frames, must have all outer joints, openings or seams that are not secured as provided by Sections 10, 11 and 13 tightly closed as follows:
- Requirements and Specifications for Sealing Strips. (b) All sealing strips must be made of paper having a resistance of not less than 60 pounds to the square inch, Mullen Test, must be 2 inches or more in width, the ends must lap 2½ inches or more over the ends of the box and must be firmly glued to all surfaces with which they come in contact; and
- Glued Flaps or Sealing Strips required. (c) When the ends of the inner flaps of boxes are not more than 6 inches apart, and the ends of the outer flaps meet making a close joint or seam, or overlap 2 inches or more, all flaps must be firmly glued to each other throughout the entire area of contact; or all outer joints, openings or seams must be completely covered with sealing strips, except as provided in Section 12 (f); or
- Glued Flaps and Sealing Strips, required. (d) When the ends of the inner flaps of boxes are not more than 6 inches apart, and the ends of the outer flaps overlap less than 2 inches, all flaps must be firmly glued to each other throughout the entire area of contact and the joint or seam made by the end of the outer flap must be completely covered with a sealing strip, except as provided in Section 12 (f); or
- Glued Flaps and Sealing Strips with reinforcement or Sealing Strips with reinforcement required. (e) When the ends of the inner flaps of boxes are more than 6 inches apart, and the ends of the outer flaps meet making a close joint or seam, or overlap 2 inches or more, all flaps must be firmly glued to each other throughout the entire area of contact and each joint or seam made by the ends of the outer flaps must be completely covered with a sealing strip and then reinforced with a sealing strip placed at right angles across the middle of each joint or seam made by the ends of the outer flaps, except as provided in Section 12 (f); or
- All outer joints, openings or seams must be sealed with sealing strips and then reinforced with a sealing strip placed at right angles across the middle of each joint or seam made by the ends of the outer flaps, except as provided in Section 12 (f).

- Sealing Strips not required.
- (f) When two opposite flaps of boxes completely overlap each other and all flaps are firmly glued to each other throughout the entire area of contact sealing strips will not be required; or
- When the outer flaps of boxes meet but do not completely overlap and a liner of double-faced corrugated strawboard extending to both sides and ends of the box is placed inside the flaps, and the liner and all flaps are glued to each other throughout the entire area of contact, sealing strips will not be required; or
- When boxes are constructed with four flaps on each end and the flaps are secured by a screw and cap, the neck projecting from the inside through each flap and the cap punctured through neck so that it cannot be uncrewed, sealing strips will not be required; or
- When the ends of boxes are recessed, and a wooden frame made of strips not less than $\frac{1}{2}$ by 1 inch is set inside the recess, and the tops, bottoms and sides are encircled by metal bands fastened with nails not more than 2 inches apart driven through strap and board into the frame, sealing strips will not be required; or
- When boxes are constructed with four flaps at each end, and all flaps on the bottom of the box are fastened to each other, at or along all joints, with metal rivets, staples or stitches not more than 2 inches apart, making close joints or seams and each inner flap on the top of the box is fastened across the end to one outer flap and the outer flaps overlap each other and are fastened together by metal rivets, staples or stitches not more than 2 inches apart, sealing strips will not be required; or
- When boxes are reinforced inside with metal strips of a gauge not lighter than No. 30, U. S. Standard, having the longitudinal edge doubled over at an angle and fastened to the sides not more than 2 inches from the open ends with metal rivets, staples or stitches not more than $2\frac{1}{2}$ inches apart, and with ends reinforced with metal strips of a gauge not lighter than No. 30, U. S. Standard, having longitudinal edge doubled over at an angle and fastened to the ends with metal rivets, staples or stitches not more than $2\frac{1}{2}$ inches apart, the ends to be inserted into the open ends of the box not more than 1 inch, the metal angles on the ends and sides are to be engaged and forming a secure lock on the inside, seal strips will not be required; or
- When body of box is made of one piece with joint overlapping not less than $1\frac{1}{2}$ inches and fastened with metal rivets, staples or stitches not more than 2 inches apart, and recessed ends are fastened to body of box with metal rivets, staples or stitches not more than 2 inches apart, sealing strips will not be required; or
- On Ironbound or Wirebound Fibreboard Boxes, sealing strips will not be required.
- (g) The flaps must not project over the sides of box.
- Section 13. (a) Telescope Boxes must be securely tied with heavy cord or tape completely encircling the box at least once around the ends and once around the sides, securely knotted at each crossing; the cover must extend entirely to the bottom of the box and the top must remain perfectly flat; the cover must be sealed to the bottom of the box at opposite sides with not less than two paper seals; seals to bear identification marks to be not less than 2 by 6 inches in size and to have a resistance of not less than 60 pounds to the square inch, Mullen Test, or box may be secured with two or more metal straps, not less than No. 29 gauge and not less than $\frac{3}{8}$ inch in width encircling the box at least once around the ends and once around the sides and drawn taut to prevent slipping; the ends of straps must pass through a metal sleeve and be crimped; the straps must also be crimped at crossing or intersection.
- Flaps Must Not project Over Sides.
- Sealing and Tying Telescope Fibreboard, Pulpboard or Strawboard Boxes.

Rule 41—Continued

- Sealing and Tying two-piece Fibreboard, Pulpboard or Strawboard Boxes.
- (b) Two-Piece Boxes other than Telescope Boxes must be securely tied with heavy cord or tape completely encircling the box at least once around the ends and once around the sides, securely knotted at each crossing; the cover must be sealed to the sides of the box at opposite sides with not less than two paper seals; seals to bear identification marks, to be not less than 4 by 8 inches in size and to have a resistance of not less than 60 pounds to the square inch, Mullen Test, or the tying will not be required if the cover extends not less than three inches over the sides and ends of the box, is firmly glued to the sides and ends of the box throughout the entire area of contact and a paper sealing strip not less than 4 inches in width and having a resistance of not less than 60 pounds to the square inch, Mullen Test, completely covers and is firmly glued over all outer joints, openings or seams; or box may be secured with two or more metal straps, not less than No. 29 gauge and not less than $\frac{3}{8}$ inch in width encircling the box at least once around the ends and once around the sides and drawn taut to prevent slipping; the ends of straps must pass through a metal sleeve and be crimped; the straps must also be crimped at crossing or intersection; or
- When Two-Piece Boxes made of fibreboard or pulpboard are reinforced with a strip of fibreboard, not less than .060 of an inch in thickness, not less than $2\frac{1}{2}$ inches wide encircling box at the top and fastened with metal rivets, staples or stitches not more than 3 inches apart, the side and end flaps of the cover being not less than $2\frac{1}{2}$ inches in width and inserted between the box and reinforcing strip, box must be secured with two or more metal straps, not less than No. 29 gauge and not less than $\frac{3}{8}$ inch in width encircling the box at least once around the ends and once around the sides and drawn taut to prevent slipping; the ends of straps must pass through a metal sleeve and be crimped; the straps must also be crimped at crossing or intersection. On boxes exceeding 24 inches in length, metal straps must not be more than 12 inches apart.
- Strapping Two-piece Fibreboard or Pulpboard Boxes.
- Sealing and Tying Three-Piece Fibreboard, Pulpboard or Strawboard Boxes.
- (c) Three-Piece Boxes must be securely tied with heavy cord or tape, completely encircling the box at least once around the ends and once around the sides, securely knotted at each crossing; each cover must be sealed to the sides of the box at opposite sides with not less than two paper seals; seals to bear identification marks, to be not less than 4 by 8 inches in size and to have a resistance of not less than 60 pounds to the square inch, Mullen Test; or the tying will not be required if each cover extends not less than 3 inches over the sides and ends of the box, is firmly glued to the sides and ends of the box throughout the entire area of contact and a paper sealing strip not less than 4 inches in width and having a resistance of not less than 60 pounds to the square inch, Mullen Test, completely covers and is firmly glued over all outer joints, openings or seams.
- Gluing Triple-Slide Fibreboard or Strawboard Boxes.
- Fibreboard or Pulpboard Drums or Pails with fibreboard, pulpboard or metal tops and bottoms.
- Wooden Drum rating.
- (d) Triple-Slide Boxes must have the top and bottom of the innermost slide or both sides of the middle slide firmly glued to the outer tube of the box throughout the entire area of contact.
- Section 14. (a) Subject to the provisions of Rule 14, and unless otherwise provided in separate description of articles, when the following requirements are fully complied with, articles, except as provided in Section 14 (e):
- (b) When shipped in Fibreboard or Pulpboard Drums with fibreboard, pulpboard or metal tops and bottoms, will be rated the same as if shipped in Wooden Drums; or

Rule 41—Continued

- (c) When shipped in Fibreboard or Pulpboard Pails with fibreboard, pulpboard or metal tops and bottoms, will be rated the same as if shipped in Wooden Pails.
- (d) The cylindrical container having either diameter or height of more than 15 inches, outside measurement, will be considered a Drum. The cylindrical container having both diameter and height of 15 inches or less each, outside measurement, will be considered a Pail.
- (e) Glassware, other fragile articles, articles in glass or earthenware, liquids and articles that are not dry, will not be accepted for transportation in Fibreboard or Pulpboard Drums or Pails with fibreboard, pulpboard or metal tops and bottoms.
- (f) Fibreboard or Pulpboard used in making Fibreboard or Pulpboard Drums or Pails with fibreboard, pulpboard or metal tops and bottoms may be single ply with the outer surface waterproofed or if more than single ply must have all plies firmly glued together, the outer ply waterproofed and no single ply less than .016 of an inch in thickness; and
- (g) Fibreboard or Pulpboard forming the bodies of Fibreboard or Pulpboard Drums or Pails with fibreboard or pulpboard tops and bottoms must lap at the joint or seam not less than 2 inches and be firmly glued together throughout the entire area of contact, and the joint or seam must be reinforced between the rims of metal rivets, staple or stitches, at intervals of not more than six inches; the bottoms and tops of Drums or Pails must be made with rims 2 inches or over in depth, and overlap bodies the entire depth of rims; bottoms must be firmly glued to the bodies throughout the entire area of contact and reinforced by not less than 3 metal rivets, staples or stitches, firmly clinched on the inside; or
- The plies of fibreboard or pulpboard forming the bodies must be glued together and each ply must overlap the other so as to distribute the seams; tops and bottoms must be encircled with a metal rim extending not less than $\frac{1}{8}$ inch on bodies, tops and bottoms.
- Tops must be firmly glued to the bodies throughout the entire area of contact; or
- Tops and bodies must be fitted with metal lugs each secured by not less than 2 tubular rivets anchored to the inside of top or body with metal strips, and fastened on opposite sides by wires running through each metal lug and tightly twisted; or
- Tops must be fastened by wires crossing at right angles, ends of wires to be passed under a wire or metal hoop encircling the bodies of Drums or Pails and securely fastened.
- Tops of Fibreboard or Pulpboard Drums or Pails with fibreboard or pulpboard tops or bottoms must also be sealed to bodies of Drums or Pails at opposite sides with not less than 2 paper seals, seals to bear identification mark, to be not less than 2x6 inches in size and to have a resistance of not less than 60 pounds to the square inch, Mullen Test. Seals must extend not less than 2 inches above and below the rims and must be firmly glued throughout the entire area of contact.
- (h) Fibreboard or pulpboard, forming the bodies of Fibreboard or Pulpboard Drums or Pails with metal tops and bottoms, must be in one piece, and secured by a barbed iron or steel strip not less than U. S. standard gauge No. 22 in thickness, and not less than one inch wide, extending the entire length of the joint or seam; the barbs must be pressed through the fibreboard or pulpboard and clinched on the inside; the bodies must be securely crimped into the groove of the metal bottom and be further secured to bottom by not less than four metal rivets equal distances apart.

Rule 41—Continued

- Tops and bottoms must be made of sheet iron or steel, not less than U. S. standard gauge No. 28 in thickness, pressed to shape in one piece, with rims not less than $1\frac{1}{2}$ inches wide; surface of tops and bottoms to be counter-sunk, so as to form a groove completely around the inside of rim to receive the top or bottom edge of bodies. Edge of rims must be rolled.
- Bodies must be fitted with not less than four metal lugs or ears, each secured to the body by two or more barbs not less than $\frac{1}{4}$ inch long, anchored to the inside of Drum or Pail with metal strips.
- Fastening of Tops.** Tops must be fastened to bodies by wires passing through holes in top rim and through each metal lug and tightly twisted, the ends of not less than two such wires on opposite sides of the package must be sealed with metal seals bearing identification mark.
- (i) When the single ply or combined board in the body, bottom and top of Fibreboard or Pulpboard Drums or Pails with fibreboard or pulpboard tops and bottoms is not less than .100 of an inch in thickness, having a resistance of not less than 300 pounds to the square inch, Mullen Test, and in the rims is not less than .050 of an inch in thickness, having a resistance of not less than 175 pounds to the square inch, Mullen Test, the gross weight of the Drum or Pail and its contents shall not exceed 55 pounds; or
- When the single ply or combined board in the body, bottom and top is not less than .110 of an inch in thickness, having a resistance of not less than 375 pounds to the square inch, Mullen Test, and in the rims not less than .100 of an inch in thickness, having a resistance of not less than 250 pounds to the square inch, Mullen Test, the gross weight of the Drum or Pail and its contents shall not exceed 60 pounds; or
- When the single ply or combined board, in the body and rims is not less than .050 of an inch in thickness, having a resistance of not less than 175 pounds to the square inch, Mullen Test, and in the bottom and top is not less than .100 of an inch in thickness, having a resistance of not less than 300 pounds to the square inch, Mullen Test, and the rims of the bottom and top meet, completely covering the body, the gross weight of the Drum or Pail and its contents shall not exceed 55 pounds.
- (j) When the single ply or combined Board in the body of Fibreboard or Pulpboard Drums or Pails with metal tops and bottoms is not less than .100 of an inch in thickness, having a resistance of not less than 300 pounds to the square inch, Mullen Test, the gross weight of the Drum or Pail and its contents shall not exceed 55 pounds; or
- When the single ply or combined Board in the body is not less than .110 of an inch in thickness, having a resistance of not less than 375 pounds to the square inch, Mullen Test, the gross weight of the Drum or Pail and its contents shall not exceed 60 pounds.
- (k) Subject to the provisions of Rule 14, and unless otherwise provided in separate description of articles, when the requirements and specifications of Rule 41 are fully complied with, the freight rates on articles in Fibreboard or Pulpboard Drums or Pails with fibreboard, pulpboard or metal tops and bottoms shall be increased 20%, with a minimum increase of 2 cents per 100 pounds above the rates applicable on such articles in Drums or Pails that do comply with the requirements and specifications of Rule 41.
- (1) All Fibreboard or Pulpboard Drums or Pails with fibreboard, pulpboard or metal tops and bottoms that are made to conform to the requirements and specifications of this Rule, must bear certificate of Drum or Pail maker, labeled, printed or stamped in ink, showing that the Drums or Pails do so conform; this certificate to be not less than 2 $\frac{1}{2}$ by 4 inches, and to be a facsimile of the following in form and style of type and wording:

With Fibreboard
or Pulpboard
tops and bot-
toms.

Rule 41—Continued

CERTIFICATE OF DRUM OR PAIL MAKER

THIS ●.....IS MADE OF *.....
FIBREBOARD OR PULPBOARD, OUTER SUR-
FACE OR PLY WATERPROOFED

Thickness { top and bottominch
bodyinch
Not less than { rimsinch
each plyinch

Resistance { top and bottom...per sq. inch
(Mullen Test) bodyper sq. inch
Single ply or rimsper sq. inch
Combined board

Dimensions:
HeightInches; Diameter.....Inches
Gross weight limit.....pounds

*.....

- Insert Drum or Pail, as the case may be.
- * Insert number of plies.
- ★ Insert drum or pail maker's name and address.

With Metal Tops
and Bottoms.

CERTIFICATE OF DRUM OR PAIL MAKER

The body of this ●.....is made of *.....
Fibreboard or Pulpboard, Outer Surface or Ply
Waterproofed, with Metal Top and Bottom

Thickness bodyinch
Not less than each plyinch

Resistance of body {per sq. inch
(Mullen Test) Single ply or
Combined board

Top and bottom, iron or steel, not less than U. S.
Standard Gauge No. 28.

Side Strip, iron or steel, not less than U. S. Stand-
ard Gauge No. 22.

Dimensions:
HeightInches. Diameter.....Inches
Gross weight limit.....pounds

*.....

- Insert Drum or Pail, as the case may be.
- * Insert the number of plies.
- ★ Insert drum or pail maker's name and address.

Drums and Pails (m) Drums or Pails must also show description of con-
to show de- tents.
scription of con-
tents.

Reference to Rule (n) When shipments are tendered for transportation
on Shipping Or- in Fibreboard or Pulpboard Drums or Pails con-
ders and Bills forming to the requirements and specifications of
of Lading. this Rule, the shipper must certify on shipping or-
ders and bills of lading as follows:

"The fibreboard drums or pails used for this shipment conform to the specifications set forth in the drum or pail maker's certificate thereon, and all other requirements of Rule 41 of Iowa Classification."

Packing Require- Section 15. Articles liable to loss from sifting or leak-
ments against age must be in bags, cans or cartons or the Drum
sifting or leak- or Pail must be lined with tough paper or cloth;
age. articles must be so packed in the Drum or Pail as
to completely fill it.

Fibreboard or Section 16. (a) Unless otherwise provided, ratings on
Pulpboard Bar- articles in wooden Barrels will apply on the same
rels or Drums articles in Fibreboard or Pulpboard Barrels or
with wooden Drums, fitted with wooden hoops and with fibre-
hoops and board or pulpboard or wooden heads, provided the
fibreboard or following requirements and specifications are fully
pulpboard or complied with:
wooden heads. (b) The body of the Barrel or Drum must not exceed
20 inches in diameter nor 30 inches in height and
the fibreboard or pulpboard must be of six or more
plies firmly glued together, the outer surface water-
proofed, the combined ply to be not less than ¼
inch in thickness, having a resistance of not less
than 710 pounds to the square inch, Mullen Test,
and must be surrounded by three or more wooden
hoops not less than 2 inches in width by ¼ inch
in thickness, fastened to the body by wire staples
firmly clinched on the inside.

Rule 41—Continued

(c) The heads must be not less than ¼ inch in thick-
ness, made of wood or of six or more plies of fibre-
board or pulpboard firmly glued together, the outer
surface waterproofed. Heads must be securely held
in place by inner and outer headliners. Headliners
must be fastened to body by staples firmly clinched.

(d) The gross weight of Barrel or Drum and its con-
tents shall not exceed 300 pounds.

(e) Liquids and articles that are not dry will not be
accepted for transportation in these containers.

(f) Subject to the provisions of Rule 14, and unless
otherwise provided in separate description of arti-
cles, when the requirements and specifications of
Rule 41 are not fully complied with, the freight
rates on articles in Fibreboard or Pulpboard Bar-
rels or Drums, with wooden hoops and fibreboard
or pulpboard or wooden heads, shall be increased
20% with a minimum increase of 2 cents per one
hundred pounds, above the rate applicable on such
articles in containers that do comply with the re-
quirements and specifications of Rule 41.

(g) All Fibreboard or Pulpboard Barrels or Drums
fitted with wooden hoops and fibreboard or pulp-
board or wooden heads, that are made to conform
to the requirements and specifications of this Rule,
must bear certificate of Barrel or Drum maker,
labeled, printed or stamped in ink, showing that
the barrels or drums conform to the requirements
and specifications of this Rule; this certificate to
be not less than 2¼ by 4 inches and to be a fac-
simile of the following in form, size and style of
type and wording:

(h) All Fibreboard or Pulpboard Barrels or Drums
fitted with wooden hoops and fibreboard or pulp-
board or wooden heads, that are made to conform
to the requirements and specifications of this Rule,
must bear certificate of Barrel or Drum maker,
labeled, printed or stamped in ink, showing that
the barrels or drums conform to the requirements
and specifications of this Rule; this certificate to
be not less than 2¼ by 4 inches and to be a fac-
simile of the following in form, size and style of
type and wording:

(i) All Fibreboard or Pulpboard Barrels or Drums
fitted with wooden hoops and fibreboard or pulp-
board or wooden heads, that are made to conform
to the requirements and specifications of this Rule,
must bear certificate of Barrel or Drum maker,
labeled, printed or stamped in ink, showing that
the barrels or drums conform to the requirements
and specifications of this Rule; this certificate to
be not less than 2¼ by 4 inches and to be a fac-
simile of the following in form, size and style of
type and wording:

(j) All Fibreboard or Pulpboard Barrels or Drums
fitted with wooden hoops and fibreboard or pulp-
board or wooden heads, that are made to conform
to the requirements and specifications of this Rule,
must bear certificate of Barrel or Drum maker,
labeled, printed or stamped in ink, showing that
the barrels or drums conform to the requirements
and specifications of this Rule; this certificate to
be not less than 2¼ by 4 inches and to be a fac-
simile of the following in form, size and style of
type and wording:

(k) All Fibreboard or Pulpboard Barrels or Drums
fitted with wooden hoops and fibreboard or pulp-
board or wooden heads, that are made to conform
to the requirements and specifications of this Rule,
must bear certificate of Barrel or Drum maker,
labeled, printed or stamped in ink, showing that
the barrels or drums conform to the requirements
and specifications of this Rule; this certificate to
be not less than 2¼ by 4 inches and to be a fac-
simile of the following in form, size and style of
type and wording:

(l) All Fibreboard or Pulpboard Barrels or Drums
fitted with wooden hoops and fibreboard or pulp-
board or wooden heads, that are made to conform
to the requirements and specifications of this Rule,
must bear certificate of Barrel or Drum maker,
labeled, printed or stamped in ink, showing that
the barrels or drums conform to the requirements
and specifications of this Rule; this certificate to
be not less than 2¼ by 4 inches and to be a fac-
simile of the following in form, size and style of
type and wording:

(m) All Fibreboard or Pulpboard Barrels or Drums
fitted with wooden hoops and fibreboard or pulp-
board or wooden heads, that are made to conform
to the requirements and specifications of this Rule,
must bear certificate of Barrel or Drum maker,
labeled, printed or stamped in ink, showing that
the barrels or drums conform to the requirements
and specifications of this Rule; this certificate to
be not less than 2¼ by 4 inches and to be a fac-
simile of the following in form, size and style of
type and wording:

(n) All Fibreboard or Pulpboard Barrels or Drums
fitted with wooden hoops and fibreboard or pulp-
board or wooden heads, that are made to conform
to the requirements and specifications of this Rule,
must bear certificate of Barrel or Drum maker,
labeled, printed or stamped in ink, showing that
the barrels or drums conform to the requirements
and specifications of this Rule; this certificate to
be not less than 2¼ by 4 inches and to be a fac-
simile of the following in form, size and style of
type and wording:

(o) All Fibreboard or Pulpboard Barrels or Drums
fitted with wooden hoops and fibreboard or pulp-
board or wooden heads, that are made to conform
to the requirements and specifications of this Rule,
must bear certificate of Barrel or Drum maker,
labeled, printed or stamped in ink, showing that
the barrels or drums conform to the requirements
and specifications of this Rule; this certificate to
be not less than 2¼ by 4 inches and to be a fac-
simile of the following in form, size and style of
type and wording:

(p) All Fibreboard or Pulpboard Barrels or Drums
fitted with wooden hoops and fibreboard or pulp-
board or wooden heads, that are made to conform
to the requirements and specifications of this Rule,
must bear certificate of Barrel or Drum maker,
labeled, printed or stamped in ink, showing that
the barrels or drums conform to the requirements
and specifications of this Rule; this certificate to
be not less than 2¼ by 4 inches and to be a fac-
simile of the following in form, size and style of
type and wording:

(q) All Fibreboard or Pulpboard Barrels or Drums
fitted with wooden hoops and fibreboard or pulp-
board or wooden heads, that are made to conform
to the requirements and specifications of this Rule,
must bear certificate of Barrel or Drum maker,
labeled, printed or stamped in ink, showing that
the barrels or drums conform to the requirements
and specifications of this Rule; this certificate to
be not less than 2¼ by 4 inches and to be a fac-
simile of the following in form, size and style of
type and wording:

(r) All Fibreboard or Pulpboard Barrels or Drums
fitted with wooden hoops and fibreboard or pulp-
board or wooden heads, that are made to conform
to the requirements and specifications of this Rule,
must bear certificate of Barrel or Drum maker,
labeled, printed or stamped in ink, showing that
the barrels or drums conform to the requirements
and specifications of this Rule; this certificate to
be not less than 2¼ by 4 inches and to be a fac-
simile of the following in form, size and style of
type and wording:

(s) All Fibreboard or Pulpboard Barrels or Drums
fitted with wooden hoops and fibreboard or pulp-
board or wooden heads, that are made to conform
to the requirements and specifications of this Rule,
must bear certificate of Barrel or Drum maker,
labeled, printed or stamped in ink, showing that
the barrels or drums conform to the requirements
and specifications of this Rule; this certificate to
be not less than 2¼ by 4 inches and to be a fac-
simile of the following in form, size and style of
type and wording:

(t) All Fibreboard or Pulpboard Barrels or Drums
fitted with wooden hoops and fibreboard or pulp-
board or wooden heads, that are made to conform
to the requirements and specifications of this Rule,
must bear certificate of Barrel or Drum maker,
labeled, printed or stamped in ink, showing that
the barrels or drums conform to the requirements
and specifications of this Rule; this certificate to
be not less than 2¼ by 4 inches and to be a fac-
simile of the following in form, size and style of
type and wording:

(u) All Fibreboard or Pulpboard Barrels or Drums
fitted with wooden hoops and fibreboard or pulp-
board or wooden heads, that are made to conform
to the requirements and specifications of this Rule,
must bear certificate of Barrel or Drum maker,
labeled, printed or stamped in ink, showing that
the barrels or drums conform to the requirements
and specifications of this Rule; this certificate to
be not less than 2¼ by 4 inches and to be a fac-
simile of the following in form, size and style of
type and wording:

(v) All Fibreboard or Pulpboard Barrels or Drums
fitted with wooden hoops and fibreboard or pulp-
board or wooden heads, that are made to conform
to the requirements and specifications of this Rule,
must bear certificate of Barrel or Drum maker,
labeled, printed or stamped in ink, showing that
the barrels or drums conform to the requirements
and specifications of this Rule; this certificate to
be not less than 2¼ by 4 inches and to be a fac-
simile of the following in form, size and style of
type and wording:

(w) All Fibreboard or Pulpboard Barrels or Drums
fitted with wooden hoops and fibreboard or pulp-
board or wooden heads, that are made to conform
to the requirements and specifications of this Rule,
must bear certificate of Barrel or Drum maker,
labeled, printed or stamped in ink, showing that
the barrels or drums conform to the requirements
and specifications of this Rule; this certificate to
be not less than 2¼ by 4 inches and to be a fac-
simile of the following in form, size and style of
type and wording:

(x) All Fibreboard or Pulpboard Barrels or Drums
fitted with wooden hoops and fibreboard or pulp-
board or wooden heads, that are made to conform
to the requirements and specifications of this Rule,
must bear certificate of Barrel or Drum maker,
labeled, printed or stamped in ink, showing that
the barrels or drums conform to the requirements
and specifications of this Rule; this certificate to
be not less than 2¼ by 4 inches and to be a fac-
simile of the following in form, size and style of
type and wording:

(y) All Fibreboard or Pulpboard Barrels or Drums
fitted with wooden hoops and fibreboard or pulp-
board or wooden heads, that are made to conform
to the requirements and specifications of this Rule,
must bear certificate of Barrel or Drum maker,
labeled, printed or stamped in ink, showing that
the barrels or drums conform to the requirements
and specifications of this Rule; this certificate to
be not less than 2¼ by 4 inches and to be a fac-
simile of the following in form, size and style of
type and wording:

Rule 41—Continued

- (h) Barrels or Drums must also show description of contents.
- (i) When shipments are tendered for transportation in Fibreboard or Pulpboard Barrels or Drums conforming to the requirements and specifications of this Rule, the shipper must certify on shipping orders and bills of lading as follows:
 "The fibreboard barrels (or drums) used for this shipment conform to the specifications set forth in the barrel (or drum) maker's certificate thereon, and all other requirements of Rule 41 of the Iowa Classification."
- Section 17. (a) Unless otherwise provided, ratings on articles in wooden Barrels will apply on the same articles in Fibreboard or Pulpboard Barrels or Drums, fitted with band iron or steel end hoops, and with wooden heads, provided the following requirements and specifications are fully complied with:
- (b) The body of the Barrel or Drum must not exceed 20 inches in diameter nor 30 inches in height, and the Fibreboard or Pulpboard must be of eight or more plies firmly glued together, the outer surface waterproofed, and the body must meet the requirements of Section 17 (f);
- (c) Iron or steel hoops must be used to protect the ends of the Barrel or Drum Body and nailed to hold the heads securely in place, as required in Section 17 (d) and (f);
- (d) The heads must be not less than 7-16 inch in thickness made of one piece of wood or of two or more pieces of wood closely fitted, or of three or more plies of veneer firmly glued together cross grain. The head must be fitted into a grooved metal hoop and fastened to the body with nails of proper number and weight [see Section 17 (f)]; nails to be driven through the body and hoop into the head.
- (e) Liquids and articles that are not dry will not be accepted for transportation in these containers.
- (f) Requirements as to thickness of board, Mullen Test, maximum weight and nails;

Minimum Thickness of Body	Mullen Test, Minimum, Lbs.	Maximum Weight of Packages and Contents, Pounds	Nails Required for each head
.18 of an inch	480	90 or less	4 3-penny or heavier
.19 " " "	500	100 and over 90	4 " " " "
.20 " " "	530	125 " " 100	5 " " " "
.22 " " "	585	150 " " 125	6 " " " "
.23 " " "	600	200 " " 150	6 " " " "
.24 " " "	610	250 " " 200	8 " " " "
.26 " " "	670	275 " " 250	8 " " " "
.28 " " "	710	300 " " 275	8 " " " "
.30 " " "	785	375 " " 300	8 4-penny " " "
.32 " " "	800	400 " " 375	8 " " " "

- (g) Subject to the provisions of Rule 14, and unless otherwise provided in separate descriptions of articles, when the requirements and specifications of Rule 41 are not fully complied with the freight rates on articles in Fibreboard or Pulpboard Barrels or Drums, with band iron or steel end hoops and wooden heads, shall be increased 20%, with a minimum increase of 2 cents per one hundred pounds, above the rate applicable on such articles in containers that do comply with the requirements and specifications of Rule 41.

Rule 41—Continued

- (h) All Fibreboard or Pulpboard Barrels or Drums fitted with band iron or steel end hoops, and with wooden heads, that are made to conform to the requirements and specifications of this Rule, must bear certificate of barrel or drum maker, labeled, printed or stamped in ink, showing that the barrels or drums conform to the requirements and specifications of this Rule; this certificate to be not less than 2 3/4 by 4 inches and to be a facsimile of the following in form, size and style of type and wording:

CERTIFICATE OF BARREL OR DRUM MAKER

THIS FIBREBOARD OR PULPBOARD BARREL (OR DRUM) IS MADE OF PLYS AND FITTED WITH BAND IRON OR STEEL END HOOPS AND WOODEN HEADS

Body thickness not less than.....inch

Resistance of Body } Not less than
 (Mullen Test) } lbs. per sq. in.

Dimensions: Height.....inches. Diameter..... inches. Gross weight limit.....pounds

★.....

For Fibreboard or Pulpboard Barrels or Drums with band iron or steel end hoops and wooden heads.

- Insert number of plies.
 ★ Insert barrel or drum maker's name and address.

- Barrels or Drums to show description of contents.
- (i) Barrels or Drums must also show description of contents.
- Reference to Rule on Shipping Orders and Bills of Lading.
- (j) When shipments are tendered for transportation in Fibre-board or Pulpboard Barrels or Drums conforming to the requirements and specifications of this Rule, the shipper must certify on Shipping Orders and Bills of Lading as follows:
 "The fibreboard barrels (or drums) used for this shipment conform to the specifications set forth in the barrel (or drum) maker's certificate thereon, and all other requirements of Rule 41 of the Iowa Classification."
- Method of Test- ing.
- Section 18. In applying the Mullen Test, the resistance shall be determined as follows: All tests shall be made from both the outside and the inside and tester shall be turned at a steady speed of about one complete turn per second. In testing double-faced corrugated strawboard, the test should be made with the plate above the diaphragm firmly screwed down on the board so as to prevent its slipping.

Article No. Effective	Article	L.C.L.	C.L.
257 Nov. 20, 1917	Buttons Blanks:		
	● In single bags	2	
	● In double bags	3	
	● In barrels or boxes	3	
	▲ In packages named, C. L. min. wt. 30,000 lbs.		4
257 Nov. 20, 1917	Egg Box Stuff (wooden), in bundles or racks		4
	Egg Case Fillers (strawboard and wood or wood pulp), and Carton Egg Case Fillers, K. D., boxed or in wooden egg cases filled with egg case fillers, K. D. flat, said cases to be hardwood with ends not less than 7-16 inch in thickness, and sides, tops and bottoms not less than 7-32 inch in thickness.		B Min. Wt. 24,000 lbs.

● Increase.
 ▲ Reductions.

Index No.	Date Effective	Article	L.C.L.	C.L.
		Egg Case Fillers, K. D. boxed or in wooden egg cases filled with egg case fillers, K. D. flat, said cases to be hardwood with ends not less than 7-16 inch in thickness, and sides, tops and bottoms not less than 7-32 inch in thickness:		
		Carton	4	B Min. 24,000 lbs.
		N. O. S.	4	
		*Egg Case Flats:		
		In bundles	3	
		In boxes	4	
258	Nov. 20, 1917	Fence Posts:		
		ΔWooden	4	Lumber Tariff at
259	Nov. 20, 1917	Glass:		
		Window, other than Plate, not framed nor leaded:		
		Colored, chipped, decorated, etched, ground or sand-blasted:		
		Bent:		
		Packed in boxes	D1	
		Packed in boxes, C. L. min. wt. 30,000 lbs.	3	
		Not bent:		
		Packed in boxes	4	
		Packed in boxes, C. L. min. wt. 30,000 lbs.	5	
		Plain:		
		Bent:		
		Packed in boxes	1	
		Packed in boxes, C. L. min. wt. 30,000 lbs.	3	
		Not bent:		
		Packed in boxes	4	
		Packed in boxes, C. L. min. wt. 30,000 lbs.	5	
		Mixed carloads of two or more kinds of Window Glass, other than Plate, not framed nor leaded, packed in boxes, will be taken at the highest rating provided for carload quantities of any article in the shipment. The minimum weight shall be the highest C. L. min. wt. provided for any article in the shipment.		
260	Nov. 20, 1917	Bakery Goods:		
		Biscuits, Bread, Cakes, Crackers, Matzos, Pretzels or Toast, not otherwise specified:		
		In cartons in crates	2	
		In fibre or metal cans with glass fronts, glass protected by corrugated fibreboard or wood, or without glass fronts, in crates	2	
		In fibre or metal cans with or without glass fronts, in shipping racks,	2	
		In shipping baskets with basket work covers	1	
		In shipping baskets with solid wooden covers	2	
		In wheeled carriers, wood, fibreboard and iron or steel combined, locked ..	3	
		In barrels or boxes	3	
		In packages named, or in metal cans loose, straight or mixed C. L. min. wt. 20,000 lbs. (Subject to Rule 6-B).	4	
		Biscuit, Bread, Cracker or Matzos Dust or Meal:		
		In bags, barrels or boxes	3	
		In packages named, straight or mixed C. L. min. wt. 20,000 lbs. (Subject to Rule 6-B)	4	

*Addition.

ΔReduction.

†Changes other than reductions or increases.

Index No.	Date Effective	Article	L.C.L.	C.L.
		Bakery Goods—Continued		
		Biscuits, Bread, Cakes, Crackers, Matzos, Pretzels or Toast, not otherwise specified, and Biscuit, Bread, Cracker or Matzos Dust or Meal, in packages provided for straight carload shipments, mixed C. L., min. wt. 20,000 lbs. (Subject to Rule 6B)		4
		Bread, Stale:		
		In bags	2	
		In bags or in bulk, C. L. min. wt. 20,000 lbs. (Subject to Rule 6-B)	4	
261	Nov. 20, 1917	Type Casting or Setting Machines:		
		S. U. or K. D., in boxes or crates	1½	
		ΔS. U. or K. D., in packages named, straight or mixed C. L. min. wt. 24,000 lbs. (Subject to Rule 6-B)		A
262	Nov. 1, 1917	Amends Index 250, Supp. No. 16.		
		CLASSIFICATION OF RAILROADS AND APPLICATION OF SCHEDULE AND CLASSIFICATION THERETO.		
		CLASS "C" RAILROADS.		
		Elimination:		
		Eliminate Iowa & Omaha Short Line Railway.		
		Eliminate reference "S" from Atlantic Northern Railway Co.		
263	Nov. 20, 1917	Tallow:		
		Animal:		
		•In barrels with cloth tops	3	
		In pails or tubs	3	
		In metal cans or pails in crates	3	
		In metal cans or pails in barrels or boxes	4	
		In bulk in barrels or boxes	4	
		In packages named, C. L. min. wt. 30,000 lbs.	5	
		In tank cars, C. L. actual weight (Subject to Rule 33)	5	
		*Vegetable:		
		In bales	3	
		In bales, C. L. min. wt. 30,000 lbs.	5	
264	Nov. 20, 1917	Vehicles, Parts of:		
		Automobile Bodies (See Note):		
		Passenger, finished or in the white:		
		Boxed or crated	311	
		ΔC. L. min. wt. 10,000 lbs. (Subject to Rule 6-B)		1
		Note: Same crating requirements as apply to crated vehicles.		
265	Nov. 20, 1917	*Buttons:		
		ΔIn boxes or double bags	1	
266	Nov. 20, 1917	Chains:		
		Automobile Tire:		
		In barrels or boxes	3	
267	Nov. 20, 1917	*Combined Air and Water Service Machines, with or without coin slot, small parts detached and boxed:		
		In boxes or crates	1	
268	Nov. 20, 1917	*Exhaust Pots or Mufflers, Gas Engine, Iron or steel:		
		Cast:		
		Weighting each less than 50 lbs., wrapped	1	
		Weighting each 50 lbs. or over, loose or wrapped	2	
		In barrels, boxes or crates	3	
		†Changes other than reductions or increases.		
		ΔReductions.		
		•Increase.		
		*Addition.		

Index No.	Date Effective	Article	L.C.L.	C.L.
		Exhaust Pots or mufflers, Gas Engines, iron or steel—Continued		
		Cast and plate or sheet combined:		
		Weighing each less than 50 lbs. wrapped	1½	
		Weighing each 50 lbs. or over, loose or wrapped	1	
		In barrels, boxes or crates	2	
		Cast and cast and plate or sheet combined, loose or in packages, straight or mixed C. L., min. wt. 30,000 lbs.		A
269	Nov. 20, 1917	*Green Salted Hams, C. L., min. wt. 26,000 lbs.		5
270	Nov. 20, 1917	*Radiators:		
		Engine Cooling:		
		In boxes or crates	1	
		In packages named, C. L., min. wt. 30,900 lbs.		4
271	Nov. 20, 1917	Springs, not otherwise specified:		
		Iron or steel, other than wire:		
		Elliptic or Semi-Elliptic:		
		Motor Vehicle:		
		Loose or in packages	2	
		Loose or in packages, C. L., min. wt. 26,000 lbs.		5
272	Nov. 20, 1917	*Tractor Attachments for Automobiles:		
		S. U., loose, small parts in boxes	1	
		K. D., loose or in packages, small parts in boxes	2	
		Loose or in packages named, C. L., min. wt. 24,000 lbs. (Subject to Rule 6-B) ..		A
273	Nov. 20, 1917	Vehicle Parts:		
		Automobile Parts:		
		*Axle Housings, iron or steel, unfinished:		
		Loose or in packages	3	
		Loose or in packages, C. L., min. wt. 36,000 lbs.		5
274	Nov. 20, 1917	Axles:		
		With attachments:		
		Loose	1½	
		In boxes or crates	1	
		Loose or in packages, C. L., min. wt. 30,000 lbs.		4
		Without attachments:		
		Loose or in packages	2	
		Loose or in packages, C. L., min. wt. 26,000 lbs.		A
275	Nov. 20, 1917	*Brake Drums:		
		Loose or in packages	3	
		Loose or in packages, C. L., min. wt. 36,000 lbs.		A
276	Nov. 20, 1917	*Bumper Guards or Bumper Rails:		
		In boxes, bundles or crates	2	
		In packages named, C. L., min. wt. 36,000 lbs.		4
277	Nov. 20, 1917	Dashes:		
		Iron or steel, unfinished:		
		Flat or nested, in boxes or crates ..	2	
		Loose or in packages, C. L., min. wt. 30,000 lbs.		A
		Iron or steel, finished, or wooden, with or without Steering Gear attached, or with or without equipment of transmission coils:		
		In boxes or crates	D1	
		In packages named, C. L., min. wt. 24,000 lbs. (Subject to Rule 6-B) ..		3

*Addition.
 ΔReduction.

Index No.	Date Effective	Article	L.C.L.	C.L.
		Vehicle Parts—Continued		
		Automobile Parts—Continued		
278	Nov. 20, 1917	*Doors:		
		Finished, in boxes or crates	1	
		Not finished, in boxes or crates	2	
		Loose or in packages, C. L., min. wt. 24,000 lbs. (Subject to Rule 6-B) ..		4
279	Nov. 20, 1917	*Engine Hoods:		
		Not nested, in boxes, bundles or crates	1	
		Nested, in boxes, bundles or crates ..	2	
		Loose or in packages, C. L., min. wt. 30,000 lbs.		4
280	Nov. 20, 1917	*Fenders (Mud Guards), Running Boards or Running Board Shields:		
		Not flat nor nested:		
		In boxes, bundles or crates	D1	
		In packages named, C. L., min. wt. 10,000 lbs. (Subject to Rule 6-B) ..		2
		Flat or nested:		
		In boxes, bundles or crates	2	
		In packages named, C. L., min. wt. 30,000 lbs.		4
281	Nov. 20, 1917	ΔTops:		
		S. U., in boxes or crates	3½	
		K. D. flat or folded flat:		
		Wrapped	D1	
		In boxes or crates	1½	
		In packages named, C. L., min. wt. 10,000 lbs. (Subject to Rule 6-B) ..		1
282	Nov. 20, 1917	*Gear Frames, without attachments:		
		Loose or in packages	1	
		Loose or in packages, C. L., min. wt. 16,000 lbs. (Subject to Rule 6-B) ..		3
283	Nov. 20, 1917	*Gear Frame Side Bars:		
		Loose or in packages	3	
		Loose or in packages, C. L., min. wt. 36,000 lbs.		4
284	Nov. 20, 1917	*Instrument Boards, wooden, in boxes or crates		1
285	Nov. 20, 1917	ΔLamps and Fixtures:		
		In barrels or boxes	1	
		In packages named, C. L., min. wt. 16,000 lbs. (Subject to Rule 6-B) ..		2
286	Nov. 20, 1917	*Shock Absorbers:		
		In barrels or boxes	1	
		In barrels or boxes C. L., min. wt. 30,000 lbs.		4
288	Nov. 20, 1917	*Steering Wheel Rims, in boxes or crates		1
289	Nov. 20, 1917	*Steering Wheels:		
		In boxes or crates	1	
		In packages named C. L., min. wt. 16,000 lbs. (Subject to Rule 6-B) ..		2
290	Nov. 20, 1917	*Trunk Racks, in boxes, bundles or crates		2
291	Nov. 20, 1917	ΔWheel Flanges, Wheel Rims or side or locking Wheel Rings, iron or steel:		
		Weighing each less than 25 lbs. loose, or in bundles weighing less than 25 lbs.	1	
		Weighing each 25 lbs. or over, loose, or in bundles weighing 25 lbs. or over	2	
		In barrels, boxes or crates	D2	
		Loose or in packages named, C. L., min. wt. 30,000 lbs.		5

*Addition.
 ΔReduction.

Index No.	Date Effective	Article	L.C.L.	C.L.
		Vehicle Parts—Continued		
		Automobile Parts—Continued		
		Wheels:		
		*Weighing each 200 lbs. or over, with drums, gears, motors, sprockets or rubber tires attached or without drums, gears, motors, sprockets or rubber tires:		
		Loose or in packages	1	
		Loose or in packages, C. L., min. wt. 30,000 lbs.		3
		Weighing each less than 200 lbs.:		
		*Rubber tired:		
		Finished, wrapped, or in boxes or crates	D1	
		In the white, loose or in packages	1½	
		Loose or in packages, C. L., min. 30,000 lbs.		3
		Without rubber tires:		
		Finished, wrapped, or in boxes or crates	1½	
		Aln the white, loose or in packages	1	
		Loose or in packages, C. L., min. wt. 30,000 lbs.		A
293	Nov. 20, 1917	*Wind Shields:		
		In crates	D1	
		In boxes	1	
		In packages named C. L., min. wt. 20,000 lbs. (Subject to Rule 6-B)		3
294	Nov. 20, 1917	*Wind Shield Frames:		
		In crates	1½	
		In boxes	1	
		Loose or in packages C. L., min. wt. 20,000 lbs. (Subject to Rule 6-B)		3
295	Nov. 20, 1917	*Wrecking Trucks, loose or in packages.	1	
296	Nov. 20, 1917	ΔAutomobile parts, not otherwise specified:		
		Aluminum, brass, bronze or copper:		
		In barrels, boxes or crates	1	
		In packages named, C. L., min. wt. 24,000 lbs. (Subject to Rule 6-B)		3
		Babbitt metal or white metal alloy:		
		In barrels, boxes or crates	1	
		Loose or in packages, C. L., min. wt. 24,000 lbs. (Subject to Rule 6-B)		3
		Iron or steel:		
		In barrels, boxes or crates	2	
		Loose or in packages, C. L., min. wt. 30,000 lbs. (Subject to Rule 6-B)		A
297	Nov. 20, 1917	*Mixed carloads of two or more articles as specified under Automobile Parts; loose or in packages as provided for straight C. L. shipments, will be taken at the highest rating provided for the carload quantities of any article in the shipment. The minimum weight shall be the highest carload minimum weight provided for any article in the shipment.		
298	Nov. 20, 1917	*Mixed carloads of one or more articles as specified under Automobile Parts; loose or in packages as provided for straight carload shipments and Engine Cooling Radiators; Gas Engine Exhaust Ports or Mufflers, Iron or steel, or Motor Vehicle Springs, Elliptic or Semi-Elliptic, loose or in packages as provided for straight C. L. shipments, will be taken at the highest rating, provided for carload quantities of any article in the ship-		

*Addition.
ΔReduction.

Index No.	Date Effective	Article	L.C.L.	C.L.
		Vehicle Parts—Continued		
		Automobile Parts—Continued		
		ment. The minimum weight shall be in the highest carload minimum weight provided for any article in the shipment.		
299	Nov. 20, 1917	Brick (Item No. 54), C. L.:		
		Item 4-A cancels		
		Item 4, page 163 of Schedule and Classification; also Index Nos. 96 and 121, Supp. No. 16.		
		Brick (except Bath and Enameled).		
		ΔBlocks (Cement, Concrete, Artificial Stone), Building or Paving, Plain or Ornamental.		
		Blocks (Segment Sewer).		
		Blocks (Solid Building).		
		Clay Conduits.		
		Cresosoted Paving Blocks.		
		Drain Tile.		
		Ground Ganister.		
		Hollow Building Tile.		
		Fire Clay Tile (not glazed or enameled).		
		Fire Clay, in straight carloads, or mixed with Fire Brick.		
		Tank Tile or Blocks	} Straight C. L. or mixed with Fire Brick and	
		Furnace Tile or Blocks		
		Fire Clay Paving Blocks	Fire Clay	
		ΔSlabs (Concrete or Cement, Reinforced), Building or Roofing.		
		Minimum weight 50,000 pounds except as follows:		
		Exceptions:		
		Where for carrier's convenience a car of less than 50,000 pounds capacity is furnished, the marked capacity of the car will be the minimum weight.		
		Drain Tile in straight carloads, minimum weight 30,000 lbs.		
		Hollow Building Tile in straight carloads, minimum weight 40,000 lbs.		
		Soft coal which has been passed through a bar screen not exceeding one and one-half (1½) inches between bars, or its equivalent, a two (2) inch mesh or a two (2) inch round perforation, will be classed as pea or slack.		
300	Nov. 20, 1917	Item 8-A cancels		
		Item 8, page 163 of Schedule and Classification.		
301	Nov. 20, 1917	Item 13-A cancels		
		Item 13, page 170 of Schedule and Classification.		
		Hogs (Item No. 70) C. L.		
		Single Deck: In single deck cars minimum carload weight 16,000 lbs., except when cars of smaller dimensions than 36 feet long, inside measurement, are furnished, the minimum carload weight shall be 15,000 lbs.		
		Double Deck: In double deck cars when both decks are used, minimum weights will be as follows:		
		Length of cars, inside measurement:		
			Min. wt.	
		Not over 36 feet 7 inches	Lbs.	22,000
		Over 36 feet 7 inches and not over 40 feet 6 inches		24,000
		Over 40 feet 6 inches		26,000
302	Nov. 20, 1917	Heading of Item No. 70, pages 171 and 183 of Schedule and Classification.		
		Amends Item 70, pages 171 and 183 of Schedule and Classification.		
		Change to read:		
		{Hogs C. L. (See Item 18).		
303	Nov. 20, 1917	Heading of Index 23, Supp. No. 16 now reads:		
		Sash, Doors and Blinds (Item No. 63), C. L."		
		Correct to read:		
		Sash, Doors and blinds (Item No. 62), C. L.:		
		ΔReduction.		*Additions.
		†Changes other than reduction or increase.		

SUPPLEMENT NO. 20 IOWA CLASSIFICATION

On October 23, 1917 the Commission directed the Secretary to prepare a supplement to Iowa Classification No. 15 and embody therein a suspension of the order of the Board in the matter of transfer charges on the L. C. L. shipments at junction points. Said supplement to be known as Supplement No. 20 to Iowa Classification No. 15 dated October 23, 1917.

In accordance with the above instructions the following supplement was prepared, promulgated and published as provided by law.

Supplement No. 20 suspends Supplement No. 18 and Index 254 of Supplement No. 19.

SUPPLEMENTS NOS. 16, 19 AND 20 IN EFFECT AND CONTAIN ALL CHANGES TO IOWA CLASSIFICATION NO. 15, AND SCHEDULE OF REASONABLE MAXIMUM RATES OF CHARGES FOR THE TRANSPORTATION OF FREIGHT AND CARS.

SUSPENSION NOTICE

Cases B-721 and B-746

TRANSFER CHARGES FOR LESS THAN CARLOAD SHIPMENTS.

Upon application of the carriers operating in the State of Iowa, the order of the Commission in the above cases, shown in Index No. 254, Supplements No. 18 and 19, to Iowa Classification No. 15, is hereby suspended from taking effect on November 1, 1917, as provided by said Supplements, and will not take effect until further order of the Commission.

By Order of the Board of Railroad Commissioners of the State of Iowa,
GEO. L. McCAUGHAN, Secretary.

Dated at Des Moines Iowa, October 23, 1917.

SUPPLEMENT NO. 21 IOWA CLASSIFICATION

On November 8, 1917 the Commission directed the Secretary to prepare a supplement to Iowa Classification No 15 for the purpose of correcting certain errors and omissions in Supplement No. 19 to Iowa Classification No. 15 such supplement to be known as Supplement No. 21 to Iowa Classification No. 15 dated November 8, 1917 effective November 20, 1917.

In accordance with the above instructions the following supplement was prepared, promulgated and published as provided by law.

BOARD OF RAILROAD COMMISSIONERS OF THE STATE OF IOWA,
SUPPLEMENT NO. 21,

SUPPLEMENTS NOS. 16, 19, 20 AND 21 IN EFFECT AND CONTAIN ALL CHANGES TO IOWA CLASSIFICATION NO. 15 AND SCHEDULE OF REASONABLE MAXIMUM RATES OF CHARGES FOR THE TRANSPORTATION OF FREIGHT AND CARS.

No.	Effective	ARTICLE.
304	Nov. 20, 1917	Cracker can crates may be shipped in mixed carloads with Biscuits, Bread, Cakes, Crackers, Matzos, Pretzels or Toast, not otherwise specified, in packages named in Index 260, page 26 of Supplement No. 19 to Iowa Classification 15, or in metal cans loose, subject to Rule 21-B, at 4th Class; minimum weight 20,000 pounds.
255	Nov. 20, 1917	Change fine print to read, "Cancel Index No. 57, Supplement 16, which cancelled Rule 14-B, page 5 of Classification."

By Order of the Board of Railroad Commissioners of the State of Iowa,
GEO. L. McCAUGHAN, Secretary.

Dated at Des Moines, Iowa, November 8, 1917.

GENERAL CASES CLOSED BY CORRESPONDENCE

No. 8302, 1917.

Delaware County Telephone Company, v. Electric Service Company, Central City, Iowa. Electrical interference between high tension transmission line and telephone line.

This complaint was disposed of by a decision in the matter of electrical interference between high tension, telegraph and telephone lines, adopted by the Commission December 30, 1916, which decision is reported fully on page eleven, of this report. Filed January 19, 1916. Closed May 8, 1917.

No. 8303, 1917.

Iowa Electric Company, Cedar Rapids, Iowa. Application for transmission line franchise in Iowa County.

Hearing was held upon the above application October 26, 1915, at which time objections were entered by George W. Danskin. On October 18, 1917, the Commission directed that the application be dismissed without prejudice. Filed September 16, 1915. Closed October 18, 1917.

No. 8304, 1917.

Application of the Iowa Railway & Light Company, Cedar Rapids, Iowa, for transmission line franchise in Benton County.

On June 27, 1916, the Board held hearing in the above application for franchise to construct an electrical transmission line. At this hearing it developed that there were some objections to granting of franchise and the Board withheld decision in order to give the objectors and the applicant opportunity to adjust their differences. The applicant advised that it had been impossible to reach an agreement with the objectors and asked that the application be dismissed. Filed June 13, 1916. Closed November 30, 1917.

No. 8305, 1917.

Mutual Telephone Company, Traer, Iowa, v. Iowa Railway and Light Company, Cedar Rapids, Iowa.

Objections to transmission line from Reinbeck, Iowa, to Berlin, Iowa. Adjusted by mutual agreement between the parties involved. Filed January 17, 1916. Closed September 17, 1917.

No. 8306, 1917.

Commonwealth Utilities Company, Mankato, Minnesota. Application for transmission line franchise in Emmett, Kossuth and Palo Alto Counties.

On June 5, 1917, the above application for franchise to construct an electric transmission line came on for hearing, at which time it developed there were several objectors to the granting of the franchise. The case was continued for further hearing to July 10, 1917, in order to give the applicant and objectors an opportunity to adjust their differences. Before

the date set for the second hearing, the application was withdrawn at the request of the applicant. Filed March 22, 1917. Closed July 9, 1917.

No. 8307, 1917.

Commonwealth Utilities Company, Mankato, Minnesota. Application for transmission line franchise in Kossuth County.

On June 5, 1917, the Board held hearing on the above application for franchise to construct an electric transmission line in Kossuth County. Hearing developed the fact that franchise in this case had already been granted by the Board of Supervisors of Kossuth County, and that the line had already been constructed. It was the intention of the applicant to have this line come under the jurisdiction of the Board of Railroad Commissioners. Inasmuch as the applicant had filed the consent provided for by Chapter 174, Acts of the 35th General Assembly in connection with other applications, the Commission ruled that this line would legally come under the jurisdiction of the Commission and no action was required on the part of the Board. Filed March 22, 1917. Closed June 5, 1917.

No. 8308, 1917.

Chicago, Rock Island & Pacific Railway Company, v. W. T. O. Rule, Hampton, Iowa. Condemnation in Franklin County.

On September 7, 1916, the Commission held hearing in the above case, but before certificate of authority to condemn was issued, the Board was advised that the matter had been adjusted between the parties involved and the case was therefore dismissed without prejudice. Filed December 21, 1916. Closed October 18, 1917.

No. 8309, 1917.

Chicago, Burlington & Quincy Railroad Company, v. Mary A. Murphy, et al., Clinton, Iowa. Condemnation in Clinton County.

Before date was named for hearing in the above case the application was withdrawn by the petitioner. Filed February 24, 1917. Closed April 5, 1917.

No. 8310, 1917.

W. A. Thomas, Danville, Iowa, v. Chicago, Burlington & Quincy R. R. Co. *Bell at Crossing.*

Closed without prejudice Filed June 17, 1914. Closed July 24, 1917.

No. 8311, 1917.

Carter & Bracewell, et al., Corydon, Iowa, v. Chicago, Burlington & Quincy R. R. Co. *Crossing.*

This was handled jointly by the Railroad Commission and the Iowa State Highway Commission and adjustment made which was satisfactory to the complainants. Filed August 6, 1914. Closed April 9, 1917.

No. 8312, 1917.

C. H. Cook, et al., Salem, Iowa, v. Chicago, Burlington & Quincy R. R. Co. *Additional Train Service: Keokuk to Mt. Pleasant.*

Referred to the Commerce Counsel who returned the papers with the recommendation that the case be dismissed without prejudice. Filed November 14, 1914. Closed February 14, 1917.

No. 8313, 1917.

J. L. Hyland, Osceola, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Crossing, Highway.*

The complainant failed to reply to letters from the Board asking whether formal hearing was desired and case was dismissed without prejudice. Filed April 29, 1915. Closed May 1, 1917.

No. 8314, 1917.

Shenandoah Commercial Ass'n., by Earl R. Ferguson, Shenandoah, Iowa, v. Wabash Railway Co. *Passengers on Freight Trains.*

Railroad Company installed service requested. Filed May 19, 1915. Closed July 17, 1917.

No. 8315, 1917.

J. H. Darrah, et al., Chariton, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Highway Crossing.*

Adjusted by agreement between complainant and Railroad Company. Filed June 3, 1915. Closed May 1, 1917.

No. 8316, 1917.

C. E. Purdy, Mayor, Independence, Iowa, v. Illinois Central R. R. Co. *Public Crossing.*

Electric crossing bells installed. Filed August 4, 1915. Closed April 5, 1917.

No. 8317, 1917.

City Council of City of Independence, Iowa, v. Illinois Central R. R. Co. *Gates.*

Railroad Company installed electric crossing bells. Filed August 11, 1915. Closed April 5, 1917.

No. 8318, 1917.

Board of Supervisors of Polk County, Des Moines, Iowa, v. Chicago, Rock Island & Pacific Ry. Co. *Dangerous Crossing.*

Dismissed without prejudice. Filed August 30, 1915. Closed March 28, 1917.

No. 8319, 1917.

Board of Supervisors of Polk County, Des Moines, Iowa, v. Chicago, Rock Island & Pacific Ry. Co. *Dangerous Crossing.*

Dismissed without prejudice. Filed August 30, 1915. Closed March 28, 1917.

No. 8320, 1917.

Board of Supervisors of Polk County, Des Moines, Iowa, v. Chicago Great Western R. R. Co. *Inadequate Railroad Bridge.*

Dismissed without prejudice. Filed August 30, 1915. Closed March 28, 1917.

No. 8321, 1917.

Board of Supervisors of Polk County, Des Moines, Iowa, v. Chicago, Burlington & Quincy R. R. Co. *Dangerous Crossing.*

Dismissed without prejudice. Filed August 30, 1915. Closed March 29, 1917.

No. 8322, 1917.

Board of Supervisors of Polk County, Des Moines, Iowa, v. Chicago, Burlington & Quincy R. R. Co. *Dangerous Crossing.*

Dismissed without prejudice. Filed August 30, 1915. Closed March 29, 1917.

No. 8323, 1917.

W. M. Sharpnack & Co., Modale, Iowa, v. Chicago & North Western Ry. Co. *Elevator Site.*

This case was referred to the Commerce Counsel and hearing held, but before decision was rendered the railway company furnished site for the complainant's elevator. Filed October 6, 1915. Closed November 2, 1917.

No. 8324, 1917.

G. F. Kane, Anthon, Iowa, v. Illinois Central R. R. Co. *Crossing and Sidewalk.*

Referred to the Commerce Counsel who returned all papers with the recommendation that the case be dismissed without prejudice. Filed October 27, 1915. Closed August 10, 1917.

No. 8325, 1917.

Central Trust Company of Illinois, Chicago, Ill. v. Chicago, Anamosa & Northern Railway Company. *Abandonment of Line.*

This complaint was filed with the Commission regarding the petition then pending in the United States District Court for the Northern District of Iowa, in which the receiver of the Chicago, Anamosa & Northern Railway Company asked for an order to abandon the operation of the line. The matter was referred to the Commerce Counsel who represented the Commission at the hearing before the Federal Court. The matter was finally settled by an order of the United States Court for the Northern District of Iowa, directing that the operation of the road be suspended and that the property be sold. Subsequently the road was sold, dismantled and the tracks torn up. See also report of the Commerce Counsel, 39 Ann. Rep. Ia. Ry. Com. 202. Filed November 9, 1915. Closed December 16, 1916.

No. 8326, 1917.

W. B. Egbert, Town Clerk, Estherville, Iowa, v. Minneapolis & St. Louis Railroad Company. *Overhead Highway Crossing.*

This matter was set for hearing and was duly heard by the Commission on March 2, 1916. Before decision was rendered the Commission was advised that negotiations were pending looking to a satisfactory adjustment of the matter. Later the Board was advised that the matter had been satisfactorily adjusted and the files were closed. Filed November 19, 1915. Closed January 15, 1917.

No. 8327, 1917.

Paul C. Woods, Sheldon, Iowa, v. Chicago, St. Paul, Minneapolis & Omaha Ry. Co. *Interline Switching Facilities.*

Referred to Commerce Counsel who returned papers with the advice that the matter had been adjusted. Filed November 27, 1915. Closed August 10, 1917.

No. 8328, 1917.

Malvern Cold Storage Company, Malvern, Iowa, v. Chicago, Rock Island & Pacific Ry. Co. *Peddler Cars.*

Dismissed without prejudice. Filed December 13, 1915. Closed March 28, 1917.

No. 8329, 1917.

J. W. Hughes, Spring Hill, Iowa, v. Chicago, Rock Island & Pacific Ry. Co. *Telephone in Depot.*

Referred to Commerce Counsel who advised that the matter had been adjusted. Filed December 17, 1915. Closed February 14, 1917.

No. 8330, 1917.

Inspection of New Sharon Branch of Minneapolis & St. Louis Railroad. Inspection made and report rendered. For full text of report see files in this case. Filed December 29, 1915. Closed August 23, 1917.

No. 8331, 1917.

Western Grocer Company, Marshalltown, Iowa, v. Chicago Great Western Railroad Company, et al. *Passengers on Freight Trains.*

Dismissed without prejudice. Filed February 1, 1916. Closed December 11, 1917.

No. 8332, 1917.

Garfield E. Breese, Mason City, Iowa, v. Chicago & North Western Ry. Co. *Viaduct.*

Hearing held, but action indefinitely deferred at request of all parties. Filed February 14, 1916. Closed April 12, 1917.

No. 8333, 1917.

Ratekin's Seed Co., Shenandoah, Iowa, v. Chicago, Burlington & Quincy Railroad Co. *Switching.*

Service improved. Filed March 2, 1916. Closed January 20, 1917.

No. 8334, 1917.

F. P. DeVaul, Rolfe, Iowa, v. Chicago & North Western Ry. Co. *Farm Crossing.*

Referred to Commerce Counsel who returned papers with the advice that the matter had been satisfactorily adjusted. Filed March 20, 1916. Closed February 17, 1917.

No. 8335, 1917.

H. E. Slack, Carlisle, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Obstruction in Right of Way.*

The Railway Company removed the obstruction, which was a pile trestle over the highway, and constructed a steel bridge over the same, which was satisfactory to the complainant. Filed April 8, 1916. Closed October 16, 1917.

No. 8336, 1917.

V. A. Arnold, et al., Spirit Lake, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Drainage.*

Dismissed without prejudice. Filed May 1, 1916. Closed December 1, 1917.

No. 8337, 1917.

H. C. Hanson and C. A. Baker, Centerville, Iowa, v. Chicago, Burlington & Quincy Railroad Co. *Drainage*.

Railway company advised that clear span steel bridge would be constructed and the complaint was dismissed without prejudice. Filed May 4, 1916. Closed September 13, 1917.

No. 8338, 1917.

Edward Keenan, Ruthven, Iowa, v. Chicago, Milwaukee & St. Paul Ry. Co. *Open Crossing*.

Crossing installed. Filed May 16, 1916. Closed March 2, 1917.

No. 8339, 1917.

The River Sioux Farmers' Elevator Co., River Sioux, Iowa, v. Chicago & North Western Ry. Co. *Elevator Site*.

Case referred to Commerce Counsel and hearing held. Before decision was rendered, Commerce Counsel recommended that the case be closed as the matter had been satisfactorily adjusted. Filed June 1, 1916. Closed July 23, 1917.

No. 8340, 1917.

J. B. Hart, by Earl Edmunds, Correctionville, Iowa, v. Chicago & North Western Ry. Co. *Drainage*.

Dismissed at request of complainant. Filed June 9, 1917. Closed September 17, 1917.

No. 8341, 1917.

Citizens of Kellogg, Kellogg, Iowa, v. Chicago, Rock Island & Pacific Ry. Co. *Dangerous Crossing*.

Referred to Commerce Counsel and dismissed upon his recommendation. Filed June 22, 1916. Closed March 2, 1917.

No. 8342, 1917.

D. J. Knouf, Orillia, Iowa, v. Chicago Great Western Railroad Company. *Farm Crossing*.

This complaint was referred to the Commerce Counsel who after an investigation returned the file with the request that the complaint be dismissed without prejudice. Filed April 25, 1914. Closed November 19, 1917.

No. 8343, 1917.

Chicago, Rock Island & Pacific Ry. Co., by F. W. Sargent, Attorney for Iowa, Des Moines, Iowa, v. Farmers Mutual Telephone Co., Center Point, Iowa. *Law; Wire Over Tracks*.

Telephone company notified to comply with rules of the Commission regarding wires over railroad tracks. Filed June 24, 1916. Closed March 2, 1917.

No. 8344, 1917.

D. H. Rickerd, Mayor, Pleasant Plain, Iowa, v. Chicago, Rock Island & Pacific Ry. Co. *Dangerous Condition of Sidewalk*.

Dismissed without prejudice. Filed June 8, 1916. Closed March 2, 1917.

No. 8345, 1917.

Buffalo Center Commercial Club, Buffalo Center, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Station Facilities*.

This matter was referred to the Commerce Counsel who returned the file with the recommendation that the matter be indefinitely postponed and the case was dismissed without prejudice. Filed July 17, 1916. Closed October 29, 1917.

No. 8346, 1917.

O. G. Kolsrud, Mayor, et al., Waterville, Iowa, v. Chicago Milwaukee & St. Paul Ry. Co. *Inadequate Freight Facilities at Waterville, Iowa*.

Facilities improved to satisfaction of complainant. Filed July 15, 1915. Closed March 2, 1917.

No. 8347, 1917.

Irvin L. Carter, et al., Percy, Iowa, v. Wabash Railway Co. *Bell at Bentington Crossing*.

Electric crossing bell installed. Filed August 24, 1916. Closed March 2, 1917.

No. 8348, 1917.

J. A. Turner, Mayor, Albion, Iowa, v. Minneapolis & St. Louis R. R. Co. *Installation of Electric Lights in Depot and on Platform*.

Referred to Commerce Counsel who returned the papers with the advice that the matter had been adjusted. Filed August 25, 1916. Closed August 2, 1917.

No. 8349, 1917.

Citizens of Atalissa, Atalissa, Iowa, v. Chicago, Rock Island & Pacific Ry. Co. *Inadequate Train Service*.

Service improved. Filed August 29, 1916. Closed January 4, 1917.

No. 8350, 1917.

Adel Clay Products Co., Adel, Iowa, v. Chicago, Milwaukee & St. Paul Ry. Co. *Car Shortage*.

Referred to Commerce Counsel who returned papers with the advice that conditions had been improved. Filed September 12, 1916. Closed November 2, 1917.

No. 8351, 1917.

Ivan I. Meyer, Tripoli, Iowa, v. Chicago Great Western R. R. Co. *Inadequate Train Service on Sunday*.

Referred to Commerce Counsel and dismissed upon his recommendation. Filed September 22, 1916. Closed August 7, 1917.

No. 8352, 1917.

J. J. Gifford, East Peru, Iowa, v. Chicago Great Western R. R. Co. *Hog Tight Fence*.

Fence constructed. Filed September 25, 1916. Closed January 4, 1917.

No. 8353, 1917.

J. J. O'Brien, et al., Consol, Iowa, v. Chicago & North Western Ry. Co. *Agent*.

Dismissed at request of Commerce Counsel to whom the complaint had been referred. Filed October 2, 1916. Closed March 5, 1917.

No. 8354, 1917.

Wasem Plaster Company, Ft. Dodge, Iowa, v. Ft. Dodge, Des Moines & Southern R. R. Co. *Discrimination in Furnishing Cars.*

Investigation developed that there had been no discrimination. Filed October 9, 1916. Closed March 2, 1917.

No. 8355, 1917.

Homer Templeton, Fernald, Iowa, v. Chicago, Rock Island & Pacific Ry. Co. *Bad Condition of Stock Yards, etc.*

Railway Company remedied conditions complained of. Filed October 10, 1916. Closed March 2, 1917.

No. 8356, 1917.

Lehigh Clay Products Co., Lehigh, Iowa, v. Chicago Great Western Railroad Co. *Car Discrimination.*

Complainant failed to reply to letters from the Board and the complaint was dismissed without prejudice. Filed October 12, 1916. Closed March 2, 1917.

No. 8357, 1917.

A. Corzatt, Carlisle, Iowa, v. Chicago, Rock Island & Pacific Ry. Co. *Condition Stock Scales.*

Scales repaired by railway company. Filed October 20, 1916. Closed March 2, 1917.

No. 8358, 1917.

Edmonds-Londergan Co., Marcus, Iowa, v. Illinois Central R. R. Co. *Car Shortage.*

Investigation developed that complainants had been furnished their proper share of available empty cars and the case was closed. Filed October 23, 1916. Closed March 2, 1917.

No. 8359, 1917.

Chas. Hayes, Hayesville, Iowa, v. Chicago, Milwaukee & St. Paul Ry. Co. *Delay in Shipments.*

Railway Company advised that steps had been taken to prevent further delay and the case was closed. Filed October 25, 1916. Closed March 2, 1917.

No. 8360, 1917.

George M. Fox, Dallas Center, Iowa, v. Minneapolis & St. Louis Railroad Company. *Farm Crossing.*

This complaint was referred to the Commerce Counsel who after investigation returned the file with the request that the same be dismissed without prejudice. Filed October 25, 1916. Closed November 22, 1917.

No. 8361, 1917.

H. E. Coddin, Dallas Center, Iowa, v. Minneapolis & St. Louis R. R. Co. *Hog Tight Fence.*

Fence constructed. Filed October 27, 1916. Closed March 2, 1917.

No. 8362, 1917.

B. F. Fereday, Oelwein, Iowa, v. Chicago, Milwaukee & St. Paul Ry. Co. *Cattle Guards.*

Cattle guards installed. Filed October 30, 1916. Closed March 2, 1917.

No. 8363, 1917.

Summers & Co., New Hampton, Iowa, v. Chicago, Milwaukee & St. Paul Ry. Co. *Car Shortage.*

Cars furnished. Filed October 31, 1916. Closed March 2, 1917.

No. 8364, 1917.

Harper Brick & Tile Works, Harper, Iowa, v. Chicago, Rock Island & Pacific Ry. Co. *Switch.*

Track constructed as requested by complainant. Filed October 31, 1916. Closed March 5, 1917.

No. 8365, 1917.

Wittman & Ehmke, Pioneer, Iowa, v. Minneapolis & St. Louis R. R. Co. *Car Shortage.*

Investigation developed that complainants were receiving fair proportion of available empty cars. Filed November 8, 1916. Closed September 13, 1917.

No. 8366, 1917.

W. F. Jordan, Bailey, Iowa, v. Chicago Great Western R. R. Co. *Cancellation of Lease.*

Files were closed upon advice that complainant had taken the matter to the district court. Filed November 8, 1916. Closed March 5, 1917.

No. 8367, 1917.

Hyde Bros., et al., Elkader, Iowa, v. Chicago, Milwaukee & St. Paul Ry. Co. *Installation of Telephone in Depot.*

Dismissed at request of complainant. Filed November 14, 1916. Closed March 6, 1917.

No. 8368, 1917.

J. A. McDonald, Omaha, Nebraska, v. Chicago Great Western R. R. Co. *Wooden Buffet Car.*

Complainant advised that he did not desire to press the matter and files were closed. Filed November 17, 1916. Closed March 5, 1917.

No. 8369, 1917.

P. H. Walsh, Churchville, Iowa, v. Chicago Great Western Railroad. *Stockyards.*

The Railroad Company made satisfactory repairs to the stockyards. Filed November 17, 1916. Closed March 2, 1917.

No. 8370, 1917.

Clinton, Davenport & Muscatine Railway Company, v. Albert Stecker, Fairport, Iowa. *Live Stock on Right of Way.*

The Board took the matter up with the defendant and conditions complained of were remedied. Filed November 20, 1916. Closed March 5, 1917.

No. 8371, 1917.

S. A. Ferguson, Rowan, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Claim.*

The Railway Company refused to adjust this claim on the basis asked by the complainant and the complainant was advised that the Commis-

ation had no jurisdiction over claims for loss and damage and that his only recourse was in the courts. Filed November 20, 1916. Closed March 2, 1917.

No. 8373, 1917.

Pullerton Lumber Company, Minneapolis, Minnesota, v. Muscatine and Iowa City Railway Company, Grinnell.

This complaint was referred to the Commerce Council who returned the file with the recommendation that the case be dismissed without prejudice. Filed November 23, 1916. Closed August 2, 1917.

No. 8372, 1917.

J. Wilbur Neal, Sac City, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company, *Failure to Furnish Cars*.

Investigation developed the fact that the complainant had received his proportion of all available empty cars. Filed November 27, 1916. Closed March 2, 1917.

No. 8374, 1917.

Lanahan & Klockner, Dunkerton, Iowa, v. Illinois Central Railroad Company, *Delay in Shipment*.

This complaint was referred to the Commerce Council who returned the file with the recommendation that the case be dismissed. Filed November 27, 1916. Closed August 7, 1917.

No. 8376, 1917.

H. P. Nicholson, Oostau, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company, *Failure to Deliver Shipment*.

Investigation disclosed the fact the delay was the fault of the shipper and the case was dismissed without prejudice. Filed November 27, 1916. Closed March 2, 1917.

No. 8376, 1917.

William S. Hart, et al., Waukon, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company, *Stockyards*.

Substantial repairs were made to the stockyards which were satisfactory to the complainant. Filed November 27, 1916. Closed March 9, 1917.

No. 8377, 1917.

Coon River Sand Company, Des Moines, Iowa, v. Minneapolis & St. Louis Railroad Company, *Failure to Furnish Cars*.

Complainant failed to reply to letter from the Board asking whether formal hearing was desired and the case was therefore dismissed without prejudice. Filed November 27, 1916. Closed March 2, 1917.

No. 8378, 1917.

Coon River Sand Company, Des Moines, Iowa, v. Chicago, Rock Island & Pacific Railway Company, *Failure to Furnish Cars*.

Railway Company advised that failure to furnish cars for shipment of sand was occasioned by giving preference to orders for cars for shipments of coal. Filed November 27, 1916. Closed March 2, 1917.

No. 8379, 1917.

Ocell M. Bartley, Laurens, Iowa, v. Chicago & North Western Railway Company, *Trains Connection of Allow*.

Investigation developed the fact that train No. 14 was 20 minutes late and it was impossible to hold train No. 24 for that length of time. Filed November 29, 1916. Closed March 2, 1917.

No. 8380, 1917.

Lau & Johnson, Klemme, Iowa, v. Chicago, Rock Island & Pacific Railway Company, *Stock Trains Service*.

Service improved. Filed December 2, 1916. Closed March 2, 1917.

No. 8381, 1917.

J. D. Keltner, Elkhart, Iowa, v. Chicago, Rock Island & Pacific Railway Company, *Stockyards and Stock Scales*.

The stockyards in question were repaired and as the complainant failed to reply to letter from the Board asking whether formal hearing was desired in the matter of stock scales the case was dismissed without prejudice. Filed December 2, 1916. Closed March 20, 1917.

No. 8382, 1917.

Hill & Pottler Grain Company, Allison, Iowa, v. Chicago Great Western Railroad Company, *Failure to Furnish Cars*.

This matter was taken up with the Railroad Company in an effort to secure relief for the complainant. Filed December 4, 1916. Closed March 2, 1917.

No. 8383, 1917.

R. M. Pray, Farmington, Iowa, v. Chicago, Rock Island & Pacific Railway Company, *Dangerous Proximity of Depot to Tracks*.

The Railway Company advised that tracks would be moved and the case was closed. Filed December 4, 1916. Closed September 15, 1917.

No. 8384, 1917.

Abert & Anderson, Milford, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company, *Discrimination in Furnishing Cars*.

Railway Company advised that steps had been taken to provide the complainant with their just proportion of available empty cars. Filed December 4, 1916. Closed March 2, 1917.

No. 8385, 1917.

Goddin & Ballard, Emmetsburg, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company, *Refusal to Switch Cars*.

This complaint was referred to the Commerce Council who returned the file with the advice that the case had been closed. Filed December 4, 1916. Closed March 2, 1917.

No. 8386, 1917.

Leopold-Todd Grain Company, Okmaha, Nebraska, v. Great Northern Railway Company, *Failure to Transfer Cars*.

Car transferred. Filed December 6, 1916. Closed March 2, 1917.

No. 8387, 1917.

Louden Machinery Company, Fairfield, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Reconsignment in Transit.*

The Complainant was advised that this matter was covered by the decision of the U. S. Supreme Court in the case of the *C. M. & St. P. Ry. Co. v. State of Iowa*, 233 U. S., 334. Filed December 7, 1916. Closed March 2, 1917.

No. 8388, 1917.

McKee Grain Company, Conesville, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Furnish Cars.*

Railway Company advised that the cars had been furnished. Filed December 7, 1916. Closed September 13, 1917.

No. 8389, 1917.

Axen Grain Company, Galt, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Discrimination in Furnishing Cars.*

Investigation developed the fact that there had been no discrimination. Filed December 7, 1916. Closed September 13, 1917.

No. 8390, 1917.

W. J. Springer, et al., Leon, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Highway Crossing.*

Adjusted by agreement between complainant and Railway Company. Filed December 12, 1916. Closed March 5, 1917.

No. 8391, 1917.

Thornton Fordyce, Libertyville, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Cattle Guards at Private Crossing.*

Cattle guards installed. Filed December 12, 1916. Closed March 2, 1917.

No. 8392, 1917.

Garnavillo Commission Company, Garnavillo, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed December 12, 1916. Closed March 2, 1917.

No. 8393, 1917.

J. E. Homans, Fairfax, Iowa, v. Illinois Central Railroad Company. *Station Facilities at Rogers.*

Facilities improved. Filed December 13, 1916. Closed March 2, 1917.

No. 8394, 1917.

H. I. Hess, Cooper, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Discrimination in Furnishing Cars.*

Complainant failed to reply to letter from the Board asking whether formal hearing was desired and the case was dismissed without prejudice. Filed December 13, 1916. Closed March 12, 1917.

No. 8395, 1917.

Frank Myers, Fort Dodge, Iowa, v. Chicago Great Western Railroad. *Fences.*

Fences repaired. Filed December 18, 1916. Closed March 27, 1917.

No. 8396, 1917.

Brunsville Farmers Elevator Company, LeMars, Iowa, v. Chicago & North Western Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed December 21, 1916. Closed March 2, 1917.

No. 8397, 1917.

John Onstott, River Sioux, Iowa, v. Chicago & North Western Railway Company. *Failure to Furnish Cars.*

Railway Company advised that complainant was receiving his just proportion of available empty cars. Filed December 21, 1916. Closed March 2, 1917.

No. 8398, 1917.

Farmers Shipping Company, Kimballton, Iowa, v. A. N. Ry. Co., and C. R. I. & P. Ry. Co. *Failure to Furnish Cars.*

Investigation developed the fact that complainant had been receiving his just proportion of available empty cars. Filed December 21, 1916. Closed March 2, 1917.

No. 8399, 1917.

Pearson & Weaver, Castana, Iowa, v. Chicago & North Western Railway Company. *Stockyards, Failure to Furnish Water At.*

Railway Company advised that the well which furnished water for the stockyards would be deepened and improved in an effort to secure an adequate supply of water for the stockyards. Filed December 21, 1916. Closed September 23, 1917.

No. 8400, 1917.

M. R. Tabor, Remsen, Iowa, v. Illinois Central Railroad Company. *Failure to Furnish Cars.*

Investigation developed the fact that Remsen had received more cars than any other station in its district. Filed December 21, 1916. Closed March 2, 1917.

No. 8401, 1917.

Wilson Cornwall, Spencer, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Telephone in Depot.*

Telephone installed. Filed December 21, 1916. Closed March 2, 1917.

No. 8402, 1917.

Leopold-Todd Grain Company, Omaha, Nebraska, v. Great Northern Railway Company. *Delay in Transferring Shipment.*

This matter was taken up with the Railway Company in an effort to prevent a recurrence of the cause of this complainant. Filed December 21, 1916. Closed March 2, 1917.

No. 8403, 1917.

C. E. York, Ladora, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Furnish Cars.*

Railway Company advised that a serious temporary shortage of stock cars had been caused by inclement weather but that all orders for cars were being filled as promptly as possible. Filed December 21, 1916. Closed March 2, 1917.

No. 8404, 1917.

Ole V. Weeks, et al., Kelley, Iowa, v. Chicago & North Western Railway Company. *Stock Train Service.*

This matter was referred to the Commerce Counsel who returned the file with the request that the complaint be dismissed without prejudice at the request of the complainant. Filed December 21, 1916. Closed August 13, 1917.

No. 8405, 1917.

R. Burton Sheppard, Carroll, Iowa, v. Chicago & North Western Railway Company. *Refusal of Agent to Sell Tickets for Following Day.*

The Railway Company advised that this was an error on the part of the agent and gave assurance that steps had been taken to prevent a recurrence of the cause of this complaint. Filed December 21, 1916. Closed March 2, 1917.

No. 8406, 1917.

J. E. Hale, Collins, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

Railway Company advised that complainant had received his just proportion of empty cars available. Filed December 21, 1916. Closed March 2, 1917.

No. 8407, 1917.

Western Grain Dealers Association, Des Moines, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Distribution of Cars at Boyden.*

This matter was taken up with the Railway Company in an effort to secure an equitable distribution of cars at this point. Filed December 23, 1916. Closed March 2, 1917.

No. 8408, 1917.

Hawkeye Portland Cement Company, Des Moines, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

Railway Company advised that temporary shortage of cars had been caused by giving preference to loading of corn but that an effort would be made to supply complainant with as many cars as possible. Filed December 19, 1916. Closed March 2, 1917.

No. 8409, 1917.

McKee Grain Company, Conesville, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed December 21, 1916. Closed September 13, 1917.

No. 8410, 1917.

Commercial Club, Bonaparte, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Mail Service.*

Dismissed without prejudice. Filed December 26, 1916. Closed March 28, 1917.

No. 8411, 1917.

Talbott Sisters, et al., Douds-Leando, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Mail Service.*

Dismissed without prejudice. Filed December 26, 1916. Closed March 28, 1917.

No. 8412, 1917.

Independent Telephone Company, Kelley, Iowa, v. Fort Dodge, Des Moines & Southern Railroad Company. *Wires Over Railroad Track.*

The Railroad Company agreed to place the wires of the complainant under ground. Filed December 26, 1916. Closed March 29, 1917.

No. 8413, 1917.

Farmers Elevator Company, Blencoe, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Discrimination in Furnishing Cars.*

Investigation developed the fact that complainant had received a just proportion of available empty cars. Filed January 4, 1917. Closed March 2, 1917.

No. 8414, 1917.

N. G. O. Coad & Son, Hull, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Delay in Transit.*

Investigation developed the fact that the shipment in question moved interstate and the case was dismissed without prejudice. Filed December 26, 1916. Closed March 2, 1917.

No. 8415, 1917.

Farmers Co-operative Elevator Company, Thompson, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Delay in Transit, Coal.*

The Railway Company advised that delay was caused by confiscation of coal by the company due to emergency conditions. Filed January 4, 1917. Closed March 2, 1917.

No. 8416, 1917.

Moore-Shenkberg Grocer Company, Sioux City, Iowa, v. C. St. P. M. & O. Railway Company. *Delay in Forwarding L. C. L. Freight.*

Railway Company advised that steps had been taken to assure more prompt forwarding of shipments. Filed January 8, 1917. Closed March 2, 1917.

No. 8417, 1917.

Moore-Shenkberg Grocer Company, Sioux City, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Delay in forwarding L. C. L. Freight.*

Railway Company advised that shipment had been delayed through error and that future shipments would move promptly. Filed January 8, 1917. Closed March 2, 1917.

No. 8418, 1917.

Moore-Shenkberg Grocer Company, Sioux City, Iowa, v. Chicago North Western Railway Company. *Delay in Forwarding L. C. L. Freight.*

Railway Company advised that shipments were being moved as promptly as possible. Filed January 8, 1916. Closed March 2, 1917.

No. 8419, 1917.

Highview Farmers Grain Company, Highview, Iowa, v. Illinois Central Railroad Company. *Discrimination in Furnishing Cars.*

Railway Company advised that steps had been taken to remove cause for future complaint. Filed January 8, 1917. Closed March 2, 1917.

- No. 8420, 1917.
D. Milligan Company, Jefferson, Iowa, v. Chicago & North Western Railway Company. *Failure to Furnish Cars.*
Railway Company advised that temporary shortage of grain cars had been caused by congestion at eastern terminals. Filed January 8, 1917. Closed March 2, 1917.
- No. 8421, 1917.
Norecutt & Sprain, Brooks, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Failure to Furnish Cars.*
Railroad Company advised that every effort was being made to improve conditions complained of. Filed January 9, 1917. Closed March 2, 1917.
- No. 8422, 1917.
Farmers Co-Operative Elevator Company, Thompson, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Furnish Cars.*
Cars furnished. Filed January 9, 1917. Closed March 2, 1917.
- No. 8423, 1917.
Charles T. Lyon, et al., Conroy, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Station Facilities and Service.*
Service improved. Filed January 10, 1917. Closed April 19, 1917.
- No. 8424, 1917.
D. H. Pennamacoor, Peoria, Illinois, v. Illinois Central Railroad Company. *Sunday Train Service Between Cedar Rapids and Dubuque.*
Dismissed without prejudice at the request of complainant. Filed January 10, 1916. Closed January 26, 1917.
- No. 8425, 1917.
J. H. Queal & Company, Thompson, Iowa, v. Illinois Central Railroad Company. *Delay in Transit.*
Shipment delivered. Filed January 10, 1917. Closed March 2, 1917.
- No. 8426, 1917.
F. M. Nichols, Atlantic, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Delay in Transit.*
Shipment delivered. Filed January 10, 1917. Closed March 2, 1917.
- No. 8427, 1917.
Fenn Brothers, Olds, Iowa, v. Minneapolis & St. Louis Railroad Company. *Failure to Furnish Cars.*
Cars furnished. Filed January 12, 1917. Closed March 2, 1917.
- No. 8428, 1917.
H. Rhynsburger, Pella, Iowa, v. Illinois Central Railroad Company. *Refusal to Issue Clean Bill of Lading.*
This complaint was referred to the Commerce Counsel who after investigation returned the file with the request that the complaint be dismissed. Filed January 12, 1917. Closed August 7, 1917.

- No. 8429, 1917.
Barnum Elevator Company, Barnum, Iowa, v. Illinois Central Railroad Company. *Failure to Furnish Cars.*
Railroad Company advised that special attention would be given to future orders of the complainant for cars. Filed January 12, 1917. Closed March 2, 1917.
- No. 8430, 1917.
L. Babson, Davis City, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Failure to Furnish Cars.*
Cars furnished. Filed January 12, 1917. Closed March 2, 1917.
- No. 8431, 1917.
Rembrandt Elevator Company, Rembrandt, Iowa, v. Minneapolis & St. Louis Railroad Company. *Failure to Furnish Cars.*
Railroad Company advised that complainant had received a just proportion of available empty cars. Filed January 16, 1917. Closed September 13, 1917.
- No. 8432, 1917.
Tewes Rhoads, Shelby, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Refusal to Receive and Forward Freight.*
Railway Company advised that no refusal had been made to accept shipments but owing to car shortage all orders for cars were accepted subject to delay. Filed January 17, 1917. Closed March 2, 1917.
- No. 8433, 1917.
Mrs. E. A. Clausen, Green Island, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*
Cars furnished. Filed January 18, 1917. Closed March 2, 1917.
- No. 8434, 1917.
H. J. Dowling, McIntire, Iowa, v. Chicago Great Western Railroad Company. *Location of Depot.*
Railroad Company advised that negotiations were pending looking to a satisfactory adjustment of the case and as complainant failed to reply to letter from the Board the matter was dismissed without prejudice. Filed January 17, 1917. Closed December 1, 1917.
- No. 8435, 1917.
H. M. Johnson, Hopkinton, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*
Cars furnished. Filed January 18, 1917. Closed March 2, 1917.
- No. 8436, 1917.
H. R. Pepper, Dows, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Site for Coal Sheds.*
Adjusted by agreement between complainant and Railway Company. Filed January 18, 1917. Closed March 2, 1917.
- No. 8437, 1917.
Sanborn Grain & Livestock Exchange, Sanborn, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*
Railway Company advised that complainant had received a just proportion of available empty cars. Filed January 18, 1917. Closed September

ber 13, 1917.

No. 8438, 1917.

W. H. Eaton, Pacific Junction, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Fence.*

Fence constructed. Filed January 18, 1917. Closed February 8, 1917.

No. 8439, 1917.

Hocum Brothers, Varina, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Discrimination in Furnishing Cars.*

Investigation developed the fact that there had been no discrimination. Filed January 18, 1917. Closed March 2, 1917.

No. 8440, 1917.

B. A. Kenney, et al., Purdy, Iowa, v. Chicago, Rock Island & Pacific Railroad Company. *Station.*

This complaint was filed for the complainant by the Commerce Counsel and before hearing was held the Railway Company advised that improvements in the station facilities would be made. Filed January 18, 1917. Closed November 30, 1917.

No. 8441, 1917.

C. O. Friedlund, Linn Grove, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Discrimination in Furnishing Cars.*

This complaint was called to the attention of the Railway Company and the Commission was advised that while it had been impossible to supply all cars ordered, the complainant had received a just proportion of available empty cars. Filed January 18, 1917. Closed March 2, 1917.

No. 8442, 1917.

Linn Grove Farmers Elevator & Supply Company, Linn Grove, Iowa, v. Chicago & North Western Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed January 18, 1917. Closed March 2, 1917.

No. 8443, 1917.

J. F. Younglove, Sioux City, Iowa, v. Chicago, Rock Island & Pacific Railroad Company. *Poor Service.*

This complaint was investigated and dismissed without prejudice. Filed January 18, 1917. Closed September 13, 1917.

No. 8444, 1917.

Farmers Grain Company, Latimer, Iowa, v. Minneapolis & St. Louis Railroad Company. *Discrimination in Furnishing Cars.*

This complaint was taken up with the Railway Company for investigation. Later the complainant advised that there was no further cause for complaint. Filed January 19, 1917. Closed September 13, 1917.

No. 8445, 1917.

Redfield Brick and Tile Works, Redfield, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

This matter was taken up with the Railway Company in an effort to secure relief for the complainant. Filed January 20, 1917. Closed March 2, 1917.

No. 8446, 1917.

McKee Brothers, Muscatine, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Furnish Cars at Conesville.*

Cars furnished. Filed January 20, 1917. Closed September 13, 1917.

No. 8447, 1917.

Lytton Farmers Elevator Company, Lytton, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Discrimination in Furnishing Cars.*

Railway Company furnished figures showing that there had been no discrimination against complainant. Filed January 20, 1917. Closed September 13, 1917.

No. 8448, 1917.

New Oriental Coal & Mining Company, Centerville, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Discrimination in Furnishing Cars.*

This complaint was referred to the Commerce Counsel who returned the file with the information that the matter had been adjusted satisfactorily to complainant. Filed January 20, 1917. Closed November 2, 1917.

No. 8449, 1917.

Little Cedar Grain & Coal Company, Osage, Iowa, v. Chicago Great Western Railroad Company. *Switching Service at Osage and Little Cedar.*

Service improved. Filed January 20, 1917. Closed September 13, 1917.

No. 8450, 1917.

L. B. Coffin, Indianola, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Failure to Furnish Cars.*

Cars furnished. Filed January 20, 1917. Closed September 13, 1917.

No. 8451, 1917.

J. J. O'Laughlin, Rome, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Failure to Furnish Cars.*

Cars furnished. Filed January 20, 1917. Closed January 22, 1917.

No. 8452, 1917.

Kunz Grain Company, Wesley, Iowa, v. Minneapolis & St. Louis Railroad Company. *Discrimination in Furnishing Cars.*

Railroad Company advised that investigation disclosed that there had been a slight unintentional discrimination against complainant and that steps had been taken to prevent further discrimination. Filed January 22, 1917. Closed September 13, 1917.

No. 8453, 1917.

Bedell Brothers, Irvington, Iowa, v. Chicago & North Western Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed January 22, 1917. Closed September 13, 1917.

No. 8454, 1917.

McGreer Brothers, Coburg, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Failure to Furnish Cars.*

Cars furnished. Filed January 22, 1917. Closed February 6, 1917.

- No. 8455, 1917.
Farmers Co-operative Elevator Company, Dawson, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Discrimination in Furnishing Cars.*
Investigation developed the fact that the complainant had received a just proportion of available empty cars. Filed January 22, 1917. Closed September 13, 1917.
- No. 8456, 1917.
Atlantic Gas Company, Atlantic, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Furnish Cars.*
This was a complaint regarding furnishing of cars at an Illinois point and was dismissed. Filed January 22, 1917. Closed September 13, 1917.
- No. 8457, 1917.
Jefferson Commercial Club, Jefferson, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Highway Crossing.*
Adjusted by agreement between complainant and Railway Company. Filed January 26, 1917. Closed October 17, 1917.
- No. 8458, 1917.
Bedell Brothers, Irvington, Iowa, v. Chicago & North Western Railway Company. *Failure to Furnish Cars.*
Cars furnished. Filed January 26, 1917. Closed September 13, 1917.
- No. 8459, 1917.
Broadwell Lumber & Grain Company, Hedrick, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*
Dismissed. Filed January 26, 1917. Closed September 13, 1917.
- No. 8460, 1917.
Frazier & Son, Nevada, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Furnish Cars at Palmer, Iowa.*
Cars furnished. Filed January 26, 1917. Closed September 13, 1917.
- No. 8461, 1917.
F. E. Ayers & Company, Lawler, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Delay in Transit.*
Shipment delivered. Filed January 26, 1917. Closed February 1, 1917.
- No. 8462, 1917.
D. A. Fenn & Company, Salem, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Failure to Furnish Cars at Rome, Iowa.*
Cars furnished. Filed January 26, 1917. Closed September 13, 1917.
- No. 8463, 1917.
George Moulton et al., Ledyard, Iowa, v. Chicago & North Western Railway Company. *Failure to Furnish Cars.*
Cars furnished. Filed January 24, 1917. Closed December 17, 1917.
- No. 8464, 1917.
Des Moines Building Material Company, Des Moines, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Failure to Furnish Cars.*
Cars furnished. Filed January 26, 1917. Closed February 6, 1917.

