

FIFTEENTH BIENNIAL REPORT

OF THE

STATE MINE INSPECTORS

FOR THE

Two Years Ending June 30, 1910

TO THE

GOVERNOR OF THE STATE OF IOWA

PRINTED BY ORDER OF THE GENERAL ASSEMBLY

DES MOINES
EMORY H. ENGLISH, STATE PRINTER
1910

STATE MINE INSPECTORS.

District No. 1—JOHN E. JEFFREYS, Albia.

District No. 2—RHYS T. RHYS, Ottumwa.

District No. 3—EDWARD SWEENEY, Des Moines.

BOARD OF EXAMINERS.

FOR MINE INSPECTORS, MINE FOREMEN, AND HOISTING ENGI-
NEERS.

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JOHN OWENS, Beacon.

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BIENNIAL REPORT OF THE
FIRST DISTRICT

COUNTIES COMPRISING THE FIRST DISTRICT.

APPANOOSE
LUCAS
TAYLOR
ADAMS

MONROE (part)
PAGE
WAYNE

JOHN E. JEFFREYS, INSPECTOR,
Albia, Iowa.

LETTER OF TRANSMITTAL.

HON. BERYL F. CARROLL, Governor of Iowa:

SIR—I have the honor to submit herewith my first report as Inspector of Mines, covering a period of three months' service, and include such data as was furnished by my predecessor for twenty-one months' service, for the biennial period ending June 30, 1910.

JOHN E. JEFFREYS,
Inspector First District.

REPORT OF THE FIRST DISTRICT

The first inspection district is composed at present of the counties as follows:

Appanoose, Monroe (part), Lucas, Wayne, Taylor, Page and Adams.

This report covers a period of twenty-four months or two years, commencing July 1, 1908, and ending June 30, 1910.

During the twenty-one months of my predecessor, (Mr. Verner) there was 400 inspections made of the mines, and 13 scales were tested, of which 11 were found accurate, and 2 required adjustment.

I, the successor of Mr. Verner, made 17 inspections, the period of my service being three months, of which half of that period the mines were not in operation due to the adjustment of a new contract or scale wage between the mine operators and mine workers. I therefore respectfully present the number of tons of coal produced during the year ending June 30, 1909, and the year ending June 30, 1910, the tonnage in 2,000 lb. tons is as follows:

From July 1, 1908, to June 30, 1909, the mines in district One produced 2,725,069 tons of coal, and from July 1, 1909, to June 30, 1910, 2,428,767 tons of coal was produced in the first district which is a slight decrease from the amount produced for the year previous. This is due, no doubt, to the fact that all mines were under suspension for a period of six weeks during the negotiations between the operators and mine workers in adjusting a new wage scale, to replace the scale which expired on March 31, 1910.

ACCIDENTS.

During the year ending June 30, 1909, eight fatal accidents occurred in and around the mines in this district, and thirty-nine non-fatal accidents were reported to this office. Four persons were killed by fall of coal; one by a fall of slate; one by a fall of black bat; one by an explosion of caps and powder and one by cars.

Nine of the non-fatal accidents were caused by falls of slate, or roof; eleven persons were injured by cars; eleven were injured

by falls of coal; five were injured by falls of rock and two persons' injuries were due to other causes.

The year ending June 30, 1910, showed an increase of two deaths. During this year ten persons were killed in and around the mines in District One. Four persons were killed by falls of slate, two were killed by falls of rock; two were killed by cars; one was killed by an explosion of a keg of powder, and one was killed by falling down a shaft.

There were 34 non-fatal accidents during this year, from July 1, 1909, to June 30, 1910. Ten of the non-fatal accidents were caused by falls of slate. Five persons were injured by falls of coal; six persons were injured by cars and thirteen injuries were due to other causes.

FATAL ACCIDENTS IN DISTRICT NO. 1, JULY 1, 1908—JUNE 30, 1910.