- No. 8465, 1917.
C. F. Kimball, Council Bluffs, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Failure to Furnish Cars at Island Park, Iowa.*
Cars furnished. Filed January 26, 1917. Closed September 13, 1917.
- No. 8466, 1917.
C. F. Kimball, Council Bluffs, Iowa, v. Wabash Railway Company. *Failure to Furnish Cars at Neoga.*
Cars furnished. Filed January 26, 1917. Closed September 13, 1917.
- No. 8467, 1917.
Nicholson Brothers, Raiston, Iowa, v. Chicago & North Western Railway Company. *Failure to Furnish Cars.*
Investigation developed the fact that complainant was receiving just proportion of available empty cars. Filed January 26, 1917. Closed September 13, 1917.
- No. 8468, 1917.
Farmers Exchange Company, Charles City, Iowa, v. Illinois Central Railroad Company. *Stock Scales at Carrville, Iowa.*
Stock scales installed. Filed January 26, 1917. Closed November 10, 1917.
- No. 8469, 1917.
W. A. Blakely, Grant Center, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*
Cars furnished. Filed January 27, 1917. Closed February 13, 1917.
- No. 8470, 1917.
A. C. Lau, Klemme, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Furnish Cars.*
Cars furnished. Filed January 27, 1917. Closed September 13, 1917.
- No. 8471, 1917.
Oliver Gordon, Forest City, Iowa, v. Minneapolis & St. Louis Railroad Company. *Failure to Furnish Cars.*
Railroad Company advised it was making every effort to fill all orders for cars. Filed January 27, 1917. Closed September 13, 1917.
- No. 8472, 1917.
H. L. McCombs, DeSoto, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Furnish Cars.*
Railway Company advised cars would be furnished at earliest possible date. Filed January 29, 1917. Closed September 13, 1917.
- No. 8473, 1917.
O. F. Myers, Hampton, Iowa, v. Minneapolis & St. Louis Railroad Company. *Passenger Fare Paid on Train.*
The Railroad Company refunded an extra fare charge because of failure of agent to sell ticket. Filed January 29, 1917. Closed March 5, 1917.
- No. 8474, 1917.
L. Bason, Davis City, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Failure to Furnish Cars.*
Cars furnished. Filed January 30, 1917. Closed September 13, 1917.

No. 8475, 1917.
Des Moines Silo & Mfg. Company, Des Moines, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company, et al. *Failure to Furnish Cars.*
Cars furnished. Filed January 30, 1917. Closed February 3, 1917.

No. 8476, 1917.
Col. Jesse Cheek, Des Moines, Iowa, v. Minneapolis & St. Louis Railroad Company. *Embargo on C. L. Shipments to Peoria.*

Investigation developed that embargo was placed on C. L. shipments to Peoria on account of congestion of traffic at that place. As soon as conditions were relieved the embargo was raised. Filed January 30, 1917. Closed September 13, 1917.

No. 8477, 1917.
Jacob E. Decker & Sons, Mason City, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company, et al. *Refusal to accept L. C. L. perishable freight when temperature is 5 degrees below zero.*

This complaint was referred to the Commerce Counsel who returned the file with the recommendation that the case be dismissed. Filed January 30, 1917. Closed September 13, 1917.

No. 8478, 1917.
Leland Farmers Elevator Company, Leland, Iowa, v. Minneapolis & St. Louis Railroad Company. *Failure to Furnish Cars.*

Complainant failed to reply to letters from the Board asking whether he had anything further to file and the complaint was dismissed. Filed January 30, 1917. Closed September 23, 1917.

No. 8479, 1917.
Leland Farmers Elevator Company, Leland, Iowa, v. Minneapolis & St. Louis Railroad Company. *Failure to Furnish Grain Doors.*

Railroad Company advised that grain doors would be furnished. Filed January 30, 1917. Closed February 9, 1917.

No. 8480, 1917.
Mason City Brick & Tile Company, Mason City, Iowa, v. Chicago Milwaukee & St. Paul Railway Company, et al. *Failure to Furnish Cars.*

This complaint was brought up with reference to the general car shortage conditions which investigation developed were due to circumstances beyond the control of the railroads operating in Iowa. Filed February 1, 1917. Closed September 17, 1917.

No. 8481, 1917.
I. N. Shearer & Sons, Ida Grove, Iowa, v. Chicago & North Western Railway Company. *Failure to Furnish Cars.*

Railway Company advised that it was doing everything in its power to fill all orders for cars. Filed February 1, 1917. Closed September 13, 1917.

No. 8482, 1917.
Gillinsky Sons Company, et al., Council Bluffs, Iowa, v. Railroads. *Refusal to accept L. C. L. shipments when temperature is below 10 degrees above zero.*

This complaint was referred to the Commerce Counsel who after investigation returned the file with the recommendation that the complaint be dismissed. Filed February 1, 1917. Closed August 7, 1917.

No. 8483, 1917
W. H. Holdsworth, Mayor, Sully, Iowa, v. Minneapolis & St. Louis Railroad Company. *Train Service.*

Complainant failed to reply to letter from the Board asking whether formal hearing was desired and the case was dismissed without prejudice. Filed February 1, 1917. Closed September 23, 1917.

No. 8484, 1917.
Taylor & Patton, Des Moines, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Delay in Transit.*

Shipment delivered. Filed February 8, 1917. Closed September 13, 1917.

No. 8485, 1917.
Butler & Rhodes, Ft. Dodge, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Refusal to allow unloading of tile on right of way, at Swea City, Iowa.*

Adjusted by agreement between complainant and Railway Company. Filed February 10, 1917. Closed February 19, 1917.

No. 8486, 1917.
A. U. Neils, Packwood, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Failure to Furnish Cars.*

Railroad Company advised that special instructions had been issued to all engine men with a view of eliminating any further cause for complaint. Filed February 10, 1917. Closed September 13, 1917.

No. 8487, 1917.
Burt Grain Company, Galt, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Furnish Cars.*

Railway Company advised that complainant would be furnished a just proportion of available empty cars. Filed February 16, 1917. Closed February 16, 1917.

No. 8488, 1917.
H. F. Garrett, County Attorney, Corydon, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Delay in Transit.*

Railway Company advised that delay was due to inclement weather conditions. Filed February 16, 1917. Closed February 26, 1917.

No. 8489, 1917.
J. A. Gartland, Town Clerk, et al., Rock Valley, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Depot.*

Settled by agreement between complainant and Railway Company. Filed February 17, 1917. Closed May 28, 1917.

No. 8490, 1917.
Gund & Sten, Emerson, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Failure to Furnish Cars.*

Cars furnished. Filed February 17, 1917. Closed April 3, 1917.

No. 8491, 1917.

Roscoe Wilson, Iowa City, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Farm Crossing.*

Investigation developed the fact that this complaint was filed on account of alleged failure of Railway Company to repair approaches to private crossing. The complainant failed to reply to letters from the Board asking whether formal hearing was desired and the case was dismissed without prejudice. Filed February 17, 1917. Closed October 26, 1917.

No. 8492, 1917.

Reynolds & Rude, Ellsworth, Iowa, v. Chicago & North Western Railway Company. *Failure to Furnish Cars.*

Investigation developed the fact that complainant had received a just proportion of available empty cars. Filed February 17, 1917. Closed March 1, 1917.

No. 8493, 1917.

Irving Mercantile Company, Irving, Iowa, v. Chicago & North Western Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed February 17, 1917. Closed March 2, 1917.

No. 8494, 1917.

Farmers Co-operative Society, Aredale, Iowa, v. Chicago & North Western Railway Company. *Discrimination in Furnishing Cars.*

Investigation developed the fact that complainant had not been discriminated against. Filed January 30, 1917. Closed February 17, 1917.

No. 8495, 1917.

C. A. Snow, Polk City, Iowa, v. Chicago & North Western Railway Company. *Station Service.*

Service improved. Filed February 17, 1917. Closed October 26, 1917.

No. 8496, 1917.

J. H. Queal & Company, Thompson, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Delay in Transit.*

Shipment delivered. Filed February 5, 1917. Closed February 6, 1917.

No. 8497, 1917.

The Schaller Produce Company, Schaller, Iowa, v. Chicago & North Western Railway Company. *Failure to Furnish Cars.*

Matter taken up with the Railway Company in an effort to secure relief for the complainant. Filed February 19, 1917. Closed February 20, 1917.

No. 8498, 1917.

A. H. Stell, Mallard, Iowa, v. Minneapolis & St. Louis Railroad Company. *Failure to Furnish Cars.*

Cars furnished. Filed February 19, 1917. Closed April 3, 1917.

No. 8499, 1917.

F. J. Wiman, Imogene, Iowa, v. Wabash Railway Company. *Lights Over Crossing.*

Adjusted by agreement between complainant and Railway Company. Filed February 19, 1917. Closed April 9, 1917.

No. 8500, 1917.

Geller & Wells, Tipton, Iowa, v. Chicago & North Western Railway Company. *Delay in Transit.*

Shipment delivered. Filed February 19, 1917. Closed February 24, 1917.

No. 8501, 1917.

Samuel Rigby, Laurens, Iowa, v. Chicago & North Western Railway Company. *Discrimination in Furnishing Cars.*

Railway Company advised that steps had been taken to prevent a recurrence of the cause of this complaint. Filed February 20, 1917. Closed March 6, 1917.

No. 8502, 1917.

J. K. McAndrew, Sanborn, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Discrimination in Furnishing Cars.*

Railway Company advised that although unable to fill all orders for cars, all available equipment had been distributed equitably. Filed February 2, 1917. Closed February 8, 1917.

No. 8503, 1917.

Farmers Elevator Company, Yale, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Discrimination in Furnishing Cars.*

Railway Company advised that complainant had received a just proportion of available empty cars. Filed February 2, 1917. Closed February 8, 1917.

No. 8504, 1917.

W. W. Epps, Ottumwa, Iowa, v. Wabash Railway Company. *Passenger Service and Heat in Depot at Albia.*

Railway Company advised that steps had been taken to remove cause for further complaint. Filed February 19, 1917. Closed March 30, 1917.

No. 8505, 1917.

Farmers Elevator Company, Salix, Iowa, v. Chicago & North Western Railway Company. *Discrimination in Furnishing Cars.*

This matter was taken up for the complainant by the Commerce Counsel in an effort to secure relief. Filed February 2, 1917. Closed February 8, 1917.

No. 8506, 1917.

W. A. Coglizer, Des Moines, Iowa, v. Minneapolis & St. Louis Railroad Company. *Delay in Transit.*

Railroad Company advised that delay had been caused by severe storms and that regular service had been resumed as soon as weather conditions improved. Filed February 26, 1917. Closed April 9, 1917.

No. 8507, 1917.

A. Hageman, Independence, Iowa, v. Illinois Central Railroad Company. *Omnibus Privileges at Depot Grounds.*

Railroad Company advised that an order had been issued to give complainant equal privileges with others at the station. Filed February 22, 1917. Closed March 24, 1917.

No. 8508, 1917.

Callender Grain Company, Callender, Iowa, v. Minneapolis & St. Louis Railroad Company. *Failure to Furnish Grain Doors.*

This was taken up with the Railroad Company in an effort to secure relief for the complainant. Filed February 23, 1917. Closed February 28, 1917.

No. 8509, 1917.

Farmers Elevator Company, Ferguson, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed February 26, 1917. Closed March 6, 1917.

No. 8510, 1917.

Taylor & Patton, Des Moines, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Delay in Transit.*

Shipment delivered. Filed February 24, 1917. Closed February 26, 1917.

No. 8511, 1917.

Ortonville Elevator Company, Ortonville, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Discrimination in Furnishing Cars.*

Railway Company advised that investigation developed the fact that there had been an unintentional discrimination against the complainant but that there would be no further cause for complaint. Filed February 24, 1917. Closed February 28, 1917.

No. 8512, 1917.

Simkin & Edwards, Salem, Iowa, v. Minneapolis & St. Louis Railroad Company. *Delay in Transit.*

Shipment delivered. Filed March 5, 1917. Closed March 19, 1917.

No. 8513, 1917.

Farmers Elevator Company, Holland, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed February 22, 1917. Closed March 5, 1917.

No. 8514, 1917.

L. H. Smith, Des Moines, Iowa, v. Ft. Dodge, Des Moines & Southern Railroad Company. *Overcharge, Passenger.*

Overcharge refunded. Filed March 2, 1917. Closed March 6, 1917.

No. 8515, 1917.

Farmers Elevator Company, Livermore, Iowa, v. Minneapolis & St. Louis Railroad Company. *Discrimination in Furnishing Cars.*

Complainant advised that conditions had improved and case was closed. Filed March 1, 1917. Closed March 19, 1917.

No. 8516, 1917.

Ben Lakin and A. L. O'Neil, Dows, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed March 5, 1917. Closed March 5, 1917.

No. 8517, 1917.

Farmers Elevator Company, Ralston, Iowa, v. Chicago & North Western Railway Company. *Discrimination in Furnishing Cars.*

Investigation developed the fact that there had been no discrimination. Filed March 7, 1917. Closed April 5, 1917.

No. 8518, 1917.

Breda Grain Company, Breda, Iowa, v. Chicago & North Western Railway Company. *Discrimination in Furnishing Cars.*

Railway Company advised that complainant had received a just proportion of available empty cars. Filed February 27, 1917. Closed March 12, 1917.

No. 8519, 1917.

J. H. Quaal & Company, Thompson, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Delay in Transit.*

Shipment delivered. Filed February 27, 1917. Closed March 3, 1917.

No. 8520, 1917.

Edw. J. Funk, Clarion, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Switching Service.*

Service improved. Filed February 23, 1917. Closed March 3, 1917.

No. 8521, 1917.

C. H. Trisler, Des Moines, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Sell Through Ticket.*

Complainant failed to reply to letters from the Board asking whether formal hearing was desired and the case was dismissed without prejudice. Filed March 1, 1917. Closed March 26, 1917.

No. 8522, 1917.

W. A. Hudler, Leighton, Iowa, v. Muscatine, Burlington & Southern Railroad Company. *Passenger Fare.*

Investigation developed the fact that the Railroad Company was charging more than the statutory fare between Elrick Junction and Oakville and the Commission ordered that passenger tariff be amended to conform to section No. 2077 of Supplement to the Code of 1913. Filed February 7, 1917. Closed June 18, 1917.

No. 8523, 1917.

What Cheer Clay Products Company, What Cheer, Iowa, v. Chicago & North Western Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed March 16, 1917. Closed April 11, 1917.

No. 8524, 1917.

W. W. Moore, Ainsworth, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Highway Crossing.*

Satisfactorily adjusted. Filed March 16, 1917. Closed December 1, 1917.

No. 8525, 1917.

C. W. Plummer, Honey Creek, Iowa, v. Illinois Central Railroad Company. *Failure to Furnish Cars.*

Cars furnished. Filed March 15, 1917. Closed April 2, 1917.

No. 8526, 1917.

Farmers Elevator Company, Roelyn, Iowa, v. Chicago Great Western Railroad Company. *Failure to furnish Cars.*

Investigation developed the fact that complainant had received a just proportion of available empty cars. Filed February 23, 1917. Closed March 28, 1917.

No. 8527, 1917.

Granville Co-operative Grain Company, Granville, Iowa, v. Chicago & North Western Railway Company. *Discrimination in Furnishing Cars.*

Railway Company advised that complainant had received a just proportion of available empty cars. Filed March 19, 1917. Closed March 28, 1917.

No. 8528, 1917.

Black & Hazzard, Craig, Iowa, v. Chicago & North Western Railway Company. *Refusal to Receive and Forward Freight.*

Investigation developed the fact that these shipments were refused on account of embargo placed on perishables on account of an impending strike. Filed March 19, 1917. Closed April 12, 1917.

No. 8529, 1917.

Town of Tripoli, Tripoli, Iowa, v. Chicago Great Western Railroad Company. *Train Service.*

Railroad Company advised that service had been interrupted by heavy snows in northern Iowa, but that every effort was being made to keep all lines open. Filed March 22, 1917. Closed March 23, 1917.

No. 8530, 1917.

Herman N. Reints, Kesley, Iowa, v. Chicago & North Western Railway Company. *Discrimination in Furnishing Cars.*

Investigation developed that there had been no discrimination. Filed March 8, 1917. Closed March 21, 1917.

No. 8531, 1917.

Burlington Quarry Company, Keokuk, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Failure to Furnish Cars.*

Railroad Company advised that it had been impossible to furnish all cars ordered by the complainant on account of giving preference to orders for cars for coal shipments. Filed March, 20, 1917. Closed May 21, 1917.

No. 8532, 1917.

DeWolf & Wells Company, Spencer, Iowa, v. Minneapolis & St. Louis Railroad Company. *Discrimination in Furnishing Cars at Plover, Iowa.*

Railroad Company advised that investigation developed the fact that there had been an unintentional discrimination but that measures had been taken to have this condition corrected. Filed March 8, 1917. Closed March 31, 1917.

No. 8533, 1917.

Cedar Rapids Grain Company, Cedar Rapids, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed March 5, 1917. Closed March 8, 1917.

No. 8534, 1917.

Johnston Brothers Clay Works, Clayworks, Iowa, v. Minneapolis & St. Louis Railroad Company. *Delay in Mail Service.*

Railroad Company advised that delay had been caused by inclement weather but that all lines had been opened as quickly as possible. Filed March 20, 1917. Closed March 23, 1917.

No. 8535, 1917.

L. A. Marr & Son, Keota, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Delay in Transit.*

Shipment delivered. Filed March 22, 1917. Closed March 29, 1917.

No. 8536, 1917.

Pocahontas Grain Company, et al., Pocahontas, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Discrimination in Furnishing Cars.*

Railway Company advised, after investigation, that instead of being discriminated against Pocahontas had received more than their proportion of available empty cars and it had been necessary to remove a number of cars from Pocahontas to prevent discrimination against other towns. Filed March 24, 1917. Closed March 26, 1917.

No. 8537, 1917.

Vernon Johnson, County Attorney, Sidney, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Train Service on the Sidney-Hastings Branch.*

Service improved. Filed March 27, 1917. Closed May 10, 1917.

No. 8538, 1917

Farmers Elevator Company, Cambridge, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed February 16, 1917. Closed February 19, 1917.

No. 8539, 1917.

James Kinney, Jr., Bellaire, Ohio, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars at Herndon.*

Investigation developed the fact that delay in furnishing cars was caused by embargo on grain shipments to certain eastern points. Filed March 27, 1917. Closed April 13, 1917.

No. 8540, 1917.

Henry Bruns, Grand Junction, Iowa, v. Minneapolis & St. Louis Railroad Company. *Claim for Refund of Passenger Fare.*

Railroad Company refused to adjust the claim and as the Commission had no jurisdiction the case was dismissed. Filed March 29, 1917. Closed May 4, 1917.

No. 8541, 1917.

Town of Imogene, Imogene, Iowa, v. Wabash Railway Company. *Trains Blocking Crossings.*

Adjusted to satisfaction of complainant. Filed March 29, 1917. Closed April 5, 1917.

No. 8542, 1917.

Randall & Price, Conrad, Iowa, v. Chicago & North Western Railway Company. *Discrimination in Furnishing Cars.*

Railway Company took this complaint up for investigation and gave assurance that prompt remedy would be applied. Filed March 31, 1917. Closed May 3, 1917.

No. 8543, 1917.

Farmers Co-operative Elevator Company, Thompson, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Furnish Cars.*

Railway Company advised that while unable to fill all orders for cars, each station was receiving a just proportion of cars available. Filed March 31, 1917. Closed April 13, 1917.

No. 8544, 1917.

Knut Gordon, Kensett, Iowa, v. Minneapolis & St. Louis Railroad Company. *Drainage.*

This matter was referred to the Commerce Counsel who after investigation returned the file with the advice that this matter was disposed of by the decision of the Commission in the case of *Jerry Brosnan, Des Moines, v. Chicago, Rock Island & Pacific Railway Company* which is reported on page 117 of this report. Filed March 29, 1917. Closed October 29, 1917.

No. 8545, 1917.

Farmers Elevator Company, Elkhart, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed April 2, 1917. Closed May 19, 1917.

No. 8546, 1917.

W. M. Leonard, Yale, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Discrimination in Furnishing Cars.*

Railway Company advised that complainant had been furnished his just proportion of available empty cars based on previous shipments. Filed April 10, 1917. Closed April 13, 1917.

No. 8547, 1917.

J. R. Plummer, Clearfield, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Delay in Transit.*

Railroad Company advised that while there had been an inexcusable delay to the shipment in question prompt measures had been taken to prevent repetition. Filed April 13, 1917. Closed May 9, 1917.

No. 8548, 1917.

Farmers Elevator Company, George, Iowa, v. Illinois Central Railroad Company. *Failure to Furnish Cars.*

Railroad Company advised that complainant had received a just proportion of available empty cars. Filed April 14, 1917. Closed May 9, 1917.

No. 8549, 1917.

N. D. Shinn, County Attorney, Knoxville, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Train Blocking Crossing at Hamilton.*

Railroad Company advised that steps had been taken to prevent a recurrence of the cause of this complaint. Filed April 10, 1917. Closed April 17, 1917.

No. 8550, 1917.

Farmers Grain Company, Colo, Iowa, v. Chicago & North Western Railway Company. *Failure to Furnish Cars.*

Investigation developed the fact that complainant had received a just proportion of available empty cars. Filed April 20, 1917. Closed April 27, 1917.

No. 8551, 1917.

Bouton Grain Company, Bouton, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

Railway Company advised that every effort was being made to furnish cars to all stations on an equitable basis. Filed April 24, 1917. Closed June 2, 1917.

No. 8552, 1917.

Edmonds Londergan Company, Marcus, Iowa, v. Illinois Central Railroad Company. *Discrimination in Furnishing Cars.*

Investigation developed the fact that there had been no discrimination. Filed April 20, 1917. Closed May 15, 1917.

No. 8553, 1917.

Farmers Elevator Company, Radcliffe, Iowa, v. Chicago & North Western Railway Company. *Failure to Give Preference to Shipment of Corn.*

Investigation developed the fact that shipments of corn had been given preference in accordance with recommendation of the Board. Filed April 27, 1917. Closed May 7, 1917.

No. 8554, 1917.

Jacob Jarvis, Diagonal, Iowa, v. Chicago Great Western Railroad Company. *Fence.*

Fence constructed. Filed April 27, 1917. Closed August 24, 1917.

No. 8555, 1917.

E. P. Armknecht, Donnellson, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Unloading L. C. L. Shipments.*

This matter was referred to the Commerce Counsel who after investigation returned the file with the recommendation that the case be closed. Filed April 28, 1917. Closed August 7, 1917.

No. 8556, 1917.

Farmers Elevator Company, Ellsworth, Iowa, v. Chicago & North Western Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed April 27, 1917. Closed May 1, 1917.

No. 8557, 1917.

Iowa Fruit Growers' Association, Ames, Iowa, v. C. B. & Q. R. R., C. R. I. & P. Ry., and C. & N. W. Ry. *Delay in Forwarding L. C. L. Shipments from Omaha.*

Carriers advised that particular attention would be given to forwarding shipments mentioned. Filed April 12, 1917. Closed May 28, 1917.

No. 8558, 1917.

C. J. Holmes Company, Hartford, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Heated Car Service.*

Service furnished. Filed April 28, 1917. Closed May 28, 1917.

No. 8559, 1917.

Fred Laskin, Ellsworth, Iowa, v. Chicago & North Western Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed May 3, 1917. Closed May 9, 1917.

No. 8560, 1917.

Frank H. Secor, Cameron, Wisconsin, v. Chicago, Burlington & Quincy Railroad Company. *Delay in Transit.*

Shipment delivered. Filed May 3, 1917. Closed June 1, 1917.

No. 8561, 1917.

Farmers Elevator Supply Company, Langdon, Iowa, v. Minneapolis & St. Louis Railroad Company. *Telephone in Depot.*

Telephone installed. Filed May 3, 1917. Closed October 25, 1917.

No. 8562, 1917.

C. O. Friedlund, Linn Grove, Iowa, v. Chicago & North Western Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed May 3, 1917. Closed May 22, 1917.

No. 8563, 1917.

L. A. McKinney, Runnells, Iowa, v. Wabash Railway Company. *Spur Track.*

Complainant failed to reply to letters from the Board asking whether formal hearing was desired and the case was dismissed without prejudice. Filed May 9, 1917. Closed October 26, 1917.

No. 8564, 1917.

A. B. Brownlee, Shannon City, Iowa, v. Chicago Great Western Railroad Company. *Fence.*

Fence repaired. Filed May 9, 1917. Closed May 23, 1917.

No. 8565, 1917.

H. G. Barr, Spirit Lake, Iowa, v. Wabash Railway Company. *Claim for Refund on Unused Portion of Ticket.*

Refund made. Filed May 10, 1917. Closed October 22, 1917.

No. 8566, 1917.

Sumner Davis, Carlisle, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Fence.*

Fence constructed. Filed May 4, 1917. Closed July 24, 1917.

No. 8567, 1917.

Wm. Hoegh, Elkhorn, Iowa, v. Atlantic Northern Railway Company, et al. *Failure to Furnish Cars.*

Railway Company advised that delay in furnishing cars had been caused by giving preference to cars for shipments of coal at the request of the National Council of Defense. Filed May 15, 1917. Closed May 24, 1917.

No. 8568, 1917.

Ottumwa Sand Company, Ottumwa, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed May 15, 1917. Closed July 16, 1917.

No. 8569, 1917.

Jolley Farmers Elevator Company, Jolley, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

Investigation developed the fact that complainant had received a just proportion of available empty cars. Filed May 16, 1917. Closed June 2, 1917.

No. 8570, 1917.

Redfield Brick & Tile Company, et al., Redfield, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed May 16, 1917. Closed May 18, 1917.

No. 8571, 1917.

Farmers Elevator Company, Slifer, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Furnish Cars.*

Investigation developed the fact that complainant had received a just proportion of available empty cars. Filed May 19, 1917. Closed June 21, 1917.

No. 8572, 1917.

Harvey Sand & Gravel Company, Harvey, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Furnish Cars.*

Complainant agreed to use rough box cars for shipments of sand and gravel and the same were furnished. Filed May 18, 1917. Closed May 31, 1917.

No. 8573, 1917.

Burlington Quarry Company, Keokuk, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Failure to Furnish Cars.*

Railroad Company advised that it was impossible to furnish a sufficient number of coal cars for shipments of stone on account of giving preference to shipments of coal. Filed May 18, 1917. Closed June 4, 1917.

No. 8574, 1917.

John Shields & Sons, Washington, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

This complaint was brought up in regard to furnishing coal cars for shipments of gravel. Investigation developed that delay in furnishing cars was caused by giving preference to shipments of coal in accordance with recommendation of the National Council of Defense. Filed May 23, 1917. Closed June 20, 1917.

No. 8575, 1917.

J. R. Brewbaker, Spring Hill, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Drainage.*

Complainant failed to reply to letter from the Board asking whether formal hearing was desired and case was dismissed without prejudice. Filed May 22, 1917. Closed October 29, 1917.

No. 8576, 1917.

Hans Johnson, Miles, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed May 26, 1917. Closed June 13, 1917.

No. 8577, 1917.

E. Weinkoetz, Afton, Iowa, v. Chicago Great Western Railroad Company. *Fence.*

Railroad Company advised that investigation developed the fact that the fence in question fulfilled the requirements of the statute. Filed April 4, 1917. Closed December 1, 1917.

No. 8578, 1917.

Rinker & Donley, Anthon, Iowa, v. Illinois Central Railroad Company. *Drainage.*

Complainant failed to reply to letters from the Board asking whether formal hearing was desired and the case was dismissed without prejudice. Filed May 29, 1917. Closed October 28, 1917.

No. 8579, 1917.

Farmers Incorporated Co-operative Society, Palmer, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed May 29, 1917. Closed June 1, 1917.

No. 8580, 1917.

Herman Scherman, Melbourne, Iowa, v. Chicago Great Western Railroad Company. *Fence.*

Railroad Company agreed to construct fence. Filed June 7, 1917. Closed December 1, 1917.

No. 8581, 1917.

Modale Farmers Elevator Company, Modale, Iowa, v. Chicago & North Western Railway Company. *Elevator Site.*

Dismissed at request of complainant. Filed June 7, 1917. Closed July 7, 1917.

No. 8582, 1917.

L. A. Marr & Son, Keota, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Delay in Transit.*

Shipment delivered. Filed June 11, 1917. Closed June 14, 1917.

No. 8583, 1917.

Farmers Co-operative Elevator Company, Stout, Iowa, v. Chicago & North Western Railway Company. *Elevator Site.*

Railway Company advised that arrangements had been made to lease elevator site to complainant. Filed April 30, 1917. Closed July 6, 1917.

No. 8584, 1917.

P. W. Schenkelberg, Halbur, Iowa, v. Chicago Great Western Railroad Company. *Fence.*

Fence repaired. Filed June 7, 1917. Closed October 25, 1917.

No. 8585, 1917.

R. Hurnt Packing Company, Sioux City, Iowa, v. Illinois Central Railroad Company. *Refrigerator Service.*

Dismissed at request of complainant. Filed June 13, 1917. Closed July 20, 1917.

No. 8586, 1917.

John W. Carlson, Atlantic, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed June 13, 1917. Closed June 13, 1917.

No. 8587, 1917.

Farmers Elevator Company, Larrabee, Iowa, v. Illinois Central Railroad Company. *Failure to Furnish Cars.*

Cars furnished. Filed June 20, 1917. Closed July 2, 1917.

No. 8588, 1917.

Mrs. L. E. Webber, Woodbine, Iowa, v. Chicago & North Western Railway Company. *Farm Crossing.*

Crossing repaired to satisfaction of complainant. Filed June 20, 1917. Closed November 21, 1917.

No. 8589, 1917.

Henry Heine, Afton, Iowa, v. Chicago, Great Western Railroad Company. *Fence.*

Fence constructed. Filed June 19, 1917. Closed October 25, 1917.

No. 8590, 1917.

Farmers Grain & Coal Company, Pocahontas, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Switching Service.*

The Railway Company furnished service requested. Filed June 22, 1917. Closed June 23, 1917.

No. 8591, 1917.

Berlin Commercial Club, Berlin, Iowa, v. Chicago, Great Western Railroad Company. *Station Facilities and Service.*

Complainant failed to reply to letter from the Board asking whether formal hearing was desired, and complaint was dismissed without prejudice. Filed June 23, 1917. Closed December 1, 1917.

No. 8592, 1917.

Waterloo Sand & Gravel Company, Waterloo, Iowa, v. Chicago, Rock Island & Pacific Railway Company, et al. *Failure to Furnish Cars.*

Investigation developed the fact that delay in furnishing cars was caused by giving preference to cars for shipments of coal. Filed June 27, 1917. Closed August 13, 1917.

No. 8593, 1917.

J. L. Lutton, North English, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed June 26, 1917. Closed July 26, 1917.

No. 8594, 1917.

Chicago, Milwaukee & St. Paul Railway Company, Cedar Rapids, Iowa, v. H. Puttrup, Mason City, Iowa. *Failure to Close Gates.*

This matter was taken up with the defendant in an effort to prevent a recurrence of the cause of this complaint. Filed June 30, 1917. Closed December 1, 1917.

No. 8595, 1917.

D. A. Fenn, Salem, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Failure to Furnish Cars.*

Cars furnished. Filed July 2, 1917. Closed July 9, 1917.

No. 8596, 1917.

Farmers Produce Company, Des Moines, Iowa, v. Chicago, Great Western Railroad Company. *Refusal to Issue Receipt for Shipment.*

Railroad Company advised that measures had been taken to prevent a recurrence of the cause of this complaint. Filed June 30, 1917. Closed July 14, 1917.

No. 8597, 1917.

W. E. Julius, Town Clerk, Avoca, Iowa, v. Chicago, Rock Island & Pacific Railway Company, et al. *Failure to Furnish Cars.*

Cars furnished. Filed June 7, 1917. Closed July 23, 1917.

No. 8598, 1917.

N. D. Shinn, County Attorney, Knoxville, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Overhead Highway Crossing.*

Crossing repaired to satisfaction of complainant. Filed July 11, 1917. Closed August 20, 1917.

No. 8599, 1917.

Curnes Grain Company, Osceola, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Failure to Deliver Grain Doors.*

Railroad Company advised that arrangements had been made for delivery of grain doors to complainant. Filed September 11, 1917. Closed September 23, 1917.

No. 8600, 1917.

J. C. Morrison, Coin, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Farm Crossing.*

Crossing installed. Filed July 21, 1917. Closed August 8, 1917.

No. 8601, 1917.

Mrs. L. H. Munger, Winona, Minnesota, v. Chicago, Great Western Railroad Company. *Loss of Baggage.*

The Railroad Company refused to settle this claim and complainant was advised that her only recourse was through the courts. Filed July 17, 1917. Closed August 30, 1917.

No. 8602, 1917.

H. M. Johnson & Company, Hopkinton, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed July 23, 1917. Closed August 17, 1917.

No. 8603, 1917.

Johnson Brothers, Clayworks, Iowa, v. Minneapolis & St. Louis Railroad Company. *Train Service, cancellation of passenger trains on Fort Dodge-Angus Branch.*

This complaint was referred to the Commerce Council and date was set for hearing. Before hearing was held the Railroad Company advised that the service would be restored and the case was dismissed. Filed August 8, 1917. Closed September 15, 1917.

No. 8604, 1917.

Henry Sparks, Blanchard, Iowa, v. Wabash Railway Company. *Dangerous Condition of Overhead Highway Crossing.*

Crossing repaired. Filed August 3, 1917. Closed December 1, 1917.

No. 8605, 1917.

Keokuk Pure Ice Company, Keokuk, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed August 7, 1917. Closed September 14, 1917.

No. 8606, 1917.

F. E. Speirs, Mayor, et al., Ankeny, Iowa, v. Chicago & North Western Railway Company. *Highway Crossing.*

Crossing improved to satisfaction of complainants. Filed August 7, 1917. Closed November 30, 1917.

No. 8607, 1917.

Dodge-Wallace Company, et al., Council Bluffs, Iowa, v. Chicago, Great Western Railroad Company. *Overhead Highway Crossing, near Western terminus over Woodbury Avenue.*

This complaint was referred to the Commerce Council who returned the file with the recommendation that the case be indefinitely postponed, at the request of complainants, and the complaint was dismissed without prejudice. Filed August 9, 1917. Closed December 3, 1917.

No. 8608, 1917.

J. S. Albright, New Virginia, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Station Facilities and Service.*

This matter was referred to the Commerce Council who returned the file with the request that the matter be indefinitely postponed and the case was dismissed without prejudice. Filed July 17, 1917. Closed November 30, 1917.

No. 8609, 1917.

Mary M. Hardy, et al., v. Chicago, Rock Island & Pacific Railway Company. *Open Farm Crossing.*

The Railway Company agreed to provide an open crossing in place of the closed crossing formerly installed and the case was closed. Filed August 14, 1917. Closed October 30, 1917.

No. 8610, 1917.

Clyde Sparks, Batavia, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Train Service Between Ottumwa and Batavia, Iowa.*

Dismissed. Filed August 13, 1917. Closed August 21, 1917.

No. 8611, 1917.

Elberon Farmers' Grain & Supply Company, Elberon, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed August 13, 1917. Closed August 24, 1917.

No. 8612, 1917.

Dodge-Wallace Company, et al., Council Bluffs, Iowa, v. Chicago, Great Western Railroad Company. *Overhead Highway Crossing, near Eastern Terminus of Woodbury Avenue.*

This complaint was referred to the Commerce Counsel who returned the file with the recommendation that the case be indefinitely postponed at the request of the complainants. The case was therefore dismissed without prejudice. Filed August 9, 1917. Closed December 3, 1917.

No. 8613, 1917.

John Pieper, LeMars, Iowa, v. Illinois Central Railroad Company. *Failure to Furnish Cars.*

Investigation developed the fact that complainant had received a just proportion of available empty cars. Filed August 18, 1917. Closed October 28, 1917.

No. 8614, 1917.

C. H. Grimes, Oyens, Iowa, v. Illinois Central Railroad Company. *Failure to Furnish Cars.*

Investigation developed the fact that the complainant had received a just proportion of available empty cars. Filed August 18, 1917. Closed October 28, 1917.

No. 8615, 1917.

Omaha Grain Exchange, Omaha, Nebraska, v. C. R. I. & P. Ry., C. B. & Q. R. R., and C. & N. W. Ry. *Switching Charges in Council Bluffs.*

Adjusted to the satisfaction of complainant. Filed August 18, 1917. Closed November 1, 1917.

No. 8616, 1917.

Board of Supervisors of Marshall County, Marshalltown, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Highway Crossing.*

Adjusted to satisfaction of complainants. Filed August 22, 1917. Closed October 4, 1917.

No. 8617, 1917.

A. R. Hebenstreit, Tama County Engineer, Toledo, Iowa, v. Chicago, Great Western Railroad Company. *Highway Crossing.*

Crossing repaired. Filed August 24, 1917. Closed September 5, 1917.

No. 8618, 1917.

W. C. Merryman, Town Clerk, Blairsburg, Iowa, v. Illinois Central Railroad Company. *Highway Crossing.*

Adjusted to satisfaction of complainant. Filed August 15, 1917. Closed October 18, 1917.

No. 8619, 1917.

R. C. Reed, Fernald, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Refusal to Stop Train at Station.*

Railway Company advised that prompt measures had been taken to prevent a repetition of the cause of this complaint. Filed September 6, 1917. Closed October 28, 1917.

No. 8620, 1917.

Malvern Cold Storage Company, Malvern, Iowa, v. Wabash Railway, Chicago, Burlington & Quincy Railroad Company and Tabor & Northern Railway Company. *Switching Service.*

The Railway Companies agreed to furnish the service requested and published tariff accordingly. Filed September 6, 1917. Closed October 6, 1917.

No. 8621, 1917.

Des Moines Building Material Company, Des Moines, Iowa, v. Minneapolis & St. Louis Railroad Company. *Failure to Furnish Cars.*

Railroad Company agreed to furnish box cars for shipments of sand which was satisfactory to complainant. Filed September 7, 1917. Closed September 21, 1917.

No. 8622, 1917.

Mrs. George Holland, Kelley, Iowa, v. Fort Dodge, Des Moines & Southern Railroad Company. *Fence.*

Fence repaired. Filed September 17, 1917. Closed October 3, 1917.

No. 8623, 1917.

Mrs. George Holland, Kelley, Iowa, v. Fort Dodge, Des Moines & Southern Railroad Company. *Obstruction to Drainage.*

Obstruction removed. Filed September 17, 1917. Closed October 3, 1917.

No. 8624, 1917.

Martin Damman, Melbourne, Iowa, v. Chicago, Great Western Railroad Company. *Fence.*

Fence constructed. Filed September 24, 1917. Closed November 19, 1917.

No. 8625, 1917.

Dalbey & Company, Norwalk, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Failure to Furnish Cars.*

Cars furnished. Filed September 13, 1917. Closed September 28, 1917.

No. 8626, 1917.

J. K. McGonagle, Washta, Iowa, v. Illinois Central Railroad Company. *Failure to Furnish Cars.*

Cars furnished. Filed October 1, 1917. Closed November 1, 1917.

No. 8627, 1917.

C. Miller & Sons, Clermont, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Failure to Furnish Cars.*

Railway Company advised that delay in furnishing cars was caused by preference being given to cars for shipments of coal. Filed October 11, 1917. Closed November 1, 1917.

No. 8628, 1917.

Vernier Manufacturing Company, Cedar Rapids, Iowa, v. Chicago & North Western Railway Company. *Delay in Furnishing Cars.*

Cars furnished. Filed October 11, 1917. Closed November 5, 1917.

No. 8629, 1917.

Linby Cement Tile Company, Linby, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars for Sand.*

Railway Company advised that cars would be furnished. Filed October 16, 1917. Closed October 24, 1917.

No. 8630, 1917.

Joyce Lumber Company, Atlantic, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Freight Service.*

Investigation developed the fact that this complaint was filed on account of misunderstanding and complaint was withdrawn. Filed October 19, 1917. Closed October 26, 1917.

No. 8631, 1917.

Trawbridge, Cutler & Company, Marshalltown, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed October 25, 1917. Closed November 30, 1917.

No. 8632, 1917.

Ottumwa Sand Company, Ottumwa, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed October 25, 1917. Closed November 30, 1917.

No. 8633, 1917.

W. F. Jordan, Bailey, Iowa, v. Chicago, Great Western Railroad Company. *Failure to Furnish Cars.*

Cars furnished. Filed October 29, 1917. Closed November 6, 1917.

No. 8634, 1917.

Hughes & Long, Williamsburg, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed October 26, 1917. Closed November 30, 1917.

No. 8635, 1917.

Farmers Co-operative Association, Hull, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars.*

Cars furnished. Filed November 1, 1917. Closed November 30, 1917.

No. 8636, 1917.

Hyman Barrow & Sons, Clarinda, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Failure to Furnish Gondola Cars for Shipment of Scrap Iron.*

Dismissed. Filed November 8, 1917. Closed November 30, 1917.

No. 8637, 1917.

Mason City Brick & Tile Company, Mason City, Iowa, v. Chicago & North Western Railway Company. *Failure to Furnish Cars.*

Investigation developed the fact that the complainant had received a just proportion of available empty cars. Filed November 5, 1917. Closed November 28, 1917.

No. 8638, 1917.

Hon. S. R. Reed, Monteith, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Train Service on Guthrie Center Branch.*

Investigation developed the fact that change in train schedule on this branch was occasioned by rearrangement of main line schedule. Filed November 16, 1917. Closed December 1, 1917.

No. 8639, 1917.

Pioneer Grain Company, Pioneer, Iowa, v. Minneapolis & St. Louis road Company. *Failure to Furnish Cars.*

Cars furnished. Filed November 17, 1917. Closed December 1, 1917.

No. 8640, 1917.

H. M. Peterson, Charlotte, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars at Castalia.*

Cars furnished. Filed November 2, 1917. Closed November 15, 1917.

No. 8641, 1917.

Hon. Wm. Becker, Elkader, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars at Clayton.*

Cars furnished. Filed November 23, 1917. Closed November 24, 1917.

No. 8642, 1917.

Summers & Company, Ft. Atkinson, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Failure to Furnish Cars at New Hampton, Iowa.*

Cars furnished. Filed November 26, 1917. Closed November 30, 1917.

No. 8643, 1917.

Litchfield Manufacturing Company, Waterloo, Iowa, v. Chicago & North Western Railway Company. *Overcharge, Freight.*

Adjusted by agreement between complainant and Railway Company. Filed July 31, 1914. Closed January 18, 1917.

No. 8644, 1917.

Iowa State Manufacturers Association, Des Moines, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Claim.*

Dismissed without prejudice. Filed December 4, 1914. Closed March 29, 1917.

No. 8645, 1917.

The Freight Rate Adjustment Company, Des Moines, Iowa, v. Minneapolis & St. Louis Railroad Company. *Claim.*

Claim paid. Filed February 3, 1915. Closed April 7, 1917.

No. 8646, 1917.

Fort Dodge Iron & Metal Company, Fort Dodge, Iowa, v. Illinois Central Railroad Company. *Absorption Switching Charges.*

Dismissed without prejudice. Filed September 7, 1915. Closed March 29, 1917.

No. 8647, 1917.

Walter Huncke, Des Moines, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Intermediate Switching Charges.*

Dismissed without prejudice. Filed September 9, 1915. Closed March 29, 1917.

No. 8648, 1917.

George Wrightman, Des Moines, Iowa, v. Minneapolis & St. Louis Railroad Company. *Overcharge, Freight.*

Overcharge refunded. Filed November 12, 1915. Closed March 15, 1917.

No. 8649, 1917.

Sioux City Commercial Club, Sioux City, Iowa, v. Chicago & North Western Railway Company. *Mileage on Shipments Sioux City to Alton via Hawarden.*

Railway Company amended its distance tariff and complaint was dismissed at request of complainant. Filed December 26, 1914. Closed April 6, 1917.

No. 8650, 1917.

G. A. Ames, Swaledale, Iowa, v. Minneapolis & St. Louis Railroad Company. *Overcharge, Freight.*

Dismissed without prejudice. Filed December 7, 1915. Closed March 29, 1917.

No. 8651, 1917.

Cedar Rapids Grain Company, Cedar Rapids, Iowa, v. Railroads. *Bulk-heading Charges.*

Dismissed without prejudice. Filed March 25, 1916. Closed March 29, 1917.

No. 8652, 1917.

Western Freight Auditing Company, Des Moines, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Overcharge, Freight.*

Dismissed. Filed April 12, 1916. Closed November 2, 1917.

No. 8653, 1917.

John F. Ream, Oskaloosa, Iowa, v. Oskaloosa Traction & Light Company. *Excessive Passenger Rates.*

This matter was referred to the Commerce Counsel who after investigation returned the file with the request that the complaint be dismissed. Filed April 12, 1916. Closed August 7, 1917.

No. 8654, 1917.

O. B. Bowers, Tekamah, Neb., v. Chicago, Rock Island & Pacific Railway Company. *Incorrect Weighing of Baggage.*

Dismissed without prejudice. Filed May 25, 1916. Closed March 29, 1917.

No. 8655, 1917.

E. N. Hesla, Rembrandt, Iowa, v. Minneapolis & St. Louis Railroad Company. *Loss of Hogs in Transit.*

The complainant was advised that the Commission was without jurisdiction in claims for loss or damage and the case was dismissed. Filed June 29, 1916. Closed March 29, 1917.

No. 8656, 1917.

M. W. Shaner, Laurens, Iowa, v. Chicago, Rock Island & Pacific Railway. *Rebilling in Transit.*

Complainant was advised that under decision of the United States Supreme Court in the Kanotex case it would be illegal to rebill from Des Moines to Laurens a shipment originating in Warren, Arkansas. Filed June 24, 1916. Closed January 13, 1917.

No. 8657, 1917.

Keokuk Barrel Company, Keokuk, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Overcharge, Freight.*

Dismissed without prejudice. Filed August 8, 1916. Closed March 28, 1917.

No. 8658, 1917.

Hoag Duster Company, Monticello, Iowa, v. Chicago, Rock Island & Pacific Railway Company, et al. *Overcharge, Freight.*

This matter was referred to the Commerce Counsel who returned the file with the advice that the matter had been adjusted to the satisfaction of the complainant. Filed December 12, 1916. Closed August 7, 1917.

No. 8659, 1917.

Curnes Grain Company, Osceola, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Overcharge, Demurrage.*

Dismissed. Filed January 4, 1916. Closed November 2, 1917.

No. 8660, 1917.

Carr, Ryder and Adams, Dubuque, Iowa, v. Chicago, Milwaukee & St. Paul Railway Company. *Overcharge, Freight.*

Satisfactorily adjusted. Filed January 28, 1917. Closed October 31, 1917.

No. 8661, 1917.

Economy Steel Products Company, Des Moines, Iowa, v. Inter-Urban Railway Company. *Claim.*

Claim paid. Filed May 17, 1917. Closed June 11, 1917.

No. 8662, 1917.

A. O. Hage, Garden City, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Overcharge, Passenger.*

Investigation developed the fact that the alleged overcharge was on interstate trip and, as the Board was without jurisdiction, the case was dismissed. Filed May 31, 1917. Closed November 2, 1917.

No. 8663, 1917.

A. P. Cline, Davenport, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Overcharge, Passenger.*

Overcharge refunded. Filed June 29, 1917. Closed November 2, 1917.

No. 8664, 1917.

Shifer Elevator Company, Gowrie, Iowa, v. Chicago, Rock Island & Pacific Railway Company. *Discriminatory Rate on Grain.*

This matter was referred to the Commerce Counsel who returned the file with the recommendation that the matter be indefinitely postponed and the case was dismissed without prejudice. Filed March 22, 1913. Closed February 12, 1917.

No. 8665, 1917.

Davidson Brothers Company, Des Moines, Iowa, v. Chicago & North Western Railway Company. *Overcharge Freight.*

Closed. Filed October 6, 1916. Closed June 1, 1917.

No. 8666, 1917.

John W. Peter, East Peru, Iowa, v. Chicago, Great Western Railroad Company. *Claim.*

Complainant was advised that the Commission was without jurisdiction in the matter of claims for loss or damage and the case was dismissed without prejudice. Filed January 17, 1917. Closed December 1, 1917.

No. 8667, 1917.

Lester-Lindsay Theatrical Company, v. Chicago & North Western Railway Company. *Overcharge, Baggage.*

Railway Company advised that overcharge would be refunded. Filed September 1, 1917. Closed December 1, 1917.

No. 8668, 1917.

Glen Refining Company, Cleveland, Ohio, v. W. C. F. & N. Ry. Co. *Claim.*

Complainant was advised that the Commission was without jurisdiction in matters of this kind and the case was dismissed without prejudice. Filed October 29, 1917. Closed December 1, 1917.

No. 8669, 1917.

N. Jensen, Greenville, Iowa, v. Chicago, Burlington & Quincy Railroad Company. *Claim.*

Dismissed without prejudice. Filed November 1, 1917. Closed December 1, 1917.

No. 8670, 1917.

W. R. Thompson, et al., Logan, Iowa, v. Illinois Central Railroad Company. *Bridges.*

Bridges constructed to the satisfaction of the complainants. Filed October 11, 1913. Closed June 13, 1917.

EXPRESS COMPANY CASES CLOSED

No. 8671, 1917.

Business Men of Bristow, Iowa, v. Wells Fargo & Company. Express service.

Complainant failed to reply to letters from the Board asking whether formal hearing was desired and complaint was dismissed. Filed July 20, 1916. Closed November 2, 1917.

No. 8672, 1917.

R. J. Beadle, et al., Early, Iowa, v. American Express Company. Express service.

Adjusted to satisfaction of complainant. Filed December 16, 1916. Closed May 4, 1917.

No. 8673, 1917.

Wolfe & Wolfe, Clinton, Iowa, v. Chicago Milwaukee & St. Paul Railway Company and Wells Fargo & Company. Express service at Spragueville, Iowa.

Service improved. Filed January 15, 1917. Closed May 31, 1917.

No. 8674, 1917.

Henningsen Brothers, Dike, Iowa, v. American Express Company. Overcharge, express.

Satisfactorily adjusted. Filed March 19, 1917. Closed November 16, 1917.

No. 8675, 1917.

Model Laundry Company, Waterloo, Iowa, v. Wells Fargo & Company. *Claim.*

Complainant was advised that the Commission was without jurisdiction in a matter of this kind and the case was dismissed. Filed April 26, 1917. Closed May 14, 1917.

No. 8676, 1917.

W. F. Stebbins, Des Moines, Iowa, v. American Express Company. Delay in making returns on C. O. D. shipments.

This matter was referred to the Commerce Counsel who returned the file with the advice that the matter had been adjusted to the satisfaction of the complainant. Filed May 2, 1917. Closed July 5, 1917.

No. 8677, 1917.

V. K. Stanley, LeRoy, Iowa, v. Adams Express Company. *Claim.* Claim paid. Filed May 16, 1917. Closed July 11, 1917.

No. 8678, 1917.

D. A. Fenn, Salem, Iowa, v. Adams Express Company. Refusal to accept shipments.

Adjusted to the satisfaction of the complainant. Filed June 6, 1917. Closed June 26, 1917.

No. 8679, 1917.

D. A. Fenn, Salem, Iowa, v. Adams Express Company. Overcharge express.

Overcharge refunded. Filed May 4, 1917. Closed August 20, 1917.

No. 8680, 1917.

J. P. Dodds, Pres., Des Moines School of Commerce, Des Moines, Iowa, v. Adams Express Company. Claim.

Claim paid. Filed July 10, 1917. Closed November 2, 1917.

No. 8681, 1917.

Lentz & Gump, Richland, Iowa, v. Adams Express Company. Claim.

Claim paid. Filed July 18, 1917. Closed November 8, 1917.

No. 8682, 1917.

Farmers Terminal Elevator Company, Council Bluffs, Iowa, v. American Express Company. Express service.

Service improved. Filed August 11, 1917. Closed August 29, 1917.

No. 8683, 1917.

Waterloo Fruit & Commission Company, Waterloo, Iowa, v. American Express Company. Express service.

This complaint was made on account of alleged refusal to give paid order receipt. Express Company advised that measures had been taken to prevent a recurrence of the cause of this complaint. Filed September 4, 1917. Closed September 17, 1917.

No. 8684, 1917.

L. P. Hinson & Son, Richland, Iowa, v. Adams Express Company. Claim. Claim paid. Filed May 17, 1917. Closed May 25, 1917.

INTERLOCKING, SIGNAL AND OTHER SAFETY DEVICES

Plans for original construction of, or for changes to be made in, the following named interlocking plants, were approved, subject to inspection:

Town or City	Railroads Involved
Ackley	Ill. Cent. and M. & St. L.
Albia	Wabash and C., B. & Q.
Ames	C. & N. W. and Ft. D., D. M. & S.
Arion	C. & N. W., C. M. & St. P. and I. C.
Balfour	C., B. & Q., end of double track
Centerville	C., R. I. & P. and C., B. & Q.
Des Moines	C., R. I. & P. and C. G. W.
Dubuque (Drawbridge)	I. C. and Mississippi River.
Dubuque	I. C. and C., M. & St. P. (South Junction)
Elberon	C. & N. W. and C., M. & St. P.
Estherville (No. 1)	C., R. I. & P. and M. & St. L.
Estherville (No. 2)	C., R. I. & P. and M. & St. L.
Fairfield	C., R. I. & P. and C., B. & Q.
Ft. Madison (Drawbridge)	A., T. & S. F. and Mississippi River
Gladbrook	C. G. W. and C. & N. W.
Gypsum (Ft. Dodge)	Ft. D., D. M. & S. and I. C.
Harcourt	Ft. D., D. M. & S. and C. & N. W.
Hartley	C., R. I. & P. and C., M. & St. P.
Hartley	C., R. I. & P. and C., M. & St. P.
Hayfield	C., R. I. & P. and M. & St. L.
Jeff	C. G. W. Jct. of Northern & Western Divisions
Kelley	Ft. D., D. M. & S. and C. & N. W.
Lake Mills	C. & N. W. and M. & St. L.
Lockridge	C., B. & Q. yards and Crossover
McIntire	C. G. W.
Maple River Jct.	C. & N. W.
Marathon	C., M. & St. P. and C. & N. W.
Marshalltown (Packing House)	C. G. W. and C. & N. W.
Mason City	C. G. W. and C. & N. W.
Mason City	C. & N. W. and M. & St. L.
Mason City	C. & N. W. and M. C. & C. L.
Melrose	C., B. & Q. (Crossover)
New Hampton	C. G. W. and C., M. & St. P.
Oelwein	C. G. W. and C., R. I. & P.
Rinard	C. G. W. and Ft. D., D. M. & S.
Sabula	C., M. & St. P. and Mississippi River
Savonour	C., M. & St. P. and C., R. I. & P.
Shopton	A., T. & S. F.
Sibley	C., St. P., M. & O. and C., R. I. & P.
Somers	C. G. W. and C., R. I. & P.
Washington	C., M. & St. P. and C., R. I. & P.

Original inspections were made of the following named plants for which certificates of approval were issued:

Town or City	Railroads Involved
Aurora	C. G. W., end of double track.
Jeff	C. G. W., Jct. Western and Northern Divisions
Oelwein	C. G. W. and C., R. I. & P.

Plants approved provisionally, subject to future inspection.

Town or City	Railroads Involved
Shopton	A., T. & S. F. east and west Tower

The following named plants having been modified, or having been repaired in accordance with suggestions of the Commission, reinspections were made and reinspection certificates of approval issued:

Town or City	Railroads Involved
Albia	Wabash and C. B. & Q.
Council Bluffs (I. C. Draw-bridge)	I. C. and Missouri River
Council Bluffs	O. & C. E. St. Ry. and C. B. & Q.
Council Bluffs	O. & C. E. St. Ry. and Wabash
Des Moines	C. R. I. & P. and C. G. W.
Dumont	C. & N. W. and C. G. W.
Estherville (No. 1)	C. R. I. & P. and M. & St. L.
Estherville (No. 2)	C. R. I. & P. and M. & St. L.
Gypsum, (Fl. Dodge)	Fl. D., D. M. & S. and I. C.
Harcourt	Fl. D., D. M. & S. and C. & N. W.
Hartley	C. R. I. & P. and C. M. & St. P.
Hinton	I. C., G. N., and C. St. P., M. & O.
Kelley	Fl. D., D. M. & S. and C. & N. W.
Lake Mills	C. & N. W. and M. & St. L.
Lohrville	C. G. W., C. & N. W. and C., M. & St. P.
Maple River Junction	C. & N. W.
Marathon	C., M. & St. P. and C. & N. W.
Mason City	C. & N. W. and M. & St. L.
Mason City	C. & N. W. and M. C. & C. L.
New Hampton	C. G. W. and C. M. & St. P.
Sibley	C., St. P., M. & O. and C. R. I. & P.
Somers	C. G. W. and C. R. I. & P.
Wheatland	C. & N. W. and C., M. & St. P.

Pursuant to reports of plant failures or of derailments in plant territory, inspections were made of the following named plants:

Town or City	Railroads Involved
Council Bluffs	Junction of U. P. tracks
Culver	C. R. I. & P. and C. M. & St. P.
Fl. Madison (Drawbridge)	A. T. & S. P. and Mississippi River
Hampton ("A")	C. G. W. and M. & St. L.
Hampton ("B")	C. G. W., M. & St. L. and C. R. I. & P.
Moravia	Wabash and C., M. & St. P.
Neola	C. R. I. & P. and C. M. & St. P.
Oralabor	Fl. D., D. M. & S. and C. & N. W.
Ottumwa	C. B. & Q., C. R. I. & P. and Wabash
Red Oak	C. B. & Q. (end of double track)
Rowan	C. G. W. and C., R. I. & P.

Inspections were made of the following named plants and certificates of approval withheld pending changes or adjustments recommended to be made:

Town or City	Railroads Involved
Balfour	C. B. & Q., end of double track
Clarion	C. G. W. and C., R. I. & P.
Clarksville	C. G. W. and C. R. I. & P.
Lockridge	C. B. & Q., Crossover and yards
Marshalltown (Packing House)	C. G. W. and C. & N. W.
Mason City	C. G. W. and C. & N. W.
Melrose	C. B. & Q. (Crossover)
Moorland	C. G. W. and M. & St. L.
Seymour	C. M. & St. P. and C. R. I. & P.
Waverly	C. G. W. and C. R. I. & P.
Webb	C. R. I. & P. and C., M. & St. P.

¹Certificate authorizing operation withdrawn pending repairs ordered to be made in the plant.

INTERSTATE CASES HANDLED BY COMMERCE COUNSEL OF IOWA

FOR THE YEAR ENDING DECEMBER 31, 1917.

Iowa and Southwestern Railway Company v. C. B. & Q. R. R. Co., I. C. C. No. 5441, asking for through routes and switching arrangements. Complaint filed with I. C. C. December 19, 1912. Hearing at Des Moines March 31, 1913. Briefs filed and oral argument had; decided by Commission, 32 I. C. C., 172, requiring defendant to maintain and apply reasonable rates on switching cars received from complainant, outside of Iowa, destined to industries located on line of defendant at Clarinda; did not provide for switching cars from industries located on Burlington tracks to points outside of Iowa on line of complainant's road. On January 23, 1915, complainants filed petition for rehearing, which was granted. Fully argued in brief, and orally argued before the Commission on November 29, 1915. Opinion I. C. C. 42 I. C. C., 389, modifying former report.

In the Matter of Bills of Lading, I. C. C. No. 4844, relative to uniform bills of lading. Hearing at Chicago January 1, 1914. Commerce Counsel intervened at request of shippers. Hearing at New York City May 19, 1916, and at Washington, on live stock contracts, on October 17, 1916. Pending.

National Poultry, Butter & Egg Association v. The B. & O. S. W. R. R. Co., et al., I. C. C. No. 7969. Rates on poultry, butter and eggs. Commerce Counsel filed petition of intervention June 10, 1915. Hearing at Chicago October 11, 1915. Orally argued at Washington, January 12, 1916. Decision of I. C. C. in 43 I. C. C., 392.

Board of Railroad Commissioners of the State of Iowa v. Ann Arbor R. R. Co., et al., rates in C. F. A. territory to Mississippi River west-bank cities, I. C. C. No. 8477. Complaint filed with I. C. C. November 24, 1915. Hearing at Chicago March 22, 1916. Oral argument October 14, 1916. Relief granted as prayed, 46 I. C. C., 20.

Board of Railroad Commissioners of the State of Iowa v. The A. T. & S. F. Ry. Co., et al., Ocean and Rail Rates, I. C. C. No. 8377. Complaint filed October 4, 1915. Hearing at Des Moines December 16, 1915. Orally argued at Washington, February 12, 1916. Relief granted as prayed, 46 I. C. C., 63.

Nebraska State Grange v. Union Pacific R. R. Co., et al., Peddling freight from cars, I. C. C. No. 9092. On November 30, 1915, Commerce Counsel filed petition of intervention with I. C. C. Hearing at Lincoln, Nebr., November 16, 1916. Decision in 45 I. C. C., 494.

State of Iowa, et al., v. C., St. P., M. & O. Ry. Co., et al., I. C. C. Nos. 3464-3465, Interior Iowa Cities Cases. Original report found in 28 I. C. C., 76; supplemental report in 29 I. C. C., 539. On August 10, 1914, Com-

merce Counsel filed petition for rehearing, which was granted so far as applied to proportional rates into interior Iowa. Relief granted as prayed, 46 I. C. C., 39.

W. G. Block Company, Muscatine, Iowa, v. The A. T. & S. F. Ry. Co., et al., steam coal rates from Illinois, I. C. C. No. 9457. Complaint, as amended, filed with I. C. C. January 19, 1917. Hearing at Muscatine on May 7, 1917. Pending.

State of Iowa, ex rel J. H. Henderson, Commerce Counsel, v. B. & O. R. R. Co., et al, Commodity Rates, I. C. C. No. 9074. Complaint filed with I. C. C. August 9, 1916. Hearing at Des Moines November 9, 1916. Fourth section applications assigned for oral argument at Washington, D. C., January 5, 1917. Decision in 46 I. C. C., 595, for complainant.

Kansas City Millers' Club, et al., v. The A. T. & S. F. Ry. Co., et al, I. C. C. No. 8354, minimum weight on flour and other mill products. At direction of Iowa Railroad Commission, Commerce Counsel intervened. January 4, 1917, hearing at Kansas City, Mo., at which time state commissions represented at hearing filed a motion, asking the I. C. C. to decline to consider the question of minimum weights on grain, state and interstate, until the carriers had filed application with state commissions,—the record in such cases to be presented to I. C. C. for consideration. Assigned for further hearing at Kansas City October 29, 1917. Pending.

R. C. Laird v. Northern Ry. Co., et al, I. C. C. No. 9255, Joint Freight Rates. Complaint filed with I. C. C. October 12, 1916. Hearing at Des Moines April 17, 1917. Pending.

Commerce Counsel for Clinton Sugar Refining Company, Clinton, Iowa, and J. C. Hubinger Bros. Co., Keokuk, Iowa, C. C. No. 157. On August 1, 1916, filed application for suspension of tariffs advancing rates on glucose and corn syrup, unmixed, from Chicago to New York and other eastern points. Pending.

Commerce Counsel for Iowa Shippers, Western Trunk Lines Iron and Steel, I. & S. No. 961. Formal petition filed with I. C. C. October 20, 1916. November 29, 1916, supplemental protest and application filed. December 1, 1916, received advice that tariffs were suspended. Proposed increases found not generally justified, but authority given to publish higher rates than are at present maintained. 47 I. C. C., 109.

Cement Investigation, I. C. C. No. 8182. Hearing at Chicago September 18, 1916. Office of commerce counsel represented at request of Railroad Commissioners on suggestion of I. C. C. Hearing at Chicago November 13, 1916. Pending.

Local and Proportional Rates, Lake and Rail, between Mississippi River Cities and points in trunk line territory served by Great Lakes Transit Corporation, C. C. No. 152. At meeting of Industrial Traffic Men of Iowa on May 12, 1916, a committee was appointed to act in conjunction with Commerce Counsel in submitting complaint to I. C. C. No complaint filed.

In matter of rates on and classification of Lumber and Lumber Products, I. C. C. No. 8131. Hearing at Chicago July 10, 1916. Pending.

State of Iowa, ex rel J. H. Henderson, Commerce Counsel, v. Wabash Ry. Co., et al, I. C. C. No. 9075, Peoria Rate Case. Complaint filed July 3, 1916; supplemental complaint filed August 11, 1916. Hearing at Des Moines November 11, 1916. January 5, 1917, assigned for oral argument at Washington. Opinion of Commission in 46 I. C. C., 703. Relief granted.

Aluminum Mfg. Co., Des Moines, Iowa, v. The A. T. & S. F. Ry. Co., et al, rate adjustment on aluminum kitchen utensils from Des Moines to various points, I. C. C. No. 8671. Complaint filed February 18, 1916. Hearing May 5, 1916. By opinion of I. C. C., 44 I. C. C., 562, rates not found to be unreasonable or unjust, and complaint dismissed.

Commerce Counsel for Traffic Association of Upper Mississippi River Cities, C. F. A. Class Scale Case, I. & S. No. 965. Rates from C. F. A. Territory to Upper Mississippi River cities. Protest and application for suspension of tariffs filed November 14, 1916. Assigned for hearing at Chicago March 1, 1917. By decision of I. C. C., 45 I. C. C. 254, proposed new system of class and commodity rates in C. F. A. territory found not justified, but a modification thereof suggested.

Commerce Counsel for Iowa Shippers. Local, joint and proportional rates on Coke, I. & S. No. 975. Protest and application for suspension filed with I. C. C. November 18, 1916. Assigned for hearing at Des Moines April 16, 1917. May 5, 1917, received notice from I. C. C. that carriers had been granted a permissive order to cancel the schedules under suspension. Case closed.

Commerce Counsel of Iowa, for shippers: rates on Fruits and Vegetables, I. & S. No. 820. Protest and application for suspension filed with I. C. C. April 3, 1916. Hearing September 21, 1916. Opinion of I. C. C. in 43 I. C. C., 291.

Commerce Counsel for Iowa Shippers. On July 20, 1916, filed protest and application for suspension of increased rates on Linseed Oil Cake and Linseed Oil Meal, I. & S. No. 893. Hearing November 20, 1916, at Minneapolis, Minn. On June 15, 1917, received advices from I. C. C. that carriers filed tariffs cancelling schedules under suspension, and established rates satisfactory to protestants. Proceeding dismissed.

Commerce Counsel for Farley-Loetscher Mfg. Co., Dubuque, Iowa. On February 10, 1916, filed petition of intervention in Cadillac Lumber Exchange v. Ann Arbor R. R. Co., et al., I. C. C. No. 8247, rates on lumber and hardwood flooring. Hearing at Grand Rapids, Mich., March 17, 1916. By opinion of I. C. C., 44 I. C. C., 750, rates found unreasonable and reparation awarded.

Commerce Counsel for Douglas Company, Cedar Rapids Iowa, et al., rates on starch and dextrine, I. & S. No. 999. Protest and application for suspension filed December 20, 1916. Hearing at Chicago, April 17, 1917. On July 18, 1917, received order of I. C. C. discontinuing proceeding, as carriers had filed tariffs cancelling schedules under suspension.

Commerce Counsel for Iowa Shippers, classification on Digester Tankage, etc., I. & S. No. 946. Protest and application for suspension filed

October 2, 1916. January 25, 1917, hearing at Des Moines, at which time manufacturers and shippers agreed with carriers on an adjustment of Class "D," minimum weight 30,000 pounds.

Commerce Counsel for Iowa Shippers, Western Trunk Line Case, I. & S. No. 880, rate increases on Paper, Asphalt, etc. Protest and application for suspension filed June 17, 1916. Hearing December 4, 1916. February 8, 1917, oral argument at Washington. Decision of I. C. C. in 43 I. C. C., 481 and 700. Some rates justified, others not justified.

Anthracite Coal Rates, I. & S. No. 1111. Appearance entered. Consolidated with Ex Parte No. 57, The Fifteen Per Cent Case. Opinion in 45 I. C. C., 303.

Live Stock Bedding Case, I. & S. No. 924. Hearing at Omaha, Neb., April 10, 1917, in which Commerce Counsel entered appearance in behalf of Iowa shippers. Because carriers offered no evidence and failed to justify reasonableness of proposed increases, carriers were required to cancel their schedules proposing increases, and proceeding therefore discontinued.

La Crosse, Wisconsin-Iowa Class Rates, I. & S. No. 1061. Orders suspending operation of schedules complained of vacated and set aside and proceedings discontinued.

Commerce Counsel for Douglas Company, Cedar Rapids, Iowa, South Carolina Starch Rates, C. C. No. 186. Believed not advisable to file complaint before I. C. C. and not within the province of this office to institute other proceedings.

Commerce Counsel for Iowa Shippers, Woodenware Package Rating, I. & S. No. 1096. Complaint filed with I. C. C. May 19, 1917. Assigned for hearing at Minneapolis, Minn., on September 10, 1917. Pending.

Commerce Counsel for Iowa Shippers. Rates on Grain and Grain Products, from stations in Iowa to various Interstate points, Eastern Grain Case, I. & S. No. 1142. Protest and application for suspension filed with I. C. C. September 18, 1917. Consolidated with Ex Parte No. 57, The Fifteen Per Cent Case, and assigned for hearing November 5, 1917. Reported in 45 I. C. C., 303.

Ex Parte No. 57, The Fifteen Per Cent Case. On April 18, 1917, Commerce Counsel was directed by Iowa Railroad Commission to represent the Board at a conference before I. C. C. at Washington, D. C., April 20, in above case. Hearings held from May 23 to June 12, inclusive. Opinion in 45 I. C. C., 303.

J. H. Henderson, Commerce Counsel of Iowa, for J. C. Hubinger Bros. Co., Reparation Claim, I. C. C. No. 9482. Hearing at Des Moines, May 10, 1917. Pending.

Commerce Counsel for Iowa Shippers, C. C. No. 188. Grain and Grain Products from South Dakota to Iowa destinations. Formal protest and application for suspension filed August 18, 1917. On September 8, 1917, received advices from the secretary of the I. C. C. that the Commission declined to suspend the operation of tariffs protested. Inasmuch as this was similar to rates complained of in Beaver Valley Milling Co., et al. v. The A. T. & S. F. Ry. Co., et al., and as the Commission denied a

rehearing in that case, it was thought advisable to not formally prosecute this case before the I. C. C.

Commerce Counsel for Iowa Shippers, Rice from Texas and Louisiana, I. & S. No. 769. Application for suspension of tariffs filed December 18, 1915. Hearing at Houston, Texas, March 29, 1916. Opinion filed 40 I. C. C. 285; some proposed rates justified; rates to interior Iowa and Missouri River cities not justified in full.

Commerce Counsel for Shippers at Dubuque, Clinton, Davenport, et al., Lumber for Sash, Doors and other house trimmings. Protest and application for suspension filed December 13, 1916. On May 5, 1917, received advices from I. C. C. that carriers respondent had filed tariffs cancelling schedules under suspension, and complaint dismissed.

Commerce Counsel for Shippers of Iowa, Diversion or Reconsignment of Carload Freight, I. & S. No. 1050. Protest and application for suspension filed February 24, 1917. Assigned for hearing at Chicago, May 7, 1917. Pending.

Board of Railroad Commissioners of the State of Iowa v. Wabash Ry. Co., et al., C. C. 187. This action was brought to require of the Wabash Railway Company to transport wheat and other grain that had been brought in from northwestern Iowa to Council Bluffs, over two or more lines, where 80% of the sum of the locals was paid, and the grain sold and delivered to purchasers at Council Bluffs. The company refused to transport the grain to the general markets on the proportional rate, but insisted upon charging the local rate from Council Bluffs to St. Louis. The case was instituted in the state court; was removed to the Federal Court, where it is now pending.

Among many rate matters affecting interstate transportation we had that of Onions from Modale, Iowa, to Kansas City, the classification of gloves and mittens, and rate on coke from St. Louis to Chariton, and many other like matters, which never came to a hearing before the Commission, and which were disposed of or in process of adjustment.

Besides the large number of matters involving interstate rates and regulations, there were also matters intrastate, such as depot facilities, crossings, station privileges and the like, as well as some intrastate rates, which were taken up through the year. These were usually matters that were disposed of without the necessity of any formal proceedings, and which are not believed to be of sufficient general import to warrant reference specifically to each of them in this report.

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CHICAGO AND NORTHWESTERN RAILWAY COMPANY.

Directors: William K. Vanderbilt, New York, N. Y.; Frederick W. Vanderbilt, New York, N. Y.; Harold S. Vanderbilt, New York, N. Y.; Cyrus H. McCormick, Chicago, Ill.; Chauncey Keep, Chicago, Ill.; Richard H. Aishton, Chicago, Ill.; Chauncey M. Depew, New York, N. Y.; Henry C. Frick, Pittsburgh, Pa.; David P. Kimball, Boston, Mass.; John V. Farwell, Chicago, Ill.; Edward M. Hyzer, Chicago, Ill.; Homer A. Miller, Des Moines, Iowa; Marvin Hughitt, Chicago, Ill.; William K. Vanderbilt, Jr., New York, N. Y.; James Stillman, New York, N. Y.; Oliver Ames, Boston, Mass.; Zenas Crane, Dalton, Mass.

General Officers: Chairman, Marvin Hughitt, Chicago, Ill.; President, Richard H. Aishton, Chicago, Ill.; Vice President, Samuel A. Lynde, New York, N. Y.; Vice President, Hiram R. McCullough, Chicago, Ill.; Vice President, Marvin Hughitt, Jr., Chicago, Ill.; Vice President Edward M. Hyzer, Chicago, Ill.; Land Commissioner, Josiah F. Cleveland, Chicago, Ill.; Tax Commissioner, Thomas A. Polleys, Chicago, Ill.; Secretary, John D. Caldwell, Chicago, Ill.; Treasurer, Arthur S. Pierce, New York, N. Y.; General Counsel, Edward M. Hyzer, Chicago, Ill.; General Solicitor, Carl C. Wright, Chicago, Ill.; Comptroller, Lewis A. Robinson, Chicago, Ill.; General Auditor, Charles D. Brandriff, Chicago, Ill.; General Manager, Samuel G. Strickland, Chicago, Ill.; Chief Engineer, William H. Finley, Chicago, Ill.; General Superintendent, George B. Vilas, Chicago, Ill.; General Solicitor, William G. Wheeler, Chicago, Ill.; Assistant General Counsel, Edward M. Smart, Chicago, Ill.; General Manager, Frank Wal-

ters, Omaha, Neb.; Assistant General Manager, Walter J. Towne, Chicago, Ill.; General Superintendent, Chester T. Dike, Huron, S. D.; General Superintendent, Stanley M. Braden, Norfolk, Neb.; General Traffic Manager, Alexander C. Johnson, Chicago, Ill.; Freight Traffic Manager, Frank P. Eyman, Chicago, Ill.; Assistant Freight Traffic Manager, Edmund D. Brigham, Chicago, Ill.; Assistant Freight Traffic Manager, Henry W. Beyers, Chicago, Ill.; General Freight Agent, Samuel F. Miller, Chicago, Ill.; General Passenger and Ticket Agent, Charles A. Cairns, Chicago, Ill.; General Superintendent Motive Power and Car Departments, Robert Quayle, Chicago, Ill.

CHICAGO, ST. PAUL, MINNEAPOLIS & OMAHA RAILWAY COMPANY.

Directors: Zenas Crane, Dalton, Mass.; Chauncey M. Depew, New York, N. Y.; Marvin Hughitt, Chicago, Ill.; David P. Kimball, Boston, Mass.; Harold S. Vanderbilt, New York, N. Y.; Samuel Carr, Boston, Mass.; Oliver Ames, Boston, Mass.; James T. Clark, St. Paul, Minn.; Edward M. Hyzer, Chicago, Ill.; William K. Vanderbilt, New York, N. Y.; Frederick W. Vanderbilt, New York, N. Y.; William K. Vanderbilt, Jr., New York, N. Y.; Samuel A. Lynde, New York, N. Y.

General Officers: Chairman of the Board, Marvin Hughitt, Chicago, Ill.; President, James T. Clark, St. Paul, Minn.; Vice President, Samuel A. Lynde, New York, N. Y.; Vice President, Edward M. Hyzer, Chicago, Ill.; Vice President, Arthur W. Trenholm, St. Paul, Minn.; Assistant Secretary, Samuel A. Lynde, New York, N. Y.; Assistant Secretary, Arthur S. Pierce, New York, N. Y.; Secretary, John D. Caldwell, Chicago, Ill.; Treasurer, Arthur S. Pierce, New York, N. Y.; General Counsel, Edward M. Hyzer, Chicago, Ill.; General Solicitor, James B. Sheen, St. Paul, Minn.; Comptroller, Charles Jensch, St. Paul, Minn.; General Manager, Arthur W. Trenholm, St. Paul, Minn.; Chief Engineer, Herman Rittinghouse, St. Paul, Minn.; General Superintendent, Frank R. Pechin, St. Paul, Minn.; Assistant Secretary, Charles A. Leggo, Hudson, Wis.; Superintendent M. P. & M., John J. O'Neill, St. Paul, Minn.; Land Commissioner, George W. Bell, Hudson, Wis.; General Traffic Manager, Hiram M. Pearce, St. Paul, Minn.; General Freight Agent, Albion M. Fenton, St. Paul, Minn.; General Passenger Agent, George H. MacRae, St. Paul, Minn.; Tax Commissioner, Thomas A. Polleys, Chicago, Ill.

IOWA SOUTHERN RAILWAY COMPANY.

Directors: Marvin Hughitt, Chicago, Ill.; Richard H. Aishton, Chicago, Ill.; Marvin Hughitt, Jr., Chicago, Ill.; Lewis A. Robinson, Chicago, Ill.; John D. Caldwell, Chicago, Ill.

General Officers: President, Richard H. Aishton, Chicago, Ill.; Vice President, Marvin Hughitt, Jr., Chicago, Ill.; Assistant Secretary and Assistant Treasurer, James C. Davis, Des Moines, Iowa; Secretary, John D. Caldwell, Chicago, Ill.; Treasurer, Arthur B. Jones, Chicago, Ill.; General Counsel, Edward M. Hyzer, Chicago, Ill.; Comptroller, Lewis A. Robinson, Chicago, Ill.; Chief Engineer, William H. Finley, Chicago, Ill.; General Superintendent, F. H. Hamill, Boone, Iowa.

THE CHICAGO ROCK ISLAND AND PACIFIC RAILWAY COMPANY.

Jacob M. Dickinson, Receiver.

Directors: N. L. Amster, Boston, Mass.; Chas. Hayden, New York, N. Y.; Seward Prosser, New York, N. Y.; J. S. Alexander, New York, N. Y.; Chas. G. Daws, Chicago, Ill.; E. D. Hulbert, Chicago, Ill.; J. G. Sheed, Chicago, Ill.; J. R. Morron, New York, N. Y.; Nathaniel French, Davenport, Iowa; J. W. Burdick, Pittsburgh, Pa.; W. B. Thompson, New York, N. Y.; S. Davies Warfield, Baltimore Md.; James Speyer, New York, N. Y.

General Officers: Receiver, Jacob M. Dickinson, Chicago, Ill.; Officers for Receiver: Chief Executive Officer, J. E. Gorman, Chicago, Ill.; Chief Operating Officer, A. C. Ridgway, Chicago, Ill.; Secretary and Treasurer, Geo. H. Crosby, Chicago, Ill.; Assistant Secretary and Assistant Treasurer, Carl Nyquist, Chicago, Ill.; Assistant to Receiver, H. M. Sloan, Chicago, Ill.; General Solicitor, M. L. Bell, Chicago, Ill.; Comptroller, Frank Nay, Chicago, Ill.; General Auditor, W. H. Burns, Chicago, Ill.; General Managers, C. W. Jones Des Moines, Iowa, and T. H. Beacon, El Reno, Okla.; Assistant General Manager, A. B. Ramsdell, Des Moines, Iowa, and G. W. Rourke, El Reno, Okla.; General Purchasing Agent, F. D. Reed, Chicago, Ill.; Chief Engineer, C. A. Morse, Chicago, Ill.; General Mechanical Superintendent, W. J. Tollerton, Chicago, Ill.; Superintendent of Telegraph, G. D. Hood, Chicago, Ill.; Freight Traffic Manager, S. H. Johnson, Chicago, Ill.; Passenger Traffic Manager, L. M. Allen, Chicago, Ill.; Real Estate and Tax Agent, T. J. Newkirk, Chicago, Ill.; Transfer Agent, F. A. Smith, New York, N. Y.

ST. PAUL AND KANSAS CITY SHORT LINE RAILROAD COMPANY.

Directors: J. E. Gorman, Chicago, Ill.; A. C. Ridgway, Chicago, Ill.; Geo. H. Crosby, Chicago, Ill.; H. M. Sloan, Chicago, Ill.; A. T. Hert, Louisville, Ky.

General Officers: President, J. E. Gorman, Chicago, Ill.; Vice President, A. C. Ridgway, Chicago, Ill.; Vice President, H. M. Sloan, Chicago, Ill.; Vice President, Assistant Secretary and Treasurer, Geo. H. Crosby, Chicago, Ill.; Vice President, Assistant Secretary and Assistant Treasurer, Carl Nyquist, Chicago, Ill.; Secretary and Assistant Treasurer, F. W. Sargent, Des Moines, Iowa; Comptroller, Frank Nay, Chicago, Ill.; General Auditor, W. H. Burns, Chicago, Ill.

COLFAX NORTHERN RAILWAY COMPANY.

Directors: Thos. W. Griggs, Davenport, Iowa; W. A. Seevers, Des Moines, Iowa; M. B. Seevers, Des Moines, Iowa; Robert Ryan, Des Moines, Iowa; J. B. Ryan, Colfax, Iowa.

General Officers: President, Thos. W. Griggs, Davenport, Iowa; Vice President, Marion B. Seevers, Des Moines, Iowa; Secretary, W. Blakeley, Colfax, Iowa; Treasurer, Marion B. Seevers, Des Moines, Iowa; General Manager, W. Blakeley, Colfax, Iowa.

COLFAX CONSOLIDATED COAL COMPANY.

Directors: Not organized.

General Officers: President, W. A. Seevers, Des Moines, Iowa; First Vice President, Robert Ryan, Des Moines, Iowa; Secretary and Treasurer, J. B. Ryan, Colfax, Iowa; General Manager, J. B. Ryan, Colfax, Iowa.

SECURITY INVESTMENT COMPANY.

Directors: F. H. Griggs, Davenport, Iowa; T. W. Griggs, Davenport, Iowa; Thos. Agar, Davenport, Iowa.

General Officers: President, F. H. Griggs, Davenport, Iowa; First Vice President, Thos. Agar, Davenport, Iowa; Secretary and Treasurer, Thos. W. Griggs, Davenport, Iowa.

CRESTON, WINTERSET AND DES MOINES RAILROAD COMPANY.

Directors: G. M. White, Macksburg, Iowa; C. E. Wilson, Macksburg, Iowa; E. B. Marsh, Macksburg, Iowa; John Ramsbottom, Orient, Iowa; A. S. Lynn, Orient, Iowa.

Vice President and Receiver: Clarence E. Wilson, Macksburg, Iowa; Comptroller or Auditor, E. L. Hughes, Macksburg, Iowa; Attorney or General Counsel, Guher Brothers, Winterset, Iowa; General Manager, General Superintendent, General Freight Agent, and General Passenger Agent, E. L. Hughes, Macksburg, Iowa.

DAVENPORT, ROCK ISLAND AND NORTHWESTERN RAILWAY COMPANY.

Directors: E. P. Bracken, Chicago, Ill.; D. L. Bush, Chicago, Ill.; J. M. Dering, Chicago, Ill.; J. H. Hilland, Chicago, Ill.; Hale Holden, Chicago, Ill.; J. C. Hutchins, Chicago, Ill.; C. S. Jefferson, Chicago, Ill.

General Officers: President, E. P. Bracken, Chicago, Ill.; Vice President, J. C. Hutchins, Chicago, Ill.; Secretary and Treasurer, P. L. Hinrichs, Davenport, Iowa; Auditor and Assistant Treasurer, J. H. Ella, Davenport, Iowa; General Manager, O. B. Grant, Davenport, Iowa.

GREAT NORTHERN RAILWAY COMPANY.

Directors: William B. Dean, St. Paul, Minn.; A. Barton Hepburn, New York, N. Y.; Louis W. Hill, St. Paul, Minn.; Frederick E. Weyerhauser, St. Paul, Minn.; Ralph Budd, St. Paul, Minn.; Pierce L. Howe, Minneapolis, Minn.; Edward T. Nichols, New York, N. Y.; Alexander D. Thomson, Duluth, Minn.; L. Emery Katzenbach, St. Paul, Minn.; William P. Kenney, St. Paul, Minn.; Erasmus C. Lindley, St. Paul, Minn.; Albert L. Ordean, Duluth, Minn.

General Officers: Chairman of the Board, Louis W. Hill, St. Paul, Minn.; President, Louis W. Hill, St. Paul, Minn.; Assistant to President, Ralph Budd, St. Paul, Minn.; Vice President, E. T. Nichols, New York, N. Y.; Vice President, W. P. Kennedy, St. Paul, Minn.; Vice President, J. M. Gruber, St. Paul, Minn.; Vice President, G. R. Martin, St. Paul, Minn.; Vice President, E. C. Lindley, St. Paul, Minn.; Secretary and Treasurer, L. E. Katzenbach, St. Paul, Minn.; General Counsel, E. C. Lindley, St. Paul, Minn.; Comptroller, G. R. Martin, St. Paul, Minn.; General Manager,

G. H. Emerson, St. Paul, Minn.; Chief Engineer, A. H. Hogeland, St. Paul, Minn.; Assistant General Manager, C. O. Jenks, St. Paul, Minn.; R. W. Land and Tax Commissioner, Jas. T. Maher, St. Paul, Minn.; Superintendents of Motive Power, A. C. Deverell, St. Paul, Minn. and R. D. Hawkins, St. Paul, Minn.; General Superintendent Lake District, F. S. Elliott, Superior, Wis.; General Superintendent Eastern District, F. Bell, St. Paul, Minn.; General Superintendent Central District, F. D. Kelsey, Great Falls, Mont.; General Superintendent Western District, J. H. O'Neill, Seattle, Wash.; General Superintendent Transportation, W. C. Watrous, St. Paul, Minn.

ILLINOIS CENTRAL RAILROAD COMPANY.

Directors: His Excellency, Frank O. Lowden, Governor of Illinois, Springfield, Ill.; Walther Luttgen, New York, N. Y.; John W. Auchincloss, New York, N. Y.; Robert Walton Goelet, Newport, R. I.; Cornelius Vanderbilt, New York, N. Y.; Henry W. DeForest, New York, N. Y.; Charles H. Markham, Chicago, Ill.; Robert S. Lovett, New York, N. Y.; J. Ogden Armour, Chicago, Ill.; Phillip Stockton, Boston, Mass.; Charles A. Peabody, New York, N. Y.; John G. Shedd, Chicago, Ill.; William Averell Harriman, Harriman, N. Y.

General Officers: President, C. H. Markham, Chicago, Ill.; First Vice President, C. M. Kittle, Chicago, Ill.; Second Vice President, W. L. Park, Chicago, Ill.; Third Vice President, F. B. Bowes, Chicago, Ill.; Fourth Vice President, C. F. Parker, Chicago, Ill.; Secretary, D. R. Burbank, New York, N. Y.; Treasurer, A. J. Wykes, New York, N. Y.; General Solicitor, Blewett Lee, Chicago, Ill.; Comptroller, M. P. Blauvelt, Chicago, Ill.; General Manager, T. J. Foley, Chicago, Ill.; Chief Engineer, A. S. Baldwin, Chicago, Ill.; Assistants to the Comptroller, L. A. Harkness, Chicago, Ill. and C. H. Drazy, Chicago, Ill.; Assistant General Auditor, J. F. Shepherd, Chicago, Ill.; General Superintendent of Motive Power, R. W. Bell, Chicago, Ill.; General Superintendent of Transportation, J. F. Porterfield, Chicago, Ill.; General Superintendent of Northern Lines, A. E. Clift, Chicago, Ill.; General Superintendent Southern Lines, L. A. Down, New Orleans, La.; Freight Traffic Manager, D. W. Longstreet, Chicago, Ill.; Passenger Traffic Manager, S. G. Hatch, Chicago, Ill.; Land and Tax Commissioner, W. L. Tarbet, Chicago, Ill.

DUBUQUE AND SIOUX CITY RAILROAD COMPANY.

Directors: J. T. Adams, Dubuque, Iowa; J. W. Auchincloss, New York, N. Y.; D. R. Burbank, New York, N. Y.; Henry W. De Forest, New York, N. Y.; R. W. Goelet, New York, N. Y.; W. A. Harriman, New York, N. Y.; C. M. Kittle, Chicago, Ill.; A. R. Loomis, Fort Dodge, Iowa; R. S. Lovett, New York, N. Y.; Walther Luttgen, New York, N. Y.; C. H. Markham, Chicago, Ill.; Charles A. Peabody, New York, N. Y.; Phillip Stockton, Boston, Mass.; Cornelius Vanderbilt, New York, N. Y.; A. J. Wykes, New York, N. Y.

General Officers: President, C. H. Markham, Chicago, Ill.; Vice President, W. L. Park, Chicago, Ill.; Vice President, F. B. Bowes, Chicago, Ill.; Vice President, C. F. Parker, Chicago, Ill.; Vice President, C. M.

Kittle, Chicago, Ill.; Superintendent, W. Atwill, Dubuque, Iowa; Local Treasurer, O. F. Nau, Chicago Ill.; Secretary and Assistant Treasurer, Miss F. E. Couch, Dubuque, Iowa; Treasurer, A. J. Wykes, New York, N. Y.; Assistant Secretary, D. R. Burbank, New York, N. Y.; Assistant Secretary, B. A. Beck, Chicago, Ill.; Comptroller, M. P. Blauvelt, Chicago, Ill.; General Manager, T. J. Foley, Chicago, Ill.

IOWA AND OMAHA SHORT LINE RAILWAY.

August F. Dammrow, Receiver.

General Officers: Receiver, August F. Dammrow, Treynor, Iowa; Auditor and Agent, F. R. Baker, Treynor, Iowa.

IOWA AND SOUTHWESTERN RAILWAY COMPANY.

Directors: W. S. Farquhar, College Springs, Iowa; G. W. Richardson, Clarinda, Iowa; A. F. Galloway, Clarinda, Iowa; A. M. Abbott, Clarinda, Iowa; I. H. Taggart, Clarinda, Iowa.

General Officers: President, W. S. Farquhar, College Springs, Iowa; Vice President, G. W. Richardson, Clarinda, Iowa; Secretary, A. F. Galloway, Clarinda, Iowa; Treasurer, I. H. Taggart, Clarinda, Iowa; Comptroller or Auditor, A. Harvey, Clarinda, Iowa; Attorney or General Counsel, Wm. Orr, Clarinda, Iowa; General Manager, A. F. Galloway, Clarinda, Iowa.

KEOKUK AND DES MOINES RAILWAY COMPANY.

Directors: Geo. H. Crosby, Chicago, Ill.; F. L. Hine, New York, N. Y.; H. M. Sloan, Chicago, Ill.; Jacob M. Dickinson, Chicago, Ill.; J. E. Gorman, Chicago, Ill.; M. L. Bell, Chicago, Ill.; W. F. Dickinson, Chicago, Ill.; A. C. Ridgway, Chicago, Ill.; Frank Nay, Chicago, Ill.

General Officers: President, J. E. Gorman, Chicago, Ill.; Vice President, Assistant Secretary and Treasurer, Geo. H. Crosby, Chicago, Ill.; Secretary, F. W. Sargent, Des Moines, Iowa; Assistant Secretary and Assistant Treasurer, Carl Nyquist, Chicago, Ill.; General Solicitor, M. L. Bell, Chicago, Ill.; Comptroller, Frank Nay, Chicago, Ill.; General Auditor, W. H. Burns, Chicago, Ill.; General Manager, C. W. Jones, Des Moines, Iowa; Chief Engineer, C. A. Morse, Chicago, Ill.; Mechanical Superintendent, W. J. Tollerton, Chicago, Ill.; General Land and Tax Agent, T. J. Newkirk, Chicago, Ill.

MANCHESTER AND ONEIDA RAILWAY COMPANY.

Directors: A. R. LeRoy, Manchester, Iowa; A. D. Long, Manchester, Iowa; A. A. Morse, (deceased) Manchester, Iowa; R. W. Tirrill, Manchester, Iowa; J. S. Jones, Manchester, Iowa; Chas. J. Seeds, Manchester, Iowa; E. M. Carr, Manchester, Iowa; E. H. Hoyt, Manchester, Iowa; Geo. W. Dunham, Manchester, Iowa; W. H. Hutchinson, Manchester, Iowa; A. S. Blair, Manchester, Iowa; L. Matthews, Manchester, Iowa; Hubert Carr, Manchester, Iowa; J. Hutchinson, Manchester, Iowa; Wm. Hockaday, Manchester, Iowa.

General Officers: President, J. Hutchinson, Manchester, Iowa; Vice President, E. H. Hoyt, Manchester, Iowa; Secretary, L. Matthews, Man-

chester, Iowa; Treasurer, A. R. LeRoy, Manchester, Iowa; Auditor, Chas. J. Seeds, Manchester, Iowa; General Counsel, A. S. Blair, Manchester, Iowa; Traffic Manager, W. F. Grossman, Manchester, Iowa; Acting Traffic Manager, C. J. Broadway, Manchester, Iowa; General Superintendent, J. S. Jones, Manchester, Iowa; General Freight Agent, W. H. Hutchinson, Manchester, Iowa; General Passenger Agent, Hubert Carr, Manchester, Iowa.

THE MINNEAPOLIS AND ST. LOUIS RAILROAD COMPANY.

Directors: Chas. Hayden, New York, N. Y.; F. H. Davis, New York, N. Y.; F. P. Frazier, New York, N. Y.; H. E. Huntington, New York, N. Y.; John A. Spoor, New York, N. Y.; J. S. Bache, New York, N. Y.; S. B. November, New York, N. Y.; J. J. Slocum, New York, N. Y.; E. V. B. Thayer, New York, N. Y.; E. L. Brown, New York, N. Y.; Chas. F. McElroy, New York, N. Y.

General Officers: President, E. L. Brown, Minneapolis, Minn.; Vice President, F. H. Davis, New York, N. Y.; Vice President, J. Russell, Minneapolis, Minn.; Vice President, J. S. Bache, New York, N. Y.; Secretary, A. C. Doan, New York, N. Y.; Treasurer, F. H. Davis, New York, N. Y.; General Counsel, W. H. Bremner, Minneapolis, Minn.; Auditor, A. E. Smith, Minneapolis, Minn.; General Manager, J. Russell, Minneapolis, Minn.; Chief Engineer, R. G. Kenly, Minneapolis, Minn.; Superintendent Motive Power and Roll Stock, G. W. Seidel, Minneapolis, Minn.; General Superintendent, E. E. Kerwin, Minneapolis, Minn.; Land and Tax Agent, C. F. Foote, Minneapolis, Minn.

IOWA CENTRAL AND WESTERN RAILWAY COMPANY.

Directors: Newman Erb, New York, N. Y.; F. H. Davis, New York, N. Y.; A. C. Doan, New York, N. Y.; T. P. Shonts, New York, N. Y.; Geo. W. SeEVERS, Oskaloosa, Iowa.

General Officers: President, Newman Erb, New York, N. Y.; First Vice President, F. R. Davis, New York, N. Y.; Secretary and Treasurer, Geo. W. SeEVERS, Oskaloosa, Iowa.

MUSCATINE, BURLINGTON AND SOUTHERN RAILROAD COMPANY.

Directors: C. G. Hipwell, Davenport, Iowa; C. N. Voss, Davenport, Iowa; J. L. Zeidler, St. Joseph, Mo.; C. A. Buddy, St. Joseph, Mo.; M. Dalley, Muscatine, Iowa.

General Officers: President, M. Dalley, Muscatine, Iowa; Vice President, E. H. Ryan, Davenport, Iowa; Secretary, T. W. Krein, Muscatine, Iowa; Treasurer, C. N. Voss, Davenport, Iowa; Comptroller, B. C. Hightower, Muscatine, Iowa; Attorney, Hoffman and Hoffman, Muscatine, Iowa; General Manager, M. Dalley, Muscatine, Iowa; General Superintendent, D. H. Dalley, Muscatine, Iowa.

THE TABOR AND NORTHERN RAILWAY COMPANY.

Directors: Robert McClelland, Tabor, Iowa; Thomas McClelland, Galesburg, Ill.; R. S. McClelland, Tabor, Iowa.

General Officers: President, Robert McClelland, Tabor, Iowa; Vice President, Thomas McClelland, Galesburg, Ill.; Secretary, E. N. Stöpper,

Tabor, Iowa; Treasurer, Myra McClelland, Tabor, Iowa; Comptroller, Myra McClelland, Tabor, Iowa; General Manager, R. S. McClelland, Tabor, Iowa.

UNION PACIFIC RAILROAD COMPANY.

Directors: Oliver Ames, Boston, Mass.; A. J. Earling, Chicago, Ill.; Robert W. Goelet, New York, N. Y.; W. A. Harriman, New York, N. Y.; Marvin Hughitt, Chicago, Ill.; Otto H. Kahn, New York, N. Y.; Robert S. Lovett, New York, N. Y.; Charles A. Peabody, New York, N. Y.; William Rockefeller, New York, N. Y.; William G. Rockefeller, New York, N. Y.; Mortimer L. Schiff, New York, N. Y.; C. B. Seger, New York, N. Y.; Joseph F. Smith, Salt Lake City, Utah; W. V. S. Thorne, New York, N. Y.; Frank A. Vanderlip, New York, N. Y.

General Officers: President, E. E. Calvin, Omaha, Neb.; Director of Traffic, B. L. Winchell, Chicago, Ill.; Vice President and Comptroller, C. B. Seger, New York, N. Y.; Vice President, C. C. Stillman, New York, N. Y.; Vice President in charge of Purchases, W. A. Harriman, New York, N. Y.; Counsel, H. W. Clark, New York, N. Y.; Secretary, Alexander Millar, New York, N. Y.; Treasurer, Frederick V. S. Crosby, New York, N. Y.; General Manager, W. M. Jeffers, Omaha, Neb.; Vice President in charge of Traffic, John A. Monroe, Omaha, Neb.; Passenger Traffic Manager, Gerrit Fort, Chicago, Ill.; General Freight Agent, C. J. Lane, Omaha, Neb.; General Passenger Agent, W. S. Basinger, Omaha, Neb.; General Solicitor, N. H. Loomis, Omaha, Neb.; I. C. C. Attorney, H. A. Scandrett, Chicago, Ill.; Auditor, H. J. Stirling, Omaha, Neb.; Chief Engineer, R. L. Huntley, Omaha, Neb.; Land Commissioner, J. A. Griffith, Omaha, Neb.

WABASH RAILWAY COMPANY.

Directors: George W. Davison, New York, N. Y.; Robert Goelet, Newport, R. I.; J. Horace Harding, New York, N. Y.; William A. Jamison, New York, N. Y.; Henry B. Joy, Detroit, Mich.; Edward F. Kearney, St. Louis, Mo.; Alvin W. Krech, New York, N. Y.; Winslow S. Pierce, New York, N. Y.; Henry K. Pomroy, New York, N. Y.; I. Leonard Replogle, New York, N. Y.; William V. Sturat, Lafayette, Ind.; Guy E. Tripp, New York, N. Y.; William H. Williams, New York, N. Y.; John N. Willys, Toledo, Ohio; Henry Rogers Winthrop, New York, N. Y.

General Officers: President, Edward F. Kearney, St. Louis, Mo.; Vice President and General Solicitor, J. L. Minnis, St. Louis, Mo.; Vice President in charge of Operation, J. E. Taussig, St. Louis, Mo.; Vice President in charge of Traffic, W. C. Maxwell, St. Louis, Mo.; Vice President, Henry Rogers Winthrop, New York, N. Y.; Vice President, Secretary and Assistant Treasurer, J. C. Otteson, New York, N. Y.; Treasurer, F. L. O'Leary, St. Louis, Mo.; General Counsel, Winslow S. Pierce, New York, N. Y.; General Solicitor, J. L. Minnis, St. Louis, Mo.; Comptroller, L. G. Scott, St. Louis, Mo.; Auditor and Assistant Secretary, T. J. Tobin, St. Louis, Mo.; General Manager, S. E. Cotter, St. Louis, Mo.; Chief Engineer, A. O. Cunningham, St. Louis, Mo.; General Superintendent, T. J. Jones, St. Louis, Mo.; General Claim Agent and Tax Commissioner, B. C. Winston, St. Louis, Mo.

OF RAILWAY BRIDGE COMPANIES

DUNLEITH AND DUBUQUE BRIDGE COMPANY.

Directors: C. H. Markham, Chicago, Ill.; C. M. Kittle, Chicago, Ill.; F. B. Bowes, Chicago, Ill.; M. P. Blauvelt, Chicago, Ill.; Blewett Lee, Chicago, Ill.

General Officers: President, C. H. Markham, Chicago, Ill.; Vice President, W. L. Park, Chicago, Ill.; Assistant Secretary, D. R. Burbank, New York, N. Y.; Assistant Secretary in Chicago, B. A. Beck, Chicago, Ill.; Secretary, Miss F. E. Couch, Dubuque, Iowa; Treasurer, O. F. Nau, Chicago, Ill.; Comptroller, M. P. Blauvet, Chicago, Ill.; General Manager, T. J. Foley, Chicago, Ill.; Superintendent, W. Atwell, Dubuque, Iowa.

KEOKUK AND HAMILTON BRIDGE COMPANY.

Directors: Andrew Carnegie, New York, N. Y.; Theodore F. Hicks, New York, N. Y.; David Paton, New York, N. Y.; Joseph J. Asch, South Norwalk, Conn.; Matthias Nicoll, New York, N. Y.; James F. Secor, Pelham Manor, N. Y.; Henry E. Smith, Philadelphia, Pa.; Theodore Gilman, New York, N. Y.; Winthrop S. Gilman, New York, N. Y.

General Officers: President, Andrew Carnegie, New York, N. Y.; First Vice President, Matthias Nicoll, New York, N. Y.; Secretary and Treasurer, Theodore Gilman, New York, N. Y.; General Superintendent, J. H. Cole, Keokuk, Iowa.

MISSOURI VALLEY AND BLAIR RAILWAY AND BRIDGE COMPANY.

Directors: Marvin Hughitt, Chicago, Ill.; David P. Kimball, Boston, Mass.; Richard H. Alshton, Chicago, Ill.; Hiram R. McCullough, Chicago, Ill.; John D. Caldwell, Chicago, Ill.

General Officers: President, Marvin Hughitt, Chicago, Ill.; Vice President, Richard H. Alshton, Chicago, Ill.; Assistant Secretary James C. Davis, Des Moines, Iowa; Assistant Treasurer, Frederic Mates, Chicago, Ill.; Secretary, John D. Caldwell, Chicago, Ill.; Treasurer, Arthur B. Jones, Chicago, Ill.; Comptroller, Lewis A. Robinson, Chicago, Ill.

OMAHA BRIDGE AND TERMINAL RAILWAY COMPANY.

Directors: C. H. Markham, Chicago, Ill.; Blewett Lee, Chicago, Ill.; W. L. Park, Chicago, Ill.; C. M. Kittle, Chicago, Ill.; M. P. Blauvelt, Chicago, Ill.; F. B. Bowes, Chicago, Ill.; John R. Webster, Omaha, Neb.

General Officers: President, C. H. Markham, Chicago, Ill.; Vice President, W. L. Park, Chicago, Ill.; Assistant Secretary, Burt A. Beck, Chicago, Ill.; Secretary, John R. Webster, Omaha, Neb.; Treasurer, Otto F. Nau, Chicago, Ill.; Comptroller, M. P. Blauviet, Chicago, Ill.

SIOUX CITY BRIDGE COMPANY.

Directors: Marvin Hughitt, Chicago, Ill.; Richard H. Alshton, Chicago, Ill.; David P. Kimball, Boston, Mass.; Hiram R. McCullough, Chicago, Ill.; James T. Clark, St. Paul, Minn.; Lewis A. Robinson, Chicago, Ill.; John D. Caldwell, Chicago, Ill.

General Officers: President, Marvin Hughitt, Chicago, Ill.; Vice President, James L. Clark, St. Paul, Minn.; Assistant Secretary, James C. Davis, Des Moines, Iowa; Assistant Treasurer, Frederic Mates, Chicago, Ill.; Secretary, John D. Caldwell, Chicago, Ill.; Treasurer, Arthur B. Jones, Chicago, Ill.; Comptroller, Lewis A. Robinson, Chicago, Ill.

OF TERMINAL RAILWAY COMPANIES

DES MOINES TERMINAL COMPANY.

Directors: F. M. Hubbell, Des Moines, Iowa; H. D. Thompson, Des Moines, Iowa; C. Huttenlocher, Des Moines, Iowa.

General Officers: President, F. M. Hubbell, Des Moines, Iowa; First Vice President, H. D. Thompson, Des Moines, Iowa; Secretary and Treasurer, C. Huttenlocher, Des Moines, Iowa; General Auditor, J. C. Mobley, Des Moines, Iowa; General Superintendent, C. H. Hueston, Des Moines, Iowa.

DES MOINES UNION RAILWAY COMPANY.

Directors: F. M. Hubbell, Des Moines, Iowa; F. C. Hubbell, Des Moines, Iowa; H. D. Thompson, Des Moines, Iowa; N. T. Guernsey, New York, N. Y.; G. C. Hubbell, Des Moines, Iowa; J. C. Cook, Chicago, Ill.; D. L. Bush, Chicago, Ill.; E. B. Pryor, St. Louis, Mo.

General Officers: President, F. C. Hubbell, Des Moines, Iowa; First Vice President, H. D. Thompson, Des Moines, Iowa; Secretary, F. M. Hubbell, Des Moines, Iowa; Treasurer, H. D. Thompson, Des Moines, Iowa; General Counsel, J. L. Parrish, Des Moines, Iowa; General Auditor, Geo. W. Barns, Des Moines, Iowa; Chief Engineer, H. L. Morgan, Des Moines, Iowa; General Superintendent, J. A. Wagner, Des Moines, Iowa.

DES MOINES WESTERN RAILWAY COMPANY.

Directors: F. M. Hubbell, Des Moines, Iowa; H. D. Thompson, Des Moines, Iowa; F. O. Thompson, Des Moines, Iowa; O. P. Thompson, Des Moines, Iowa; G. C. Hubbell, Des Moines, Iowa.

General Officers: President, F. M. Hubbell, Des Moines, Iowa; First Vice President, O. P. Thompson, Des Moines, Iowa; Secretary and Treasurer, H. D. Thompson, Des Moines, Iowa; General Auditor, C. H. Hueston, Des Moines, Iowa; General Superintendent, C. H. Hueston, Des Moines, Iowa.

IOWA TRANSFER RAILWAY COMPANY.

Directors: E. J. Gibson, Des Moines, Iowa; F. C. Hubbell, Des Moines, Iowa; F. W. Sargent, Des Moines, Iowa; J. A. Wagner, Des Moines, Iowa; J. A. Gordon, Chicago, Ill.; Robert Rice, St. Louis, Mo.

General Officers: President, F. C. Hubbell, Des Moines, Iowa; First Vice President, Robert Rice, St. Louis, Mo.; Secretary and Treasurer, J. A. Wagner, Des Moines, Iowa; General Auditor, W. A. Hahnen, Des Moines, Iowa; General Superintendent, J. A. Wagner, Des Moines, Iowa.

SIOUX CITY TERMINAL RAILWAY COMPANY.

Directors: F. L. Eaton, Sioux City, Iowa; Wm. Milchrist, Sioux City, Iowa; R. F. Murray, Sioux City, Iowa; L. F. Swift, Chicago, Ill.; F. S. Brooks, Chicago, Ill.

General Officers: President, F. L. Eaton, Sioux City, Iowa; First Vice President, Wm. Milchrist, Sioux City, Iowa; Second Vice President, F. S. Brooks, Chicago, Ill.; Secretary, R. F. Murray, Sioux City, Iowa; Treasurer, Geo. S. Parker, Sioux City, Iowa; General Counsel, Wm. Milchrist, Sioux City, Iowa; General Superintendent, C. F. Morrison, Sioux City, Iowa.

OF EXPRESS COMPANIES

THE ADAMS EXPRESS COMPANY.

Directors: William M. Barrett, New York, N. Y.; Caleb S. Spencer, New York, N. Y.; Alexander J. Hemphill, New York, N. Y.; Charles D. Norton, New York, N. Y.; Oliver De G. Vanderbilt, New York, N. Y.; Henry E. Huff, Philadelphia, Pa.; Grant D. Curtis, Chicago, Ill.

Principal Officers: President, William M. Barrett, New York, N. Y.; Vice President, Caleb S. Spencer, New York, N. Y.; Vice President and General Manager in charge of Eastern Dept., Henry E. Huff, Philadelphia, Pa.; Vice President and General Manager in charge of Western Dept., Grant D. Curtis, Chicago, Ill.; Vice President in charge of Traffic, E. M. Williams, New York, N. Y.; Secretary, Horatio H. Gates, New York, N. Y.; Treasurer, Caleb S. Spencer, New York, N. Y.; General Counsel, Guthrie Bangs & Von Sinderen, New York, N. Y.; General Auditor, William W. Glen, New York, N. Y.; General Manager of New York Dept., Charles Mackay, New York, N. Y.; General Manager of Foreign Dept., Joseph S. Bigger, London, England; Traffic Manager, J. Edward Cronin, New York, N. Y.

AMERICAN EXPRESS COMPANY.

Directors: George C. Taylor, New York, N. Y.; Francis F. Flagg, New York, N. Y.; Charles M. Pratt, New York, N. Y.; John H. Bradley, New York, N. Y.; Cornelius Vanderbilt, New York, N. Y.; J. Horace Harding, New York, N. Y.; John G. Milburn, New York, N. Y.; James S. Alexander, New York, N. Y.

Principal Officers: President, George C. Taylor, New York, N. Y.; First Vice President in charge of General, Francis F. Flagg, New York, N. Y.; Vice President in charge of Financial and Supply Depts., Howard K. Brooks, New York, N. Y.; Vice President in charge of traffic, Dixon S. Elliott, New York, N. Y.; Secretary of Company, and Assistant to President, Frederick P. Small, New York, N. Y.; Treasurer, James F. Fargo, New York, N. Y.; General Counsel, Carter, Ledyard & Milburn, New York, N. Y.; Comptroller, Robert Mundle, New York, N. Y.; Vice President and General Manager of Eastern Lines, Robert E. M. Cowie, New York, N. Y.; Vice President and General Manager of Western Lines, J. A. D. Vickers,

Chicago, Ill.; General Manager, Foreign Dept., U. S. and Canada, South America and Orient, Harry Geo, New York, N. Y.; Director General of Foreign Dept., Europe, William S. Dallibe, Paris, France; Manager Dept. Equipment and Supplies, Elisha Flagg, New York, N. Y.; Traffic Manager, Edwin E. Bush, New York, N. Y.

GREAT NORTHERN EXPRESS COMPANY.

Directors: J. M. Gruder, St. Paul, Minn.; L. W. Hill, St. Paul, Minn.; W. P. Kenney, St. Paul, Minn.; G. R. Martin, St. Paul, Minn.; Ronald Stewart, St. Paul, Minn.

Principal Officers: President, W. P. Kenney, St. Paul, Minn.; Vice President, Ronald Stewart, St. Paul, Minn.; Secretary and Treasurer, L. E. Katzenbach, St. Paul, Minn.; Comptroller, G. R. Martin, St. Paul, Minn.; Auditor, L. L. Stenseth, St. Paul, Minn.; General Manager, Ronald Stewart, St. Paul, Minn.

WELLS FARGO & COMPANY.

Directors: B. D. Caldwell, New York, N. Y.; F. D. Underwood, New York, N. Y.; C. A. Peabody, New York, N. Y.; H. W. DeForest, New York, N. Y.; R. Delafield, New York, N. Y.; J. H. Schiff, New York, N. Y.; W. V. S. Thorne, New York, N. Y.; W. A. Harriman, New York, N. Y.; L. F. Loree, New York, N. Y.; H. E. Huntington, New York, N. Y.; E. A. Stedman, Chicago, Ill.; A. Christeson, San Francisco, Cal.; W. F. Herrin, San Francisco, Cal.

Principal Officers: President, B. D. Caldwell, New York, N. Y.; Vice President, A. Christeson, San Francisco, Cal.; Vice President, E. A. Stedman, Chicago, Ill.; Secretary, C. H. Gardiner, New York, N. Y.; Treasurer, B. H. River, New York, N. Y.; General Counsel, C. W. Stockton, New York, N. Y.; Vice President and Comptroller, J. W. Newlean, Chicago, Ill.; Assistant Comptroller, R. Burr, Chicago, Ill.; General Manager, A. Christeson, San Francisco, Cal.; General Manager, E. A. Stedman, Chicago, Ill.; Vice President in charge of Traffic, F. S. Holbrook, New York, N. Y.; Traffic Manager, G. S. Lee, New York, N. Y.

OF ELECTRIC INTERURBAN RAILWAY COMPANIES

ALBIA LIGHT AND RAILWAY COMPANY.

Directors: Albert L. Fowle, New York, N. Y.; Merle R. Walker, New York, N. Y.; Ray M. Walker, New York, N. Y.; A. S. Leland, New York, N. Y.; Ralph W. Boyer, Albia, Iowa.

General Officers: President, Albert L. Fowle, New York, N. Y.; First Vice President, Merle R. Walker, New York, N. Y.; Secretary, A. S. Leland, New York, N. Y.; Treasurer, Ralph W. Boyer, Albia, Iowa; General Manager, Ralph W. Boyer, Albia, Iowa.

CEDAR RAPIDS AND MARION CITY RAILWAY COMPANY.

Directors: Glenn M. Averill, Cedar Rapids, Iowa; Frank T. Hulswit, Grand Rapids, Mich.; Richard Schaddelee, Grand Rapids, Mich.; B. J. Denman, Davenport, Iowa; Sam G. Armstrong, Cedar Rapids, Iowa; Ed. H. Smith, Cedar Rapids, Iowa; E. C. Allen, Cedar Rapids, Iowa.

General Officers: President, Glenn M. Averill, Cedar Rapids, Iowa; First Vice President, Richard Schaddelee, Grand Rapids, Mich.; Second Vice President, B. J. Denman, Davenport, Iowa; Secretary, E. C. Allen, Cedar Rapids, Iowa; Treasurer, C. M. Hurd, Grand Rapids, Mich.; General Counsel, Barnes, Chamberlain and Hanzlik, Cedar Rapids, Iowa; General Auditor, C. Fred Meyer, Cedar Rapids, Iowa; General Manager, E. C. Allen, Cedar Rapids, Iowa; Mechanical Superintendent, Fred M. Ford, Cedar Rapids, Iowa.

CHARLES CITY WESTERN RAILWAY COMPANY.

Directors: C. W. Hart, Charles City, Iowa; A. E. Ellis, Charles City, Iowa; N. Frudden, Charles City, Iowa; M. W. Ellis, Charles City, Iowa; F. W. Fisher, Charles City, Iowa; E. M. Sherman, Charles City, Iowa; F. E. Gates, Marble Rock, Iowa.

General Officers: President, C. W. Hart, Charles City, Iowa; First Vice President, E. M. Sherman, Charles City, Iowa; Secretary, C. H. Poor, Charles City, Iowa; Treasurer, M. W. Ellis, Charles City, Iowa; General Manager, E. R. Ernsberger, Charles City, Iowa.

CLINTON, DAVENPORT AND MUSCATINE RAILWAY COMPANY.

Directors: J. F. Porter, Davenport, Iowa; J. G. Huntoon, Davenport, Iowa; Joe R. Lane, Davenport, Iowa; H. C. Blackwell, Davenport, Iowa; H. E. Weeks, Davenport, Iowa.

General Officers: President, J. F. Porter, Davenport, Iowa; First Vice President, J. G. Huntoon, Davenport, Iowa; Second Vice President, B. J. Denman, Davenport, Iowa; Secretary and Treasurer, H. E. Weeks, Davenport, Iowa; General Counsel, Joe R. Lane, Davenport, Iowa; General Manager, J. G. Huntoon, Davenport, Iowa.

COLFAX SPRINGS RAILWAY COMPANY.

Directors: James P. Donahue, Colfax, Iowa; E. S. H. Donahue, Colfax, Iowa; Dick R. Lane, Davenport, Iowa.

General Officers: President, James P. Donahue, Colfax, Iowa; First Vice President, E. S. H. Donahue, Colfax, Iowa; Secretary, E. S. H. Donahue, Colfax, Iowa; Treasurer, James P. Donahue, Colfax, Iowa.

IOWA RAILWAY AND LIGHT COMPANY.

Directors: William G. Dows, Cedar Rapids, Iowa; Isaac B. Smith, Cedar Rapids, Iowa; John A. Reed, Cedar Rapids, Iowa; Ed H. Smith, Cedar Rapids, Iowa; R. S. Cook, Cedar Rapids, Iowa; E. E. Pinney, Cedar Rapids, Iowa; M. W. House, Cedar Rapids, Iowa; W. F. Severa, Cedar Rapids, Iowa; Rob't I. Safely, Cedar Rapids, Iowa; Dr. W. J. Morrison, Cedar Rapids, Iowa; Sutherland C. Dows, Cedar Rapids, Iowa; Benjamin Thaw, Pittsburgh, Pa.

General Officers: President, William G. Dows, Cedar Rapids, Iowa; Vice President, Isaac B. Smith, Cedar Rapids, Iowa; Vice President, John A. Reed, Cedar Rapids, Iowa; Secretary, C. S. Woodward, Cedar Rapids, Iowa; Treasurer, Isaac B. Smith, Cedar Rapids, Iowa; General Counsel, John A. Reed, Cedar Rapids, Iowa; General Auditor, C. S. Woodward, Cedar Rapids, Iowa; General Manager, Wm. G. Dows, Cedar Rapids, Iowa.

IOWA SOUTHERN UTILITIES COMPANY.

Directors: D. C. Bradley, Centerville, Iowa; John C. Meiners, Milwaukee, Wis.; Lyman Bernhard, Milwaukee, Wisconsin; Frank S. Payne, Centerville, Iowa; J. B. Bruckshaw, Centerville, Iowa.

General Officers: President, D. C. Bradley, Centerville, Iowa; First Vice President, John C. Meiners, Milwaukee, Wis.; Secretary, Lyman C. Bernhard, Milwaukee, Wis.; Treasurer, Frank S. Payne, Centerville, Iowa; General Solicitor, Frank S. Payne, Centerville, Iowa; General Auditor, G. E. Peck, Centerville, Iowa; General Manager, Frank S. Payne, Centerville, Iowa; General Superintendent, H. R. Longanecker, Centerville, Iowa.

MASON CITY AND CLEAR LAKE RAILROAD COMPANY.

Directors: W. E. Brice, Mason City, Iowa; C. H. McNider, Mason City, Iowa; F. J. Hanlon, Mason City, Iowa; L. H. Heinke, Grand Rapids, Mich.; R. Schaddelee, Grand Rapids, Mich.; Wm. S. Pyle, Wilmington, Del.

General Officers: President, R. Schaddelee, Grand Rapids, Mich.; First Vice President, W. E. Brice, Mason City, Iowa; Second Vice President, C. H. McNider, Mason City, Iowa; Secretary, F. J. Hanlon, Mason City, Iowa; Treasurer, L. H. Heinke, Grand Rapids, Mich.; General Counsel, Earl Smith, Mason City, Iowa; General Auditor, F. E. Wells, Mason City, Iowa; General Manager, F. J. Hanlon, Mason City, Iowa; Mechanical Superintendent, F. M. Graham, Mason City, Iowa; General Superintendent, J. H. Slesseger, Mason City, Iowa.

OSKALOOSA AND BUXTON ELECTRIC RAILWAY COMPANY.

Directors: W. B. McKinley, Champaign, Ill.; Geo. M. Mattis, Champaign, Ill.; W. H. Carnahan, Champaign, Ill.; B. E. Bramble, Champaign, Ill.; E. A. MacNutt, Montreal, Canada; M. G. Linn, Des Moines, Iowa; H. W. Garner, Des Moines, Iowa.

General Officers: President, W. B. McKinley, Champaign, Ill.; First Vice President, W. H. Carnahan, Champaign, Ill.; Secretary, M. G. Linn, Des Moines, Iowa; Treasurer, Geo. M. Mattis, Champaign, Ill.; Comptroller, J. M. C. Horn, Champaign, Ill.; General Auditor, B. E. Bramble, Champaign, Ill.; General Manager, H. E. Chubbuck, Peoria, Ill.; General Superintendent, J. H. Porter, Oskaloosa, Iowa.

OSKALOOSA TRACTION AND LIGHT COMPANY.

Directors: W. B. McKinley, Champaign, Ill.; W. H. Carnahan, Champaign, Ill.; B. E. Bramble, Champaign, Ill.; E. A. MacNutt, Montreal, Canada; Geo. Kalbach, Oskaloosa, Iowa; M. J. Curzen, Oskaloosa, Iowa; M. G. Linn, Des Moines, Iowa; H. W. Garner, Des Moines, Iowa; Geo. M. Mattis, Champaign, Ill.

General Officers: President, W. B. McKinley, Champaign, Ill.; First Vice President, Geo. M. Mattis, Champaign, Ill.; Secretary, H. W. Garner, Des Moines, Iowa; Treasurer, Geo. M. Mattis, Champaign, Ill.; Comptroller, J. M. C. Horn, Champaign, Ill.; General Auditor, B. E. Bramble, Champaign, Ill.; General Manager, H. E. Chubbuck, Peoria, Ill.; General Superintendent, J. H. Porter, Oskaloosa, Iowa.

TAMA AND TOLEDO RAILWAY COMPANY.

Directors: W. C. Walters, Toledo, Iowa; Wm. G. Dows, Cedar Rapids, Iowa; Isaac B. Smith, Cedar Rapids, Iowa; John A. Reed, Cedar Rapids, Iowa; C. S. Woodward, Cedar Rapids, Iowa.

General Officers: President, W. C. Walters, Toledo, Iowa; Vice President, Wm. G. Dows, Cedar Rapids, Iowa; Secretary, C. S. Woodward, Cedar Rapids, Iowa; Treasurer, Isaac B. Smith, Cedar Rapids, Iowa; General Manager, Wm. G. Dows, Cedar Rapids, Iowa.

THE WATERLOO, CEDAR FALLS AND NORTHERN RAILWAY CO.

Directors: L. S. Cass, Waterloo, Iowa; J. F. Cass, Waterloo, Iowa; C. D. Cass, Waterloo, Iowa.

General Officers: President, L. S. Cass, Waterloo, Iowa; First Vice President, J. F. Cass, Waterloo, Iowa; Secretary, F. E. Farwell, Waterloo, Iowa; Treasurer, W. H. Burk, Waterloo, Iowa; General Counsel, Pickett, Swisher & Farwell, Waterloo, Iowa; General Auditor, W. H. Burk, Waterloo, Iowa; General Manager, C. D. Cass, Waterloo, Iowa; Chief Engineer, T. E. Rust, Waterloo, Iowa.

STATISTICS

OF

Steam Railway Companies

For Year Ended December 31, 1916

STATISTICS OF STEAM RAILWAY COMPANIES

In the following tables all names indented are of lessor companies, with the exception of the Chicago, St. Paul, Minneapolis & Omaha Railway Company which is controlled by the Chicago & North Western Railway Company through the ownership of 50.04% of the stock.

All tables with the suffix "A" as Table 3-A refer to statistics within the state of Iowa.

The following notes apply to all tables of the statistics of steam railways:

(a) This report covers the period from January 1, 1916, to June 30, 1916, when it ceased operations and was sold November 9, 1916, by order of the court.

(b) This report covers the period from July 1st to December 31, 1916, at which time it was sold by order of the court.

(c) This report covers the period of five months ending December 31, 1916.

(d) This report covers the period of seven months ending July 31, 1916.

(e) This report covers the period from January 1st to July 1, 1916, at which time this road was merged with the Minneapolis & St. Louis Railway Company.

(f) These figures are not included in the total.

TABLE 1—CAPITAL STOCK.
PART 1—AUTHORIZED AND ISSUED.

Number	Railway Companies	Par Value of Amount Authorized		Amount of Authorization Canceled Prior to Issue		Par Value of Amt't Not Actually Issued to Close of Year.		Par Value of Total Amount Actually Issued to Close of Year.		Number
		Common	Preferred	Common	Preferred	Common	Preferred	Common	Preferred	
1	Atchafalaya, Topeka & Santa Fe.....	\$ 250,000,000.00	\$124,159,460.00	\$.....	\$.....	\$ 44,500.00	\$ 35,800.00	\$ 216,577,500.00	\$124,178,700.00	1
2	Atlantic Northern.....	150,000.00	.....	.....	.....	.....	.....	150,000.00	.....	2
3	Chicago, Burlington & Quincy.....	110,889,100.00	.....	.....	.....	38,499.00	44,500.00	110,889,100.00	44,022,602.00	3
4	Chicago Great Western.....	50,000,000.00	10,000,000.00	.....	.....	.....	.....	40,250,000.00	14,685,762.00	4
5	Chicago & North Western.....	10,000,000.00	14,000,000.00	.....	.....	.....	.....	5,838,469.00	.....	5
6	Wisconsin, Minnesota & Pacific.....	10,000,000.00	.....	.....	.....	.....	.....	.....	.....	6
7	Chicago, Milwaukee & St. Paul.....	233,725,100.00	116,274,900.00	.....	.....	116,313,800.00	343,000.00	117,411,309.00	115,491,900.00	7
8	Chicago & North-Western.....	130,114,500.00	222,460,000.00	.....	.....	.....	.....	130,114,500.00	222,460,000.00	8
9	Chicago, St. Paul, Minn. & O.....	18,559,000.00	11,259,000.00	.....	.....	.....	.....	18,559,700.00	11,259,300.00	9
10	Iowa Southern.....	10,000.00	.....	.....	.....	.....	.....	10,000.00	.....	10
11	Chicago, Rock Island & Pacific.....	75,000,000.00	.....	.....	.....	.....	.....	74,877,800.00	.....	11
12	St. Paul & Kansas City Sh. L.....	50,000.00	.....	.....	.....	.....	.....	50,000.00	.....	12
13	Colfax Northern.....	10,000.00	.....	.....	.....	.....	.....	10,000.00	.....	13
14	Colfax Consolidated Coal Co.....	.....	.....	.....	.....	.....	.....	.....	.....	14
15	Security Investment Company.....	.....	.....	.....	.....	.....	.....	.....	.....	15
16	Chicago, St. Paul & Northern Pacific.....	.....	.....	.....	.....	.....	.....	.....	.....	16
17	Daytonport, Rock Island & N. W.....	3,000,000.00	.....	.....	.....	.....	.....	3,000,000.00	.....	17
18	Great Northern.....	30,000,000.00	250,000,000.00	20,000,000.00	.....	.....	1,000.00	109,294,500.00	249,474,796.00	18
19	Illinois Central.....	123,550,000.00	.....	.....	.....	.....	.....	11,759,500.00	.....	19
20	Illinois Central.....	15,000,000.00	.....	.....	.....	.....	.....	.....	.....	20
21	Des Moines & Sioux City.....	.....	.....	.....	.....	.....	.....	.....	.....	21
22	Iowa & Omaha Short Line.....	300,000.00	.....	.....	.....	.....	.....	125,600.00	.....	22
23	Iowa & Southwestern.....	2,600,400.00	1,524,800.00	.....	.....	.....	.....	2,600,400.00	1,524,000.00	23
24	Keokuk & Des Moines.....	75,000.00	.....	.....	.....	.....	.....	62,782.50	.....	24
25	Manchester & Oneida.....	29,000,000.00	.....	.....	.....	.....	.....	25,792,600.00	.....	25
26	Minneapolis & St. Louis.....	3,000,000.00	.....	.....	.....	.....	.....	918,000.00	.....	26
27	Missouri, North and South.....	.....	.....	.....	.....	.....	.....	450,000.00	300,000.00	27
28	Missouri, North and South.....	.....	.....	.....	.....	.....	.....	55,300.00	.....	28
29	Tabor & Northern.....	120,000.00	.....	.....	.....	.....	.....	.....	.....	29
30	Union Pacific.....	296,178,700.00	309,000,000.00	.....	.....	.....	.....	292,309,200.00	301,509,300.00	30
31	Wabash Railway.....	47,250,000.00	56,170,000.00	.....	.....	.....	.....	43,858,339.15	54,295,110.05	31
	Total.....	\$6,431,279,800.00	\$886,888,900.00	\$20,000,000.00	\$.....	\$116,517,500.00	\$415,200.00	\$1,158,777,675.66	\$177,348,302.06	

*Includes \$65,000.00 special stock.

TABLE 1—CAPITAL STOCK.
PART II—OUTSTANDING AND DIVIDENDS.

Number	Railway Companies	Par Value of Total Amount Retired and Canceled After Actual Issue.		Par Value of Total Amount Re-acquired After Actual Issue and Held Alive.		Par Value of Amount Actually Outstanding at Close of Year.		Dividends Declared During Year				Number
		Common	Preferred	Common	Preferred	Common	Preferred	Common		Preferred		
								Rate	Amount	Rate	Amount	
1	Atchison, Topeka & Santa Fe					\$ 216,577,500.00	\$124,173,700.00	5%	\$12,813,750.00	5%	\$ 6,308,086.00	1
2	Atlantic Northern					150,000.00						2
3	Chicago, Burlington & Quincy					110,830,100.00		8	8,697,128.00			3
4	Chicago, Great Western				166,300.00	45,210,513.00				2	877,358.00	4
5	Mason City & Fort Dodge					19,305,400.00						5
6	Wisconsin, Minnesota & Pacific					5,833,400.00						6
7	Chicago, Milwaukee & St. Paul			5,300.00	85,100.00	117,406,000.00		5	5,870,300.00	7	8,109,205.00	7
8	Chicago & North Western					130,114,500.00		7	9,108,035.00	5	1,791,000.00	8
9	Chicago, St. Paul, Minneapolis & O.					18,066,700.00		7	1,230,655.50	7	780,362.50	9
10	Iowa Southern					10,000.00						10
11	Chicago, Rock Island & Pacific			517,477.50		74,359,722.50						11
12	St. Paul & Kansas City Short Line					80,000.00						12
13	Colfax Northern					10,000.00						13
14	Colfax Consolidated Coal Company											14
15	Security Investment Company											15
16	Creston, Winterset & Des Moines											16
17	Davenport, Rock Island & Northwe'n					3,000,000.00						17
18	Great Northern						249,474,798.00			7	17,462,504.50	18
19	Illinois Central			14,178.33		109,280,321.67		5.82	8,748,282.00			19
20	Dubuque & Sioux City					11,759,500.00			684,402.50			20
21	Iowa & Omaha Short Line											21
22	Iowa & Southwestern	5,500.00										22
23	Kookuk & Des Moines					2,600,400.00			1,924,600.00			23
24	Manchester & Oneida					62,722.50						24
25	Minneapolis & St. Louis					25,792,500.00						25
26	Iowa Central & Western					918,000.00						26
27	Muscatine, Burlington & Southern					450,000.00			300,000.00			27
28	Muscatine, North & South					450,000.00						28
29	Tabor & Northern					35,300.00						29
30	Union Pacific	13,000.00	25,800.00			222,291,600.00		10	22,229,160.00	4	3,981,740.00	30
31	Wabash Railway					43,558,330.16		1	462,000.00			31
	Total	\$19,100.00	\$25,800.00	\$386,965.83	\$22,400.00	\$1,158,241,619.83	\$777,070,102.00		\$70,677,663.40		\$30,224,906.75	

*Includes \$65,000 special stock.

PART III—STOCKS ISSUED PRIOR TO PRESENT YEAR.

Railway Companies	Par Value		Cash Received as Consideration for Issu		Cash Value of Other Property Acquired as Consideration for Issu		Cash Value of Surveys Received as Consideration for Issu		Net Total Discounts	
	Common	Preferred	Common	Preferred	Common	Preferred	Common	Preferred	Common	Preferred
A. T. & S. F.	\$ 209,742,500.00	\$124,173,700.00	\$ 2,000.00	\$ 2,967,775.00	\$309,747,500.00	\$114,173,700.00				\$ 12,225.00
A. N.	150,000.00		150,000.00							
C. B. & Q.	110,830,100.00									
C. G. W.	45,210,513.00	44,088,902.00	1,300.00		45,209,213.00	44,088,902.00				
M. C. & P. D.	19,305,400.00	13,635,732.00			19,305,400.00	13,635,732.00				
W. M. & P.	5,833,400.00				5,833,400.00					
C. M. & S. P.	117,411,300.00	115,921,900.00	15,797,179.00	5,213,331.30	100,322,773.32	110,750,669.00			* 1,708,632.32	* 30,988.50
C. & N. W.	130,114,500.00	22,460,000.00	94,454,907.02	7,236,583.25					* 519,811.70	* 459,163.03
C. S. P. M. & O.	18,556,200.00	11,250,800.00	2,303,273.64	2,003,883.00			30,000.00	30,000.00	* 3,009,920.35	* 12,253.00
I. S.	10,000.00		10,000.00							
C. R. I. & P.	74,877,200.00		22,430,387.50		\$2,457,800.00					
S. P. & K. O. S. L.	50,000.00		50,000.00						* 10,987.50	
O. N.										
C. C. C. C.	10,000.00									
D. I. C. D. M.										
C. W. & D. M.										
D. R. I. & N. W.	3,000,000.00		3,000,000.00							
G. W.		249,473,456.00								
I. C.	109,280,321.67		104,301,866.03	177,648,961.52	5,763,220.00	75,000,588.18			* 1,176,031.70	
D. & S. C.	11,759,500.00				11,759,500.00				* 779,386.00	
I. O. S. L.										
I. I. & S.	125,500.00									
K. & D. M.	2,600,400.00	1,824,600.00			2,600,400.00	1,824,600.00				
M. & O.	62,722.50									
M. & S. I.										
M. C. & W.	915,000.00									
M. B. & N.	450,000.00									
M. N. & S.										
T. & N.	35,300.00									
U. P.	222,295,200.00	99,569,300.00	3,000.00		243,290,495.02	99,569,300.00			* 29,927,256.02	
W. R.	43,551,511.68	94,923,837.21			43,551,511.68	94,923,837.21				
Total	\$1,126,169,707.18	\$777,033,247.21	\$245,462,713.79	\$22,149,423.57	\$730,741,213.62	\$661,607,283.80	\$20,000.00	\$20,000.00	*\$23,827,206.81	*\$707,914.06

*Premiums.

Includes \$65,000 special stock.

TABLE 1—CAPITAL STOCK.
PART IV—STOCKS ISSUED DURING PRESENT YEAR.

Number	Railway Companies	Par Value		Cash Received as Consideration for Issue		Cash Value of Other Property Acquired as Consideration for Issue		Net Total Discounts		Number
		Common	Preferred	Common	Preferred	Common	Preferred	Common	Preferred	
1	Achison, Topeka & Santa Fe	\$ 6,828,000.00				\$ 6,828,000.00				1
2	Atlantic Northern									2
3	Chicago, Burlington & Quincy									3
4	Chicago Great Western		4,000.00				4,000.00			4
5	Mason City & Fort Dodge									5
6	Wisconsin, Minnesota & Pacific									6
7	Chicago, Milwaukee & St. Paul									7
8	Chicago & North-Western									8
9	Chicago, St. Paul, Minneapolis & Omaha	600.00	2,500.00							9
10	Iowa Southern									10
11	Chicago, Rock Island & Pacific									11
12	St. Paul & Kansas City Short Line									12
13	Colfax Northern									13
14	Colfax Consolidated Coal Company									14
15	Security Investment Company									15
16	Criston, Winteret & Des Moines									16
17	Davenport, Rock Island & Northwestern									17
18	Great Northern		1,842.00		1,615.56				* 273.56	18
19	Illinois Central									19
20	Dubuque & Sioux City									20
21	Iowa & Omaha Short Line									21
22	Iowa & Southwestern									22
23	Keokuk & Des Moines									23
24	Manchester & Oneida									24
25	Minneapolis & St. Louis	25,792,000.00								25
26	Iowa Central & Western									26
27	Muscadine Burlington & Southern									27
28	Muscadine, North & South									28
29	Tabor & Northern									29
30	Union Pacific	6,818.48	2,272.84			6,818.48	2,272.84			30
31	Wabash Railway									31
	Total	\$32,627,918.48	\$10,114.84	\$ 1,615.56	\$ 6,834,818.48	\$ 6,272.84	\$*273.56			

*Premiums.

TABLE 2—FUNDED DEBT.
PART I—EQUIPMENT OBLIGATIONS.

Number	Railway Companies	Contract price of equipment acquired	Cash paid on account of expense of equipment	Total amount of obligations actually issued	Rate of interest per annum	Actually outstanding obligations matured and unpaid at close of year.	Actually outstanding obligations matured and unpaid at close of year.	Interest matured and unpaid at close of year	Interest accrued not due at close of year	Interest accrued but charged to income	Interest paid during year	Number
1	A., T. & S. F.											1
2	A. N.											2
3	C. B. & Q.											3
4	C. G. W. & P. D.											4
5	W. M. & P.											5
6	C. M. & S. P.											6
7	C. & N. W.	14,013,479.80	14,013,479.80	9,700,000.00	4½%		6,396,000.00		20,250.00	287,800.00	287,800.00	7
8	C., S. P., M. & O.											8
9	I. S.											9
10	C. R. I. & P.	33,190,569.50	4,670,569.80	26,620,000.00	4½ and 5%	177,000.00	12,822,000.00	102,460.00	57,168.75	642,822.50	653,722.50	10
11	S. P. & K. C. S. L.											11
12	C. N.											12
13	C. C. C. C.											13
14	S. I. C. C.											14
15	C., W. & D. M.											15
16	D., R. I. & N.											16
17	G. N.											17
18	D. C.	18,725,912.79	2,842,912.79	15,880,000.00	1½ and 5%		11,047,000.00	41,427.50	167,475.42	530,285.84	519,802.32	18
19	I. & S. C.											19
20	W. R.											20
21	W. R.											21
22	W. R.											22
23	W. R.											23
24	W. R.											24
25	W. R.											25
26	W. R.											26
27	W. R.											27
28	W. R.											28
29	W. R.											29
30	W. R.											30
31	W. R.											31
	Total	\$58,949,614.14	\$22,475,721.72	\$36,685,000.00		\$ 251,000.00	\$22,875,250.00	\$ 204,875.00	\$ 276,771.24	\$ 1,630,404.40	\$ 1,702,516.66	

TABLE 2—FUNDED DEBT,
PART II—MORTGAGE BONDS.

Number	Railway Companies	Par value of extent of indebtedness authorized	Extent of Authorization canceled or revoked	Par Value of Evidences of Debt					Number
				Nominally but not actually issued	Actually issued to close of year	Reacquired after actual issue and canceled	Reacquired after actual issue and held alive to close of year	Actually out-standing at close of year	
1	Achison, Topeka & Santa Fe	\$ 225,356,500.00	\$	\$ 1,928,000.00	\$ 216,282,540.10	\$ 73,000.00	\$ 14,599.50	\$ 216,105,940.60	1
2	Atlantic Northern	100,000.00			100,000.00			100,000.00	2
3	Chicago, Burlington & Quincy	220,290,000.00		9,873,000.00	210,417,000.00	17,022,200.00	17,413,000.00	176,489,800.00	3
4	Chicago Great Western	75,000,000.00		3,208,000.00	26,108,000.00		225,000.00	25,883,000.00	4
5	Mason City & Fort Dodge	12,000,000.00			12,000,000.00			12,000,000.00	5
6	Wisconsin, Minnesota & Pacific	6,232,000.00			6,232,000.00			6,232,000.00	6
7	Chicago, Milwaukee & St. Paul		1,819,000.00	132,239,200.00	236,003,200.00	167,000.00	2,109,500.00	234,639,800.00	7
8	Chicago & North-Western	200,339,000.00		37,502,100.00	153,151,000.00	89,000.00	884,500.00	192,397,500.00	8
9	Chicago, St. Paul, Minn. & Omaha	22,700,000.00			22,700,000.00	2,515,000.00		20,185,000.00	9
10	Iowa Southern								10
11	Chicago, Rock Island & Pacific	289,542,000.00		26,198,000.00	182,223,000.00		1,000.00	182,222,000.00	11
12	St. Paul & Kansas City Short Line	39,000,000.00			13,212,000.00		586,850.00	12,625,150.00	12
13	Colfax Northern								13
14	Colfax Consolidated Coal Company								14
15	Security Investment Company	60,000.00			60,000.00		12,500.00	47,500.00	15
16	Craton, Winteret & Des Moines								16
17	Davenport, Rock Island & Northwestern		8,513,080.00	51,173,000.00	132,875,000.00	7,350,000.00	3,290,293.56	143,235,315.16	17
18	Great Northern	738,542,000.00			83,692,000.00		32,000.00	83,560,000.00	18
19	Illinois Central	178,285,000.00							19
20	Dubuque & Sioux City	21,990,000.00			17,155,000.00		303,000.00	16,952,000.00	20
21	a Iowa & Omaha Short Line								21
22	b Iowa & Southwestern								22
23	Keokuk & Des Moines	2,750,000.00			2,750,000.00			2,750,000.00	23
24	Manchester & Oueda	129,000.00			65,000.00			65,000.00	24
25	Minneapolis & St. Louis	152,232,000.00		2,615,000.00	42,823,004.91		7,144.12	42,821,860.79	25
26	e Iowa Central & Western	655,000.00			555,000.00			555,000.00	26
27	c Muscatine, Burlington & Southern	800,000.00			510,800.00			510,800.00	27
28	d / Muscatine North & South	1,000,000.00			800,000.00			800,000.00	28
29	Tabor & Northern	50,000.00			50,000.00			50,000.00	29
30	Union Pacific	300,000,000.00		33,498,000.00	166,655,910.00		59,000.00	166,655,910.00	30
31	Wabash Railway	70,309,000.00			62,727,909.23			62,628,009.23	31
	Total	\$3,546,949,469.00	\$10,023,080.00	\$388,313,300.00	\$1,600,502,463.23	\$38,374,520.00	\$34,134,137.50	\$1,556,943,775.78	

PART III—MORTGAGE BONDS—CONTINUED.

Number	Railway Companies	Evidences of Debt Actually Issued Prior to Present Year				Evidences of Debt Actually Issued During Present Year			Total discount on actual issues of prior years	Discount on actual issues of present year	Number
		Par value of total amount	Cash received as consideration for issue	Cash value of other property considered for issue	Cash value of Services Received as Consideration for issue	Par value of total amount	Cash received as consideration for issue	Cash value of other property acquired as consideration for issue			
1	A. T. & S. F.	\$ 216,148,700.10	\$ 78,277,177.44	\$130,967,596.66	\$	\$ 123,840.00	\$ 123,840.00	\$ 6,908,535.73		1	
2	A. S.	100,000.00	100,000.00							2	
3	C. B. & Q.	210,417,000.00	167,768,139.50	22,656,969.00				9,991,889.50		3	
4	C. G. W.	36,104,000.00	3,250,000.00	22,104,000.00		4,000.00		656,243.00		4	
5	M. C. & F. D.	12,000,000.00		12,000,000.00						5	
6	W. M. & P.	6,232,000.00	17,677.00	6,214,323.00						6	
7	C. M. & S. P.	223,842,500.00	219,849,245.50			9,037,800.00	2,044,584.50	4,395,254.42	11,295.50	7	
8	C. & N. W.	145,200,000.00	58,635,591.80			7,072,000.00	2,997,063.00	4,341,516.29	* 1,029,063.00	8	
9	C. S. P., M. & O.	32,666,000.00	16,998,684.99			100,000.00		384,984.99		9	
10	I. S.									10	
11	C. R. I. & P.	182,928,000.00	158,880,533.94	5,000.00	225,000.00			9,906,466.00		11	
12	S. P. & K. C. S. L.	12,842,500.00	7,065.00	12,835,435.00		869,500.00	11,060.00	358,415.00		12	
13	C. N.									13	
14	C. G. C. C.									14	
15	S. I. C.	60,000.00	60,000.00							15	
16	C. W. & D. M.									16	
17	D. R. I. & N.									17	
18	G. N.	\$ 153,297,909.00	109,521,461.28	29,433,000.00		578,000.00	578,000.00	12,427,091.34	603.35	18	
19	I. C.	83,692,000.00	64,494,068.83	14,098,000.00				4,409,931.17		19	
20	D. & S. C.	17,155,000.00		17,155,000.00						20	
21	eI. & O. S. L.									21	
22	hI. & S.									22	
23	K. & D. M.	2,750,000.00	265,378.42	2,484,621.58				29,121.58		23	
24	M. & O.	65,000.00								24	
25	M. & S. L.	42,829,094.91	19,657,192.12					2,229,112.04	1,791.43	25	
26	eI. C. & W.	555,000.00								26	
27	eM., B. & S.	510,800.00								27	
28	d, F. M. N. & S.	800,000.00								28	
29	T. & N.	50,000.00								29	
30	U. P.	166,655,910.00	64,025,364.31	96,592,000.00		506,955.00	619,981.80	3,374,178.56	* 7,038.80	30	
31	W. R.	62,727,909.23		62,727,909.23						31	
	Total	\$6,296,775,308.33	\$972,259,470.21	\$439,805,114.15	\$235,000.00	\$12,727,095.00	\$13,283,464.30	\$92,415.00	\$60,294,040.11	*\$1,016,269.68	

*Premium.

TABLE 2—FUNDED DEBT.
PART VI—COLLATERAL TRUST BONDS—CONTINUED.

Number	Railway Companies	Total discount on securities of prior years	Discount on actual issues of present year	Discounts written off to income, or profit and loss during year	Total Discounts Extinguished to Close of Year		Total commissions to close of year charged to or other investment account	Interest accrued during year charged to income	Amount of interest paid during year	Interest Liability at Close of Year		Number
					Charged to operating income, or profit and loss	Charged to construction or other investment account				Matured and unpaid	Accrued, not yet due	
1	Atchison, Topeka & Santa Fe											1
2	Atlantic Northern											2
3	Chicago, Burlington & Quincy							44,614.35	60,382.35	2,706.00	15,885.00	3
4	Chicago Great Western											4
5	Mason City & Fort Dodge											5
6	Wisconsin, Minnesota & Pacific											6
7	Chicago, Milwaukee & St. Paul											7
8	Chicago & North-Western	1,383,316.36				1,383,316.36	82,500.00	1,295,938.74	1,291,977.99	10,800.00	468,890.83	8
9	Chicago, St. Paul, Minn. & O. Iowa Southern											9
10	Chicago, Rock Island & Pacific	1,098,409.28				1,098,409.28		589,440.00	599,400.00		188,670.00	10
11	St. Paul & Kansas City Sh. L.											11
12	Colfax Northern											12
13	Colfax Consolidated Coal Co.											13
14	Security Investment Company											14
15	Creston, Winterset & Des Moines											15
16	Davenport, Rock Island & N. W.											16
17	Great Northern	5,000.00	83.90			4,916.10		4,304,540.00	4,304,540.00			17
18	Illinois Central	1,477,848.75				1,477,848.75		1,901,470.00	1,781,665.00	305,617.50	329,100.34	18
19	Dubuque & Sioux City											19
20	Iowa & Omaha Short Line											20
21	Iowa & Southwestern											21
22	Keokuk & Des Moines											22
23	Manchester & Oesida											23
24	Minneapolis & St. Louis		4,925.00	4,925.00	4,925.00			87,500.00	182,070.00	55.00		24
25	Iowa Central & Western											25
26	Muscatine, Burlington & South'n											26
27	Muscatine, North & South											27
28	Tabor & Northern											28
29	Union Pacific											29
30	Wabash Railway							60,000.00	60,300.00	700.00	10,000.00	30
31	Total	\$3,264,574.39	\$4,889.70	\$4,889.70	\$3,266,097.78	\$1,383,316.36	\$82,500.00	\$8,233,303.00	\$8,238,985.34	\$319,378.50	\$999,639.17	31

*Premium.

PART VII—INCOME BONDS.

Number	Railway Companies	Par value of extent of indebtedness authorized	Par Value of Evidences of Debt				Evidences of Debt Actually Issued Prior to Present Year			Number	
			Nominally, but not actually issued	Actually issued to close of year	Reacquired after actual issue and canceled	Reacquired after actual issue and held alive at close of year.	Actually outstanding at close of year	Par value of total amount	Cash received as consideration for issue.		Cash value of other property acquired as consideration for issue
1	Atchison, Topeka & Santa Fe	\$51,723,000.00	\$82,000.00	\$51,346,000.00			\$51,346,000.00	\$51,346,000.00	\$51,346,000.00	1	
2	Atlantic Northern									2	
3	Chicago, Burlington & Quincy									3	
4	Chicago Great Western									4	
5	Mason City & Fort Dodge									5	
6	Wisconsin, Minnesota & Pacific									6	
7	Chicago, Milwaukee & St. Paul									7	
8	Chicago & North-Western									8	
9	Chicago, St. Paul, Minn. & Omaha Iowa Southern									9	
10	Chicago, Rock Island & Pacific									10	
11	St. Paul & Kansas City Short Line									11	
12	Colfax Northern									12	
13	Colfax Consolidated Coal Company									13	
14	Security Investment Company									14	
15	Creston, Winterset & Des Moines									15	
16	Davenport, Rock Island & N. W.									16	
17	Great Northern									17	
18	Illinois Central	122,000.00		122,000.00		116,000.00	6,000.00	122,000.00	122,000.00	18	
19	Dubuque & Sioux City									19	
20	Iowa & Omaha Short Line									20	
21	Iowa & Southwestern									21	
22	Keokuk & Des Moines									22	
23	Manchester & Oesida									23	
24	Minneapolis & St. Louis									24	
25	Iowa Central & Western									25	
26	Muscatine, Burlington & Southern									26	
27	Muscatine, North & South									27	
28	Tabor & Northern									28	
29	Union Pacific									29	
30	Wabash Railway	20,500,000.00		205,000.00		15,000.00	250,000.00	265,000.00		30	
31	Total	\$72,350,000.00	\$82,000.00	\$51,733,000.00		\$131,000.00	\$51,602,000.00	\$51,733,000.00	\$122,000.00	\$51,611,000.00	31

TABLE 2—FUNDED DEBT.
PART VIII—INCOME BONDS—CONTINUED.

Number	Railway Companies	Evidence of Debt Actually Issued During Exercise Year		Amount of interest accrued during year charged to income	Amount of interest paid during year	Interest Liability at Close of Year		Number
		Par value of Total amount	Cash value of other property acquired as consideration for issue			Matured and unpaid	Accrued, not yet due	
1	Atchison, Topeka & Santa Fe			\$ 2,650,840.00	\$ 2,006,130.00	\$ 146,900.00	\$ 1,059,000.00	1
2	Atlantic Northern							
3	Chicago, Burlington & Quincy							
4	Chicago Great Western							
5	Chicago & North Western							
6	Wisconsin, Mississippi & Pacific							
7	Chicago, Milwaukee & St. Paul							
8	Chicago & North Western							
9	Chicago, St. Paul, Minneapolis & Omaha							
10	Iowa Southern							
11	Chicago, Rock Island & Pacific							
12	St. Paul, Kansas City Short Line							
13	Colfax Northern							
14	Colfax Consolidated Coal Company							
15	Security Investment Company							
16	Creston, Winteret & Des Moines							
17	Davenport, Rock Island & Northwestern							
18	Great Northern							
19	Illinois Central							
20	Davenport & Sioux City							
21	Des Moines & Sioux City							
22	Iowa & Southern Short Line							
23	Koosuk & Des Moines							
24	Manchester & Oquida							
25	Minneapolis & St. Louis							
26	Iowa Central & Western							
27	Muscatine, Burlington & Southern							
28	Muscatine, North & South							
29	Taborn & Northern							
30	Union Pacific							
31	Wabash Railway							
	Total			\$ 14,500.00	\$ 6,650.00	\$ 10,200.00	\$ 1,059,000.00	31
				\$ 2,665,440.00	\$ 2,012,780.00	\$ 156,200.00	\$ 1,059,000.00	

PART IX—MISCELLANEOUS OBLIGATIONS—Continued

Number	Railway Companies	Par value of extent of indebtedness authorized	Par Value of Evidences of Debt			Number
			Actually issued to close of year	Resequenced after actual issue and cancelled	Resequenced after close of year		Actually outstanding at close of year
1	Atchison, Topeka & Santa Fe	\$154,000,000.00	\$147,764,850.00	\$18,027,000.00	\$ 29,737,850.00	1
2	Atlantic Northern					
3	Chicago, Burlington & Quincy	4,300,000.00	4,200,000.00	621,000.00	51,000.00	2
4	Chicago Great Western					
5	Chicago & North Western					
6	Wisconsin, Mississippi & Pacific					
7	Chicago, Milwaukee & St. Paul	30,000,000.00	160,840,578.00	34,503,924.00	102,300.00	0
8	Chicago & North Western	30,000,000.00	20,000,000.00	600,000.00	444,000.00	4
9	Chicago, St. Paul, Minneapolis & Omaha	11,300,000.00	11,200,000.00		11,200,000.00	0
10	Iowa Southern					
11	Chicago, Rock Island & Pacific	20,070,000.00	20,070,000.00	70,000.00	20,000,000.00	10
12	St. Paul & Kansas City Short Line					
13	Colfax Northern					
14	Colfax Consolidated Coal Company					
15	Security Investment Company					
16	Creston, Winteret & Des Moines					
17	Davenport, Rock Island & Northwestern					
18	Great Northern					
19	Illinois Central	10,300,000.00	10,050,700.00		10,050,700.00	0
20	Davenport & Sioux City	2,621,110.16	2,621,110.16		2,621,110.16	0
21	Des Moines & Sioux City					
22	Iowa & Southern Short Line					
23	Koosuk & Des Moines					
24	Manchester & Oquida					
25	Minneapolis & St. Louis					
26	Iowa Central & Western					
27	Muscatine, Burlington & Southern					
28	Muscatine, North & South					
29	Taborn & Northern					
30	Union Pacific	76,000,000.00	73,782,000.00	65,000,776.00	56,857,255.00	29
31	Wabash Railway					
	Total	\$207,608,110.16	\$455,761,244.56	\$200,736,729.02	\$ 4,139,200.00	\$259,811,815.54

TABLE 2—FUNDED DEBT.
PART X—MISCELLANEOUS OBLIGATIONS—Continued.

Number	Railway Companies	Evidence of Debt Actually Issued Prior to Present Year		Evidence of Debt Actually Issued During Present Year		Number
		Par value of total amount	Cash received as consideration for issue	Par value of total amount	Cash received as consideration for issue	
1	Atchison, Topeka & Santa Fe.....	\$147,714,850.00	\$147,013,123.75	\$ 850.00	\$ 50,000.00	1
2	Atlantic Northern.....	.....	.....	.....	.....	.....
3	Chicago, Burlington & Quincy.....	.....	.....	.....	.....	.....
4	Chicago Great Western.....	.....	.....	.....	.....	.....
5	Missouri & North Western.....	.....	.....	.....	.....	.....
6	Chicago, Milwaukee & St. Paul.....	131,505,654.00	129,481,328.04	.....	.....	.....
7	Chicago & North Western.....	20,001,000.00	19,302,287.50	4,000.00	.....	.....
8	Chicago, St. Paul, Minneapolis & Omaha.....	11,230,000.00	11,197,171.00	.....	.....	.....
9	Iowa Southern.....	.....	.....	.....	.....	.....
10	Chicago, Rock Island & Pacific.....	20,070,000.00	10,000,000.00	70,000.00	.....	.....
11	Chicago & North Western.....	.....	.....	.....	.....	.....
12	Chicago & North Western.....	.....	.....	.....	.....	.....
13	Chicago & North Western.....	.....	.....	.....	.....	.....
14	Colfax Consolidated Coal Company.....	.....	.....	.....	.....	.....
15	Security Investment Company.....	.....	.....	.....	.....	.....
16	Creston, Waterloo & Des Moines.....	.....	.....	.....	.....	.....
17	Davenport, Rock Island & Northwestern.....	.....	.....	.....	.....	.....
18	Great Northern.....	.....	.....	.....	.....	.....
19	Illinois Central.....	.....	.....	.....	.....	.....
20	Dubuque & Sioux City.....	.....	.....	.....	.....	.....
21	Iowa & Omaha Short Line.....	.....	.....	.....	.....	.....
22	Iowa & Omaha Short Line.....	.....	.....	.....	.....	.....
23	Kankakee & Des Moines.....	.....	.....	.....	.....	.....
24	Manchester & Oquida.....	.....	.....	.....	.....	.....
25	Minneapolis & St. Louis.....	.....	.....	.....	.....	.....
26	Iowa Central & Western.....	.....	.....	.....	.....	.....
27	Missouri, Burlington & Southern.....	.....	.....	.....	.....	.....
28	Missouri North & South.....	.....	.....	.....	.....	.....
29	Tabor & Northern.....	.....	.....	.....	.....	.....
30	Union Pacific.....	75,702,000.00	61,541,675.00	.....	75.00	.....
31	Wabash Railway.....	.....	.....	.....	.....	.....
	Total.....	\$418,696,204.00	\$397,855,533.28	\$11,407,150.00	\$7,076,040.20	\$3,116,116.18

PART XI—MISCELLANEOUS OBLIGATIONS—Continued.

Number	Railway Companies	Total Discount on Actual Issues of Present Year		Total Discounts Estimated to Close of Year		Number
		Discount on Actual Issues of Present Year	Discount on Actual Issues of Previous Year	Charged to Expense in Profit and Loss	Charged to Construction Account	
1	Atchison, Topeka & Santa Fe.....	\$ 207,847.25	.....	\$ 207,847.25	.....	1
2	Atlantic Northern.....	.....	.....	.....	.....	.....
3	Chicago, Burlington & Quincy.....	.....	.....	.....	.....	.....
4	Chicago Great Western.....	.....	.....	.....	.....	.....
5	Missouri & North Western.....	.....	.....	.....	.....	.....
6	Chicago, Milwaukee & St. Paul.....	.....	.....	.....	.....	.....
7	Chicago & North Western.....	.....	.....	.....	.....	.....
8	Chicago, St. Paul, Minneapolis & Omaha.....	.....	.....	.....	.....	.....
9	Iowa Southern.....	.....	.....	.....	.....	.....
10	Chicago, Rock Island & Pacific.....	.....	.....	.....	.....	.....
11	Chicago & North Western.....	.....	.....	.....	.....	.....
12	Chicago & North Western.....	.....	.....	.....	.....	.....
13	Chicago & North Western.....	.....	.....	.....	.....	.....
14	Colfax Consolidated Coal Company.....	.....	.....	.....	.....	.....
15	Security Investment Company.....	.....	.....	.....	.....	.....
16	Creston, Waterloo & Des Moines.....	.....	.....	.....	.....	.....
17	Davenport, Rock Island & Northwestern.....	.....	.....	.....	.....	.....
18	Great Northern.....	.....	.....	.....	.....	.....
19	Illinois Central.....	.....	.....	.....	.....	.....
20	Dubuque & Sioux City.....	.....	.....	.....	.....	.....
21	Iowa & Omaha Short Line.....	.....	.....	.....	.....	.....
22	Iowa & Omaha Short Line.....	.....	.....	.....	.....	.....
23	Kankakee & Des Moines.....	.....	.....	.....	.....	.....
24	Manchester & Oquida.....	.....	.....	.....	.....	.....
25	Minneapolis & St. Louis.....	.....	.....	.....	.....	.....
26	Iowa Central & Western.....	.....	.....	.....	.....	.....
27	Missouri, Burlington & Southern.....	.....	.....	.....	.....	.....
28	Missouri North & South.....	.....	.....	.....	.....	.....
29	Tabor & Northern.....	.....	.....	.....	.....	.....
30	Union Pacific.....	9,250,205.00	.....	9,250,205.00	.....	.....
31	Wabash Railway.....	.....	.....	.....	.....	.....
	Total.....	\$10,983,221.51	\$1,300,205.00	\$12,100,107.71	\$10,983,221.51	\$97,712.50

*Premium

TABLE 2—FUNDED DEBT.

PART XII—MISCELLANEOUS OBLIGATIONS—Continued

Number	Railway Companies	Total Commissions to Close of Year		Amount of Interest Accrued During Year		Amount of Interest Paid During Year	Interest Liability at Close of Year		Number
		Charged to Operating Expense, Income, or Profit and Loss	Charged to Construction or Other Investment Account	Charged to Income	Charged to Condition of Other Investment Account		Matured and Unpaid	Accrued Not Yet Due	
1	Atchison, Topeka & Santa Fe.....	\$2,267,361.25		\$1,453,453.86	\$1,625.00	\$ 1,456,107.19	\$ 200,650.00	\$ 103,402.40	1
2	Atlantic Northern.....								2
3	Chicago, Burlington & Quincy.....			7,261.31		11,035.32	5,490.90	720.00	3
4	Chicago Great Western.....								4
5	Mason City & Fort Dodge.....								5
6	Wisconsin, Minnesota & Pacific.....								6
7	Chicago, Milwaukee & St. Paul.....	355,263.40		5,068,486.94		5,300,022.70	4,573,350.54	348,156.80	7
8	Chicago & North Western.....		\$70,000.00	160,676.14	165.00	927,732.80	38,075.00	263,091.67	8
9	Chicago, St. Paul, Minneapolis & Omaha.....			509,794.85	3,205.17	660,200.00	955.00	180,000.00	9
10	Iowa Southern.....								10
11	Chicago, Rock Island & Pacific.....					800.00	1,000,000.00	458,333.33	11
12	St. Paul & Kansas City Short Line.....	200,000.00		1,000,602.50					12
13	Colfax Northern.....								13
14	Colfax Consolidated Coal Company.....								14
15	Security Investment Company.....								15
16	Creston, Winterset & Des Moines.....								16
17	Davenport, Rock Island & Northwestern.....								17
18	Great Northern.....			4,500.00					18
19	Illinois Central.....			50,422.32		4,500.00		750.00	19
20	Dubuque & Sioux City.....					50,422.32			20
21	a Iowa & Omaha Short Line.....								21
22	b Iowa & Southwestern.....								22
23	Keokuk & Des Moines.....								23
24	Manchester & Onida.....								24
25	Minneapolis & St. Louis.....						918.08		25
26	e Iowa Central & Western.....								26
27	c Muscatine, Burlington & Southern.....								27
28	d Muscatine North & South.....								28
29	Tabor & Northern.....								29
30	Union Pacific.....	1,844,030.00		1,073,409.00		1,043,780.00	577,331.00	273.53	30
31	Wabash Railway.....								31
	Total.....	\$ 4,606,074.65	\$70,000.00	\$10,605,060.00	\$ 4,905.17	\$ 9,445,930.23	\$ 6,396,780.22	\$ 1,301,394.45	

TABLE 3—INVESTMENT IN ROAD AND EQUIPMENT—ENTIRE LINE.

PART I—EXPENDITURES FOR ROAD DURING YEAR.

Number	Railway Companies	Engineering	Land for transportation purposes	Grading	Tunnels and subways	Bridges, trestles and culverts	Elevated structures	Ties	Rails	Other track material	Number
2	Atlantic Northern.....										2
3	Chicago, Burlington & Quincy.....	104,082.31	277,294.46	1,125,389.70	39,715.49	1,063,908.05		269,024.55	606,150.08	485,439.89	3
4	Chicago Great Western.....	139.29	2,727.70	90,609.07	18.85	53,392.70		10,707.01	117,116.67	115,043.16	4
5	Mason City & Fort Dodge.....		605.35	729.53		14,430.02		1,373.10	1,211.87	48,228.82	5
6	Wisconsin, Minnesota & Pacific.....		202.00	4,036.91		30,647.70		80.72	323.79	1,301.13	6
7	Chicago, Milwaukee & St. Paul.....	264,688.09	441,841.97	1,897,715.15	474,599.11	788,737.47	3,349.01	317,058.20	839,561.56	448,241.70	7
8	Chicago & North Western.....	114,746.07	190,585.27	694,300.62		522,121.74		94,849.36	369,484.85	292,506.28	8
9	Chicago, St. Paul, Minn. & O.....	9,201.07	118,029.85	148,116.80		94,887.09		8,028.55	78,891.63	50,636.04	9
10	Iowa Southern.....		308.80	7,565.42		1,056.92		130.74			10
11	Chicago, Rock Island & Pacific.....	40,131.83	134,871.38	236,403.23		340,903.50		27,359.00	303,539.61	445,091.40	11
12	St. Paul & Kansas City Sh. Line.....	702.34	29,188.72	26,674.64		23,080.30		965.79	1,283.18	7,965.93	12
13	Colfax Northern.....										13
14	Colfax Consolidated Coal Co.....		185.01	182.87				356.66	676.06	73.00	14
15	Security Investment Company.....										15
16	Creston, Winterset & Des Moines.....										16
17	Davenport, Rock Island & N. W.....	100.00	907.50			404.60		320.05	950.91	2,633.51	17
18	Great Northern.....	137,382.90	199,156.85	767,964.87	296,002.28	300,258.26		154,518.22	279,861.33	273,936.16	18
19	Illinois Central.....	64,608.55	285,599.91	237,609.18	17,231.62	320,600.93		82,139.57	212,907.67	225,563.02	19
20	Dubuque & Sioux City.....	4,307.26	12,147.56	26,229.53		54,182.59		14,193.32	56,858.07	48,247.98	20
21	a Iowa & Omaha Short Line.....										21
22	b Iowa & Southwestern.....										22
23	Keokuk & Des Moines.....			181.90						27.84	23
24	Manchester & Onida.....	19.34				675.62			64.90		24
25	Minneapolis & St. Louis.....	5,840.70	123,712.55	43,057.67		64,011.57		22,008.79	58,980.65	24,815.09	25
26	e Iowa Central & Western.....										26
27	c Muscatine, Burlington & South'n.....					196.07					27
28	d Muscatine, North & South.....					116.35					28
29	Tabor & Northern.....										29
30	Union Pacific.....	69,838.06	48,113.11	1,420,427.13	388,504.27	539,837.25		77,699.06	411,718.77	194,788.68	30
31	Wabash Railway.....	2,223.25	2,069.40	240,046.24		87,232.51		7,708.45	70,729.43	61,015.26	31
	Total.....	\$ 905,009.04	\$1,835,133.03	\$7,651,308.16	\$1,204,346.06	\$4,950,022.91	\$3,349.01	\$1,275,531.61	\$3,967,303.08	\$3,185,927.32	

*Credit.

TABLE 3—INVESTMENT IN ROAD AND EQUIPMENT—ENTIRE LINE.
PART II—EXPENDITURES FOR ROAD DURING YEAR—CONTINUED.

Number	Railway Companies	Ballast	Track laying and surfacing	Right-of-way fences	Snow and sand fences and snowsheds	Crossings and signs	Station and office buildings	Roadway buildings	Water stations	Fuel stations	Shops and enginehouses	Number
1	A. T. & S. F.	\$ 55,304.63	\$ 80,275.01	\$ 14,732.40	* 4.62	\$ 159,703.31	\$ 273,689.53	\$ 16,967.96	\$ 133,468.38	\$ 24,235.99	\$ 486,033.33	1
2	A. N.											2
3	C. B. & Q.	221,640.66	376,286.35	43,299.29	3,880.58	164,566.50	261,802.63	3,631.66	117,923.78	44,192.99	912,848.65	3
4	C. G. W.	89,172.79	54,023.20	9,456.14	216.39	20,076.96	19,770.54	2,489.94	25,323.41	2,635.00	25,196.08	4
5	M. C. & F. D.	136.44	163.34		870.88	4,872.39	7,763.82	* 14,656.64	9,334.20	6,547.46	3,310.59	5
6	W. M. & P.	23,694.97	4,782.94	112.00		1,017.28	1,740.50	* 650.00	276.68	447.83	390.39	6
7	C. M. & S. P.	638,604.91	487,033.42	53,238.99	32,867.78	214,764.19	469,790.39	21,312.12	70,646.89	5,405.14	97,000.15	7
8	C. & N. W.	349,970.35	177,153.50	5,006.72	800.47	130,144.33	965,580.97	22,193.01	21,744.60	8,002.85	152,303.64	8
9	C. S. P. M. & O.	11,708.43	27,728.04	1,281.90		44,744.14	413,178.44	* 1,448.30	14,309.73	6,754.05	65,931.51	9
10	L. S.					753.18						10
11	C. R. I. & P.	95,834.59	68,697.07	16,871.60	393.33	124,036.51	228,215.32	10,242.86	14,328.73	* 2,019.84	75,029.49	11
12	S. P. & K. O. S. L.	5,655.59	9,664.79	1,011.59		521.58	10,318.20	136.62	717.39		2,506.24	12
13	C. N.											13
14	C. C. C. C.		99.32									14
15	S. I. C.											15
16	C. W. & D. M.											16
17	D. R. I. & N.	367.55	248.08			146.50	11,430.81	75.73				17
18	G. N.	201,745.39	347,072.95	68,172.52	1,240,223.05	74,631.96	415,575.83	100,009.33	111,809.32	15,938.60	743,671.33	18
19	I. O.	73,392.86	190,569.53	7,363.06	8.57	130,301.43	303,729.07	7,491.54	64,307.76	21,135.39	173,945.69	19
20	D. & S. C.	2,682.89	29,450.53	1,134.40	* 22	19,678.87	21,062.36	3,615.16	11,740.74	1,083.17	139,269.42	20
21	O. I. & O. S. L.		25.11	680.28								21
22	B. I. & S.											22
23	K. & D. M.					431.43	532.11		216.18			23
24	M. & O.											24
25	M. & S. L.	1,400.89	32,212.04	2,543.70		59,731.96	6,358.30	139.21	5,549.04	1,020.00	29,534.73	25
26	P. I. C. & W.											26
27	C. M., B. & S.		316.55	137.76			1,141.43	5.15	37.21			27
28	C. M., N. & S.	88.00					791.68					28
29	T. & N.											29
30	U. P.	177,444.65	122,207.77	21,372.38	4,253.15	69,620.46	141,438.89	46,665.47	* 11,064.07	17,361.52	76,071.98	30
31	W. B.	96,564.42	34,868.70	1,570.06		26,137.64	58,574.75	648.08	1,676.97	3,188.10	11,158.60	31
	Total	\$2,043,578.21	\$2,042,268.70	\$233,308.49	\$1,283,709.30	\$1,275,730.47	\$3,515,630.31	\$278,439.44	\$579,812.74	\$124,842.74	\$2,054,287.35	

*Credit.

PART III—EXPENDITURES FOR ROAD DURING YEAR—CONTINUED.

Number	Railway Companies	Grain elevators	Storage warehouses	Wharves and docks	Coal and ore wharves	Telegraph and telephone lines	Signals and interlockers	Power dams, canals and pipe lines.	Power plant buildings	Power substations buildings	Number
1	Atholton, Topeka & Santa Fe	\$ 20,501.00		\$ 8,094.83		\$ 7,635.46	\$ 121,333.06				1
2	Atlantic Northern										2
3	Chicago, Burlington & Quincy		518.87	10,067.13		28,184.05	333,306.11		71,619.96		3
4	Chicago Great Western		175.00			412.15	89,300.71				4
5	Mason City & Fort Dodge					2,305.63	450.05				5
6	Wisconsin, Minnesota & Pacific										6
7	Chicago, Milwaukee & St. Paul	256,091.36	31,012.62	188,540.27		25,632.65	355,821.47		* 583.94	172,304.46	7
8	Chicago & North Western	2,064,284.67		115,137.28	438,803.26	5,421.46	233,056.23		26.50		8
9	Chicago, St. Paul, Minneapolis & Omaha	2,311.69		300.81		108.47	* 47.00			610.66	9
10	Iowa Southern										10
11	Chicago, Rock Island & Pacific	35,702.94		* 25,164.31		2,142.03	43,198.41		181.55		11
12	St. Paul & Kansas City Short Line						147.61		18.16		12
13	Colfax Northern										13
14	Colfax Consolidated Coal Company										14
15	Security Investment Company										15
16	Creston, Winterset & Des Moines										16
17	Davenport, Rock Island & Northwestern						12.72				17
18	Great Northern	417.58		5,367.94	436.80	14,270.53	24,050.29	2,303.94	2,304.17		18
19	Illinois Central	2,609.45	409.94	23.28		10,769.23	92,636.25		301.21		19
20	Dubuque & Sioux City					265.94	3,083.34		515.69		20
21	Iowa & Omaha Short Line										21
22	Iowa & Southwestern										22
23	Kookuk & Des Moines										23
24	Maneaster & Oneida										24
25	Minneapolis & St. Louis										25
26	Iowa Central & Western										26
27	Muscatine, Burlington & Southern										27
28	Muscatine, North & South					1.50					28
29	Tabor & Northern										29
30	Union Pacific					* 2,606.15	94,785.36				30
31	Wabash Railway	22,924.00		3,426.70		1,140.46	6,825.59				31
	Total	\$2,411,078.28	\$32,841.43	\$306,483.93	\$439,232.06	\$95,564.41	\$1,395,569.19	\$2,303.94	\$74,382.30	\$173,815.12	

*Credit.

TABLE 3—INVESTMENT IN ROAD AND EQUIPMENT—ENTIRE LINE.
PART IV—EXPENDITURES FOR ROAD DURING YEAR—CONTINUED.

Number	Railway Companies	Power transmission systems	Power distribution systems	Power line poles and fixtures	Underground conduits	Miscellaneous structures	Paving	Roadway machinery	Roadway small tools	Assessments for public improvements	Number
1	Atchison, Topeka & Santa Fe					\$ 1,716.70	\$ 8,325.34	\$25,805.00	\$38.08	\$142,094.43	1
2	Atlantic Northern										2
3	Chicago, Burlington & Quincy					93,002.06	* 7,009.35	9,045.21	407.18	126,004.09	3
4	Chicago Great Western		73.08					5,288.78	1,005.47	12,110.34	4
5	Mason City & Fort Dodge							2,484.40	109.65	12,689.45	5
6	Wisconsin, Minnesota & Pacific							461.81	1,251.95	605.29	6
7	Chicago, Milwaukee & St. Paul	479,276.61	1,646,076.66	524,709.57	2,314.70	29,134.64	* 2,350.84	*16,401.70	3,841.07	171,719.81	7
8	Chicago & North-Western						12,437.81	14,742.00	\$11.00	90,808.12	8
9	Chicago, St. Paul, Minneapolis & Omaha		201.40					* 327.17		15,785.67	9
10	Iowa Southern										10
11	Chicago, Rock Island & Pacific					951.60	879.18	6,827.45	349.37	85,480.65	11
12	St. Paul & Kansas City Short Line									7,972.57	12
13	Colfax Northern										13
14	Colfax Consolidated Coal Company										14
15	Security Investment Company										15
16	Creston, Winterset & Des Moines										16
17	Davenport, Rock Island & Northwestern							198.34			17
18	Great Northern		13,607.00			339.85	459.46	13,891.20		89,935.35	18
19	Illinois Central	69.00	84.82	485.91		*914.00	16,922.00	4,067.34	30.29	39,755.04	19
20	Dubuque & Sioux City						283.45	321.07		50,305.37	20
21	a Iowa & Omaha Short Line										21
22	b Iowa & Southwestern							30.57		758.47	22
23	Kookuk & Des Moines										23
24	Manchester & Oelids										24
25	Minneapolis & St. Louis					111.71		125.78		11,436.47	25
26	c Iowa Central & Western										26
27	d Muscatine, Burlington & Southern										27
28	d Muscatine, North & South										28
29	Tabor & Northern										29
30	Union Pacific					21,629.05	245.83	16,480.41	833.13	85,577.02	30
31	Wabash Railway						1,174.19	1,005.28	36.18	15,199.22	31
	Total	\$479,345.64	\$1,669,132.65	\$325,255.48	\$2,314.70	\$142,509.77	\$31,367.16	\$60,676.93	\$9,418.67	\$225,956.64	

*Credit.

PART V—EXPENDITURES FOR ROAD DURING YEAR—CONTINUED.

Number	Railway Companies	Revenues and operating expenses during construction	Cost of road purchased	Other expenditures—Road	Shop machinery	Power plant machinery	Power substation apparatus	Unapplied construction material and supplies	Total expenditures for road	Number
1	Atchison, Topeka & Santa Fe		*\$1,231,000.16	* 23.09	\$187,177.48				\$ 3,190,312.39	1
2	Atlantic Northern									2
3	Chicago, Burlington & Quincy			544,243.63	77,359.24	104,509.44		33,415.47	7,005,961.64	3
4	Chicago Great Western		17,044.58	27,155.61	96.78				783,511.81	4
5	Mason City & Fort Dodge			2,617.78					104,955.76	5
6	Wisconsin, Minnesota & Pacific			* 11,500.00	430.60				64,074.59	6
7	Chicago, Milwaukee & St. Paul	* 11,500.65	5,600,113.70	20,450.92	31,302.18	39.29	619,892.42		17,885,075.11	7
8	Chicago & North-Western				107,194.87	4,374.33			7,004,756.64	8
9	Chicago, St. Paul, Minneapolis & Omaha				35,702.14	31,646.61			1,163,191.50	9
10	Iowa Southern								9,833.00	10
11	Chicago, Rock Island & Pacific				109,231.52	35,785.57			2,452,100.83	11
12	St. Paul & Kansas City Short Line								70,963.50	12
13	Colfax Northern									13
14	Colfax Consolidated Coal Company									14
15	Security Investment Company								* 29.20	15
16	Creston, Winterset & Des Moines									16
17	Davenport, Rock Island & Northwestern				45.00				15,159.78	17
18	Great Northern	* 213.00	15,550.04	36.92	23,338.03	7,764.16		313,508.39	6,296,289.30	18
19	Illinois Central	* 300.00		66,741.13	31,300.09	3,925.40			2,879,072.90	19
20	Dubuque & Sioux City			19,945.19	31,848.91	2,937.20			541,422.88	20
21	a Iowa & Omaha Short Line									21
22	b Iowa & Southwestern									22
23	Kookuk & Des Moines								1,815.17	23
24	Manchester & Oelids									24
25	Minneapolis & St. Louis		579,546.46	* 1,709.48	6,978.23				824,738.34	25
26	c Iowa Central & Western									26
27	d Muscatine, Burlington & Southern					40.63			1,874.79	27
28	d Muscatine, North & South					72.30			1,609.06	28
29	Tabor & Northern									29
30	Union Pacific			574.01	90,490.85	3.49			4,063,472.61	30
31	Wabash Railway			685.62	3,123.68				791,091.13	31
	Total	*\$12,079.65	\$5,039,494.54	\$748,626.37	\$699,548.54	\$105,356.67	\$619,892.42	\$346,916.40	\$65,780,874.67	

*Credit.

TABLE 3—INVESTMENT IN ROAD AND EQUIPMENT—ENTIRE LINE.
PART VI—EXPENDITURES FOR EQUIPMENT DURING YEAR.

Number	Railway Companies	Steam locomotives	Other locomotives	Freight train cars	Passenger cars	Motor equipment of cars	Floating equipment	Work equipment	Miscellaneous equipment	Total expenditures for equipment	Number
1	Atchison, Topeka & Santa Fe	\$ 558,053.85		\$ 577,601.56	\$148,708.46	\$18,000.00		\$111,519.72	\$ 600.00	\$ 1,381,137.00	1
2	Atlantic Northern										2
3	Chicago, Burlington & Quincy	* 126,790.96		* 417,389.63	445,921.27		* 5,482.44	102,077.16	895.00	884,081.26	3
4	Chicago Great Western	389,944.98		* 27,378.22	74,586.70			21,719.56		489,873.01	4
5	Mason City & Fort Dodge										5
6	Wisconsin, Minnesota & Pacific	* 1,000.00		205.00				11,435.02		10,000.02	6
7	Chicago, Milwaukee & St. Paul	312,680.82	3,924,927.65	1,889,207.36	* 25,500.48	110,444.83		85,080.89	2,215.40	6,271,056.88	7
8	Chicago & North-Western	581,602.15		* 12,826.75	* 105,282.48			105,000.04		658,000.90	8
9	Chicago, St. Paul, Minneapolis & Omaha	542,203.59		* 56,172.73	10,300.20			32,947.61		547,249.82	9
10	Iowa Southern										10
11	Chicago, Rock Island & Pacific	* 31,341.76		* 226,500.00	* 8,425.42			*170,348.20		* 436,085.47	11
12	St. Paul & Kansas City Short Line	9,363.24		* 2,473.74						11,836.98	12
13	Colfax Northern										13
14	Colfax Consolidated Coal Company										14
15	Security Investment Company										15
16	Creston, Winterset & Des Moines										16
17	Davenport, Rock Island & North-Western										17
18	Great Northern	541,905.13		2,045,164.24	* 23,432.45			* 17,914.27		2,549,722.05	18
19	Illinois Central	1,177,051.87		465,776.13	951,594.90		712,770.00	78,146.81		2,650,709.77	19
20	Dubuque & Sioux City										20
21	Iowa & Omaha Short Line										21
22	Iowa & Southwestern										22
23	Keokuk & Des Moines	226,810.47		492,620.41	4,600.25			* 3,991.68		701,518.45	23
24	Manchester & Onida										24
25	Minneapolis & St. Louis										25
26	Iowa Central & Western										26
27	Muscataine, Burlington & Southern	15,434.41			13.75					15,448.16	27
28	Muscataine, North & South	* 2,506.98		32.00						* 2,474.98	28
29	Taber & Northern										29
30	Union Pacific	\$ 14,453.68		* 543,046.31	* 358,410.20	* 3,127.68		98,032.54	3,951.70	* 816,103.60	30
31	Wabash Railway	129,105.63		1,254,035.58	59,916.64		30,000.00	41,001.80	*1,149.83	1,922,908.82	31
	Total	\$4,660,419.39	\$3,924,927.65	\$6,362,712.04	\$ 879,183.51	\$ 89,317.15	\$11,767.56	\$374,527.60	\$6,602.90	\$16,409,457.74	

*Credit.

PART VII—GENERAL EXPENDITURES DURING YEAR AND GRAND TOTAL INVESTMENT.

Number	Railway Companies	Organization expenses	General officers and clerks	Law	Stationery and printing	Taxes	Interest during construction	Other expenditures—General	Total general expenditures	Grand total investment in road equipment—entire line	Number
1	Atchison, Topeka & Santa Fe						\$ 22,295.92		\$ 22,295.92	4,598,705.31	1
2	Atlantic Northern										2
3	Chicago, Burlington & Quincy			\$ 100.00			173,501.34	2,750.00	176,351.34	8,618,094.24	3
4	Chicago Great Western									1,223,684.82	4
5	Mason City & Fort Dodge									104,365.70	5
6	Wisconsin, Minnesota & Pacific									74,735.51	6
7	Chicago, Milwaukee & St. Paul	\$1,979.25	\$14,228.89	1,801.78	\$5,200.56	\$5,673.38	243,800.25	6,250.54	\$20,147.09	24,436,870.18	7
8	Chicago & North-Western			118.50	*4.61		111,667.06	*18.97	111,491.98	7,532,849.58	8
9	Chicago, St. Paul, Minneapolis & Omaha						*8,083.11		*8,083.11	1,792,349.33	9
10	Iowa Southern									9,833.06	10
11	Chicago, Rock Island & Pacific					1,193.20			1,193.20	2,016,008.56	11
12	St. Paul & Kansas City Short Line									50,136.99	12
13	Colfax Northern										13
14	Colfax Consolidated Coal Company									*29.30	14
15	Security Investment Company										15
16	Creston, Winterset & Des Moines										16
17	Davenport, Rock Island & North-Western									15,159.78	17
18	Great Northern				10.19	*35.00	40,371.68		40,546.82	8,882,336.77	18
19	Illinois Central	*130.04		287.11			4,832.25		5,019.32	5,544,791.69	19
20	Dubuque & Sioux City						273.15		273.15	541,706.90	20
21	Iowa & Omaha Short Line										21
22	Iowa & Southwestern										22
23	Keokuk & Des Moines									1,615.17	23
24	Manchester & Onida							*47.50	*47.50	*47.50	24
25	Minneapolis & St. Louis			*2,523.30					*2,523.30	1,618,733.49	25
26	Iowa Central & Western										26
27	Muscataine, Burlington & Southern									17,322.90	27
28	Muscataine, North & South									*1,474.92	28
29	Taber & Northern										29
30	Union Pacific							*460,000.00	*460,000.00	2,787,434.45	30
31	Wabash Railway	106.50								2,285,909.95	31
	Total	\$2,964.71	\$14,228.89	*215.91	\$5,312.44	\$6,831.53	\$588,784.65	*451,135.50	\$166,770.26	\$72,357,102.79	

*Credit.

TABLE 3—INVESTMENT IN ROAD AND EQUIPMENT—ENTIRE LINE
PART VIII—INVESTMENT TO JUNE 30, 1907.

Number	Railway Companies	Road			Equipment			Number
		Leased lines	Owned lines	Total	Leased lines	Owned lines	Total	
1	Atchison, Topeka & Santa Fe.....	\$ 1,929,571.61	\$ 480,699,779.08	\$ 482,629,350.70				1
2	Atlantic Northern.....							2
3	Chicago, Burlington & Quincy.....				\$ 345,281,500.00	\$ 345,281,500.00		3
4	Chicago Great Western.....							4
5	Mason City & Fort Dodge.....		42,766,182.71	42,766,182.71				5
6	Wisconsin, Minnesota & Pacific.....		11,357,627.37	11,357,627.37	1,519,686.67	1,519,686.67		6
7	Chicago, Milwaukee & St. Paul.....		210,540,735.04	210,540,735.04	760,764.91	760,764.91		7
8	Chicago & North Western.....		237,705,203.67	237,705,203.67	47,600,579.97	47,600,579.97		8
9	Chicago, St. P., Minn. & Omaha.....		62,408,611.00	62,408,611.00				9
10	Iowa Southern.....							10
11	Chicago, Rock Island & Pacific.....	1,039,650.22	161,195,911.53	162,235,561.75	30,974,666.13	30,974,666.13		11
12	St. Paul & Kansas City Short Line.....							12
13	Colfax Northern.....							13
14	Colfax Consolidated Coal Company.....		81,960.81	81,960.81				14
15	Security Investment Company.....		188,806.02	188,806.02				15
16	Creston, Winterset & Des Moines.....				29,315.10	29,315.10		16
17	Davenport, R. I. & Northwestern.....		3,171,381.84	3,171,381.84	112,433.67	112,433.67		17
18	Great Northern.....		230,947,770.98	230,947,770.98	44,084,373.57	44,084,373.57		18
19	Illinois Central.....				\$ 422,118.37	\$ 422,118.37		19
20	Dubuque & Sioux City.....		29,679,249.89	29,679,249.89	109,002,970.68	109,425,089.05		20
21	a Iowa & Omaha Short Line.....							21
22	b Iowa & Southwestern.....							22
23	Keokuk & Des Moines.....		6,721,111.52	6,721,111.52				23
24	Manchester & Oneida.....		118,891.00	118,891.00				24
25	Minneapolis & St. Louis.....		24,900,532.94	24,900,532.94	4,405,864.50	4,405,864.50		25
26	c Iowa Central & Western.....		1,473,000.00	1,473,000.00				26
27	c Muscatine, Burlington & Southern.....							27
28	d Muscatine North & South.....							28
29	Tabor & Northern.....		92,917.75	92,917.75				29
30	Union Pacific.....		228,773,871.90	228,773,871.90	11,108,065.08	11,108,065.08		30
31	Wabash Railway.....							31
	Total.....	\$ 2,960,221.89	\$ 1,732,773,554.00	\$ 1,735,742,775.89	\$ 422,118.37	\$ 594,879,620.28	\$ 595,301,738.65	

PAT IX—INVESTMENT FROM JULY 1, 1907 TO JUNE 30, 1914.

Number	Railway Companies	Road			Equipment			General Expenditures			Number
		Leased lines	Owned lines	Total	Leased lines	Owned lines	Total	Leased lines	Owned lines	Total	
1	Atchison, Topeka & Santa Fe.....	\$ 88,321.98	\$ 53,150,754.09	\$ 53,239,076.01	\$ 56,541,481.71	\$ 56,541,481.71	\$ 11,907.17	\$ 11,907.17		1	
2	Atlantic Northern.....									2	
3	Chicago, Burlington & Quincy.....				88,544,889.22	88,544,889.22				3	
4	Chicago Great Western.....		99,121,789.63	99,121,789.63	10,031,012.67	10,031,012.67	2,094.68	2,094.68		4	
5	Mason City & Fort Dodge.....		547,827.86	547,827.86	*78,131.40	*78,131.40	1,053.25	1,053.25		5	
6	Wisconsin, Minnesota & Pacific.....		146,764.54	146,764.54	*148,706.31	*148,706.31				6	
7	Chicago, Milwaukee & St. Paul.....		230,953,702.48	230,953,702.48	50,479,587.73	50,479,587.73	2,440,771.94	2,440,771.94		7	
8	Chicago & North Western.....		96,080,730.62	96,080,730.62	25,001,426.72	25,001,426.72	141,241.21	141,241.21		8	
9	Chicago, St. P., Minn. & O.....		11,971,333.46	11,971,333.46			28,636.38	28,636.38		9	
10	Iowa Southern.....		706,863.50	706,863.50						10	
11	Chicago, Rock Island & Pacific.....	3,378,581.41	20,594,403.19	23,942,983.60	21,029,065.98	21,029,065.98	151,023.26	151,023.26		11	
12	St. Paul & Kansas City S. L.....		11,511,322.60	11,511,322.60	457,223.09	457,223.09	540,175.65	540,175.65		12	
13	Colfax Northern.....				192.77	192.77				13	
14	Colfax Consolidated Coal Co.....		7,223.06	7,223.06						14	
15	Security Investment Company.....		3,042.75	3,042.75	108.37	108.37				15	
16	Creston, Winterset & Des Moines.....									16	
17	Davenport, R. I. & Northwestern.....		188,091.90	188,091.90	19,367.51	19,367.51				17	
18	Great Northern.....		72,298,266.41	72,298,266.41	23,116,917.50	23,116,917.50	1,887,576.18	1,887,576.18		18	
19	Illinois Central.....	1,081,246.83	19,006,260.45	20,087,507.28	22,819,621.19	22,819,621.19	\$16,837.02	5,211.70	22,048.81	19	
20	Dubuque & Sioux City.....		1,321,711.41	1,321,711.41						20	
21	a Iowa & Omaha Short Line.....									21	
22	b Iowa & Southwestern.....									22	
23	Keokuk & Des Moines.....		*858.18	*858.18						23	
24	Manchester & Oneida.....		12,485.60	12,485.60						24	
25	Minneapolis & St. Louis.....		33,910,308.17	33,910,308.17						25	
26	c Iowa Central & Western.....									26	
27	c Muscatine, Burlington & South.....		1,273,946.71	1,273,946.71						27	
28	d Muscatine North & South.....		1,273,946.71	1,273,946.71						28	
29	Tabor & Northern.....									29	
30	Union Pacific.....		31,025,982.75	31,025,982.75	20,658,550.47	20,658,550.47	43,877.06	43,877.06		30	
31	Wabash Railway.....									31	
	Total.....	\$4,548,150.22	\$602,802,006.94	\$607,350,157.16	\$324,072,607.22	\$324,072,607.22	\$16,837.02	\$5,253,568.47	\$5,270,405.49		

*Credit.