Date	Name of Deceased	Occupation	Cause of Death	Employed by	County
1908					
July	8 John Mahaloic	Timberman	Fall of slate	Hocking Coal Co.	Monroe
July	20 S. Campbell	Miner	Fall of black bat	Carbon Block Coal Co.	Appanoose
August	31 Anton de Boel	Miner	Fall of coal	Sunshine Coal Co.	Appanoose
August	31 Ad. de Boel	Miner	Fall of coal	Sunshine Coal Co.	Appanoose
October	14 B. Ream	Boss driver	Explo. powder and caps.	Smoky Hollow Coal Co. No. 6.	Monroe
1909					
February	15 C. Allison	Miner	Fall of coal	Phoenix Coal Co.	Appanoose
February	17 C. Gaughenbaugh	Miner	Fall of coal	Ed McConville (Lissle Creek Coal Co.)	Appanoose
May	19 S. Henderson	Driver	Caught between car and roof	Hocking Coal Co.	Monroe
July	24 Louis Borra	Miner	Fall of slate	Hocking Coal Co. No. 3	Monroe
August	17 L. Rajs	Miner	Fall of rock	Fowler & Wilson Coal Co.	Appanoose
September	14 H. Buckingham	Day man	Fall of rock	Oriental Coal & Mining Co.	Appanoose
October	20 M. Evans	Dirt man	Fall of slate (Died Dec. 17, 1909)	Wapello Coal Co. No. 4	Monroe
October	27 D. Majors	Blacksmith	Run over by tail rope trip.	Phillips Fuel Co. No. 6	Monroe
October	30 E. Magers	Driver	Dragged under car.	Numa Block Coal Co. No. 2	Appanoose
1910					
February	2 E. Latham	Miner	Fall of slate	Wapello Coal Co. No. 3	Monroe
February	18 A. Keats	Day man	Fell down shaft	Hocking Coal Co. No. 4	Monroe
March	3 Wm. Powell	Miner	Fall of slate	Hocking Coal Co. No. 4	Monroe
March	4 Eli Sumpter	Day man	Explosion keg of powder.	Exline Coal Co. No. 1	Appanoose

NON-FATAL ACCIDENTS IN DISTRICT NO. 1, JULY 1, 1908—JUNE 30, 1910.

Date	Name of Injured	Occupation	Character of Injury	Cause of Injury	Employed by	County
July 1909	29 Geo. Raner	Driver	Foot bruised	Caught bet. bumper and coal	Smoky Hollow Coal Co.	Monroe
July	23 C. Vernator	Chunker	Toes mashed	Caught by coal	Smoky Hollow Coal Co.	Monroe
August	15 G. Fisher	Topman	Back injured	Struck by cars	Phillips Fuel Co.	Monroe
August	20 W. Simpson	Driver	Foot injured	Caught between cars	Phillips Fuel Co.	Monroe
August	25 H. Coun	Miner	Shoulder dislocated	Fall of coal	Scandinavian Coal Co.	Appanoose
August	29 Wm. Close	Miner	Body injured	Fall of rock	Rock Valley Coal Co.	Appanoose
August	31 C. Barton	Miner	Fingers broken	Fall of slate	Smoky Hollow Coal Co.	Monroe
September	3 H. Bitterman	Miner	Hand bruised	Fall of slate	Smoky Hollow Coal Co.	Monroe
September	9 S. S. Carter	Driver	Foot injured	Struck by coal	Phillips Fuel Co.	Monroe
September	17 T. Sackfield	Miner	Leg broken	Fall of coal	Centerville Block Coal Co.	Appanoose
October	14 J. Pettit	Driver	Face and wrist burned	Explosion of powder and caps	Smoky Hollow Coal Co.	Monroe
October	30 J. Huberly	Miner	Back and hips hurt	Fall of rock	Phillips Fuel Co.	Monroe
November	4 J. Kennedy	Mch. Sho'ler	Leg broken	Fall of slate	Centerville Block Coal Co.	Appanoose
November	13 J. Anderson	Miner	Head and back hurt	Fall of rock	Phillips Fuel Co.	Monroe
November	24 Wm. Ellis	Asst. Forem'n	Legs broken	Fall of slate	Centerville Block Coal Co.	Appanoose
November	27 T. Sialino	Miner	Leg broken	Fall of coal	Carbon Block Coal Co.	Appanoose
November	27 M. Potesta	Miner	Foot crushed	Fall of coal	Carbon Block Coal Co.	Appanoose
November	28 H. Moore	Driver	Leg broken	Caught between cars	Consumers Coal Co.	Appanoose
December	19 Wm. Reynolds	Driver	Crushed chest	Caught between car and rib	Albia Coal Co.	Monroe
December	11 L. Rogers	Miner	Thigh broken	Fall of slate	Smoky Hollow Coal Co.	Monroe
December 1909	16 J. Constantine	Driver	Leg broken	Caught by tail chain	Wapello Coal Co.	Monroe
January	2 J. Hamm, Jr.	Miner	Arm broken	Fall of slate	Wapello Coal Co.	Monroe
January	22 D. White	Trip rider	Hand injured	Trip jumped track	Wapello Coal Co.	Monroe
February	5 Wm. Smith	Miner	Knee bruised	Fall of coal	Big Jo Coal Co.	Appanoose
February	8 E. Miller	Miner	Arm broken	Fall of coal	Dewey Coal Co.	Appanoose
February	13 Jos. Williams	Miner	Ribs broken	Fall of slate	Wapello Coal Co.	Monroe
February	19 C. Monet	Miner	Foot bruised	Fall of coal	Beggs Coal Co.	Appanoose
March	8 Jas. Davis	Night boss	Scalp wound	Fall of rock	Lodwick Bros. Coal Co.	Appanoose
March	8 J. Goss	Miner	Broken rib	Fall of coal	F. Weil	Adams
March	18 J. McCormick	Miner	Leg broken	Fall of coal	Winnifred Coal Co.	Appanoose
March	29 J. Murry	Miner	Leg broken	Fall of rock	Numa Block Coal Co.	Appanoose
March	23 A. Neighbour	Driver	Arm broken	Caught between timber and car	Wapello Coal Co.	Monroe
April	16 J. Milburn	Driver	Leg broken	Caught between cars	Hocking Coal Co.	Monroe
May	1 J. Stenburg	Miner	Rib broken	Fall of coal	Center Coal Co.	Appanoose
May	11 S. Kersovich	Miner	Head and body	Jumped on loaded car to ride	Fowler & Wilson Coal Co.	Appanoose
May	13 R. Ellis	Timberman	Back and side bruised	Fall of slate	National Union Coal Co.	Monroe
May	21 B. Huskins	Miner	Foot injured	Fall of coal	Phillips Fuel Co.	Monroe
May	28 D. Evans	Driver	Back inf'd & ankle dis.	Thrown under car	Wapello Coal Co.	Monroe
June	14 W. Nickelson	Driver	Leg broken	Caught between cars	Smoky Hollow Coal Co.	Monroe
July	21 Tom Bainbridge	Driver	Foot lacerated	Kicked by mule	Smoky Hollow Coal Co.	Monroe
July	31 Jno. Martin	Miner	Collar bone and two ribs broken	Fall of slate	Wapello Coal Co.	Monroe
September	14 Ben Peterson	Miner	Cut about head	Fall of slate	Wapello Coal Co.	Monroe
October	3 W. McBride	Driver	Hip dislocated	Caught by cars	Wapello Coal Co.	Monroe
October	9 Geo. Molner	Timberman	Bruised back and hip	Struck by tail rope	Smoky Hollow Coal Co.	Monroe
October	20 J. J. Barrows	Trapper	Back injured	Fall of slate	Smoky Hollow Coal Co.	Monroe
October	26 R. Reeves	Miner	Wrist dislocated	Jumped from car and fell	Smoky Hollow Coal Co.	Monroe
October	26 J. R. Williams	Boss driver	Finger cut off	Caught in coupling	Wapello Coal Co. No. 1	Monroe
October	28 J. Guffey	Miner	Bone in heel broken	Caught between cars	Exline Coal Co. No. 1	Appanoose
November	3 Ed Eaton	Miner	Broken toe	Fall of slate	Exline Coal Co. No. 1	Appanoose
November	3 N. F. Carlson	Miner	Leg broken	Fall of coal	Center Coal Co.	Appanoose
November	5 A. Clark	Dirtman	Leg broken	Fall of slate	Wapello Coal Co. No. 5	Monroe
November	8 J. Cuthbert	Miner	Ribs broken	Fall of slate	Wapello Coal Co. No. 3	Monroe
November	15 A. Barger	Driver	Broken rib	Fell over car of coal	Center Coal Co.	Appanoose
November	17 E. Harrison	Chunker	Finger cut off	Caught by piece of coal	Wapello Coal Co. No. 3	Monroe
November	23 Sam Hornby	Miner	Back and hip bruised	Fall of coal	Peerless Coal Co. No. 8	Appanoose
November	29 A. B. McBride	Miner	Nose and jaw broken	Fall of slate	Wapello Coal Co. No. 3	Monroe
December	6 Thos. Lambert	Miner	Toe broke & ft bruised	Fall of coal	Smoky Hollow Coal Co. No. 7	Monroe
December	13 Will Davis	Trapper	Arm broken	Caught between door and car	Smoky Hollow Coal Co. No. 6	Monroe
December 1910	28 D. E. Sparks	Miner	Ankle sprained	Fall of slate	Dewey Coal Co.	Appanoose
January	C. V. Heeter	Miner	Body bruised	Fall of slate	Smoky Hollow Coal Co. No. 7	Monroe
January	18 G. Ruttan	Driver	Bones of foot broken	Foot caught under car	Smoky Hollow Coal Co. No. 7	Monroe
January	25 D. H. Overs	Miner	Finger mashed off	Caught in man trip	Exline Coal Co.	Appanoose
January	25 F. Patterson	Miner	Hand mashed	Caught in man trip	Exline Coal Co.	Appanoose
January	29 John Madison	Miner	Leg broken	Fall of slate	Phillips Fuel Co. No. 6	Monroe
February	17 C. G. Carlson	Miner	Ankle dislocated	Fall of coal	Center Coal Co.	Appanoose
February	24 Wm. Collins	Miner	Ribs broken	Crossing cage with out giving signal	J. F. Ruth	Adams