TABLE 3A—INVESTMENT IN ROAD AND EQUIPMENT—IOWA
PART I—EXPENDITURES FOR ROAD DURING YEAR.

Number	Railway Companies	Engineering	Land for transportation purposes	Grading	Bridges, trestles, and culverts	Ties	Rails	Other track material	Ballast	Track laying and surfacing	Number
1	Atholson, Topeka & Santa Fe.....	\$ 344.00	\$ *335.55	\$ *2,009.10	\$ 12,819.34	\$ 9,558.05	\$ 10,721.87	\$ 7,076.72	\$ 1,164.51	\$ 3,965.30	1
2	Atlantic Northern.....										2
3	Chicago, Burlington & Quincy.....	44,217.19	1,424.31	41,497.91	42,599.14	9,263.97	14,684.05	28,755.63	10,389.72	35,637.67	3
4	Chicago Great Western.....	139.29	107.90	78,458.10	39,025.61	7,761.46	103,891.28	76,712.94	82,187.88	46,214.60	4
5	Mason City & Fort Dodge.....	*605.96	739.53	14,420.02		1,373.10	1,211.87	48,228.82	*135.44	163.34	5
6	Wisconsin, Minnesota & Pacific.....				781.48						6
7	Chicago, Milwaukee & St. Paul.....	21,625.09	114,497.73	184,009.43	18,308.23	*12,382.09	*73,632.00	23,078.30	*60,867.85	*35,471.75	7
8	Chicago & North Western.....	8,057.63	169,083.63	133,707.25	140,634.08	9,141.94	139,199.21	72,906.37	174,892.24	30,275.05	8
9	Chicago, St. P., Minn. & Omaha.....	705.13	*850.00	4,478.01	4,475.00	156.53	1,001.93	1,222.49	88.01	49.29	9
10	Iowa Southern.....		306.80	7,665.42	1,686.92	130.74					10
11	Chicago, Rock Island & Pacific.....										11
12	St. Paul & Kansas City Short Line.....	702.34	*29,188.72	35,674.64	23,980.30	905.79	1,283.18	7,965.53	3,686.50	9,964.79	12
13	Colfax Northern.....										13
14	Colfax Consolidated Coal Company.....		135.01	182.87		356.08	*876.08	73.00		99.32	14
15	Security Investment Company.....										15
16	Creston, Winterset & Des Moines.....										16
17	Davenport, R. I. & Northwestern.....	180.00			180.26	*170.00		1,721.23	367.85		17
18	Great Northern.....	4,091.99	*475.16	27,348.93	*3,405.07	9,198.52	18,349.43	5,721.40	10,313.80	30,502.05	18
19	Illinois Central.....										19
20	Dubuque & Sioux City.....	4,327.26	15,622.57	35,229.03	62,308.61	14,133.32	53,126.77	47,647.97	3,682.80	29,584.37	20
21	a Iowa & Omaha Short Line.....										21
22	b Iowa & Southwestern.....										22
23	Kookuk & Des Moines.....	19.54		181.90	*673.62		*64.06	*27.84		25.11	23
24	Manchester & Onida.....										24
25	Minneapolis & St. Louis.....	2.50	*10,587.15	13,519.02	24,673.82	18,046.07	45,529.18	15,799.89	377.98	23,589.96	25
26	e Iowa Central & Western.....										26
27	c Muscatine, Burlington & Southern.....				196.07						27
28	d Muscatine North & South.....				116.35				68.00		28
29	Tabor & Northern.....										29
30	Union Pacific.....	835.38			38,122.48	1.77	1,636.41	851.16		80.67	30
31	Wabash Railway.....										31
	Total.....	\$ 85,332.29	\$ 999,100.20	\$ 675,174.53	\$ 366,241.03	\$ 67,628.23	\$ 320,661.17	\$ 348,944.11	\$ 227,735.81	\$ 179,707.45	

*Credit.
†Cannot furnish.

PART II—EXPENDITURES FOR ROAD DURING YEAR—CONTINUED.

Number	Railway Companies	Right-of-way fences	Snow and sand fences and snowsheds	Crossings and signals	Station and office buildings	Roadway buildings	Water stations	Fuel stations	Shops and enginehouses	Telegraph and telephone lines	Number
1	Atholson, Topeka & Santa Fe.....	\$ 163.48		\$ 383.51	\$ 2,929.84	\$ 86.40	\$ 832.30	\$ 339.14	\$ 4,827.80	\$ 19.70	1
2	Atlantic Northern.....										2
3	Chicago, Burlington & Quincy.....	39.53		15,895.05	29,022.25	468.18	14,899.37	7,918.34	568,850.94	411.04	3
4	Chicago Great Western.....	9,335.51	82.85	11,550.87	5,000.22	1,970.00	13,170.19	*36.46	15,572.34	56.34	4
5	Mason City & Fort Dodge.....		370.88	4,872.96	7,763.92	*14,855.64	9,884.20	6,547.46	3,319.59	2,900.63	5
6	Wisconsin, Minnesota & Pacific.....	31.79									6
7	Chicago, Milwaukee & St. Paul.....	*2,294.34	6.15	*2,916.86	22,043.31	3,203.99	13,380.01	2,223.34	*11,400.07	*4,662.38	7
8	Chicago & North Western.....	454.24	134.72	47,710.51	119,164.61	2,466.56	1,965.91	638.58	10,468.22	1,928.18	8
9	Chicago, St. P., Minn. & Omaha.....			733.18	53,158.74	*2.41	2,414.27		19,855.82		9
10	Iowa Southern.....										10
11	Chicago, Rock Island & Pacific.....				10,318.20	136.62	717.39	719.70	3,396.24		11
12	St. Paul & Kansas City Short Line.....										12
13	Colfax Northern.....	1,911.59		821.58							13
14	Colfax Consolidated Coal Company.....										14
15	Security Investment Company.....										15
16	Creston, Winterset & Des Moines.....			76.50	4,485.41	73.73					16
17	Davenport, R. I. & Northwestern.....			1,589.44	1,589.44	5.00	17,787.13	10,171.54	97,792.96		17
18	Great Northern.....	405.42	838.69	190.82	51,080.88	3,915.16	11,740.74	1,085.17	124,819.62	335.94	18
19	Illinois Central.....										19
20	Dubuque & Sioux City.....	117.76	241.20	19,678.87							20
21	a Iowa & Omaha Short Line.....										21
22	b Iowa & Southwestern.....										22
23	Kookuk & Des Moines.....	866.26		431.43	532.11		216.15				23
24	Manchester & Onida.....										24
25	Minneapolis & St. Louis.....	1,134.62		19,144.22	836.14	17.81	3,562.74	1,026.69	20,102.80		25
26	e Iowa Central & Western.....										26
27	c Muscatine, Burlington & Southern.....	137.75			1,141.43	5.15	27.21				27
28	d Muscatine North & South.....				741.98						28
29	Tabor & Northern.....									1.50	29
30	Union Pacific.....				12,264.14	318.15		69.45	631.69	8.10	30
31	Wabash Railway.....										31
	Total.....	\$ 11,433.63	\$ 1,174.49	\$ 116,588.01	\$ 292,750.53	\$ 2,407.82	\$ 90,677.73	\$ 31,006.41	\$ 806,917.02	\$ 324.00	

*Credit.
†Cannot furnish.

TABLE 3A—INVESTMENT IN ROAD AND EQUIPMENT—IOWA
PART III—EXPENDITURES FOR ROAD DURING YEAR—CONTINUED.

Number	Railway Companies	Signals and interlockers	Power plant buildings	Power transmission systems	Power distribution systems	Miscellaneous structures	Paving	Roadway machines	Roadway small tools	Assessments for public improvements	Cost of road purchased	Number
1	Atchison, Topeka & Santa Fe	\$ *2,126.57										1
2	Atlantic Northern											2
3	Chicago, Burlington & Quincy	11,029.10	\$63,891.09			\$10,738.55	\$*3,365.57	\$ *110.31		\$ 11,274.77		3
4	Chicago Great Western	70,574.17			\$ 72.68			108.90	\$ 1,254.54	9,865.93		4
5	Mason City & Fort Dodge	450.05						2,484.40	169.55	13,089.43		5
6	Wisconsin, Minnesota & Pacific								7.92			6
7	Chicago, Milwaukee & St. Paul	28,771.00	1,412.66	\$ 3.38		3,987.01	25.43	265.43	*176.85	34,599.82		7
8	Chicago & North Western	27,996.89						3,892.47	3.93	21,619.73		8
9	Chicago, St. P., Minn. & Omaha	8.16						*2.23		7,127.72		9
10	Iowa Southern											10
11	Chicago, Rock Island & Pacific											11
12	St. Paul & Kansas City Short Line	147.61	18.16							7,972.57		12
13	Colfax Northern											13
14	Colfax Consolidated Coal Company											14
15	Security Investment Company											15
16	Creston, Winterset & Des Moines											16
17	Davenport, R. I. & Northwestern	12.72						198.34				17
18	Great Northern				2,267.79	9.18				609.46		18
19	Illinois Central											19
20	Dubuque & Sioux City	3,083.34	*.75				283.45	351.07		49,287.43		20
21	a Iowa & Omaha Short Line											21
22	b Iowa & Southwestern											22
23	Keokuk & Des Moines							30.37		158.47		23
24	Manchester & Onida											24
25	Minneapolis & St. Louis					111.71				11,436.47	579,546.46	25
26	c Iowa Central & Western											26
27	d Muscatine, Burlington & Southern											27
28	e Muscatine North & South											28
29	Tabor & Northern											29
30	Union Pacific	80.00						301.45				30
31	Wabash Railway											31
	Total	\$ 140,026.44	\$70,321.16	\$ 3.38	\$ 2,340.47	\$14,815.56	\$*3,068.69	\$ 6,519.75	\$ 1,259.39	\$ 177,131.86	\$ 579,546.46	

*Credit.
†Cannot furnish.

PART IV—EXPENDITURES FOR ROAD AND EQUIPMENT DURING YEAR.

Number	Railway Companies	Expenditures for Road During Year—Con.				Expenditures for Equipment During Year					Number	
		Other expenditures—Road	Shop machinery	Power plant machinery	Unapplied construction material, supplies	Total expenditures for road	Steam locomotives	Freight train cars	Passenger train cars	Work equipment		Total expenditures for equipment
1	Atchison, Topeka & Santa Fe		\$ 5,501.77			\$ 56,034.31						1
2	Atlantic Northern											2
3	Chicago, Burlington & Quincy	\$122,126.72	22,781.87	\$ 95,215.92	\$ 27,643.24	1,232,814.77						3
4	Chicago Great Western	19,075.42		96.73		503,779.80						4
5	Mason City & Fort Dodge		2,517.78			104,365.76						5
6	Wisconsin, Minnesota & Pacific					538.99						6
7	Chicago, Milwaukee & St. Paul	3,405.06	1,663.34	28.54		276,756.72						7
8	Chicago & North Western		29,799.65			1,179,951.57	\$117,353.56	*2,517.09	*21,007.14	\$ 38,947.15	\$132,716.46	8
9	Chicago, St. P., Minn. & Omaha		19,781.89	31,646.61		147,562.36	24,032.24	*2,527.00	455.15	2,265.22	24,276.61	9
10	Iowa Southern					9,833.06						10
11	Chicago, Rock Island & Pacific											11
12	St. Paul & Kansas City Short Line					70,963.50	*9,363.24	*2,473.74			*11,836.98	12
13	Colfax Northern											13
14	Colfax Consolidated Coal Company					*29.20						14
15	Security Investment Company											15
16	Creston, Winterset & Des Moines											16
17	Davenport, R. I. & Northwestern		45.00			6,752.84						17
18	Great Northern		401.70			239,144.96						18
19	Illinois Central											19
20	Dubuque & Sioux City											20
21	a Iowa & Omaha Short Line	19,706.10	21,848.91	2,037.20		540,924.38						21
22	b Iowa & Southwestern											22
23	Keokuk & Des Moines					1,815.17						23
24	Manchester & Onida											24
25	Minneapolis & St. Louis	1.06	1,840.95			765,586.32	154,619.53	256,988.08	2,436.18	*1,809.83	412,064.51	25
26	c Iowa Central & Western											26
27	d Muscatine, Burlington & Southern		49.63			1,874.79	15,434.41		13.75		15,448.16	27
28	e Muscatine North & South		72.20			1,000.06	*2,506.98	32.00			*2,474.28	28
29	Tabor & Northern											29
30	Union Pacific		5,807.67			61,020.08						30
31	Wabash Railway											31
	Total	\$145,376.93	\$141,368.78	\$129,925.05	\$ 27,643.24	\$ 5,232,510.65	\$299,469.52	\$249,502.85	\$18,172.11	\$ 39,372.52	\$570,192.78	

*Credit.
†Cannot furnish.

TABLE 3A—INVESTMENT IN ROAD AND EQUIPMENT—IOWA
PART V—FOR GENERAL EXPENDITURES DURING YEAR.

Number	Railway Companies	General Expenditures During Year					Grand total investment in road and equipment during year—Iowa	Number	
		Law	Stationery and printing	Taxes	Interest during construction	Other expenditures—general			Total general expenditures
1	Atchison, Topeka & Santa Fe.....				\$ 635.96		\$ 57,470.27	1	
2	Atlantic Northern.....							2	
3	Chicago, Burlington & Quincy.....						1,232,514.77	3	
4	Chicago Great Western.....						568,779.80	4	
5	Mason City & Fort Dodge.....						104,365.70	5	
6	Wisconsin, Minnesota & Pacific.....						838.00	6	
7	Chicago, Milwaukee & St. Paul.....	\$ 504.00		\$ 3.68		\$ 7.00	615.57	7	
8	Chicago & North Western.....				7,034.15		7,034.15	8	
9	Chicago, St. P., Minn. & Omaha.....				*358.57		*358.57	9	
10	Iowa Southern.....						9,833.00	10	
11	Chicago, Rock Island & Pacific.....							11	
12	St. Paul & Kansas City Short Line.....						39,136.52	12	
13	Colfax Northern.....							13	
14	Colfax Consolidated Coal Company.....							14	
15	Security Investment Company.....							15	
16	Creston, Winterset & Des Moines.....							16	
17	Davenport, R. I. & Northwestern.....						6,732.84	17	
18	Great Northern.....				*1.19		*1.19	18	
19	Illinois Central.....							19	
20	Dubuque & Sioux City.....				273.12		273.12	20	
21	a Iowa & Omaha Short Line.....							21	
22	b Iowa & Southwestern.....							22	
23	Keokuk & Des Moines.....						1,815.17	23	
24	Manchester & Onsida.....					\$47.50	*47.50	24	
25	Minneapolis & St. Louis.....	*2,523.30					*2,523.30	25	
26	c Iowa Central & Western.....							26	
27	d Muscatine, Burlington & Southern.....							27	
28	e Muscatine North & South.....						17,322.92	28	
29	Tabor & Northern.....						*1,474.92	29	
30	Union Pacific.....						61,030.38	30	
31	Wabash Railway.....							31	
	Total.....	\$ *2,523.30	\$ 504.00	\$ 3.56	\$ 7,463.47	\$ *40.50	\$ 5,428.24	\$ 5,856,431.07	

*Credit.
(Cannot furnish.

TABLE 4—INCOME ACCOUNT
PART I—OPERATING INCOME.

Number	Railway Companies	Railway operating revenues	Railway operating expenses	Net revenue from railway operations	Railway tax accruals	Uncollectable railway revenues	Railway operating income	Number
1	Atchison, Topeka & Santa Fe.....	\$ 121,078,879.47	\$ 72,896,804.53	\$ 48,682,074.92	\$ 6,875,740.65	\$ 23,748.48	\$ 42,782,582.79	1
2	Atlantic Northern.....							2
3	Chicago, Burlington & Quincy.....	109,191,304.49	65,235,704.66	43,955,499.83	4,230,197.37	36,314.88	39,695,987.58	3
4	Chicago Great Western.....	16,131,091.92	11,249,665.35	4,882,026.58	578,005.49	11,407.56	4,202,013.33	4
5	Mason City & Fort Dodge.....							5
6	Wisconsin, Minnesota & Pacific.....							6
7	Chicago, Milwaukee & St. Paul.....	110,609,688.86	73,765,051.05	36,844,637.81	6,480,119.35	37,279.15	31,337,239.27	7
8	Chicago & North Western.....	97,978,843.70	65,129,827.01	32,858,016.69	5,016,527.44	5,758.69	27,837,739.65	8
9	Chicago, St. P., Minn. & Omaha.....	20,855,286.41	13,608,879.45	7,246,406.96	1,033,392.51	7,033.27	6,185,986.88	9
10	Iowa Southern.....							10
11	Chicago, Rock Island & Pacific.....	77,482,910.69	52,796,880.87	24,686,029.82	3,660,601.03	37,791.53	20,987,697.46	11
12	St. Paul & Kansas City Short Line.....							12
13	Colfax Northern.....	28,651.57	28,173.63	*121.75	1,121.75		*1,243.54	13
14	Colfax Consolidated Coal Company.....							14
15	Security Investment Company.....							15
16	Creston, Winterset & Des Moines.....	4,906.91	10,323.10	*5,736.19			*5,736.19	16
17	Davenport, R. I. & Northwestern.....	115,244.81	139,407.25	*15,192.44	34,627.78	71.91	*20,892.13	17
18	Great Northern.....	83,192,016.73	45,515,290.79	34,686,725.94	5,403,990.09	5,907.49	29,100,772.45	18
19	Illinois Central.....	73,749,266.32	52,845,149.47	20,897,116.85	4,116,063.36	21,812.59	16,779,239.09	19
20	Dubuque & Sioux City.....							20
21	a Iowa & Omaha Short Line.....	6,191.96	7,000.00	*867.13			*867.13	21
22	b Iowa & Southwestern.....	418.27	517.02	*98.75			*98.75	22
23	Keokuk & Des Moines.....	671,023.87	467,017.21	203,406.66	61,125.16	77.62	142,309.88	23
24	Manchester & Onsida.....	23,377.32	19,526.18	3,451.14	1,059.84		2,391.30	24
25	Minneapolis & St. Louis.....	10,995,222.69	7,388,348.54	3,706,874.15	568,242.56	2,533.68	3,136,078.51	25
26	c Iowa Central & Western.....							26
27	d Muscatine, Burlington & Southern.....	73,376.81	54,660.79	19,177.02	2,000.56		17,177.02	27
28	e Muscatine North & South.....	97,365.31	62,943.23	29,392.08	2,637.99		26,831.09	28
29	Tabor & Northern.....	27,321.58	25,223.37	4,098.21	1,792.89		2,305.41	29
30	Union Pacific.....	68,660,373.59	37,392,067.72	31,304,306.17	2,981,644.62	10,257.45	28,312,464.10	30
31	Wabash Railway.....	37,721,394.49	24,874,417.07	12,846,987.42	1,189,389.37	5,837.88	11,671,449.17	31
	Total.....	\$ 829,145,236.88	\$ 526,361,388.60	\$ 302,784,011.78	\$ 40,818,021.43	\$ 205,021.20	\$ 261,759,239.15	

*Deficit.

TABLE 4—INCOME ACCOUNT
PART II—OPERATING INCOME—CONTINUED.

Number	Railway Companies	Revenue from miscellaneous operations	Expenses of miscellaneous operations	Net revenue from miscellaneous operations	Taxes on miscellaneous operating property	Miscellaneous operating income	Total operating income	Number
1	Atchison, Topeka & Santa Fe	\$ 199,887.88	\$ 177,698.72	\$ 21,688.66		\$ 21,688.66	\$ 42,894,274.45	1
2	Atlantic Northern							2
3	Chicago, Burlington & Quincy						39,098,987.58	3
4	Chicago Great Western						4,292,013.23	4
5	Mason City & Fort Dodge							5
6	Wisconsin, Minn. & Pacific							6
7	Chicago, Milwaukee & St. Paul						31,327,339.27	7
8	Chicago & North Western						57,835,730.05	8
9	Chicago, St. P., Minn. & Omaha						6,185,960.88	9
10	Iowa Southern							10
11	Chicago, Rock Island & Pacific						30,987,607.46	11
12	St. Paul & K. C. Short Line							12
13	Colfax Northern						*1,245.54	13
14	Colfax Consolidated Coal Co.							14
15	Security Investment Co.							15
16	Creston, Winterset & Des Moines						*5,735.19	16
17	Davenport, R. I. & Northwestern						*39,892.18	17
18	Great Northern						39,166,772.45	18
19	Illinois Central						16,759,239.09	19
20	Dubuque & Sioux City							20
21	a Iowa & Omaha Short Line						*867.13	21
22	b Iowa & Southwestern						*98.75	22
23	Keokuk & Des Moines						142,300.88	23
24	Manchester & Oneida						2,391.30	24
25	Minneapolis & St. Louis						2,301.30	25
26	e Iowa Central & Western							26
27	c Muscatine, Burlington & So.						17,177.08	27
28	d Muscatine North & South						30,884.09	28
29	Tabor & Northern						2,395.41	29
30	Union Pacific	26,814.16	5,542.13	21,972.03	37,422.92	*36,150.89	28,376,313.21	30
31	Wabash Railway						11,671,449.17	31
	Total	\$ 236,201.54	\$ 183,240.85	\$ 42,960.69	\$ 37,422.92	\$ *14,492.23	\$ 261,744,036.92	

*Deficit.

PART III—NON-OPERATING INCOME.

Number	Railway Companies	Hire of freight cars—Credit balance	Rent From				Joint facility rent income	Income from lease of road	Miscellaneous rent income	Miscellaneous non-operating physical property	Number	
			Locomotives	Passenger-train cars	Floating equipment	Work equipment						
1	Atchison, Topeka & Santa Fe	\$ 207,800.07	\$307,302.72	\$ 311,911.13		\$ 49,712.85	\$ 318,580.67	\$ 128,701.98	\$ 301,748.47	\$ 6,027.36	1	
2	Atlantic Northern										2	
3	Chicago, Burlington & Quincy	491,321.08	104,320.43	155,916.48	\$ 3,002.32	191,735.82	445,698.16	2,902.12	171,994.24	9,931.63	3	
4	Chicago Great Western	114,097.28	28,015.48	788.98		37,321.35	27,302.08	5,746.06	44,071.12	116.85	4	
5	Mason City & Fort Dodge							480,000.00			5	
6	Wisconsin, Minn. & Pacific										6	
7	Chicago, Milwaukee & St. Paul		46,761.86	79,167.80		287,359.41	344,897.02		172,443.56	199,037.74	7	
8	Chicago & North Western	69,114.67	88,763.71	232,350.08		30,732.83	98,671.88		92,472.78	14,000.00	8	
9	Chicago, St. P., Minn. & Omaha		55,208.83	139,370.88		9,648.12	196,300.83		18,242.13	5,144.27	9	
10	Iowa Southern							39,150.00			10	
11	Chicago, Rock Island & Pacific	165,236.01	157,199.80	254,891.16		23,683.71	317,887.05	23,663.06	131,911.95	43,189.14	11	
12	St. Paul & K. C. Short Line							440,309.76			12	
13	Colfax Northern	246.54	237.50	70.00				3,919.64			13	
14	Colfax Consolidated Coal Co.							2,229.50			14	
15	Security Investment Co.										15	
16	Creston, Winterset & Des Moines	4,576.84	6,507.40				36,324.00				16	
17	Davenport, R. I. & Northwestern		52,841.35	170,077.23		19,896.07	802,268.25	71,816.68	314,900.37	186,364.06	17	
18	Great Northern		82,053.97	302,297.73	17,979.70	68,694.29	1,168,729.41	53,361.17	292,432.35	33,838.06	18	
19	Illinois Central	1,224,241.42						1,443,924.77			19	
20	Dubuque & Sioux City										20	
21	a Iowa & Omaha Short Line										21	
22	b Iowa & Southwestern									1,921.89	22	
23	Keokuk & Des Moines		119.12			22.15	1,955.17			68.00	23	
24	Manchester & Oneida							79,076.29		1,115.99	24	
25	Minneapolis & St. Louis		3,028.96			691.61	108,600.20		47.57		25	
26	e Iowa Central & Western							11,100.00			26	
27	c Muscatine, Burlington & So.										27	
28	d Muscatine North & South		80.80								28	
29	Tabor & Northern										29	
30	Union Pacific		15,723.84	339,403.92		15,222.57	563,310.73	19,838.26	33,927.61	37.40	30	
31	Wabash Railway		22,437.06	25,302.87		12,469.92	8,731.82	190,692.65	4,000.00	11,073.83	82,171.21	31
	Total	\$2,307,094.32	\$671,442.83	\$2,045,498.26	\$ 23,482.14	\$742,682.80	\$4,561,283.20	\$2,810,209.56	\$1,556,551.07	\$540,874.94		

TABLE 4—INCOME ACCOUNT
PART IV—NON-OPERATING INCOME AND GROSS INCOME.

Number	Railway Companies	Separately operated property—profit	Dividend income	Income From			Release of pre- miums on funded debt	Miscellaneous incomes	Total non-operating income	Gross income	Number	
				Profit securities	Unfunded securities and ac- counts	Sinking and serve funds						
1	Aitchison, Topeka & Santa Fe		\$ 102,195.00	\$ 6,023,355.48	\$ 1,536,615.20	\$ 56,218.00		\$ 419,046.85	\$ 10,429,375.15	\$ 58,233,649.63	1	
2	Atlantic Northern										2	
3	Chicago, Burlington & Quincy		40,233.94	32,041.19	1,337,850.59	3,457.51		1,302.95	2,991,316.79	42,000,304.34	3	
4	Chicago Great Western		10,949.00	1,223.42	55,887.48			359.37	325,560.17	4,617,878.50	4	
5	Mason City & Fort Dodge								480,000.00	480,000.00	5	
6	Wisconsin, Minn. & Pacific										6	
7	Chicago, Milwaukee & St. Paul	\$ 85,207.90	171,821.00	80,808.39	1,567,488.80	42,012.50		87,790.49	3,115,741.05	34,442,980.32	7	
8	Chicago & North Western		1,547,632.00	6,682.63	677,330.64	40,084.32	\$ 11,636.45		2,359,173.42	30,734,904.07	8	
9	Chicago, St. P., Minn. & O.		46,351.00	15,187.28	37,165.27		15,364.98	*8.91	478,000.68	6,684,050.56	9	
10	Iowa Southern										10	
11	Chicago, Rock Island & Pacific		59,740.00	1,138,686.42	101,516.39			21,665.27	30,150.50	89,160.00	11	
12	St. Paul & K. C. Short Line								2,446,919.53	23,434,616.99	12	
13	Colfax Northern								440,369.76	440,369.76	13	
14	Colfax Consolidated Coal Co.								664.04	664.04	14	
15	Security Investment Co.								2,239.50	2,239.50	15	
16	Creston, Winterset & Des Moines										16	
17	Davenport, R. I. & Northwestern										17	
18	Great Northern		4,689,648.00	358,460.29	782,379.78	4,350.00		884.12	7,395,791.74	36,562,504.19	18	
19	Illinois Central	114,394.50	2,925,545.00	7,160,373.24	318,950.62	130,622.00		19,014.15	13,015,830.71	29,775,069.71	19	
20	Dubuque & Sioux City								1,565,800.35	1,565,800.35	20	
21	a Iowa & Omaha Short Line				133.52	61,832.06					21	
22	b Iowa & Southwestern										22	
23	Keokuk & Des Moines				1,761.07				8.00	5,387.40	147,588.28	23
24	Manchester & Oneida				790.00					768.00	3,159.30	24
25	Minneapolis & St. Louis				7,510.31			9.29	343,672.32	3,439,672.32	25	
26	a Iowa Central & Western		40,654.96	11,169.53	7,510.31				11,100.00	11,100.00	26	
27	c Muscatine, Burlington & So.										27	
28	d Muscatine North & South										28	
29	Tabor & Northern								80.80	80.80	29	
30	Union Pacific	28,549.58	10,680,945.00	7,069,751.50	1,554,000.11				2,222.60	20,013,613.38	48,389,926.60	30
31	Wabash Railway	25,000.00	79,706.07	2,623.32	42,737.54				609,772.00	12,181,321.17	31	
	Total	253,151.87	\$19,494,150.67	\$22,448,640.50	\$ 7,721,631.47	\$ 236,830.37	\$ 20,291.43	\$ 302,338.04	\$69,461,705.76	\$325,206,642.63		

*Deficit.

PART V—DEDUCTIONS FROM GROSS INCOME

Number	Railway Companies	Hire of freight- cars—debit balance	Rent for				Joint facility rents	Rent for leased roads	Miscellaneous rents	Number	
			Locomotives	Passenger train cars	Floating equipment	Work equipment					
1	Aitchison, Topeka & Santa Fe		\$ 33,844.05	\$ 112,102.46	\$ 3,185.93	\$ 3,176.97	\$ 820,587.37	\$ 1,329,465.67	\$ 161,389.80	1	
2	Atlantic Northern									2	
3	Chicago, Burlington & Quincy		46,797.50	164,045.39	699.23	10,340.07	1,724,004.75	36,138.70	21,580.25	3	
4	Chicago Great Western		4,397.15	29,012.66		2,070.93	674,314.43	480,000.00	35,141.06	4	
5	Mason City & Fort Dodge									5	
6	Wisconsin, Minn. & Pacific									6	
7	Chicago, Milwaukee & St. Paul	\$ 1,315,969.75	22,461.08	80,741.98		\$ 2,238.37	1,034,792.61		19,860.04	7	
8	Chicago & North Western		96,036.74	278,556.20		*2,532.13	318,805.70		121,961.64	8	
9	Chicago, St. P., Minn. & Omaha		121,874.20	10,706.03	142,287.33	1,722.49	289,053.87		17,177.02	9	
10	Iowa Southern									10	
11	Chicago, Rock Island & Pacific		119,036.92	215,813.79		13,734.99	1,655,569.62		2,621,212.41	6,710.92	11
12	St. Paul & K. C. Short Line							40.00	7,456.00	5.00	12
13	Colfax Northern										13
14	Colfax Consolidated Coal Co.										14
15	Security Investment Co.										15
16	Creston, Winterset & Des Moines										16
17	Davenport, R. I. & Northwestern										17
18	Great Northern	215,697.06	29,415.85	126,955.19	10,327.50	9,968.85	979,174.63		5,689,672.48	*8,737.58	18
19	Illinois Central		13,083.68	80,802.80		17,127.44	716,971.50		8,675.37	19	
20	Dubuque & Sioux City										20
21	a Iowa & Omaha Short Line	495.00	1,005.00				148.00				21
22	b Iowa & Southwestern										22
23	Keokuk & Des Moines	52,387.05	43,301.94	22,968.91		2,007.02	5,492.79	1,248.12	1.00	23	
24	Manchester & Oneida	972.54					240.00		19.20	24	
25	Minneapolis & St. Louis	247,369.23		13,969.00			135,666.68	15,149.22	310.29	25	
26	a Iowa Central & Western										26
27	c Muscatine, Burlington & So.	8,637.18		10.00			2,323.98		139.50	27	
28	d Muscatine North & South	8,465.46					8,462.13		190.33	28	
29	Tabor & Northern	*669.79	1,200.00								29
30	Union Pacific	272,222.61	18,397.78	348,468.28		3,712.12	274,337.21		77,879.27	1,774.00	30
31	Wabash Railway	1,034,874.50	60,718.66	64,327.32	5,250.00	10,971.90	1,796,415.49		73,294.77	37,097.31	31
	Total	\$ 3,779,715.43	\$ 510,372.41	\$ 1,681,115.37	\$ 19,472.72	\$ 80,299.72	\$ 10,547,800.71	\$ 9,822,193.28	\$ 32,965.49		

*Credit.

TABLE 4—INCOME ACCOUNT
PART VI—DEDUCTIONS FROM GROSS INCOME—CONTINUED—AND NET INCOME.

Number	Railway Companies	Miscellaneous tax accruals	Separately operated properties—loss	Interest on		Amortization of discount on funded debt	Maintenance of infrastructure	Miscellaneous income charges	Total deductions from gross income	Net income	Number
				Funded Debt	Unfunded debt						
1	Atchison, Topeka & Santa Fe	\$ 124.71	\$ 210,851.41	\$12,364,165.51	\$ 14,801.11			\$ 45,412.92	\$ 15,000,108.41	\$ 28,134,841.22	1
2	Atlantic Northern							5.00	9,005,378.00	22,004,728.55	2
3	Chicago, Burlington & Quincy	19,585.25	52,136.96	6,000,485.46	752.94	\$ 39,103.52					3
4	Chicago Great Western	363.95		1,022,837.91	1,284.57	13,510.44		9,171.25	2,282,934.20	2,335,908.70	4
5	Mason City & Fort Dodge			480,000.00					480,000.00		5
6	Wisconsin, Minn. & Pacific										6
7	Chicago, Milwaukee & St. Paul	70,377.03		15,565,310.68	31,700.83			37,877.07	18,223,138.44	16,200,841.88	7
8	Chicago & North Western	110,569.82		9,368,868.82	4,387.54			5,787.07	10,435,979.73	29,365,924.36	8
9	Chicago, St. P., Minn. & Omaha	19,307.51		2,370,664.81	833.53	1,181.11		1,984.29	2,949,078.15	3,714,975.33	9
10	Iowa Southern			39,150.00					39,150.00		10
11	Chicago, Rock Island & Pacific		39,673.01	10,903,179.95	670,822.56			568,900.95	15,307,234.22	8,037,387.71	11
12	St. Paul & K. C. Short Line			440,300.70					440,300.70		12
13	Colfax Northern				492.53				7,966.32	*8,058.85	13
14	Colfax Consolidated Coal Co.									*8,019.64	14
15	Security Investment Co.			2,875.00	827.00					282.50	15
16	Creston, Winterset & Des Moines									*5,736.19	16
17	Davenport, R. I. & Northwestern								7,006.71		17
18	Great Northern	114,125.05		10,786,192.11	19,080.64			25,028.70	12,272,819.94	24,200,045.15	18
19	Illinois Central	7,100.63	42,355.24	5,545,395.84	10,000.34		\$ 549.00	14,067.20	12,147,867.67	17,027,302.04	19
20	Dubuque & Sioux City			844,034.45					844,034.45	601,855.99	20
21	a Iowa & Omaha Short Line								1,738.00	*2,005.13	21
22	b Iowa & Southwestern									*86.75	22
23	Keokuk & Des Moines			137,500.00	1.22			440.63	265,273.68	*117,625.40	23
24	Manchester & Onida			2,250.00				7.00	4,489.34	*1,330.04	24
25	Minneapolis & St. Louis			2,002,504.15	41,022.41	137,467.40		5,536.34	2,689,255.92	750,118.40	25
26	c Iowa Central & Western			11,300.00					11,100.00		26
27	d Muscatine, Burlington & So.			19,359.85					19,359.85		27
28	e Muscatine North & South			2,000.00				105.00	24,485.21	*7,308.19	28
29	Tabor & Northern			1,209.00	1,577.35				12,849.54	14,655.35	29
30	Union Pacific	183.20		7,822,435.85	34,234.01	\$ 7,276.50		45,481.92	8,900,323.05	39,403,965.54	30
31	Wabash Railway	7,627.62	36,871.90	3,102,645.00	11,332.16	\$ 2,454.23		1,409.02	5,730,313.90	5,300,908.21	31
	Total	\$ 351,338.41	\$ 891,788.52	\$88,987,445.22	\$ 843,525.56	\$ 197,026.42	\$ 549.00	\$ 789,910.31	\$18,416,338.47	\$209,700,404.21	

*Debit.
†Due to adjustment of charges in 1935.
‡Credit.

PART VII—DISPOSITION OF NET INCOME.

Number	Railway Companies	Disposition of Net Income					Total appropriations of income	Income credit balance transferred to profit and loss	Income debit balance transferred to profit and loss	Number
		Income applied to sinking and other reserve funds	Dividend appropriations of income	Income appropriated for investment in physical property	Miscellaneous appropriations of income	Income credit balance transferred to profit and loss				
1	Atchison, Topeka & Santa Fe	\$ 68,928.09	\$19,022,435.00	\$11,000,000.00	\$ 11,111.82	\$ 30,102,474.91	\$ 8,032,006.31		1	
2	Atlantic Northern								2	
3	Chicago, Burlington & Quincy	1,804,286.81	8,807,138.00	9,864,505.48	8,400,000.00	27,980,010.29	4,908,715.36		3	
4	Chicago Great Western								4	
5	Mason City & Fort Dodge								5	
6	Wisconsin, Minn. & Pacific								6	
7	Chicago, Milwaukee & St. Paul	141,581.57				141,581.57	16,008,260.31		7	
8	Chicago & North Western	109,674.82	10,809,635.00			11,069,189.82	9,209,734.34		8	
9	Chicago, St. P., Minn. & Omaha		2,087,221.50			2,087,221.50	1,637,739.88		9	
10	Iowa Southern								10	
11	Chicago, Rock Island & Pacific								11	
12	St. Paul & K. C. Short Line								12	
13	Colfax Northern								13	
14	Colfax Consolidated Coal Co.								14	
15	Security Investment Co.								15	
16	Creston, Winterset & Des Moines								16	
17	Davenport, R. I. & Northwestern								17	
18	Great Northern	1,010,447.92	17,462,434.50	2,500,000.00	3,357,196.91	25,330,079.33		1,040,684.18	18	
19	Illinois Central	114,125.06		40,664.72		160,789.72	17,466,412.32		19	
20	Dubuque & Sioux City	125,218.08				125,218.08	536,637.82		20	
21	a Iowa & Omaha Short Line								21	
22	b Iowa & Southwestern								22	
23	Keokuk & Des Moines								23	
24	Manchester & Onida								24	
25	Minneapolis & St. Louis								25	
26	c Iowa Central & Western								26	
27	d Muscatine, Burlington & Southern								27	
28	e Muscatine North & South								28	
29	Tabor & Northern								29	
30	Union Pacific		21,706,005.00	3,221,216.20		24,926,221.20	14,417,309.18		30	
31	Wabash Railway	84,410.00	462,000.00			546,410.00	4,844,438.21		31	
	Total	\$ 3,938,072.29	\$80,545,902.00	\$20,632,476.20	\$11,768,366.72	\$ 122,375,259.56	\$88,402,832.79	\$ 1,174,555.03		

TABLE 5—PROFIT AND LOSS ACCOUNT
PART I—DEBITS.

Number	Railway Companies	Public bal- ance at beginning of year	Debit bal- ance trans- ferred from income	Surplus mp- paid to sinking and reserve funds	Dividend ap- propriations	Surplus ap- propriated for work- ing physical property	Stock dis- count ex- tinguished through surplus	Debit dis- count ex- tinguished through surplus	Number
1	Atchafalaya, Topeka & Santa Fe.....								1
2	Atlantic Northern.....								2
3	Chicago, Burlington & Quincy.....								3
4	Chicago, Great Western.....								4
5	Mason City & Fort Dodge.....								5
6	Wisconsin, Minn., & Pacific.....	\$ 84,200.00			\$ 877,538.00				6
7	Chicago & North Western, St. Paul.....								7
8	Chicago, St. P., Minn., & Omaha.....								8
9	Iowa Southern.....	14,309,831.74			6,207.50				9
10	Chicago, Rock Island & Pacific.....								10
11	St. Paul & K. C. Short Line.....								11
12	Chicago, Great Western.....								12
13	Colfax Consolidated Coal Co.....	39,092.91	\$ 8,983.00						13
14	Security Investment Co.....		383.50						14
15	Greston, Winterest & Des Moines.....								15
16	Daytonport, R. I. & Northwestern.....		1,040,034.18						16
17	Great Northern.....								17
18	Dechow & Sioux City.....								18
19	Iowa & Omaha Short Line.....								19
20	Iowa & Southwestern.....								20
21	Kearney & Des Moines.....								21
22	Minneapolis & Des Moines.....	160,148.59	117,085.40						22
23	Minneapolis & Rapid City.....	1,820.00							23
24	Chicago, St. P., Minn., & Omaha.....								24
25	Iowa Central & Western.....			658,670.24		636.00			25
26	Missouri, Burlington & So. W.....								26
27	Muscatine, Burlington & So. W.....								27
28	Taber & Northern.....	10,374.04	\$ 834.76						28
29	Union Pacific.....				4,445,882.00				29
30	Wabash Railway.....								30
31	Total.....	\$14,476,795.28	\$ 1,371,940.90	\$ 707,840.54	\$88,709,682.18	\$ 302,150.40	\$ 49,785.00	\$ 2,020,709.15	31

*Unable to furnish Profit and Loss statement for five months ended December 31, 1916.

RAILROAD COMMISSIONERS' REPORT

STATISTICS OF STEAM RAILWAYS

Number	Railway Companies	Miscellaneous amounts of surplus	Loans on re- tired road and equipment	Delayed in- come debits	Miscellaneous debts	Credit bal- ance car- ried to bal- ance sheet	Total	Number
1	Atchafalaya, Topeka & Santa Fe.....				\$ 65,757.49	\$ 21,940,422.11	\$ 21,970,230.00	1
2	Atlantic Northern.....							2
3	Chicago, Burlington & Quincy.....		\$ 600,501.20		19,660.89	114,481,487.42	115,121,786.71	3
4	Chicago, Great Western.....		43,228.80		5,077.28	6,209,164.41	7,170,072.37	4
5	Mason City & Fort Dodge.....							5
6	Wisconsin, Minn., & Pacific.....		245,115.91		1,123,882.70	42,947,364.35	44,316,363.96	6
7	Chicago, Milwaukee & St. Paul.....		550,887.11		89,743.41	47,941,382.56	48,779,230.26	7
8	Chicago & North Western.....		204,408.08		7,692.17	5,800,265.16	6,110,196.21	8
9	Chicago, St. P., Minn., & Omaha.....		1,448,458.53	73,008.57	151,008.12	15,910,745.00	17,522,210.22	9
10	Iowa Southern.....		5,223.26			99,884.40	102,108.25	10
11	Chicago, Rock Island & Pacific.....							11
12	St. Paul & K. C. Short Line.....							12
13	Colfax Consolidated Coal Co.....							13
14	Security Investment Co.....	\$ 2,830.76						14
15	Greston, Winterest & Des Moines.....							15
16	Daytonport, R. I. & Northwestern.....							16
17	Great Northern.....		149,600.05					17
18	Iowa Central & Western.....		454,830.39		800,413.96	70,000,029.47	78,005,423.64	18
19	Illinois Central.....		500.01		1,050,778.28	10,005,948.73	20,842,411.64	19
20	Taber & Northern.....							20
21	Union Pacific.....							21
22	Wabash Railway.....							22
23	Total.....	\$ 107,700.72	\$ 3,656,556.93	\$ 73,008.57	\$ 3,795,732.00	\$ 403,883,307.60	\$ 422,038,242.05	23

*Unable to furnish Profit and Loss statement for five months ended December 31, 1916.

TABLE 5—PROFIT AND LOSS ACCOUNT
PART III—CREDITS.

Number	Railway Companies	Credit balance at beginning of year	Credit balance transferred from income	Profit on road and equipment sold	Unrecoverable charges	Donations	Miscellaneous credits	Debit balance carried to balance sheet	Total	Number
1	Atchison, Topeka & Santa Fe	\$ 24,790,572.72	\$ 8,022,000.31	\$ 3,400.31	\$ 9,068.40	\$ 20,034.91	\$ 154,071.90		\$ 33,031,220.00	1
2	Atlantic Northern									2
3	Chicago, Burlington & Quincy	108,494,222.99	4,908,715.30	329,668.50	14,868.66	10,467.61	760,742.39		115,121,785.71	3
4	Chicago Great Western	4,810,023.70	2,335,308.70	5,219.28	12,968.10	3,530.86	1,919.03		7,170,822.57	4
5	Mason City & Fort Dodge									5
6	Wisconsin, Minn. & Pacific							\$ 84,300.00	84,300.00	6
7	Chicago, Milwaukee & St. Paul	38,907,263.87	16,008,260.31	740,327.68	88,138.35	34,059.83	3,371,309.42		59,159,679.46	7
8	Chicago & North Western	39,084,542.33	9,300,734.54	9,812.97	6,502.90	82,402.03	314,025.45		48,797,230.25	8
9	Chicago, St. P., Minn. & Omaha	4,418,050.33	1,027,703.88	13,684.00	21,816.06	17,027.11	10,574.85		6,110,106.22	9
10	Iowa Southern							\$ 800,727.01	7,906,645.88	10
11	Chicago, Rock Island & Pacific			3,508.50	4,480.33				15,910,745.00	11
12	St. Paul & K. O. Short Line	102,108.50							102,108.50	12
13	Colfax Northern							\$ 35,875.00	35,875.00	13
14	Colfax Consolidated Coal Co.	82,945.38	3,919.64						86,865.02	14
15	Security Investment Co.	104,447.34							104,447.34	15
16	Creston, Winterset & Des Moines									16
17	Davenport, R. I. & Northwestern								\$ 37,700.00	17
18	Great Northern	78,084,004.87	17,406,412.32	15,553.86	17,208.16	26,030.82	322,303.60		78,945,425.64	18
19	Illinois Central	3,240,378.08	17,406,412.32	4,777.91	33,778.00	13,384.14	100,649.47		25,842,411.94	19
20	Dubuque & Sioux City	223,139.16	530,637.82	257.00		1,513.26	1,208.70		762,566.50	20
21	Iowa & Omaha Short Line									21
22	Iowa & Southwestern					34.76		.01	333,805.88	22
23	Koosuk & Des Moines									23
24	Manchester & Oueda	19,305.34							19,305.34	24
25	Minneapolis & St. Louis	792,802.69	750,118.40		20,327.41	636.62	2,058.86		1,565,733.98	25
26	Iowa Central & Western									26
27	Muscatine, Burlington & Southern									27
28	Muscatine North & South	12,743.32	14,605.35			300.00			27,648.67	28
29	Tabor & Northern								20,238.80	29
30	Union Pacific	79,145,796.16	14,417,309.15	11,838.72	10,777.79		214,631.98		93,786,679.30	30
31	Wabash Railway	809,532.76	4,844,408.21				7,429.21		5,661,400.15	31
	Total	\$ 388,757,661.19	\$ 888,402,892.79	\$ 1,612,300.37	\$ 191,493.97	\$ 209,963.97	\$ 5,604,703.33	\$ 7,769,326.49	\$ 492,638,242.05	

*Unable to furnish Profit and Loss statement for five months ended December 31, 1916.
†Debit.

TABLE 6—RAILWAY OPERATING REVENUES—ENTIRE LINE
PART I—RAIL LINE TRANSPORTATION REVENUES.

Number	Railway Companies	Freight	Passenger	Excess baggage	Sleeping car	Parlor and chair car	Mail	Express	Number
1	Atchison, Topeka & Santa Fe	\$ 55,005,011.88	\$ 26,280,788.94	\$ 220,844.27		\$ 44,915.79	\$ 2,507,122.13	\$ 4,115,908.88	1
2	Atlantic Northern	29,495.38	3,730.40	151.05			885.16	789.89	2
3	Chicago, Burlington & Quincy	77,310,316.00	21,823,324.25	248,822.67		2,369.89	2,001,304.00	2,854,718.02	3
4	Chicago Great Western	11,269,903.30	3,465,071.91	57,187.70		26,784.81	239,680.38	400,094.39	4
5	Mason City & Fort Dodge								5
6	Wisconsin, Minn. & Pacific								6
7	Chicago, Milwaukee & St. Paul	79,648,612.84	19,756,825.32	191,679.90	\$ 1,217,419.67	78,242.84	2,329,575.10	2,619,955.53	7
8	Chicago & North Western	65,380,164.97	22,329,569.32	213,469.81		220,248.00	1,840,311.77	2,599,376.56	8
9	Chicago, St. P., Minn. & Omaha	13,837,303.31	5,414,961.90	64,001.46		30,380.78	343,375.70	623,178.18	9
10	Iowa Southern								10
11	Chicago, Rock Island & Pacific	62,963,179.90	15,885,259.18	178,962.31		15,730.32	1,795,890.13	1,958,219.37	11
12	St. Paul & K. O. Short Line								12
13	Colfax Northern	19,591.04	6,048.98	2.20					13
14	Colfax Consolidated Coal Co.								14
15	Security Investment Co.								15
16	Creston, Winterset & Des Moines	4,566.91							16
17	Davenport, R. I. & Northwestern							\$ 5,879.71	17
18	Great Northern	61,033,230.30	14,361,519.25	129,808.75	721,959.97	71,600.59	2,615,011.36	1,955,179.30	18
19	Illinois Central	33,325,517.13	14,435,463.90	123,308.40		27,123.35	1,256,684.65	2,077,463.35	19
20	Dubuque & Sioux City								20
21	Iowa & Omaha Short Line	6,150.06	.25						21
22	Iowa & Southwestern	418.27							22
23	Koosuk & Des Moines	320,655.15	273,938.20	4,338.32			31,066.11	22,490.44	23
24	Manchester & Oueda	15,462.88	7,782.46	89.79			285.79	1,163.83	24
25	Minneapolis & St. Louis	8,377,174.04	1,980,250.70	20,442.83		61.50	211,568.45	201,911.60	25
26	Iowa Central & Western								26
27	Muscatine, Burlington & So.	48,682.23	16,099.47				2,009.70		27
28	Muscatine North & South	66,422.01	25,369.59				2,770.00		28
29	Tabor & Northern	17,131.35	3,367.59	134.50			579.00	1,215.31	29
30	Union Pacific	51,377,911.77	10,808,031.99	132,618.21			2,664,677.05	1,580,689.96	30
31	Wabash Railway	27,609,740.86	7,024,228.32	64,567.17		31,613.69	785,480.41	1,072,573.61	31
	Total	\$ 587,882,094.43	\$ 167,156,405.18	\$ 1,750,391.74	\$ 1,908,470.64	\$ 565,097.04	\$ 19,275,513.00	\$ 21,744,059.11	

TABLE 6—RAILWAY OPERATING REVENUES—ENTIRE LINE
PART II—RAIL LINE TRANSPORTATION REVENUES—Continued.

Number	Railway Companies	Other passenger train	Milk	Switching	Special serv-ice train	Other freight train	Water trans-fer—other	Total rail-line trans-portion revenue	Number
1	Atchison, Topeka & Santa Fe	\$ 608,344.74	\$ 22,832.12	\$ 672,685.42	\$ 50,406.72	\$ 913.84		\$ 120,308,236.74	1
2	Atlantic Northern			30.00				35,028.47	2
3	Chicago, Burlington & Quincy	47,483.90	455,545.22	1,458,247.48	37,622.31			100,940,083.40	3
4	Chicago Great Western	7,917.34	178,743.73	221,882.07	9,918.40			15,878,004.89	4
5	Mason City & Fort Dodge								5
6	Wisconsin, Minn. & Pacific								6
7	Chicago, Milwaukee & St. Paul	35,670.70	928,718.46	1,809,172.53	38,641.51			108,744,015.84	7
8	Chicago & North Western	171,971.60	1,340,842.11	1,544,846.32	72,021.33	2,944.02		95,677,800.67	8
9	Chicago, St. P., Minn. & Omaha	54,509.31	26,838.20	194,094.15	10,232.00			20,400,028.05	9
10	Iowa Southern								10
11	Chicago, Rock Island & Pacific	11,167.28		676,582.08	33,708.94	16,885.63		76,345,364.04	11
12	St. Paul & K. O. Short Line								12
13	Colfax Northern			1,049.70				97,591.52	13
14	Colfax Consolidated Coal Co.								14
15	Security Investment Co.								15
16	Creston, Winterset & Des Moines							4,500.91	16
17	Davenport, R. I. & Northwestern			102,690.22				108,600.93	17
18	Great Northern	16,064.65		605,518.26	36,078.06	432.40		81,306,737.79	18
19	Illinois Central	75,900.21	897,647.39	806,920.32	30,339.91	*12,850.00	*8,580.00	72,567,443.68	19
20	Dubuque & Sioux City								20
21	Iowa & Omaha Short Line							6,156.31	21
22	Iowa & Southwestern							418.27	22
23	Keokuk & Des Moines	63.10		7,070.46	502.71			665,294.53	23
24	Manchester & Oquida			13.88				25,978.33	24
25	Minneapolis & St. Louis	1,979.12	107.00	116,511.59	7,190.00	36.00		10,911,155.23	25
26	Iowa Central & Western								26
27	c Muscatine, Burlington & So.			3,894.39				70,735.79	27
28	d Muscatine North & South			3,444.82				90,036.47	28
29	Tabor & Northern		217.12	2,064.00				25,880.26	29
30	Union Pacific	278,829.79		387,314.09	23,763.43			67,006,080.84	30
31	Wabash Railway	6,792.22	65,307.38	422,588.21	12,881.00			37,095,766.96	31
	Total	\$ 1,230,646.87	\$ 2,297,269.65	\$ 9,201,843.45	\$ 363,379.32	\$ 8,422.49	\$ 8,540.00	\$ 514,502,265.85	

*Debit item.

PART III—INCIDENTAL OPERATING REVENUES.

Number	Railway Companies	Dining and buffet	Hotel and restaurant	Station, boat train, boat privileges	Parcel room	Storage—freight	Storage—baggage	Demurrage	Number
1	Atchison, Topeka & Santa Fe			\$ 292,532.10	\$ 3,796.29	\$ 54,707.95	\$ 36,146.05	\$ 274,630.87	1
2	Atlantic Northern							213.00	2
3	Chicago, Burlington & Quincy	\$ 678,384.43	\$ 100,130.24	\$ 3,300.33	15,438.48	42,805.15	18,591.74	288,408.57	3
4	Chicago Great Western	94,068.85	26,942.11	3,471.67	2,168.50	19,198.62	1,732.15	61,676.67	4
5	Mason City & Fort Dodge								5
6	Wisconsin, Minn. & Pacific								6
7	Chicago, Milwaukee & St. Paul	649,171.08	5,911.52	56,206.03	3,096.88	63,307.23	14,827.05	430,514.05	7
8	Chicago & North Western	571,539.85	73,209.05	57,025.98	38,202.50	38,436.04	20,674.49	398,821.74	8
9	Chicago, St. P., Minn. & Omaha	148,805.39	38,801.25	8,073.94	1,328.34	12,568.58	1,600.53	88,034.14	9
10	Iowa Southern								10
11	Chicago, Rock Island & Pacific	445,541.32	29,855.78	62,701.64	18,919.31	33,879.94	19,195.75	311,158.23	11
12	St. Paul & K. O. Short Line							424.00	12
13	Colfax Northern								13
14	Colfax Consolidated Coal Co.								14
15	Security Investment Co.								15
16	Creston, Winterset & Des Moines					347.75		5,322.00	16
17	Davenport, R. I. & Northwestern			35.01				170,092.66	17
18	Great Northern	690,906.24	414,196.12	9,138.00	42,455.15	18,008.08	32,771.27	257,808.25	18
19	Illinois Central	356,703.19	147,256.51	82,340.63	35,394.70	131,660.89	11,338.40		19
20	Dubuque & Sioux City							84.00	20
21	Iowa & Omaha Short Line					1.06			21
22	Iowa & Southwestern							3,563.70	22
23	Keokuk & Des Moines			695.65		358.86	136.89	306.00	23
24	Manchester & Oquida					3.00			24
25	Minneapolis & St. Louis	925.35		0,946.63	137.00	4,218.40	798.55	47,015.63	25
26	Iowa Central & Western								26
27	c Muscatine, Burlington & So.							437.00	27
28	d Muscatine North & South							630.00	28
29	Tabor & Northern					16.75		156.00	29
30	Union Pacific	603,487.79	569,322.38	49,225.04	2,430.90	13,624.39	19,189.12	112,088.23	30
31	Wabash Railway	180,751.13		22,719.68	3,021.00	15,591.77	1,473.50	160,902.46	31
	Total	\$ 4,226,009.53	\$ 1,365,779.06	\$ 694,039.77	\$ 108,969.63	\$ 445,002.47	\$ 178,179.81	\$ 2,746,127.70	

TABLE 6—RAILWAY OPERATING REVENUES—ENTIRE LINE
PART IV—INCIDENTAL OPERATING REVENUES—Continued.

Number	Railway Companies	Telegraph and telephone	Grain elevator	Stockyard	Power	Rents of buildings and other property	Miscellaneous	Total Incl. operating revenues	Number
1	Achison, Topeka & Santa Fe.....	\$ 172,974.35		\$ 27,559.41		\$ 52,495.65	\$ 422,187.29	\$ 1,231,734.71	1
2	Atlantic Northern.....					131.70	1,499.19	1,630.89	2
3	Chicago, Burlington & Quincy.....	252,566.09		236,798.50		141,954.92	171,131.17	2,149,929.24	3
4	Chicago Great Western.....	1,036.52				12,700.25	22,315.36	241,180.90	4
5	Mason City & Fort Dodge.....								5
6	Wisconsin, Minn. & Pacific.....								6
7	Chicago, Milwaukee & St. Paul.....	102,778.94		28,237.89		168,300.38	257,809.97	1,727,520.70	7
8	Chicago & North Western.....			69,298.00		276,735.70	134,894.51	2,384,093.82	8
9	Chicago, St. P., Minn. & Omaha.....					10,566.87	11,138.69	321,167.05	9
10	Iowa Southern.....								10
11	Chicago, Rock Island & Pacific.....	21,852.19				55,734.43	95,930.36	1,064,933.95	11
12	St. Paul & K. C. Short Line.....								12
13	Colfax Northern.....					36.00		490.00	13
14	Colfax Consolidated Coal Co. Security Investment Co.....								14
15	Creston, Winterset & Des Moines.....								15
16	Davenport, B. T. & Northwestern.....								16
17	Great Northern.....	35,909.40			\$ 304.00	943.62	30.50	6,674.88	17
18	Illinois Central.....					71,221.19	200,039.81	1,582,029.73	18
19	Dubuque & Sioux City.....					66,953.92	127,132.21	1,218,082.10	19
20	Iowa & Omaha Short Line.....							85.95	20
21	Iowa & Southwestern.....								21
22	Keokuk & Des Moines.....					15.00	1,609.55	5,000.48	22
23	Manchester & Oneida.....							309.00	23
24	Minneapolis & St. Louis.....	1,647.30				13,692.07	3,481.84	81,822.87	24
25	Iowa Central & Western.....							2,104.02	25
26	Muscatine, Burlington & So.....							1,648.84	26
27	Muscatine North & South.....	241.25						924.22	27
28	Tabor & Northern.....					94.00		1,432.29	28
29	Union Pacific.....	91,853.78			1,653.97	29,534.12	77,150.48	1,500,519.11	29
30	Wabash Railway.....		30,308.92			37,629.17	59,015.44	564,306.97	30
31	Total.....	\$ 686,872.82	\$ 30,308.92	\$ 461,854.78	\$ 1,857.97	\$ 853,300.29	\$ 2,249,501.35	\$14,979,033.30	31

*Debit.

PART V—JOINT FACILITY REVENUES AND TOTAL RAILWAY OPERATING REVENUES.

Number	Railway Companies	Joint facility—Credit	Joint facility—Debit	Total joint facility revenue	Total rail- way oper- ating revenues	Number
1	Achison, Topeka & Santa Fe.....	\$ 53,994.75	\$ 10,985.75	\$ 43,009.00	\$ 121,978,879.47	1
2	Atlantic Northern.....				36,806.96	2
3	Chicago, Burlington & Quincy.....	106,339.14	4,767.29	101,691.85	169,191,304.49	3
4	Chicago Great Western.....	12,569.54	104.40	12,465.14	16,131,691.98	4
5	Mason City & Fort Dodge.....					5
6	Wisconsin, Minnesota & Pacific.....					6
7	Chicago, Milwaukee & St. Paul.....	138,384.62	231.70	138,152.92	110,609,688.80	7
8	Chicago & North Western.....	25,569.04	9,183.63	16,375.41	97,978,843.70	8
9	Chicago, St. Paul, Minneapolis & Omaha.....	67,139.83	22,929.49	44,210.34	20,856,286.41	9
10	Iowa Southern.....					10
11	Chicago, Rock Island & Pacific.....	78,973.61	5,630.91	73,342.70	77,492,970.69	11
12	St. Paul & Kansas City Short Line.....					12
13	Colfax Northern.....				28,651.87	13
14	Colfax Consolidated Coal Company Security Investment Company.....					14
15	Creston, Winterset & Des Moines.....				4,500.91	15
16	Davenport, Rock Island & Northwestern.....				115,244.81	16
17	Great Northern.....	49,841.10	47,121.89	2,719.21	83,152,076.73	17
18	Illinois Central.....	56,147.91	41,400.37	14,747.54	73,740,206.32	18
19	Dubuque & Sioux City.....					19
20	Iowa & Omaha Short Line.....				6,101.06	20
21	Iowa & Southwestern.....				418.27	21
22	Keokuk & Des Moines.....	78.80		78.80	671,025.87	22
23	Manchester & Oneida.....				23,377.91	23
24	Minneapolis & St. Louis.....	2,214.59		2,214.59	10,966,222.69	24
25	Iowa Central & Western.....					25
26	Muscatine, Burlington & Southern.....				79,576.81	26
27	Muscatine North & South.....				92,305.21	27
28	Tabor & Northern.....				27,221.59	28
29	Union Pacific.....	34,019.36	24,264.42	9,754.94	68,666,373.89	29
30	Wabash Railway.....	61,030.54		61,030.54	37,721,194.49	30
31	Total.....	\$ 675,685.79	\$ 104,818.83	\$ 570,866.96	\$ 829,182,194.74	31

TABLE 6A—RAILWAY OPERATING REVENUES—IOWA
PART I—RAIL LINE TRANSPORTATION REVENUES.

Number	Railway Companies	Freight	Passenger	Excess baggage	Sleeping car	Parlor and chair car	Mail	Express	Number
1	Aitchison, Topeka & Santa Fe.....	\$ 508,392.00	\$ 131,600.00	\$ 1,432.20			\$ 22,101.88	\$ 36,206.97	1
2	Atlantic Northern.....	29,495.38	3,736.49	151.55			833.16	789.89	2
3	Chicago, Burlington & Quincy.....	8,510,508.78	2,225,851.00	36,876.00			819,171.79	285,558.28	3
4	Chicago Great Western.....	5,789,984.80	1,909,983.39	16,470.32		\$ 15,009.74	138,764.07	223,235.68	4
5	Mason City & Fort Dodge.....								5
6	Wisconsin, Minn. & Pacific.....								6
7	Chicago, Milwaukee & St. Paul.....	14,972,063.96	2,040,054.07	35,353.57	\$ 151,829.23	37.75	300,674.30	468,271.70	7
8	Chicago & North Western.....	15,923,859.73	5,028,802.72	61,627.50		17,233.37	582,299.90	794,803.06	8
9	Chicago, St. P., Minn. & Omaha.....	748,613.43	454,209.50	5,371.16		3,326.02	40,451.88	37,503.94	9
10	Iowa Southern.....								10
11	Chicago, Rock Island & Pacific.....	12,311,302.94	4,869,211.48	37,435.83		27.92	470,008.60	489,666.94	11
12	St. Paul & K. C. Short Line.....								12
13	Colfax Northern.....	19,591.04	6,048.02	2.50					13
14	Colfax Consolidated Coal Co.....								14
15	Security Investment Co.....								15
16	Creston, Winterset & Des Moines.....	4,596.91							16
17	Davenport, R. I. & Northwestern.....						4,233.41		17
18	Great Northern.....	412,963.04	77,474.23	798.94	6.25		11,942.78	7,364.01	18
19	Illinois Central.....	4,425,916.94	1,704,475.84	18,562.60		5,724.87	159,362.51	212,914.84	19
20	Dubuque & Sioux City.....								20
21	Iowa & Omaha Short Line.....	6,156.00	.25						21
22	Iowa & Southwestern.....	418.27							22
23	Keokuk & Des Moines.....	330,655.15	278,938.20	4,308.33			21,006.11	22,460.44	23
24	Manchester & Oneida.....	13,463.58	7,782.46	89.79			365.79	1,165.22	24
25	Minneapolis & St. Louis.....	4,037,217.39	920,144.99	10,401.99			105,308.37	67,388.65	25
26	Iowa Central & Western.....	48,698.23	16,099.47				2,659.70		26
27	Muscatine, Burlington & So.....	58,429.01	25,399.55				2,770.09		27
28	Muscatine North & South.....	17,131.35	3,937.59	114.39			679.60	1,215.31	28
29	Tabor & Northern.....	109,640.07	9,227.96	160.32			5,105.41	2,761.28	29
30	Union Pacific.....	624,758.85	325,774.60	2,962.00			43,414.83	31,748.31	30
31	Wabash Railway.....								31
	Total.....	665,101,813.67	822,068,969.07	\$ 282,567.98	\$ 151,829.46	47,369.17	\$ 2,734,046.18	\$ 2,610,294.92	

PART II—RAIL LINE TRANSPORTATION REVENUES—Continued.

Number	Railway Companies	Other passenger train	Milk	Switching	Special service train	Other freight train	Total rail-line transportation revenues	Number
1	Aitchison, Topeka & Santa Fe.....	\$ 4,604.00	\$ 56.46	\$ 640.90	\$ 79.75	\$ 6.74	\$ 795,152.25	1
2	Atlantic Northern.....			30.00			85,028.47	2
3	Chicago, Burlington & Quincy.....	3,947.76	63,840.69	57,130.32	4,462.64		15,014,467.89	3
4	Chicago Great Western.....	3,573.39	18,106.71	74,923.61	6,724.97		8,217,637.04	4
5	Mason City & Fort Dodge.....							5
6	Wisconsin, Minn. & Pacific.....							6
7	Chicago, Milwaukee & St. Paul.....	3,404.62	81,949.43	149,045.34	8,403.74		18,360,057.71	7
8	Chicago & North Western.....	45,739.00	70,391.18	100,569.00	13,387.50	763.86	22,632,437.48	8
9	Chicago, St. P., Minn. & Omaha.....	4,351.58	5,904.07	8,794.63			1,307,156.73	9
10	Iowa Southern.....							10
11	Chicago, Rock Island & Pacific.....	3,689.81		118,124.63	12,448.50	1,418.61	18,322,645.36	11
12	St. Paul & K. C. Short Line.....							12
13	Colfax Northern.....			1,649.70			27,501.87	13
14	Colfax Consolidated Coal Co.....							14
15	Security Investment Co.....							15
16	Creston, Winterset & Des Moines.....						4,596.91	16
17	Davenport, R. I. & Northwestern.....						4,233.41	17
18	Great Northern.....	76.29		61,073.44			517,006.62	18
19	Illinois Central.....	3,978.09	22,801.91	24,186.92	3,333.00		6,568,810.12	19
20	Dubuque & Sioux City.....							20
21	Iowa & Omaha Short Line.....						6,156.00	21
22	Iowa & Southwestern.....			7,070.49			418.27	22
23	Keokuk & Des Moines.....	68.10	107.00	15.88	302.71		667,394.53	23
24	Manchester & Oneida.....						22,973.25	24
25	Minneapolis & St. Louis.....	1,429.78		43,669.38	2,430.65	36.09	5,216,036.07	25
26	Iowa Central & Western.....							26
27	Muscatine, Burlington & So.....			3,894.39			79,735.70	27
28	Muscatine North & South.....			3,444.82			90,636.47	28
29	Tabor & Northern.....		217.12	2,694.60			25,889.36	29
30	Union Pacific.....	865.60		387.31			127,857.15	30
31	Wabash Railway.....	125.88	714.17	7,877.70		776.07	1,638,182.47	31
	Total.....	79,319.02	362,148.14	672,456.08	\$ 55,211.64	\$ 2,215.21	\$ 67,677,171.94	

*Debit.

TABLE 6A—RAILWAY OPERATING REVENUES—IOWA
PART III—INCIDENTAL OPERATING REVENUES.

Number	Railway Companies	Dialing and collect	Hotel and restaurant	Station, train and boat privileges	Parcel room	Storage—freight	Storage—baggage	Demurrage	Telegraph and telephones	Number
1	Atchison, Topeka & Santa Fe			\$ 1,581.00	\$ 72.65	\$ 197.35	\$ 92.25	\$ 640.00	\$ 253.09	1
2	Atlantic Northern									2
3	Chicago, Burlington & Quincy	\$ 75,368.13		770.30	1,232.50	5,854.30	2,238.30	42,000.12	60,771.29	3
4	Chicago Great Western	42,492.02	6,958.40	2,304.45	1,464.00	4,549.88	1,958.65	22,600.16	808.60	4
5	Mason City & Fort Dodge									5
6	Wisconsin, Minn. & Pacific	35,013.48								6
7	Chicago, Milwaukee & St. Paul			8,395.51	1,434.98	9,817.97	882.84	34,384.10	14,657.10	7
8	Chicago & North Western	145,216.77		8,728.29	235.30	8,194.12	2,612.62	38,894.01		8
9	Chicago, St. P., Minn. & Omaha	10,600.60		495.12		547.79	983.65			9
10	Iowa Southern									10
11	Chicago, Rock Island & Pacific	112,161.90		12,322.68	1,081.45	8,949.34	5,027.98	58,501.82	6,303.20	11
12	St. Paul & K. O. Short Line									12
13	Colfax Northern							424.00		13
14	Colfax Consolidated Coal Co.									14
15	Security Investment Co.									15
16	Oreston, Winterset & Des Moines									16
17	Davenport, R. I. & Northwestern			32.84		185.56		2,722.00		17
18	Great Northern			35.45	583.80	154.16	84.75	2,657.00		18
19	Illinois Central	33,943.28		2,410.70	1,950.70	5,078.66	1,099.55	18,770.40		19
20	Dubuque & Sioux City									20
21	a Iowa & Omaha Short Line									21
22	b Iowa & Southwestern					1.00		34.00		22
23	Keokuk & Des Moines									23
24	Manchester & Oneida			686.63		256.80	116.80	5,563.70		24
25	Minneapolis & St. Louis					3.00		806.00		25
26	e Iowa Central & Western			4,011.13	89.70	1,500.63	105.05	16,888.50	1,510.77	26
27	c Muscatine, Burlington & So.									27
28	d Muscatine North & South							437.00		28
29	Taber & Northern							620.00		29
30	Union Pacific	603.40	929.32	49.32	3.43	16.70		150.01	241.25	30
31	Wabash Railway	3,044.42		1,830.67	69.16	407.38	22.80	112.04	91.87	31
	Total	\$ 477,704.94	\$ 7,487.72	\$ 43,544.81	\$ 8,180.97	\$ 44,328.32	\$ 14,126.92	\$ 252,073.94	\$ 84,497.83	

PART IV—INCIDENTAL OPERATING REVENUES, JOINT FACILITY REVENUE AND TOTAL RAILWAY OPERATING REVENUES.

Number	Railway Companies	Incidental Operating Revenues—Con.				Joint Facility Revenues			Total railway operating revenues	Number
		Power	Rents of buildings and other property	Miscellaneous	Total	Joint facility —Cr.	Joint facility —Dr.	Total facility operating revenues		
1	Atchison, Topeka & Santa Fe	\$ 108.23	\$ 12,997.36	\$ 15,063.40				\$ 811,085.74	1	
2	Atlantic Northern	131.70	1,450.19	1,897.89				36,890.86	2	
3	Chicago, Burlington & Quincy	14,820.73	17,010.09	220,654.90	\$ 17,608.06	\$ 44.18	\$ 17,564.48	13,254,629.80	3	
4	Chicago Great Western	476.99	9,457.11	92,081.10	82.86	104.40	*21.54	8,300,006.96	4	
5	Mason City & Fort Dodge								5	
6	Wisconsin, Minn. & Pacific								6	
7	Chicago, Milwaukee & St. Paul	4,083.17	5,901.11	136,730.08	73,614.66	130.92	73,483.14	18,470,390.36	7	
8	Chicago & North Western	38,329.35	36,735.01	288,255.37	2,315.90	4,667.15	*541.25	22,920,841.00	8	
9	Chicago, St. P., Minn. & Omaha	15.00	1,120.68	18,207.69	3,801.25	0,231.11	*1,429.86	1,323,954.56	9	
10	Iowa Southern								10	
11	Chicago, Rock Island & Pacific	10,080.35	10,908.27	225,843.95	1,556.85	602.37	894.48	18,550,383.09	11	
12	St. Paul & K. O. Short Line			400.00					12	
13	Colfax Northern	36.00						28,051.87	13	
14	Colfax Consolidated Coal Co.								14	
15	Security Investment Co.								15	
16	Oreston, Winterset & Des Moines							4,506.91	16	
17	Davenport, R. I. & Northwestern	297.25	18.50	3,276.04				58,568.89	17	
18	Great Northern	880.00	1,403.59	5,199.05		3,909.28	*3,909.28	218,206.30	18	
19	Illinois Central	5,901.47	5,719.26	76,474.48		32.68	*32.68	6,470,257.92	19	
20	Dubuque & Sioux City								20	
21	a Iowa & Omaha Short Line							6,191.96	21	
22	b Iowa & Southwestern			35.86				418.27	22	
23	Keokuk & Des Moines	15.00	1,009.55	5,650.48	78.80		78.80	671,023.37	23	
24	Manchester & Oneida			390.00				32,377.32	24	
25	Minneapolis & St. Louis	6,007.45	1,038.95	32,602.18	4.82		4.82	5,247,603.67	25	
26	e Iowa Central & Western			2,104.02				73,276.31	26	
27	c Muscatine, Burlington & So.			1,648.84	2,308.84			95,306.31	27	
28	d Muscatine North & South			1,432.22				27,321.56	28	
29	Taber & Northern	94.00	94.22	1,432.22				129,187.42	29	
30	Union Pacific	\$1.65	89.33	77.15	1,690.52	34.02	34.27	9.75	139,187.42	30
31	Wabash Railway	1,372.90	3,243.01	12,067.34	28.43		28.43	1,051,218.24	31	
	Total	\$1.65	\$88,779.12	\$108,710.16	\$1,125,061.38	\$ 100,305.71	\$ 14,236.36	\$6,169,35,808,288,402.67		

*Debit.

TABLE 7—RAILWAY OPERATING EXPENSES—ENTIRE LINE

Number	Railway Companies	Maintenance of way and structures	Maintenance of equipment	Traffic	Transportation—rail line	Miscellaneous operations	General	Transportation for investment—Cr.	Grand total operating expenses	Operating ratio—per cent	Number
1	Atchison, T. & S. F.	\$ 15,978,601.57	\$ 19,335,209.72	\$ 2,271,451.00	\$ 33,034,122.07	\$ 23,000.72	\$ 2,445,988.39	\$ 182,030.52	\$ 72,866,804.55	39.96	1
2	Atlantic Northern	41,993.38	2,894.80		12,379.76	1,838.83	3,023.83		62,114.12	69.03	2
3	C. O. B. & Q.	13,203,996.81	17,063,831.61	1,602,865.07	32,014,919.04	1,013,164.78	2,303,307.74	916,370.29	65,235,704.66	69.74	3
4	C. G. W.	2,304,621.18	2,458,830.70	500,610.69	5,498,483.57	116,100.92	450,642.02	18,502.44	11,219,603.51	69.74	4
5	M. C. & Ft. D.										5
6	W. M. & St. P.										6
7	C. M. & St. P.	12,916,337.99	17,933,448.34	1,901,979.43	49,307,596.42	122,039.45	1,970,636.64	1,237,388.23	73,795,601.05	69.03	7
8	C. & N. W.	11,831,004.23	15,087,245.84	1,340,015.57	34,432,716.37	694,434.80	1,922,028.52	242,319.01	65,130,227.01	66.46	8
9	C. St. P., M. & O.	2,300,322.06	2,564,792.76	336,130.69	7,030,336.90	190,079.43	498,882.72	12,306.65	13,608,429.43	65.25	9
10	Iowa Southern										10
11	C. R. I. & P.	9,505,331.01	12,700,809.03	1,597,171.38	30,070,420.08	512,147.35	1,802,716.60	153,304.54	52,736,830.57	68.14	11
12	St. P. & K. C. S. L.										12
13	Colfax Northern	6,774.00	5,043.05	308.59	14,384.37		1,001.02		28,173.68	100.43	13
14	Colfax Con. Coal Co.										14
15	Security Inv. Co.										15
16	C. W. & D. M.	6,771.15	900.00		2,601.05				10,272.10		16
17	D. B. I. & N. W.	40,007.95	20,500.21		66,508.00		2,864.49		130,437.25	113.18	17
18	Great Northern	10,057,053.09	10,129,842.11	1,195,641.31	24,339,032.45	943,274.88	1,401,332.29	422,567.94	48,515,200.75	59.35	18
19	Illinois Central	9,921,635.27	16,980,995.16	1,303,244.08	27,368,003.57	425,304.01	1,848,339.22	180,452.84	52,843,149.47	71.90	19
20	Dubuque & S. C.										20
21	St. L. & O. S. L.	2,448.00	16.82		4,392.61				7,060.63	114.00	21
22	Iowa & Southwestern	116,331.05	30,616.02	4,449.93	290,387.22		19,391.63	51.14	467,617.21	61.09	22
23	Keokuk & Des Moines	5,744.99	1,873.00	814.12	11,172.54		321.50		19,020.18	80.06	23
24	Manchester & Oesida	1,309,590.90	1,641,245.29	213,672.03	2,880,732.44	600.44	289,410.38		7,288,348.54	66.79	24
25	Minn. & St. Louis										25
26	Iowa C. & W.	11,943.06	5,021.44	2,501.35	27,953.47		8,689.50		54,009.79	73.83	26
27	St. M., B. & S.	15,045.30	3,075.42	2,780.25	36,291.40		3,092.82		62,043.23	68.19	27
28	J.M., N. & S.	6,231.60	2,143.50	814.12	8,640.04		3,963.23		23,223.27	85.00	28
29	Taber & Northern	8,325,838.80	8,223,367.37	1,241,435.60	16,800,941.50	1,048,706.02	1,638,400.14	235,741.44	37,302,007.72	64.41	29
30	Union Pacific	2,790,801.79	5,002,908.88	1,100,033.48	13,304,775.63	308,911.72	824,245.25	96,850.68	24,874,417.07	65.94	30
31	Wabash Railway										31
	Total	\$101,460,893.07	\$129,416,297.77	\$14,824,934.98	\$301,078,161.09	\$ 5,910,711.08	\$17,463,477.40	\$ 2,730,074.73	\$529,424,400.72	63.49	

TABLE 7A—RAILWAY OPERATING EXPENSES AND TAXES—IOWA

Number	Railway Companies	Maintenance of way and structures	Maintenance of equipment	Traffic	Transportation—rail line	Miscellaneous operations	General	Transportation for investment—Cr.	Grand total railway operating expenses	Operating ratio—per cent	Taxes—Iowa	Number
1	Atchison, T. & S. F.	\$ 96,342.95	\$ 145,405.64	\$ 13,344.01	\$ 221,891.59		\$ 17,487.83	\$ 1,998.91	\$ 460,472.13	60.53	\$ 33,101.17	1
2	Atlantic Northern	41,993.38	2,894.80		12,379.76	1,838.83	3,023.82		65,114.12			2
3	C. O. B. & Q.	1,891,478.97	2,121,740.63	219,146.36	3,817,975.82	75,461.79	307,291.62	102,228.00	8,401,823.49	63.39	550,305.16	3
4	C. G. W.	1,172,364.30	1,307,609.36	268,132.76	2,908,140.79	61,774.58	244,457.95	9,887.46	5,082,572.14	72.00	374,900.26	4
5	M. C. & Ft. D.											5
6	W. M. & St. P.	2,136,330.34	3,334,900.15	395,190.72	6,972,740.26	77,829.33	377,290.55	355,267.23	13,300,066.62	72.11	768,914.04	6
7	C. & N. W.	3,978,796.47	3,930,180.23	236,592.50	8,864,219.52	166,341.00	603,852.28	65,069.18	10,694,366.03	72.79	704,170.61	7
8	C. St. P., M. & O.	159,345.32	167,042.89	35,498.34	506,137.50	12,302.41	22,876.30	811.01	690,831.79	67.74	44,848.90	8
9	Iowa Southern											9
10	C. R. I. & P.	2,413,400.09	3,266,660.07	414,542.63	6,847,850.39	110,581.24	475,275.91	15,978.45	12,512,769.30	72.81	839,926.08	10
11	St. P. & K. C. S. L.											11
12	Colfax Northern	6,774.00	5,043.05	308.59	14,384.37		1,001.02		28,173.68	100.43		12
13	Colfax Con. Coal Co.											13
14	Security Inv. Co.											14
15	C. W. & D. M.	6,771.15	900.00		2,601.05		1,826.32		10,272.10	114.83	14,066.65	15
16	D. B. I. & N. W.	24,131.28	10,642.47		30,673.30	958.73	2,879.07		396,392.35	75.43	23,201.18	16
17	Great Northern	103,780.61	84,025.80	10,974.05	175,675.83	958.73	2,879.07	11,301.60	5,530,568.40	82.91	394,585.18	17
18	Illinois Central	1,108,770.27	1,720,975.64	102,015.08	2,312,376.67	35,697.63	214,154.50		7,059,091.14			18
19	Dubuque & S. C.											19
20	Iowa & Omaha S. L.	2,448.00	16.82		4,392.61				7,060.63	114.00		20
21	Iowa & Southwestern	116,331.05	30,616.02	4,449.93	290,387.22		19,391.63	51.14	467,617.21	61.09	61,639.56	21
22	Keokuk & Des Moines	5,744.99	1,873.00	814.12	11,172.54		321.50		19,020.18	80.06	201,987.08	22
23	Manchester & Oesida	607,548.28	855,908.84	110,546.36	1,856,967.26		141,474.92		3,654,495.36	66.64	201,987.08	23
24	Minneapolis & St. L.											24
25	Iowa C. & W.	11,943.06	5,021.44	2,501.35	27,953.47		8,280.50		54,009.79	73.83		25
26	St. M., B. & S.	15,045.30	3,075.42	2,780.25	36,291.40		3,092.82		62,043.23	68.19		26
27	J.M., N. & S.	6,231.60	2,143.50	814.12	8,640.04		3,963.23		23,223.27	85.00		27
28	Taber & Northern	8,325,838.80	8,223,367.37	1,241,435.60	16,800,941.50	1,048,706.02	1,638,400.14	235,741.44	37,302,007.72	64.41	42,000.00	28
29	Union Pacific	2,741,491.48	5,015,128.54	64,810.63	101,255.05	4,118.59	45,578.51	323.62	1,165,350.11	104.86	22,290.60	29
30	Wabash Railway											30
	Total	\$12,356,461.50	\$17,219,298.83	\$2,054,583.02	\$35,875,023.41	\$540,542.36	\$2,421,453.47	\$473,680.90	\$70,904,673.45	72.14	\$3,880,375.40	

TABLE 8—SECURITIES OWNED.
PART I—SECURITIES OF OTHER CORPORATIONS NOT ASSUMED.

Number	Railway Companies	Stocks—Companies Affiliated with Respondent								Number
		Carrier Corporations—Active		Carrier Corporations—Inactive		Other Corporations—Active		Other Corporations—Inactive		
		Par value	Book value	Par value	Book value	Par value	Book value	Par value	Book value	
1	Achison, Topeka & Santa Fe.....	\$ 88,230,900.00	\$ 7,297,163.11			\$40,162,888.00	\$ 1,706,871.03			1
2	Atlantic Northern.....									2
3	Chicago, Burlington & Quincy.....	42,086,699.99	25,908,735.79	\$ 900,500.00	\$ 1,150,000.00	916,166.66	492,566.33	\$ 1,000.00	\$ 1,000.00	3
4	Chicago Great Western.....	39,554,252.00	344,292.90			57,700.00	182,700.00			4
5	Mason City & Fort Dodge.....									5
6	Wisconsin, Minn. & Pacific.....					320,600.00	320,600.00	400,000.00	20,000.00	6
7	Chicago, Milwaukee & St. Paul.....	10,840,100.00	8,650,848.89							7
8	Chicago & North Western.....	18,223,800.00	11,080,890.44			1,349,000.00	1,050,299.30	1,460,200.00	406,544.94	8
9	Chicago, St. P., Minn. & Omaha.....	730,900.00	212,500.00			4,700,000.00	345,000.00			9
10	Iowa Southern.....									10
11	Chicago, Rock Island & Pacific.....	22,471,520.00	25,346,388.62	1,188,000.00	47,075.00					11
12	St. Paul & K. C. Short Line.....					2,678,600.00	34,998.00	75,000.00	2.00	12
13	Colfax Northern.....									13
14	Colfax Consolidated Coal Co.....									14
15	Security Investment Co.....									15
16	Creston, Winterset & Des Moines.....									16
17	Davenport, R. I. & Northwestern.....									17
18	Great Northern.....	120,221,150.00	171,483,427.88	101,500.00	12,250.00	2,323,550.00	1,857,945.99	1,750,000.00	1,750,000.00	18
19	Illinois Central.....	43,870,200.00	57,086,906.20	1,161,000.00	1,129,338.58	315,000.00	58,125.00	10,000.00	2.00	19
20	Dubuque & Sioux City.....									20
21	a Iowa & Omaha Short Line.....									21
22	b Iowa & Southwestern.....									22
23	Keokuk & Des Moines.....									23
24	Manchester & Oneida.....									24
25	Minneapolis & St. Louis.....	410,100.00	103,600.02			40,000.00	316,518.00	700.00	.01	25
26	c Iowa Central & Western.....									26
27	d Muscatine, Burlington & So.....									27
28	e Muscatine North & South.....									28
29	Tabor & Northern.....									29
30	Union Pacific.....	118,429,239.21	110,880,602.00			12,034,970.00	9,496,548.79			30
31	Wabash Railway.....	1,758,300.00	1,485,302.00	1,313,300.00	4.00					31
	Total.....	\$515,827,191.20	\$400,479,867.85	\$ 4,664,300.00	\$ 2,338,667.58	\$64,983,474.06	\$15,862,162.44	\$ 3,606,900.00	\$ 2,177,548.95	

PART II—SECURITIES OF OTHER CORPORATIONS NOT ASSUMED—Continued.

Number	Railway Companies	Stocks—Companies Affiliated with Respondent—Continued		Stocks—Nonaffiliated Companies						Number
		Total for Companies Affiliated with Respondent		Carrier Corporations—Active		Carrier Corporations—Inactive		Other Corporations—Active		
		Par value	Book value	Par value	Book value	Par value	Book value	Par value	Book value	
1	Achison, Topeka & Santa Fe.....	\$128,303,788.00	\$ 9,004,034.14					\$ 505,644.90	\$ 207,428.46	1
2	Atlantic Northern.....									2
3	Chicago, Burlington & Quincy.....	43,934,366.65	27,552,292.12	\$ 7,000.00	\$ 7,000.00			2,117.91	2,117.91	3
4	Chicago Great Western.....	39,611,952.00	526,992.90					13,130.00	681.00	4
5	Mason City & Fort Dodge.....	720,600.00	340,600.00							5
6	Wisconsin, Minn. & Pacific.....									6
7	Chicago, Milwaukee & St. Paul.....	13,649,300.00	10,107,693.13							7
8	Chicago & North Western.....	22,983,800.00	12,025,890.44	4,171,500.00	3,670,575.03					8
9	Chicago, St. P., Minn. & Omaha.....	730,900.00	212,500.00							9
10	Iowa Southern.....									10
11	Chicago, Rock Island & Pacific.....	26,413,120.00	25,428,463.62	469,425.00	60,066.00	99,700.00		10,000.00	10,802.00	11
12	St. Paul & K. C. Short Line.....									12
13	Colfax Northern.....									13
14	Colfax Consolidated Coal Co.....									14
15	Security Investment Co.....									15
16	Creston, Winterset & Des Moines.....									16
17	Davenport, R. I. & Northwestern.....									17
18	Great Northern.....	133,296,200.00	175,103,623.87	4,566,600.00	80,915.50			1,416,749.17	1,199,446.28	18
19	Illinois Central.....	45,356,200.00	38,273,471.73	558,400.00	1.00			5,250.00	5,250.00	19
20	Dubuque & Sioux City.....			670.00	1.00					20
21	a Iowa & Omaha Short Line.....									21
22	b Iowa & Southwestern.....									22
23	Keokuk & Des Moines.....									23
24	Manchester & Oneida.....									24
25	Minneapolis & St. Louis.....	450,800.00	420,118.03							25
26	c Iowa Central & Western.....									26
27	d Muscatine, Burlington & So.....									27
28	e Muscatine North & South.....									28
29	Tabor & Northern.....									29
30	Union Pacific.....	130,464,239.21	120,377,150.79	29,543,127.00	36,234,437.78					30
31	Wabash Railway.....	3,071,600.00	1,485,306.00	5,300.00	4,322.88			5,030.00	5,342.50	31
	Total.....	\$589,176,865.86	\$420,558,336.82	\$30,349,622.00	\$40,297,263.09	\$99,700.00		\$ 2,236,015.10	\$ 1,702,932.64	

TABLE 8—SECURITIES OWNED.
PART III—SECURITIES OF OTHER CORPORATIONS NOT ASSUMED.—Continued.

Number	Railway Companies	Stocks—Nonaffiliated Companies—Continued				Bonds—Companies Affiliated with Respondent				Number
		Other Corporations—Inactive		Total for Non-Affiliated Companies		Carrier Corporations—Active		Carrier Corporations—Inactive		
		Par value	Book value	Par value	Book value	Par value	Book value	Par value	Book value	
1	Athlison, Topeka & Santa Fe			\$ 265,644.90	\$ 297,425.46	\$ 39,817,500.00	\$ 5,660,385.81			1
2	Atlantic Northern									2
3	Chicago, Burlington & Quincy	\$ 2,996.00	\$ 10.00	12,677.91	9,127.91	1,515,000.00	1,328,122.50			3
4	Chicago Great Western			13,130.00	631.00	6,231,000.00	6,229,537.50			4
5	Mason City & Fort Dodge									5
6	Wisconsin, Minn. & Pacific					296,000.00	191,000.00			6
7	Chicago, Milwaukee & St. Paul			275,008.12	272,014.49					7
8	Chicago & North Western			4,171,500.00	3,510,273.93	2,326,000.00	972,230.00			8
9	Chicago, St. P., Minn. & Omaha					125,000.00	125,000.00			9
10	Iowa Southern									10
11	Chicago, Rock Island & Pacific	302,000.00	5.00	887,135.00	70,813.00	24,356,630.91	16,585,375.03	\$ 3,100,000.00	\$ 3.00	11
12	St. Paul & K. C. Short Line									12
13	Colfax Northern									13
14	Colfax Consolidated Coal Co.									14
15	Security Investment Co.									15
16	Creston, Winterset & Des Moines									16
17	Davenport, R. I. & Northwestern									17
18	Great Northern			6,010,349.17	1,280,364.78	37,765,000.00	26,737,000.00			18
19	Illinois Central			363,659.00	5,231.03	15,632,715.13	15,632,716.18	5,697,100.00	5,697,559.40	19
20	Dubuque & Sioux City			679.00	1.00	1,813,500.00	1,600,317.11			20
21	a Iowa & Omaha Short Line									21
22	b Iowa & Southwestern									22
23	Keokuk & Des Moines									23
24	Manchester & Oneida									24
25	Minneapolis & St. Louis									25
26	W. M. & P.									26
27	c Iowa Central & Western									27
28	d Muscatine, Burlington & So.									28
29	e Muscatine North & South									29
30	Tabor & Northern									30
31	Union Pacific	55,000.00	2,025.00	29,528,127.00	30,236,462.78	77,563,500.00	70,539,750.00			31
32	Wabash Railway	1,200,000.00	1.00	1,210,330.00	9,566.38	210,000.00	197,700.00			32
	Total	\$ 1,559,590.00	\$ 2,041.00	\$43,244,697.10	\$42,002,236.73	\$199,011,847.09	\$148,006,855.05	\$10,707,100.00	\$ 5,697,562.40	

PART IV—SECURITIES OF OTHER CORPORATIONS NOT ASSUMED.—Continued.

Railway Companies	Bonds—Companies Affiliated with Respondent—Continued				Bonds—Nonaffiliated Companies					
	Other Corporations—Active		Total for Companies Affiliated with Respondent		Carrier Corporations—Active		Carrier Corporations—Inactive		Other Corporations—Active	
	Par value	Book value	Par value	Book value	Par value	Book value	Par value	Book value	Par value	Book value
A. T. & S. F.			\$ 39,817,500.00	\$ 5,660,385.81	\$ 172,000.00	\$ 132,437.07			\$643,200.00	\$182,320.01
Atlantic Northern										
C. B. & Q.			1,515,000.00	1,238,122.50	126,500.00	119,898.00			20,640.00	20,640.00
Chicago Great Western			6,231,000.00	6,229,537.50					1,370.00	1,370.00
M. C. & Ft. D.										
W. M. & P.			296,000.00	191,000.00	676,000.00	676,000.00			195,100.00	99,597.05
C. M. & St. P.			2,376,000.00	972,230.00	164,000.00	153,136.32				
C. & N. W.			125,000.00	125,000.00						
C., St. P., M. & O.										
Iowa Southern										
C. R. I. & P.	\$ 4,845,811.42	\$2,395,223.18	34,302,442.33	18,690,501.21	5,456,000.00	2,187,921.69			100.00	100.00
St. P. & K. C. S. L.										
Colfax Northern										
Colfax Con. Coal Co.										
Security Inv. Co.										
C. W. & D. M.										
D. R. I. & N. W.										
Great Northern	100,000.00	60,000.00	37,945,000.00	36,787,600.50	1,325,000.00	1,282,237.50			22,100.00	23,100.00
Illinois Central			21,339,816.18	21,339,870.58	47,304,376.00	39,239,679.88			153,300.00	130,650.00
Dubuque & S. C.			1,813,500.00	1,600,317.11						
a Iowa & Omaha S. L.										
b Iowa & S. W.										
Keokuk & Des Moines										
Manchester & Oneida										
Minn. & St. Louis										
c Iowa C. & W.										
e M., B. & S.										
d M., N. & S.										
Tabor & Northern										
Union Pacific	5,712,047.37	3,238,348.37	88,645,547.37	73,775,088.37	10,432.80	1.00	892,302,000.00	887,923,760.43		
Wabash Railway			210,000.00	197,700.00						
Total	\$10,707,888.79	\$3,238,371.55	\$220,516,905.88	\$199,187,969.01	\$25,131,309.70	\$43,792,333.96	\$22,302,000.00	\$87,923,760.43	\$947,010.00	\$438,887.09

TABLE 8—SECURITIES OWNED.
PART V—SECURITIES OF OTHER CORPORATIONS NOT ASSUMED.—Continued.

Number	Railway Companies	Bonds—Nonaffiliated Companies—Continued				Notes—Companies Affiliated with Respondent		Notes—Nonaffiliated Companies		Number
		Other Corporations—Inactive		Total for Nonaffiliated Companies		Par value	Book value	Par value	Book value	
		Par value	Book value	Par value	Book value					
1	Atchison, Topeka & Santa Fe.....			\$ 815,300.00	\$ 335,797.08	\$ 102,438,631.87	\$83,120,561.64	\$11,000,304.43	\$10,879,364.43	1
2	Atlantic Northern.....									2
3	Chicago, Burlington & Quincy.....	\$12,000.00	\$12,000.00	159,140.00	123,538.00			169,671.54	166,671.54	3
4	Chicago Great Western.....			1,870.00	1,570.00					4
5	Mason City & Ft. Dodge.....									5
6	Wisconsin, Minn. & Pacific.....									6
7	Chi., Milwaukee & St. Paul.....			781,100.00	775,507.05					7
8	Chicago & North Western.....			164,000.00	150,130.32	1,022,338.65	1,022,338.65			8
9	Chi., St. P., Minn. & Omaha.....			5,456,100.00	2,388,054.90					9
10	Iowa Southern.....									10
11	Chicago, Rock Island & Pacific.....									11
12	St. Paul & K. C. Short Line.....									12
13	Colfax Northern.....									13
14	Colfax Consolidated Coal Co.....									14
15	Security Investment Co.....									15
16	Creston, Winterset & Des Moines.....									16
17	Davenport, R. I. & Northwestern.....									17
18	Great Northern.....			1,345,100.00	1,305,357.50	7,275,334.33	7,338,047.32	2,806,988.05	2,674,501.76	18
19	Illinois Central.....			47,357,576.90	39,351,329.38	1,337,837.05	1,337,837.05	86,461.31	86,461.31	19
20	Dubuque & Sioux City.....									20
21	a Iowa & Omaha Short Line.....									21
22	b Iowa & Southwestern.....									22
23	Keokuk & Des Moines.....									23
24	Manchester & Onida.....									24
25	Minneapolis & St. Louis.....									25
26	c Iowa Central & Western.....									26
27	d Muscatine, Burlington & So.....									27
28	e Muscatine North & South.....									28
29	Tabor & Northern.....									29
30	Union Pacific.....	34,300.00	28,100.00	92,336,300.00	87,961,800.43	2,463,542.87	2,463,542.87	1,000,000.00	999,800.84	30
31	Wabash Railway.....			10,432.80	1.00					31
	Total.....	\$46,300.00	\$40,100.00	\$ 148,426,819.70	\$ 132,215,971.43	\$ 114,570,665.37	\$95,241,828.13	\$15,069,485.30	\$14,707,344.88	

PART VI—SECURITIES OF OTHER CORPORATIONS NOT ASSUMED.—Continued.

Number	Railway Companies	Total for Notes		Miscellaneous Investments In Non-Affiliated Companies		Grand Total Securities of Other Corporations Not Assumed		Number
		Par value	Book value	Par value	Book value	Par value	Book value	
1	Atchison, Topeka & Santa Fe.....	\$ 113,467,696.30	\$ 94,018,995.07			\$ 274,000,129.20	\$ 111,616,531.66	1
2	Atlantic Northern.....							2
3	Chicago, Burlington & Quincy.....	166,671.54	166,671.54		\$ 35.00	45,787,256.10	29,118,797.50	3
4	Chicago Great Western.....					46,837,622.00	6,758,731.40	4
5	Mason City & Ft. Dodge.....					720,000.00	340,000.00	5
6	Wisconsin, Minn. & Pacific.....							6
7	Chi., Milwaukee & St. Paul.....					14,906,493.12	11,346,234.07	7
8	Chicago & North Western.....	1,022,338.65	1,022,338.65	3,481.10	3,481.10	20,731,119.75	18,697,702.44	8
9	Chi., St. P., Minn. & Omaha.....					850,900.00	337,500.00	9
10	Iowa Southern.....							10
11	Chicago, Rock Island & Pacific.....					67,608,787.35	46,977,602.62	11
12	St. Paul & K. C. Short Line.....							12
13	Colfax Northern.....							13
14	Colfax Consolidated Coal Co.....							14
15	Security Investment Co.....							15
16	Creston, Winterset & Des Moines.....							16
17	Davenport, R. I. & Northwestern.....							17
18	Great Northern.....	19,985,322.35	9,842,500.08		4,500.00	188,781,971.50	234,294,745.75	18
19	Illinois Central.....	1,434,298.96	1,434,298.96		31.00	116,031,542.04	160,284,657.70	19
20	Dubuque & Sioux City.....					1,814,170.00	1,000,318.11	20
21	a Iowa & Omaha Short Line.....							21
22	b Iowa & Southwestern.....							22
23	Keokuk & Des Moines.....							23
24	Manchester & Onida.....							24
25	Minneapolis & St. Louis.....					450,800.00	430,118.00	25
26	c Iowa Central & Western.....							26
27	d Muscatine, Burlington & So.....							27
28	e Muscatine North & South.....							28
29	Tabor & Northern.....							29
30	Union Pacific.....	2,463,542.87	2,463,438.71			389,567,736.45	321,804,011.08	30
31	Wabash Railway.....				4,500.00	4,507,312.80	1,507,309.38	31
	Total.....	\$ 129,640,170.07	\$ 109,948,673.61	\$ 3,481.10	\$ 12,783.10	\$ 1,121,613,490.31	\$ 864,225,090.12	

TABLE 8—SECURITIES OWNED.
PART VII—SECURITIES ISSUED OR ASSUMED BY RESPONDENT.

Number	Railway Companies	Stocks		Bonds and Other Evidences of Funded Debt		Total Securities Issued or Assumed by Respondent		Number
		Par value	Book value	Par value	Book value	Par value	Book value	
1	Atchafalaya, Topeka & Santa Fe	\$ 70,300.00	\$ 70,300.00	\$ 2,324,509.50	\$ 2,324,509.50	\$ 2,324,509.50	\$ 2,324,509.50	1
2	Atlantic Northern							2
3	Chicago, Burlington & Quincy			37,256,100.00	37,256,100.00	37,256,100.00	37,256,100.00	3
4	Chicago Great Western	247,300.00	247,300.00	3,433,000.00	3,433,000.00	3,680,300.00	3,680,300.00	4
5	Mason City & Ft. Dodge							5
6	Wisconsin, Minn. & Pacific							6
7	Chl., Milwaukee & St. Paul	116,748,300.00	116,748,300.00	134,470,000.00	134,470,000.00	251,219,100.00	251,219,100.00	7
8	Chicago & North Western			42,789,000.00	42,789,000.00	42,789,000.00	42,789,000.00	8
9	Chl., St. P., Minn. & Omaha							9
10	Iowa Southern							10
11	Chicago, Rock Island & Pacific	649,277.50	649,277.50	16,190,000.00	16,190,000.00	16,839,277.50	16,839,277.50	11
12	St. Paul & K. C. Short Line							12
13	Colfax Northern							13
14	Colfax Consolidated Coal Co.							14
15	Security Investment Co.							15
16	Creston, Winterset & Des Moines							16
17	Davenport, R. I. & Northwestern							17
18	Great Northern	1,000.00	1,000.00	54,462,305.00	54,462,305.00	54,464,205.00	54,464,205.00	18
19	Illinois Central	14,178.33	14,178.33	5,618,000.00	5,618,000.00	5,632,178.33	5,632,178.33	19
20	Dubuque & Sioux City			303,000.00	303,000.00	303,000.00	303,000.00	20
21	a Iowa & Omaha Short Line							21
22	b Iowa & Southwestern							22
23	Keokuk & Des Moines							23
24	Manchester & Oneida							24
25	Minneapolis & St. Louis			2,622,144.12	2,622,144.12	2,622,144.12	2,622,144.12	25
26	c Iowa Central & Western							26
27	d Muscatine, Burlington & So.							27
28	e Muscatine North & South							28
29	Tabor & Northern							29
30	Union Pacific			33,428,000.00	33,428,000.00	33,428,000.00	33,428,000.00	30
31	Wabash Railway			1,006,000.00	1,006,000.00	1,006,000.00	1,006,000.00	31
	Total	\$ 117,722,063.83	\$ 117,722,063.83	\$ 330,882,737.50	\$ 330,882,737.50	\$ 451,004,703.38	\$ 451,004,703.38	

TABLE 9—COMPARATIVE GENERAL BALANCE SHEET—ASSETS
PART I—INVESTMENTS.

Number	Railway Companies	Investment in road and equipment	Improvements on leased railway property	Sinking funds	Deposits in lieu of mortgage property sold	Miscellaneous, physical property	Investments in Affiliated Companies				Number
							Stocks	Bonds	Notes	Advances	
1	A., T. & S. Fe.	\$ 604,766,019.84	\$ 2,127,116.28			\$ 8,937,080.07	\$ 9,004,034.14	\$ 8,650,385.31	\$ 883,139,561.64	\$ 5,001,586.01	1
2	Atlantic Northern										2
3	C., B. & Q.	433,315,009.72		\$ 8,023.71	\$ 229,613.05	1,463,710.00	27,532,322.12	1,238,122.03	1,797,335.34		3
4	C. Great Western	111,756,151.07	3,221.36			54,648.01	598,992.00	6,239,537.50		18,867.32	4
5	M. C. & Ft. D.	44,714,867.45				15,000.00	340,500.00				5
6	W., M. & Pacific	12,253,305.00				900.00					6
7	C., M. & St. P.	392,324,079.29			110,207.90	2,970,817.03	10,367,663.18	140,900.00		24,492,187.44	7
8	C. & N. W.	379,434,314.56		1,438,967.98		280,274.13	12,025,800.44	185,350.00	1,622,338.63	11,629,369.12	8
9	C., St. P., M. & O.	77,633,639.65				198,086.64	212,300.00	125,000.00		11,465.35	9
10	Iowa Southern	787,679.08				13,821.05					10
11	C., R. I. & P.	241,523,284.91	6,200,309.18			1,009,779.02	25,428,483.02	18,600,601.21		14,080,450.20	11
12	St. P. & K. C. S. L.	12,998,373.47									12
13	Colfax Northern	142.66	50.11								13
14	Colfax C. C. Co.	65,594.75									14
15	Security Inv. Co.	171,272.34									15
16	C., W. & D. M.										16
17	D., R. I. & N. W.	3,325,309.12									17
18	Great Northern	394,214,343.00	3,577.75	7,270.98	19,018.87	5,210,289.32	175,163,623.87	26,787,600.50	7,208,047.32	9,735,041.74	18
19	Illinois Central	161,987,759.96	1,700,314.81			1,482,002.61	38,273,471.78	21,300,275.58	1,337,537.60	16,302,621.19	19
20	Dubuque & S. C.	31,922,639.68		1,606,924.40							20
21	a I. & O. S. L.										21
22	b Iowa & S. W.										22
23	Keokuk & D. M.	6,732,549.93									23
24	Manchester & Oneida	135,648.19									24
25	M. & St. L.	68,462,110.80			129,460.80	6,735.18	420,118.03			13,002.02	25
26	c I. C. & W.	1,478,000.00									26
27	d M., B. & S.	1,270,362.38									27
28	e M., N. & S.		1,302,030.82								28
29	Tabor & Northern	92,917.70									29
30	Union Pacific	236,430,919.06			302,181.35	375,474.89	130,377,150.79	73,775,068.37	2,463,542.87	6,770,777.33	30
31	Wabash Railway	325,563,316.58		3,716.71	131,679.38	2,749,510.78	1,485,306.00	197,700.00		289,888.59	31
	Total	\$3,791,273,049.12	\$10,464,626.11	\$ 3,300,417.01	\$ 928,811.35	\$25,684,980.37	\$420,858,326.82	\$156,600,061.50	\$65,241,528.12	\$67,363,701.43	

*Included in investment in road and equipment.

TABLE 9—COMPARATIVE GENERAL BALANCE SHEET—ASSETS
PART II—INVESTMENTS—Continued.

Number	Railway Companies	Other Investments					Total Invest- ments Dec. 31, 1916	Total Invest- ments Dec. 31, 1915	Increase 1916	Decrease 1916	Number
		Stocks	Bonds	Notes	Advances	Miscellaneous					
1	A., T. & S. F.	\$ 207,428.46	205,757.08	\$10,879,964.43			\$ 729,438,288.76	\$ 689,410,802.30	\$42,047,421.40		1
2	Atlantic Northern						485,022,580.22	481,428,706.98	4,489,873.24		2
3	C., B. & Q.	9,127.91	122,288.00	166,071.54		\$ 85.00	118,591,619.66	117,358,000.07	1,233,619.59		3
4	C. G. W.	683.00	1,570.00				45,071,867.45	44,995,430.22	75,997.23		4
5	Mason City & Ft. D.						12,356,450.98	12,180,770.42	175,680.56		5
6	Wis., Minn. & Pacific						651,339,830.46	617,071,269.72	14,198,560.74		6
7	C., M. & St. P.	272,014.49	25,507.05				410,216,845.60	402,146,838.07	5,070,207.53		7
8	C. & N. W.	3,919,575.93				3,481.10	78,180,601.64	76,687,989.44	1,543,322.20		8
9	C., St. P., M. & O.						891,505.13	291,674.05	9,823.08		9
10	Iowa Southern						308,880,734.92	307,129,014.58	1,751,720.34		10
11	C., R. I. & P.	70,813.00	2,188,924.69				12,908,873.47	12,509,446.95	50,136.52		11
12	St. P. & K. C. S. L.						192.77	93,022.95		29.20	12
13	Colfax Northern						93,594.75	93,022.95			13
14	Colfax Cons. Coal Co.						171,572.24				14
15	Security Inv. Co.										15
16	C., W. & D. M.						3,325,809.12	3,310,049.34	15,159.78		16
17	D., R. I. & N. W.						625,701,914.84	617,323,004.79	6,378,310.05		17
18	Great Northern	1,280,364.78	1,893,327.50	2,074,961.76	\$ 187,627.45	4,800.00	283,307,443.34	274,301,126.49	7,106,316.85		18
19	Illinois Central	5,221.00	26,737,229.28	86,461.31	2,350,687.34	21.00	20,509,585.08	22,963,262.25	606,222.83		19
20	Dubuque & S. C.	1.00									20
21	eI. & O. S. L.						6,722,549.93	6,720,734.70	1,815.17		21
22	Iowa & Southwestern						135,648.19	135,605.69		47.50	22
23	Koosuk & Des Moines						69,021,427.33	68,137,139.19	884,288.14		23
24	Manchester & Oneida						1,473,000.00	1,473,000.00			24
25	M. & St. L.						1,270,822.28		1,270,822.28		25
26	eI. C. & W.						1,302,036.82		1,302,036.82		26
27	C. M., B. & S.						92,917.75	92,917.75			27
28	J.M., N. & S.						623,673,355.31	619,777,955.45	2,895,399.86		28
29	Tabor & Northern	36,236,462.78	87,961,890.43	990,895.84	225,915.00	4,436.00	208,442,336.72	205,326,574.71	3,715,722.01		29
30	Union Pacific	9,566.38	1.00								30
31	Wabash Railway										31
	Total	\$42,002,226.73	\$128,697,945.13	\$14,707,344.88	\$ 2,762,623.79	\$12,783.10	\$4,689,738,613.77	\$4,502,076,489.21	\$97,717,201.26	\$ 70.70	

PART III—CURRENT ASSETS

Number	Railway Companies	Cash	Demand loans and deposits	Time drafts and deposits	Special deposits	Loans and bills receivable	Traffic and car -service receivable	Net balance receivable from agents and conductors	Miscellaneous accounts receivable	Number	
											1	Aetheon, Topoka & Santa Fe	$ 36,887,667.05		$ 660,000.00	$ 439,306.81	$ 732,866.33	$ 1,480,922.99	$ 1,216,342.00	$ 5,334,894.40	1
2	Atlantic Northern									2	
3	Chicago, Burlington & Quincy	19,848,417.83	25,000.00	12,346,500.00		4,319,801.21	788,947.88	3,890,860.26	2,900,219.54	3	
4	Chicago Great Western	2,732,680.60				64,027.50	94,201.87	385,148.73	620,878.17	4	
5	Mason City & Ft. Dodge									5	
6	Wisconsin, Minn. & Pacific									6	
7	Chi., Milwaukee & St. Paul	7,739,739.50			3,769,742.05	444,971.75	634,922.27	2,351,461.58	3,890,815.27	7	
8	Chicago & North Western	10,287,982.30				1,712.35	196,313.08	3,044,102.10	2,792,969.00	8	
9	Chi., St. P., Minn. & Omaha	2,518,949.20				2,710.82	68,808.04	610,040.65	714,223.43	9	
10	Iowa Southern	853.11								10	
11	Chicago, Rock Island & Pacific	6,854,918.78	63,000.00		2,292,561.32	21,566.63	613,020.72	1,428,478.87	3,541,996.51	11	
12	St. Paul & K. C. Short Line	924.11							991.87	12	
13	Colfax Northern									13	
14	Colfax Consolidated Coal Co.	3,928.38								14	
15	Security Investment Co.									15	
16	Oreston, Winterset & Des Moines									16	
17	Davenport, R. I. & Northwestern	13,342.30					1,446.33	1,262.91	111,066.25	17	
18	Great Northern	9,644,307.71	6,890,881.69			19,365.03	541,612.86	3,257,024.89	3,017,994.70	18	
19	Illinois Central	7,653,174.59			200,423.74	1,790,830.83	962,229.15	3,102,255.21	3,097,451.14	19	
20	Dubuque & Sioux City					248.83			196,477.10	20	
21	eIowa & Omaha Short Line									21	
22	Iowa & Southwestern									22	
23	Koosuk & Des Moines	62,002.34				2,922.00		11,022.74	18,907.03	23	
24	Manchester & Oneida	7,913.37					1,207.92		860.13	24	
25	Minneapolis & St. Louis	550,375.75				55.00	68,585.98	97,051.79	544,364.63	25	
26	eIowa Central & Western									26	
27	eMuscatine, Burlington & So.		21,183.00				110.79	8,378.74	7,592.92	27	
28	eMuscatine North & South	6,867.91						3,329.37	12,573.10	28	
29	Tabor & Northern	3,544.37							6,922.88	29	
30	Union Pacific	15,352,840.99		11,000,000.00		143,819.19	30,800,000.00	1,034,145.44	421,156.47	1,912,567.18	30
31	Wabash Railway	3,533,864.00				997.50	614.90	895,619.82	1,726,005.21	1,571,331.90	31
	Total	\$122,612,261.00	\$ 6,910,005.29	\$25,006,500.00	\$ 6,308,111.72	\$18,247,983.21	\$ 7,364,806.48	\$22,710,050.06	\$29,732,408.47		

TABLE 9—COMPARATIVE GENERAL BALANCE SHEET—ASSETS
PART IV—CURRENT ASSETS—Continued.

Number	Railway Companies	Material and supplies	Interest and dividends receivable	Rents receivable	Other current assets	Total current assets Dec. 31, 1916	Total current assets Dec. 31, 1915	Increase 1916	Decrease 1916	Number
1	Atchison, Topeka & Santa Fe	\$12,149,084.22	\$ 1,028,119.87			\$ 60,954,372.71	\$ 50,390,010.71	\$ 1,365,322.01		1
2	Atlantic Northern									2
3	Chicago, Burlington & Quincy	7,571,610.83				51,693,377.55	52,136,469.79	19,509,567.76		3
4	Chicago Great Western	1,500,491.80	1,096.90		\$ 74,846.50	5,400,237.16	5,002,354.50	307,872.63		4
5	Mason City & Ft. Dodge									5
6	Wisconsin, Minn. & Pacific									6
7	Chi., Milwaukee & St. Paul	5,986,810.00	5,077,237.30		483,590.70	33,009,431.74	30,364,810.00	2,507,537.64	\$ 5,455,378.92	7
8	Chicago & North Western	6,105,900.00			442,291.84	22,841,381.29	20,283,843.65	2,507,537.64		8
9	Chi., St. P., Minn. & Omaha	1,408,109.98				5,379,943.37	5,100,334.78	279,307.59		9
10	Iowa Southern					853.11	1,237.53	474.44		10
11	Chicago, Rock Island & Pacific	7,294,655.54	314,141.16	\$ 24,262.77	500,655.45	22,030,672.57	16,129,130.65	5,939,532.94		11
12	St. Paul & K. C. Short Line	429.92				5,567.61	6,634.36	1,066.95		12
13	Colfax Northern									13
14	Colfax Consolidated Coal Co.			12,475.00		16,003.28	11,754.54	4,248.84		14
15	Security Investment Co.			500.00		500.00	603.00	103.00		15
16	Creston, Winterset & Des Moines									16
17	Davenport, R. I. & Northwestern	17,209.19				144,377.38	129,890.39	14,687.59		17
18	Great Northern	7,577,647.38			179,590.23	22,328,080.45	35,112,044.45	2,778,963.97		18
19	Illinois Central	6,914,295.42	3,516,827.52			27,216,479.00	20,190,419.65	7,026,059.65		19
20	Dubuque & Sioux City					168,720.95	64,192.72	104,528.20		20
21	Iowa & Omaha Short Line									21
22	Iowa & Southwestern				2,454.12	122,639.36	227,607.72	104,968.37		22
23	Keokuk & Des Moines	22,432.52			1,342.15	27,080.37	39,915.49	3,202.83		23
24	Manchester & Oorida	275.02				7,400.00	7,400.00			24
25	Minneapolis & St. Louis	573,229.95	690.00	1,343.16		2,340,302.38	2,367,496.52	27,304.14		25
26	Iowa Central & Western			7,400.00		7,400.00	7,400.00			26
27	Muscatine, Burlington & So.	6,021.34				43,287.39	43,287.39			27
28	Muscatine North & South	5,655.19	300.00		755.00	68,518.67	68,518.67			28
29	Tabor & Northern					11,250.22	11,361.29	88.93		29
30	Union Pacific	7,442,244.43	2,408,320.64	11,692.62	965,047.45	51,094,594.23	32,022,393.02	18,472,681.40		30
31	Wabash Railway	2,021,198.90	22,200.00	14,400.00	467,442.03	10,773,674.41	9,146,700.89	1,632,913.02		31
	Total	\$71,102,330.57	\$12,084,154.06	\$ 22,309.55	\$ 2,851,246.37	\$36,021,386.80	\$27,517,030.36	\$7,468,700.06	\$ 8,365,322.02	

PART V—DEFERRED ASSETS.

Number	Railway Companies	Working fund advances	Insurance and other funds	Other deferred assets	Total deferred assets Dec. 31, 1916	Total deferred assets Dec. 31, 1915	Increase 1916	Decrease 1916	Number
1	Atchison, Topeka & Santa Fe	\$ 12,082.96	\$ 1,915,867.01	\$ 2,565,061.20	\$ 6,294,782.17	\$ 4,183,134.82	\$ 1,111,647.35		1
2	Atlantic Northern								2
3	Chicago, Burlington & Quincy	28,114.38		313,300.00	339,414.38	24,039.25	315,375.13		3
4	Chicago Great Western	8,045.61			8,045.61	8,014.50	31.11		4
5	Mason City & Ft. Dodge								5
6	Wisconsin, Minn. & Pacific								6
7	Chi., Milwaukee & St. Paul	333,304.67	801,000.00		1,084,304.67	1,086,274.69	61,970.01		7
8	Chicago & North Western	4,302,169.33			4,302,169.33	19,350.58	4,282,818.75		8
9	Chi., St. P., Minn. & Omaha	5,395.77		3,239.74	8,795.51	5,138.25	3,586.26		9
10	Iowa Southern								10
11	Chicago, Rock Island & Pacific	64,200.39			64,200.39	22,289.42	40,910.97		11
12	St. Paul & K. C. Short Line								12
13	Colfax Northern								13
14	Colfax Consolidated Coal Co.								14
15	Security Investment Co.			6,452.45	6,452.45	5,000.81	1,397.64		15
16	Creston, Winterset & Des Moines								16
17	Davenport, R. I. & Northwestern	24,328.82	568,000.00	2,845,885.22	3,073,414.04	73,809.84	3,000,544.30		17
18	Great Northern	12,510.18	2,614,103.91	95,485.37	2,721,899.44	2,722,144.08	244.64		18
19	Illinois Central								19
20	Dubuque & Sioux City								20
21	Iowa & Omaha Short Line								21
22	Iowa & Southwestern								22
23	Keokuk & Des Moines	10.00			10.00	72.70	62.70		23
24	Manchester & Oorida								24
25	Minneapolis & St. Louis	1,838.57		1,318.48	3,157.05	17,789.53	14,628.48		25
26	Iowa Central & Western								26
27	Muscatine, Burlington & So.								27
28	Muscatine North & South								28
29	Tabor & Northern								29
30	Union Pacific	18,776.29		1,941,600.37	1,960,376.66	1,813,100.83	147,275.83		30
31	Wabash Railway	18,633.94			18,633.94	18,234.54	399.40		31
	Total	\$ 4,788,309.09	\$ 5,832,970.22	\$ 2,273,309.82	\$18,805,589.54	\$ 9,969,714.81	\$ 8,972,786.85	\$ 69,605.83	

TABLE 9—COMPARATIVE GENERAL BALANCE SHEET—ASSETS
PART VI—UNADJUSTED DEBITS.

Number	Railway Companies	Rebts and in- surance paid in advance	Discount on capital stock	Discount on funded debt	Other unad- justed debits	Total unad- justed debits Dec. 31, 1916	Total unad- justed debits Dec. 31, 1915	Increase 1916	Decrease 1916	Number
1	Atchison, Topeka & Santa Fe.....	\$ 194,804.01			\$ 1,190,355.17	\$ 1,388,179.78	\$ 1,450,040.76		\$ 66,860.98	1
2	Atlantic Northern.....									2
3	Chicago, Burlington & Quincy.....	30,646.51		2,370,913.56	4,033,682.22	6,341,942.29	4,861,108.57	1,480,833.72		3
4	Chicago Great Western.....	15,989.42		576,445.79	1,555,782.58	2,148,217.79	1,869,706.03	278,450.86		4
5	Mason City & Ft. Dodge.....				665,040.07	665,040.07	482,842.88	82,303.79		5
6	Wisconsin, Minn. & Pacific.....				390,084.32	390,084.32	331,307.59	28,776.73		6
7	Chi., Milwaukee & St. Paul.....				2,799,253.83	2,799,253.82	2,832,270.79		32,746.97	7
8	Chicago & North Western.....	36,738.63			1,189,609.75	1,213,408.28	1,185,233.81	68,122.57		8
9	Chi., St. P., Minn. & Omaha.....			10,367.63	641,321.33	651,689.16	645,306.39	6,882.77		9
10	Iowa Southern.....									10
11	Chicago, Rock Island & Pacific.....	42,320.23		6,250.00	2,319,002.73	2,368,601.06	3,688,181.65		1,315,029.09	11
12	St. Paul & K. C. Short Line.....									12
13	Colfax Northern.....	93.38				93.38	190.99		7.61	13
14	Colfax Consolidated Coal Co.....	422.00			323.05	746.63	846.00		99.35	14
15	Security Investment Co.....									15
16	Creston, Winterset & Des Moines.....									16
17	Davenport, R. I. & Northwestern.....									17
18	Great Northern.....	33,070.63			2,219,254.09	2,232,324.72	1,691,812.75	650,311.97		18
19	Illinois Central.....				945,925.40	945,925.40	855,643.16	88,282.23		19
20	Dubuque & Sioux City.....									20
21	a Iowa & Omaha Short Line.....									21
22	b Iowa & Southwestern.....									22
23	Keokuk & Des Moines.....	171.06			14,009.05	14,181.01	11,258.05	2,922.06		23
24	Manchester & Onida.....									24
25	Minneapolis & St. Louis.....	624.25	1,330,088.00	2,653,045.44	333,137.90	4,345,815.60	4,408,374.70		62,559.05	25
26	c Iowa Central & Western.....									26
27	c Muscatine, Burlington & So.....	175.32		2,238.50	2,610.32	5,039.14	5,039.14			27
28	d Muscatine North & South.....				1,324.65	1,324.65				28
29	Tabor & Northern.....									29
30	Union Pacific.....	772.16			244,479.40	245,251.56	820,344.78		275,063.22	30
31	Wabash Railway.....	12,011.19		694.00	155,270.90	197,376.00	1,218,032.05		1,020,675.90	31
	Total.....	\$ 364,889.29	\$ 1,350,088.00	\$ 6,519,969.92	\$ 18,498,764.30	\$ 25,742,702.51	\$ 25,827,479.85	\$ 2,692,121.49	\$ 2,771,868.83	

PART VII—GRAND TOTAL.

Number	Railway Companies	Dec. 31, 1916	Dec. 31, 1915	Increase 1916	Decrease 1916	Number
1	Atchison, Topeka & Santa Fe.....	\$ 800,055,499.43	\$ 754,095,084.65	\$ 45,960,414.78		1
2	Atlantic Northern.....					2
3	Chicago, Burlington & Quincy.....	544,305,614.44	518,690,384.00	25,845,229.55		3
4	Chicago Great Western.....	136,148,110.22	134,258,196.03	1,909,914.19		4
5	Mason City & Ft. Dodge.....	45,636,414.12	45,478,273.10	158,141.02		5
6	Wisconsin, Minn. & Pacific.....	12,519,580.25	12,412,978.01	104,602.24		6
7	Chi., Milwaukee & St. Paul.....	622,012,050.69	690,354,023.56	8,636,464.54		7
8	Chicago & North Western.....	438,632,498.86	423,965,900.11	15,647,598.75		8
9	Chi., St. P., Minn. & Omaha.....	84,220,549.68	82,367,848.86	1,832,800.82		9
10	Iowa Southern.....	802,300.21	790,001.62	9,258.62		10
11	Chicago, Rock Island & Pacific.....	323,363,669.84	326,963,625.23	6,400,054.61		11
12	St. Paul & K. C. Short Line.....	12,998,573.47	12,669,440.95	39,132.52		12
13	Colfax Northern.....	5,843.70	9,948.32		1,104.56	13
14	Colfax Consolidated Coal Co.....	109,596.13	106,378.49	4,217.64		14
15	Security Investment Co.....	178,220.60	176,060.05	1,244.64		15
16	Creston, Winterset & Des Moines.....					16
17	Davenport, R. I. & Northwestern.....	3,070,063.76	3,041,185.73	29,748.02		17
18	Great Northern.....	661,365,734.09	654,110,331.83	7,255,402.25		18
19	Illinois Central.....	312,240,747.87	297,975,363.38	14,374,414.49		19
20	Dubuque & Sioux City.....	33,708,306.00	32,997,354.97	800,751.03		20
21	a Iowa & Omaha Short Line.....					21
22	b Iowa & Southwestern.....					22
23	Keokuk & Des Moines.....	6,809,400.30	6,569,123.24	99,722.04		23
24	Manchester & Onida.....	163,268.79	165,700.00		2,440.23	24
25	Minneapolis & St. Louis.....	75,719,502.41	74,350,795.94	779,706.47		25
26	c Iowa Central & Western.....	1,480,000.00	1,480,000.00			26
27	c Muscatine, Burlington & So.....	1,324,708.81		1,324,708.81		27
28	d Muscatine North & South.....	1,331,880.14		1,331,880.14		28
29	Tabor & Northern.....	104,167.97	104,079.04	88.90		29
30	Union Pacific.....	675,972,977.85	664,723,716.90	21,249,260.89		30
31	Wabash Railway.....	219,032,261.16	215,710,925.19	3,322,036.97		31
	Total.....	\$ 6,061,053,392.92	\$ 4,969,466,614.27	\$ 1,091,749,946.52	\$ 169,597.83	

TABLE 3—COMPARATIVE GENERAL BALANCE SHEET—LIABILITIES
PART VIII—STOCK AND GOVERNMENTAL GRANTS.

Number	Railway Companies	Capital stock	Stock liability for conversion	Premium on capital stock	Total stock Dec. 31, 1916	Total stock Dec. 31, 1915	Increase 1916	Decrease 1916	Governmental Grants			Number
									Grants in Aid of Construction			
									December 31, 1916	December 31, 1915	Increase 1916	
1	A. T. & S. F.	\$ 340,751,200.00			\$ 340,751,200.00	\$ 333,923,200.00	\$ 6,828,000.00					1
2	A. N.											2
3	C. H. & Q.	110,839,100.00			110,839,100.00	110,839,100.00						3
4	C. G. N.	89,137,115.00			89,137,115.00	89,076,915.00	60,200.00					4
5	M. C. & P. D.	32,841,132.00			32,841,132.00	32,841,132.00						5
6	W., M. & P.	5,803,400.00			5,803,400.00	5,803,400.00						6
7	C., M. & St. P.	233,251,800.00		36,183.87	233,287,983.87	232,287,983.87						7
8	C. & N. W.	112,377,148.82		29,607.75	112,606,806.57	112,606,806.57						8
9	O. St. P., M. & O.	29,816,966.00	2,879.09		29,818,945.78	29,818,998.32		\$ 32.54				9
10	I. S.	10,000.00			10,000.00	10,000.00						10
11	C., R. I. & P.	74,359,722.50	122,800.00		74,482,522.50	74,482,522.50						11
12	S. P. & K. C. S. L.	50,000.00			50,000.00	50,000.00						12
13	C. N.	10,000.00			10,000.00	10,000.00						13
14	O. C. C. C.											14
15	S. I. C.											15
16	C., W. & D. M.											16
17	D., R. I. & N. W.	3,000,000.00			3,000,000.00	3,000,000.00						17
18	G. N.	249,475,830.00		81,188.44	249,556,998.44	249,555,382.88	1,615.56		62,197.89	22,351.36	28,806.53	18
19	I. C.	109,281,821.67			109,281,821.67	109,286,616.67		4,695.00	11,776.50		11,776.50	19
20	D. & S. C.	11,759,500.00			11,759,500.00	11,759,500.00						20
21	St. L. & O. S. L.											21
22	St. L. & S.											22
23	K. & D. M.	4,125,000.00			4,125,000.00	4,125,000.00						23
24	M. & O.	62,732.50			62,732.50	62,732.50		47.50				24
25	M. & St. L.	25,792,600.00			25,792,600.00	22,650,450.00	3,142,150.00					25
26	St. L. C. & W.	918,000.00			918,000.00	918,000.00						26
27	M., B. & S.	750,000.00			750,000.00		750,000.00					27
28	M. N. & S.	450,000.00			450,000.00		450,000.00					28
29	T. & N.	25,300.00			25,300.00	25,300.00						29
30	U. P.	321,835,100.00			321,835,100.00	321,835,100.00						30
31	W. R.	138,484,440.21			138,484,440.21	138,460,000.00	24,440.21					31
	Total	\$1,935,497,009.39	\$125,679.09	\$147,030.09	\$1,905,709,718.54	\$1,924,518,107.81	\$111,306,406.77	\$ 4,707.04	\$66,588.71	\$25,631.36	\$40,937.35	

*Includes scrip, \$96.69.
†Includes scrip, \$2,648.82.

PART IX—LONG-TERM DEBT.

Number	Railway Companies	Funded debt unamortized	Receiver's certificates	Nonnegotiable Debt to Affiliated Companies		Total long term debt Dec. 31, 1916	Total long term debt Dec. 31, 1915	Increase 1916	Decrease 1916	Number
				Notes	Open accounts					
1	Atchison, Topeka & Santa Fe	\$ 297,279,700.00				\$ 297,279,700.00	\$ 307,190,920.00		\$ 9,911,160.00	1
2	Atlantic Northern									2
3	Chicago, Burlington & Quincy	176,487,300.00				176,487,300.00	181,325,900.00		4,838,600.00	3
4	Chicago Great Western	25,883,000.00				25,883,000.00	25,881,000.00	2,000.00		4
5	Mason City & Ft. Dodge	12,000,000.00		\$ 47,924.77		12,047,924.77	12,017,924.77	30,000.00		5
6	Wisconsin, Minn. & Pacific	6,232,000.00				6,232,000.00	6,232,000.00			6
7	Chi., Milwaukee & St. Paul	356,070,254.66				356,070,254.66	369,194,454.66		84,300.00	7
8	Chicago & North Western	205,969,500.00				205,969,500.00	206,018,000.00		138,500.00	8
9	Chi., St. P., Minn. & Omaha	41,257,000.00				41,257,000.00	41,257,000.00			9
10	Iowa Southern			792,000.00		792,000.00	793,000.00	9,000.00		10
11	Chicago, Rock Island & Pacific	225,807,000.00	9,190,102.30		37,000.00	235,097,002.30	237,248,009.00		2,156,946.80	11
12	St. Paul & K. C. Short Line	12,935,150.00			225,538.98	12,848,688.98	12,787,338.00	61,350.98		12
13	Colfax Northern									13
14	Colfax Consolidated Coal Co.									14
15	Security Investment Co.	47,500.00				47,500.00	47,500.00			15
16	Creston, Winterset & Des Moines									16
17	Davenport, R. I. & Northwestern			620,878.33		620,878.33	505,718.55	15,159.78		17
18	Great Northern	250,849,015.16		234,270.24		251,173,285.40	251,000,668.82	82,626.58		18
19	Illinois Central	132,899,700.00		600,000.00		133,499,700.00	153,137,700.00	202,000.00		19
20	Dubuque & Sioux City	19,473,116.18			316,883.95	19,789,800.13	19,232,472.61	557,327.52		20
21	Iowa & Omaha Short Line									21
22	Iowa & Southwestern									22
23	Keokuk & Des Moines	2,750,000.00				2,750,000.00	2,750,000.00			23
24	Manchester & Oueda	65,000.00				65,000.00	65,000.00			24
25	Minneapolis & St. Louis	43,906,200.79				43,906,200.79	46,615,122.59		2,708,921.80	25
26	Iowa Central & Western	355,000.00				355,000.00	355,000.00			26
27	Muscatine, Burlington & So.	510,800.00				510,800.00	510,800.00			27
28	Muscatine North & South	800,000.00		35,500.00		835,500.00	835,500.00			28
29	Tabor & Northern	50,000.00				50,000.00	50,000.00			29
30	Union Pacific	192,491,135.00		2,802,181.63		195,293,316.63	195,395,906.75		102,567.22	30
31	Wabash Railway	65,992,909.23				65,992,909.23	67,447,909.23		1,455,000.00	31
	Total	\$3,680,731,941.02	\$0,106,162.30	\$235,500.00	\$5,655,377.80	\$2,104,608,981.02	\$2,123,968,583.18	\$2,435,764.25	\$21,707,315.82	

TABLE 9—COMPARATIVE GENERAL BALANCE SHEET—LIABILITIES
PART X—CURRENT LIABILITIES.

Number	Railway Companies	Loans and bills payable	Traffic and car service balance payable	Audited accounts and wages payable	Miscellaneous accounts payable	Interest accrued unpaid	Dividend payments	Funded debt matured unpaid	Unmatured dividends declared	Number
1	Atchison, Topeka & Santa Fe		\$ 648,733.68	\$ 8,093,815.47	\$ 2,999,874.34	\$ 1,307,105.81	\$ 88,789.00	\$ 1,000.00	\$ 3,104,842.50	1
2	Atlantic Northern									2
3	Chicago, Burlington & Quincy		1,795,513.62	6,307,344.63	435,338.74	1,707,081.00	651.25	5,000.00		3
4	Chicago Great Western		636,610.80	855,779.00	87,246.91	36,947.50				4
5	Mason City & Ft. Dodge									5
6	Wisconsin, Minn. & Pacific									6
7	Chl., Milwaukee & St. Paul	\$ 1,900,000.00	1,249,059.19	8,119,342.69	637,199.88	5,298,450.34	5,627.50	9,782.02		7
8	Chicago & North Western		2,292,408.60	4,229,335.43	277,404.81	742,730.34	2,728,003.70	602,900.00		8
9	Chl., St. P., Minn. & Omaha		900,439.44	1,288,088.72	148,519.09	62,916.00	668.00		1,043,560.00	9
10	Iowa Southern			360.24						10
11	Chicago, Rock Island & Pacific	4,100,000.00	807,155.75	4,556,971.39	1,253,819.28	3,546,120.05	227.00	204,740.88		11
12	St. Paul & K. C. Short Line									12
13	Colfax Northern	8,208.50	.50	702.86						13
14	Colfax Consolidated Coal Co.									14
15	Security Investment Co.	12,385.02								15
16	Oreston, Winterset & Des Moines		1,073.10	42,622.02						16
17	Davenport, R. I. & Northwestern		445,910.02	5,247,563.90	3,343,595.88	2,890,411.62		1,200.00		17
18	Great Northern		1,273,635.69	7,341,684.19	2,871,843.97	977,303.75	45,062.05	100,176.16	1,630,440.00	18
19	Illinois Central			25.00		4,287.50	130.24		323,386.25	19
20	Dubuque & Sioux City				662.56					20
21	a Iowa & Omaha Short Line									21
22	b Iowa & Southwestern									22
23	Keokuk & Des Moines		48,021.30	50,846.47	1,385.97	2,790.00	142.00			23
24	Manchester & Onida		9,140.36							24
25	Minneapolis & St. Louis	50,000.00	335,244.83	1,150,644.45	96,158.71	134,268.68				25
26	c Iowa Central & Western		22,684.12	808.88						26
27	d Muscatine, Burlington & So.		18,665.51	63,880.09		1,363.00				27
28	e Muscatine North & South		1,583.99							28
29	Taber & Northern	30,820.52			14,062.09					29
30	Union Pacific		871,375.86	5,262,586.90	6,230,973.08	2,763,810.90	5,259,529.23		4,445,832.00	30
31	Wabash Railway		1,068,079.47	3,227,373.19	563,071.84	275,809.49		2,300.00	462,000.00	31
	Total	\$ 6,101,394.04	\$ 11,046,616.73	\$ 50,864,081.10	\$ 19,040,105.74	\$ 22,740,692.18	\$ 8,129,154.47	\$ 989,999.06	\$ 11,018,500.75	

PART XI—CURRENT LIABILITIES—Continued.

Number	Railway Companies	Unmatured interest accrued	Unmatured rents accrued	Other current liabilities	Total current liabilities Dec. 31, 1916	Total current liabilities Dec. 31, 1915	Increase 1916	Decrease 1916	Number
1	Atchison, Topeka & Santa Fe	\$ 3,302,302.43	\$ 429,645.56		\$ 30,734,000.29	\$ 18,306,840.00	\$ 2,525,768.29		1
2	Atlantic Northern								2
3	Chicago, Burlington & Quincy	1,079,167.50			11,389,806.74	10,246,136.05	1,143,760.69		3
4	Chicago Great Western	339,378.13	152,461.90	166,622.89	2,293,967.72	2,057,663.98	236,293.75		4
5	Mason City & Ft. Dodge								5
6	Wisconsin, Minn. & Pacific								6
7	Chl., Milwaukee & St. Paul	1,185,944.72			21,416,338.14	18,220,057.19	3,196,280.95		7
8	Chicago & North Western	1,909,491.66	6,000.00	349,250.56	13,198,835.69	11,248,037.72	1,950,797.88		8
9	Chl., St. P., Minn. & Omaha	408,827.50			3,303,544.75	3,872,391.47	68,746.72		9
10	Iowa Southern				369.24	1.62	368.62		10
11	Chicago, Rock Island & Pacific	2,432,668.87	546,552.06		17,510,325.28	19,255,826.30		1,745,501.02	11
12	St. Paul & K. C. Short Line								12
13	Colfax Northern	914.75	1,143.75	12,110.50	23,170.05	17,933.72	5,237.23		13
14	Colfax Consolidated Coal Co.								14
15	Security Investment Co.	593.75		229.50	13,368.27	13,158.77	229.50		15
16	Oreston, Winterset & Des Moines								16
17	Davenport, R. I. & Northwestern				44,709.12	87,611.26	7,000.76		17
18	Great Northern	149,004.10		272,890.64	12,456,466.12	10,556,449.53	1,900,016.59		18
19	Illinois Central	338,088.76	356,885.59	681,428.56	16,145,647.82	12,946,391.18	3,199,256.64		19
20	Dubuque & Sioux City	65,375.00			368,796.54	110,856.63	258,400.91		20
21	a Iowa & Omaha Short Line								21
22	b Iowa & Southwestern								22
23	Keokuk & Des Moines	24,375.00	459.54		138,620.28	168,909.83	30,289.55		23
24	Manchester & Onida	2,708.30			11,848.06	13,811.45	1,962.79		24
25	Minneapolis & St. Louis	430,523.11	1,850.40		2,188,199.13	3,308,520.04	1,120,320.96		25
26	c Iowa Central & Western	7,400.00			7,400.00	7,400.00			26
27	d Muscatine, Burlington & So.				25,055.98		25,055.98		27
28	e Muscatine North & South			1,133.21	83,678.81		83,678.81		28
29	Taber & Northern	535.55			46,812.15		46,276.60		29
30	Union Pacific	876,685.00	31,301.20	478,275.22	26,246,379.15	18,088,710.42	7,549,899.73		30
31	Wabash Railway	672,830.41	156,075.06	408,016.75	6,066,956.21	6,109,497.36	805,538.35		31
	Total	\$ 13,642,844.26	\$ 1,682,019.06	\$ 2,368,967.62	\$ 154,561,301.01	\$ 134,661,017.24	\$ 22,900,283.77	\$ 22,900,283.77	

TABLE 9—COMPARATIVE GENERAL BALANCE SHEET—LIABILITIES
PART XII—DEFERRED LIABILITIES AND UNADJUSTED CREDITS.

Number	Railway Companies	Deferred Liabilities						Unadjusted Credits			Number
		Liability for pension funds	Other deferred liabilities	Total deferred liabilities Dec. 31, 1916	Total deferred liabilities Dec. 31, 1915	Increase 1916	Decrease 1916	Tax liability	Pension on funded debt	Insurance and casualty reserves	
1	Atchison, Topeka & Santa Fe.....		\$ 192,836.18	\$ 192,836.18	\$ 113,164.28	\$ 79,661.90		\$ 1,800,473.37			2
2	Atlantic Northern.....										3
3	Chicago, Burlington & Quincy.....		32,306.49	32,306.49	32,424.14		\$ 27.05	2,701,625.78		1,400,144.70	4
4	Chicago Great Western.....		37,300.10	37,300.10	38,515.38		1,455.28	472,291.03			5
5	Mason City & Ft. Dodge.....										6
6	Wisconsin, Minn. & Pacific.....										7
7	Chi., Milwaukee & St. Paul.....		666,728.67	666,728.67	344,236.26	322,492.41		549,778.60		2,799,265.43	8
8	Chicago & North Western.....		190,914.01	190,914.01	41,985.57	148,928.44		823,267.70	1,023,126.61		9
9	Chi., St. P., Minn. & Omaha.....		48,689.78	48,689.78	5,275.62	38,064.16		794,646.49	157,431.48		10
10	Iowa Southern.....										11
11	Chicago, Rock Island & Pacific.....		842,671.65	842,671.65	628,968.19	213,803.46		2,128,089.65		716,294.43	12
12	St. Paul & K. C. Short Line.....										13
13	Colfax Northern.....							658.19			14
14	Colfax Consolidated Coal Co.....										15
15	Security Investment Co.....										16
16	Creston, Winterset & Des Moines.....										17
17	Davenport, R. I. & Northwestern.....										18
18	Great Northern.....		2,654,439.90	2,654,439.90	2,622,768.68	321,671.22		3,171,536.00		1,688,072.25	19
19	Illinois Central.....	\$ 250,000.00	25,322.00	275,322.00	275,300.29	2,021.71		368,677.53		2,364,168.51	20
20	Dubuque & Sioux City.....										21
21	a Iowa & Omaha Short Line.....										22
22	b Iowa & Southwestern.....										23
23	Keokuk & Des Moines.....		4,730.03	4,730.03	4,633.06	96.97		59,601.12			24
24	Manchester & Onida.....										25
25	Minneapolis & St. Louis.....		28,518.07	28,518.07	48,123.91		19,605.84	202,315.51		110,307.42	26
26	c Iowa Central & Western.....										27
27	d Muscatine, Burlington & So.....							189.29			28
28	Muscatine North & South.....							400.00			29
29	Tabor & Northern.....										30
30	Union Pacific.....		752,119.24	752,119.24	875,875.70		128,756.30	1,151,749.10		520,297.16	31
31	Wabash Railway.....		27,267.35	27,267.35	35,731.80		1,355.55	827,129.53			
	Total.....	\$ 250,000.00	\$ 85,531,304.43	\$ 85,751,204.43	\$ 46,465,268.78	\$ 1,430,815.92	\$ 144,575.27	\$ 15,233,629.81	\$ 1,150,568.00	\$ 9,586,306.68	

PART XIII—UNADJUSTED CREDITS—Continued.

Number	Railway Companies	Operating reserves	Accrued depreciation —road	Accrued depreciation —equipment	Accrued depreciation— miscellaneous physical property	Other unad- justed credits	Total unad- justed credits Dec. 31, 1916	Total unad- justed credits Dec. 31, 1915	Increase 1916	Decrease 1916	Number
2	Atlantic Northern.....										2
3	Chicago, Burlington & Quincy.....	440,000.00		35,969,880.45		1,945,434.90	42,406,095.35	35,639,436.08	6,826,639.75		3
4	Chicago Great Western.....	63,877.23		812,112.84		1,394,156.79	2,612,437.30	2,307,716.30	344,721.00		4
5	Mason City & Ft. Dodge.....			95,262.40		62,054.95	747,337.35	747,337.35			5
6	Wisconsin, Minn. & Pacific.....			46,402.15		428,938.10	475,340.25	370,878.01	104,462.24		6
7	Chi., Milwaukee & St. Paul.....			10,220,456.05		1,446,329.42	14,725,884.56	12,730,710.75	1,995,169.81		7
8	Chicago & North Western.....			11,424,291.97		703,196.38	13,964,582.64	10,307,869.67	3,756,722.97		8
9	Chi., St. P., Minn. & Omaha.....			2,500,913.29		178,313.90	3,578,300.09	3,188,283.09	387,927.00		9
10	Iowa Southern.....										10
11	Chicago, Rock Island & Pacific.....	2,305,901.88		4,832,067.34		2,746,095.05	12,788,356.33	9,487,363.22	3,250,968.11		11
12	St. Paul & K. C. Short Line.....										12
13	Colfax Northern.....			7,380.57			8,948.74	6,307.51	1,741.23		13
14	Colfax Consolidated Coal Co.....		25,892.57	750.00			26,642.57	22,433.11	4,139.79		14
15	Security Investment Co.....			13,277.56			13,277.56	11,879.94	1,297.64		15
16	Creston, Winterset & D. M.....										16
17	Davenport, R. I. & N. W.....			67,663.30			67,563.30	60,065.82	7,497.45		17
18	Great Northern.....		1,315,369.18	27,229,470.37	44,994.88	5,509,300.92	39,908,825.01	37,074,029.79	1,884,868.29		18
19	Illinois Central.....	444,980.42		11,956,374.62		1,109,914.08	16,784,659.50	13,500,667.73	3,283,982.53		19
20	Dubuque & Sioux City.....										20
21	a Iowa & Omaha Short Line.....										21
22	b Iowa & Southwestern.....										22
23	Keokuk & Des Moines.....	5,316.51				30,694.54	194,945.87	59,770.94	48,169.35		23
24	Manchester & Onida.....			2,775.00			2,775.00	1,875.00	900.00		24
25	Minneapolis & St. Louis.....			853,379.11		1,687,874.31	3,944,376.31	1,559,716.71	1,488,659.64		25
26	c Iowa Central & Western.....						189.29		189.29		26
27	d Muscatine, Burlington & So.....						400.00		400.00		27
28	Muscatine North & South.....			2,264.00			2,264.00	2,381.46		716.84	28
29	Tabor & Northern.....		137,254.05	11,420,407.46		2,193,751.36	15,446,429.13	14,446,042.79	900,416.31		29
30	Union Pacific.....			380,434.05		900,976.37	2,291,113.14	2,866,546.22		575,427.08	30
31	Wabash Railway.....	182,565.89									31
	Total.....	\$ 4,619,628.26	\$ 1,908,427.10	\$ 147,533,449.65	\$ 29,022.46	\$ 22,739,333.00	\$ 202,961,246.05	\$ 172,328,066.09	\$ 31,229,323.89	\$ 676,143.92	

TABLE 3—COMPARATIVE GENERAL BALANCE SHEET—LIABILITIES
PART XIV—CORPORATE SURPLUS

Number	Railway Companies	Additions to property through income and surplus	Funds debt retired through and surplus	Sinking fund reserves	Miscellaneous fund reserves	Appropriated surplus not specifically invested	Total approx- imate surplus	Profit and loss credit balance	Number
1	Atchison, Topeka & Santa Fe	\$ 71,590,831.02		\$ 70,626.67	\$ 1,915,867.01	\$ 683,041.82	\$ 74,139,969.12	\$ 82,045,432.11	1
2	Atlantic Northern							114,481,347.45	2
3	Chicago, Burlington & Quincy	40,827,469.29	\$15,435,692.56	24,079,639.68		8,594,856.78	86,006,707.26	6,200,334.47	3
4	Chicago Great Western	6,956.50				2,030.00	6,963.50		4
5	Wisconsin, Ft. & Dodge							584,200.00	5
6	Wisconsin, Minn. & Pacific							42,217,364.23	6
7	Chi., Milwaukee & St. Paul	96,206.30		497,644.12			603,850.42	47,041,322.81	7
8	Chicago & North Western	300,776.70		4,056,270.46			4,357,047.16	6,800,855.16	8
9	Chi., St. P., Minn. & Omaha	256,669.12					256,669.12		9
10	Iowa Southern							64,367.76	10
11	Chicago, Rock Island & Pacific							99,584.49	11
12	St. Paul & K. C. Short Line							95,373.03	12
13	Colfax Northern							82,044.26	13
14	Southwestern							301,064.81	14
15	Southern Consolidated Coal Co.								15
16	Security Investment Co.								16
17	Creighton Investment Co.								17
18	Davenport, R. I. & Des Moines								18
19	Great Northern								19
20	Illinois Central	328,230,204.00		1,002,000.00	1,002,000.00	5,833,327.53	334,067,531.53	74,883,239.50	20
21	Dubuque & Sioux City	645,019.50		1,777,245.65			2,422,265.15	15,005,201.24	21
22	Iowa & Southwestern	3,378.43					3,378.43	605,068.38	22
23	Keokuk & Des Moines								23
24	Manchester & O'Neill	2,847.40					2,847.40		24
25	Iowa Central & Western	1,000.00					1,000.00		25
26	Missouri, Burlington & So. Iowa								26
27	Union Pacific	1,700,834.91		21,087.36		146,948.90	1,868,871.17	37,770.37	27
28	Tabor & Northern							37,008.67	28
29	Union Pacific							88,844,713.50	29
30	Wabash Railway							5,600,721.70	30
31	Total	\$128,391,631.19	\$15,456,692.56	\$21,002,445.22	\$ 2,918,467.01	\$40,478,859.00	\$228,276,045.27	\$429,101,751.68	31

*Debit balance.

PART XV—CORPORATE SURPLUS AND GRAND TOTAL.

Number	Railway Companies	Corporate Surplus—Continued			Grand Total			
		Total surplus Dec. 31, 1916	Total corporate surplus Dec. 31, 1915	Decrease, 1916	Total surplus Dec. 31, 1916	Total corporate surplus Dec. 31, 1915	Decrease, 1916	
1	Atchison, Topeka & Santa Fe	\$100,139,451.25	\$6,567,738.56	\$93,571,712.69	\$ 900,655,469.43	\$ 764,087,684.00	\$ 45,567,785.43	1
2	Atlantic Northern							2
3	Chicago, Burlington & Quincy	300,000,256.28	150,377,367.72	149,622,888.56	844,305,614.44	518,400,384.00	325,915,230.44	3
4	Chicago Great Western	6,214,210.00	4,219,035.87	1,995,174.13	107,148,110.22	194,288,166.03	1,900,914.19	4
5	Wisconsin, Ft. & Dodge				45,620,414.32	45,478,272.30	152,041.02	5
6	Wisconsin, Minn. & Pacific	\$4,200.00			12,510,510.25	12,413,076.01	104,434.24	6
7	Chi., Milwaukee & St. Paul	42,843,244.56	29,566,877.12	13,276,367.44	600,013,060.90	600,354,026.85	8,658,034.05	7
8	Chicago & North Western	52,765,870.91	63,433,350.56	9,267,479.65	439,632,498.36	439,585,000.11	15,047,498.25	8
9	Chi., St. P., Minn. & Omaha	6,091,014.28	4,010,000.36	1,475,013.92	84,220,610.68	82,897,849.36	1,322,761.32	9
10	Iowa Southern				802,300.24	700,001.62	9,298,298.62	10
11	Chicago, Rock Island & Pacific	7,391,228.12	44,128,463.98	6,877,685.86	235,303,629.24	235,067,033.20	6,400,654.01	11
12	St. Paul & K. C. Short Line	24,912.00	209,022.91	184,110.91	21,106,634.57	21,000,044.26	9,590,590.31	12
13	Colfax Northern				169,598.13	165,273.49	4,324.64	13
14	Southwestern	104,064.84	104,447.34	382.50	178,230.69	170,886.05	1,344.64	14
15	Security Investment Co.							15
16	Davenport, R. I. & Des Moines				8,670,625.75	8,641,186.79	29,438.96	16
17	Great Northern	106,311,551.22	103,770,693.83	2,540,857.39	611,395,734.68	634,110,331.82	7,256,602.55	17
18	Illinois Central	19,259,928.25	8,800,667.51	7,459,260.74	213,249,747.87	207,975,333.38	14,274,414.49	18
19	Dubuque & Sioux City	1,853,209.23	1,875,196.73	19,977.50	30,738,304.50	32,997,354.97	800,761.63	19
20	Iowa & Southwestern							20
21	Iowa Central & Western							21
22	Keokuk & Des Moines				6,859,400.26	6,069,126.34	790,273.92	22
23	Manchester & O'Neill				95,735,761.76	95,400,202.09	335,559.67	23
24	Missouri, Burlington & So. Iowa				1,480,400.00	1,480,400.00		24
25	Union Pacific				1,820,890.14	1,820,890.14		25
26	Tabor & Northern				104,167.59	104,079.04	89.55	26
27	Union Pacific				675,973,977.87	654,729,710.90	21,244,266.97	27
28	Wabash Railway				219,022,581.26	215,710,522.19	3,312,059.07	28
29	Total	\$67,478,696.32	\$84,860,778.47	\$17,382,082.15	\$7,061,053,292.22	\$8,305,406,614.29	\$1,244,563,322.07	29

*Deficit.

TABLE 10—STATISTICS OF RAIL LINE OPERATIONS—ENTIRE LINE
PART I—AVERAGE MILEAGE OPERATED AND TRAIN MILES.

Number	Railway Companies	Average mileage of road operated	Train Miles							Number	
			Freight			Passenger	Mixed	Special	Total transportation service		Work service
			Ordinary	Light	Total						
1	Achison, Topeka & Santa Fe	8,636.42	18,219,973	215,688	18,435,661	19,933,006	2,641,270	41,300	41,051,897	1,327,182	1
2	Atlantic Northern										2
3	Chicago, Burlington & Quincy	9,270.26	18,185,157	124,150	18,309,310	117,965,959	697,909	23,032	26,996,918	899,422	3
4	Chicago Great Western	1,450.22	2,738,642	19,167	2,748,809	3,595,708	90,414	7,006	6,048,002	195,881	4
5	Mason City & Ft. Dodge										5
6	Wisconsin, Minn. & Pacific										6
7	Chi., Milwaukee & St. Paul	10,196.25	22,290,267	271,074	22,561,341	17,794,060	1,796,332	30,774	42,148,907	5,210,000	7
8	Chicago & North Western	8,107.82	17,071,254	261,001	17,332,255	20,028,271	1,855,541	24,300	20,234,457	1,183,822	8
9	Chi., St. P., Minn. & Omasa	1,732.81	2,919,048	79,542	3,098,590	3,864,274	534,302	8,205	8,400,591	228,161	9
10	Iowa Southern										10
11	Chicago, Rock Island & Pacific	7,612.46	15,922,730	66,194	16,018,947	16,218,057	688,280	17,991	22,952,283	940,791	11
12	St. Paul & K. C. Short Line										12
13	Colfax Northern	10.48	7,274		7,274	6,951	3,638		17,301	708	13
14	Colfax Consolidated Coal Co.										14
15	Security Investment Co.										15
16	Creston, Winterset & Des Moines	39.55								12,310	16
17	Davenport, R. I. & Northwestern	49.00								13,317	17
18	Great Northern	8,006.72	11,121,789	199,591	11,318,380	12,040,180	814,934	25,325	24,108,828	1,076,003	18
19	Illinois Central	4,798.79	16,209,128	177,132	16,386,260	13,663,239	200,198	19,600	30,313,353	694,051	19
20	Dubuque & Sioux City										20
21	Iowa & Omaha Short Line										21
22	Iowa & Southwestern										22
23	Kookuk & Des Moines	169.18	154,864		154,864	310,012		442	465,318	2,416	23
24	Manchester & Oceda	8.15							21,000	21,000	24
25	Minneapolis & St. Louis	1,046.75	2,622,200	16,054	2,638,254	2,133,712	231,900	8,400	5,021,534	139,587	25
26	Iowa Central & Western										26
27	c Muscatine, Burlington & So.	54.97	24,520		24,520	29,190			107,716		27
28	d Muscatine North & South										28
29	Tabor & Northern	10.75							13,029	13,029	29
30	Union Pacific	3,622.67	10,223,682	418,949	11,327,631	10,128,156	1,009,751	11,700	22,422,370	600,722	30
31	Wabash Railway	2,619.06	8,353,318	134,051	8,487,369	7,537,839	95,875	8,290	16,129,979	291,404	31
	Total	68,140.96	147,812,968	1,965,196	149,779,164	144,887,466	10,730,874	225,980	306,023,490	11,217,384	

Includes 64,600 motor-car train miles.

*Includes 28,725 motor-car train miles.

Statistics for Tables No. 10 and 10-A of the Muscatine North and South for 7 months ended July 31, 1916, are included in the operations of Muscatine, Burlington & Southern for the five months ended Dec. 31, 1916—with exception of Part VIII.

PART II—LOCOMOTIVE MILES.

Number	Railway Companies	Freight				Passenger				Mixed Train				Number	
		Principal	Helper	Light	Total	Principal	Helper	Light	Total	Principal	Helper	Light	Total		
															1
2	A. N.														2
3	C. B. & Q.	18,331,502	824,914	876,031	20,032,447	17,991,369	333,119	330,858	18,321,336	696,009	1,260	5,819	796,144	3	
4	C. G. W.	2,732,695	392,391	190,282	3,331,658	3,107,068	21,992	43,346	3,222,400	96,414	571	1,831	99,816	4	
5	M. C. & F. D.														5
6	W. M. & P.	22,561,341	897,337	1,516,606	25,275,283	17,680,944	286,375	319,430	18,186,754	1,756,332	7,825	43,684	1,807,891	6	
7	C. M. & St. P.	17,332,255	514,202	271,971	18,166,558	20,012,274	110,125	180,283	20,202,682	1,855,775	4,306	4,011	1,864,783	7	
8	C. & N. W.	4,340,623	187,848	168,794	4,709,105	3,856,992	3,853	59,316	3,968,061	556,328	186	4,001	561,121	8	
9	C. St. P., M. & O.														9
10	I. S.	16,018,947	363,836	124,768	16,507,551	16,009,729	67,533	161,500	16,235,322	688,280	3,722	11,000	713,728	10	
11	C. R. I. & P.														11
12	S. P. & K. C. S. L.														12
13	C. N.	7,274			7,274	6,652			6,651	3,638			3,638	13	
14	C. C. C. C.														14
15	S. I. C.														15
16	C. W. & D. M.														16
17	D. R. I. & N. W.	11,318,380	473,050	370,227	12,161,657	12,022,360	272,505	297,943	12,592,817	514,034	2,129	7,318	814,375	17	
18	G. N.	18,209,128	71,838	229,060	18,709,156	13,619,194	47,879	359,079	14,017,152	200,198		3,471	203,669	18	
19	I. C.														19
20	D. & S. C.														20
21	e I. & O. S. L.														21
22	b I. & S.	154,864	3,188	1,454	159,506	310,012	1,072	1,121	312,205	21,000		770	21,000	22	
23	K. & D. M.														23
24	M. & O.	2,647,353	247,008	166,117	3,060,478	2,132,712	9,023	29,671	2,171,906	221,900			239,579	24	
25	M. & St. L.														25
26	e I. C. & W.	34,520			34,520	73,196			73,196						26
27	d M. T. & S.														27
28	e M. N. & S.														28
29	T. & N.	11,318,380	375,914	853,046	12,772,815	9,280,491	399,730	376,705	10,222,616	1,009,983	16,143	42,739	1,068,865	29	
30	U. P.	8,487,369	197,986	130,462	8,816,107	7,537,839	49,901	123,103	7,712,916	95,875			96,928	30	
31	W. B.														31
	Total	150,223,342	6,166,222	6,491,602	162,881,167	143,762,276	2,444,914	2,374,134	149,021,318	10,734,676	89,994	201,023	11,045,803		

TABLE 10—STATISTICS OF RAIL LINE OPERATIONS—ENTIRE LINE
PART III—LOCOMOTIVE MILES—Continued.

Number	Railway Companies	Special				Train switching	Yard Switching			Total trans- portation service	Work service	Number
		Principal	Helper	Light	Total		Freight	Passenger	Total			
1	Atchison, Topeka & Santa Fe	41,302	5,821	2,460	50,602	388,257	6,124,306	668,093	6,792,908	52,438,354	1,305,019	
2	Atlantic Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Chicago, Burlington & Quincy	22,070	1,820	793	25,683	1,008,367	2,458,909	668,073	10,130,582	50,359,659	1,592,852	
4	Chicago Great Western	7,042	219	386	7,647	235,001	1,307,287	81,788	1,419,075	8,814,603	229,837	
5	Mason City & Ft. Dodge	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Wisconsin, Minn. & Pacific	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	Chi., Milwaukee & St. Paul	36,774	895	1,306	38,983	1,055,172	10,649,677	606,960	11,256,627	66,120,700	2,211,033	
8	Chicago & North Western	28,300	.....	.....	28,300	1,442,081	9,497,234	861,229	10,338,463	62,162,994	1,671,340
9	Chi., St. P. Minn. & Omaha	4,257	4	68	4,329	386,000	1,944,253	166,900	2,111,153	11,722,459	293,914	
10	Iowa Southern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Chicago, Rock Island & Pacific	17,991	.....	.....	17,991	1,012,088	6,769,987	471,514	6,341,501	40,783,961	940,704
12	St. Paul & K. C. Short Line	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	Colfax Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	Colfax Consolidated Coal Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	Security Investment Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	Creston, Winterset & Des Moines	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	Davenport, R. I. & Northwestern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	Great Northern	35,225	669	2,875	28,809	1,179,809	4,330,026	212,967	4,543,693	31,331,188	1,568,349	
19	Illinois Central	19,656	.....	477	14,133	680,151	6,144,008	639,844	6,781,432	28,543,715	1,163,199
20	Dubuque & Sioux City	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21	Iowa & Omaha Short Line	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	Iowa & Southwestern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23	Keokuk & Des Moines	442	.....	.....	442	9,700	37,778	.....	37,778	519,697	3,416
24	Manchester & Oneida	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	Minneapolis & St. Louis	8,400	225	657	9,348	145,970	822,351	54,173	878,524	6,497,863	138,587	
26	Iowa Central & Western	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	Muscantine, Burlington & So.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
28	Muscantine North & South	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	Taber & Northern	11,794	711	2,491	15,006	229,825	2,702,641	300,678	3,003,119	27,308,607	700,291	
30	Union Pacific	8,206	131	16	8,443	603,097	3,424,500	189,825	3,611,215	20,853,333	395,176	
31	Wabash Railway	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total	229,865	10,503	13,498	250,866	8,967,465	62,378,450	4,819,044	67,197,509	399,354,869	13,277,425	

PART IV—LOCOMOTIVE TON MILES AND CAR MILES.

Number	Railway Companies	Locomotive Ton Miles					Car Miles				
		Freight train service	Mixed train service	Passenger train service	Special train services	Total trans- portation service	Freight Train				Total
							Loaded	Empty	Sum of loaded and empty	Carboose	
1	A., T. & S. F.	2,512,464,514	201,327,546	2,270,416,140	5,174,104	4,889,282,304	404,308,673	176,340,854	670,549,527	19,214,781	589,764,308
2	A. N.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	C. B. & Q.	3,041,175,321	34,306,388	1,687,271,789	2,513,006	4,765,236,565	629,062,911	212,131,101	842,175,115	28,548,321	769,723,399
4	C. G. W.	364,369,984	5,412,484	369,925,563	764,510	674,413,521	85,191,801	22,671,229	107,768,111	3,914,368	210,677,504
5	M. C. & F. D.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	W. M. & P.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	C. M. & St. P.	2,300,737,285	33,600,071	1,504,650,563	4,392,094	3,984,247,213	584,537,035	221,998,107	806,535,222	23,880,909	829,499,132
8	C. & N. W.	1,838,842,650	129,647,619	1,516,033,150	2,308,380	2,778,511,739	418,984,006	172,601,169	591,625,716	17,680,812	609,306,027
9	C. S. P. M. & O.	900,029,030	29,184,243	303,547,261	345,214	973,106,494	84,219,013	31,178,237	115,397,250	4,021,384	159,418,734
10	I. S.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	C. R. I. & P.	1,788,073,907	30,411,064	1,534,480,469	10,988,241	3,375,903,621	340,178,581	122,712,128	471,890,709	16,025,630	487,916,349
12	S. P. & K. C. S. L.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	C. N.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	C. C. C. C.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	S. I. C.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	C. W. & D. M.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	D., R. I. & N. W.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	G. N.	1,497,015,851	63,230,087	1,006,834,861	2,883,147	2,650,902,949	349,045,976	134,856,919	483,902,895	11,631,611	495,534,506
19	I. C.	2,117,495,167	14,356,376	1,298,067,747	1,665,534	3,431,534,843	431,132,177	183,068,817	614,300,994	16,505,808	590,706,800
20	D. & S. C.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21	St. O. S. L.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	M. & S. W.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23	K. & D. M.	9,110,519	.....	19,310,840	126,970	22,554,025	1,314,022	426,254	1,740,276	149,084	1,889,360
24	M. & O.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	M. & S. L.	247,461,051	7,975,589	89,545,602	370,043	344,332,278	52,021,649	18,400,337	70,514,977	2,598,464	73,163,441
26	e I. C. & W.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	c M., B. & S.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
28	d M. N. & S.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	T. & N.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	U. P.	1,286,733,642	80,232,964	1,173,747,402	1,512,474	3,042,287,501	319,103,750	104,348,392	423,452,177	11,277,405	434,729,622
31	W. R.	892,430,988	5,523,947	639,643,822	889,337	1,538,488,101	223,920,299	74,881,471	298,801,770	8,532,395	307,334,162
	Total	18,676,480,004	672,375,939	13,781,071,261	40,792,966	33,170,039,191	3,922,244,347	1,479,791,865	5,399,035,912	132,685,423	5,531,121,336

TABLE 10—STATISTICS OF RAIL LINE OPERATIONS—ENTIRE LINE
PART V—CAR MILES—Continued.

Number	Railway Companies	Passenger Train					Mixed Train						Number
		Passenger	Sleeping, parlor, and observation	Dining	Other	Total	Freight—loaded	Freight—empty	Caboose	Passenger	Sleeping, parlor, and observation	Dining	
1	Aitchison, Topeka & Santa Fe.	41,306,737	46,487,326	3,545,467	46,017,330	136,416,919	15,730,436	6,042,556	227,286	3,773,776	430,953	710	1
2	Atlantic Northern	—	—	—	—	—	—	—	—	—	—	—	2
3	Chicago, Burlington & Quincy	45,919,378	28,220,580	4,938,023	38,263,438	117,901,319	9,135,901	1,082,200	34,810	1,184,995	73,042	33	3
4	Chicago Great Western	7,160,534	5,330,074	345,513	4,880,092	*17,024,923	357,856	83,043	8,482	148,230	46,123	4	4
5	Mason City & Ft. Dodge	—	—	—	—	—	—	—	—	—	—	—	5
6	Wisconsin, Minn. & Pacific	—	—	—	—	—	—	—	—	—	—	—	6
7	Chl., Milwaukee & St. Paul	26,146,841	29,419,132	3,430,787	37,285,610	116,262,394	7,566,736	3,425,983	134,885	2,644,705	21,430	42	7
8	Chicago & North Western	54,027,309	21,584,064	3,037,056	29,870,714	118,319,082	13,003,404	5,706,204	565,815	2,201,008	—	—	8
9	Chl., St. P., Minn. & Omaha	9,033,456	6,046,988	598,496	7,562,912	32,740,002	1,270,870	679,210	—	1,030,368	—	—	9
10	Iowa Southern	—	—	—	—	—	—	—	—	—	—	—	10
11	Chicago, Rock Island & Pacific	37,975,404	24,154,567	4,110,181	28,315,846	92,555,907	2,925,167	866,827	104,800	2,239,282	433,945	3,000	11
12	St. Paul & K. C. Short Line	—	—	—	—	—	—	—	—	—	—	—	12
13	Colfax Northern	29,165	—	—	—	29,165	19,054	19,034	—	2,636	—	—	13
14	Colfax Consolidated Coal Co.	—	—	—	—	—	—	—	—	—	—	—	14
15	Security Investment Co.	—	—	—	—	—	—	—	—	—	—	—	15
16	Creston, Winterset & D. M.	—	—	—	—	—	—	—	—	—	—	—	16
17	Davenport, R. I. & N.	—	—	—	—	—	—	—	—	—	—	—	17
18	Great Northern	25,236,394	17,940,774	4,848,091	27,462,705	75,508,054	4,902,238	1,771,043	50,612	1,249,806	15,201	—	18
19	Illinois Central	25,025,265	16,725,008	2,005,739	20,215,850	80,960,531	381,290	144,692	—	466,617	218	—	19
20	Dubuque & Sioux City	—	—	—	—	—	—	—	—	—	—	—	20
21	a Iowa & Omaha Short Line	—	—	—	—	—	—	—	—	—	—	—	21
22	b Iowa & Southwestern	—	—	—	—	—	—	—	—	—	—	—	22
23	Koosauk & Des Moines	644,614	1,812	—	200,881	907,307	—	—	—	—	—	—	23
24	Manchester & Onida	—	—	—	—	—	12,256	7,908	—	27,000	—	—	24
25	Minneapolis & St. Louis	4,860,268	990,615	1,184	3,010,781	8,903,648	1,042,891	424,221	25,906	377,023	21,135	—	25
26	c Iowa Central & Western	—	—	—	—	—	—	—	—	—	—	—	26
27	e Muscatine, Burlington & So.	146,392	—	—	—	146,392	—	—	—	—	—	—	27
28	d Muscatine North & South	—	—	—	—	—	—	—	—	—	—	—	28
29	Tabor & Northern	—	—	—	—	—	—	—	—	—	—	—	29
30	Union Pacific	21,177,714	21,267,105	5,154,771	25,609,653	73,865,783	10,323,437	4,009,022	19,074	29,654	2,686	—	30
31	Wabash Railway	16,919,368	9,965,222	1,677,400	10,282,199	38,844,420	242,150	125,138	—	154,507	—	—	31
	Total	338,927,490	228,633,106	33,801,838	292,034,530	885,396,943	60,894,767	24,278,967	800,777	15,765,229	1,046,723	3,782	

*Includes 42,662 motor car miles.

PART VI—CAR MILES—Continued.

Number	Railway Companies	Mixed Train		Special Train							Total transportation service	Work service	Number	
		Other passenger train	Total	Freight—loaded	Freight—empty	Caboose	Passenger	Sleeping, parlor and observation	Dining	Other passenger train				Total
1	Aitchison, Topeka & Santa Fe.	1,246,167	27,441,873	228,064	8,015	30,098	106,761	104,159	1,230	29,667	601,000	854,224,100	10,201,466	1
2	Atlantic Northern	—	—	—	—	—	—	—	—	—	—	—	—	2
3	Chicago, Burlington & Quincy	396,904	6,767,617	284,203	46,808	21,688	90,264	152	50	1,117	453,541	884,933,813	3,568,785	3
4	Chicago Great Western	18,558	664,369	66,001	—	6,515	24,743	—	—	1,462	98,811	*129,066,667	1,361,298	4
5	Mason City & Ft. Dodge	—	—	—	—	—	—	—	—	—	—	—	—	5
6	Wisconsin, Minn. & Pacific	—	—	—	—	—	—	—	—	—	—	—	—	6
7	Chl., Milwaukee & St. Paul	769,304	14,359,585	272,943	3,819	13,729	6,886	112,706	19,765	30,807	460,714	954,692,811	38,538,302	7
8	Chicago & North Western	111,364	21,407,798	405,739	17,009	28,566	140,229	—	—	—	591,633	749,324,541	8,479,273	8
9	Chl., St. P., Minn. & Omaha	329,966	3,161,473	63,004	—	3,387	—	—	—	—	60,301	146,387,550	1,764,427	9
10	Iowa Southern	—	—	—	—	—	—	—	—	—	—	—	—	10
11	Chicago, Rock Island & Pacific	207,685	5,761,168	227,065	3,318	16,681	3,116	76,130	1,288	3,204	331,427	566,564,922	2,064,772	11
12	St. Paul & K. C. Short Line	—	—	—	—	—	—	—	—	—	—	—	—	12
13	Colfax Northern	—	24,224	—	—	—	—	—	—	—	—	—	—	13
14	Colfax Consolidated Coal Co.	—	—	—	—	—	—	—	—	—	—	—	—	14
15	Security Investment Co.	—	—	—	—	—	—	—	—	—	—	65,020	708	15
16	Creston, Winterset & Des Moines	—	—	—	—	—	—	—	—	—	—	—	—	16
17	Davenport, R. I. & N. W.	—	—	—	—	—	—	—	—	—	—	—	—	17
18	Great Northern	204,271	8,193,071	236,404	28	16,087	77,365	814	—	461	331,219	879,566,850	15,225,969	18
19	Illinois Central	264,663	1,266,870	183,188	730	11,222	8,204	240	—	889	204,490	712,328,751	6,202,119	19
20	Dubuque & Sioux City	—	—	—	—	—	—	—	—	—	—	—	—	20
21	a Iowa & Omaha Short Line	—	—	—	—	—	—	—	—	—	—	—	—	21
22	b Iowa & Southwestern	—	—	—	—	—	—	—	—	—	—	—	—	22
23	Koosauk & Des Moines	—	—	3,433	—	297	158	2,149	—	—	6,967	2,902,614	2,813	23
24	Manchester & Onida	—	41,064	—	—	—	—	—	—	—	—	41,064	—	24
25	Minneapolis & St. Louis	14,662	1,905,467	6,201	—	830	24,297	940	—	—	22,329	84,000,104	469,230	25
26	c Iowa Central & Western	—	—	—	—	—	—	—	—	—	—	—	—	26
27	e Muscatine, Burlington & So.	—	—	—	—	—	—	—	—	—	—	—	—	27
28	d Muscatine North & South	—	—	—	—	—	—	—	—	—	—	—	—	28
29	Tabor & Northern	—	—	—	—	—	—	—	—	—	—	—	—	29
30	Union Pacific	263,844	15,759,790	105,015	—	11,824	61,848	—	—	—	228,687	524,684,842	8,990,693	30
31	Wabash Railway	27,823	546,717	125,255	259	8,361	—	—	—	—	132,875	346,822,174	1,361,628	31
	Total	3,760,500	109,485,755	2,267,585	80,142	165,286	549,809	297,356	22,246	57,547	3,540,163	6,556,524,176	96,207,900	

*Includes 42,662 motor car miles.

TABLE 10—STATISTICS OF RAIL LINE OPERATIONS—ENTIRE LINE
PART VII—FREIGHT AND PASSENGER SERVICE.

Number	Railway Companies	Freight Service					Passenger Service		Number	
		Tons— revenue freight	Tons— nonrevenue freight	Tons— total	Ton-miles— revenue freight	Ton-miles— nonrevenue freight	Ton-miles— total	Passengers carried— revenue		Passenger- miles— revenue
1	Atchison, Topeka & Santa Fe	25,094,069	7,770,038	36,465,057	9,050,401,108	1,881,015,404	10,431,416,512	11,029,434	1,185,054,632	1
2	Atlantic Northern									2
3	Chicago, Burlington & Quincy	30,378,135	9,052,006	48,330,741	10,023,326,440	1,814,500,692	12,737,017,092	12,879,435	1,007,095,168	3
4	Chicago Great Western	6,335,328	1,610,328	7,045,656	1,756,300,425	148,007,890	1,904,958,234	2,774,801	107,681,941	4
5	Mason City & Fort Dodge									5
6	Wisconsin, Minn. & Pacific									6
7	Chicago, Milwaukee & St. Paul	29,980,190	6,783,206	46,770,092	10,747,323,415	1,489,988,100	12,337,311,524	15,900,371	921,003,832	7
8	Chicago & Northwestern	55,407,910	7,040,417	63,448,327	8,130,933,190	1,057,074,833	9,788,327,543	33,375,150	1,518,024,050	8
9	Chicago, St. P., Minn. & Omaha	50,600,463	1,563,924	12,303,387	1,714,380,767	102,909,647	1,876,849,814	5,249,303	253,021,430	9
10	Iowa Southern									10
11	Chicago, Rock Island & Pacific	25,348,449	5,938,341	31,306,690	6,190,383,041	988,105,324	7,178,488,225	19,177,101	941,309,463	11
12	St. Paul & K. C. Short Line									12
13	Colfax Northern	226,736		226,736	1,146,232		1,146,232	127,690	608,770	13
14	Colfax Consolidated Coal Co.									14
15	Security Investment Co.									15
16	Creston, Winterset & Des Moines									16
17	Davenport, R. L. & Northwestern									17
18	Great Northern	30,380,386	5,042,980	35,432,372	8,018,310,184	1,274,569,810	9,292,779,994	8,168,987	608,621,022	18
19	Illinois Central	37,046,832	6,388,537	49,876,369	9,159,870,700	1,337,713,370	10,304,284,130	25,004,946	730,061,010	19
20	Dubuque & Sioux City									20
21	a Iowa & Omaha Short Line									21
22	b Iowa & Southwestern									22
23	Kookuk & Des Moines	305,130	37,037	332,057	17,806,100	1,309,636	19,205,745	429,725	14,008,009	23
24	Manchester & Oelma	27,770		27,770	222,308		222,308	30,055	340,440	24
25	Minneapolis & St. Louis	6,502,405	681,507	7,388,912	1,000,812,022	171,098,040	1,222,811,502	2,457,800	92,842,539	25
26	c Iowa Central & Western									26
27	d Muscatine, Burlington & So.	197,879		197,879	5,777,194		5,777,194	76,840	1,686,000	27
28	e Muscatine North & South									28
29	Tabor & Northern	21,419		21,419	230,254		230,254	11,106	130,035	29
30	Union Pacific	14,310,307	5,410,602	19,750,909	6,122,843,805	1,288,007,606	7,471,431,411	4,794,149	534,737,305	30
31	Wabash Railway	17,239,884	3,195,084	20,432,868	4,440,861,488	301,219,122	4,730,080,610	5,922,117	364,774,714	31
	Total	313,095,181	61,170,978	374,372,154	77,337,869,462	11,907,946,632	89,325,846,094	109,985,077	8,672,928,919	

PART VIII—REVENUES AND EXPENSES.

Number	Railway Companies	Freight revenue	Passenger revenue	Passenger revenue— freight trains	Operating revenue	Operating expenses	Net operating revenue	Number
1	Atchison, Topeka & Santa Fe	\$ 85,005,011.88	\$ 26,238,788.94	\$ 33,974,757.88	\$121,078,879.47	\$ 72,806,804.05	\$ 48,682,074.90	1
2	Atlantic Northern							2
3	Chicago, Burlington & Quincy	77,310,516.00	21,833,034.35	28,133,797.61	109,191,304.40	65,235,704.06	43,660,499.83	3
4	Chicago Great Western	11,303,803.30	3,463,071.91	4,382,450.50	16,131,601.53	11,249,005.53	4,882,039.38	4
5	Mason City & Fort Dodge							5
6	Wisconsin, Minn. & Pacific							6
7	Chicago, Milwaukee & St. Paul	79,648,912.84	19,750,855.32	27,137,688.46	110,609,688.56	73,705,051.05	36,844,667.81	7
8	Chicago & Northwestern	65,320,164.97	22,329,529.32	25,077,823.23	97,978,843.70	65,710,827.01	32,836,016.90	8
9	Chicago, St. P., Minn. & Omaha	13,837,803.31	5,414,961.90	6,407,379.56	20,855,286.41	13,606,879.43	7,346,040.90	9
10	Iowa Southern							10
11	Chicago, Rock Island & Pacific	68,065,179.90	18,068,298.18	22,960,208.59	77,482,910.69	62,796,820.87	24,690,689.29	11
12	St. Paul & K. C. Short Line							12
13	Colfax Northern	19,591.94	6,043.93	6,051.13	25,051.87	28,173.63	*121.76	13
14	Colfax Consolidated Coal Co.							14
15	Security Investment Co.							15
16	Creston, Winterset & Des Moines	4,506.91			4,506.91	10,323.10	*5,786.19	16
17	Davenport, R. L. & Northwestern			5,879.71	115,244.81	120,437.35	*15,192.44	17
18	Great Northern	61,053,293.39	14,361,519.25	19,781,114.68	89,192,016.73	48,515,290.79	24,639,735.94	18
19	Illinois Central	68,325,517.13	14,435,403.96	18,270,019.02	73,740,296.32	52,843,149.47	20,897,146.85	19
20	Dubuque & Sioux City							20
21	a Iowa & Omaha Short Line							21
22	b Iowa & Southwestern							22
23	Kookuk & Des Moines	330,655.15	278,038.20	326,978.18	671,023.87	467,017.21	203,406.66	23
24	Manchester & Oelma	13,453.58	7,782.46	9,510.86	22,377.32	19,926.13	3,451.14	24
25	Minneapolis & St. Louis	8,577,174.04	1,960,320.70	2,410,243.20	10,966,225.69	7,238,348.54	3,706,874.15	25
26	c Iowa Central & Western							26
27	d Muscatine, Burlington & So.	48,982.23	15,999.47	66,841.40	73,276.81	54,000.79	19,177.05	27
28	e Muscatine North & South	68,423.01	25,309.53	96,591.63	92,310.31	62,943.23	29,302.08	28
29	Tabor & Northern	17,131.35	3,037.50	6,064.01	27,221.58	23,223.37	4,008.21	29
30	Union Pacific	51,277,211.77	19,808,031.99	15,377,800.55	66,600,373.89	37,362,007.72	31,304,206.17	30
31	Wabash Railway	27,009,740.86	7,024,223.32	9,060,353.21	37,721,104.49	24,874,417.07	12,846,687.43	31
	Total	\$ 987,845,964.72	\$107,152,068.44	\$217,130,745.00	\$829,138,688.15	\$526,353,710.49	\$302,784,977.66	

*Debit.

TABLE 10—STATISTICS OF RAIL LINE OPERATIONS—ENTIRE LINE
PART IX—AVERAGES PER MILE OF ROAD.

Number	Railway Companies	Freight train miles		Passenger train miles		Mixed train miles		Special train miles		Transportation service train miles		Work train miles		Locomotive miles, trans- portation		Freight service car miles		Passenger serv- ices car miles		Freight revenue		Passenger serv- ices train revenue		Operating revenues		Operating expenses		Net operating revenue		Number
		Freight train miles	Passenger train miles	Mixed train miles	Special train miles	Transportation service train miles	Work train miles	Locomotive miles, trans- portation	Freight service car miles	Passenger serv- ices car miles	Freight revenue	Passenger serv- ices train revenue	Operating revenues	Operating expenses	Net operating revenue															
1	Atchison, Topeka & Santa Fe	2,134	2,308	306	5	4,758	142	6,071	82,455	16,454	89,912.00	\$8,983.89	\$14,077.44	\$ 8,440.63	\$ 5,636.81	1														
2	Atlantic Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
3	Chicago, Burlington & Quincy	1,954	1,917	74	2	3,947	92	5,874	81,070	12,038	93,108.00	\$3,002.41	\$11,632.70	\$ 6,961.00	\$ 4,671.70	3														
4	Chicago Great Western	1,844	2,144	65	5	4,058	131	5,579	74,620	11,989	86,609.00	\$7,568.45	\$2,940.81	\$10,825.04	\$ 7,349.00	\$ 3,276.04	4													
5	Mason City & Fort Dodge	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
6	Wisconsin, Minn. & Pacific	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
7	Chicago, Milwaukee & St. Paul	2,213	1,765	173	4	4,134	315	5,700	82,483	11,169	93,652.00	\$2,603.50	\$10,848.08	\$ 7,284.58	\$ 3,613.50	7														
8	Chicago & Northwestern	2,138	2,471	229	4	4,842	146	6,434	77,388	14,944	92,332.00	\$3,537.06	\$12,084.40	\$ 8,031.86	\$ 4,052.54	8														
9	Chicago, St. P., Minn. & Omaha	2,331	2,304	306	2	4,792	130	6,639	69,223	14,268	83,491.00	\$3,684.01	\$11,808.20	\$ 7,704.04	\$ 4,134.16	9														
10	Iowa Southern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
11	Chicago, Rock Island & Pacific	2,104	2,181	92	2	4,329	124	5,338	64,608	13,416	78,024.00	\$3,015.22	\$10,178.43	\$ 6,985.58	\$ 3,242.85	11														
12	St. Paul & K. C. Short Line	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12
13	Colfax Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13
14	Colfax Consolidated Coal Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14
15	Security Investment Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15
16	Creston, Winterset & Des Moines	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16
17	Davenport, R. I. & Northwestern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17
18	Great Northern	1,308	1,437	101	3	2,889	295	3,894	62,063	9,517	71,580.00	\$2,443.10	\$10,200.84	\$ 5,091.96	\$ 4,377.88	18														
19	Illinois Central	3,433	2,864	54	3	6,369	146	8,089	132,464	17,077	149,541.00	\$3,834.03	\$15,469.50	\$11,095.69	\$ 4,383.90	19														
20	Dubuque & Sioux City	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20
21	a Iowa & Omaha Short Line	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21
22	b Iowa & Southwestern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22
23	Keokuk & Des Moines	915	1,332	.....	3	2,750	30	3,072	11,190	5,376	16,566.00	\$1,902.71	\$3,006.33	\$ 2,764.02	\$ 1,302.31	23													
24	Manchester & Oneida	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24
25	Minneapolis & St. Louis	1,607	1,306	141	5	3,049	84	3,946	45,339	5,728	51,067.00	\$1,467.29	\$ 6,076.92	\$ 4,426.90	\$ 2,351.02	25														
26	e Iowa Central & Western	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	26
27	c Muscatine, Burlington & So.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27
28	d Muscatine North & South	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	28
29	Tabor & Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29
30	Union Pacific	3,130	2,705	279	3	6,207	191	7,512	134,053	20,777	154,830.00	\$4,245.58	\$18,967.77	\$10,315.10	\$ 8,642.67	30														
31	Wabash Railway	3,329	2,992	88	3	6,403	96	8,278	123,210	15,493	138,703.00	\$3,562.83	\$14,974.28	\$ 9,874.48	\$ 5,099.80	31														
	Total	2,198	2,126	157	3	4,485	165	5,861	82,763	13,456	96,219.00	\$3,136.88	\$12,167.90	\$ 7,724.48	\$ 4,443.51															

*Debit.

PART X—AVERAGES PER MILE OF ROAD AND PER TRAIN MILE.

Number	Railway Companies	Average per Mile of Road			Averages Per Train Mile										Number
		Continued													
		Ton miles— revenue freight	Ton miles— all freight	Passenger miles— revenue	Loaded freight car miles— freight trains	Loaded freight car miles— mixed trains	Empty freight car miles— freight trains	Empty freight car miles— mixed trains	Ton-miles— revenue freight	Ton miles— all freight	Passenger train car miles— passenger trains	Passenger train car miles— mixed trains	Revenue pass- enger, miles		
1	Atchison, Topeka & Santa Fe	1,047,934	1,207,840	137,216	26.81	6.96	9.57	2.29	439.46	494.02	6.84	2.06	22.50	1	
2	Atlantic Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
3	Chicago, Burlington & Quincy	1,105,728	1,359,380	117,081	28.29	4.40	11.64	1.48	374.68	470.16	5.53	2.23	28.78	3	
4	Chicago Great Western	1,191,750	1,251,463	112,464	30.99	3.71	8.21	.89	903.24	656.47	5.32	2.23	50.90	4	
5	Mason City & Fort Dodge	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
6	Wisconsin, Minn. & Pacific	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
7	Chicago, Milwaukee & St. Paul	1,954,047	1,300,178	90,425	25.91	4.30	9.84	1.95	441.96	563.23	6.20	1.96	47.16	7	
8	Chicago & Northwestern	1,002,853	1,207,293	142,902	24.17	7.01	9.96	3.08	423.76	510.14	5.91	1.35	22.92	8	
9	Chicago, St. P., Minn. & Omaha	978,018	1,070,700	144,637	21.06	2.37	7.80	1.08	378.19	414.05	6.14	2.45	37.04	9	
10	Iowa Southern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
11	Chicago, Rock Island & Pacific	813,191	942,992	123,654	21.80	4.19	7.66	1.23	370.30	439.41	6.71	2.08	55.64	11	
12	St. Paul & K. C. Short Line	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12
13	Colfax Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13
14	Colfax Consolidated Coal Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14
15	Security Investment Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15
16	Creston, Winterset & Des Moines	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16
17	Davenport, R. I. & Northwestern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17
18	Great Northern	860,394	1,147,721	75,109	30.84	6.02	11.91	3.17	660.84	765.89	6.27	1.80	47.34	18	
19	Illinois Central	1,930,972	2,180,626	169,156	29.31	1.47	11.17	.66	650.08	634.43	5.91	2.81	62.47	19	
20	Dubuque & Sioux City	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20
21	a Iowa & Omaha Short Line	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21
22	b Iowa & Southwestern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22
23	Keokuk & Des Moines	105,781	114,053	83,095	8.49	.....	2.76	.....	115.56	124.00	2.93	.....	45.35	23
24	Manchester & Oneida	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24
25	Minneapolis & St. Louis	644,186	748,633	56,379	19.05	4.50	9.99	1.83	368.48	428.18	4.22	1.76	30.25	25	
26	e Iowa Central & Western	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	26
27	c Muscatine, Burlington & So.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27
28	d Muscatine North & South	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	28
29	Tabor & Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29
30	Union Pacific	1,706,962	2,002,707	147,633	28.15	10.23	9.29	4.03	500.74	605.10	7.30	1.32	48.60	30	
31	Wabash Railway	1,702,904	1,902,320	144,906	26.38	2.52	8.82	1.31	517.33	538.37	5.15	1.90	47.78	31	
	Total	1,135,263	1,310,898	118,474	26.19	6.07	9.86	2.26	481.96	556.61	6.18	1.97	51.88		

TABLE 10—STATISTICS OF RAIL LINE OPERATIONS—ENTIRE LINE
PART XI—AVERAGES PER TRAIN MILE—Continued—AND PER LOCOMOTIVE MILE.