NON-FATAL ACCIDENTS IN DISTRICT NO. 1, JULY 1, 1908—JUNE 30, 1910.

CONTINUED

Date	Name of Injured	Occupation	Character of Injury	Cause of Injury	Employed by	County
February	P. Hartley	Miner	Broken nose	Fall of slate	Oriental Coal Co.	Appanoose
March	Ira Hall	Dayman	Body burned	Explosion keg of powder	Exline Coal Co.	Appanoose
March	M. Cline	Miner	Face burned	Powder explosion	Exline Coal Co.	Appanoose
March	Henry Murphy	Miner	Toes broken	Fall of face coal	Scandinavian Coal Co.	Appanoose
March	Alvah Ratcliff	Weigh boss	Broken limb	Caught in wire haul- age rope used in rothing	Idaho Coal Co.	Appanoose
June	W. Featheringham	Greaser	Arm broken	Fell off nut coal car.	Wapello Coal Co. No. 3.	Monroe

The following improvements were made during the biennial period ending June 30, 1910.

Numa Block Coal Company No. 3. New air and escape shaft with fan installation.

Centerville Block Coal Company No. 1. New air shaft and new fan.

Fowler & Wilson Coal Company No. 1. Additional air and escape shaft.

Smoky Hollow Coal Company No. 6. Additional air and escape shaft.

Anchor Coal Company No. 1. Additional air shaft.

Winnifred Coal Company. New air shaft.

Elgin & Barrett Coal Company. New air shaft.

Centerville Block Coal Company No. 3. Additional air and escape shaft.

C. B. & K. C. Coal Company, (Royal Mine). New air shaft.

Phillips Fuel Company, No. 6. Old fan replaced by larger one, steel cased.

Numa Block Coal Company No. 1. Old fan replaced by better fan (8 ft. Jeffrey) steel cased.

Peerless Coal Company No. 6. Fan ventilation provided. Mine was ventilated by furnace.

In addition arrangements have been made for a new air and escape shaft for No. 2 mine, Thistle Coal Company.

Also for new air shaft and fan for the mine of the White Ash Coal Company.

NEW MINES OPENED.

July 1, 1908, to June 30, 1910.

APPANOOSE COUNTY.

Fowler & Wilson Coal Company, No. 2.

MONROE COUNTY.

National Union Coal Company.

Hocking Coal Company, No. 4.

Wapello Coal Company, No. 5.

Wapello Coal Company, No. 6.

Smoky Hollow Coal Company, No. 8.

ADAMS COUNTY.

J. F. Ruth.
M. Jones.
J. F. Wilds.

MINES ABANDONED.

July 1, 1908, to June 30, 1910.

MONROE COUNTY.

Wapello Coal Company No. 3.
Hocking Coal Company No. 2.
Wapello Coal Company No. 4.

ADAMS COUNTY.

J. F. Ruth.
J. F. Wilds.
M. Jones.

APPANOOSE COUNTY.

Mendota Coal & Mining Company, not operated since July 1, 1908.
Thistle Coal Company, No. 1. Coal to be taken out through Mine No. 2.
Cincinnati Coal & Mining Company.
Big Jo Coal Company, No. 2. (Juckett Mine). Has not been operated during last year.

MINES IN APPANOOSE COUNTY, THEIR LOCATION, ETC.