Number	Railway Companies	Averages Per Train Mile—Continued					Averages Per Locomotive—Mile							Number	
		Freight revenue	Passenger service train revenue	Operating revenues	Operating expenses	Net operating revenues	Train-miles—freight trains	Car-miles—freight trains	Train-miles—passenger	Car-miles—passenger	Train-miles—mixed trains	Car-miles—mixed trains	Train-miles—special trains		Car-miles—special trains
1	Atchison, Topeka & Santa Fe	\$ 4.06	\$ 1.51	\$ 2.96	\$ 1.77	\$ 1.19	.88	33.05	.92	6.32	.96	9.91	.82	11.86	1
2	Atlantic Northern	4.07	1.51	2.95	1.76	1.19	.91	37.28	.98	6.33	.99	8.12	.84	17.06	2
3	Chicago, Burlington & Quincy	3.96	1.33	2.67	1.80	.81	.83	83.22	.98	5.47	.98	6.72	.92	22.92	3
4	Chicago Great Western														4
5	Mason City & Fort Dodge														5
6	Wisconsin, Minn. & Pacific														6
7	Chicago, Milwaukee & St. Paul	3.23	1.39	2.22	1.75	.87	.86	32.81	.98	6.06	.97	8.03	.94	11.68	7
8	Chicago & Northwestern	3.41	1.31	2.50	1.66	.84	.95	33.54	.90	5.84	1.00	11.48	1.00	20.84	8
9	Chicago, St. P., Minn. & Omaha	3.05	1.47	2.48	1.62	.86	.85	25.30	.92	6.00	.95	5.63	.78	15.34	9
10	Iowa Southern														10
11	Chicago, Rock Island & Pacific	3.15	1.36	2.35	1.00	.75	.97	29.50	1.00	5.63	.98	8.07	1.00	18.42	11
12	St. Paul & K. C. Short Line														12
13	Colfax Northern														13
14	Colfax Consolidated Coal Co.														14
15	Security Investment Co.														15
16	Creston, Winterset & Des Moines														16
17	Davenport, R. I. & Northwestern														17
18	Great Northern	5.68	1.64	3.44	2.01	1.43	.92	40.09	.96	6.00	.99	9.94	.88	11.47	18
19	Illinois Central	3.20	1.31	2.43	1.74	.69	.98	37.57	.97	5.73	.99	4.77	.97	14.47	19
20	Dubuque & Sioux City														20
21	a Iowa & Omaha Short Line														21
22	b Iowa & Southwestern														22
23	Keokuk & Des Moines	2.14	2.05	1.44	1.09	.44	.97	11.85	.90	2.97			1.00	13.68	23
24	Manchester & Oneida														24
25	Minneapolis & St. Louis	2.91	1.02	2.19	1.45	.74	.87	23.91	.98	4.14	1.00	8.19	.91	3.46	25
26	c Iowa Central & Western														26
27	d Muscatine, Burlington & So														27
28	e Muscatine North & South														28
29	Tabor & Northern	4.15	1.38	3.05	1.06	1.39	.89	34.04	.94	7.14	.94	14.74	.74	14.02	29
30	Union Pacific	3.32	1.19	2.34	1.54	.80	.96	34.89	.98	5.04	.98	5.61	.98	15.88	30
31	Wabash Railway														31
	Total	\$ 3.66	\$ 1.40	\$ 2.71	\$ 1.72	\$.99	.92	34.08	.97	6.01	.97	9.67	.90	14.11	

PART XII—AVERAGES PER LOADED FREIGHT CAR MILE, PER CAR MILE AND MISCELLANEOUS AVERAGES.

Number	Railway Companies	Average Per L'd Freight Car—Mile			Averages Per Car—Mile			Miscellaneous Averages							Number	
		Ton-miles—revenue freight	Ton-miles—all freight	Freight revenue	Passenger—miles revenue	Passenger revenue	Miles Hauled			Revenue Per				Operating ratio		
							Revenue freight	Non-revenue freight	All freight	Miles carried, revenue passengers	Ton of freight	Ton-mile of freight	Passenger			Passenger mile
1	Atchison, Topeka & Santa Fe	17.75	20.46	\$.16788	12.87	\$.28602	315.40	177.74	286.07	101.90	32.98327	\$.00946	\$ 2.95997	\$.02210	69.96	1
2	Atlantic Northern	30.53	23.94	.14257	14.55	.28968	278.10	200.45	263.55	47.95	1.96828	.00708	.05429	.01990	50.74	2
3	Chicago, Burlington & Quincy	20.96	21.80	.13160	13.30	.27732	270.92	92.28	234.71	60.30	1.77704	.00656	1.23685	.02084	69.74	3
4	Chicago Great Western															4
5	Mason City & Fort Dodge															5
6	Wisconsin, Minn. & Pacific															6
7	Chicago, Milwaukee & St. Paul	18.15	20.67	.13452	13.13	.28181	268.78	219.64	261.65	57.74	1.99190	.00741	1.22717	.02143	66.69	7
8	Chicago & Northwestern	18.82	22.66	.15130	14.85	.29927	144.15	235.44	154.23	34.82	1.15906	.00904	.67100	.01927	66.46	8
9	Chicago, St. P., Minn. & Omaha	30.95	21.95	.16180	15.25	.29901	160.22	163.95	153.04	48.30	2.29227	.00907	1.03156	.02129	65.25	9
10	Iowa Southern															10
11	Chicago, Rock Island & Pacific	17.58	20.39	.14957	14.76	.29773	244.21	165.84	229.30	49.09	2.07765	.00851	.90041	.02018	68.14	11
12	St. Paul & K. C. Short Line															12
13	Colfax Northern															13
14	Colfax Consolidated Coal Co.															14
15	Security Investment Co.															15
16	Creston, Winterset & Des Moines															16
17	Davenport, R. I. & Northwestern															17
18	Great Northern	22.66	26.25	.17249	13.69	.32303	263.85	232.74	262.27	74.50	2.00663	.00761	1.76896	.02300	58.35	18
19	Illinois Central	21.22	24.69	.12338	13.82	.27331	247.17	181.25	236.91	39.07	1.43941	.00638	.51546	.01977	71.96	19
20	Dubuque & Sioux City															20
21	a Iowa & Omaha Short Line															21
22	b Iowa & Southwestern															22
23	Keokuk & Des Moines	13.62	14.69	.25164	21.75	.43138	50.39	36.89	49.09	32.71	.93112	.01848	.64911	.01984	69.60	23
24	Manchester & Oneida															24
25	Minneapolis & St. Louis	19.69	23.23	.19787	14.55	.31042	163.14	195.12	169.96	37.77	1.28832	.00790	.80372	.02133	66.29	25
26	c Iowa Central & Western															26
27	d Muscatine, Burlington & So															27
28	e Muscatine North & South															28
29	Tabor & Northern	18.77	22.68	.15566	12.12	.24707	431.15	238.16	378.28	111.54	3.57974	.00829	2.27310	.02688	54.41	29
30	Union Pacific	19.81	21.38	.12317	13.49	.25978	297.64	169.89	234.53	61.49	1.60178	.00622	1.18410	.01929	65.94	30
31	Wabash Railway															31
	Total	19.42	22.43	\$.14758	13.81	\$.28604	247.07	195.03	238.67	50.15	1.57753	\$.00760	\$ 1.03881	\$.02071	63.48	

TABLE 10A—STATISTICS OF RAIL LINE OPERATIONS—IOWA
PART I—AVERAGE MILEAGE OPERATED AND TRAIN MILES.

Number	Railway Companies	Average mileage of road operated	Train-Miles								Number
			Freight			Passenger	Mixed	Special	Total transportation service	Work service	
			Ordinary	Light	Total						
1	Atchison, Topeka & Santa Fe.....	19.80	107,804	136	107,940	118,476	10,414	40	231,870	18,484	1
2	Atlantic Northern.....										2
3	Chicago, Burlington & Quincy.....	1488.06	2,284,287	8,162	2,292,449	2,963,102	142,705	3,019	5,371,335	101,910	3
4	Chicago Great Western.....	770.41	1,479,456	4,823	1,484,281	1,671,705	55,231	4,829	3,216,106	107,169	4
5	Mason City & Fort Dodge.....										5
6	Wisconsin, Minn. & Pacific.....										6
7	Chicago, Milwaukee & St. Paul.....	1943.27	4,846,668	38,788	4,885,456	3,374,204	460,844	11,223	8,729,724	427,449	7
8	Chicago & Northwestern.....	1633.14	4,732,719	46,313	4,779,032	4,784,669	238,700	6,171	9,808,602	247,001	8
9	Chicago, St. P., Minn. & Omaha.....	162.04	247,710	2,472	250,182	289,167	13,782	355	553,486	6,199	9
10	Iowa Southern.....										10
11	Chicago, Rock Island & Pacific.....	2090.12	4,370,691	6,923	4,377,614	4,239,317	262,481	6,266	8,886,207	287,977	11
12	St. Paul & K. C. Short Line.....										12
13	Colfax Northern.....	10.00	7,274		7,274	6,651	3,639		17,561	708	13
14	Colfax Consolidated Coal Co.....										14
15	Security Investment Co.....										15
16	Creston, Winterset & Des Moines.....	30.35								9,100	16
17	Davenport, B. L. & Northwestern.....	35.29									17
18	Great Northern.....	77.89	116,197	352	116,449	106,538		18	222,906	26,081	18
19	Illinois Central.....	718.11	1,930,115	4,434	1,934,549	1,584,845		2,145	2,261,539	83,429	19
20	Dubuque & Sioux City.....										20
21	Iowa & Omaha Short Line.....										21
22	Iowa & Southwestern.....										22
23	Keokuk & Des Moines.....	109.18	154,864		154,864	310,012		442	465,318	3,416	23
24	Manchester & Oueda.....	8.15						21,600	21,600		24
25	Minneapolis & St. Louis.....	884.33	1,445,570	6,738	1,452,314	1,073,469	177,681	5,180	2,708,650	75,678	25
26	Iowa Central & Western.....										26
27	Muscatine, Burlington & So.....	64.97	34,320		34,320	73,196			107,716		27
28	Muscatine North & South.....										28
29	Tabor & Northern.....	10.75						13,029		13,029	29
30	Union Pacific.....	2,465	22,500	240	22,500	11,788		7	34,725	62,345	30
31	Wabash Railway.....	208.06	380,820	9,012	389,832	432,820		487	842,178	16,077	31
	Total.....	10,294.64	22,161,410	125,293	22,286,703	21,625,238	1,460,106	40,577	44,812,711	1,463,665	

PART II—LOCOMOTIVE MILES.

Number	Railway Companies	Freight				Passenger				Mixed Train				Number
		Principal	Helper	Light	Total	Principal	Helper	Light	Total	Principal	Helper	Light	Total	
1	Atchison, Topeka & Santa Fe.....	108,125	5,226	13,631	126,982	118,476	3,643	12,613	134,732	10,420	479	998	11,907	1
2	Atlantic Northern.....													2
3	Chicago, Burlington & Quincy.....	2,294,433	116,443	110,161	2,521,037	2,963,102	2,333	25,025	2,990,720	142,705	383	1,894	144,982	3
4	Chicago Great Western.....	1,485,400	203,808	91,836	1,781,153	1,642,928	8,167	21,554	1,672,649	55,231	212	1,149	56,592	4
5	Mason City & Fort Dodge.....													5
6	Wisconsin, Minn. & Pacific.....													6
7	Chicago, Milwaukee & St. Paul.....	4,882,456	76,923	200,924	5,259,303	3,349,036	30,798	29,722	3,399,566	460,844	2,676	2,510	466,030	7
8	Chicago & Northwestern.....	4,736,889	65,881	99,721	4,902,491	4,784,669	8,904	33,106	4,826,679	238,700	1,763	736	301,234	8
9	Chicago, St. P., Minn. & Omaha.....	299,121	1,456	8,915	375,592	294,903	11	6,331	301,145	14,497		1,261	15,728	9
10	Iowa Southern.....													10
11	Chicago, Rock Island & Pacific.....	4,377,614	113,567	36,746	4,527,927	4,239,317	17,860	12,941	4,255,038	262,481	708	7,973	271,162	11
12	St. Paul & K. C. Short Line.....													12
13	Colfax Northern.....	7,274			7,274	6,651			6,651	3,639			3,639	13
14	Colfax Consolidated Coal Co.....													14
15	Security Investment Co.....													15
16	Creston, Winterset & Des Moines.....													16
17	Davenport, B. L. & Northwestern.....													17
18	Great Northern.....	116,449		1,645	117,997	106,538	546	632	107,720					18
19	Illinois Central.....	1,934,549	4,841	8,214	1,947,604	1,584,845	3,936	41,154	1,629,935					19
20	Dubuque & Sioux City.....													20
21	Iowa & Omaha Short Line.....													21
22	Iowa & Southwestern.....													22
23	Keokuk & Des Moines.....	154,864	3,188	1,454	159,506	310,012	1,072	1,121	312,206					23
24	Manchester & Oueda.....									21,600			21,600	24
25	Minneapolis & St. Louis.....	1,452,314	163,876	110,708	1,722,877	1,073,469	2,910	11,139	1,087,118	177,681			177,681	25
26	Iowa Central & Western.....													26
27	Muscatine, Burlington & So.....	34,320			34,320	73,196			73,196					27
28	Muscatine North & South.....													28
29	Tabor & Northern.....									13,029			13,029	29
30	Union Pacific.....	22,500	5,167	12,064	40,161	11,788	62	19,627	31,477					30
31	Wabash Railway.....	389,832	1,322	610	391,764	432,820	2,299	10,678	465,516					31
	Total.....	22,313,778	761,827	797,561	23,873,166	20,942,287	72,310	225,673	21,240,270	1,460,914	6,221	16,829	1,463,665	

TABLE 10A—STATISTICS OF RAIL LINE OPERATIONS—IOWA
PART III—LOCOMOTIVE MILES—Continued.

Number	Railway Companies	Special				Train Switching	Yard Switching			Total transportation service	Work service	Number
		Principal	Helper	Light	Total		Freight	Passenger	Total			
1	Aitchison, Topeka & Santa Fe	40		3	43	18	217,058	4,672	121,730	390,461	19,997	1
2	Atlantic Northern											2
3	Chicago, Burlington & Quincy	3,619	593	382	3,714	205,049	963,205	92,126	1,053,331	6,880,833	164,211	3
4	Chicago Great Western	4,889	109	282	5,280	94,251	501,643	37,874	539,517	4,130,442	133,873	4
5	Mason City & Fort Dodge											5
6	Wisconsin, Minn. & Pacific											6
7	Chicago, Milwaukee & St. Paul	11,223		124	11,347	410,533	1,206,046	64,496	1,331,442	10,375,218	427,440	7
8	Chicago & Northwestern	6,171			6,171	113,709	1,185,427	127,258	1,312,685	11,513,130	305,776	8
9	Chicago, St. P., Minn. & Omaha	459		6	435	12,007	239,330	24,768	264,098	868,989	7,912	9
10	Iowa Southern											10
11	Chicago, Rock Island & Pacific	6,506			6,506	434,132	1,177,339	133,752	1,310,041	10,785,483	287,977	11
12	St. Paul & K. C. Short Line											12
13	Colfax Northern						4,908		4,908	22,329	708	13
14	Colfax Consolidated Coal Co. Security Investment Co.											14
15	Creston, Winterset & Des Moines											15
16	Davenport, R. I. & Northwestern						42,462		42,462	42,462	9,100	16
17	Great Northern	18			18	8,104	88,233	10,831	99,064	333,039	20,168	17
18	Illinois Central	2,145		76	2,221	125,209	439,959	25,007	465,066	4,170,556	83,906	18
19	Dubuque & Sioux City											19
20	a Iowa & Omaha Short Line											20
21	b Iowa & Southwestern											21
22	Keokuk & Des Moines	442			442	9,706	37,778		37,778	519,637	3,416	22
23	Manchester & Oelids						630		630	22,220		23
24	Minneapolis & St. Louis	5,136	225	380	5,701	33,508	313,079	31,752	345,331	3,387,300	70,078	24
25	c Iowa Central & Western											25
26	d Muscatine, Burlington & So.									107,716		26
27	d Muscatine North & South											27
28	Tabor & Northern											28
29	Union Pacific	7		9	16		269,379	41,304	310,773	382,427	22,728	29
30	Wabash Railway	487	65		502	30,004	72,307	2,100	74,507	963,063	16,230	30
	Total	40,641	912	1,002	42,615	1,482,400	6,730,279	685,700	7,305,979	53,428,075	1,683,040	31

PART IV—LOCOMOTIVE TON MILES AND CAR MILES.

Number	Railway Companies	Locomotive—Ton Miles					Car—Miles					Number
		Freight train service	Mixed train service	Passenger train service	Special train service	Total transportation service	Freight Train					
							Loaded	Empty	Sum of loaded and empty	Caboose	Total	
1	Aitchison, Topeka & Santa Fe	16,330,304	1,137,721	15,327,711	5,828	32,871,564	3,815,959	1,346,989	5,162,918	111,741	5,274,669	1
2	Atlantic Northern											2
3	Chicago, Burlington & Quincy						58,003,632	24,296,810	82,300,442	2,301,155	85,161,602	3
4	Chicago Great Western						41,630,300	11,528,849	53,159,019	1,901,055	54,730,704	4
5	Wisconsin, Minn. & Pacific											5
6	Mason City & Fort Dodge											6
7	Chicago, Milwaukee & St. Paul	537,165,591	21,541,322	295,421,331	525,516	846,603,800	114,043,927	49,205,704	163,309,631	5,065,706	168,375,337	7
8	Chicago & Northwestern	501,305,181	19,495,090	431,876,797	521,320	953,183,324	115,261,336	44,612,207	159,873,543	4,939,322	164,812,865	8
9	Chicago, St. P., M. & O.	33,359,076	600,301	20,787,087	36,914	63,374,178	4,330,046	1,338,791	6,168,837	250,630	6,419,466	9
10	Iowa Southern											10
11	Chicago, Rock Island & Pacific						88,451,879	32,812,091	121,264,540	4,416,904	125,681,434	11
12	St. Paul & K. C. Short Line											12
13	Colfax Northern						21,169	20,068	41,777	454	41,631	13
14	Colfax Consolidated Coal Co. Security Investment Co.											14
15	Creston, Winterset & Des Moines											15
16	Davenport, R. I. & N. W.											16
17	Great Northern						2,302,819	1,030,372	3,393,191	70,285	3,463,576	17
18	Illinois Central	225,482,359		157,689,893	248,888	383,421,110	37,231,513	16,960,595	54,242,108	1,907,341	56,170,449	18
19	Dubuque & Sioux City											19
20	a Iowa & Omaha Short Line											20
21	b Iowa & Southwestern											21
22	Keokuk & Des Moines	9,110,515		13,316,340	120,670	22,554,025	1,514,022	426,254	1,740,276	149,084	1,889,360	22
23	Manchester & Oelids											23
24	Minneapolis & St. Louis						26,076,000	10,208,025	36,814,025	1,453,345	38,267,370	24
25	c Iowa Central & Western											25
26	d Muscatine, Burlington & So.											26
27	d Muscatine North & South						533,506	103,301	456,807	34,520	491,417	27
28	Tabor & Northern											28
29	Union Pacific	4,160,201		3,321,242	1,512	7,482,955	492,684	148,482	641,166	18,484	659,650	29
30	Wabash Railway	31,067,159		25,409,572	43,272	56,612,003	4,808,798	1,851,606	6,750,404	330,451	7,141,055	30
	Total	1,330,514,386	42,800,344	940,451,332	1,511,926	2,305,398,059	409,428,056	196,449,759	605,877,855	22,701,566	718,579,421	31

TABLE 10A—STATISTICS OF RAIL LINE OPERATIONS—IOWA
PART V.—CAR MILES—Continued.

Number	Railway Companies	Passenger—Train				Mixed Train				Number			
		Passenger	Sheep, par- lor and ob- servation	Dining	Other	Total	Freight loaded	Freight empty	Caboose		Passenger	Sheep, par- lor and ob- servation	Dining	Other train
1	Atchison, Topeka & Santa Fe	326,089	351,380	33,565	402,343	945,296	62,678	6,749	937	11,323	1,000	9	17,313
2	Atlantic Northern	6,434,156	3,330,697	654,767	7,219,529	17,559,269	375,315	139,725	839	284,036	5,841	9	311,711
3	Chicago, Burlington & Quincy	4,690,228	5,028,496	112,134	2,068,719	9,086,606	83,369	19,716	4,373	86,504	14,126	4	6,016
4	Chicago & North Western	7,039,711	4,337,519	665,970	8,746,201	17,790,591	1,672,797	653,890	44,609	684,177	19,576	4	149,885
5	Chicago, Milwaukee & St. Paul	19,428,667	7,161,169	877,530	19,548,514	29,035,371	2,022,384	1,192,637	51,728	414,911	52,799	8	329,709
6	Chicago, St. P., Minn. & Omaha	712,811	403,900	107,384	618,457	1,895,518	95,895	9,000	.....	27,692	.....	.....	.....
7	Iowa Southern	9,129,667	6,415,365	891,286	7,166,842	22,674,592	739,778	274,922	13,729	443,260	23,664	470	79,196
8	Chicago, Rock Island & Pacific	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	St. Paul & K. C. Short Line	29,165	.....	.....	.....	29,165	10,354	10,034	.....	3,699	.....	.....	.....
10	Colfax Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Colfax Consolidated Coal Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Security Investment Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	Creston, Winterset & Des Moines	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	Davenport, B. I. & Northwestern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	Great Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	Iowa & Omaha Short Line	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	Illinois Central	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	Dubuque & Sioux City	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Iowa & Omaha Short Line	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	Keokuk & Southern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21	Keokuk & Des Moines	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	Keokuk & Des Moines	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23	Manchester & Onida	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24	Manassas & St. Louis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	e Iowa Central & Western	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	e Muscatine, Burlington & So.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	d Muscatine North & South	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
28	Tabor & Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	Union Pacific	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	Wabash Railway	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Total	46,645,958	29,139,897	3,111,968	38,864,784	114,854,895	5,912,342	2,392,992	139,569	2,327,646	57,185	470	279,287

PART VI.—CAR MILES—Continued.

Number	Railway Companies	Total mixed train				Special Train				Total	Total transporta- tion service	Work Service	Number
		Freight loaded	Freight— empty	Caboose	Passenger	Freight loaded	Freight— empty	Caboose	Passenger				
1	Atchison, Topeka & Santa Fe	99,019	790	40	103	6	2	82	6,239,696	178,282	1	3	
2	Atlantic Northern	810,578	38,829	2,980	13,516	.....	.....	54,925	103,607,570	478,191	.....	3
3	Chicago, Burlington & Quincy	236,748	43,566	4,470	17,777	.....	.....	60,002	91,724,657	812,969	.....	4
4	Chicago & North Western	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Chicago, Milwaukee & St. Paul	3,438,592	60,291	3,794	2,058	.....	.....	69,447	189,000,217	5,129,388	.....	6
6	Chicago, St. P., Minn. & Omaha	62,667	7,844	827	.....	.....	.....	8,391	8,353,725	91,331	.....	0
7	Chicago, Rock Island & Pacific	1,498,370	95,479	1,023	6,732	.....	.....	125,967	149,859,273	671,673	.....	7
8	St. Paul & Kansas City Short Line	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	Colfax Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	Colfax Consolidated Coal Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Security Investment Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Creston, Winterset & Des Moines	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	Davenport, B. I. & Northwestern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	Great Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	Iowa Southern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	Chicago, Rock Island & Pacific	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	St. Paul & K. C. Short Line	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	Colfax Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Colfax Consolidated Coal Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	Security Investment Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21	Creston, Winterset & Des Moines	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	Davenport, B. I. & Northwestern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23	Great Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24	Iowa & Omaha Short Line	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	Keokuk & Southern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	Keokuk & Des Moines	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	Keokuk & Des Moines	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
28	Manchester & Onida	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	Manassas & St. Louis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	e Iowa Central & Western	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	d Muscatine, Burlington & So.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
32	e Muscatine North & South	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
33	Tabor & Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
34	Union Pacific	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Wabash Railway	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	Total	11,572,797	381,921	6,000,507	81,191,638	2,466	5,306	554,667	815,307,000	10,249,136	.....	.....

TABLE 10A—STATISTICS OF RAIL LINE OPERATIONS—IOWA
PART VII—FREIGHT AND PASSENGER SERVICE.

Number	Railway Companies	Freight Service					Passenger Service		Number	
		Tons—revenue freight	Tons—non-revenue freight	Tons—total	Ton-miles revenue freight	Ton-miles non-revenue freight	Ton-miles total	Passenger—miles—revenue		Passenger—miles—non-revenue
1	Atchison, Topeka & Santa Fe	5,437,599	637,728	4,005,224	68,622,005	8,978,764	77,610,829	327,585	6,076,896	1
2	Atlantic Northern									2
3	Chicago, Burlington & Quincy	9,124,788	1,884,723	11,009,521	998,863,079	216,248,094	1,215,111,173	4,156,204	156,148,685	3
4	Chicago Great Western	5,052,385	1,358,424	6,311,419	575,965,385	91,482,087	667,447,472	1,031,107	94,315,611	4
5	Mason City & Fort Dodge									5
6	Wisconsin, Minn. & Pacific									6
7	Chicago, Milwaukee & St. Paul	10,869,061	909,933	11,768,994	1,921,683,534	198,317,419	2,119,970,662	5,684,622	746,833,330	7
8	Chicago & North Western	10,029,740	2,268,162	12,738,328	2,082,663,408	339,526,366	2,442,660,094	4,317,541	240,735,762	8
9	Chicago, St. P., Minn. & Omaha	1,338,268	329,010	1,667,308	79,132,592	9,315,056	88,495,048	669,965	21,339,545	9
10	Iowa Southern									10
11	Chicago, Rock Island & Pacific	10,542,871	*	10,542,871	1,513,018,386	*	1,513,018,386	5,095,284	237,071,855	11
12	St. Paul & K. C. Short Line									12
13	Colfax Northern	238,736		238,736	1,146,232		1,146,232	131,000	698,770	13
14	Colfax Consolidated Coal Co.									14
15	Security Investment Co.									15
16	Oreston, Winterset & Des Moines									16
17	Davenport, B. I. & Northwestern									17
18	Great Northern	645,235		645,235	43,900,306	6,322,819	50,273,217	91,935	3,549,230	18
19	Illinois Central	3,810,740	778,483	4,589,223	690,400,739	98,329,237	788,730,006	1,008,744	82,568,103	19
20	Dubuque & Sioux City									20
21	a Iowa & Omaha Short Line									21
22	b Iowa & Southwestern									22
23	Keokuk & Des Moines	355,120	37,597	392,717	17,805,109	1,399,638	19,204,747	429,725	14,038,019	23
24	Manchester & Oquida	37,776		37,776	232,308		232,308	30,650	210,440	24
25	Minneapolis & St. Louis	4,098,905	707,476	4,806,381	350,620,130	503,857,142	854,483,322	1,031,177	45,849,424	25
26	e Iowa Central & Western									26
27	c Muscatine, Burlington & So.	197,879		197,879	5,777,194		5,777,194	76,840	1,688,006	27
28	d Muscatine North & South									28
29	Tabor & Northern	21,419		21,419	230,254		230,254	51,368	130,035	29
30	Union Pacific	4,139,468		4,139,468	9,207,038		9,207,038	211,282	430,226	30
31	Wabash Railway	1,633,896	145,098	1,778,994	96,915,292	15,943,548	112,860,640	405,302	14,440,823	31
	Total	36,000,481	8,800,414	74,800,895	8,923,570,573	1,109,919,217	10,033,489,790	24,700,469	1,064,047,734	

*Figures not available.

PART VIII—REVENUES AND EXPENSES.

Number	Railway Companies	Freight revenue	Passenger revenue	Passenger service train revenue	Operating revenues	Operating expenses	Net operating revenue	Number
2	Atlantic Northern							2
3	Chicago, Burlington & Quincy	8,516,588.78	3,225,851.60	4,438,245.63	18,254,536.20	8,401,863.49	4,858,993.31	3
4	Chicago Great Western	6,789,844.86	1,520,983.39	2,346,143.00	8,309,690.66	6,082,072.54	2,227,124.52	4
5	Mason City & Fort Dodge							5
6	Wisconsin, Minn. & Pacific							6
7	Chicago, Milwaukee & St. Paul	14,072,032.90	3,040,054.07	4,030,074.67	18,470,900.98	13,318,134.47	5,152,126.46	7
8	Chicago & North Western	15,263,899.73	5,028,892.72	6,013,897.23	22,920,841.60	16,684,566.03	6,236,275.67	8
9	Chicago, St. P., Minn. & Omaha	748,613.43	454,290.59	548,208.74	1,323,994.56	896,851.72	427,082.84	9
10	Iowa Southern							10
11	Chicago, Rock Island & Pacific	13,311,302.94	4,869,211.48	5,889,240.58	18,559,388.09	13,512,799.30	5,046,614.30	11
12	St. Paul & K. C. Short Line							12
13	Colfax Northern	19,561.04	6,046.93	25,642.17	28,051.87	26,173.63	*121.76	13
14	Colfax Consolidated Coal Co.							14
15	Security Investment Co.							15
16	Oreston, Winterset & Des Moines	4,206.97		4,206.91	4,206.91	10,323.10	*5,729.59	16
17	Davenport, B. I. & Northwestern			4,233.41	38,688.89	67,279.87	*8,690.98	17
18	Great Northern	412,963.04	77,474.32	97,071.56	518,296.39	360,902.52	157,393.87	18
19	Illinois Central	4,829,016.04	1,704,470.34	2,128,280.16	6,670,357.92	6,530,399.40	1,139,699.52	19
20	Dubuque & Sioux City							20
21	a Iowa & Omaha Short Line	6,156.06		25	6,191.96	7,039.09	*807.13	21
22	b Iowa & Southwestern	418.27		6,156.21	418.27	617.02	*98.75	22
23	Keokuk & Des Moines	230,055.15		276,029.20	671,023.87	467,617.21	203,406.66	23
24	Manchester & Oquida	15,452.08		7,782.46	23,277.82	19,958.18	3,451.14	24
25	Minneapolis & St. Louis	4,037,217.39	900,144.99	1,139,973.18	5,247,033.57	3,604,495.26	1,606,198.21	25
26	e Iowa Central & Western							26
27	c Muscatine, Burlington & So.	48,822.23	15,009.47	69,341.40	73,276.81	54,699.79	19,177.62	27
28	d Muscatine North & South	56,422.01	25,389.55	86,591.65	92,306.37	62,943.23	29,363.66	28
29	Tabor & Northern	17,131.30	3,977.50	23,195.36	27,321.56	28,233.37	4,098.21	29
30	Union Pacific	109,640.07	9,227.96	17,600.00	129,187.42	149,448.02	*20,300.00	30
31	Wabash Railway	624,728.85	225,774.00	404,709.79	1,051,218.24	1,102,350.11	*51,131.87	31
	Total	868,072,318.29	322,065,167.18	428,408,413.70	898,251,506.31	870,890,087.18	\$ 37,322,419.13	

*Deficit.

TABLE 10A—STATISTICS OF RAIL LINE OPERATIONS—IOWA
PART IX—AVERAGES PER MILE OF ROAD.

Number	Railway Companies	Freight train miles	Passenger train miles	Mixed train miles	Special train miles	Transportation service train miles	Work train miles	Locomotive miles—train-portion	Freight service car—miles	Passenger service car—miles	Freight revenue	Passenger revenue	Operating revenue	Operating expenses	Net operating revenues	Number
1	Atchison, Topeka & Santa Fe	6,427	5,70	324	2	11,638	930	19,028	208,708	49,075	370,085.16	49,855.62	\$40,778.57	\$24,805.08	\$15,973.49	1
2	Atlantic Northern															2
3	Chicago, Burlington & Quincy	1,904	2,020	99	2	3,734	71	4,700	50,687	12,433	5,930.30	3,086.20	9,219.77	5,840.40	3,379.29	3
4	Chicago Great Western	1,912	2,155	71	6	4,142	128	5,332	70,683	12,679	7,437.30	3,021.78	10,702.71	7,705.43	2,997.28	4
5	Mason City & Fort Dodge															5
6	Wisconsin, Minn. & Pacific															6
7	Chicago, Milwaukee & St. Paul	2,515	1,730	237	6	4,492	229	5,538	88,000	9,598	7,241.42	2,074.12	9,504.73	6,833.47	2,671.27	7
8	Chicago & North Western	7,990	2,090	183	4	6,063	151	7,059	109,944	18,987	9,700.40	4,049.80	14,054.53	10,216.23	3,838.30	8
9	Chicago, St. P., Minn. & Omaha	2,453	2,823	135	3	5,924	61	7,510	63,333	18,354	7,330.47	5,372.50	12,974.00	8,789.22	4,184.78	9
10	Iowa Southern															10
11	Chicago, Rock Island & Pacific	2,694	2,652	120	3	4,259	138	5,590	60,630	11,064	5,990.24	2,517.70	8,879.58	6,465.07	2,414.51	11
12	St. Paul & K. C. Short Line															12
13	Colfax Northern															13
14	Colfax Consolidated Coal Co.															14
15	Security Investment Co.															15
16	Creston, Winterset & Des Moines						238	1,293				119.90	1,065.21	1,006.48	58.73	16
17	Davenport, R. I. & Northwestern	1,490	1,308			2,804	335	4,277	4,447	5,404	5,903.02	1,216.73	6,069.30	5,030.35	1,038.95	17
18	Great Northern	2,491	2,307			4,804	110	5,805	75,370	11,034	6,166.21	2,063.72	9,285.62	7,701.48	1,584.14	18
19	Illinois Central															19
20	Dubuque & Sioux City															20
21	a Iowa & Omaha Short Line															21
22	b Iowa & Southwestern															22
23	Keokuk & Des Moines	915	1,882			3,270	30	3,075	11,190	5,879	1,954.40	1,032.71	3,060.32	2,764.02	1,292.31	23
24	Manchester & Onida															24
25	Minneapolis & St. Louis	1,642	1,214	301	6	3,063	80	3,830	44,430	5,135	4,405.28	1,278.50	5,094.09	4,132.50	1,801.59	25
26	e Iowa Central & Western															26
27	c Muscatine, Burlington & So.															27
28	d Muscatine North & South															28
29	Tabor & Northern															29
30	Union Pacific	9,321	4,792			2,14,116	21,278	125,458	205,172	9,747	44,569.13	7,138.24	52,515.21	60,751.23	8,336.02	30
31	Wabash Railway	1,866	2,107			2,448	77	4,612	34,304	7,716	2,980.85	1,007.07	5,039.70	6,275.40	244.70	31
	Total	2,184	2,000	143	4	4,329	243	5,432	71,890	1,523	6,670.72	22,788.87	\$ 9,628.12	\$ 6,943.81	\$ 2,684.31	

*Deficit.

PART X—AVERAGES PER MILE OF ROAD AND PER TRAIN MILE.

Number	Railway Companies	Averages Per Mile of Road—Continued			Averages Per Train Mile										Number
		Ton-miles—freight revenue	Ton-miles—total freight	Passenger-miles—revenue	Loaded freight car-miles—freight trains	Loaded freight mixed trains	Empty freight car-miles—freight trains	Empty freight car-miles—mixed trains	Freight revenue	Passenger revenue	Ton-miles—total freight	Passenger train car-miles—passenger trains	Passenger train mixed trains	Revenue per ton-miles	
1	Atchison, Topeka & Santa Fe	3,450,581	3,902,002	305,525	30.30	5.00	12.48	65	379.89	655.75	8.33	7.95	49.05	1	
2	Atlantic Northern													2	
3	Chicago, Burlington & Quincy	694,349	844,672	107,847	55.56	2.63	10.70	98	410.15	498.99	5.98	2.27	50.44	3	
4	Chicago Great Western	1,128,223	1,316,062	121,477	28.05	1.56	7.77	36	598.99	628.41	6.80	2.29	54.61	4	
5	Mason City & Fort Dodge													5	
6	Wisconsin, Minn. & Pacific													6	
7	Chicago, Milwaukee & St. Paul	888,870	1,090,590	75,056	23.36	4.00	10.99	142	329.64	326.75	5.25	1.87	39.03	7	
8	Chicago & North Western	1,275,100	1,495,204	147,401	24.12	6.87	9.33	3,00	410.13	480.03	6.07	1.57	47.35	8	
9	Chicago, St. P., Minn. & Omaha	746,599	829,818	308,845	17.31	1.88	7.35	66	288.61	324.65	6.43	2.01	70.17	9	
10	Iowa Southern													10	
11	Chicago, Rock Island & Pacific	722,891	*	113,425	30.21	3.78	7.60	1,05	320.07	*	5.23	1.83	32.00	11	
12	St. Paul & K. C. Short Line													12	
13	Colfax Northern													13	
14	Colfax Consolidated Coal Co.													14	
15	Security Investment Co.													15	
16	Creston, Winterset & Des Moines													16	
17	Davenport, R. I. & Northwestern													17	
18	Great Northern	584,450	545,687	45,585	20.29		8.60		377.43	431.72	3.50		33.21	18	
19	Illinois Central	919,637	1,059,568	114,968	19.25		8.70		311.57	392.30	5.02		32.50	19	
20	Dubuque & Sioux City													20	
21	a Iowa & Omaha Short Line													21	
22	b Iowa & Southwestern													22	
23	Keokuk & Des Moines	105,792	114,055	83,095	8.49		2.75		115.50	124.60	2.93		45.35	23	
24	Manchester & Onida													24	
25	Minneapolis & St. Louis	623,548	740,069	51,847	18.30	3.85	7.05	1.74	337.81	401.32	3.92	1.79	36.65	25	
26	e Iowa Central & Western													26	
27	c Muscatine, Burlington & So.													27	
28	d Muscatine North & South													28	
29	Tabor & Northern													29	
30	Union Pacific	3,872,779		196,900	21.49		6.47		415.48		12.47		47.51	30	
31	Wabash Railway	463,798	549,106	49,108	12.07		4.75		248.00	259.50	3.56		31.89	31	
	Total	874,462	983,228	104,271	22.41	4.05	8.82	1.72	375.73	422.52	5.45	1.84	47.23		

*Figures not available.

TABLE 10A—STATISTICS OF RAIL LINE OPERATIONS—IOWA
PART XI—AVERAGES PER TRAIN MILE AND PER LOCOMOTIVE MILE.

Number	Railway Companies	Averages Per Train Mile—Con					Averages Per Locomotive Mile							Number	
		Freight revenue	Passenger serv. for trains rev.	Operating revenues	Operating expenses	Net operating revenues	Train miles—freight trains	Car miles—freight trains	Train miles—passenger trains	Car miles—passenger trains	Train miles—mixed trains	Car miles—mixed trains	Train miles—special trains		Car miles—special trains
1	Atchison, Topeka & Santa Fe	\$ 5.00	\$ 1.58	\$ 3.50	\$ 2.13	\$ 1.37	.85	41.54	.87	7.29	.88	8.40	.93	19.81	1
2	Atlantic Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
3	Chicago, Burlington & Quincy	3.50	1.44	2.46	1.56	.90	.91	33.78	.99	5.93	.91	6.80	.81	14.79	3
4	Chicago Great Western	3.76	1.30	2.58	1.86	.72	.53	30.72	1.00	6.80	.98	4.18	.93	12.61	4
5	Mason City & Fort Dodge	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
6	Wisconsin, Minn. & Pacific	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
7	Chicago, Milwaukee & St. Paul	2.60	1.05	2.12	1.53	.59	.93	23.08	.99	5.21	.99	7.37	.96	7.98	7
8	Chicago & North Western	3.14	1.39	2.32	1.69	.63	.96	33.28	.99	6.92	.99	11.19	1.00	12.23	8
9	Chicago, St. P., Minn. & Omaha	2.84	1.81	2.39	1.62	.77	.91	29.29	.96	6.19	.88	5.98	.84	19.30	9
10	Iowa Southern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
11	Chicago, Rock Island & Pacific	2.65	1.31	2.09	1.53	.56	.97	27.79	1.00	5.34	.97	5.53	5.00	20.02	11
12	St. Paul & K. C. Short Line	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12
13	Colfax Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13
14	Colfax Consolidated Coal Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14
15	Security Investment Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15
16	Oreston, Winterset & Des Moines	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16
17	Davenport, R. I. & Northwestern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17
18	Great Northern	3.53	.91	2.32	1.75	.57	.90	29.34	.99	3.91	.....	.....	1.00	.....	18
19	Illinois Central	2.29	1.24	1.89	1.57	.32	.99	28.85	.97	4.89	.....	.....	.97	13.53	19
20	Dubuque & Sioux City	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20
21	a Iowa & Omaha Short Line	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21
22	b Iowa & Southwestern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22
23	Keokuk & Des Moines	2.14	1.05	1.44	1.00	.44	.97	11.85	.99	2.91	.....	.....	1.00	13.68	23
24	Manchester & Oneida	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24
25	Minneapolis & St. Louis	2.48	.90	1.94	1.35	.60	.84	22.08	.99	3.87	1.00	7.51	.90	3.03	25
26	e Iowa Central & Western	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	26
27	c Muscatine, Burlington & So.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27
28	d Muscatine North & South	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	28
29	Tabor & Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29
30	Union Pacific	4.78	1.45	3.72	4.39	* .58	.57	16.43	.37	4.67	.....	.....	.44	4.44	30
31	Wabash Railway	1.60	.86	1.25	1.31	.93	1.00	18.23	.97	3.46	.....	.....	.88	11.25	31
	Total	\$ 2.87	\$ 1.32	\$ 2.19	\$ 1.56	\$.61	.93	30.50	.99	5.41	.93	7.60	.96	12.00	

*Debit.

PART XII—AVERAGES PER LOADED FREIGHT CAR MILE, PER CAR MILE AND MISCELLANEOUS AVERAGES.

Number	Railway Companies	Average Per Loaded Freight Car—Mile			Average Per Car—Mile		Miscellaneous Averages								Number	
		Ton-miles— revenue fr'ght	Ton-miles— all freight	Freight revenue	Passenger— miles	Passenger— revenue	Miles Hauled			Revenue Per				Operating ratio		
							Revenue freight	Non-rev. freight	All freight	Miles carried— rev. passengers	Ton of freight	Ton-miles of freight	Passenger			Passenger— mile
1	Atchison, Topeka & Santa Fe	17.70	30.61	\$ 1,543.90	11.74	\$ 254.38	19.96	14.08	18.95	18.53	\$ 1,730.7	\$ 608.72	\$ 40.142	\$.02167	60.83	1
2	Atlantic Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
3	Chicago, Burlington & Quincy	16.94	30.61	1,444.2	13.39	330.10	109.47	154.74	110.37	37.33	95334	90852	77614	92979	62.39	3
4	Chicago Great Western	21.00	23.19	1,387.9	13.10	290.62	173.36	72.70	153.29	48.84	1,14583	90661	1,00609	92967	72.00	4
5	Mason City & Fort Dodge	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
6	Wisconsin, Minn. & Pacific	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
7	Chicago, Milwaukee & St. Paul	16.58	18.29	1,214.0	13.05	251.07	177.88	219.64	181.10	40.00	1,30260	90732	84808	92983	72.11	7
8	Chicago & North Western	17.73	30.82	1,357.4	13.36	279.95	197.78	162.79	191.71	26.76	1,51227	90765	1,16474	92989	73.79	8
9	Chicago, St. P., Minn. & Omaha	17.49	19.67	1,171.89	17.80	380.36	56.93	28.91	51.40	37.36	55038	90668	79842	92737	67.74	9
10	Iowa Southern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
11	Chicago, Rock Island & Pacific	16.97	*	1,189.0	15.78	324.16	143.51	*	*	46.03	1,16774	90614	90661	92954	72.81	11
12	St. Paul & K. C. Short Line	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12
13	Colfax Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13
14	Colfax Consolidated Coal Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14
15	Security Investment Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15
16	Oreston, Winterset & Des Moines	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16
17	Davenport, R. I. & Northwestern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	114.83	17
18	Great Northern	18.68	21.37	1,752.0	11.55	252.16	68.12	*	*	38.00	64092	90940	84252	92183	75.43	18
19	Illinois Central	17.71	30.35	1,187.4	14.87	307.00	173.30	138.31	165.33	43.25	1,16198	90671	89298	92960	82.91	19
20	Dubuque & Sioux City	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20
21	a Iowa & Omaha Short Line	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21
22	b Iowa & Southwestern	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22
23	Keokuk & Des Moines	13.62	14.09	2,518.4	21.75	437.56	50.39	36.89	40.09	32.71	53112	91848	64911	91984	69.29	23
24	Manchester & Oneida	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24
25	Minneapolis & St. Louis	20.20	34.61	1,481.0	14.84	297.91	134.33	146.80	136.17	30.14	98406	90733	60489	92907	69.94	25
26	e Iowa Central & Western	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	26
27	c Muscatine, Burlington & So.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27
28	d Muscatine North & South	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	28
29	Tabor & Northern	10.34	.....	328.54	6.31	119.00	2.30	.....	.....	2.31	92049	91156	64356	92588	116.06	29
30	Union Pacific	19.78	28.94	1,272.3	12.40	279.77	59.32	109.89	69.44	35.63	33227	90645	86978	92256	104.86	30
31	Wabash Railway	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	31
	Total	17.66	19.85	\$ 1,347.1	14.19	\$ 294.1	135.19	124.84	133.95	42.02	\$1,031.0	\$ 90765	\$ 80007	\$ 92974	72.12	

*Figures not available.

TABLE 11—REVENUE FREIGHT CARRIED DURING THE YEAR
PART I—PRODUCTS OF AGRICULTURE.

Number	Railway Companies	Grain		Flour		Other Mill Products		Hay		Tobacco		Cotton		Fruit and Vegetables		Other Products of Agriculture		Total Products of Agriculture		Number		
		Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole		Tons	Per cent of whole
1	A. T. & S. P.	2,561,425	8.90	616,815	2.15	338,771	1.18	476,519	1.66			72,691	.25	1,478,566	5.15	218,845	1.11	5,862,622	20.43	1		
2	Atlantic Northern																			2		
3	C., B. & Q.	5,444,829	18.9	996,226	3.47	372,126	1.33	308,245	1.10	6,920		61,724	.22	1,372,025	4.81	222,226	1.11	8,408,304	29.4	3		
4	C. & G. W.	1,289,569	45.2	281,842	1.0	129,151	0.47	31,846	0.11	800		6,227	.02	135,290	0.47	63,220	0.31	1,829,215	64.4	4		
5	M. C. & Ft. D.																			5		
6	W. M. & P.																			6		
7	C., M. & St. P.	4,827,940	16.7	1,177,974	4.1	539,901	1.94	251,220	0.90	88,848	.32	54,386	.19	742,046	2.61	362,159	1.81	7,500,020	26.0	7		
8	C. & N. W.	6,126,740	21.5	715,501	2.5	614,223	2.23	324,706	1.17	11,022		1,733	.006	873,496	3.05	343,615	1.71	9,009,516	31.0	8		
9	C., St. P., M. & O.	2,761,284	9.7	463,888	1.6	355,124	1.28	104,725	0.38	165		226	.0008	235,006	0.84	84,706	0.42	3,500,200	12.3	9		
10	Iowa Southern																			10		
11	C., R. I. & P.	4,126,456	14.5	806,851	2.8	628,896	2.28	225,028	0.82	2,375		120,400	.43	631,412	2.21	324,829	1.58	6,845,127	23.9	11		
12	St. P. & K. C. S. L.																			12		
13	Colfax Northern															234	1.10	234	0.83	13		
14	C. C. C. Co.																			14		
15	Security Inv. Co.																			15		
16	C., W. & D. M.																			16		
17	D., R. I. & N. W.																			17		
18	Great Northern	3,482,823	12.4	476,556	1.7	211,434	0.76	161,221	0.58	1,419		39,488	.14	921,562	3.25	222,224	1.07	5,127,148	18.0	18		
19	Illinois Central	2,720,001	10.0	346,719	1.2	220,950	0.80	259,588	0.94	86,890	.31	258,903	.93	1,258,241	4.4	358,724	1.65	6,005,163	21.0	19		
20	D. & S. O.																			20		
21	eI. & O. S. L.																			21		
22	fI. & S. W.																			22		
23	Knokik & D. M.	65,340	2.3	6,200	0.22	6,701	0.24	2,759	0.1	23				6,769	0.24	245	0.0011	69,507	0.24	23		
24	M. & O.																			24		
25	M. & St. L.	1,277,117	4.6	289,008	1.0	89,000	0.32	12,594	0.04	11		9,166	.03	175,540	0.62	29,054	0.13	1,922,189	6.7	25		
26	eI. C. & W.																			26		
27	eM., B. & S.																			27		
28	dM., N. & S.																			28		
29	Tabor & Northern	2,849,082	10.0	433,709	1.5	98,341	0.35	158,610	0.57	7,673		29,138	.10	1,633,461	5.7	111,047	0.51	5,240,878	18.2	29		
30	Union Pacific	1,900,000	6.7	285,720	1.0	375,226	1.35	140,157	0.51	9,306	.03	57,480	.21	417,763	1.48	132,921	0.61	3,425,672	11.9	30		
31	Wabash Railway																			31		
	Total	40,484,641	142.93	6,089,228	21.4	3,204,003	11.58	2,447,784	8.77	166,167	0.60	717,663	2.56	9,277,563	32.8	1,704,349	7.9	66,191,776	232.7			

PART II—PRODUCTS OF ANIMALS.

Number	Railway Companies	Live Stock		Dressed Meats		Other Packing House Products		Poultry, Game and Fish		Wool		Hides & Leather		Other Products of Animals		Total Products of Animals				
		Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	
																				Tons
1	Athabasca, Topeka & Sant Fe	1,195,967	4.17	62,165	0.22	76,960	0.27	19,901	0.07	24,656	0.08	10,830	0.04	177,722	0.62	1,569,271	5.47	1		
2	Atlantic Northern																			2
3	Chicago, Burlington & Q.	2,092,631	5.3	235,227	0.8	127,717	0.46	122,141	0.45	17,563	.06	29,309	0.11	120,961	0.44	2,755,943	9.6	3		
4	Chicago Great Western	229,567	0.6	42,563	0.15	63,854	0.23	30,682	0.11	3,402	.01	9,632	.03	21,021	0.08	491,685	1.7	4		
5	Mason City & Ft. D.																			5
6	Wis., Minn. & Pacific																			6
7	Chicago, Mil. & St. Paul	1,639,022	4.3	240,873	0.8	76,756	0.28	66,705	0.24	23,259	.08	85,372	.31	184,539	0.67	2,226,168	7.9	7		
8	Chicago & North Western	1,644,907	4.3	194,102	0.5	126,977	0.46	66,743	0.24	29,223	.1	83,963	.3	186,228	0.67	2,332,158	8.1	8		
9	C., St. P., M. & O.	469,215	1.2	87,126	0.3	22,005	0.08	23,222	0.08	2,634	.01	12,084	.04	25,727	0.09	624,802	2.2	9		
10	Iowa Southern																			10
11	C., R. I. & P.	1,148,320	3.0	128,204	0.4	192,942	0.6	71,834	0.26	6,182	.02	38,300	.14	85,005	0.31	1,671,022	6.0	11		
12	St. P. & K. C. Short Line																			12
13	Colfax Northern																			13
14	Colfax Con. Coal Co.																			14
15	Security Inv. Co.																			15
16	Creston, W. & Des Moines																			16
17	D., R. I. & N. W.																			17
18	Great Northern	358,457	0.9	14,028	0.05	17,412	0.06	66,006	0.24	7,971	.03	9,928	.04	54,135	0.2	579,022	2.1	18		
19	Illinois Central	612,975	1.6	112,147	0.4	246,800	0.9	39,539	0.14	14,859	.05	19,965	.07	244,339	0.9	1,130,541	4.1	19		
20	Dubuque & Sioux City																			20
21	eIowa & Omaha Short Line																			21
22	fIowa & Southwestern																			22
23	Knokik & Des Moines	22,419	0.06	371	0.001	15,847	0.06	1,008	0.004	31	.0001	614	0.002	1,043	0.004	42,932	0.16	23		
24	Manchester & Oneda																			24
25	Minneapolis & St. Louis	229,354	0.6	41,518	0.1	6,416	0.02	21,718	0.08	3,687	.01	2,328	.01	7,308	0.03	322,873	1.1	25		
26	eIowa Central & Western																			26
27	cMuscatine, Burl. & South.																			27
28	dMuscatine North & South.																			28
29	Tabor & Northern																			29
30	Union Pacific	885,125	2.3	25,291	0.07	34,886	0.12	69,596	0.25	44,546	.16	15,899	.06	30,845	0.11	1,191,259	4.3	30		
31	Wabash Railway	447,874	1.2	253,916	0.7	201,443	0.73	116,657	0.42	30,708	.11	28,665	.1	121,677	0.45	1,919,770	7.1	31		
	Total	10,797,820	28.45	1,465,971	4.0	1,210,725	3.4	746,771	2.6	199,329	0.72	374,701	1.3	1,276,268	4.6	16,011,635	51.1			

TABLE 11—REVENUE FREIGHT CARRIED DURING THE YEAR
PART III—PRODUCTS OF MINES.

Number	Railway Companies	Lignite		Anthracite Coal		Bituminous Coal		Coke		Ores		Stone, Sand and Other Like Articles		Other Products of Mines		Total Products of Mines	
		Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole
1	Atchison, Topeka & S. F.			65,020	.29	3,586,475	12.50	300,800	1.36	4,912,947	17.12	1,776,161	6.19	2,328,513	8.12	19,000,519	45.02
2	Atlantic Northern																
3	Chicago, Burl. & Quincy			125,094	.3	11,729,910	29.8	261,979	.7	673,823	1.7	2,344,728	6.0	497,896	1.3	15,831,423	39.8
4	Chicago Great Western			90,604	1.4	1,025,520	16.8	23,188	.4	13,500	.2	849,463	5.5	169,472	2.7	1,709,830	27.0
5	Mason City & Ft. D.																
6	Wis. Minn. & Pacific																
7	Chicago, Mil. & St. Paul			1,005,983	2.5	3,526,345	9.0	514,616	1.3	3,200,325	8.2	2,817,506	7.0	214,460	.5	11,400,338	28.5
8	Chicago & North Western			926,000	1.6	6,234,606	12.2	411,560	.8	14,500,325	35.7	4,439,840	7.9	280,434	.5	26,897,772	47.7
9	C., St. P., M. & O.			424,693	4.0	1,023,604	9.6	29,906	.3	9,704	.1	220,138	2.1	62,700	.6	1,709,530	16.7
10	Iowa Southern																
11	C., B. I. & P.			364,050	1.0	4,305,461	17.0	218,530	.9	442,938	1.7	2,223,331	10.0	251,457	1.0	8,005,707	31.6
12	St. P. & K. C. Short Line																
13	Colfax Northern													218,130	96.20	218,130	96.30
14	Colfax Con. Coal Co.																
15	Security Inv. Co.																
16	Creston, W. & Des Moines																
17	D., R. I. & N. W.																
18	Great Northern	102,007	.34	734,561	2.42	2,246,604	7.30	147,158	.48	14,115,105	46.45	606,395	1.99	173,409	.57	38,125,259	59.64
19	Illinois Central			81,966	.9	11,480,192	29.1	136,708	.4	194,977	.5	1,507,049	4.3	314,694	.9	16,808,365	45.4
20	Dubuque & Sioux City																
21	a Iowa & Omaha Short Line													28	5.14	28	5.14
22	b Iowa & Southwestern																
23	Keokuk & Des Moines			1,519	.4	52,827	14.9	1,003	.3	99	—	21,881	6.2	2,493	.7	79,824	22.5
24	Manchester & Oneida																
25	Minneapolis & St. Louis			65,465	1.01	1,409,361	22.00	29,437	.45	8,861	.14	589,630	8.30	26,913	.41	2,139,687	32.91
26	c Iowa Central & West'n																
27	d Muscatine, Bur. & South													90,978	49.01	90,978	49.01
28	e Muscatine, North & South													34,479	42.08	34,479	42.08
29	Tabor & Northern													6,410	29.96	6,410	29.96
30	Union Pacific			45,955	.3	2,235,606	16.0	54,667	.4	272,667	1.9	357,586	1.8	555,807	3.9	3,485,218	34.3
31	Wabash Railway			377,110	2.1	3,632,071	29.6	81,438	.5	87,506	.5	894,771	5.2	841,175	4.9	5,814,091	33.7
	Total	102,007	.68	4,308,719	1.54	25,696,641	17.79	7,500,030	.74	38,567,874	12.30	18,389,332	5.9	5,681,460	1.9	125,286,123	40.00

PART IV—PRODUCTS OF FORESTS AND MANUFACTURERS.

Number	Railway Companies	Products of Forests						Manufactures						Number				
		Lumber		Other Products of Forests		Total Products of Forests		Petroleum and Other Oils		Sugar		Naval Stores						
		Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole					
1	Atchison, Topeka & Santa Fe	1,046,908	3.05	384,437	1.84	1,431,345	4.99	1,132,476	4.02	284,256	.90							
2	Atlantic Northern																	
3	Chicago, Burlington & Quincy	1,999,163	5.0	228,463	.6	2,194,366	5.6	1,139,680	2.9	354,883	.9			18,116				
4	Chicago Great Western	359,403	5.6	14,410	.2	369,813	5.8	190,272	3.1	73,685	1.2			11				
5	Mason City & Fort Dodge																	
6	Wisconsin, Minn. & Pacific																	
7	Chicago, Milwaukee & St. Paul	5,918,578	14.8	485,907	1.2	6,404,785	16.9	642,298	1.6	160,966	.4			13,659				
8	Chicago & North Western	3,654,121	5.4	2,094,871	5.2	5,378,692	10.6	378,960	1.0	163,636	.3			15				
9	Chicago, St. P., Minn. & Omaha	1,061,906	9.9	769,417	7.1	1,821,983	17.0	145,881	1.4	34,298	.3			16				
10	Iowa Southern																	
11	Chicago, Rock Island & Pacific	1,547,187	6.1	671,684	2.3	2,118,871	8.4	567,727	2.8	191,965	.8			34,713	.1			
12	St. Paul & K. C. Short Line																	
13	Colfax Northern			4,232	1.88	4,232	1.88											
14	Colfax Consolidated Coal Co.																	
15	Security Investment Co.																	
16	Creston, Winterset & Des Moines																	
17	Davenport, R. I. & Northwestern																	
18	Great Northern	2,842,788	9.36	413,692	1.36	3,255,880	10.72	365,926	1.30	32,213	.11			8,836	.03			
19	Illinois Central	5,307,978	14.3	337,669	1.	5,665,487	15.3	443,759	1.2	337,444	.9			28,360	.1			
20	Dubuque & Sioux City																	
21	a Iowa & Omaha Short Line			15	2.75	15	2.75											
22	b Iowa & Southwestern																	
23	Keokuk & Des Moines	17,840	5.0	8,667	2.4	26,497	7.4	6,946	2.0	8,369	2.4							
24	Manchester & Oneida																	
25	Minneapolis & St. Louis	354,696	5.46	10,615	.16	365,310	5.62	190,662	2.01	24,964	.28			106				
26	c Iowa Central & Western																	
27	d Muscatine, Burlington & So.			13,404	6.77	13,404	6.77											
28	e Muscatine, North & South			7,665	9.25	7,665	9.25											
29	Tabor & Northern			954	4.36	954	4.36											
30	Union Pacific	852,629	5.9	19,116	.2	871,745	6.1	292,061	2.0	482,305	3.4			956				
31	Wabash Railway	960,822	5.6	97,530	.6	1,064,102	6.2	433,743	2.5	111,445	.6			25,600	.2			
	Total	25,291,919	6.68	5,368,029	2.01	31,036,546	10.09	6,120,611	1.95	2,269,536	.72			130,673	.04			

TABLE 11—REVENUE FREIGHT CARRIED DURING THE YEAR
PART V—MANUFACTURERS—Continued.

Number	Railway Companies	Iron Pig and Bloom		Iron and Steel Rails		Other Castings and Machinery		Bar and Sheet Metal		Cement, Brick and Lime		Agricultural Implements		Wagons, Carriages, Tools, Etc.		Number
		Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	
1	Atchison, Topeka & Santa Fe	80,000	.31	42,640	.15	675,016	2.00	186,143	.65	1,479,047	5.13	72,097	.25	145,636	.51	1
2	Atlantic Northern															2
3	Chicago, Burlington & Quincy	214,735	.8	165,147	.6	464,900	1.2	407,197	1.0	1,924,443	4.9	247,354	.8	183,149	.6	3
4	Chicago Great Western	60,381	.5	46,028	.7	147,664	2.3	68,608	1.1	510,793	8.1	28,400	.4	28,839	.5	4
5	Mason City & Fort Dodge															5
6	Wisconsin, Minn. & Pacific															6
7	Chicago, Milwaukee & St. Paul	325,585	1.3	93,643	.3	483,416	1.2	598,933	1.5	1,949,937	4.9	218,705	.6	330,021	.9	7
8	Chicago & North Western	819,810	1.5	111,907	.2	530,481	.9	681,958	1.2	1,806,334	3.2	160,501	.3	46,820	.1	8
9	Chicago, St. P., Minn. & Omaha	113,113	1.1	78,431	.7	77,302	.7	39,336	.4	323,865	3.1	44,072	.4	11,717	.1	9
10	Iowa Southern															10
11	Chicago, Rock Island & Pacific	112,354	.4	48,677	.2	328,983	1.3	372,869	1.5	1,408,368	5.5	199,791	.8	212,355	.8	11
12	St. Paul & K. C. Short Line															12
13	Colfax Northern															13
14	Colfax Consolidated Coal Co. Security Investment Co.															14
15	Creighton, Winterset & Des Moines															15
16	Davenport, E. I. & Northwestern															16
17	Great Northern	68,000	.19	44,134	.14	175,890	.58	135,727	.42	655,421	2.56	90,548	.30	60,668	.30	17
18	Illinois Central	403,735	1.1	114,646	.3	253,708	.7	131,888	.3	1,230,034	3.4	89,000	.2	95,408	.3	18
19	Dubuque & Sioux City															19
20	Iowa & Omaha Short Line															20
21	Iowa & Southwestern															21
22	Keokuk & Des Moines	282	.1	142		2,619	.7	4,501	1.3	30,554	11.1	4,217	1.2	1,438	.4	22
23	Manchester & Oneida															23
24	Minneapolis & St. Louis	19,527	.30	7,106	.7	153,061	2.35	50,021	.77	634,028	9.76	39,357	.61	39,830	.32	24
25	Iowa Central & Western															25
26	Muscatine, Burlington & So.															26
27	Muscatine North & South															27
28	Tabor & Northern															28
29	Union Pacific	31,966	.2	84,551	.6	302,433	1.4	390,463	1.8	440,550	3.1	62,446	.4	128,501	.9	29
30	Wabash Railway	179,300	1.0	88,678	.5	484,920	2.8	302,678	1.8	691,221	3.8	62,692	.3	216,546	1.3	30
31	Total	5,619,326	.84	925,861	.59	3,889,127	1.24	2,220,341	1.02	13,032,824	4.18	1,370,801	.41	1,382,329	.44	31

PART VI—MANUFACTURERS, MISCELLANEOUS L. C. L. GOODS, AND GRAND TOTAL

Number	Railway Companies	Manufacturing—Continued								Miscellaneous Commodities Not Specified in Foregoing (Carload Rates)		L. C. L. Goods Not Distributed in Foregoing		Grand total all commodities	Number
		Wines, Liquors and Beers		Household Goods and Furniture		Other Manufactures		Total Manufactures		Tons	Per cent of whole	Tons	Per cent of whole		
		Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole	Tons	Per cent of whole						
1	Atchison, Topeka & Santa Fe	139,145	.49	106,634	.37	928,837	3.24	5,302,640	18.13	97,225	.34	1,470,347	5.12	28,634,966	1
2	Atlantic Northern	201,028	.5	108,032	.3	1,306,221	5.2	6,097,190	17.0	1,083,905	3.8	2,607,009	6.4	30,376,135	2
3	Chicago, Burlington & Quincy	50,979	.3	39,303	.6	294,530	4.7	1,509,024	23.8	71,525	1.1	345,220	6.5	6,283,328	3
4	Chicago Great Western														4
5	Mason City & Fort Dodge														5
6	Wisconsin, Minn. & Pacific	620,081	1.3	186,914	.5	1,799,647	4.4	7,461,425	18.5	1,532,600	3.9	2,988,405	7.5	30,989,130	6
7	Chicago, Milwaukee & St. Paul	221,993	.4	195,300	.3	2,926,120	5.3	5,345,114	14.6	1,229,958	2.2	2,712,810	4.8	56,407,915	7
8	Chicago & North Western	22,923	.3	32,699	.3	769,151	7.2	1,713,672	16.0	328,598	1.2	644,811	6.0	10,699,468	8
9	Chicago, St. P., Minn. & Omaha														9
10	Iowa Southern	128,968	.6	147,946	.6	1,129,307	4.4	4,833,638	19.3	339,598	1.3	1,467,671	5.8	25,548,449	10
11	Chicago, Rock Island & Pacific														11
12	St. Paul & K. C. Short Line					939	.47	925	.41	295	.12	2,828	1.25	226,756	12
13	Colfax Northern														13
14	Colfax Consolidated Coal Co. Security Investment Co.														14
15	Creighton, Winterset & Des Moines														15
16	Davenport, E. I. & Northwestern	37,026	.12	37,007	.12	380,500	1.25	2,082,672	6.86	292,257	.96	978,188	3.22	30,289,356	16
17	Great Northern	145,546	.4	96,329	.3	1,005,025	2.9	4,474,451	13.1	598,806	1.6	1,701,017	4.6	37,946,832	17
18	Illinois Central														18
19	Dubuque & Sioux City					29	5.32	29	5.32	119	21.83			546	19
20	Iowa & Omaha Short Line														20
21	Iowa & Southwestern	367	.1	4,814	1.4	14,889	4.2	88,238	24.9	3,378	.9	44,693	12.6	355,120	21
22	Keokuk & Des Moines														22
23	Manchester & Oneida	23,023	.51	43,950	.98	140,122	2.16	1,297,366	19.90	114,801	1.76	340,632	6.23	6,592,465	23
24	Minneapolis & St. Louis					25,886	13.08	25,886	12.06	14,006	7.12	22,887	6.31	107,879	24
25	Iowa Central & Western					11,233	14.15	11,233	14.18	5,006	14.84	5,146	6.28	81,942	25
26	Muscatine, Burlington & So.					721	3.27	721	3.27	1,296	7.36	902	4.21	21,459	26
27	Muscatine North & South														27
28	Tabor & Northern	82,415	.6	42,961	.3	496,846	3.5	2,608,037	18.2	306,869	2.1	680,215	4.4	14,340,307	28
29	Union Pacific	119,706	.7	88,618	.5	1,181,192	6.9	3,945,731	22.9	477,785	2.7	1,286,738	7.5	17,239,884	29
30	Wabash Railway														30
31	Total	1,028,874	.54	1,132,147	.36	12,420,961	4.0	50,200,231	16.03	6,317,347	2.02	17,128,334	6.47	313,149,892	31

TABLE 12—EQUIPMENT INSTALLATIONS, BETTERMENTS, AND RETIREMENTS MADE DURING THE YEAR.
PART I—STEAM LOCOMOTIVES

Number	Railway Companies	Number of units installed	Cost of units installed	Cost of betterments made to equipment	Gross amount added to additions and betterments	Number of units retired	Cost of equipment retired	Amount credited to investment	Number
1	Atchison, Topeka & Santa Fe	30	\$ 1,015,005.43	\$ 24,454.04	\$ 1,007,580.07	41	\$ 414,030.96	\$ 179,476.20	1
2	Atlantic Northern								2
3	Chicago, Burlington & Quincy								3
4	Chicago Great Western	1	29,135.79	61,811.05	88,720.04	22	215,520.00	215,520.00	4
5	Mason City & Fort Dodge	30	688,710.07	30,371.07	719,081.14	24	338,136.16	388,139.16	5
6	Wisconsin, Minn. & Pacific			2,577.33	2,577.33	1	31,656.47	31,656.47	6
7	Chicago, Milwaukee & St. Paul					1	1,000.00	1,000.00	7
8	Chicago & North Western	*44	14,179,561.69	108,120.79	\$4,247,768.48	1	10,100.00	10,100.00	8
9	Chicago, St. P., Minn. & Omaha	35	675,218.05	54,863.22	730,081.27	18	148,389.12	148,389.12	9
10	Iowa Southern	23	574,548.38	2,667.25	577,205.88	4	35,000.00	35,000.00	10
11	Chicago, Rock Island & Pacific								11
12	St. Paul & K. C. Short Line			72,843.67	72,843.67	10	104,185.43	104,185.43	12
13	Colfax Northern					2	9,363.24	9,363.24	13
14	Colfax Consolidated Coal Co.								14
15	Security Investment Co.								15
16	Creston, Winterset & Des Moines								16
17	Davenport, R. I. & Northwestern								17
18	Great Northern								18
19	Illinois Central	25	752,361.68	81,974.84	834,336.50	30	292,431.37	292,431.37	19
20	Dubuque & Sioux City	71	1,008,963.84	30,534.58	1,738,196.42	89	561,146.55	561,146.55	20
21	a Iowa & Omaha Short Line								21
22	b Iowa & Southwestern								22
23	Keokuk & Des Moines								23
24	Manchester & Onida								24
25	Minneapolis & St. Louis								25
26	c Iowa Central & Western	15	313,098.53	28,711.94	341,810.47	6	45,000.00	45,000.00	26
27	d Muscatine, Burlington & So.								27
28	d Muscatine North & South								28
29	Tabor & Northern								29
30	Union Pacific	36	485,329.19	31,082.46	516,361.65	**43	11580,815.33	11580,815.33	30
31	Wabash Railway			139,105.63	139,105.63				31
	Total		\$10,810,409,742.55	\$ 638,044.47	\$11,045,500.25	291	\$ 2,737,383.62	\$2,502,219.87	

*Includes 31 other locomotives. †Includes \$3,924,923.87 for other locomotives. ‡Includes \$1.73 for other locomotives. §Includes \$3,924,923.65 for other locomotives. ¶Includes 1 spare locomotive tender. ††Includes \$91.18 for spare locomotive tender. †††Includes \$61.16 for spare locomotive tender.

PART II—FREIGHT TRAIN CARS.

Number	Railway Companies	Number of units installed	Cost of units installed	Cost of betterments made to equipment	Gross amount added to additions and betterments	Number of units retired	Cost of equipment retired	Amount credited to investment	Number
1	Atchison, Topeka & Santa Fe	992	\$ 1,092,053.96		\$ 1,092,053.96	1,076	\$ 737,847.31	\$ 514,402.00	1
2	Atlantic Northern								2
3	Chicago, Burlington & Quincy	1,604	1,483,692.98	106,865.47	1,829,669.63	1,925	1,112,220.00	1,112,220.00	3
4	Chicago Great Western			28,446.01	28,446.01	158	65,824.33	65,824.33	4
5	Mason City & Fort Dodge			2,646.11	2,646.11	45	29,900.73	29,900.73	5
6	Wisconsin, Minn. & Pacific			10,751.13	10,751.13	21	10,545.83	10,545.83	6
7	Chicago, Milwaukee & St. Paul	2,573	2,692,909.31	72,365.05	2,735,174.36	1,490	845,866.50	845,866.50	7
8	Chicago & North Western	788	618,278.18	297,858.82	916,172.00	1,736	928,980.75	928,980.75	8
9	Chicago, St. P., Minn. & Omaha	304	236,500.79	19,280.60	255,831.30	530	314,004.12	314,004.12	9
10	Iowa Southern								10
11	Chicago, Rock Island & Pacific			147,323.38	147,323.38	537	373,883.47	373,883.47	11
12	St. Paul & K. C. Short Line					4	2,473.74	2,473.74	12
13	Colfax Northern								13
14	Colfax Consolidated Coal Co.								14
15	Security Investment Co.								15
16	Creston, Winterset & Des Moines								16
17	Davenport, R. I. & Northwestern								17
18	Great Northern	2,550	2,488,388.62	20,374.84	2,506,763.46	862	463,599.22	463,599.22	18
19	Illinois Central	2,402	2,307,961.70	484,304.75	2,742,266.45	2,881	2,276,520.32	2,276,520.32	19
20	Dubuque & Sioux City								20
21	a Iowa & Omaha Short Line								21
22	b Iowa & Southwestern								22
23	Keokuk & Des Moines								23
24	Manchester & Onida								24
25	Minneapolis & St. Louis	513	503,364.29	114,779.48	618,143.77	221	124,504.36	124,504.36	25
26	c Iowa Central & Western								26
27	d Muscatine, Burlington & So.								27
28	d Muscatine North & South								28
29	Tabor & Northern								29
30	Union Pacific	28	31,973.30	17,730.53	49,663.91	1,227	592,740.25	592,740.25	30
31	Wabash Railway	1,013	1,194,023.17	312,463.67	1,506,486.84	723	252,451.26	252,451.26	31
	Total	12,767	\$12,619,226.36	\$ 1,586,104.86	\$14,143,332.39	13,426	\$ 6,131,422.19	\$7,906,026.97	

TABLE 12—EQUIPMENT INSTALLATIONS, BETTERMENTS, AND RETIREMENTS MADE DURING THE YEAR.
PART III—PASSENGER TRAIN CARS.

Number	Railway Companies	Number of units installed	Cost of units installed	Cost of betterments made to equipment	Gross amount charged to additions and betterments	Number of units retired	Cost of equipment retired	Amount credited to investment	Number
1	Atchison, Topeka & Santa Fe	3	\$ 1,500.00		\$ 1,500.00	21	\$ 204,236.46	\$ 150,546.43	1
2	Atlantic Northern								2
3	Chicago, Burlington & Quincy	42	588,600.00	\$ 12,719.25	601,319.25	13	56,970.00	54,070.00	3
4	Chicago Great Western	6	59,301.45	12,765.01	72,066.46		*1,259.33	*1,259.33	4
5	Mason City & Fort Dodge								5
6	Wisconsin, Minn. & Pacific								6
7	Chicago, Milwaukee & St. Paul	9	105,157.34	17,712.01	122,869.35	7	85,525.00	36,345.00	7
8	Chicago & North Western	15	151,975.31	18,411.77	170,387.08	41	288,672.50	288,672.50	8
9	Chicago, St. P., Minn. & Omaha	12	30,513.38	*737.99	31,251.37	1	9,500.00	9,500.00	9
10	Iowa Southern								10
11	Chicago, Rock Island & Pacific			9,614.58	9,614.58	5	18,000.00	18,000.00	11
12	St. Paul & K. C. Short Line								12
13	Colfax Northern								13
14	Colfax Consolidated Coal Co.								14
15	Security Investment Co.								15
16	Creston, Winterset & Des Moines								16
17	Davenport, R. I. & Northwestern								17
18	Great Northern			9,857.27	9,857.27	7	23,289.72	33,289.72	18
19	Illinois Central	133	945,869.72	21,721.83	967,591.55	8	15,969.59	15,969.59	19
20	Dubuque & Sioux City								20
21	a Iowa & Omaha Short Line								21
22	b Iowa & Southwestern								22
23	Keokuk & Des Moines								23
24	Manchester & Oneida								24
25	Minneapolis & St. Louis			4,630.25	4,630.25				25
26	e Iowa Central & Western								26
27	c Muscatine, Burlington & So.								27
28	d Muscatine North & South								28
29	Tabor & Northern								29
30	Union Pacific	6	10,614.69	10,790.32	21,405.01	43	391,815.18	391,815.18	30
31	Wabash Railway	19	63,843.71	9,305.97	73,149.68	18	13,264.04	13,264.04	31
	Total	233	\$ 1,920,276.51	\$ 133,869.33	\$ 2,054,145.84	177	\$ 1,069,842.22	\$ 1,016,094.21	31

*Credit.

PART IV—MOTOR EQUIPMENT OF CARS.

Number	Railway Companies	Number of units installed	Cost of units installed	Cost of betterments made to equipment	Gross amount charged to additions and betterments	Number of units retired	Cost of equipment retired	Amount credited to investment	Number
1	Atchison, Topeka & Santa Fe						\$ 15,000.00	\$ 15,000.00	1
2	Atlantic Northern								2
3	Chicago, Burlington & Quincy								3
4	Chicago Great Western								4
5	Mason City & Fort Dodge								5
6	Wisconsin, Minn. & Pacific								6
7	Chicago, Milwaukee & St. Paul		\$ 110,444.83		\$ 110,444.83		110,444.83	110,444.83	7
8	Chicago & North Western								8
9	Chicago, St. P., Minn. & Omaha								9
10	Iowa Southern								10
11	Chicago, Rock Island & Pacific								11
12	St. Paul & K. C. Short Line								12
13	Colfax Northern								13
14	Colfax Consolidated Coal Co.								14
15	Security Investment Co.								15
16	Creston, Winterset & Des Moines								16
17	Davenport, R. I. & Northwestern								17
18	Great Northern								18
19	Illinois Central								19
20	Dubuque & Sioux City								20
21	a Iowa & Omaha Short Line								21
22	b Iowa & Southwestern								22
23	Keokuk & Des Moines								23
24	Manchester & Oneida								24
25	Minneapolis & St. Louis								25
26	e Iowa Central & Western								26
27	c Muscatine, Burlington & So.								27
28	d Muscatine North & South								28
29	Tabor & Northern								29
30	Union Pacific	1	2,329.01	212.18	2,541.19		6,665.91	6,665.91	30
31	Wabash Railway								31
	Total	1	\$ 110,444.83	\$ 212.18	\$ 110,657.01		\$ 137,110.74	\$ 137,110.74	31

TABLE 12—EQUIPMENT INSTALLATIONS, BETTERMENTS, AND RETIREMENTS MADE DURING THE YEAR.
PART V—FLOATING EQUIPMENT.

Number	Railway Companies	Number of units installed	Cost of units installed	Cost of betterments made to equipment	Gross amount charged to additions and betterments	Number of units retired	Cost of equipment retired	Amount credited to investment	Number
1	Atchison, Topeka & Santa Fe								1
2	Atlantic Northern								2
3	Chicago, Burlington & Quincy	1	5,000.00	27.56	5,027.56	1	10,400.00	10,400.00	3
4	Chicago Great Western								4
5	Mason City & Fort Dodge								5
6	Wisconsin, Minn. & Pacific								6
7	Chicago, Milwaukee & St. Paul								7
8	Chicago & North Western								8
9	Chicago, St. P., Minn. & Omaha								9
10	Iowa Southern								10
11	Chicago, Rock Island & Pacific								11
12	St. Paul & K. C. Short Line								12
13	Colfax Northern								13
14	Colfax Consolidated Coal Co.								14
15	Security Investment Co.								15
16	Creston, Winterset & Des Moines								16
17	Davenport, R. I. & Northwestern								17
18	Great Northern								18
19	Illinois Central			930.00	930.00	2	15,700.00	15,700.00	19
20	Dubuque & Sioux City								20
21	a Iowa & Omaha Short Line								21
22	b Iowa & Southwestern								22
23	Keokuk & Des Moines								23
24	Manchester & Oneida								24
25	Minneapolis & St. Louis								25
26	c Iowa Central & Western								26
27	c Muscatine, Burlington & So.								27
28	d Muscatine North & South								28
29	Tabor & Northern								29
30	Union Pacific			30,000.00	30,000.00				30
31	Wabash Railway								31
	Total	1	5,000.00	\$30,967.56	\$35,957.56	2	24,100.00	24,100.00	

PART VI—COMPANY SERVICE CARS.

Number	Railway Companies	Number of units installed	Cost of units installed	Cost of betterments made to equipment	Gross amount charged to additions and betterments	Number of units retired	Cost of equipment retired	Amount credited to investment	Number
1	Atchison, Topeka & Santa Fe	400	155,284.92	85.57	155,370.00	251	40,265.00	43,950.37	1
2	Atlantic Northern								2
3	Chicago, Burlington & Quincy	545	437,461.35	10,170.23	429,637.16	608	327,530.00	327,530.00	3
4	Chicago Great Western	24	15,123.19	7,558.34	22,681.53	7	911.97	911.97	4
5	Mason City & Fort Dodge	5		1,287.83	1,287.83	4	1,000.00	1,000.00	5
6	Wisconsin, Minn. & Pacific	1		307.01	307.01		*11,148.61	*11,148.61	6
7	Chicago, Milwaukee & St. Paul	18	70,516.24	1,523.08	77,749.32	58	25,168.43	25,168.43	7
8	Chicago & North Western	417	232,150.00	20,471.56	252,621.56	300	59,631.21	59,631.21	8
9	Chicago, St. P., Minn. & Omaha	135	62,836.08	2,210.63	65,047.61	3	2,100.00	2,100.00	9
10	Iowa Southern								10
11	Chicago, Rock Island & Pacific	1	13,537.00	*5,984.41	7,552.63	329	178,300.55	178,300.55	11
12	St. Paul & K. C. Short Line								12
13	Colfax Northern								13
14	Colfax Consolidated Coal Co.								14
15	Security Investment Co.								15
16	Creston, Winterset & Des Moines								16
17	Davenport, R. I. & Northwestern								17
18	Great Northern	18	9,037.92	8,797.76	17,835.69	22	35,729.94	35,729.94	18
19	Illinois Central	317	141,197.56	5,183.44	146,381.00	182	68,144.19	68,144.19	19
20	Dubuque & Sioux City								20
21	a Iowa & Omaha Short Line								21
22	b Iowa & Southwestern								22
23	Keokuk & Des Moines								23
24	Manchester & Oneida								24
25	Minneapolis & St. Louis	69	23,044.70	453.29	23,498.00	20	27,089.73	27,089.73	25
26	c Iowa Central & Western								26
27	c Muscatine, Burlington & So.								27
28	d Muscatine North & South								28
29	Tabor & Northern								29
30	Union Pacific	706	191,785.00	11,531.84	203,316.89	315	104,384.35	104,384.35	30
31	Wabash Railway	222	32,219.92	12,789.51	45,009.44	17	5,004.64	5,004.64	31
	Total	2,969	1,380,391.25	\$77,051.67	\$1,459,432.50	2,035	870,622.72	865,378.06	

*Credit

TABLE 12—EQUIPMENT INSTALLATIONS, BETTERMENTS, AND RETIREMENTS MADE DURING THE YEAR.
PART VII—MISCELLANEOUS EQUIPMENT AND ALL CLASSES OF EQUIPMENT.

Number	Railway Companies	Miscellaneous Equipment				All Classes of Equipment					Number
		Cost of units installed	Gross amount charged to additions and betterments	Cost of equipment retired	Amount credited to investment	Cost of units installed	Cost of betterments made to equipment	Gross amount charged to additions and betterments	Cost of equipment retired	Amount credited to investment	
1	Aitchison, Topeka & Santa Fe.....	\$ 600.00	\$ 600.00			\$ 2,262,923.00	\$ 24,520.21	\$ 2,287,444.11	\$ 1,423,908.75	\$ 906,287.11	1
2	Atlantic Northern.....										2
3	Chicago, Burlington & Quincy.....	895.00	895.00			2,494,785.00	191,589.00	2,556,771.33	1,722,750.00	1,722,790.00	3
4	Chicago Great Western.....					763,134.71	80,000.43	843,235.14	403,352.13	403,352.13	4
5	Mason City & Fort Dodge.....						6,511.27	6,511.27	63,278.19	63,278.19	5
6	Wisconsin, Minn. & Pacific.....						11,058.14	11,058.14	397.22	397.22	6
7	Chicago, Milwaukee & St. Paul.....	2,215.40	2,215.40			7,137,424.51	159,336.03	7,296,761.74	1,025,104.76	1,025,104.76	7
8	Chicago & North Western.....					1,030,634.23	301,650.37	2,032,374.00	1,425,075.04	1,425,075.04	8
9	Chicago, St. P., Minn. & Omaha.....					884,454.48	23,300.49	907,844.97	300,004.12	300,004.12	9
10	Iowa Southern.....										10
11	Chicago, Rock Island & Pacific.....					13,837.05	223,707.22	237,634.28	674,319.75	674,319.75	11
12	St. Paul & K. O. Short Line.....								11,836.98	11,836.98	12
13	Colfax Northern.....										13
14	Colfax Consolidated Coal Co.....										14
15	Security Investment Co.....										15
16	Creston, Winterset & Des Moines.....										16
17	Davenport, R. I. & Northwestern.....										17
18	Great Northern.....					3,240,768.20	121,004.70	3,370,772.90	825,050.23	825,050.23	18
19	Illinois Central.....					5,006,625.82	501,674.00	5,508,300.42	2,038,500.65	2,038,500.65	19
20	Dubuque & Sioux City.....										20
21	a Iowa & Omaha Short Line.....										21
22	b Iowa & Southwestern.....										22
23	Koosuk & Des Moines.....										23
24	Manchester & Onida.....										24
25	Minneapolis & St. Louis.....					839,507.58	148,604.06	988,112.54	196,594.00	196,594.00	25
26	e Iowa Central & Western.....										26
27	c Muscatine, Burlington & So.....										27
28	d Muscatine North & South.....										28
29	Tabor & Northern.....										29
30	Union Pacific.....	3,951.76	3,951.76	\$1,149.83	\$1,149.83	732,980.01	77,287.35	810,267.36	1,036,421.02	1,036,421.02	30
31	Wabash Railway.....					1,290,883.51	504,724.78	1,794,808.52	269,000.11	269,000.11	31
	Total.....	\$ 7,762.76	\$ 7,732.76	\$1,149.83	\$1,149.83	\$25,450,160.30	\$ 2,465,231.06	\$28,729,787.32	\$12,007,481.66	\$12,449,170.62	

*Credit.

TABLE 13—CLASSIFICATION OF LOCOMOTIVE AND CAR EQUIPMENT.
PART I—STEAM LOCOMOTIVES AND FREIGHT TRAIN CARS.

Number	Railway Companies	Steam Locomotives						Freight Train Cars										Number					
		Number of Units		Units Available For Service At Close of Year				Units Available For Service at Close of Year															
		Available at beginning of year	Installed during year	Retired during year	Total number	No. fully owned	No. held under equipment lease	No. under lease from Rv. Co.	No. under other forms of title	Box cars	Flat cars	Stock cars	Coal cars	Tank cars	Refrigerator cars	Carbouse cars	Other freight train cars		Total freight train cars	Number fully owned			
1	Aitchison, Topeka & Santa Fe.....	1,901	30	47	1,784	1,106									801	3,469	57,906	29,460			1		
2	Atlantic Northern.....	1			1	1			33	850												2	
3	Chicago, Burlington & Quincy.....	1,767	1	22	1,746	1,746									213	2,011	679	66,226	66,226			3	
4	Chicago Great Western.....	295	30	25	300	300									429	125		10,894	10,663			4	
5	Mason City & Fort Dodge.....																						5
6	Wisconsin, Minn. & Pacific.....																						6
7	Chicago, Milwaukee & St. Paul.....	1,508	14	1	1,981	1,081									3,276	1,091	1,886	63,315	63,315			7	
8	Chicago & North Western.....	1,325	35	18	1,842	1,692	156								3,302	864	5,998	65,986	55,006			8	
9	Chicago, St. P., Minn. & O.....	309	23	4	388	388									469	168		12,548	12,548			9	
10	Iowa Southern.....																						10
11	Chicago, Rock Island & Pacific.....	1,500		30	1,540	481	378								1,810	672		45,630	5,775			11	
12	St. Paul & K. O. Short Line.....																						12
13	Colfax Northern.....	2			2																		13
14	Colfax Consolidated Coal Co.....																						14
15	Security Investment Co.....																						15
16	Creston, Winterset & Des Moines.....			1	1	1																	16
17	Davenport, R. I. & Northwest n.....																						17
18	Great Northern.....	1,319	25	31	1,313	1,310									4,289	925	10,102	57,401	57,133			18	
19	Illinois Central.....	1,455	71	89	1,437	1,105	200								4,317	749		62,602	44,896			19	
20	Dubuque & Sioux City.....																						20
21	a Iowa & Omaha Short Line.....	1			1	1																	21
22	b Iowa & Southwestern.....	3		2	1	1																	22
23	Koosuk & Des Moines.....																						23
24	Manchester & Onida.....																						24
25	Minneapolis & St. Louis.....	219	15	6	238	153	76																25
26	e Iowa Central & Western.....														22	107	107	7,495	5,825			26	
27	c Muscatine, Burlington & So.....	6	2	1	7	7																	27
28	d Muscatine North & South.....	6			6	6																	28
29	Tabor & Northern.....	1			1	1																	29
30	Union Pacific.....	1841	148	**51	1838	1827	11								330	2,049	17,247	17,247				30	
31	Wabash Railway.....	589			589	400	65								317			17,003	13,079			31	
	Total.....	14,008	294	315	14,014	11,670	900	315	1,108	273,786	25,080	37,600	95,045	3,106	18,822	6,524	23,726	484,715	381,928				

*Includes 4 other locomotives.

**Includes 3 extra tenders.

***Includes 1 motor car engine.

****Includes 1 extra tender.

*****Includes 2 extra tenders and 1 motor car engine.

TABLE 13—CLASSIFICATION OF LOCOMOTIVE AND CAR EQUIPMENT.
PART II—FREIGHT TRAIN CARS—CONTINUED AND PASSENGER TRAIN CARS.

Number	Railway Companies	Freight Train Cars—Continued										Passenger Train Cars										Number		
		Units Available For Service at Close of Year—Con.		Number of Units		Units Available For Service at Close of Year						Number of Units												
		No. held under equip-ment lease from a Ry. Co.	No. under other forms of title	Available at beginning of year	Installed during year	Retired from service during year	Coaches	Comb' passenger and freight	Other combination cars	Dining cars	Parlor cars	Sleeping cars	Baggage and express cars	Postal cars	Other passenger train cars	Total passenger train cars	No. fully owned	No. under lease from a Ry. Co.	No. under other forms of title	Available at beginning of year	Installed during year		Retired during year	
1	A., T. & S. F.	1,119	27,300	67,911	1,028	1,050	914	108	48	19	480	53	1,622	775	34	813	1,653	3	34	1	2			
2	Atlantic Northern			66,547	1,605	1,990	673	154	108	41	14	221	48	3,208	1,208	1	1	1,309	56	27	3	4		
3	C. B. & O.			10,918		224	89	10	13	6	16	23	131	5	200	184	23	207	5	3	3	4		
4	Chicago Great Western			62,322	2,573	1,400	654	130	140	62	24	239	273	37	1,569	1,609		1,567	16	14	8	7		
5	M. C. & Ft. D.			66,934	788	1,736	1,021	173	111	41	76	252	56	2,968	1,846	122		1,994	15	41	1	9		
6	W. M. & P.			12,774	304	530	175	34	32	8	30	60	11	340	340			339	2	1	8	8		
7	C., M. & St. P.	10,950																						
8	C. & N. W.																							
9	C., St. P., M. & O.																							
10	Iowa Southern	20,950	5,800	13,915	46,405	38	904	592	118	113	49	4	177	41	1,113	492	390	92	229	1,130	19	26	11	
11	C., R. I. & P.																							
12	St. P. & K. C. S. L.																							
13	Colfax Northern																							
14	Colfax Consol. Coal Co.																							
15	Security Inv. Co.																							
16	C., W. & D. M.																							
17	D., R. I. & N. W.																							
18	Great Northern			268	66,205	2,050	854	416	43	109	44	28	188	229	50	1,178	1,173	5	1,185	7	17	18		
19	Illinois Central	10,644	6,438	474	62,972	2,322	2,992	603	51	92	47	15	5	181	40	340	1,424	1,108	316	1,239	138	13	19	
20	Dubuque & Sioux City																							
21	a I. & O. S. I.																							
22	b Iowa & Southwestern																							
23	Keokuk & Des Moines																							
24	Manchester & Oquida																							
25	M. & St. L.	1,650	2		7,330	513	231	74	18					34	3	129	125		129					
26	e I. C. & W.																							
27	f M., B. & S.																							
28	g M., N. & S.																							
29	Tabor & Northern																							
30	Union Pacific			18,446	28	1,227	547	44	41	50	1		1	12	56	16	569	568		631	6	43	30	
31	Wabash Railway	2,808	320	886	17,377	1,116	800	197	63	21	17	7		74	32		411	336	44	31	430	19	18	
	Total	47,092	13,851	41,954	486,084	12,565	13,654	5,724	966	780	403	234	457	2,239	492	664	11,809	9,792	872	132	1,103	11,848	278	227

*Includes 3 gasoline motor cars.
†Includes 1 gasoline motor car, baggage and trailer.

PART III—COMPANY SERVICE CARS AND ALL CLASSES OF CARS IN SERVICE.

Number	Railway Companies	Company Service Cars										All Classes of Cars in Service		Number								
		Units Available For Service at Close of Year						Number of Units		Number of Units												
		Officers and pay cars	Ballast cars	Derrick cars	Steam shovels	Wrecking cars	Other company service cars	Total company service cars	Number fully owned	No. under equip-ment lease from a Ry. Co.	Available for service at beginning of year	Installed during year	Retired during year									
1	Aitchison, Topeka & Santa Fe	43	200	37	16	2	3,498	3,796	3,530		66	200	3,900	490	254	63,154	1,491	1,311	1	2		
2	Atlantic Northern																					
3	Chicago, Burlington & Quincy	47	2,303	22	19	17	2,788	5,190	6,196				5,161	543	508	72,977	2,304	2,461	3	3		
4	Chicago Great Western	4	41	8	3	3	412	470	470				450	31	11	11,675	36	238	4	5		
5	Mason City & Fort Dodge																					
6	Wisconsin, Minn. & Pacific																					
7	Chicago, Milwaukee & St. Paul	23	2,401	47	21	14	1,563	4,069	4,009				4,109	18	26	67,928	2,007	1,509	7	8		
8	Chicago & North Western	50	1,597	25	19	19	2,032	3,712	3,712				3,595	417	300	72,323	1,220	3,077	8	9		
9	Chicago, St. P., Minn. & Omaha	2	197		5	9	175	328	328				196	135	3	13,309	441	534	9	10		
10	Iowa Southern																					
11	Chicago, Rock Island & Pacific	30	2,359	35	14	125	1,450	4,219	1,488	801	130	1,710	4,402	292	385	51,927	259	1,315	11	12		
12	St. Paul & K. C. Short Line																					
13	Colfax Northern																					
14	Colfax Consolidated Coal Co.																					
15	Security Investment Co.																					
16	Creston, Winteret & Des Moines																					
17	Davenport, R. I. & Northwestern																					
18	Great Northern																					
19	Illinois Central	14	394	9	6	16	2,107	2,546	2,546				1,253	18	72	58,843	2,096	953	13	14		
20	Dubuque & Sioux City																					
21	a Iowa & Omaha Short Line																					
22	b Iowa & Southwestern																					
23	Keokuk & Des Moines																					
24	Manchester & Oquida																					
25	Minneapolis & St. Louis	3	45	7	2		302	359	359				319	69	29	7,651	652	256	25	26		
26	e Iowa Central & Western																					
27	f Muscatine, Burlington & So.																					
28	g Muscatine North & South																					
29	Tabor & Northern																					
30	Union Pacific	16	410	9	9	18	2,091	2,423	2,423				2,062	706	315	21,139	739	1,685	30	30		
31	Wabash Railway	9	188	15	3	81	494	760	957				555	222	17	18,342	1,307	835	31	31		
	Total	210	10,688	245	132	271	17,431	29,107	36,107	891	106	1,913	28,068	3,122	2,054	525,984	15,006	16,245				

TABLE NO. 13—CLASSIFICATION OF LOCOMOTIVE AND CAR EQUIPMENT.

PART IV—ALL CLASSES OF CARS IN SERVICE, FLOATING EQUIPMENT AND EQUIPMENT OWNED OR LEASED NOT IN SERVICE OF RESPONDENT.

Number	Railway Companies	All Classes of Cars in Service—Continued						Floating Equipment				Equipment Owned Not in Service of Respondent								
		Units Available For Service at Close of Year						Units Available For Service at Close of Year				Units Available For Service at Close of Year		Number of Units						
		Total number	Number fully owned	No. under equipment trust	No. under lease from a R. R. Co.	No. under other forms of title	Steam and tugboats	Barges, car-floats, canal boats	Other floating equipment	Total floating equipment	Number fully owned	Locomotives	Passenger-train cars	Freight-train cars	Total cars	Number fully owned	No. held under other title	Available for service at beginning of year	Retired from service during year	Number
1	Atchison, Topeka & Santa Fe	69,321	38,705		1,219	26,408	0	4	10	10	104		9,302	9,302	4000	5,242	9,007	0	1	
2	Atlantic Northern																			2
3	Chicago, Burlington & Quincy	72,720	72,720				4	68	11	73	73									3
4	Chicago Great Western	11,373	11,347			26														4
5	Mason City & Fort Dodge																			5
6	Wisconsin, Minn. & Pacific																			6
7	Chicago, Milwaukee & St. Paul	68,083	68,083																	7
8	Chicago & North Western	71,066	60,594	1,072																8
9	Chicago, St. P., Minn. & Omaha	13,210	13,210																	9
10	Iowa Southern																			10
11	Chicago, Rock Island & Pacific	50,871	7,665	22,221	6,121	14,864				1	1									11
12	St. Paul & K. C. Short Line																			12
13	Colfax Northern	11			11															13
14	Colfax Consolidated Coal Co.																			14
15	Security Investment Co.																			15
16	Creston, Winterset & Des Moines																			16
17	Davenport, R. I. & Northwestern	123	123																	17
18	Great Northern	59,778	59,503			273		2					1		1					18
19	Illinois Central	66,472	48,550	16,900	6,488	474	3	9	10	22	22									19
20	Dubuque & Sioux City																			20
21	a Iowa & Omaha Short Line	13	13																	21
22	b Iowa & Southwestern																			22
23	Keokuk & Des Moines																			23
24	Manchester & Onida																			24
25	Minneapolis & St. Louis	7,083	6,813	1,650	20								4							25
26	c Iowa Central & Western																			26
27	d Muscatine, Burlington & So.	12	12																	27
28	e Muscatine North & South	12	12																	28
29	Tabor & Northern																			29
30	Union Pacific	90,203	30,200										23	1		1				30
31	Wabash Railway	15,864	14,772	1,832	320	920	3			3										31
	Total	625,703	417,811	48,705	14,179	44,960	10	74	21	111	108	135	10	9,311	9,311	4,079	5,242	9,386	0	31

TABLE 14—STEAM LOCOMOTIVE EQUIPMENT.

Number	Railway Companies	Road Locomotives Having Drivers 60 Inches or Less in Diameter				Road Locomotives Having Drivers More Than 60 Inches in Diameter				Switching Locomotives			
		Total No. locomotives available for service	Total weight on drivers	Total tractive capacity—thousand pounds	No. contracted for delivery or to be built following year	Total No. locomotives available for service	Total weight on drivers	Total tractive capacity—thousand pounds	No. contracted for delivery or to be built following year	Total No. locomotives available for service	Total weight on drivers	Total tractive capacity—thousand pounds	No. contracted for delivery or to be built following year
1	Atchison, Topeka & Santa Fe	1,226	98,302	49,951.3		411	27,588	11,508.2		147	9,980	4,198.2	
2	Atlantic Northern												
3	Chicago, Burlington & Quincy	1,209	90,939	41,693.7	50	190	12,812	5,743.0		294	16,664	7,070.5	
4	Chicago Great Western	235	16,839	8,015.7		21	1,377	735.5		44	3,436	1,564.1	
5	Mason City & Fort Dodge												
6	Wisconsin, Minn. & Pacific												
7	Chicago, Milwaukee & St. Paul	1,614	101,901	47,205.21		185	11,880	4,810.20		283	15,937	7,001.3	
8	Chicago & North Western	1,387	85,248	39,023.8	70	249	14,845	6,601.9		307	18,041	6,832.1	68
9	Chicago, St. P., Minn. & Omaha	278	16,480	7,671.4	9	38	2,829	1,560.4		32	2,736	1,088.4	9
10	Iowa Southern												
11	Chicago, Rock Island & Pacific	1,160	79,835	35,502.3		187	12,895	6,653.1		187	12,044	4,850.0	
12	St. Paul & K. C. Short Line												
13	Colfax Northern												
14	Colfax Consolidated Coal Co.												
15	Security Investment Co.	2	107	49.									
16	Creston, Winterset & Des Moines												
17	Davenport, R. I. & Northwestern	1	36	13.									
18	Great Northern	1,028	88,060	40,968.3	60	166	11,376	5,058.0		115	7,192	3,461.7	
19	Illinois Central	1,008	88,965	37,138.5		171	11,804	6,269		229	14,102	6,943.2	
20	Dubuque & Sioux City												
21	a Iowa & Omaha Short Line												
22	b Iowa & Southwestern												
23	Keokuk & Des Moines												
24	Manchester & Onida												
25	Minneapolis & St. Louis	195	11,964	5,635.3						37	2,338	1,004.6	
26	c Iowa Central & Western												
27	d Muscatine, Burlington & So.												
28	e Muscatine North & South												
29	Tabor & Northern												
30	Union Pacific	650	44,070	20,072.7	65	168	11,884	4,665.3		111	7,495	2,987.5	30
31	Wabash Railway	327	27,705	12,577.2	23	167	9,860	4,497.4		95	6,064	2,522.3	31
	Total	10,132	742,153	343,076.51	208	1,070	130,141	56,417.09	18	1,906	110,911	49,352.5	97

*Includes 15 work locomotives. Includes 540 tons of work locomotives. \$214, 7,000 lbs. work locomotives.

TABLE 15—FREIGHT CAR EQUIPMENT—REVENUE SERVICE.
PART I—BOX CARS AND FLAT CARS.

Number	Railway Companies	Box Cars						Flat Cars						Number
		Total number (a)	Aggregate capacity—tons	Steel number	Aggregate capacity—tons	Steel under-frame—number	Aggregate capacity—tons	Total number (c)	Aggregate capacity—tons	Steel number	Aggregate capacity—tons	Steel under-frame—number	Aggregate capacity—tons	
1	Atchison, Topeka & Santa Fe	30,925	1,088,685			10,412	380,515	2,475	92,125			1,603	66,000	1
2	Atlantic Northern													2
3	Chicago, Burlington & Quincy	30,454	1,211,045			3,345	133,800	1,530	69,500	1,000	50,000			3
4	Chicago Great Western	7,529	302,300			3,483	134,750	545	19,450			190	7,900	4
5	Mason City & Fort Dodge													5
6	Wisconsin, Minn. & Pacific													6
7	Chicago, Milwaukee & St. Paul	42,690	1,471,093			19,684	787,390	4,888	157,722	1	50	1,112	55,000	7
8	Chicago & North Western	35,620	1,322,721			14,051	502,040	4,640	190,025			1,290	64,500	8
9	Chicago, St. P., Minn. & Omaha	8,973	316,743			2,784	111,360	1,206	41,100			199	7,900	9
10	Iowa Southern													10
11	Chicago, Rock Island & Pacific	30,467	1,129,735			17,295	691,800	1,792	78,320			943	47,150	11
12	St. Paul & K. O. Short Line													12
13	Colfax Northern													13
14	Colfax Consolidated Coal Co.													14
15	Security Investment Co.													15
16	Creston, Winterset & Des Moines													16
17	Davenport, R. I. & Northwestern	19	570					34	1,270	25	1,000			17
18	Great Northern	33,446	1,226,210			1,482	59,280	4,315	161,048					18
19	Illinois Central	28,094	1,130,445			11,908	509,270	2,861	124,330			906	49,800	19
20	Dubuque & Sioux City													20
21	a Iowa & Omaha Short Line													21
22	b Iowa & Southwestern													22
23	Keokuk & Des Moines													23
24	Manchester & Onida													24
25	Minneapolis & St. Louis	5,410	199,705			781	34,364	156	4,430					25
26	c Iowa Central & Western													26
27	d Muscatine, Burlington & So.													27
28	e Muscatine North & South													28
29	Tabor & Northern													29
30	Union Pacific	9,703	453,760	28	1,400	5,748	424,790	801	40,050			801	40,050	30
31	Wabash Railway	10,100	362,100			3,083	123,320	721	26,070			456	19,500	31
	Total	273,772	10,135,122	28	1,400	97,141	3,962,640	25,965	1,006,000	1,026	31,000	7,636	356,800	

PART II—STOCK CARS AND COAL CARS.

Number	Railway Companies	Stock cars						Coal Cars						Number
		Total number (a)	Aggregate capacity—tons	Steel—number	Aggregate capacity—tons	Steel under-frame—number	Aggregate capacity—tons	Total number (c)	Aggregate capacity—tons	Steel—number	Aggregate capacity—tons	Steel under-frame—number	Aggregate capacity—tons	
1	Atchison, Topeka & Santa Fe	7,704	297,125			4,915	191,715	9,692	350,000			3,027	178,910	1
2	Atlantic Northern													2
3	Chicago, Burlington & Quincy	7,461	199,225					22,803	1,112,735	18,714	935,700	996	49,800	3
4	Chicago Great Western	812	24,300					1,351	68,105	914	45,700			4
5	Mason City & Fort Dodge													5
6	Wisconsin, Minn. & Pacific													6
7	Chicago, Milwaukee & St. Paul	5,617	165,099			2,468	79,898	4,692	229,745	43	2,150	2,495	124,300	7
8	Chicago & North Western	4,106	117,425					12,456	652,450			6,493	324,650	8
9	Chicago, St. P., Minn. & Omaha	120	3,545					1,615	67,695			800	40,000	9
10	Iowa Southern													10
11	Chicago, Rock Island & Pacific	4,272	145,320			787	31,483	6,523	289,320	1,625	81,250	2,073	102,660	11
12	St. Paul & K. O. Short Line													12
13	Colfax Northern													13
14	Colfax Consolidated Coal Co.													14
15	Security Investment Co.													15
16	Creston, Winterset & Des Moines							69	3,070	50	2,500			16
17	Davenport, R. I. & Northwestern							3,003	92,460					17
18	Great Northern	2,923	53,369					3,003	1,112,735	18,714	935,700	996	49,800	18
19	Illinois Central	1,710	54,579			500	20,000	24,795	1,129,445	11,244	562,200	1,700	85,450	19
20	Dubuque & Sioux City													20
21	a Iowa & Omaha Short Line													21
22	b Iowa & Southwestern													22
23	Keokuk & Des Moines													23
24	Manchester & Onida													24
25	Minneapolis & St. Louis	437	12,965					1,256	46,055	100	5,000	1	50	25
26	c Iowa Central & Western													26
27	d Muscatine, Burlington & So.													27
28	e Muscatine North & South													28
29	Tabor & Northern	2,117	76,070			1,791	65,000	3,947	101,530	2,153	96,970			29
30	Union Pacific	1,050	42,096					3,465	261,220	1,028	44,000	3,979	198,950	30
31	Wabash Railway													31
	Total	37,609	1,162,043			10,415	382,175	65,040	4,284,960	35,853	1,775,500	22,164	1,104,700	

TABLE 15—FREIGHT CAR EQUIPMENT—REVENUE SERVICE.
PART III—TANK CARS AND REFRIGERATOR CARS.

Number	Railway Companies	Tank Cars					Refrigerator Cars					Number
		Total number (a)	Aggregate ca- pacity—tons	Steel—number	Aggregate ca- pacity—tons	Steel under- frame—number	Total number (a)	Aggregate ca- pacity—tons	Steel—number	Aggregate ca- pacity—tons	Steel under- frame—number		Aggregate ca- pacity—tons
1	Atchison, Topeka & Santa Fe	2,948	116,765			2,790	111,600					1
2	Atlantic Northern											2
3	Chicago, Burlington & Quincy	216	9,520	213	9,520							3
4	Chicago Great Western											4
5	Mason City & Fort Dodge											5
6	Wisconsin, Minn. & Pacific											6
7	Chicago, Milwaukee & St. Paul											7
8	Chicago & North Western											8
9	Chicago, St. P., Minn. & Omaha											9
10	Iowa Southern									300	4,000	10
11	Chicago, Rock Island & Pacific									347	19,410	11
12	St. Paul & K. C. Short Line											12
13	Colfax Northern											13
14	Colfax Consolidated Coal Co.											14
15	Security Investment Co.											15
16	Creton, Winterset & Des Moines											16
17	Davenport, R. I. & Northwestern											17
18	Great Northern											18
19	Illinois Central	10	400	10	400		4,289	137,890				19
20	Dubuque & Sioux City									3,514	99,450	20
21	a Iowa & Omaha Short Line											21
22	b Iowa & Southwestern											22
23	Keokuk & Des Moines											23
24	Manchester & Oneida											24
25	Minneapolis & St. Louis											25
26	e Iowa Central & Western											26
27	c Muscatine, Burlington & So.											27
28	d Muscatine North & South											28
29	Taber & Northern											29
30	Union Pacific											30
31	Wabash Railway											31
	Total	3,168	123,687	22	9,920	2,790	111,600	18,827	570,300	3,76	113,839	

PART IV—OTHER FREIGHT CARRYING CARS AND ALL FREIGHT CARRYING CARS.

Number	Railway Companies	Other Freight Carrying Cars					All Freight Carrying Cars					Number			
		Total number (a)	Aggregate ca- pacity—tons	Steel—number	Aggregate ca- pacity—tons	Steel under- frame—number	Total number (a)	Aggregate ca- pacity—tons	Steel—number	Aggregate ca- pacity—tons	Steel under- frame—number		Aggregate ca- pacity—tons		
1	Atchison, Topeka & Santa Fe	3,469	160,190			2,813	134,930			57,108	2,074,200			26,308	1,003,750
2	Atlantic Northern														
3	Chicago, Burlington & Quincy	79	1,528							65,547	2,690,803	19,927	965,220	4,341	183,600
4	Chicago Great Western									10,500	377,000	914	45,700	3,682	145,710
5	Mason City & Fort Dodge														
6	Wisconsin, Minn. & Pacific														
7	Chicago, Milwaukee & St. Paul	1,888	98,080							92,224	2,388,590	44	2,200	25,745	1,041,150
8	Chicago & North Western	5,908	276,891	3,079	198,950					65,122	2,628,414	3,979	198,950	21,834	951,100
9	Chicago, St. P., Minn. & Omaha									12,885	443,973			3,883	163,320
10	Iowa Southern														
11	Chicago, Rock Island & Pacific									44,807	1,606,965	1,025	81,250	21,445	889,400
12	St. Paul & K. C. Short Line														
13	Colfax Northern														
14	Colfax Consolidated Coal Co.														
15	Security Investment Co.														
16	Creton, Winterset & Des Moines														
17	Davenport, R. I. & Northwestern									122	4,910	75	3,500		
18	Great Northern	10,162	483,535	5,963	293,200	2,879	143,900			56,778	2,144,503	5,963	293,200	4,301	202,220
19	Illinois Central									61,737	2,568,680	11,254	562,000	18,517	761,940
20	Dubuque & Sioux City														
21	a Iowa & Omaha Short Line														
22	b Iowa & Southwestern														
23	Keokuk & Des Moines														
24	Manchester & Oneida														
25	Minneapolis & St. Louis	107	3,010							7,888	296,815	100	5,000	782	31,414
26	e Iowa Central & Western														
27	c Muscatine, Burlington & So.														
28	d Muscatine North & South														
29	Taber & Northern														
30	Union Pacific	2,049	102,456	626	54,550	1,320	67,000			16,977	773,850	2,830	133,720	12,645	507,430
31	Wabash Railway									17,376	682,355	1,028	44,000	7,567	312,070
	Total	23,720	1,126,564	10,641	527,100	7,042	316,380			478,157	18,411,174	17,769	2,365,000	151,009	6,379,374

TABLE 16—PASSENGER TRAIN CAR EQUIPMENT—REVENUE SERVICE.
PART I—COACHES, COMBINATION PASSENGER COACHES AND OTHER COMBINATION CARS.

Number	Railway Companies	Coaches						Combination Passenger Cars						Other Combination Cars					
		Construction			Seating Capacity			Construction			Seating Capacity			Total number in service at close of year	Construction				
		No. of cars of steel	No. of cars with steel underframes	No. of cars of wood	Total	Average	Total number in service at close of year	No. of cars of steel	No. of cars with steel underframes	No. of cars of wood	Total	Average	No. of cars of steel		No. of cars with steel underframes	No. of cars of wood			
1	Atchison, Topeka & Santa Fe.....	914	169	237	608	65,800	72	108		14	94	3,118	29						1
2	Atlantic Northern.....																		2
3	Chicago, Burlington & Quincy.....	673	28	80	606	43,080	64	154		9	5	140	4,853	31	108	35	10	73	3
4	Chicago Great Western.....	80	21		68	5,702	65	16		5	11	702	44	13		6	7	4	
5	Mason City & Fort Dodge.....																	5	
6	Wisconsin, Minn. & Pacific.....																	6	
7	Chicago, Milwaukee & St. Paul.....	634	141		613	36,399	56	126		15		124	4,213	30	140	40	100	7	
8	Chicago & North Western.....	1,021	277		744	65,350	64	173		3	135	7,309	42	111	34	77	5	8	
9	Chicago, St. P., Minn. & Omaha.....	172	49		137	10,702	61	34		2	32	973	28	32	10	20	9		
10	Iowa Southern.....																	10	
11	Chicago, Rock Island & Pacific.....	568	134		458	30,026	66	118		25		33	4,239	26	113	48	5	65	
12	St. Paul & K. C. Short Line.....																	12	
13	Colfax Northern.....																	13	
14	Colfax Consolidated Coal Co.....																	14	
15	Security Investment Co.....																	15	
16	Creston, Winterset & Des Moines.....																	16	
17	Davenport, R. I. & Northwestern.....																	17	
18	Great Northern.....	418	20	25	363	29,514	71	43			45	1,888	32	108			87	18	
19	Illinois Central.....	603	148	17	496	40,056	62	61	19		36	1,707	35	92	33	11	48	19	
20	Dubuque & Sioux City.....																	20	
21	a Iowa & Omaha Short Line.....																	21	
22	b Iowa & Southwestern.....																	22	
23	Keokuk & Des Moines.....																	23	
24	Manchester & Onelda.....																	24	
25	Minneapolis & St. Louis.....	74			74	4,998	66	18			15	470	26					25	
26	e Iowa Central & Western.....																	26	
27	c Muscatine, Burlington & So.....																	27	
28	d Muscatine North & South.....																	28	
29	Tabor & Northern.....																	29	
30	Union Pacific.....	247	108		130	14,282	56	44	13		31	1,232	28	41	21			30	
31	Wabash Railway.....	197	16	2	179	13,141	66	63	8		55	1,902	31	21				31	
	Total.....	5,712	1,117	361	4,234	309,066	62	961	128	22	811	32,116	33	780	198	64	518		

PART II—DINING CARS, PARLOR CARS, AND SLEEPING CARS.

Number	Railway Companies	Dining Cars						Parlor Cars						Sleeping Cars					
		Construction			Seating Capacity			Construction			Seating Capacity			Construction			Seating Capacity		
		No. of cars of steel	No. of cars with steel underframes	No. of cars of wood	Total	Average	Total number of cars in service at close of year	No. of cars of steel	No. of cars with steel underframes	No. of cars of wood	Total	Average	Total number of cars in service at close of year	No. of cars of steel	No. of cars with steel underframes	No. of cars of wood	Total	Average	
1	Atchison, Topeka & Santa Fe.....	45	15	12	21	1,444	30	19		10	5	4	854	45					1
2	Atlantic Northern.....																		2
3	Chicago, Burlington & Quincy.....	41	5	13	23	1,284	31	14		9	5	712	51						3
4	Chicago Great Western.....	6	2		4	170	38	16		4	2	10	602	41	23	12	13		4
5	Mason City & Fort Dodge.....																		5
6	Wisconsin, Minn. & Pacific.....																		6
7	Chicago, Milwaukee & St. Paul.....	62	31		31	2,882	47	34		19		15	1,773	32	230	138			7
8	Chicago & North Western.....	41	23	1	8	1,392	31	76	33			43	2,959	29					8
9	Chicago, St. P., Minn. & Omaha.....	8	5		3	236	32	20	6			14	777	38					9
10	Iowa Southern.....																		10
11	Chicago, Rock Island & Pacific.....	49	14	5	30	1,468	30	4			4	144	39						11
12	St. Paul & K. C. Short Line.....																		12
13	Colfax Northern.....																		13
14	Colfax Consolidated Coal Co.....																		14
15	Security Investment Co.....																		15
16	Creston, Winterset & Des Moines.....																		16
17	Davenport, R. I. & Northwestern.....																		17
18	Great Northern.....	44			44	1,378	23	28			22	1,210	43	186			188	10,092	54
19	Illinois Central.....	37	27		10	1,392	34	15	13		2	600	40	5			5	302	49
20	Dubuque & Sioux City.....																		20
21	a Iowa & Omaha Short Line.....																		21
22	b Iowa & Southwestern.....																		22
23	Keokuk & Des Moines.....																		23
24	Manchester & Onelda.....																		24
25	Minneapolis & St. Louis.....																		25
26	e Iowa Central & Western.....																		26
27	c Muscatine, Burlington & So.....																		27
28	d Muscatine North & South.....																		28
29	Tabor & Northern.....																		29
30	Union Pacific.....	50	24		26	1,500	30	1			1	36	30						30
31	Wabash Railway.....	17		1	16	500	32	7			3	237	34						31
	Total.....	408	155	32	216	13,344	33	229	8	19	13	9,96	47	457	12	11	29	4,422	52

TABLE 16—PASSENGER TRAIN CAR EQUIPMENT—REVENUE SERVICE.
PART III—BAGGAGE AND EXPRESS CARS, POSTAL CARS, OTHER PASSENGER TRAIN CARS, AND TOTAL PASSENGER TRAIN CARS.

Number	Railway Companies	Baggage and Express Cars			Postal Cars			Other Passenger Train Cars			Total Passenger Train Cars				Number				
		Total No. of cars in service at close of year	Construction		Total No. of cars in service at close of year	Construction		Total No. of cars in service at close of year	Construction		Total No. of cars in service at close of year	Construction		Seating Capacity					
			No. of cars of steel	No. of cars with steel underframe		No. of cars of steel	No. of cars with steel underframe		No. of cars of steel	No. of cars with steel underframe		No. of cars of steel	No. of cars with steel underframe			No. of cars of steel	No. of cars with steel underframe		
1	Aitchison, Topeka & Santa Fe	480	64	219	197	53	53			1,022	238	540	824	71,227	61				
2	Atlantic Northern																		
3	Chicago, Burlington & Quincy	221		45	176	48	26	17	5	10	29	90	1,016	49,925	37				
4	Chicago Great Western	30	7		23	5	2	1	2	299	53	23	134	8,514	56				
5	Mason City & Fort Dodge																		
6	Wisconsin, Minn. & Pacific																		
7	Chicago, Milwaukee & St. Paul	278	67	10	199	57	47	10	1	1,000	468	10	1,061	58,178	36				
8	Chicago & North Western	232	101		151	59	33	23	238	1,968	545	294	1,310	76,778	39				
9	Chicago, St. P., Minn. & Omaha	66	30		49	11	6	5		327	83	10	241	12,770	28				
10	Iowa Southern																		
11	Chicago, Rock Island & Pacific	177	73		104	41	36	5	10	19	1,113	235	15	773	44,867	59			
12	St. Paul & K. C. Short Line																		
13	Colfax Northern																		
14	Colfax Consolidated Coal Co.																		
15	Security Investment Co.																		
16	Creston, Winterset & Des Moines																		
17	Davenport, R. I. & Northwestern	299		20	279	50	23	27	1	1,178	54	67	1,037	43,472	60				
18	Great Northern	181	46		133	40	22	8	340	331	9	1,424	314	361	749	44,737	58		
19	Illinois Central																		
20	Dubuque & Sioux City																		
21	a Iowa & Omaha Short Line																		
22	b Iowa & Southwestern																		
23	Keokuk & Des Moines																		
24	Manchester & Oneida																		
25	Minneapolis & St. Louis	34			34	3	2	1		129	2		137	5,468	59				
26	e Iowa Central & Western																		
27	c Muscatine, Burlington & So.																		
28	d Muscatine North & South																		
29	Tabor & Northern	138	50		88	56	41	7	16	603	281		312	17,050	50				
30	Union Pacific	74			69	32	3	12		411	44	14	353	15,880	56				
31	Wabash Railway																		
	Total	9,228	428	304	1,406	462	276	70	100	634	16	541	97,11,881	2,353	1,432	7,800	448,914	38	126

TABLE 17—ROAD OPERATED AT CLOSE OF YEAR—ENTIRE LINE.
PART I—MILEAGE OF ROAD OPERATED, SINGLE TRACK, AND ALL TRACKS.

Number	Railway Companies	Mileage of Road Operated—Single Track							Mileage of Road Operated—All Tracks						Number	
		Lines Owned		Line operated by proprietary companies	Line operated under lease	Line operated under contract or agreement	Line operated under trackage rights	Total mileage operated—single track	Miles of first main track	Miles of second main track	Miles of third main track	Miles of fourth main track	Miles of all other main tracks	Miles of yard track and siding, etc.		Total mileage operated—all tracks
		Main line	Branches and spurs													
1	Aitchison, Topeka & Santa Fe	4,517.26	2,611.30	23.41	1,350.07		146.17	8,648.21	8,648.21	073.61	19.01	6.13		3,304.98	12,061.95	1
2	Atlantic Northern	17.00					17.00	17.00							17.00	2
3	Chicago, Burlington & Quincy	4,859.35	5,455.12	68.22	30.76		10,312.21	10,312.21	1,251.02	42.40				3,432.83	15,509.46	3
4	Chicago Great Western	757.47				682.66	85.95	1,496.02	1,496.02	108.73	11.24	11.24		578.39	2,203.69	4
5	Mason City & Fort Dodge															5
6	Wisconsin, Minn. & Pacific															6
7	Chicago, Milwaukee & St. Paul	6,046.76	3,819.01				301.17	10,207.94	10,207.94	1,118.94	26.00	16.28		3,434.59	14,803.75	7
8	Chicago & North Western	3,049.20	4,866.54	1.98		32.33	76.78	8,107.83	8,107.83	923.04	104.49	95.36		3,536.01	12,760.72	8
9	Chicago, St. P., Minn. & Omaha	1,683.22					69.59	1,762.81	1,762.81	198.69	16.64	12.77		639.81	2,615.72	9
10	Iowa Southern															10
11	Chicago, Rock Island & Pacific	3,579.31	1,789.99		1,079.10		610.69	7,035.38	7,035.38	436.42	8.01			2,229.12	10,339.93	11
12	St. Paul & K. C. Short Line															12
13	Colfax Northern				7.41			7.41	7.41					2.92	10.33	13
14	Colfax Consolidated Coal Co.															14
15	Security Investment Co.															15
16	Creston, Winterset & Des Moines	20.72						20.72	20.72					3.52	24.24	16
17	Davenport, R. I. & Northwestern	46.76						49.00	49.00	1.00				41.87	91.80	17
18	Great Northern	7,033.00	79.48	688.21			396.53	8,197.82	8,197.82	218.85	9.28	9.29	3.76	2,206.16	10,645.16	18
19	Illinois Central	2,271.52			1,420.97	801.41	203.18	4,706.19	4,706.19	792.94	29.58	26.00	142.10	2,169.10	7,023.27	19
20	Dubuque & Sioux City															20
21	a Iowa & Omaha Short Line	12.13						12.13	12.13					1.00	13.13	21
22	b Iowa & Southwestern	17.18						17.18	17.18					1.00	18.18	22
23	Keokuk & Des Moines	162.31			1.81			169.18	169.18					22.57	191.75	23
24	Manchester & Oneida	8.03						8.15	8.15					7.75	8.90	24
25	Minneapolis & St. Louis	634.54	165.70				846.24	1,046.70	1,046.70	29.59				367.96	2,039.70	25
26	e Iowa Central & Western															26
27	c Muscatine, Burlington & So.	47.77						63.77	63.77					8.71	62.48	27
28	d Muscatine North & South	47.77						63.77	63.77					8.71	62.48	28
29	Tabor & Northern	8.29						10.75	10.75					1.00	11.75	29
30	Union Pacific	1,325.90	1,039.48		27.38	9.54	28.80	3,622.07	3,622.07	841.55	2.97	2.97		1,331.77	5,709.60	30
31	Wabash Railway	1,829.23	105.56	88.83	9.07		479.37	2,519.06	2,519.06	530.72				1,189.75	4,239.53	31
	Total	38,548.64	30,530.18	881.51	4,527.43	1,606.04	2,703.31	89,797.61	89,797.61	7,412.36	365.72	179.79	145.86	24,323.81	102,395.09	

TABLE 17—ROAD OPERATED AT CLOSE OF YEAR—ENTIRE LINE
PART II—MILEAGE OF ROAD OWNED.

Number	Railway Companies	Miles of first main track	Miles of second main track	Miles of third main track	Miles of fourth main track	Miles of all other main tracks	Miles of yard track or siding, etc.	Total mileage owned—all tracks	Number
1	Atchison, Topeka & Santa Fe	7,128.55	888.33	6.68	6.12		2,807.58	10,887.27	1
2	Atlantic Northern	17.00						17.00	2
3	Chicago, Burlington & Quincy	10,314.37	1,102.03	45.40			3,434.39	14,900.19	3
4	Chicago Great Western	357.47	97.82				305.95	1,181.14	4
5	Mason City & Fort Dodge	383.35	9.10				108.95	501.46	5
6	Wisconsin, Minn. & Pacific	277.43					39.39	316.82	6
7	Chicago, Milwaukee & St. Paul	9,856.77	1,040.94	24.80	16.28		3,434.50	14,373.44	7
8	Chicago & North Western	7,066.13	865.25	104.49	95.36		3,421.45	12,432.68	8
9	Chicago, St. P., Minn. & Omaha	1,683.22	183.00	6.37	2.50		628.10	2,503.22	9
10	Iowa Southern	12.25					5.61	15.86	10
11	Chicago, Rock Island & Pacific	5,305.30	282.35	8.01			1,685.54	7,341.20	11
12	St. Paul & K. C. Short Line	182.97					66.08	248.65	12
13	Colfax Northern								13
14	Colfax Consolidated Coal Co.	6.87					1.99	8.86	14
15	Security Investment Co.	6.00					.93	6.96	15
16	Creston, Winterset & Des Moines	20.72					3.52	24.24	16
17	Davenport, R. I. & Northwestern	66.78	1.06				41.87	89.69	17
18	Great Northern	7,113.68	211.73	9.38	9.29	3.76	2,685.50	9,432.73	18
19	Illinois Central	2,271.52	400.95	20.38	26.60	44.46	1,123.56	3,892.75	19
20	Dubuque & Sioux City	730.97	.59				228.07	660.53	20
21	a Iowa & Omaha Short Line	12.15					1.00	13.15	21
22	b Iowa & Southwestern	17.18					1.00	18.18	22
23	Keokuk & Des Moines	162.31					11.68	173.99	23
24	Manchester & Oneida	8.63					.75	8.78	24
25	Minneapolis & St. Louis	800.54					180.00	981.53	25
26	e Iowa Central & Western	36.60					3.86	40.45	26
27	c Muscatine, Burlington & So.	47.77					8.71	56.48	27
28	d Muscatine North & South	47.77					8.71	56.48	28
29	Tabor & Northern	8.79					1.00	9.79	29
30	Union Pacific	3,556.38	841.37	2.07	2.07		1,322.90	5,729.85	30
31	Wabash Railway	2,148.17	321.74				873.93	3,343.84	31
	Total	60,548.64	6,273.34	230.74	158.28	53.11	21,604.55	80,608.66	32

TABLE 17A—ROAD OPERATED AT CLOSE OF YEAR—IOWA
PART I—MILEAGE OF ROAD OPERATED—SINGLE TRACK AND ALL TRACKS.

Number	Railway Companies	Mileage of Road Operated—Single Track						Mileage of Road Operated—All Tracks						Number			
		Line Owned		Lines operated by proprietary companies	Lines operated under lease	Lines operated under contract and agreement	Lines operated under trackage rights	Total mileage operated—single track	Miles of first main track	Miles of second main track	Miles of third main track	Miles of fourth main track	Miles of all other main track		Miles of yard track and siding, etc.	Total mileage operated—all tracks	
		Main line	Branches and spurs														
1	Atchison, Topeka & Santa Fe	19.89					19.8	19.8	19.61				27.31	66.87	1		
2	Atlantic Northern	17.00					17.0	17.00						17.00	2		
3	Chicago, Burlington & Quincy	371.65	993.44				1,438.54	1,438.56	243.55				383.38	2,035.49	3		
4	Chicago Great Western	400.19				370.40	5.82	776.41	776.41	30.56			252.69	1,049.66	4		
5	Mason City & Fort Dodge														5		
6	Wisconsin, Minn. & Pacific														6		
7	Chicago, Milwaukee & St. Paul	1,198.14	677.81				67.03	1,043.88	1,043.88	313.86			14.11	472.10	2,743.95	7	
8	Chicago & North Western	363.78	1,239.65			12.25	17.56	1,633.14	1,633.14	369.20				572.13	2,564.47	8	
9	Chicago, St. P., Minn. & Omaha	74.54					27.50	102.04	102.04					44.79	146.53	9	
10	Iowa Southern															10	
11	Chicago, Rock Island & Pacific	1,163.12	733.47			182.97		91.94	2,131.50	2,131.50	87.29			576.68	2,796.47	11	
12	St. Paul & K. C. Short Line															12	
13	Colfax Northern					7.41			7.41						2.92	10.33	13
14	Colfax Consolidated Coal Co.																14
15	Security Investment Co.																15
16	Creston, Winterset & Des Moines	20.72						30.72	20.72					3.52	24.24	16	
17	Davenport, R. I. & Northwestern	34.50					.79	35.29	35.29	1.96				35.29	71.64	17	
18	Great Northern	77.86						77.86	77.86					26.45	104.32	18	
19	Illinois Central					716.44	1.66	718.12	718.12	.59			6.98	216.84	942.48	19	
20	Dubuque & Sioux City																20
21	a Iowa & Omaha Short Line	12.15						12.13	12.13					1.00	13.13	21	
22	b Iowa & Southwestern	17.18						17.18	17.18					1.00	18.18	22	
23	Keokuk & Des Moines	162.31				1.81		169.18	169.18					22.37	191.75	23	
24	Manchester & Oneida	8.63					.12	8.15	8.15					.75	8.90	24	
25	Minneapolis & St. Louis	634.84	163.70					83.79	884.33	884.33				180.99	1,665.25	25	
26	e Iowa Central & Western																26
27	c Muscatine, Burlington & So.	47.77	1.71					6.00	55.48	55.48				7.96	62.48	27	
28	d Muscatine North & South	47.77	1.71					6.00	55.48	55.48				7.96	62.48	28	
29	Tabor & Northern	8.79						1.96	10.75	10.75				1.00	11.75	29	
30	Union Pacific	2.46						2.46	2.46	1.63				46.56	50.75	30	
31	Wabash Railway	308.38						5.58	308.96	308.96	2.30			35.49	236.65	31	
	Total	4,778.31	3,831.65			192.19	1,096.09	289.17	10,220.44	10,220.44	1,049.61			21.64	2,570.57	14,251.66	32

TABLE 17A—ROAD OPERATED AT CLOSE OF YEAR—IOWA
PART II—MILEAGE OF ROAD OWNED.

Number	Railway Companies	Miles of first main track	Miles of second main track	Miles of third main track	Miles of fourth main track	Miles of all other main tracks	Miles of yard track and siding, etc.	Total mileage—all tracks	Number
1	Atchison, Topeka & Santa Fe	19.89	19.67				27.27	66.83	1
2	Atlantic Northern	17.00						17.00	2
3	Chicago, Burlington & Quincy	1,356.12	242.55					1,598.67	3
4	Chicago Great Western	400.19	14.87				253.38	1,068.04	4
5	Mason City & Fort Dodge	347.00	1.04				145.71	503.75	5
6	Wisconsin, Minn. & Pacific	22.50					92.91	115.41	6
7	Chicago, Milwaukee & St. Paul	1,875.00	284.46			14.11	3.29	2,176.86	7
8	Chicago & North Western	1,003.33	306.80				44.79	1,354.92	8
9	Chicago, St. P., Minn. & Omaha	74.54					3.61	78.15	9
10	Iowa Southern	12.25					511.00	523.25	10
11	Chicago, Rock Island & Pacific	*1,858.00	88.00				65.58	1,951.58	11
12	St. Paul & K. C. Short Line	182.97						182.97	12
13	Colfax Northern								13
14	Colfax Consolidated Coal Co.								14
15	Security Investment Co.	6.87					1.99	8.86	15
16	Creston, Winterset & Des Moines	6.00					.53	6.53	16
17	Davenport, R. I. & Northwestern	20.72					3.22	23.94	17
18	Great Northern	34.50	1.06				23.29	58.85	18
19	Illinois Central	77.56					29.46	107.02	19
20	Dubuque & Sioux City	745.89						745.89	20
21	a Iowa & Omaha Short Line	12.13					1.00	13.13	21
22	b Iowa & Southwestern	17.18					1.00	18.18	22
23	Keokuk & Des Moines	162.31					11.68	173.99	23
24	Manchester & Oneida	8.03					.75	8.78	24
25	Minneapolis & St. Louis	800.94					180.00	980.94	25
26	e Iowa Central & Western	36.00					3.85	39.85	26
27	c Muscatine, Burlington & So.	49.48					7.00	56.48	27
28	d Muscatine North & South	49.48					7.00	56.48	28
29	Tabor & Northern	8.79					1.00	9.79	29
30	Union Pacific	2.46	1.03				46.66	49.15	30
31	Wabash Railway	203.28						203.28	31
	Total	9,942.75	1,008.17			14.11	2,676.76	13,641.79	

*Includes 1.81 miles leased to Keokuk & D. M. Ry. Co.

TABLE 18—CONSUMPTION OF FUEL BY LOCOMOTIVES.
PART I—BITUMINOUS COAL, TONS, CONSUMPTION BY.

Number	Railway Companies	Freight locomotives	Passenger locomotives	Mixed-train locomotives	Special locomotives	Yard switching locomotives	Total transportation service locomotives	Work service locomotives	Grand total all locomotives	Average cost per ton	Number
1	Atchison, Topeka & Santa Fe	1,437,106	606,892	82,543	1,804	238,112	2,300,367	47,262	2,407,029	1.82	1
2	Atlantic Northern										2
3	Chicago, Burlington & Quincy	2,654,367	922,825	84,832	3,285	602,705	4,268,094	69,859	4,337,953	1.656	3
4	Chicago Great Western	407,304	172,756	7,725	781	99,505	688,071	14,454	702,525	2.041	4
5	Mason City & Fort Dodge										5
6	Wisconsin, Minn. & Pacific										6
7	Chicago, Milwaukee & St. Paul										7
8	Chicago & North Western	2,039,933	1,091,664	106,441	2,994	804,759	4,045,791	94,555	4,140,346	1.59	8
9	Chicago, St. P., Minn. & Omaha	440,707	211,690	28,100	289	124,451	805,214	16,718	821,932	2.04	9
10	Iowa Southern										10
11	Chicago, Rock Island & Pacific	1,929,634	884,683	43,774	1,198	493,112	3,281,151	74,100	3,355,251	1.9307	11
12	St. Paul & K. C. Short Line										12
13	Colfax Northern										13
14	Colfax Consolidated Coal Co.										14
15	Security Investment Co.										15
16	Creston, Winterset & Des Moines										16
17	Davenport, R. I. & Northwestern					8,084	8,084	373	8,457	2.23	17
18	Great Northern	1,478,663	523,774	50,671	1,463	301,389	2,355,947	90,196	2,446,143	2.58	18
19	Illinois Central	2,302,583	935,683	107,411	1,894	687,798	4,035,369	129,025	4,174,394	2.224	19
20	Dubuque & Sioux City										20
21	a Iowa & Omaha Short Line										21
22	b Iowa & Southwestern										22
23	Keokuk & Des Moines	13,530	12,489	41	37	4,192	30,229	159	30,388	2.504	23
24	Manchester & Oneida										24
25	Minneapolis & St. Louis	350,765	103,601	25,916	239	55,589	536,110	10,097	546,207	1.85	25
26	e Iowa Central & Western										26
27	c Muscatine, Burlington & So.										27
28	d Muscatine North & South										28
29	Tabor & Northern										29
30	Union Pacific	1,721,647	631,435	104,700	1,879	209,670	2,669,391	47,401	2,707,792	1.79	30
31	Wabash Railway	1,026,832	297,701	12,914	683	263,411	1,701,621	18,044	1,719,665	1.599	31
	Total	15,801,911	6,488,453	635,178	16,549	3,813,764	26,776,839	622,233	27,399,072	1.91	

TABLE 18—CONSUMPTION OF FUEL BY LOCOMOTIVES.
PART II—FUEL OIL GALLONS, WOOD-CORDS, AND TOTAL FUEL CONSUMED.

Number	Railway Companies	Fuel Oil—Gallons		Wood—Cords				Total fuel consumed tons—by all locomotives	Number
		Amount consumed by all loco- motives	Average cost per gallon	Hard		Soft			
				Amount con- sumed by all loco- motives	Average cost per cord	Amount con- sumed by all loco- motives	Average cost per cord		
1	Aitchison, Topeka & Santa Fe	273,306,810	\$.01471					4,150,053	1
2	Atlantic Northern								2
3	Chicago, Burlington & Quincy	14,410,406	.0149			46,758	\$ 1.800	4,479,227	3
4	Chicago Great Western							702,536	4
5	Mason City & Fort Dodge								5
6	Wisconsin, Minn. & Pacific								6
7	Chicago, Milwaukee & St. Paul								7
8	Chicago & North Western	42,018,051	.0153			29,434	1.026	4,507,956	8
9	Chicago, St. P., Minn. & Omaha					8,179	2.02	826,022	9
10	Iowa Southern								10
11	Chicago, Rock Island & Pacific	5,249,587	.018224	10,182	\$.044856			3,306,735	11
12	St. Paul & K. C. Short Line								12
13	Colfax Northern								13
14	Colfax Consolidated Coal Co.								14
15	Security Investment Co.								15
16	Creston, Winterset & Des Moines								16
17	Davenport, R. I. & Northwestern			195	2.50			8,587	17
18	Great Northern								18
19	Illinois Central	65,486,100	.018			16,829	2.27	2,845,145.5	19
20	Dubuque & Sioux City	71,295,798	.0181					4,740,234	20
21	a Iowa & Omaha Short Line								21
22	b Iowa & Southwestern								22
23	Keokuk & Des Moines	25,473	.045	158	4.479			30,645	23
24	Manchester & Oneida								24
25	Minneapolis & St. Louis					1,795	2.50	547,104.6	25
26	e Iowa Central & Western								26
27	c Muscatine, Burlington & So.								27
28	d Muscatine North & South								28
29	Tabor & Northern								29
30	Union Pacific	423,069	.0323			3,000	1.40	2,711,845	30
31	Wabash Railway							1,719,665	31
	Total	472,875,320	\$.01579	10,535	\$.74	106,054	\$ 1.68	30,665,783	

TABLE 19—GRADE CROSSINGS—IOWA
PART I—PROTECTED.

Number	Railway Companies	Protected by Both Gates and Flagmen		Protected by Gates Alone		Protected by Flagmen Alone 24 H'rs Daily		Protected by Flagmen Alone Part Time		Protected by Crossing Alarm Only		Protected by Interlocking Devices		Protected by Signals not Interlocked		Number						
		With other steam railways	With elec. interurb. or street railways	With streets, avenues and highways	With other steam railways	With elec. interurb. or street railways	With streets, avenues and highways	With other steam railways	With elec. interurb. or street railways	With streets, avenues and highways	With other steam railways	With elec. interurb. or street railways	With streets, avenues and highways	With other steam railways	With elec. interurb. or street railways		With streets, avenues and highways					
																		With other steam railways	With elec. interurb. or street railways	With streets, avenues and highways	With other steam railways	With elec. interurb. or street railways	With streets, avenues and highways	With other steam railways	With elec. interurb. or street railways	With streets, avenues and highways
1	Aitchison, Topeka & Santa Fe															1						
2	Atlantic Northern															2						
3	Chicago, Burlington & Quincy	2	2	10	2	1	4									3						
4	Chicago Great Western			4	10	16										4						
5	Mason City & Fort Dodge															5						
6	Wisconsin, Minn. & Pacific															6						
7	Chicago, Milwaukee & St. Paul	2	1	19	1	2	10	3	5	27						7						
8	Chicago & North Western	1		1	6	40		4	6	2						8						
9	Chicago, St. P., Minn. & Omaha			1				2	3	15						9						
10	Iowa Southern									6						10						
11	Chicago, Rock Island & Pacific	4	4	14	7		10	2	3	7	3	3	39	1	49	38	1	9	1	11		
12	St. Paul & K. C. Short Line																				12	
13	Colfax Northern																				13	
14	Colfax Consolidated Coal Co.																				14	
15	Security Investment Co.																				15	
16	Creston, Winterset & Des Moines																				16	
17	Davenport, R. I. & Northwestern																				17	
18	Great Northern																				18	
19	Illinois Central	3	11	7	20	16	78	3	2	24	1	13	148	9	2	133	127	5	7	19		
20	Dubuque & Sioux City																				20	
21	a Iowa & Omaha Short Line																				21	
22	b Iowa & Southwestern																				22	
23	Keokuk & Des Moines			1						4				1	1						23	
24	Manchester & Oneida																				24	
25	Minneapolis & St. Louis																				25	
26	e Iowa Central & Western																				26	
27	c Muscatine, Burlington & So.																				27	
28	d Muscatine North & South																				28	
29	Tabor & Northern																				29	
30	Union Pacific																				30	
31	Wabash Railway																				31	
	Total	12	23	60	43	82	180	11	18	90	3	32	312	9	4	355	335	17	2	82	5	2

TABLE 19—GRADE CROSSINGS—IOWA
PART II—PROTECTED—CONTINUED—UNPROTECTED—TOTAL AND NUMBER ELIMINATED DURING THE YEAR

Railway Companies	Protected by Derailing Devices		Unprotected			Total			Number of Grade Crossings Eliminated During the Year			Number
	With other steam railroads	With electric interurban or street railroads	With other steam railroads	With electric interurban or street railroads	With streets, avenues and highways	With other steam railroads	With electric interurban or street railroads	With streets, avenues and highways	With other steam railroads	With electric railroads	With streets, avenues and highways		Total
1 Atchison, Topeka & Santa Fe.....					9			13				1
2 Atlantic Northern.....												2
3 Chicago, Burlington & Quincy.....			35	10	1,616	51	26	1,672	3	3	6	3
4 Chicago Great Western.....	1	5	18	4	864	55	25	922				4
5 Mason City & Fort Dodge.....												5
6 Wisconsin, Minn. & Pacific.....												6
7 Chicago, Milwaukee & St. Paul.....		1	27	13	2,116	71	25	2,207				7
8 Chicago & North Western.....			19	3	1,652	57	20	1,744			6	8
9 Chicago, St. P., Minn. & Omaha.....			19	2	105	22	3	135				9
10 Iowa Southern.....												10
11 Chicago, Rock Island & Pacific.....		5	30	30	2,383	92	37	2,502	2	1	3	11
12 St. Paul & K. O. Short Line.....												12
13 Colfax Northern.....												13
14 Colfax Consolidated Coal Co. Security Investment Co.....				1	7	1	1	7				14
15 Creston, Winterset & Des Moines.....										4	4	15
16 Davenport, R. I. & Northwestern.....			5		51	5	2	54				16
17 Great Northern.....	4	4	144	22	6,743	251	57	6,990		5	5	17
18 Illinois Central.....	13	12	93	58	5,000	280	120	5,432		3	3	18
19 Dubuque & Sioux City.....												19
20 a Iowa & Omaha Short Line.....												20
21 b Iowa & Southwestern.....												21
22 Keokuk & Des Moines.....			10	1	125	11	1	131				22
23 Manchester & Oneida.....												23
24 Minneapolis & St. Louis.....			27	4	1,000	46	4	1,030		1	1	24
25 e Iowa Central & Western.....												25
26 Muscatine, Burlington & So.....												26
27 d Muscatine North & South.....												27
28 Tabor & Northern.....												28
29 Union Pacific.....			9	1	30	9	1	30				29
30 Wabash Railway.....			8	4	311	13	4	315				30
Total.....	18	21	444	144	27,152	977	326	23,153	5	23	28	31

*Information not available—whether protected or unprotected.

TABLE 20—BALLAST APPLIED IN MAINTENANCE AND BETTERMENT, ON ADDITIONAL TRACKS AND ON NEW LINES AND EXTENSIONS.

Railway Companies	Ballast Applied in Maintenance and Betterments				Ballast Applied on Additional Tracks and on New Lines and Extensions				Number			
	Total number of cubic yards of ballast applied	Average cost per cubic yard of ballast applied	Total charges on account of ballast last applied	Distribution of Charges	No. of Miles of New Track Ballasted	Total number of cubic yards of ballast applied	Average cost per cubic yard of ballast applied	Total charges on account of ballast last applied		Amount charged to additions and betterments	Amount charged to new lines and extensions	
1 Atchison, Topeka & Santa Fe.....	618,855	.45	\$ 278,690.75	\$ 192,944.97	\$ 85,751.76	3.02	4.16	22,071	.12	\$ 2,963.86	\$ 2,963.86	1
2 Atlantic Northern.....												2
3 Chicago, Burlington & Quincy.....	222,217	.29	360,388.50	159,556.03	107,422.47	54.2	20.43	343,736	.33	114,407.19	191,909.74	3
4 Chicago Great Western.....	161,435	.51	81,773.75		81,773.75							4
5 Mason City & Fort Dodge.....												5
6 Wisconsin, Minn. & Pacific.....												6
7 Chicago, Milwaukee & St. Paul.....	2,058,261	.48	978,328.10	359,942.80	618,385.30	78.40	40.00	292,518	.73	20,219.61	16,544.91	7
8 Chicago & North Western.....	1,192,515	.47	427,745.28	134,009.68	293,735.60	4.65	55.46	132,301	.43	56,234.75	59,913.84	8
9 Chicago, St. P., Minn. & Omaha.....	146,013	.13	19,075.90	15,739.30	3,946.60		1.63	1,405	.28	40.04	40.04	9
10 Iowa Southern.....												10
11 Chicago, Rock Island & Pacific.....	956,816	.35	341,055.48	251,342.15	89,713.33	2.25	11.37	23,454	.38	8,396.03	8,396.03	11
12 St. Paul & K. O. Short Line.....												12
13 Colfax Northern.....												13
14 Colfax Consolidated Coal Co. Security Investment Co.....												14
15 Creston, Winterset & Des Moines.....												15
16 Davenport, R. I. & Northwestern.....			838.28	419.14	419.14							16
17 Great Northern.....												17
18 Illinois Central.....	865,300	.33	286,127.16	248,270.97	49,856.19	63.16	148,736	.23	33,026.03	33,026.03	18	
19 Dubuque & Sioux City.....												19
20 a Iowa & Omaha Short Line.....												20
21 b Iowa & Southwestern.....												21
22 Keokuk & Des Moines.....	12,458	.14	2,700.43	2,700.43								22
23 Manchester & Oneida.....												23
24 Minneapolis & St. Louis.....			21,437.02	19,976.13	1,460.89							24
25 e Iowa Central & Western.....												25
26 Muscatine, Burlington & So.....												26
27 d Muscatine North & South.....												27
28 Tabor & Northern.....												28
29 Union Pacific.....	297,404	.35	83,554.60	82,029.12	325.57	74.43	.35	297,404	.70	181,808.51	180,554.92	29
30 Wabash Railway.....	494,029	.32	165,301.25	71,822.41	99,328.84		5.25	9,253	.35	3,235.64	3,235.64	30
Total.....	7,736,993	.38	\$ 2,906,132.66	\$ 1,539,813.22	\$ 1,420,319.40	217.64	302.84	1,187,651	.35	\$ 421,329.60	\$ 407,652.01	31

*Credit.

TABLE 21—TIES LAID.
PART I—IN REPLACEMENT AND IN BETTERMENT.

Number	Railway Companies	Cross Ties		Switch Ties		Distribution of Charges				Number	
		Total number of ties applied	Average cost per tie at distributing point	Number of feet applied (board measure)	Average cost per M feet at distributing point	Total charges on account of ties laid in replacement during year	Salvage on ties withdrawn	Amount charged to the reserve	Amount charged to operating expenses		Amount charged to additions and betterments
1	Aetehison, Topeka & Santa Fe	2,664,113	.72	6,808,818	\$25.57	\$ 2,079,802.43	\$6,470.14	\$ 1,856,543.02	\$ 218,290.47	\$ 15,438.48	1
2	Atlantic Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
3	Chicago, Burlington & Quincy	2,632,241	.618	6,488,789	19.63	1,772,811.06	9,194.11	.....	1,734,006.90	8,950.54	3
4	Chicago Great Western	602,521	.40	481,493	24.50	336,973.48	.....	.....	334,819.19	2,154.29	4
5	Mason City & Fort Dodge	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
6	Wisconsin, Minn. & Pacific	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
7	Chicago, Milwaukee & St. Paul	2,632,988	.49	5,590,031	16.63	1,461,134.91	.....	.....	1,461,134.91	.....	7
8	Chicago & North Western	2,816,478	.5065	6,713,848	24.54	1,744,699.55	.....	.....	1,744,699.55	.....	8
9	Chicago, St. P., Minn. & Omaha	567,924	.48	1,475,199	26.56	309,688.35	134.60	.....	297,382.40	12,166.33	9
10	Iowa Southern	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
11	Chicago, Rock Island & Pacific	2,118,729	.59	5,849,746	16.81	1,355,228.02	12,718.47	.....	1,350,006.91	*8,006.56	11
12	St. Paul & K. C. Short Line	.....	.....	.....	.....	.....	.....	.....	.....	.....	12
13	Colfax Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	13
14	Colfax Consolidated Coal Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	14
15	Security Investment Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	15
16	Creston, Winterset & Des Moines	.....	.....	.....	.....	.....	.....	.....	.....	.....	16
17	Davenport, R. I. & Northwestern	20,687	.7945	13,408	23.75	15,437.08	254.25	.....	15,182.83	.....	17
18	Great Northern	2,659,772	.46	4,149,092	14.88	1,289,557.09	3,606.12	.....	1,243,292.22	43,659.34	18
19	Illinois Central	1,956,400	.52	5,395,669	20.57	1,148,178.46	.....	50,886.70	1,205,065.16	.....	19
20	Dubuque & Sioux City	.....	.....	.....	.....	.....	.....	.....	.....	.....	20
21	a Iowa & Omaha Short Line	.....	.....	.....	.....	.....	.....	.....	.....	.....	21
22	b Iowa & Southwestern	.....	.....	.....	.....	.....	.....	.....	.....	.....	22
23	Keokuk & Des Moines	36,714	.69	85,786	20.42	57,014.04	69.26	.....	36,944.78	.....	23
24	Manchester & Onida	285,998	.57	105,304	22.72	166,016.00	.....	.....	166,016.00	.....	24
25	Minneapolis & St. Louis	.....	.....	.....	.....	.....	.....	.....	.....	.....	25
26	e Iowa Central & Western	.....	.....	.....	.....	.....	.....	.....	.....	.....	26
27	c Muscatine, Burlington & So.	.....	.....	.....	.....	.....	.....	.....	.....	.....	27
28	d Muscatine North & South	.....	.....	.....	.....	.....	.....	.....	.....	.....	28
29	Tabor & Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	29
30	Union Pacific	1,926,880	.86	2,130,597	27.38	1,856,415.00	2,674.76	.....	1,300,284.42	55,455.82	30
31	Wabash Railway	787,300	.57	1,408,227	23.71	462,771.97	.....	.....	461,939.82	852.15	31
	Total	21,286,100	.58	46,456,914	\$23.20	\$13,627,654.82	\$35,181.44	\$ 1,799,676.92	\$11,574,536.25	\$128,560.21	

* Credit.

PART II—IN ADDITIONAL TRACKS AND IN NEW LINES AND EXTENSIONS.

Number	Railway Companies	Number of Miles of New Track		Cross Ties		Switch Ties		Total charges on account of ties laid in new tracks	Amount charged to additions and betterments for ties	Amount charged to new lines and extensions for ties	Number
		Main tracks	Yards and sidings	Total number of ties applied	Average cost per tie at distributing point	Number of feet laid in tracks (board measure)	Average cost per M feet at distributing point				
1	Aetehison, Topeka & Santa Fe	16.08	79.79	271,192	.74	1,619,720	\$ 23.85	\$ 247,352.65	\$ 247,322.65	.....	1
2	Atlantic Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
3	Chicago, Burlington & Quincy	67.68	92.29	430,348	.60	2,542,250	13.91	328,882.92	363,230.93	20,621.99	3
4	Chicago Great Western	.....	5.139	13,805	.42	56,513	24.81	7,182.15	7,182.15	.....	4
5	Mason City & Fort Dodge	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
6	Wisconsin, Minn. & Pacific	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
7	Chicago, Milwaukee & St. Paul	68.347	82.839	454,094	.615	1,788,790	15.09	317,968.20	274,295.18	142,789.02	7
8	Chicago & North Western	3.64	84.35	247,690	.50	1,584,170	39.33	94,842.35	92,797.08	2,022.28	8
9	Chicago, St. P., Minn. & Omaha	.....	12.38	31,973	.47	142,513	32.62	19,743.79	19,743.79	.....	9
10	Iowa Southern	.815	16.9423	45,594	.74	251,981	17.86	38,919.24	38,919.24	.....	10
11	Chicago, Rock Island & Pacific	.....	.....	.....	.....	.....	.....	.....	.....	.....	11
12	St. Paul & K. C. Short Line	.....	.....	.....	.....	.....	.....	.....	.....	.....	12
13	Colfax Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	13
14	Colfax Consolidated Coal Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	14
15	Security Investment Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	15
16	Creston, Winterset & Des Moines	.....	.20	632	.45	.....	.....	430.30	.....	430.30	16
17	Davenport, R. I. & Northwestern	.....	.....	.....	.....	.....	.....	.....	.....	.....	17
18	Great Northern	.....	96.068	228,966	.38	1,310,761	14.76	108,696.77	108,696.77	.....	18
19	Illinois Central	.....	54.72	144,449	.48	645,391	21.61	80,594.72	80,594.72	.....	19
20	Dubuque & Sioux City	.....	.....	.....	.....	.....	.....	.....	.....	.....	20
21	a Iowa & Omaha Short Line	.....	.....	.....	.....	.....	.....	.....	.....	.....	21
22	b Iowa & Southwestern	.....	.....	.....	.....	.....	.....	.....	.....	.....	22
23	Keokuk & Des Moines	.....	.....	.....	.....	.....	.....	.....	.....	.....	23
24	Manchester & Onida	.....	.....	.....	.....	.....	.....	.....	.....	.....	24
25	Minneapolis & St. Louis	.....	12.48	85,019	.66	97,447	20.21	21,378.13	21,378.13	.....	25
26	e Iowa Central & Western	.....	.....	.....	.....	.....	.....	.....	.....	.....	26
27	c Muscatine, Burlington & So.	.....	.....	.....	.....	.....	.....	.....	.....	.....	27
28	d Muscatine North & South	.....	.....	.....	.....	.....	.....	.....	.....	.....	28
29	Tabor & Northern	.....	.....	.....	.....	.....	.....	.....	.....	.....	29
30	Union Pacific	1.33	20.99	63,315	.73	267,770	17.10	49,678.60	49,678.60	.....	30
31	Wabash Railway	.....	10.99	11,231	.48	58,856	24.54	6,858.30	6,858.30	.....	31
	Total	147.00	569.14	1,977,751	.53	10,491,066	\$ 20.19	\$ 1,276,522.99	\$ 1,110,815.99	\$ 165,907.50	

TABLE 22—RAILS LAID.
PART I—IN REPLACEMENT AND IN BETTERMENTS.

Number	Railway Companies	Total Number of Tons of 2,240 Pounds of Rails Applied	Average Cost per Ton at Distribution Point	Total Charges on Account of Rail Applied	Relayers Taken Up		Number
					Number of Tons of 2,240 Pounds	Salvage Value	
1	Atehison, Topeka & Santa Fe	107,011.25	\$ 25.74	\$2,754,202.80	80,855.56	\$ 1,697,875.24	1
2	Atlantic Northern						2
3	Chicago, Burlington & Quincy	50,682.00	28.80	1,456,797.37	34,061.90	678,339.08	3
4	Chicago Great Western	17,023.49	23.42	500,788.74	13,322.77	203,548.04	4
5	Mason City & Fort Dodge						5
6	Wisconsin, Minnesota & Pacific						6
7	Chicago, Milwaukee & St. Paul	78,635.20	27.50	2,051,294.60	46,008.60	1,017,690.15	7
8	Chicago & North Western	64,843.09	27.48	1,781,919.83	45,184.13	1,080,186.77	8
9	Chicago, St. Paul, Minneapolis & Omaha	12,872.00	28.00	368,067.28	7,638.00	170,228.48	9
10	Iowa Southern						10
11	Chicago, Rock Island & Pacific						11
12	St. Paul & Kansas City Short Line	58,049.84	27.98	1,627,708.80	38,683.29	847,578.72	12
13	Colfax Northern						13
14	Colfax Consolidated Coal Company						14
15	Security Investment Company						15
16	Creston, Winterset & Des Moines						16
17	Davenport, Rock Island & Northwestern	56.92	26.23	1,545.63	31.00	751.00	17
18	Great Northern	40,250.65	29.07	1,170,305.70	30,116.14	728,840.97	18
19	Illinois Central	64,709.39	29.26	1,609,544.63	46,704.15	1,067,244.00	19
20	Dubuque & Sioux City						20
21	a Iowa & Omaha Short Line						21
22	b Iowa & Southwestern						22
23	Keokuk & Des Moines	68.00	24.77	1,698.83	3.84	80.68	23
24	Manchester & Oneida						24
25	Minneapolis & St. Louis	8,837.10	25.98	217,167.97	5,360.14	120,627.90	25
26	e Iowa Central & Western						26
27	c Muscatine, Burlington & Southern						27
28	d Muscatine North & South						28
29	Tabor & Northern						29
30	Union Pacific	79,919.00	22.78	1,830,179.36	30,937.00	614,591.07	30
31	Wabash Railway	20,574.02	28.12	578,442.75	11,414.56	247,702.54	31
	Total	609,463.61	\$ 26.71	\$16,010,674.38	391,510.38	\$ 8,532,397.10	

PART I—IN REPLACEMENT AND IN BETTERMENTS—Continued

Number	Railway Companies	Scrap Rails Taken Up		Other Salvage	Total Salvage	Amount Charged to Account of Loss and Expense of Present Year	Amount charged to additions and betterment	Amount charged to rail reserves	Number
		Number of Tons of 2,240 Pounds	Salvage Value						
1	Atehison, Topeka & Santa Fe	11,208.3	\$ 174,416.05		\$ 1,872,280.29	\$ 454.00	\$ 335,056.58	\$546,402.20	1
2	Atlantic Northern								2
3	Chicago, Burlington & Quincy	15,482.20	160,750.82	\$281,020.37	1,070,111.17	270,838.92	115,797.28		3
4	Chicago Great Western	2,309.77	22,697.60		284,245.73	111,144.62	105,336.29		4
5	Mason City & Fort Dodge								5
6	Wisconsin, Minnesota & Pacific								6
7	Chicago, Milwaukee & St. Paul	20,356.92	245,000.62		1,032,686.77	532,703.77	235,904.12		7
8	Chicago & Northwestern	11,389.20	186,483.78		1,266,670.55	\$ 277,476.63	237,772.07		8
9	Chicago, St. Paul, Minneapolis & Omaha	3,824.00	49,835.82		220,124.40	93,907.91	54,934.97		9
10	Iowa Southern								10
11	Chicago, Rock Island & Pacific	10,758.89	214,755.71		1,002,324.43	318,531.66	246,902.81		11
12	St. Paul & Kansas City Short Line								12
13	Colfax Northern								13
14	Colfax Consolidated Coal Company								14
15	Security Investment Company								15
16	Creston, Winterset & Des Moines	21.68	250.92		1,001.92	543.71			16
17	Davenport, Rock Island & Northwestern	5,104.06	87,131.55		815,971.94	263,340.95	91,074.71		17
18	Great Northern	7,454.96	128,624.58		1,156,369.19	325,803.90	177,871.45		18
19	Illinois Central								19
20	Dubuque & Sioux City								20
21	a Iowa & Omaha Short Line								21
22	b Iowa & Southwestern								22
23	Keokuk & Des Moines	2.56	1,093.41		1,183.00	515.76			23
24	Manchester & Oneida								24
25	Minneapolis & St. Louis	1,131.22	19,037.22		139,685.21	27,691.01	49,781.75		25
26	e Iowa Central & Western								26
27	c Muscatine, Burlington & Southern								27
28	d Muscatine North & South								28
29	Tabor & Northern								29
30	Union Pacific	36,448.00	296,461.15	719.35	911,771.57	604,014.13	304,383.05		30
31	Wabash Railway	3,735.47	55,417.89		303,120.43	215,706.81	59,615.51		31
	Total	125,557.55	\$1,641,977.21	\$ 231,739.77	\$10,407,095.60	\$3,042,702.84	\$ 2,014,603.06	\$546,402.20	

*To adjust stock and sale value and inventory.
Includes \$84,584.53—adjustment of previous year's statistics.
Includes \$71,817.32—account inventory adjustment.

TABLE 22—RAILS LAID.
PART II—IN ADDITIONAL TRACKS AND IN NEW LINES AND EXTENSIONS.

Number	Railway Companies	Miles of New Track		Total number of tons (of 2,240 pounds) rail applied	Average cost per ton	Total charges on account of rail applied	Distribution of Charges		Number
		Main tracks	Yard tracks and sidings				Additions and betterments	New lines and extensions	
1	Athlison, Topeka & Santa Fe.....	20.02	87.85	12,300.05	21.00	266,738.07	266,738.07		1
2	Atlantic Northern.....								2
3	Chicago, Burlington & Quincy.....	78.50	92.30	21,459.50	22.72	487,511.43	464,404.99	33,106.44	3
4	Chicago Great Western.....		5.14	620.01	20.00	12,772.21	12,772.21		4
5	Mason City & Fort Dodge.....								5
6	Wisconsin, Minn. & Pacific.....								6
7	Chicago, Milwaukee & St. Paul.....		62.47	7,475.95	25.54	190,937.71	190,937.71		7
8	Chicago & North Western.....	5.31	90.56	10,798.78	25.19	151,712.18	151,201.35	510.83	8
9	Chicago, St. P., Minn. & Omaha.....		12.38	1,529.09	21.36	32,664.81	32,664.81		9
10	Iowa Southern.....								10
11	Chicago, Rock Island & Pacific.....		30.04	2,771.91	22.24	61,400.46	61,400.46		11
12	St. Paul & K. C. Short Line.....								12
13	Colfax Northern.....								13
14	Colfax Consolidated Coal Co.....								14
15	Security Investment Co.....								15
16	Creston, Winterset & Des Moines.....								16
17	Davenport, R. I. & Northwestern.....		.30	29.22	21.00	613.09	613.09		17
18	Great Northern.....		75.29	9,409.74	23.01	*187,280.99	*187,280.99		18
19	Illinois Central.....		47.78	5,243.10	23.56	123,648.45	123,648.45		19
20	Dubuque & Sioux City.....								20
21	a Iowa & Omaha Short Line.....								21
22	b Iowa & Southwestern.....								22
23	Keokuk & Des Moines.....								23
24	Manchester & Oneida.....								24
25	Minneapolis & St. Louis.....		12.48	1,208.53	21.86	27,725.53	27,725.53		25
26	c Iowa Central & Western.....								26
27	d Muscatine, Burlington & So.....								27
28	e Muscatine North & South.....								28
29	Tabor & Northern.....								29
30	Union Pacific.....	.22	13.50	3,050.00	18.43	56,202.69	56,202.69		30
31	Wabash Railway.....	.08	8.68	556.92	19.54	10,881.75	10,881.75		31
	Total.....	110.25	588.72	76,569.71	21.05	\$ 1,610,180.57	\$ 1,576,563.90	\$ 33,617.27	

*Includes credit of \$20,197.49 on account of tracks removed.

STATISTICS
OF
Railway Bridge Companies
For the Year Ended December 31, 1916

BRIDGE COMPANIES.

Statistics of Railway Bridge Companies Doing Business in Iowa for the Year Ended December 31, 1916.

Items Reported	Dunleith & Dubuque	Krook & Hamilton	Missouri Valley & Blair	Omaha Bridge & Terminal	Sioux City Bridge	Total
CAPITAL STOCK—COMMON.						
Par value amount authorized.....	\$ 1,000,000.00	\$ 1,000,000.00	\$ 1,930,000.00	\$ 7,500,000.00	\$ 945,800.00	\$12,375,800.00
Par value amount actually issued.....	1,000,000.00	1,000,000.00	1,930,000.00	5,000,000.00	945,800.00	9,875,800.00
Par value amount actually outstanding.....	1,000,000.00	1,000,000.00	1,930,000.00	5,000,000.00	945,800.00	9,875,800.00
Stocks actually issued prior to present year:						
Par value.....	1,000,000.00	1,000,000.00	1,930,000.00	5,000,000.00	945,800.00	9,875,800.00
Cash received as consideration for issue.....	1,000,000.00	850,000.00	1,420,000.00	5,000,000.00	945,800.00	9,221,800.00
Cash value of other property acquired.....			504,000.00			504,000.00
Total discounts.....		160,000.00				160,000.00
Rate of dividend.....	6.81+ & 10.9%		4%		8%	
Dividends declared.....	\$ 177,109.01		\$ 77,200.00		\$ 75,664.00	\$ 329,973.01
INVESTMENT IN ROAD AND EQUIPMENT AT CLOSE OF YEAR.						
Investment to June 30, 1907:						
Road.....	\$ 1,016,862.82	\$ 2,000,000.00	\$ 1,930,000.00	\$ 6,738,301.08	\$ 945,800.00	\$12,631,053.90
Equipment.....				18,785.01		18,785.01
Investment from July 1, 1907, to June 30, 1914.....	83,141.77		132,968.70	*16,225.28	914.60	160,819.70
Investment since June 30, 1914.....	1,879.15		14,103.61	18,602.88	*618.05	34,075.69
Total.....	\$ 1,051,883.74	\$ 2,000,000.00	\$ 2,077,072.31	\$ 6,759,648.69	\$ 946,096.55	\$12,834,716.29
Length of road owned.....	1.30	.60	3.36	2.03	3.88	11.33
Average investment per mile of road.....	809,141.34	3,000,303.03	618,182.24	3,329,873.74	248,839.32	1,142,895.49
INCOME ACCOUNT.						
Operating Income:						
Railway operating revenues.....		\$ 60,671.80				\$ 60,671.80
Railway operating expenses.....		30,491.99				30,491.99
Net revenue from railway operations.....		40,179.84				40,179.84
Railway tax accruals.....		4,972.02	\$ 15,547.83			15,547.83
Railway operating income.....	\$ 29,980.09	35,207.82	115,547.83		\$ 24,840.76	\$ 175,546.70
Non-operating Income:						
Joint facility rent income.....	168,864.02				106,895.74	275,759.76
Income from lease of road.....				\$ 87,500.00		\$ 87,500.00
Miscellaneous rent income.....			88,835.13		315.00	89,150.13
Income from funded securities.....			243.46		4,376.95	4,620.41
Income from unfunded securities and accounts.....		446.30	1,208.61		1,718.60	3,373.51
Total.....	168,864.02	446.30	90,287.20	87,500.00	112,806.29	459,903.81
Gross Income.....	138,883.03	35,654.12	74,739.37	87,500.00	87,965.53	424,742.05
Interest on funded debt.....						
Interest on unfunded debt.....		80,000.00				80,000.00
Total deductions from gross income.....		80,000.00		87,500.00		167,500.00
Net income.....	138,883.03	144,345.88	74,739.37		87,965.53	377,242.95
Dividend appropriations of income.....	68,109.01				75,664.00	220,973.01
Total appropriations of income.....	68,109.01		77,200.00		75,664.00	220,973.01
Income balance transferred to credit of profit and loss.....	70,774.02				12,301.53	83,075.55
Income balance transferred to debit of profit and loss.....		144,345.88	12,460.03			146,805.91
PROFIT AND LOSS ACCOUNT.						
Debit Items:						
Debit balance at beginning of year.....		\$ 1,344,350.61				\$ 1,344,350.61
Debit balance transferred from income.....		44,345.88	\$ 2,460.03			46,805.91
Surplus appropriated for investment in physical property.....				\$ 1,068.43		1,068.43
Dividend appropriations of surplus.....	\$ 109,000.00					109,000.00
Loss on retired road and equipment.....				1,652.68		1,652.68
Credit balance carried to balance sheet.....	29,908.97		192,386.56	42,561.27	\$ 99,218.72	364,105.52
Total.....	138,908.97	1,388,696.49	194,847.19	44,712.38	99,218.72	1,806,473.75
Credit Items:						
Credit balance at beginning of year.....	68,224.05		194,847.19	40,815.10	86,917.19	390,803.53
Credit balance transferred from income.....	70,774.02				12,301.53	83,075.55
Profit on road and equipment sold.....				2,828.85		2,828.85
Donations.....				1,068.43		1,068.43
Debit balance carried to balance sheet.....		1,388,696.49				1,388,696.49
Total.....	138,908.97	1,388,696.49	194,847.19	44,712.38	99,218.72	1,806,473.75
RAILWAY OPERATING EXPENSES.						
Maintenance of Way and Structures:						
Superintendence.....		\$ 2,444.00				\$ 2,444.00
Road maintenance.....	\$ 3,488.52	3,899.74			\$ 4,633.15	12,021.41
Maintaining buildings, etc.....	4,206.92	238.11				4,444.03
Depreciation of way and structures.....					10,000.00	10,000.00
Miscellaneous expenses.....		2,607.59			1.26	2,608.85
Maintaining joint way and structures—credit.....	7,004.44				11,034.51	12,338.95
Total.....	14,699.88	9,249.44			15,669.92	39,618.31

*Credit. †Debit. ‡Deficit.

Items Reported	Des Moines & Dubuque	Keokuk & Hamilton	Muscatine Valley & Blair	Omaha Bridge & Terminal	Sioux City Bridge	Total
Transportation—Rail Line:						
Superintendence and dispatching trains.....	3,300.73				5,036.00	8,337.39
Station service.....					230.54	230.54
Train employes.....		1,980.00				1,980.00
Other casualty expenses.....	18.87					18.87
Other rail line transportation expenses.....	5,454.69	3,000.00			518.32	9,033.01
Operating joint tracks and facilities—credit.....	8,774.29				5,775.02	14,549.32
Total.....		5,040.00				5,040.00
General Expenses:						
Administration.....	2,387.18	6,202.52				8,589.70
Other general expenses.....					420.00	420.00
General joint facility expenses—credit.....	2,387.18				420.00	2,807.18
Total.....		6,204.52				6,204.52
Recapitulation of Expenses:						
Maintenance of way and structures.....		9,249.44				9,249.44
Transportation—rail line.....		5,040.00				5,040.00
General.....		6,202.52				6,202.52
Total.....		20,491.96				20,491.96
Ratio expenses to revenues.....		33.79				33.79
RAILWAY TAX ACCRUALS:						
Iowa.....	16,275.67	2,101.00	3,484.00		8,751.00	30,611.67
Illinois.....	10,854.74	2,739.30				13,594.09
Nebraska.....			10,692.02		15,218.47	25,910.51
Internal revenue—U. S. government.....	2,849.68	131.67	1,871.81		803.84	5,197.00
Total.....	29,980.00	4,972.02	15,347.83		24,840.76	75,340.70
COMPARATIVE GENERAL BALANCE SHEET—ASSETS:						
Investments:						
In road and equipment.....	1,051,883.74	2,000,000.00	2,077,022.31	6,759,613.00	916,006.55	12,534,716.59
In affiliated companies—Stocks.....	1.00					1.00
Bonds.....					100,521.25	100,521.25

Other investments—bonds.....			84,875.00			34,875.00
Total December 31, 1916.....	1,051,884.74	2,000,000.00	2,111,927.31	6,759,613.00	1,046,937.96	12,970,132.54
Total December 31, 1915.....	1,050,800.00	2,000,000.00	2,059,750.00	6,701,098.15	1,031,542.94	12,913,191.09
Increase 1916.....	1,054.65		42,247.22		15,674.96	66,346.71
Decrease 1916.....				1,419.45		1,419.45
Current Assets:						
Cash.....		17,896.82	39,094.68		81,491.71	120,053.21
Miscellaneous accounts receivable.....	139,473.18		13,338.83	34,016.01	14,065.00	201,513.18
Total December 31, 1916.....	139,473.18	17,896.82	53,033.51	34,016.01	95,177.97	340,590.59
Total December 31, 1915.....	71,515.97	24,947.78	110,469.44		127,021.43	416,417.10
Increase 1916.....	67,957.21		57,663.43	48,219.45	30,844.08	143,807.92
Decrease 1916.....		7,050.96	57,663.43	48,219.45	30,844.08	143,807.92
Grand Total:						
December 31, 1916.....	1,191,357.92	2,017,896.82	2,165,000.32	6,798,639.70	1,142,736.17	13,310,679.92
December 31, 1915.....	1,122,376.06	2,024,947.78	2,150,416.53	6,843,298.61	1,153,612.43	13,294,651.43
Increase 1916.....	68,981.86		15,416.21	49,683.91	10,817.28	86,081.86
Decrease 1916.....		7,060.96	15,416.21	49,683.91	10,817.28	82,068.36
COMPARATIVE GENERAL BALANCE SHEET—LIABILITIES:						
Capital Stock:						
December 31, 1916.....	1,000,000.00	1,000,000.00	1,930,000.00	5,000,000.00	945,800.00	9,875,800.00
December 31, 1915.....	1,000,000.00	1,000,000.00	1,930,000.00	5,000,000.00	945,800.00	9,875,800.00
Long term debt, open accounts.....				1,750,000.00		1,750,000.00
Current Liabilities:						
Loans and bills payable.....		16,000.00				16,000.00
Audited accounts and wages payable.....	422.91		4,013.76		2,341.82	6,778.49
Interest matured and unpaid.....		1,370,563.51				1,370,563.51
Dividends matured unpaid.....	109,000.00					109,000.00
Funded debt matured unpaid.....		1,000,000.00				1,000,000.00
Unmatured interest accrued.....		20,000.00				20,000.00
Total December 31, 1916.....	109,422.91	2,406,563.51	4,013.76		2,341.82	2,522,341.80
Total December 31, 1915.....	5,815.97	2,303,238.20	58,892.84	48,750.00	40,415.13	2,518,172.13
Increase 1916.....	103,606.94	37,324.92	54,880.08	48,750.00	38,077.31	130,701.29
Decrease 1916.....						
Unadjusted Credits:						
Tax liability.....	31,400.00					31,400.00
Accrued depreciation—Road.....			38,600.00			38,600.00
Total December 31, 1916.....	31,400.00		38,600.00			70,000.00
Total December 31, 1915.....	27,800.00		13,234.50			41,034.50
Increase 1916.....	3,600.00		41,064.50			44,664.50
Decrease 1916.....						
Corporate Surplus:						
Additions to property through income and surplus.....	20,536.94			1,069.43		21,606.37
Profit and loss balance.....	29,198.97	11,388,006.49	192,386.56	42,501.27	96,218.72	11,024,509.97
Total December 31, 1916.....	59,535.91	11,388,006.49	192,386.56	43,570.70	99,219.72	11,002,896.50
Total December 31, 1915.....	88,700.00	11,344,350.61	194,947.19	40,815.10	86,917.19	10,815,010.09
Increase 1916.....		144,345.88		2,844.60	12,302.53	129,199.70
Decrease 1916.....	38,215.98		2,460.63			40,685.71

BRIDGES—Continued.

Items Reported	Dunleith & Dubuque	Kookuk & Hamilton	Missouri & Blair	Omaha Bridge & Terminal	Sioux City Bridge	Total
Grand Total:						
December 31, 1916	1,191,327.92	2,017,866.82	2,165,000.32	6,795,659.70	1,442,795.17	13,310,679.92
December 31, 1915	1,722,370.66	2,024,947.78	2,180,416.53	6,845,298.61	1,452,612.45	13,331,651.43
Increase 1916	66,961.26	7,680.96	15,416.21	49,688.91	10,817.28	88,563.36
Decrease 1916						
EMPLOYEES AND THEIR COMPENSATION.						
General Officers:						
Average number of.....	2	3				5
Number of days on duty.....	633.00	971.00				1,604.00
Compensation.....	\$ 1,523.00	\$ 6,175.00				\$ 8,258.00
Average daily compensation.....						
All Other Employees:						
Average number of.....	4	8				12
Number of hours on duty.....	17,568	20,456				38,024
Compensation.....	\$ 5,000.00	\$ 5,700.00				\$ 8,700.00
Average hourly compensation—cents.....	.17					
MILEAGE DECEMBER 31, 1916.						
Main Line:						
Iowa.....	1.18	.34	2.11	.58	1.71	6.95
Illinois.....	.13	.22			.44	.89
Nebraska.....			1.25	1.45	2.14	4.84
Branches, Spurs and All Other Trunks:						
Illinois.....	.79		3.96	2.44	.93	8.12
Nebraska.....			1.61	15.84	.53	17.98
Total.....	2.09	.66	8.03	20.31	6.34	37.33
Debit.						

STATISTICS OF Railway Terminal Companies

For the Year Ended December 31, 1916

TERMINAL COMPANIES.

Statistics of Terminal Railway Companies Doing Business in Iowa for the Year Ended December 31, 1916.

Items Reported	Des Moines Terminal	Des Moines Union	Des Moines Western	Iowa Transfer	Siox City Terminal	Total
MILEAGE DECEMBER 31, 1916.						
Lines owned, main track.....	.91	4.18	1.47	.21	1.57	8.34
Yard track and sidings.....	9.21	19.81	3.21	3.01	7.93	43.27
Total.....	10.12	24.00	4.68	3.22	9.50	51.61
New Line constructed during year.....	.23					.23
GRADE CROSSINGS—IOWA.						
Protected by gate alone—						
With other steam railways.....		1				1
Protected by flagman alone, 24 hours daily—						
With electric or street railways.....					1	1
With streets, avenues and highways.....		6			1	7
Protected by flagman alone, part time only—						
With streets, avenues and highways.....						6
Protected by crossing alarm only—						
With streets, avenues and highways.....		1				1
Protected alone by derailing devices—						
With other steam railways.....		1				1
With electric or street railways.....	1					1
Unprotected—						
With other steam railways.....		8		2		10
With electric or street railways.....					1	1
With streets, avenues and highways.....	2	9			3	14
Total—						
With other steam railways.....	1	9		2		12
With electric or street railways.....		1			2	3
With streets, avenues and highways.....	2	22			4	28
CAPITAL STOCK—COMMON.						
Par value amount authorized.....	\$ 327,000.00	\$ 400,000.00	\$ 89,000.00	\$ 40,500.00	\$ 100,000.00	\$ 956,500.00
Par value amount actually issued.....	327,000.00	400,000.00	89,000.00	40,500.00	100,000.00	956,500.00
Par value amount actually outstanding.....	327,000.00	400,000.00	89,000.00	40,500.00	100,000.00	867,500.00

Stock Actually Issued Prior to Present Year:						
Par value.....	\$ 327,000.00	\$ 400,000.00	\$ 89,000.00	\$ 40,500.00	\$ 100,000.00	\$ 956,500.00
Cash received as consideration for issue.....	185,400.00	400,000.00	85,000.00	40,500.00	100,000.00	690,900.00
Cash value of other property acquired as consideration for issue.....	161,600.00					261,600.00
Stock Actually Issued During Present Year:						
Par value.....			4,000.00			4,000.00
Cash received as consideration for issue.....			4,000.00			4,000.00
Rate of dividend.....					7%	
Dividends declared.....					7,000.00	7,000.00
UNMATURED FUNDED DEBT—MORTGAGE BONDS.						
Par value indebtedness authorized.....	\$ 800,000.00					\$ 800,000.00
Par value of evidence of debt:						
Nominally issued.....		129,000.00				129,000.00
Actually issued.....		671,000.00				671,000.00
Actually outstanding.....		671,000.00				671,000.00
Debt Actually Issued Prior to Present Year:						
Par value.....		671,000.00				671,000.00
Cash received as consideration for issue.....		671,000.00				671,000.00
Interest:						
Rate.....						
Amount accrued during year.....		33,550.00				33,550.00
Amount paid during year.....		33,550.00				33,550.00
INVESTMENT IN ROAD AND EQUIPMENT DURING YEAR.						
Expenditures for road:						
In new lines and extensions.....	\$ 2,910.97		\$ 12,255.84			15,166.81
In additions and betterments.....		454.37		\$ 821.84		1,276.21
Total.....	2,910.97	454.37	12,255.84			16,443.02
Expenditures for equipment:						
In additions and betterments.....		\$ 8,284.04			6,249.27	\$ 14,533.31
Grand total:						
In new lines and extensions.....	2,910.97		12,255.84			15,166.81
In additions and betterments.....		\$ 7,829.67			7,071.11	\$ 14,900.78
In road and equipment.....		\$ 7,829.67			7,249.91	\$ 15,079.58
INVESTMENT IN ROAD AND EQUIPMENT AT CLOSE OF YEAR.						
Investment to June 30, 1907:						
Road.....	\$ 97,955.00	1,233,107.55	214,849.39	\$ 30,582.41		1,596,774.35
Equipment.....		31,386.63				31,386.63
Investment from July 1, 1907 to June 30, 1914.....	154,115.71	91,634.49	\$ 67,023.48	2,859.61	134,948.96	210,533.25
Investment since June 30, 1914.....	17,232.17	17,421.29	\$ 1,524.29	6,896.04	23,567.86	43,031.65
Total.....	\$ 169,302.88	\$ 1,362,163.33	\$ 146,397.16	\$ 40,338.06	\$ 168,516.82	\$ 1,998,282.25
Length of road owned.....	.91	4.18	1.47	.21	1.67	8.34
Average investment per mile of road.....	\$ 186,047.12	\$ 325,881.14	\$ 99,521.87	\$ 192,110.29	\$ 101,477.13	\$ 238,811.66

*Credit. **Debit. †Investment to June 30, 1908. ‡From June 30, 1908.

Items Reported	Des Moines Terminal	Des Moines Union	Des Moines Western	Iowa Transfer	Sioux City Terminal	Total
COMPARATIVE GENERAL BALANCE SHEET—ASSETS.						
Investments:						
In road and equipment						
Miscellaneous physical property	\$ 169,302.88	\$ 1,303,549.87	\$ 146,301.02	\$ 49,618.00	\$ 158,516.82	\$ 1,908,288.59
Affiliated companies—stocks	191,077.00					191,077.00
Total, December 31, 1916		8,100.00	8,100.00			16,200.00
Total, December 31, 1915	360,370.94	1,401,649.87	154,401.62	40,678.06	158,516.82	2,115,556.31
Increase 1916	332,636.51	1,410,479.54	142,145.78	40,618.06	151,445.71	2,097,335.60
Decrease 1916	7,743.43		12,256.84		7,071.11	27,070.38
Current Assets:		8,829.67				8,829.67
Cash						
Demand loans and deposits	9,216.22	48,020.00	478.82	2,533.91	2,149.61	62,398.56
Traffic and car service balance receivable		979,242.62				979,242.62
Net balance receivable from agents and conductors		15,339.60				15,339.60
Miscellaneous accounts receivable		1,582.66				1,582.66
Material and supplies	2,173.18	129,064.06	981.06	2,385.12	65,007.54	212,700.96
Rents receivable	2,194.65	42,304.83		373.91	7,594.99	54,037.63
Total, December 31, 1916						62,804.63
Total, December 31, 1915	13,584.05	1,282,928.71	1,430.88	5,292.94	64,841.14	1,368,106.72
Increase 1916	8,639.02	1,094,866.18	3,569.02	4,744.12	40,001.04	1,122,410.39
Decrease 1916	4,954.03	218,062.53		548.81	24,240.10	217,865.47
Deferred Assets:			2,109.14			2,109.14
Working fund advances		10.00				10.00
Other deferred assets						
Total, December 31, 1916	591.45					591.45
Total, December 31, 1915	591.45	10.00				601.45
Increase 1916	686.86		24.70			711.62
Decrease 1916		10.00				10.00
Unadjusted Debits:	95.40		24.70			120.10
Rents and insurance premiums paid in advance		697.58			100.13	797.71
Total, December 31, 1916		697.58			100.13	797.71
Total, December 31, 1915					100.00	100.00
Increase 1916		697.58			.04	697.62
Grand Total:						
December 31, 1916	374,555.45	2,685,196.16	155,861.50	45,911.00	223,458.09	3,484,982.20
December 31, 1915	361,963.39	2,475,345.72	145,739.56	45,392.19	192,146.84	3,220,547.70
Increase 1916	12,602.06	209,850.44	10,121.94	548.81	31,311.25	264,434.50
Decrease 1916						

Items Reported	Des Moines Terminal	Des Moines Union	Des Moines Western	Iowa Transfer	Sioux City Terminal	Total
COMPARATIVE GENERAL BALANCE SHEET—LIABILITIES.						
Capital Stock:						
December 31, 1916	\$ 327,000.00	\$ 400,000.00	\$ 89,000.00	40,500.00	100,000.00	956,500.00
December 31, 1915	327,000.00	400,000.00	85,000.00	40,500.00	100,000.00	952,500.00
Increase 1916			4,000.00			4,000.00
Unmatured Funded Debt:		671,000.00				671,000.00
December 31, 1916		671,000.00				671,000.00
December 31, 1915		671,000.00				671,000.00
Current Liabilities:						
Loans and bills payable					2,300.00	2,300.00
Traffic and car service balance payable		7,597.05				7,597.05
Audited accounts and wages payable		36,758.96	894.41	694.49		38,346.86
Miscellaneous accounts payable					99,671.43	99,671.43
Interest matured unpaid		5,521.60				5,521.60
Unmatured interest accrued		5,727.50				5,727.50
Other current liabilities						
Total, December 31, 1916		55,675.11	894.71	694.49	101,871.43	159,105.74
Total, December 31, 1915		54,691.08	771.04	502.07	64,075.20	120,039.39
Increase 1916		984.03	123.67	192.42	37,796.23	39,066.35
Decrease 1916						
Unadjusted Credits:		42,504.62			1,490.96	44,295.58
Tax liability		18,546.34				18,546.34
Accrued depreciation—road		5,791.22				5,791.22
Equipment		**2,320.63			11,859.94	14,180.57
Other unadjusted credits		64,821.67			13,821.50	78,643.17
Total, December 31, 1916		19,558.11			17,797.04	37,355.15
Total, December 31, 1915		45,263.46			1,475.14	46,738.60
Increase 1916						
Decrease 1916						
Corporate Surplus:						
Additions to property through income and surplus		\$ 222,549.87				\$ 222,549.87
Profit and loss—credit balance	\$ 47,555.45	1,171,149.61	65,996.79	\$ 4,716.51	\$ 8,264.76	1,297,682.12
Total, December 31, 1916	47,555.45	1,498,699.43	65,996.79	4,716.51	8,264.76	1,635,233.59
Total, December 31, 1915	34,963.39	1,330,066.63	59,368.52	4,390.12	10,274.60	1,439,063.16
Increase 1916	12,602.06	168,632.80	6,628.27	326.39	8,000.00	196,169.43
Decrease 1916					2,009.84	2,009.84
Grand Total:						
December 31, 1916	374,555.45	2,685,196.16	155,861.50	45,911.00	223,458.09	3,484,982.20
December 31, 1915	361,963.39	2,475,345.72	145,739.56	45,392.19	192,146.84	3,220,547.70
Increase 1916	12,602.06	209,850.44	10,121.94	548.81	31,311.25	264,434.50
Decrease 1916						

DESCRIPTION OF EQUIPMENT OWNED.

Steam locomotives	8					13
Freight train cars—coal	15					13

**Debit.

Items Reported	Des Moines Terminal	Des Moines Union	Des Moines Western	Iowa Transfer	Sioux City Terminal	Total
Company service cars:						
Derrick		1				1
Other company service cars		8			1	9
Total		9			1	10
Total all cars in service		24			1	25
TRAFFIC AND CAR STATISTICS.						
Switching Operations—Freight Traffic:						
Number cars handled earning revenue—loaded		26,235			98,836	125,071
Number cars handled not earning revenue—empty		26,235			881	27,116
Number of cars handled not earning revenue—loaded					5,737	6,737
Number of cars handled not earning revenue—empty					93,033	93,033
Total number of cars handled		52,470			194,587	247,050
Terminal Operations—Freight Traffic:						
Number cars handled at cost for tenant companies—loaded		66,144		63,133		129,277
Number cars handled at cost for tenant companies—empty		19,468		49,459		68,927
Total number of cars handled		85,612		112,612		198,224
Terminal Operations—Passenger Traffic:						
Number of cars handled at cost for tenant companies—empty		27,579				27,579
Total number of cars handled		27,579				27,579
TIES LAID IN REPLACEMENT AND IN BETTERMENT.						
Cross Ties:						
Number of applied		3,900		590	3,112	7,641
Average cost per tie at distributing point	\$	.77		.69	.61	
Switch Ties:						
Number feet (board measure) applied		611.39		7,319	16,570	24,500.39
Average cost per M feet at distributing point	\$	37.54		39.06	30.18	
Charges account of ties laid in replacement	\$	5,355.25		603.94	2,409.97	8,459.16
Amount charged to operating expenses	\$	5,355.25		603.94	2,409.97	8,459.16
TIES LAID IN ADDITIONAL TRACKS AND ON NEW LINES AND EXTENSIONS.						
Number miles of new track—yards and sidings					.592	.592
Cross Ties:						
Number of applied					1,436	1,436
RAILS LAID IN REPLACEMENT AND IN BETTERMENT.						
Average cost per tie at distributing point					.67	.67
Switch Ties:						
Number feet (board measure) laid in tracks					9,015	9,015
Average cost per M feet at distributing point	\$				30.00	30.00
Charges on account ties laid in new tracks					1,229.93	1,229.93
Amount charged to additions and betterments						
Amount charged to new lines and extensions						
RAILS LAID IN REPLACEMENT AND IN BETTERMENT.						
Number of tons of 2,240 pounds applied		136.72			70.85	207.57
Average cost per ton at distributing point	\$	27.00			22.03	25.34
Charges on account of rail applied		3,669.38			1,461.33	5,130.71
Relays Taken Up:						
Number of tons					22.9	22.9
Salvage value					364.02	364.02
Scrap Rails Taken Up:						
Number of tons		77.64			25.8	103.44
Salvage value	\$	860.00			226.37	1,086.40
Total salvage		860.00			390.39	1,450.42
Amount charged to operating expenses		2,839.35			870.94	3,710.29
RAILS LAID IN ADDITIONAL TRACKS AND IN NEW LINES AND EXTENSIONS.						
Miles of new track—yards and sidings					.592	.592
Number of tons of 2,240 pounds applied					70.47	70.47
Average cost per ton	\$				23.30	23.30
Charges on account of rail laid					1,641.63	1,641.63
Distributed to new lines and extensions					1,641.63	1,641.63
CONSUMPTION OF FUEL BY LOCOMOTIVES.						
Switching Locomotives:						
Tons of bituminous coal		11,442			5,079	16,521
Average cost per ton	\$	2.36			4.92	2.46

STATISTICS
OF
Electric Interurban Railways

For the Year Ended December 31, 1916

TABLE 1—ROAD OPERATED AT CLOSE OF YEAR.

Number	Electric Interurban Companies	Mileage of Road Operated—Sing Track						Mileage of Road Operated—All Tracks					Mileage of Road Owned—All Tracks						Number
		Lins owned		Lins operated under lease	Lins operated under contract	Lins operated under trackage rights	Total single track mileage	Single track	Second track	Sidings and turnouts	Track in car-houses, shops, etc.	Total all tracks	First Track		Second track	Sidings and turnouts	Tracks in carhouses, shops, etc.	Total all tracks	
		Main line	Branches and spurs										Main line	Branches and spurs						Total all tracks
1	Albia Light and Railway	10				10	10				10	10						10	1
2	Cedar Rapids and Marion City	2.80				2.80	2.80				2.80	2.80						2.80	2
3	Charles City Western	23.35				23.35	23.35	3.66		27.01	23.35				3.66			27.01	3
4	Clinton, Davenport & Muscatine	58.32			10.18	68.50	68.50	7.13		75.63	58.32			4.46				62.77	4
5	Colfax Springs	1.00				1.00	1.00			1.00	1.00							1.00	5
6	Fr. Dodge, D. M. & Southern	119.95	7.32		3.75	131.02	131.02	33.21		164.23	119.95	7.32		31.99				158.52	6
7	Inter-Urban	61.21			8.60	69.81	69.81	6.00	16.61	82.42	61.21		2.40	16.61				80.22	7
8	Iowa Railway & Light	44.05			44.65	88.70	88.70	7.61		96.31	44.05			7.61				51.66	8
9	Iowa Southern Utilities	30.80			.81	31.61	31.61	3.31	13	35.11	30.80			3.31	.13			34.30	9
10	Mason City & Clear Lake	14.62			14.62	14.62	14.62	5.54		20.16	14.62			5.54				20.16	10
11	Oskaloosa & Buxton Electric									2.30								2.30	11
12	Oskaloosa Traction & Light			2.30		2.30	2.30			2.30								2.30	12
13	Tama & Toledo Railway	2.87				2.87	2.87	.68		3.55	2.87			.68				3.55	13
14	The Waterloo, C. F. & Northern	35.07	87.82			122.89	112.80	5.33	19.73	138.25	35.07	87.82	5.33	19.73	.50			137.31	14
	Total	394.70	95.14	2.30	23.34	515.48	515.48	11.33	95.90	622.71	395.06	95.14	7.73	92.28	.43			601.54	

a This report covers the 6 months ended December 31, 1926.

TABLE 2—CAPITAL STOCK.

PART I—AUTHORIZED AND ISSUED.

Number	Electric Interurban Companies	Par Value of Amount Authorized			Par Value of Amount Nominally but Not Actually Issued to Close of Year			Par Value of Total Amount Actually Issued to Close of Year			Number
		Common	Preferred	Total	Common	Preferred	Total	Common	Preferred	Total	
1	Albia Light and Railway	\$ 400,000.00	\$ 100,000.00	\$ 500,000.00				\$ 400,000.00	\$ 100,000.00	\$ 500,000.00	1
2	Cedar Rapids and Marion City										2
3	Charles City Western	300,000.00		300,000.00	\$ 9,000.00		\$ 9,000.00	290,400.00		290,400.00	3
4	Clinton, Davenport & Muscatine	1,725,000.00		1,725,000.00				1,725,000.00		1,725,000.00	4
5	Colfax Springs	25,000.00		25,000.00				25,000.00		25,000.00	5
6	Fr. Dodge, D. M. & Southern	2,000,000.00	1,000,000.00	3,000,000.00				2,000,000.00	1,576,000.00	3,576,000.00	6
7	Inter-Urban	1,200,000.00		1,200,000.00				1,100,000.00		1,100,000.00	7
8	Iowa Railway & Light	3,000,000.00	5,000,000.00	8,000,000.00				1,700,000.00	2,914,603.73	4,614,603.73	8
9	Iowa Southern Utilities	1,000,000.00	500,000.00	1,500,000.00				500,000.00	200,000.00	700,000.00	9
10	Mason City & Clear Lake	400,000.00		400,000.00				400,000.00		400,000.00	10
11	Oskaloosa & Buxton Electric	500,000.00		500,000.00				170,984.66		170,984.66	11
12	Oskaloosa Traction & Light	300,000.00		300,000.00				300,000.00		300,000.00	12
13	Tama & Toledo Railway	50,000.00		50,000.00				50,000.00		50,000.00	13
14	The Waterloo, C. F. & Northern	3,335,000.00	1,665,000.00	5,000,000.00				2,513,000.00	1,510,275.00	4,023,275.00	14
	Total	\$14,235,000.00	\$ 8,865,000.00	\$23,100,000.00	\$ 9,000.00		\$ 9,000.00	\$11,234,384.66	\$ 6,490,878.77	\$17,635,263.30	

a This report covers the 6 months ended December 31, 1926.

TABLE 2—CAPITAL STOCK.

PART II—RETIRED AND CANCELED AFTER ACTUAL ISSUE, AND OUTSTANDING.

Number	Electric Interurban Companies	Par Value of Total Amount Retired and Canceled After Actual Issue			Par Value of Amount Actually Outstanding at Close of Year			Number
		Common	Preferred	Total	Common	Preferred	Total	
1	Albia Light and Railway				\$ 400,000.00	\$ 100,000.00	\$ 500,000.00	1
2	Cedar Rapids and Marion City							2
3	Charles City Western				200,400.00		200,400.00	3
4	Clinton, Davenport & Muscatine				1,725,000.00		1,725,000.00	4
5	Colfax Springs				25,000.00		25,000.00	5
6	Ft. Dodge, D. M. & Southern		\$ 300,000.00	\$ 300,000.00	2,000,000.00	1,276,000.00	3,276,000.00	6
7	Inter-Urban				1,100,000.00		1,100,000.00	7
8	Iowa Railway & Light				1,700,000.00	2,914,603.73	4,614,603.73	8
9	Iowa Southern Utilities				300,000.00	300,000.00	600,000.00	9
10	Mason City & Clear Lake				400,000.00		400,000.00	10
11	Oskaloosa & Buxton Electric	\$ 84.66		84.66	170,900.00		170,900.00	11
12	Oskaloosa Traction & Light				300,000.00		300,000.00	12
13	Tama & Toledo Railway				50,000.00		50,000.00	13
14	The Waterloo, C. F. & Northern	250,000.00	235,000.00	505,000.00	2,203,000.00	1,356,275.00	3,518,275.00	14
	Total	\$ 210,984.66	\$ 555,000.00	\$ 805,984.66	\$10,984,300.00	\$ 5,845,878.73	\$16,830,178.73	

aThis report covers the 6 months ended December 31, 1915.

PART III—ACTUALLY ISSUED PRIOR TO PRESENT YEAR.

Number	Electric Interurban Companies	Stocks Actually Issued Prior to Present Year									Number
		Par Value			Cash Received as Consideration for Issue			Cash Value of Other Property Acquired as Consideration for Issue			
		Common	Preferred	Total	Common	Preferred	Total	Common	Preferred	Total	
1	Albia Light and Railway										1
2	Cedar Rapids and Marion City										2
3	Charles City Western	\$ 200,400.00		\$ 200,400.00	\$ 200,400.00		\$ 200,400.00				3
4	Clinton, Davenport & Muscatine	1,725,000.00		1,725,000.00	1,725,000.00		1,725,000.00				4
5	Colfax Springs	25,000.00		25,000.00		25,000.00					5
6	Ft. Dodge, D. M. & Southern	1,700,000.00	\$1,600,000.00	3,300,000.00							6
7	Inter-Urban	\$1,100,000.00		\$1,100,000.00							7
8	Iowa Railway & Light	1,700,000.00	1,821,048.42	3,521,048.42	1,700,000.00	\$1,821,048.42	3,521,048.42				8
9	Iowa Southern Utilities	500,000.00		500,000.00	500,000.00		500,000.00				9
10	Mason City & Clear Lake	400,000.00		400,000.00	400,000.00		400,000.00				10
11	Oskaloosa & Buxton Electric	170,984.66		170,984.66	170,984.66		170,984.66				11
12	Oskaloosa Traction & Light	300,000.00		300,000.00	300,000.00		300,000.00				12
13	Tama & Toledo Railway										13
14	The Waterloo, C. F. & N.	2,513,000.00	1,509,950.00	4,022,950.00	2,513,000.00	1,509,950.00	4,022,950.00				14
	Total	\$10,484,384.66	\$4,830,998.42	\$15,315,383.08	\$7,024,384.66	\$3,330,998.42	\$10,955,383.08	\$1,700,000.00	\$1,560,000.00	\$3,260,000.00	

aThis report covers the 6 months ended December 31, 1916.
 *Issued prior to 1909—unable to ascertain actual cash received.

TABLE 2—CAPITAL STOCK.
PART IV—ACTUALLY ISSUED DURING PRESENT YEAR.

Number	Electric Interurban Companies	Stocks Actually Issued During Present Year									Number	
		Par Value			Cash Received as Consideration for Issue			Cash Value of Other Property Acquired as Consideration for Issue				
		Common	Preferred	Total	Common	Preferred	Total	Common	Preferred	Total		
1	a Albia Light and Railway	\$500,000.00		\$ 500,000.00								1
2	Cedar Rapids and Marion City											2
3	Charles City Western											3
4	Clinton, Davenport & Muscatine											4
5	Colfax Springs											5
6	Ft. Dodge, D. M. & Southern	300,000.00	\$ 76,000.00	376,000.00		\$ 72,160.00	\$ 72,160.00	\$300,000.00		\$300,000.00		6
7	Inter-Urban											7
8	Iowa Railway & Light		1,068,555.31	1,068,555.31		1,068,555.31	1,068,555.31					8
9	Iowa Southern Utilities		300,000.00	300,000.00		300,000.00	300,000.00					9
10	Mason City & Clear Lake											10
11	Oskaloosa & Buxton Electric											11
12	Oskaloosa Traction & Light											12
13	Tama & Toledo Railway	50,000.00		50,000.00				50,000.00		50,000.00		13
14	The Waterloo, C. F. & Northern		325.00	325.00		325.00	325.00					14
	Total	\$850,000.00	\$1,469,880.31	\$2,319,880.31		\$1,465,040.31	\$1,465,040.31	\$350,000.00		\$350,000.00		

a This report covers the 6 months ended December 31, 1916.

PART V—ACTUALLY ISSUED DURING PRESENT YEAR AND DIVIDENDS DECLARED.

Number	Electric Interurban Companies	Stocks Actually Issued During Present Year						Dividends Declared During the Year				Number	
		Cash Value of Services Received			Net Total Discounts			Rate					
		Common	Preferred	Total	Common	Preferred	Total	Common	Preferred	Common	Preferred		
1	a Albia Light and Railway	\$500,000.00		\$500,000.00									1
2	Cedar Rapids and Marion City												2
3	Charles City Western												3
4	Clinton, Davenport & Muscatine												4
5	Colfax Springs												5
6	Ft. Dodge, D. M. & Southern					\$ 3,840.00	\$ 3,840.00	4%—6%	7. %	\$ 80,000.00	\$ 89,250.00		6
7	Inter-Urban												7
8	Iowa Railway & Light							6%	7. %	102,000.00	173,868.22		8
9	Iowa Southern Utilities								5%		1,500.00		9
10	Mason City & Clear Lake							1%—2%		12,000.00			10
11	Oskaloosa & Buxton Electric							14.5+%		24,982.72			11
12	Oskaloosa Traction & Light							8.9+%		26,576.54			12
13	Tama & Toledo Railway							2%—6%		4,000.00			13
14	The Waterloo, C. F. & Northern								6%		70,943.39		14
	Total	\$500,000.00		\$500,000.00		\$ 3,840.00	\$ 3,840.00			\$349,859.27	\$334,496.61		

a This report covers the 6 months ended December 31, 1916.

TABLE 3—FUNDED DEBT.
PART I—TOTAL FUNDED DEBT OTHER THAN EQUIPMENT OBLIGATIONS.

Number	Electric Interurban Companies	Total par value of extent of indebtedness authorized	Extent of authorized amount canceled or revoked	Par Value of Evidences of Debt				Evidences of Debt Actually Issued Prior to Present Year		Number
				Monthly but not actually issued	Actually issued to close of year	Reacquired after actual issue and canceled	Reacquired after actual issue and held at close of year	Actually outstanding at close of year	Par value of actual amount		Cash received as consideration for issue
1	a Albia Light and Railway	\$ 300,000.00			\$ 300,000.00			\$ 300,000.00		1
2	Cedar Rapids and Marion City									2
3	Charles City Western	1,000,000.00		\$ 300,000.00	240,000.00			\$ 240,000.00	\$ 240,000.00	3
4	Clinton, Davenport & Muscatine	1,300,000.00		137,000.00	1,033,000.00			1,033,000.00	1,033,000.00	4
5	Colfax Springs									5
6	Ft. Dodge, D. M. & Southern	5,731,000.00			5,731,000.00	\$ 50,000.00		5,681,000.00	5,500,000.00	6
7	Inter-Urban	1,510,000.00		100,000.00	1,410,000.00		\$ 116,000.00	1,294,000.00	1,410,000.00	7
8	Iowa Railway & Light	12,049,500.00	\$340,000.00		6,148,500.00	1,374,000.00		4,874,500.00	6,015,000.00	8
9	Iowa Southern Utilities	2,000,000.00			750,000.00			750,000.00	750,000.00	9
10	Mason City & Clear Lake	2,000,000.00		2,178,000.00	432,000.00	98,000.00		334,000.00	432,000.00	10
11	Oskaloosa & Buxton Electric	1,500,000.00			23,000.00			23,000.00	23,000.00	11
12	Oskaloosa Traction & Light	1,800,000.00			332,000.00	34,000.00		315,000.00	332,000.00	12
13	Tama & Toledo Railway									13
14	The Waterloo, C. F. & Northern	7,500,000.00		412,000.00	5,773,000.00			5,773,000.00	5,207,000.00	14
	Total	\$37,300,500.00	\$545,000.00	\$3,133,000.00	\$22,212,500.00	\$1,456,000.00	\$16,000.00	\$20,740,500.00	\$21,032,000.00	\$13,906,622.50

a This report covers the 6 months ended December 31, 1916.

PART II—TOTAL FUNDED DEBT OTHER THAN EQUIPMENT OBLIGATIONS—Continued.

Number	Electric Interurban Companies	Evidences of Debt Actually Issued Prior to Present Year—Continued		Evidences of Debt Actually Issued During Present Year			Interest During Year on Actually Outstanding Debt		Number	
		Cash value of other property acquired as consideration for issue	Total discount on actual issue of prior years	Par value of total amount	Cash received as consideration for issue	Cash value of other property acquired as consideration for issue	Discount on actual issues of present year	Interest paid		Interest accrued
1	a Albia Light and Railway			\$ 300,000.00		\$ 300,000.00			1	
2	Cedar Rapids and Marion City								2	
3	Charles City Western		\$ 6,785.56				\$ 25.00	\$ 17,923.42	\$ 17,923.42	3
4	Clinton, Davenport & Muscatine									4
5	Colfax Springs									5
6	Ft. Dodge, D. M. & Southern	\$ 4,800,000.00	82,733.42	231,000.00	\$ 182,000.00	31,000.00	18,000.00	245,958.23	230,955.07	6
7	Inter-Urban		141,000.00					73,000.00	73,000.00	7
8	Iowa Railway & Light	33,000.00	488,429.44	133,500.00	107,431.36	16,500.00	9,568.64	244,512.75	243,850.00	8
9	Iowa Southern Utilities	478,300.00		750,000.00	249,946.00	478,300.00	21,736.00	15,482.50	20,048.98	9
10	Mason City & Clear Lake		9,610.00					19,440.00	19,440.00	10
11	Oskaloosa & Buxton Electric		23,000.00					1,380.00	1,380.00	11
12	Oskaloosa Traction & Light		6,730.00				\$ 80.00	16,870.00	16,870.00	12
13	Tama & Toledo Railway									13
14	The Waterloo, C. F. & Northern		1,651,400.86	618,000.00	412,800.00		103,200.00	288,107.00	288,419.00	14
	Total	\$ 5,334,300.00	\$ 1,786,678.86	\$ 1,930,500.00	\$ 922,177.36	\$ 825,900.00	\$ 132,449.64	\$ 921,974.00	\$ 911,281.56	

a This report covers the 6 months ended December 31, 1916.

* Bonds bought in at discount.

TABLE 3—FUNDED DEBT.
PART III—EQUIPMENT OBLIGATIONS.

Number	Electric Interurban Companies	Contract price of equipment acquired	Cash paid on acquisition of equipment	Total amount of obligations actually issued	Rate of interest per annum	Actually outstanding obligations unamortized at close of year	Interest accrued during year	Interest paid during year	Number
1	a Albia Light and Railway								1
2	Cedar Rapids and Marion City								2
3	Charles City Western								3
4	Clinton, Davenport & Muscatine								4
5	Colfax Springs								5
6	Ft. Dodge, D. M. & Southern								6
7	Inter-Urban								7
8	Iowa Railway & Light								8
9	Iowa Southern Utilities								9
10	Mason City & Clear Lake								10
11	Oskaloosa & Buxton Electric								11
12	Oskaloosa Traction & Light								12
13	Tama & Toledo Railway								13
14	The Waterloo, C. F. & Northern	\$ 270,194.00	\$ 48,830.00	\$ 221,374.00	6%	\$124,561.80	\$ 4,464.00	\$ 4,192.00	14
	Total	\$ 270,194.00	\$ 48,830.00	\$ 221,374.00		\$124,561.80	\$ 4,464.00	\$ 4,192.00	15

a This report covers the 6 months ended December 31, 1916.

TABLE 4—INVESTMENT IN ROAD AND EQUIPMENT.
PART I—WAY AND STRUCTURES, EQUIPMENT AND POWER, DURING YEAR.

Number	Electric Interurban Companies	Way and Structures			Equipment			Power			Number
		Investment in new lines and extensions during year	Investment in additions and betterments during year	Total investment in road and equipment during year	Investment in new lines and extensions during year	Investment in additions and betterments during year	Total investment in road and equipment during year	Investment in new lines and extensions during year	Investment in additions and betterments during year	Total investment in road and equipment during year	
1	a Albia Light and Railway		\$ 1,290.31	\$ 1,290.31		\$ 407.72	\$ 407.72		\$ 2,552.36	\$ 2,552.36	1
2	Cedar Rapids and Marion City										2
3	Charles City Western	\$ 4,272.75	29,802.21	4,272.75	\$ *34,020.02	104.35	*34,020.02		595.30	595.30	3
4	Clinton, Davenport & Muscatine										4
5	Colfax Springs		467,085.24	467,085.24		53,173.23	53,173.23		24,751.01	24,751.01	5
6	Ft. Dodge, D. M. & Southern		188,731.20	188,731.20		21,965.77	21,965.77		43,882.18	43,882.18	6
7	Inter-Urban	4,031.58	11,769.45	16,700.03		82,000.41	82,000.41		251,800.03	251,800.03	7
8	Iowa Railway & Light		725,126.56	725,126.56		47.79	47.79				8
9	Iowa Southern Utilities		2,290.02	70,975.86	70,975.47		181.73	181.73			9
10	Mason City & Clear Lake										10
11	Oskaloosa & Buxton Electric		19,088.00	19,088.00							11
12	Oskaloosa Traction & Light		744.77	744.77							12
13	Tama & Toledo Railway		59,245.92	59,245.92							13
14	The Waterloo, C. F. & Northern		351,428.35	321,428.35	\$ *27,072.04	*27,072.04		13,225.03	13,225.03	14	
	Total	\$ 30,591.08	\$1,901,332.32	\$1,931,924.30	\$ *34,020.02	\$131,519.00	\$ 96,896.43	\$326,796.01	\$326,796.01		

a This report covers the 6 months ended December 31, 1916.

*Credit item.

TABLE 4—INVESTMENT IN ROAD AND EQUIPMENT.
PART II—GENERAL AND MISCELLANEOUS AND GRAND TOTAL DURING YEAR.

Number	Electric Interurban Companies	General and Miscellaneous			Grand Total			Number
		Investment in new lines and extensions during year	Investment in additions and betterments during year	Total investment in road and equipment during year	Investment in new lines and extensions during year	Investment in additions and betterments during year	Total investment in road and equipment during year	
1	a Albia Light and Railway.....					\$ 4,250.39	\$ 4,250.39	1
2	Cedar Rapids and Marion City.....							2
3	Charles City Western.....	\$ 1,357.37		1,357.37	\$ 28,990.50		28,990.50	3
4	Clinton, Davenport & Muscatine.....		\$ 2,120.21	2,120.21		32,061.97	32,061.97	4
5	Colfax Springs.....							5
6	Ft. Dodge, D. M. & Southern.....		*60,104.98	*60,104.98		475,905.09	475,905.09	6
7	Inter-Urban.....		42.31	42.31	4,931.58	77,058.71	82,590.29	7
8	Iowa Railway & Light.....		47,470.71	47,470.71		570,722.95	570,722.95	8
9	Iowa Southern Utilities.....				725,126.56	420.25	725,546.81	9
10	Mason City & Clear Lake.....		1,551.32	1,551.32	2,299.62	76,408.90	78,768.52	10
11	Oskaloosa & Buxton Electric.....				19,088.03		19,088.03	11
12	Oskaloosa Traction & Light.....		*6,164.23	*6,164.23		*5,419.46	*5,419.46	12
13	Tama & Toledo Railway.....		93.85	93.85		50,340.77	50,340.77	13
14	The Waterloo, C. F. & Northern.....		*862,159.42	*862,159.42		*514,578.08	*514,578.08	14
	Total.....	\$ 1,357.37	*\$76,159.23	*\$74,792.86	\$ 725,456.29	768,371.49	\$ 1,490,828.78	

*Credit item.

a This report covers the 6 months ended December 31, 1916.

PART III—AT CLOSE OF YEAR.

Number	Electric Interurban Companies	Investment in Road and Equipment at Close of Year						Number
		Investment to December 31, 1908	Investment from December 31, 1908, to June 30, 1914	Investment since June 30, 1914	Total investment in road and equipment	Average investment per mile of road owned	Average investment per mile of track owned	
1	a Albia Light and Railway.....		\$ 704,173.97	\$ 4,250.39	\$ 708,429.36	\$ 79,842.94	\$ 79,842.94	1
2	Cedar Rapids and Marion City.....							2
3	Charles City Western.....		495,249.95	193,433.06	612,683.01	26,230.16	22,683.56	3
4	Clinton, Davenport & Muscatine.....	\$ 1,369,294.91	1,068,659.36	40,013.84	2,442,068.11	41,873.60	38,905.02	4
5	Colfax Springs.....	26,566.82	186.70		26,753.52	26,753.52	26,753.52	5
6	Ft. Dodge, D. M. & Southern.....		7,397,458.01	2,187,610.98	9,515,068.99	74,792.86	69,009.99	6
7	Inter-Urban.....	2,460,382.92	246,516.30	106,126.67	2,913,025.89	47,590.09	35,312.96	7
8	Iowa Railway & Light.....	3,290,626.28	1,948,622.32	1,254,746.93	6,494,095.53	145,444.47	124,265.13	8
9	Iowa Southern Utilities.....		289,148.70	734,862.90	1,024,011.60	33,204.01	29,871.98	9
10	Mason City & Clear Lake.....		730,768.86	118,740.29	849,509.15	58,105.96	42,138.35	10
11	Oskaloosa & Buxton Electric.....		106,381.93	19,088.03	122,469.96	53,247.81	53,247.81	11
12	Oskaloosa Traction & Light.....		692,837.51	53,378.51	746,216.02			12
13	Tama & Toledo Railway.....			50,340.77	50,340.77	17,540.34	17,064.07	13
14	The Waterloo, C. F. & Northern.....	2,441,886.86	4,653,505.83	1,590,705.41	8,686,098.10	80,757.90	66,990.70	14
	Total.....	\$ 9,582,917.79	\$18,351,554.44	\$ 6,316,297.78	\$34,250,770.01	\$ 69,925.22	\$ 67,801.35	

a This report covers the 6 months ended December 31, 1916.

TABLE 5—INCOME ACCOUNT.

PART I—OPERATING INCOME.

Number	Electric Interurban Companies	Railway operating revenues	Railway operating expenses	Net revenue rail-way operations	Auxiliary Operations			Net operating revenue	Taxes assignable to railway operations	Operating income	Number
					Revenues	Expenses	Net revenues				
1	Albia Light and Railway	\$ 12,074.90	\$ 10,330.34	\$ 1,744.56	\$ 25,928.17	\$ 20,071.82	\$ 5,856.35	\$ 7,001.00	\$ 1,001.04	\$ 5,909.96	1
2	Cedar Rapids and Marion City	54,963.18	30,094.53	18,288.63				18,288.63	5,758.07	14,530.56	2
3	Charles City Western	33,594.36	47,838.17	30,756.19				30,756.19	5,385.07	25,371.12	3
4	Clinton, Davenport & Muscatine	282,205.69	201,409.22	80,796.47	97,935.06	69,476.25	28,458.78	109,195.25	9,798.09	99,397.16	4
5	Colfax Springs	3,444.25	6,003.08	*2,648.83				*2,648.83		*2,648.83	5
6	Ft. Dodge, D. M. & Southern	1,392,071.48	701,417.29	690,654.19	140,000.24	59,022.41	87,637.83	738,292.02	23,955.89	714,336.13	6
7	Inter-Urban	301,989.16	336,198.52	55,790.64				55,790.64	13,826.11	41,964.63	7
8	Iowa Railway & Light	278,600.48	175,196.27	103,404.21	608,953.20	375,078.91	233,274.29	306,718.50	39,021.04	347,697.46	8
9	Iowa Southern Utilities	139,652.89	90,227.42	39,325.47	112,597.78	62,955.55	49,642.23	65,967.70	5,577.29	80,390.41	9
10	Mason City & Clear Lake	125,897.54	86,873.19	39,024.35	1,326.64		1,326.64	40,350.99	5,698.39	34,652.60	10
11	Oskaloosa & Buxton Electric										11
12	Oskaloosa Traction & Light	23,405.44	21,835.32	1,639.12	132,632.55	75,568.30	57,064.25	58,603.37	5,833.78	53,859.59	12
13	Tama & Toledo Railway	16,238.09	12,044.74	4,193.35				4,193.35		4,193.35	13
14	The Waterloo, C. F. & Northern	817,432.67	407,842.49	409,590.18		381.10	*381.10	409,209.08	18,418.00	390,791.02	14
	Total	\$3,563,520.20	\$2,134,591.58	\$1,428,928.62	\$1,186,033.61	\$663,154.34	\$522,879.27	\$1,951,807.89	\$131,860.83	\$1,819,947.06	

* This report covers the 6 months ended December 31, 1916.
 * Deficit.

PART II—NONOPERATING INCOME AND GROSS.

Number	Electric Interurban Companies	Nonoperating Income							Total non-operating income	Gross Income	Number
		Miscellaneous rent income	Net income from miscellaneous physical property	Dividend income	Income from funded securities	Income from unfunded securities and accounts	Income from sinking fund and other reserves	Miscellaneous income			
1	Albia Light and Railway									\$ 5,909.96	1
2	Cedar Rapids and Marion City									14,530.56	2
3	Charles City Western		6.19						6.19	25,371.31	3
4	Clinton, Davenport & Muscatine		274.45					\$ 2,013.71	2,288.16	101,687.32	4
5	Colfax Springs									*2,648.83	5
6	Ft. Dodge, D. M. & Southern		1,932.06			\$ 9,413.73			11,345.79	725,681.02	6
7	Inter-Urban				\$ 150.00	625.60			775.60	42,740.13	7
8	Iowa Railway & Light	\$ 1,233.46	248,743.39	\$ 6,773.79	4,162.63	27,878.81		515.26	289,307.34	647,004.80	8
9	Iowa Southern Utilities									80,390.41	9
10	Mason City & Clear Lake					1,522.84	\$ 349.50		1,872.34	36,530.94	10
11	Oskaloosa & Buxton Electric			26,876.54		3,802.77			30,679.31	30,679.31	11
12	Oskaloosa Traction & Light									63,359.59	12
13	Tama & Toledo Railway									4,193.35	13
14	The Waterloo, C. F. & Northern		*7.30	171.38		18.38			385.90	391,359.44	14
	Total	\$ 1,233.46	\$ 250,948.79	\$ 33,821.71	\$ 4,312.63	\$ 43,298.13	\$ 349.50	\$ 2,914.96	\$ 336,849.16	\$2,156,796.21	

* Deficit.
 * This report covers the 6 months ended December 31, 1916.

TABLE 5—INCOME ACCOUNT.
PART III—DEDUCTIONS FROM GROSS INCOME AND PROFIT AND LOSS BALANCE.

Number	Electric Interurban Companies	Deductions From Gross Income							Income balance transferred to profit and loss	Number
		Rent for leased roads	Miscellaneous taxes	Interest on funded debt	Interest on unfunded debt	Amortization of discount on funded debt	Miscellaneous debits	Total deductions from gross income		
1	aAlbia Light and Railway.....								\$ 5,000.00	1
2	Cedar Rapids and Marion City.....								14,530.50	2
3	Charles City Western.....								4,305.00	3
4	Clinton, Davenport & Muscatine.....		\$ 74.90	\$ 17,923.42	\$ 1,908.99	\$ 1,118.91		\$ 21,011.32	*16,235.10	4
5	Colfax Springs.....			50,150.00	64,697.32			117,922.42	*2,648.83	5
6	Ft. Dodge, D. M. & Southern.....									6
7	Inter-Urban.....			280,635.07	2,772.73		\$ 334.59	283,702.39	441,889.53	7
8	Iowa Railway & Light.....			73,000.00	7,365.06	2,600.00	303.51	83,129.47	*40,389.34	8
9	Iowa Southern Utilities.....		1,557.54	245,850.00	11,322.71			256,142.80	391,862.00	9
10	Mason City & Clear Lake.....			30,048.08	13,027.50			35,334.02	44,856.39	10
11	Oskaloosa & Buxton Electric.....		300.00	19,440.00	5,227.98			24,667.98	11,802.96	11
12	Oskaloosa Traction & Light.....			5,306.68			305.45	5,606.68	24,982.73	12
13	Tama & Toledo Railway.....			20,672.77				20,978.22	33,831.37	13
14	The Waterloo, O. F. & Northern.....						4,069.06		4,193.35	14
	Total.....		\$ 1,932.44	\$ 1,016,514.10	\$ 119,000.26	\$ 29,476.40	\$ 4,727.06	\$ 1,182,880.86	\$ 974,215.35	

*Deficit.

aThis report covers the 6 months ended December 31, 1916.

TABLE 6—PROFIT AND LOSS ACCOUNT.

PART I—DEBITS.

Number	Electric Interurban Companies	Debit balance at beginning of year	Debit balance transferred from income account	Appropriations of surplus to fund and other reserves	Dividend appropriations of surplus	Debit discount extinguished through surplus	Miscellaneous appropriations of surplus	Loss on no and equipment retired	Miscellaneous debits	Credit balance carried forward to balance sheet	Total	Number
2	Cedar Rapids and Marion City.....										68,229.46	2
3	Charles City Western.....	\$ 57,913.00							\$ 316.40		181,720.04	3
4	Clinton, Davenport & Muscatine.....	111,385.64	\$16,235.10						4,150.00		4,500.01	4
5	Colfax Springs.....	1,911.18	2,648.83									5
6	Ft. Dodge, D. M. & Southern.....			\$29,462.50	\$100,250.00	\$ 4,049.58		\$ 725.00	685.18	704,600.00	908,673.96	6
7	Inter-Urban.....		40,389.34	2,334.57				818.47	20.00	74,071.98	118,134.66	7
8	Iowa Railway & Light.....			30,465.00	274,803.23	28,156.20	\$ 9,978.75			828,670.67	871,974.85	8
9	Iowa Southern Utilities.....				1,500.00				2,970.47	79,370.55	79,847.30	9
10	Mason City & Clear Lake.....				12,000.00				489.37	6,338.56	17,827.90	10
11	Oskaloosa & Buxton Electric.....				24,982.73				330.50	2,257.15	27,570.38	11
12	Oskaloosa Traction & Light.....				26,876.54		5,504.83		1,300.00	101,692.70	135,375.07	12
13	Tama & Toledo Railway.....				4,000.00					196.35	4,196.35	13
14	The Waterloo, O. F. & Northern.....	*282,917.85			70,943.39			8,564.41	26,831.25	85,679.41	474,926.31	14
	Total.....	\$ 454,077.63	\$29,273.27	\$22,263.32	\$84,356.88	\$2,205.84	\$15,483.38	\$10,007.88	\$36,994.17	\$1,561,092.30	\$2,535,943.67	

aThis report covers the 6 months ended December 31, 1916.

*Adjustment by I. C. C. examiners.

TABLE 6—PROFIT AND LOSS ACCOUNT.

PART II—CREDITS.

Number	Electric Interurban Companies	Credit balance at beginning of fiscal period	Credit balance transferred from income account	Profit on road and other properties	Delayed income credits	Donations	Miscellaneous credits	Debit balance carried forward on balance sheet	Total	Number
1	a-Albia Light and Railway.....		\$ 5,000.00						\$ 5,000.00	1
2	Cedar Rapids and Marion City.....									2
3	Charles City Western.....		4,365.99	\$ 90.00			\$ 22.80	\$ 83,750.67	\$ 88,239.46	3
4	Clinton, Davenport & Muscatine.....							131,730.64	131,730.64	4
5	Colfax Springs.....							4,600.01	4,600.01	5
6	Ft. Dodge, D. M. & Southern.....	\$ 410,530.63	441,889.53	1,768.49	\$ 37,281.01		17,109.29		608,578.06	6
7	Inter-Urban.....	109,989.08		8,154.63					118,143.66	7
8	Iowa Railway & Light.....	430,112.85	371,862.00						801,974.85	8
9	Iowa Southern Utilities.....	31,880.79	44,835.39						76,716.18	9
10	Mason City & Clear Lake.....	5,176.42	11,802.96				130.12		17,879.50	10
11	Oskaloosa & Buxton Electric.....	2,387.05	24,982.73				788.35		27,678.13	11
12	Oskaloosa Traction & Light.....	102,960.70	32,381.37						135,342.07	12
13	Tama & Toledo Railway.....		4,193.35						4,193.35	13
14	The Waterloo, C. F. & Northern.....	406,241.54	56,652.78	197.72		\$ 150.00	11,083.27		474,925.31	14
	Total.....	\$ 1,549,568.01	\$ 1,015,968.08	\$ 10,306.84	\$ 37,281.01	\$ 150.00	\$ 29,714.03	\$ 190,061.32	\$ 2,826,843.37	

a This report covers the 6 months ended December 31, 1916.

TABLE 7—RAILWAY OPERATING REVENUES.

PART I—REVENUE FROM TRANSPORTATION.

Number	Electric Interurban Companies	Passenger revenue	Baggage revenue	Parlor, sleeping, dining and special car revenue	Mail revenue	Express revenue	Milk revenue	Freight revenue	Switching revenue	Miscellaneous transportation revenue	Total revenue from transportation	Number
1	a-Albia Light and Railway.....	\$ 12,074.99									\$ 12,074.99	1
2	Cedar Rapids and Marion City.....	50,002.35				\$ 3,808.80					54,001.15	2
3	Charles City Western.....	17,942.00	\$ 85.49			\$ 21.81	\$ 58,669.86	\$ 378.00	\$ 12.05		77,069.31	3
4	Clinton, Davenport & Muscatine.....	530,135.34	1,104.08	\$ 85.00	\$ 1,202.01	2,275.59	50,368.42	579.29			572,465.80	4
5	Colfax Springs.....	2,134.85	139.00					1,140.00			3,393.85	5
6	Ft. Dodge, D. M. & Southern.....	408,127.91	2,032.00	5,093.74	4,781.08	6,757.10	502,084.99	20,284.01			664,660.63	6
7	Inter-Urban.....	176,063.30	415.70	414.89	713.50	3,427.44	6,798.15	152,787.89	29,797.37		370,418.15	7
8	Iowa Railway & Light.....	186,473.92	1,018.00		1,130.00	3,064.07	2,685.71	72,617.63	5,165.00	219.37	272,765.10	8
9	Iowa Southern Utilities.....	84,984.29	1,003.00		2,007.47	2,307.27	17.79	29,015.43	2,585.00		121,930.85	9
10	Mason City & Clear Lake.....	79,751.79	139.87		314.10		141.68	31,843.87	7,848.25		119,539.56	10
11	Oskaloosa & Buxton Electric.....										23,140.90	11
12	Oskaloosa Traction & Light.....	28,086.90			175.00						28,261.90	12
13	Tama & Toledo Railway.....	18,544.94			275.01	1,075.63		1,133.89			16,019.55	13
14	The Waterloo, C. F. & Northern.....	458,125.12	2,029.51	5,859.08	542.10	7,110.00	2,549.33	227,065.46	2,152.90	22.50	706,443.10	14
	Total.....	\$ 1,742,914.58	\$ 7,968.81	\$ 11,443.62	\$ 11,190.87	\$ 29,419.85	\$ 12,870.43	\$ 1,111,402.35	\$ 75,928.89	\$ 354.42	\$ 2,908,383.32	

a This report covers the 6 months ended December 31, 1916.

TABLE 7—RAILWAY OPERATING REVENUES.

PART II—REVENUE FROM OTHER RAILWAY OPERATIONS AND TOTAL OPERATING REVENUES.

Number	Electric Interurban Companies	Revenue From Other Railway Operations									Total operating revenue	Number	
		Station and car privileges	Parcel room receipts	Storage	Demurrage	Rent of tracks and facilities	Rent of equipment	Rent of buildings and other property	Power	Miscellaneous			Total revenue from other railway operations
1	a Albia Light and Railway											\$ 12,074.90	1
2	Cedar Rapids and Marion City	\$ 239.00						\$ 153.40	\$ 8.61	\$ 452.01		\$4,253.16	2
3	Charles City Western				\$ 1,161.00		\$ 278.05	105.00		1,544.05		78,504.86	3
4	Clinton, Davenport & Muscatine	747.87	\$ 233.00	\$ 35.40	224.00	\$ 7,002.29	190.65	950.00		389.95	9,749.83	382,205.00	4
5	Colfax Springs									80.40	80.40	3,444.25	5
6	Pt. Dodge, D. M. & Southern	474.87	107.00	197.86	3,433.40		392,807.00	130.00		119.20	397,410.83	1,302,071.48	6
7	Inter-Urban	777.68		74.75	2,782.00	4,903.17	2,232.80	806.53	\$ 9,823.32	190.16	21,571.01	391,089.16	7
8	Iowa Railway & Light	1,315.89		284.57	486.00	471.06	2,478.79	897.29		1.78	5,835.38	278,000.45	8
9	Iowa Southern Utilities	100.00		30.85	71.00	2,700.00	600.00	1,021.25		19.14	4,632.04	126,552.30	9
10	Mason City & Clear Lake	373.00		2.50	916.70		600.00	4,200.00		261.08	6,307.98	125,807.54	10
11	Oskaloosa & Buxton Electric										324.64	23,405.44	11
12	Oskaloosa Traction & Light	224.54		7.00				125.00			218.74	16,238.09	12
13	Tama & Toledo Railway	86.74									111,989.07	817,432.07	13
14	The Waterloo, C. F. & Northern	1,446.02		730.15	4,908.00		65,182.32	1,863.07	27,646.73	183.28	72,568.52	3,563,020.20	14
	Total	\$ 5,821.63	\$ 400.60	\$ 1,224.00	\$14,032.70	\$15,126.62	\$ 464,516.61	\$10,241.54	\$47,470.05	\$ 1,202.70	\$ 560,136.58	\$ 3,563,020.20	

a This report covers the 6 months ended December 31, 1915.

TABLE 8—RAILWAY OPERATING EXPENSES.

Number	Electric Interurban Companies	Recapitulation of Expenses						Operating ratio	Number	
		Way and structures	Equipment	Power	Conducting transportation	Traffic	General and miscellaneous			Grand total operating expenses
1	a Albia Light and Railway	\$ 2,941.91	\$ 1,118.64	\$ 2,900.00	\$ 3,824.79		\$ 656.00	\$ 10,930.34	90.62	1
2	Cedar Rapids and Marion City	8,831.67	3,213.17	6,234.24	17,334.91	32.51	5,998.03	59,994.53	68.72	2
3	Charles City Western	4,502.30	5,170.84	7,724.55	13,740.23	1,907.28	14,732.97	47,839.17	60.87	3
4	Clinton, Davenport & Muscatine	30,491.41	20,237.05	42,626.00	53,544.70	7,384.02	46,975.88	201,489.29	71.29	4
5	Colfax Springs	1,046.00		1,200.00	1,230.92		2,068.56	6,068.66	179.50	5
6	Pt. Dodge, D. M. & Southern	135,721.37	112,081.11	90,739.61	185,967.70	25,309.28	147,003.22	701,417.29	61.88	6
7	Inter-Urban	77,370.10	35,303.37	50,831.49	98,509.08	8,161.18	66,183.30	330,198.62	83.76	7
8	Iowa Railway & Light	23,963.59	18,375.56	32,088.98	62,435.08	5,516.81	22,746.25	175,156.27	68.27	8
9	Iowa Southern Utilities	18,061.86	7,425.15	16,276.58	29,882.82	3,973.49	21,507.22	90,227.42	71.29	9
10	Mason City & Clear Lake	10,042.43	15,513.16	13,424.43	27,828.81	1,521.70	18,542.61	86,873.19	69.00	10
11	Oskaloosa & Buxton Electric									11
12	Oskaloosa Traction & Light	2,305.39	1,222.66	5,354.18	9,912.33		3,011.71	21,806.32	65.06	12
13	Tama & Toledo Railway	1,422.08	1,161.31	3,755.72	4,917.08		585.43	12,044.74	74.17	13
14	The Waterloo, C. F. & Northern	29,294.02	45,308.98	62,624.88	168,645.83	14,440.59	87,927.29	407,842.49	49.29	14
	Total	\$ 341,025.63	\$ 206,656.00	\$ 338,604.51	\$ 671,784.62	\$ 67,650.37	\$ 448,870.75	\$ 2,134,501.58	59.90	

a This report covers the 6 months ended December 31, 1915.

TABLE 9—COMPARATIVE GENERAL BALANCE SHEET—ASSETS.

PART I—INVESTMENTS.

Number	Electric Interurban Companies	Road and equipment	Sinking funds	Miscellaneous personal property	Investments in affiliated companies	Other Investments			Total investments Dec. 31, 1916	Total investments Dec. 31, 1915	Increase	Number
						Stocks	Bonds	Notes				
1	Albia Light & Railway	\$ 798,429.00							\$ 798,429.00	\$ 794,178.07	\$ 4,250.93	1
2	Cedar Rapids & M. C.											2
3	Charles City Western	612,683.01		\$ 10,238.60					622,921.61	650,305.86	*27,364.25	3
4	Clinton, Davenport & M.	2,442,008.11		1,445,039.03		\$ 275.00			3,888,282.14	2,403,795.07	1,424,487.07	4
5	Colfax Springs	39,763.32							39,763.32	39,596.82	166.50	5
6	Ft. D., D. M. & S.	9,515,698.99		67,723.98		27,300.00			9,610,022.97	9,077,033.90	543,029.07	6
7	Inter-Urban	2,913,025.89	\$ 3,647.02	1,751.17		500.00		\$ 2,500.00	2,921,424.08	2,835,915.24	85,508.84	7
8	Iowa Railway & Light	6,494,035.53	100.00	2,732,888.89	8228,384.37	116,387.04	\$ 43,270.65	123,786.06	9,027,973.14	8,447,135.99	1,189,837.15	8
9	Iowa Southern Utilities	1,024,011.00		668,790.57					1,592,802.17	818,032.38	774,769.79	9
10	Mason City & Clear Lake	849,509.15	20,597.08						870,107.13	806,506.61	63,510.52	10
11	Oskaloosa & B. Electric	122,409.06			150,361.75				272,831.71	302,300.86	10,579.85	11
12	Oskaloosa Traction & L.	746,216.02	406.00						746,831.02	739,176.48	*5,494.46	12
13	Tama & Toledo Railway	50,340.77				10,113.00			50,340.77	50,340.77		13
14	The Waterloo, C. F. & N.	9,682,778.10							9,642,891.10	9,444,534.91	*401,643.91	14
	Total	\$34,027,450.01	\$24,870.00	\$4,817,332.24	\$378,746.12	\$155,175.04	\$ 43,270.65	\$825,296.06	\$40,072,150.72	\$36,369,102.00	\$ 3,702,988.63	

*Denotes decrease.

†Cannot furnish figures on Interurban business alone.

‡Includes \$1,685.00 'Advances.'

§ This report covers the 6 months ended December 31, 1915.

PART II—CURRENT ASSETS.

Number	Electric Interurban Companies	Cash	Special deposits	Loans and notes receivable	Miscellaneous accounts receivable	Material and supplies	Other current assets	Total current assets Dec. 31, 1916	Total current assets Dec. 31, 1915	Increase	Number
2	Cedar Rapids and Marion City				4,770.83			54,679.19	7,287.94	47,391.25	2
3	Charles City Western	24,356.63			8,799.39	39,061.84		18,647.80	5,969.88	12,677.92	3
4	Clinton, Davenport & Muscatine	9,748.44						39.48	102.44	63.96	4
5	Colfax Springs	36.48									5
6	Ft. Dodge, D. M. & Southern	80,078.87	\$ 28,000.20	\$ 54,467.02	207,483.34	77,405.42		457,304.85	433,905.02	23,399.83	6
7	Inter-Urban	12,493.75	8,125.00		23,926.79	432.20		44,977.74	47,439.22	*2,451.48	7
8	Iowa Railway & Light	13,086.74		39,348.00	222,323.32	337,991.86	\$ 5,481.04	599,068.68	511,354.06	87,714.62	8
9	Iowa Southern Utilities	19,645.37		26.23	23,758.73	21,064.00		64,494.33	35,040.88	29,453.45	9
10	Mason City & Clear Lake	1,916.08	1,020.00		8,308.23	20,206.93		38,141.23	27,175.05	10,966.18	10
11	Oskaloosa & Buxton Electric				400.00			400.00	400.00		11
12	Oskaloosa Traction & Light	11,408.33		601.39	25,747.01	14,311.50		52,068.19	45,963.57	6,104.62	12
13	Tama & Toledo Railway	123.19			1,239.08	1.80		1,363.07	1,363.07		13
14	The Waterloo, C. F. & Northern	2,232.09	145,000.00	30,581.23	65,612.37	56,851.31		300,277.00	109,651.12	190,625.88	14
	Total	\$172,734.51	\$ 189,675.20	\$ 122,024.43	\$ 600,220.82	\$ 560,174.57	\$ 5,481.04	\$ 1,844,316.57	\$ 1,291,982.45	\$ 552,334.12	

*Denotes decrease.

†Credit.

§ This report covers the 6 months ended December 31, 1916.

TABLE 9—COMPARATIVE GENERAL BALANCE SHEET—ASSETS.

PART III—DEFERRED ASSETS.

Number	Electric Interurban Companies	Insurance and other funds	Other deferred assets	Total deferred assets Dec. 31, 1916	Total deferred assets Dec. 31, 1915	Increase	Number
1	Albia Light and Railway						1
2	Cedar Rapids and Marion City						2
3	Charles City Western				\$ 1,508.72	\$ 1,508.72	3
4	Clinton, Davenport & Muscatine						4
5	Colfax Springs						5
6	Ft. Dodge, D. M. & Southern						6
7	Inter-Urban						7
8	Iowa Railway & Light						8
9	Iowa Southern Utilities			\$ 33,054.80	865.24	32,189.56	9
10	Mason City & Clear Lake						10
11	Oskaloosa & Buxton Electric						11
12	Oskaloosa Traction & Light						12
13	Tama & Toledo Railway						13
14	The Waterloo, C. F. & Northern				728.67	*728.67	14
	Total			\$ 33,054.80	\$ 3,192.53	\$ 29,862.27	

*Denotes decrease.

†This report covers the 6 months ended December 31, 1916.

PART IV—UNADJUSTED DEBITS AND GRAND TOTAL.

Number	Electric Interurban Companies	Unadjusted Debits						Grand Total			Number	
		Rents and insurance premiums paid in advance	Discount on capital stock	Discount on funded debt	Other unad-justed debits	Total unad-justed debits Dec. 31, 1915	Total unad-justed debits Dec. 31, 1916	Increase	Dec. 31, 1916	Dec. 31, 1915		Increase
1	Albia Light & Railway								\$ 811,307.37	\$ 801,370.44	\$ 9,936.93	1
2	Cedar Rapids & M. C.											2
3	Charles City Western	\$ 541.16		\$ 5,226.52		\$ 5,767.68	\$ 6,806.91	*1,039.23	683,288.48	666,009.43	17,279.05	3
4	Clinton, Davenport & M.	708.97			\$ 2,230.90	2,939.87	3,123.19	*133.27	3,909,819.86	2,472,878.14	1,436,941.72	4
5	Colfax Springs								26,790.00	26,699.96	130.74	5
6	Ft. D., D. M. & S.	2,370.50	\$ 2,880.00	96,688.91	79,197.46	181,136.87	109,047.00	72,089.87	10,249,194.69	9,610,076.82	638,517.87	6
7	Inter-Urban	1,661.10		15,000.00	33,534.51	50,005.61	21,694.32	28,401.29	3,016,497.43	2,905,008.79	111,488.64	7
8	Iowa Railway & Light	6,875.29		397,098.65		403,973.94	428,043.04	*19,069.10	10,681,015.13	9,881,533.08	1,249,481.15	8
9	Iowa Southern Utilities	538.33				538.33	544.02	*5.69	1,690,859.56	854,483.12	836,376.44	9
10	Mason City & Clear Lake	547.96				547.96	532.12	15.86	908,796.34	824,303.78	74,492.56	10
11	Oskaloosa & B. Electric								273,591.71	362,730.89	10,570.85	11
12	Oskaloosa Traction & L.			6,334.55		6,334.55	6,720.00	*385.45	806,083.76	804,859.66	1,224.10	12
13	Tama & Toledo Railway								51,703.84		51,703.84	13
14	The Waterloo, C. F. & N.	1,686.74		1,192,995.11	19,796.43	1,174,478.33	751,617.38	422,860.95	19,517,647.03	10,890,521.96	151,115.05	14
	Total	\$14,849.97	\$ 2,880.00	\$1,673,343.74	\$134,799.40	\$1,825,833.11	\$1,323,188.68	\$502,644.43	\$43,575,355.20	\$38,087,125.65	\$4,588,229.55	

*Denotes decrease.

†This report covers the 6 months ended December 31, 1916.

TABLE 9—COMPARATIVE GENERAL BALANCE SHEET—LIABILITIES.
PART V—CAPITAL STOCK, GOVERNMENTAL GRANTS AND LONG TERM DEBT.

Number	Capital Stock			Governmental Gr			Long Term Debt			Number
	Dec. 31, 1916	Dec. 31, 1915	Increase	Dec. 31, 1916	Dec. 31, 1915	Increase	Funded debt unamortized	Nonnegotiable Debt to Affiliated Companies		
								Notes	Open accounts	
Electric Interurban Companies										
1	\$ 300,000.00	\$ 300,000.00					\$ 300,000.00			1
2	200,400.00	200,400.00		\$126,107.75	\$120,447.88	\$ 5,659.87	240,000.00			2
3	1,725,000.00	1,000,000.00	\$ 725,000.00				1,002,000.00	\$1,073,377.49	\$ 79,125.00	3
4	25,000.00	25,000.00								4
5	3,275,000.00	3,200,000.00	75,000.00				5,000,000.00			5
6	1,100,000.00	1,100,000.00					1,304,000.00			6
7	4,014,003.73	3,521,048.42	1,092,955.31				4,874,000.00			7
8	800,000.00	800,000.00	400,000.00				700,500.00			8
9	Iowa Railway & Light						234,000.00			9
10	Iowa Southern Utilities						33,000.00			10
11	Mason City & Clear Lake						22,000.00		74,500.40	11
12	Oskaloosa & Buxton Electric		*84.62				22,000.00		63,195.97	12
13	Oskaloosa Traction & Light						318,000.00			13
14	Tama & Toledo Railway		50,000.00							14
	The Waterloo, C. F. & Northern		*240,675.00				6,307,561.80			
	Total	\$16,830,173.73	\$14,833,383.08	\$1,996,790.65	\$126,107.75	\$120,447.88	\$ 5,659.87	\$21,285,561.80	\$1,073,377.49	\$206,521.37

*Denotes decrease.

†This report covers the 6 months ended December 31, 1916.

PART VI—LONG TERM DEBT—CONTINUED—AND CURRENT LIABILITIES.

Number	Long Term Debt—Continued			Current Liabilities						Number
	Total long term debt Dec. 31, 1916	Total long term debt Dec. 31, 1915	Increase	Loans and notes payable	Audited accounts and wages payable	Miscellaneous accounts payable	Matured interest, dividends and rents unpaid	Accrued interest, dividends and rents payable	Other current liabilities	
Electric Interurban Companies										
1	\$ 300,000.00	\$ 300,000.00			\$ 998.62			\$ 1,500.00		1
2	240,000.00	229,000.00	\$ 1,000.00	\$ 25,900.00	6,427.71	\$ 21,499.74		5,000.00	\$ 4,024.16	2
3	2,215,502.49	1,550,241.93	665,260.56		14,735.29		\$ 710.27	30,698.94		3
4	25,000.00	25,000.00							6,350.01	4
5	5,081,000.00	5,000,000.00	81,000.00	7,370.00	122,642.91	28,329.08	11,825.00	23,541.74		5
6	1,304,000.00	1,304,000.00		100,902.34	14,227.91	137,019.20	10,375.00	14,877.59	3,505.95	6
7	4,874,500.00	4,708,000.00	166,500.00	170,147.22	230,301.81			78,195.81		7
8	700,500.00	112,000.00	648,500.00	23,000.00	14,053.59			11,370.51	817.29	8
9	324,000.00	324,000.00		60,300.00		39,105.90		1,020.00		9
10	97,200.40	84,103.62	13,096.71			5,165.43		400.00		10
11	370,195.97	381,713.15	*11,517.15			14,005.02		1,740.00	470.55	11
12					1,510.42					12
13	6,307,561.80	5,875,000.00	432,561.80	166,273.06	186,581.00	40,256.03	144,900.00	40,191.42		13
14										14
	Total	\$22,504,400.00	\$20,528,107.97	\$2,036,292.03	\$78,018.72	\$68,329.33	\$272,474.85	\$107,800.27	\$215,769.01	\$ 15,226.96

*Denotes decrease.

†This report covers the 6 months ended December 31, 1916.

TABLE 9—COMPARATIVE GENERAL BALANCE SHEET—LIABILITIES.
PART VII—CURRENT LIABILITIES, DEFERRED LIABILITIES AND UNADJUSTED CREDITS.

Number	Electric Interurban Companies	Current Liabilities—Continued			Deferred Liabilities			Unadjusted Credits			Number
		Total current liabilities Dec. 31, 1916	Total current liabilities Dec. 31, 1915	Increase	Total deferred liabilities Dec. 31, 1916	Total deferred liabilities Dec. 31, 1915	Increase	Tax liability	Insurance and casualty reserves	Operating reserves	
1	aAlbia Light and Railway	\$ 2,428.62	\$ 99.25	\$ 2,330.37				\$ 2,928.79			1
2	Cedar Rapids and Marion City										2
3	Charles City Western	69,645.01	49,594.32	19,951.29				4,900.57			3
4	Clinton, Davenport & Muscatine	62,134.09	3,995.92	48,137.68	\$ 7,500.00	\$12,534.77	\$4,034.77	9,508.06		\$14,088.16	4
5	Colfax Springs	6,350.01	5,389.44	2,709.57				16,788.05	\$ 700.00	2,438.64	5
6	Ft. Dodge, D. M. & Southern	106,708.73	189,304.98	4,503.75				28,994.09	8,929.52	14,729.47	6
7	Inter-Urban	280,756.68	186,709.79	94,046.98	44,846.52	21,995.72	22,850.80	13,113.45		1,189.18	7
8	Iowa Railway & Light	495,644.84	543,848.79	*50,203.95				38,994.09	8,929.52	15,000.07	8
9	Iowa Southern Utilities	49,241.39	303,643.41	*154,402.02				6,008.72		1,189.18	9
10	Mason City & Clear Lake	110,145.90	79,836.65	39,309.41				5,727.76	1,000.86	22,565.47	10
11	Oskaloosa & Buxton Electric	2,655.43	4,795.40	*2,139.97				308.73			11
12	Oskaloosa Traction & Light	16,216.17	19,240.76	6,975.41				4,401.92		1,411.29	12
13	Tama & Toledo Railway	1,510.49		1,510.49							13
14	The Waterloo, C. F. & Northern	578,296.71	328,306.72	286,029.90				6,092.64		921.83	14
	Total	\$ 1,817,706.14	\$ 1,559,186.14	\$ 288,519.00	\$2,783.17	\$34,300.49	\$18,862.08	\$109,032.69	\$10,629.38	\$71,091.11	

aThis report covers the 6 months ended December 31, 1916.
*Denotes decrease.

PART VIII—UNADJUSTED CREDITS AND CORPORATE SURPLUS.

Number	Electric Interurban Companies	Unadjusted Credits—Continued					Corporate Surplus			Number
		Accrued depreciation—road and equipment	Other unadjusted credits	Total unadjusted credits Dec. 31, 1916	Total unadjusted credits Dec. 31, 1915	Increase	Additions to property through surplus	Sinking fund reserves	Miscellaneous fund reserves	
1	aAlbia Light and Railway			\$ 2,928.79	\$ 1,272.19	\$ 1,656.60				1
2	Cedar Rapids and Marion City									2
3	Charles City Western	\$ 13,085.22	\$ 1,500.00	19,951.29	24,130.29	14,144.50				3
4	Clinton, Davenport & Muscatine	16,716.28	894.06	49,969.66	17,740.16	23,226.70				4
5	Colfax Springs									5
6	Ft. Dodge, D. M. & Southern	255,988.80	*22.42	376,880.07	310,941.21	65,938.86			\$17,105.20	6
7	Inter-Urban	6,885.48	7,365.77	41,904.17	30,129.99	11,864.18			464.74	7
8	Iowa Railway & Light	\$ 319.64		69,903.23	49,197.21	20,706.02		\$19,863.34	49,792.06	8
9	Iowa Southern Utilities	977.00	605.94	8,741.34	6,968.92	1,782.42				9
10	Mason City & Clear Lake	14,349.63	25,659.70	69,311.29	34,290.81	35,021.01	\$ 5,338.56			10
11	Oskaloosa & Buxton Electric			308.73	270.46	39.27				11
12	Oskaloosa Traction & Light	10,184.71	960.00	16,977.92	9,911.44	7,066.48				12
13	Tama & Toledo Railway									13
14	The Waterloo, C. F. & Northern	14,568.99	5,330.65	27,894.11	24,974.62	2,859.69				14
	Total	\$ 441,955.65	\$ 42,214.00	\$ 675,893.83	\$ 509,836.20	\$ 166,066.63	\$ 5,338.56	\$19,863.34	\$67,302.00	

aThis report covers the 6 months ended December 31, 1916.
*Debit item.
†Decrease.

TABLE 9—COMPARATIVE GENERAL BALANCE SHEET—LIABILITIES.
PART IX—CORPORATE SURPLUS AND GRAND TOTAL.

Number	Electric Interurban Companies	Corporate Surplus—Continued				Grand Total			Number	
		Total appropriated surplus	Profit and credit balance	Total corporate surplus Dec. 31, 1916	Total corporate surplus Dec. 31, 1915	Increase	Dec. 31, 1916	Dec. 31, 1915		Increase
1	Albia Light and Railway		\$ 5,909.96	\$ 5,909.96		\$ 5,909.96	\$ 11,267.37	\$ 801,370.44	\$ 9,896.92	1
2	Cedar Rapids and Marion City									2
3	Charles City Western		\$30,750.07	\$30,750.07	\$ 87,915.06	4,102.30	983,388.45	606,050.43	17,329.05	3
4	Clinton, Davenport & Muscatine		\$131,720.64	\$131,720.64	\$111,335.54	120,386.10	2,303,519.80	2,478,878.14	1,456,941.72	4
5	Colfax Springs		\$4,560.01	\$4,560.01	\$1,911.18	12,618.83	29,700.00	99,069.50	120.74	5
6	Ft. Dodge, D. M. & Southern		\$74,000.00	\$74,000.00	\$410,330.63	\$11,075.26	\$10,249,194.09	\$9,010,070.82	\$68,517.37	6
7	Inter-Urban	\$17,105.20	74,671.08	94,900.00	112,233.38	117,333.32	\$3,016,407.43	2,905,038.79	111,456.04	7
8	Iowa Railway & Light	\$9,792.60	\$68,070.67	\$78,863.27	\$499,459.50	\$78,923.77	\$10,031,015.13	\$9,381,583.98	\$1,249,481.15	8
9	Iowa Southern Utilities		\$2,376.83	\$2,376.83	\$1,880.79	\$40,406.04	\$1,000,829.54	\$54,483.12	\$88,376.44	9
10	Mason City & Clear Lake	\$5,328.56		\$5,328.56	\$5,170.41	\$62.14	\$98,799.84	\$84,303.78	\$74,492.56	10
11	Oskaloosa & Buxton Electric		\$2,257.15	\$2,257.15	\$2,587.66	\$830.50	\$73,291.71	\$68,793.80	\$10,370.85	11
12	Oskaloosa Traction & Light		\$91,662.70	\$91,662.70	\$102,968.70	\$1,300.00	\$86,082.76	\$94,859.05	\$24.71	12
13	Tama & Toledo Railway		\$198.35	\$198.35			\$1,708.84		\$1,708.84	13
14	The Waterloo, C. F. & Northern		\$8,679.41	\$8,679.41	\$406,241.54	\$20,502.13	\$10,517,617.08	\$10,366,531.08	\$1,115.00	14
	Total	\$92,594.50	\$1,386,722.42	\$1,478,226.92	\$1,399,031.9	\$78,303.03	\$43,575,355.50	\$38,987,125.05	\$4,588,229.25	

†Debit balance.

*Denotes deficit.

†Decrease.

‡This report covers the 6 months ended December 31, 1916.

TABLE 10—MILEAGE, TRAFFIC AND MISCELLANEOUS STATISTICS.
PART I—CAR MILEAGE, CAR HOURS AND PASSENGERS CARRIED.

Number	Electric Interurban Companies	Car Mileage			Car Hours			Passengers Carried					Number		
		Passenger	Freight, mail and express	Total	Passenger	Freight, mail and express	Total	Regular fare	Revenue transfer	Total revenue	Free transfer	Total passengers carried		Employees and others carried free	
1	Albia Light and Railway														1
2	Cedar Rapids and Marion City	517,200	15,494	329,694	32,311	3,694	36,005	457,634		457,634					2
3	Charles City Western														3
4	Clinton, Davenport & Muscatine	609,511	118,094	728,505	34,986	14,188	49,174	679,058		679,058					4
5	Colfax Springs														5
6	Ft. Dodge, D. M. & Southern	1,307,600	1,940,700	3,148,420	66,942	756,320	823,262	1,788,055		1,788,055					6
7	Inter-Urban	685,165	104,631	689,796	22,550	22,500	45,050	723,798		723,798	11,591	735,389	50,767		7
8	Iowa Railway & Light	\$613,603	\$43,313	\$656,916				735,025		735,025		735,025	69,931		8
9	Iowa Southern Utilities	287,121	15,638	302,759	28,699	1,917	30,616	677,953	11,640	689,593		689,593	20,365		9
10	Mason City & Clear Lake	316,025	31,609	347,634	33,342	6,946	40,288	1,030,370		1,030,370	29,136	1,049,506	76,918		10
11	Oskaloosa & Buxton Electric														11
12	Oskaloosa Traction & Light	265,184		265,184	31,130		31,130	452,758		452,758	56,693	508,851	24,023		12
13	Tama & Toledo Railway	68,531	1,933	70,514				108,880		108,880		108,880	16,073		13
14	The Waterloo, C. F. & Northern	1,822,083	1,132,527	2,954,610	154,166	70,536	224,722	5,908,140	521,004	6,429,144		6,429,144			14
	Total	6,032,133	3,401,310	9,433,922	404,696	875,519	1,380,115	12,102,371	632,644	12,634,915	96,820	12,731,735	238,921		

†Freight car mileage only.

*Includes mail and express.

‡This report covers the 6 months ended December 31, 1916.

TABLE 10—MILEAGE, TRAFFIC AND MISCELLANEOUS STATISTICS.

PART II—MISCELLANEOUS STATISTICS.

Number	Electric Interurban Companies	Passenger revenue	Average fare, revenue passengers	Average fare, all passengers	Total revenue from transportation	Revenue from transportation per car-mile	Revenue from transporting per car-hour	Total revenue from other railway operations	Revenue from other railway operations, per car-mile	Number
1	Albia Light and Railway	\$ 60,692.35	\$.11007	\$.11007	\$ 54,593.15	\$.10330	\$1,529.90	\$ 452.01	\$.00137	1
2	Cedar Rapids and Marion City	220,155.34	.08860	.08800	272,465.86	.34563	5,540.87	9,740.83	.01237	2
3	Charles City Western	408,127.51	.22825	.22825	954,690.65	.30822	1,100.01	307,410.83	.15022	3
4	Clinton, Davenport & Muscatine	176,063.30	.24825	.23941	370,418.15	.56303	8,222.58	21,571.01	.03220	4
5	Colfax Springs	196,473.22	.25349	.25349	272,768.16	.46880	5,835.38	5,835.38	.01048	5
6	Ft. Dodge, D. M. & Southern	84,942.29	.12019	.12019	121,920.85	.40959	3,860.16	4,682.04	.01593	6
7	Inter-Urban	79,751.79	.07816	.07599	119,639.56	.54331	2,950.75	6,537.95	.01828	7
8	Iowa Railway & Light	28,955.90	.05071	.04513	33,140.90	.08726	743.86	324.64	.00123	8
9	Iowa Southern Utilities	13,544.92	.08020	.08020	16,019.35	.22718	218.74	218.74	.00310	9
10	Mason City & Clear Lake	458,125.12	.07739	.07739	705,443.10	.28370	3,130.18	111,989.57	.03790	10
11	Oskaloosa & Buxton Electric									11
12	Oskaloosa Traction & Light									12
13	Tama & Toledo Railway									13
14	The Waterloo, C. F. & Northern									14
	Total	\$ 1,710,736.14	\$.13540	\$.13437	\$ 2,910,864.67	\$.30850	\$2,048.82	\$68,541.93	\$.0221	

a This report covers the 6 months ended December 31, 1919.

PART III—MISCELLANEOUS STATISTICS—Continued.

Number	Electric Interurban Companies	Revenue from other railway operations per car-hour	Total operating revenues	Operating revenues per car-mile	Operating revenues per car-hour	Total operating expenses	Operating expenses per car-mile	Operating expenses per car-hour	Number
1	Albia Light and Railway								1
2	Cedar Rapids and Marion City	\$.01276	\$ 54,963.16	\$.16667	\$ 1,502.13	\$ 26,064.63	\$.11120	\$ 1,035.67	2
3	Charles City Western								3
4	Clinton, Davenport & Muscatine	.19828	289,206.69	.35790	5,739.16	201,469.22	.23561	4,097.23	4
5	Colfax Springs								5
6	Ft. Dodge, D. M. & Southern	.48278	1,352,071.48	.43944	1,642.93	701,417.29	.22278	861.90	6
7	Inter-Urban	.47882	391,989.16	.56222	8,701.20	336,198.02	.50194	7,402.78	7
8	Iowa Railway & Light		278,600.48	.60034	7,357.57	176,150.27	.31407	2,945.93	8
9	Iowa Southern Utilities	.15144	126,562.04	.41799	4,137.58	99,227.42	.28801	2,945.93	9
10	Mason City & Clear Lake	.15587	135,897.54	.80210	3,086.63	89,373.19	.24986	2,129.87	10
11	Oskaloosa & Buxton Electric								11
12	Oskaloosa Traction & Light	.01942	21,965.44	.08916	735.73	21,836.32	.08254	705.45	12
13	Tama & Toledo Railway		16,238.09	.23028	2,302.8	12,044.74	.17081	1,708.1	13
14	The Waterloo, C. F. & Northern	.49824	817,432.67	.27666	3,837.53	407,842.40	.12863	1,814.87	14
	Total	\$.43159	\$ 3,469,405.75	\$.30776	\$ 2,476.91	\$ 2,969,729.99	\$.21983	\$ 1,406.69	

a This report covers the 6 months ended December 31, 1919.

STATISTICS
OF
Express Companies

For the Year Ended December 31, 1916

EXPRESS COMPANIES.
Statistics of Express Companies Doing Business in Iowa for the Year Ended December 31, 1916.

Items Reported	Adams	American	Great Northern	Wells Fargo	Total
MILEAGE COVERED—ENTIRE LINE.					
Stream roads	\$8,082.52	71,168.27	8,004.70	78,688.22	166,743.87
Electric lines	2,831.42	1,069.50	338.60	4,239.52	8,431.02
Electric lines without lines				18,343.55	18,343.55
Inland steamboat lines	4,483.00	881.12	132.00	4,113.57	9,609.69
Stage lines		6.00		1,684.30	1,690.30
Miscellaneous lines					670.69
Total	45,306.96	72,518.02	9,657.29	107,071.58	234,554.77
OCEAN-GOING MILEAGE					
Stream roads	2,513.21	4,877.45	7.86	2,922.04	10,321.54
Electric lines	24.40	188.71		164.65	577.77
Total	2,537.61	5,066.14	77.86	3,177.70	10,779.31
CAPITAL STOCK—COMMON.					
No. of shares authorized	100,000	100,000	10,000	210,000	630,000
Par value of one share	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00
Par value authorized	\$10,000,000.00	\$10,000,000.00	\$1,000,000.00	\$21,000,000.00	\$50,000,000.00
Par value outstanding	\$2,000,000.00	\$18,000,000.00	\$1,000,000.00	\$25,287,400.00	\$46,287,400.00
Par value held by respondent	\$2,000,000.00	\$18,000,000.00	\$1,000,000.00	\$25,287,400.00	\$46,287,400.00
Par value not held by respondent	\$10,000,000.00	\$17,200,000.00	\$1,000,000.00	\$22,997,400.00	\$42,200,000.00
Rate of dividend	0%	0%	0%	0%	0%
Dividends declared during year	\$600,000.00	\$1,400,000.00	\$200,000.00	\$9,627,177.50	\$11,627,177.50
FINISHED IRON—COLLATERAL TRUST BONDS.					
Par value authorized	\$20,000,000.00				\$20,000,000.00
Par value outstanding	\$20,000,000.00				\$20,000,000.00
Par value held by respondent	\$20,000,000.00				\$20,000,000.00
In treasury	\$71,200.00				\$71,200.00
Pledged as collateral	\$17,812,300.00				\$17,812,300.00

Par value not held by respondent	17,916,500.00				17,916,500.00
Interest, Rate per cent.	4%				4%
Amount accrued during year	725,829.64				725,829.64
Amount paid during year	743,136.30				743,136.30
MISCELLANEOUS FUNDED OBLIGATIONS.					
Par value authorized	\$4,000,000.00				\$4,000,000.00
Par value outstanding	\$4,000,000.00				\$4,000,000.00
Par value not held by respondent	\$4,000,000.00				\$4,000,000.00
Interest, Rate per cent.	6%				6%
Amount accrued during year	150,000.00				150,000.00
Amount paid during year	100,000.00				100,000.00
COST OF REAL PROPERTY AND EQUIPMENT.					
Land	\$1,572,218.24	\$3,276,029.10	\$6,382.47	\$1,529,049.22	\$6,265,278.24
Buildings	1,840,289.48	3,795,982.07	1.00	5,279,018.82	9,011,186.97
Buildings and appliances on land owned	129,267.56	2,727,177.12	6,148.67	286,161.10	1,142,734.45
Buildings and appliances on land not owned		5,480.13			6,480.12
Improvements to buildings					
Improvements to buildings not owned					
Total buildings	\$2,698,284.42	\$3,999,688.10	\$6,144.67	\$4,136,178.97	\$19,139,868.15
Cars	144,605.00			750,002.72	894,717.72
Automobiles	1,257,148.26			1,259,877.00	2,517,025.26
Wagons and sleighs	2,478,474.42			2,478,474.42	4,956,948.84
Harness equipment	\$31,491.44			\$26,614.50	\$58,105.94
Office furniture and equipment	147,737.00			303,055.60	450,792.60
Office safes	469,767.37			1,013,473.49	1,483,240.86
Stamps	29,859.00			35,382.49	65,241.49
Sticks	595,853.46			239,676.55	835,530.01
Shops	162,716.17			35,230.83	207,947.00
Garage equipment	20,510.54			94.46	20,605.00
Line equipment	105,734.12			264,453.49	370,187.61
Shop equipment	20,477.50			7,779,696.13	7,800,173.63
Miscellaneous equipment				862.63	862.63
Total equipment	\$5,696,147.69	\$7,593,303.43	\$12,505.27	\$5,269,250.64	\$23,065,179.05
Total real property and equipment:					
December 31, 1916	9,239,297.46	15,234,130.60	168,031.91	11,110,926.58	\$25,741,513.46
December 31, 1915	8,119,022.36	13,940,227.70	151,029.23	10,155,227.06	\$22,565,177.27
DEPRECIATION—BUILDINGS AND EQUIPMENT.					
Buildings and appliances on land owned	\$8,810.25	\$1,000,299.96		\$17,677.89	\$1,026,788.10
Buildings and appliances on land not owned	132,317.46	62,262.26		62,411.46	258,453.55
Improvements to buildings not owned		2,880.28			2,880.28
Total buildings	\$216,027.71	\$1,087,662.42		\$80,149.74	\$1,064,339.53

Items Reported	Adams	American	Great Northern	Wells Fargo	Total
Equipment:					
Wagons	458,147.37	6,271.66	5,077.18	169,654.31	1,039,150.52
Motor vehicles	1,010,443.74	459,594.68	884.61	436,453.31	2,916,476.34
Automobiles	487,111.97	544,332.67	6,344.07	114,577.37	1,552,366.08
Wagons and drays	67,602.13	72,331.53	688.53	467,184.65	1,444,666.24
Harness equipment	196,016.50	437,137.21	3,884.28	110,494.69	767,532.68
Office furniture and equipment	45,622.68	115,136.88	4,432.40	372,769.01	1,059,818.03
Office safes	128,732.47	2,187.11	5,959.22	19,300.37	156,179.17
Stables equipment	25,116.82	18,459.59	30.21	11,169.90	53,776.52
Garage equipment	90,687.68	196,898.72	3,697.31	122,478.98	415,762.69
Line equipment	6,859.79	53,665.71	2,972.32	22,454.36	85,952.18
Shop equipment	2,494,624.46	2,602,960.61	30,039.36	2,169,131.53	7,856,855.02
Miscellaneous equipment	2,710,500.17	4,010,456.03	30,229.25	2,324,164.40	9,115,409.85
Total real property and equipment	2,291,748.77	2,439,304.50	17,888.45	2,088,171.90	6,839,013.52
December 31, 1916					
December 31, 1915					
Operating Income:					
INCOME ACCOUNT.					
Operating Income:					
Charges for transportation	45,823,993.13	69,413,432.28	3,023,405.45	59,402,629.39	178,333,307.54
Express for privileges	22,413,455.00	31,407,584.86	2,213,725.30	25,854,215.00	81,889,303.50
Revenue from transportation	25,430,468.11	32,067,467.30	1,406,700.12	24,549,218.43	81,443,913.96
Revenue from operations other than transportation	699,337.01	2,233,254.70	65,195.59	1,391,993.46	4,009,879.76
Total operating revenue	24,669,260.02	35,288,092.06	1,471,965.71	25,941,141.91	86,354,787.50
Operating expenses	1,025,955.48	2,882,721.51	1,235,014.48	3,232,147.05	78,737,058.52
Net income	8,081.00	13,789.59	236,951.23	16,483.94	38,223.80
Uncollectible revenue from transportation	251,065.62	500,555.50	69,280.43	408,522.58	1,321,424.13
Express taxes	798,934.92	2,318,725.56	307,455.48	3,043,352.81	6,438,469.77
Operating income	14,688.50	11,774.65	284.19	2,648.10	58,683.63
Rent from real property and equipment used jointly	444.26	192,196.00	2,500.00	322,500.50	1,564,474.51
Net income from miscellaneous physical property	1,048,705.35	825,702.67	5,500.00	756,311.80	2,639,177.53
Dividend income					
Income from funded securities					

Income from unfunded securities and accounts	113,829.94	88,206.81	59.97	167,000.51	429,287.63
Income from sinking and other reserve funds	2,654,411.41	11,813.56		65,359.32	18,469.33
Miscellaneous income				1,846,811.41	74,619.78
Total other income		790,131.65	2,794.56	4,239,205.22	4,102,993.07
Gross income	2,854,088.27	3,078,269.31	265,250.04	4,239,205.22	10,100,422.84
Deductions From Gross Income:					
Rent for real property and equipment used jointly	6,692.66	10,387.65	1,904.52	7,795.58	26,009.09
Miscellaneous rents	10,847.33	33,546.32		23,060.89	44,467.01
Miscellaneous taxes	11,095.45	59,806.48		71,000.41	131,464.30
Net loss on miscellaneous physical property	883,829.64	79,084.70	107,139.62	1,582,054.06	52,545.49
Interest on unfunded debt	21,009.31	107,139.62	4,416.61	1,532.91	885,252.64
Miscellaneous income debits					193,213.79
Total deductions	1,014,506.34	215,256.61	1,904.51	109,667.80	25,059.96
Net income	1,839,581.93	2,863,012.70	960,345.53	4,239,770.42	9,258,909.28
Dividend appropriations of income	809,000.00	230,789.00		1,438,014.00	2,888,824.00
Income balance transferred to profit and loss	1,289,485.08	2,232,223.70	206,345.22	2,831,696.42	6,469,445.28
Profit and Loss Account.					
Debit Items:					
Dividend appropriations of surplus	1,000,000.00	1,650,000.00	200,000.00	7,959,123.32	9,309,223.32
Debit discount extinguished through surplus					100,000.00
Miscellaneous appropriations of surplus					100,000.00
Loss on land sold	214,413.46	2,322,610.36		6,240.25	9,122,500.00
Miscellaneous debits	10,250,493.59	6,250,169.41	608,138.59	4,089,994.25	21,022,186.27
Credit balance transferred to balance sheet	10,693,848.25	10,306,250.29	968,196.50	12,911,958.21	32,972,276.24
Total	8,951,269.18	7,775,266.14	960,202.53	8,696,954.26	26,347,254.19
Credit Items:					
Credit balance at beginning of year	1,289,485.08	2,512,719.60	190,310.23	2,831,696.42	6,397,646.28
Credit balance transferred from income		96.83			1,000.00
Profit on real property and equipment sold					7,961.91
Delayed income credits	610.12	1,039.62	49.15	6,593.45	7,961.91
Unappropriated surplus	445,424.48	16,664.25	107,952.21	139,271.21	709,351.95
Miscellaneous credits					
Total	10,695,848.25	10,306,250.29	968,196.50	12,015,668.31	32,022,276.31

Items Reported	Adams	American	Great Northern	Wells Fargo	Total
OPERATING REVENUES					
Transportation:					
Express domestic	\$ 45,968,879.98	\$ 62,841,510.72	\$ 3,622,258.48	\$ 50,298,490.61	\$ 162,735,919.67
Foreign	94,681.45	531,794.05		63,129.47	719,605.97
Miscellaneous	595,261.71	40,346.63	240.00	11,837.97	647,786.31
Total	45,968,879.98	63,413,651.40	3,622,508.48	50,473,458.05	163,478,497.91
Express privileges—Dr.	22,419,435.02	21,687,984.98	2,215,735.36	25,854,218.20	81,887,468.56
Revenue from transportation	23,549,444.96	22,000,467.30	1,406,773.12	24,619,239.85	81,576,935.23
Operations Other Than Transportation:					
Customs brokerage fees	63,133.25	121,479.42	4,700.67	28,394.87	217,718.21
Order and commission	1,324.40	9,723.55		6,929.94	17,977.89
Rents of buildings and other property	11,711.60	86,866.49	2,711.46	204,177.55	305,467.10
Money orders	104,843.42	401,222.12	13,711.27	229,494.74	749,271.55
U. S. D. checks	341,175.92	515,174.95	39,092.49	468,648.09	1,364,091.45
Limited and unlimited cheques	484.29	17,551.60		1.05	17,986.94
Travelers' cheques	1,588.68	28,790.71	64.48	29,288.11	67,743.97
Telegraph and cable transfers		139,856.59		9,112.14	148,968.73
Letters of credit		6,608.89			6,608.89
Foreign postal remittances	8,198.68	9,928.59		46.25	18,173.52
Profit on exchange and other financial revenue	21,758.19	1,069,929.74		51,518.41	1,143,206.34
Miscellaneous	44,339.51	831,535.71	2,943.21	161,321.81	1,040,140.24
Total	\$ 688,527.51	\$ 3,259,224.76	\$ 62,195.59	\$ 1,191,925.46	\$ 5,001,873.32
Total operating revenues	\$ 24,658,402.49	\$ 25,259,892.06	\$ 1,470,968.71	\$ 25,741,143.91	\$ 81,130,197.27
OPERATING EXPENSES					
Maintenance	\$ 1,494,378.50	\$ 1,961,226.47	\$ 24,116.25	\$ 1,211,252.20	\$ 4,790,973.42
Traffic	116,941.82	354,759.52	14,982.87	328,044.55	714,734.76
Transportation	30,297,649.98	27,294,318.07	1,032,699.79	19,361,731.20	67,986,408.04
General	1,117,011.79	2,729,506.99	61,839.34	1,461,787.99	5,309,146.11
Total	\$ 23,025,972.18	\$ 22,339,811.05	\$ 1,142,642.25	\$ 22,362,795.94	\$ 78,737,621.48
Ratio of expenses to revenues, per cent.	95.97	91.82	77.70	86.29	
a Debit.					

TAXES AND ASSESSMENTS—ENTIRE LINE.

Ad Valorem Tax:					
On value of real and personal property	\$ 67,687.08	\$ 126,231.74	\$ 17,374.17	\$ 233,528.95	\$ 470,481.94
On value of stocks, bonds, earnings, etc.	65,515.70	304,314.32		2,770.19	370,600.21
Specific Tax:					
On gross or net earnings, revenue or dividends	69,915.00	1,065.96	35,673.76	162,000.00	278,654.72
On traffic, etc.	25,867.95	37,749.84	1,702.92	10,367.79	75,738.50
Miscellaneous		2,490.62		2,695.78	5,186.40
Internal revenue, U. S. Government	34,419.21	50,715.08	6,320.98	55,844.33	137,309.60
Total taxes—entire line	\$ 201,489.94	\$ 510,262.52	\$ 62,802.82	\$ 467,889.59	\$ 1,242,444.86
Total taxes—Iowa	3,459.60	7,172.74	91.62		10,724.96

COMPARATIVE GENERAL BALANCE SHEET—ASSETS.

Investment:					
Real property and equipment	\$ 9,239,607.05	\$ 15,234,110.65	\$ 164,031.91	\$ 11,110,662.84	\$ 35,748,512.45
Miscellaneous physical property	27,418.63	2,015,007.10		127,300.35	2,200,626.18
Affiliated Companies:					
Stocks	10,228,009.73	1,089,602.55		10,000.00	11,327,612.28
Bonds	6,750,046.63				6,750,046.63
Notes	770,000.00				770,000.00
Advances	247,303.93				247,303.93
Other Investments:					
Stocks	10,023,320.77	4,590,228.28		5,583,438.68	20,607,087.73
Bonds	14,358,724.09	5,340,927.33	59,034.72	15,115,867.41	29,764,553.55
Notes	301.50	1,388,368.94		1,524,066.61	2,294,037.95
Mortgage loans	529,778.70				529,778.70
Total Investments:					
December 31, 1918	22,206,909.35	32,495,615.70	217,095.63	33,421,324.67	118,340,945.35
December 31, 1915	46,582,389.02	29,720,956.72	304,733.95	33,949,823.80	109,557,903.50
Increase 1916	6,625,310.82	2,765,300.00	12,332.68		9,403,003.50
Decrease 1916				327,829.16	327,829.16
Current Assets:					
Cash	2,371,248.84	6,324,979.42	136,600.45	12,800,264.54	21,633,093.25
Special Deposits	29,137.69	88,126.55			117,264.24
Loans and notes receivable	69,596.00	3,856.22		69,000.00	139,508.22
Traffic balances receivable	125,068.28	138,040.91	14,132.63	63,745.71	337,017.53
Net balances receivable from agents and messengers	4,391,439.24	8,121,471.77	159,679.94	1,569,935.44	14,142,526.39
Miscellaneous accounts receivable	153,946.35	3,277,204.69	1,743,915.00	845,290.56	6,250,356.74
Material and supplies	257,968.38	274,766.93	5,946.91	228,699.63	767,381.85
Interest, dividends and rents receivable	477,726.59	274,448.13		250,980.16	1,003,154.88
Working fund advances		221.59		5,000.00	5,221.59
Other current assets		47,938.94			47,938.94
Total December 31, 1918	7,944,666.36	18,349,878.48	2,600,396.35	15,262,244.98	44,770,681.73
Total December 31, 1915	8,517,421.88	15,787,579.79	1,973,731.31	9,261,728.56	35,540,461.54
Increase 1916		3,066,296.69	626,665.04	6,000,516.42	9,229,120.29
Decrease 1916					272,775.32

Items Reported	Adams	American	Great Northern	Wells Fargo	Total
Deferred Assets:					
Insurance and other reserve funds		\$ 43,176.40			\$ 43,176.40
Advance payments on contracts				\$ 1,166,000.45	1,166,000.45
Other deferred assets		294,303.07			294,303.07
Total December 31, 1916		497,479.47		1,166,000.45	1,663,479.92
Total December 31, 1915		318,944.01		1,210,000.49	1,528,944.50
Increase 1916		342,464.40			342,464.40
Decrease 1916				80,000.04	80,000.04
Unadjusted Debits:					
Rents and insurance premiums paid in advance	\$ 41,636.83	6,736.73	\$ 1,323.33	52,709.32	102,407.31
Taxes paid in advance	19,333.00	26,447.00	29.93	145,783.41	182,854.54
Other unadjusted debits	69,181.76	1,072,437.77	113.41		1,141,732.94
Total December 31, 1916	129,151.59	1,105,621.13	1,506.67	198,542.73	1,434,921.52
Total December 31, 1915	29,880.79	196,943.70	9,508.42	121,738.59	428,069.50
Increase 1916	81,331.37	908,716.43		76,804.14	1,066,852.34
Decrease 1916			5,601.75		5,601.75
Grand Total Assets:					
December 31, 1916	60,271,918.80	53,136,459.83	2,277,840.23	50,705,780.04	166,391,998.90
December 31, 1915	54,129,862.15	46,006,425.22	2,188,043.68	44,629,012.87	147,060,332.92
Increase 1916	6,122,066.68	7,045,034.61	89,796.55	6,049,767.17	19,314,665.01
COMPARATIVE GENERAL BALANCE SHEET—LIABILITIES.					
Capital Stock:					
December 31, 1916	\$ 10,000,000.00	\$ 17,532,480.00	\$ 1,000,000.00	22,207,400.00	\$2,510,880.00
December 31, 1915	10,000,000.00	17,480,000.00	1,000,000.00	22,907,800.00	\$2,416,400.00
Increase 1916		60,480.00			60,480.00
Funded Debt:					
December 31, 1916	**22,812,488.36				**22,812,488.36
December 31, 1915	**19,811,302.88				**19,811,302.88
Increase 1916	12,001,065.48				12,001,065.48
Current Liabilities:					
Loans and notes payable	2,000,000.00				2,000,000.00
Traffic balances payable	131,633.85	22,369.81	42,309.63	103,192.12	301,505.41
Audited accounts and wages unpaid	1,243,286.53	3,563,012.44	9,088.29	3,851,008.54	8,667,355.80
Miscellaneous accounts payable	230,149.11	6,767,714.30	94.20		7,007,967.61
Matured interest, dividends and rents unpaid	307,159.50	20,847.50		15,428.60	343,435.60
Unpaid money orders, checks and drafts	645,756.07	6,145,293.08	31,309.99	3,734,776.97	10,914,699.88
Express privilege liabilities	4,301,469.09	4,622,095.45	299,074.56	3,294,639.38	11,428,079.31
Estimated tax liability	111,324.43	230,219.24	49,854.17	205,132.94	718,359.78
Unmatured interest, dividends and rents payable	151,430.63	615,478.00		8,708,156.33	9,475,064.96
Other current liabilities				47,081.66	47,081.66
Total December 31, 1916	9,282,229.52	22,035,372.43	489,851.94	19,974,470.22	51,781,828.71
Total December 31, 1915	8,007,422.50	17,095,888.22	432,217.82	9,218,496.81	35,864,027.35
Increase 1916	1,154,807.02	4,430,384.21	57,634.12	10,417,801.91	16,417,801.91
Deferred Liabilities:					
On account of fidelity and indemnity funds		\$ 60,612.42			\$ 60,612.42
Other deferred liabilities		650.00			650.00
Total December 31, 1916		61,262.42			61,262.42
Total December 31, 1915		36,634.71			36,634.71
Increase 1916		24,627.71			24,627.71
Unadjusted Credits:					
Operating and insurance reserves	\$ 180,104.28	1,361,896.30	\$ 19,148.09	\$ 312,278.95	1,874,227.86
Accrued depreciation:					
Buildings	216,627.71	1,097,401.42		361,043.07	1,564,594.20
Equipment	2,694,582.46	2,922,993.61	30,229.36	2,103,121.31	7,590,876.65
Miscellaneous physical property	611.68	767,387.79		129.96	798,129.43
Other unadjusted credits	141,508.59	424,285.14	602.41	69,329.97	605,625.53
Total December 31, 1916	3,053,729.75	5,252,068.36	49,859.76	2,764,830.29	12,280,500.27
Total December 31, 1915	2,856,816.69	3,196,414.15	43,656.00	2,479,129.52	8,175,489.36
Increase 1916	577,000.01	3,207,581.36	7,196.23	270,760.78	4,225,078.38
Corporate Surplus:					
Reserves from income and surplus	4,793,862.50		100,000.00		4,893,862.50
Appropriated surplus	4,793,862.50		100,000.00		4,893,862.50
Profit and loss balance	10,359,433.35	6,923,549.47	636,108.00	4,629,794.52	21,028,185.27
Total December 31, 1916	15,144,328.35	6,923,549.47	736,108.00	4,629,694.52	26,833,679.77
Total December 31, 1915	13,775,221.68	7,778,568.14	653,732.33	8,966,054.64	21,241,476.69
Increase 1916	1,369,106.17		44,376.00		1,413,482.17
Decrease 1916		852,018.67		4,920,860.02	5,828,878.69
Grand Total—Liabilities:					
December 31, 1916	60,271,918.80	53,136,459.83	2,277,840.23	50,705,780.04	166,391,998.90
December 31, 1915	54,129,862.15	46,006,425.22	2,188,043.68	44,629,012.87	147,060,332.92
Increase 1916	6,122,066.68	7,045,034.61	89,796.55	6,049,767.17	19,314,665.01

*Includes \$865,988.36 excess book value of securities deposited with trust companies.

**Includes \$889,022.88 excess book value of securities deposited with trust companies.

†Includes \$12,226.48 excess book value of securities deposited with trust companies.

Items Reported	Adams	American	Great Northern	Wells Fargo	Total
EQUIPMENT OWNED					
Cars:				180	215
Number		85			
Value		141,082.54		557,204.38	698,286.92
Horses:				7,167	15,292
Number	5,103	2,904	220		
Value	669,000.98	888,373.51	21,800.24	836,128.09	2,435,011.82
Automobiles:					
Gasoline:				134	1,152
Number	658	367	4		
Value	905,239.83	684,087.48	1,086.84	201,061.72	1,742,075.87
Electric:				24	975
Number	418	323			
Value	514,909.65	1,046,548.07		37,725.25	1,599,182.97
Wagons:					
Double:					
Number	1,077	1,168	49	1,221	3,515
Value	132,306.46	177,253.84	6,282.74	228,519.49	643,372.53
Single:					
Number	2,667	2,408	144	2,604	9,113
Value	184,197.14	220,194.82	14,736.01	274,926.89	704,054.86
Sleighs:					
Number	718	1,084	64	480	2,056
Value	6,875.87	23,400.80	1,240.45	5,471.39	36,988.51
Buggies:					
Number		20		22	42
Value		989.78		3,706.05	4,695.83
Harness equipment, value	81,087.97	76,405.26	1,757.34	94,531.01	253,781.58
Office furniture and equipment, value	294,600.87	556,336.28	14,498.41	429,951.87	1,275,487.43
Office safes, number	1,793	6,321	394	6,074	14,522
Value	50,806.24	121,586.07	20,002.59	165,202.55	257,697.45
Trucks, number	11,499	15,961	1,120	16,798	45,278
Value	170,511.09	245,813.36	29,622.26	139,421.23	705,377.94
Stable equipment, value	1,666.05	3,189.22	7,415	10,347.00	15,597.27
Garage equipment, value	27,692.71	75,411.99		7,980.60	110,085.30
Line equipment:					
Sales, car, number	190	216	60	600	1,126
Value	20,479.92	73,083.33	6,829.27	95,149.00	169,541.52
Messenger, number	2,628	2,842	233	2,849	9,552
Value	23,200.29	20,500.80	2,300.04	23,566.05	70,027.18
Trunks, packing, number	5,243	8,300	1,120	7,442	22,105
Value	9,046.10	32,078.47	1,084.91	11,042.11	53,251.59
Other line equipment, value	9,310.62	14,449.17	655.83	55,291.20	80,106.82
Shop equipment, value	11,617.74	44,871.21		4,235.15	60,724.10
Miscellaneous equipment, value		14,084.83		483.45	14,568.28
Total equipment, value	5,103,609.94	4,885,400.84	122,276.31	3,223,215.31	11,094,502.40
FINANCIAL PAPER ISSUED.					
Money orders, number	1,679,468	6,725,751	187,520	3,482,106	12,094,845
Amount	14,621,400.04	51,645,218.56	1,831,711.59	33,254,278.25	104,402,608.44
C. O. D. checks, number	1,530,320	2,265,010	177,821	2,282,987	6,255,138
Amount	22,240,007.70	36,825,863.24	2,384,654.07	21,943,843.95	83,394,368.96
Limited and unlimited cheques, number	4,117	271,883		220	276,220
Amount	143,974.35	186,199,049.80		88,329.55	130,451,353.70
Travelers' cheques, number	32,377	863,044	959	425,000	1,301,380
Amount	205,280.00	18,705,050.00	16,080.00	3,005,270.00	27,411,680.00
Telegraph and cable transfers, number	64,352			4,225	68,577
Amount	107,779,230.55			630,236.89	108,409,467.44
Letters of credit, number		697			697
Amount		3,604,022.12			3,604,022.12
Total, number	3,217,317	10,176,240	365,340	6,201,443	19,960,340
Amount	27,608,842.19	367,628,384.10	4,233,345.00	74,112,149.05	473,612,720.34
Number express offices in United States December 31, 1916:					
Joint with railroads	5,286	9,284	651	7,872	23,093
All other	1,323		32	1,290	2,668
Number offices in U. S. at which money orders were on sale Dec. 31, 1916:	5,514	9,573	670	8,162	24,319

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