Corporation, Firm or Operator	Mine No.	Location or Mine	Railroad Connection if any	Kind of mine	System of working	Means used	Means of ventilation
Scandinavian Coal Co.	2	Plano	K. & W.	Shaft	Room and pillar	Steam	Fan
Lodwick Bros. Coal Co.	3	West of Brazil	K. & W.	Slope	Room and pillar	Steam	Furnace
Walnut Block Coal Co.		Brazil	K. & W.	Drift	Long wall	Electric	Furnace
Phoenix Coal Co.		Brazil	K. & W.	Slope	Long wall	Horse	Furnace
Centerville Block Coal Co.	5	Brazil	K. & W.	Slope	Long wall	Steam	Furnace
Peacock Coal Co.		Brazil	K. & W.	Slope	Long wall	Horse	Furnace
Oriental Coal Co.	1	South of Brazil	K. & W.	Slope	Long wall	Horse	Furnace
Crawford & Widmer Coal Co.		1 mile southeast of Brazil	K. & W.	Shaft	Long wall	Steam	Fan
Sunshine Coal Co.		3 miles west of Centerville	K. & W.	Shaft	Long wall	Steam	Fan
Centerville Block Coal Co.	3	West of Centerville	K. & W. & T.C.	Shaft	Long wall	Steam	Fan
Anchor Coal Co.	1	Centerville	K. & W.	Shaft	Room and pillar	Steam	Fan
Scandinavian Coal Co.		Centerville	K. & W.	Shaft	Room and pillar	Steam	Fan
Dewey Coal Co.		1 1/2 miles southeast of Cincinnati	K. & W.	Shaft	Room and pillar	Steam	Fan
Consolidated Coal Co.		1 1/2 miles southwest of Cincinnati	C. B. & K. C.	Slope	Long wall	Steam	Fan
Mendota Coal & Mining Co.	2	West of Cincinnati	C. B. & K. C.	Shaft	Long wall	Steam	Fan
Mendota Coal & Mining Co.	1	Cincinnati	C. B. & K. C.	Shaft	Long wall	Steam	Fan
Armstrong Coal Co.		West of Cincinnati	C. B. & K. C.	Shaft	Room and pillar	Steam	Fan
Thistle Coal Co.	3	Southeast of Cincinnati	C. B. & K. C.	Shaft	Room and pillar	Steam	Fan
Thistle Coal Co.	2	1 1/2 miles east of Cincinnati	C. B. & K. C.	Shaft	Room and pillar	Steam	Fan
Exline Coal Co.	1	West of Exline	C. B. & K. C.	Shaft	Room and pillar	Steam	Fan
Exline Coal Co.	2	West of Exline	C. B. & K. C.	Shaft	Room and pillar	Steam	Fan
Iowa Block Coal Co.		Exline	C. B. & K. C.	Shaft	Room and pillar	Steam	Fan
A. May & C. B. & K. C. Coal Co.		Northeast of Exline	C. B. & K. C.	Shaft	Room and pillar	Steam	Furnace
Centerville Block Coal Co.		West of Centerville	Iowa Cent.	Shaft	Room and pillar	Steam	Fan
Centerville Block Coal Co.	3	Numa	C. R. I. & P.	Shaft	Long wall	Steam	Fan
Numa Block Coal Co.	1	Numa	C. R. I. & P.	Slope	Long wall	Steam	Fan
Prairie Block Coal Co.		4 miles south of Centerville	C. R. I. & P.	Shaft	Long wall	Steam	Fan
Anchor Coal Co.	3	3 miles south of Centerville	C. R. I. & P.	Shaft	Long wall	Steam	Fan
Anchor Coal Co.	2	3 miles south of Centerville	C. R. I. & P.	Shaft	Room and pillar	Steam	Fan
Center Coal Co.		South of Centerville	C. R. I. & P.	Shaft	Room and pillar	Steam	Fan

MINES IN APPANOOSE COUNTY, THEIR LOCATION, ETC.—CONTINUED.

Corporation, Firm or Operator	Mine No.	Location of Mine	Railroad Connection if any	Kind of opening	System of working	Power used	Means of ventilation
Rossbrook Coal Co.		Rossbrook	Iowa Cent.	Shaft	Long wall	Steam	Fan
Centerville Block Coal Co.		East of Centerville	C. R. I. & P.	Shaft	Room and pillar	Steam	Fan
Centerville Block Coal Co.	10	East of Centerville	C. R. I. & P.	Shaft	Room and pillar	Steam	Fan
Consumers Coal Co.		Jerome	C. M. & St. P.	Shaft	Long wall	Steam	Fan
Big Jo Coal Co.	1	1½ miles east of Jerome	C. M. & St. P.	Shaft	Long wall	Steam	Fan
Lodwick Bros. Coal Co.	2	3 miles southwest of Mystic	C. M. & St. P.	Shaft	Long wall	Steam	Fan
Peerless Coal Co.	5	West of Mystic	C. M. & St. P.	Shaft	Long wall	Steam	Furnace
Egypt Coal Co.		West of Mystic	C. M. & St. P.	Shaft	Long wall	Steam	Furnace
Leard Coal Co.	1	Mystic	C. M. & St. P.	Drift	Long wall	Horse	Fan
Acken Coal Co.	1	West of Mystic	C. M. & St. P.	Drift	Long wall	Steam	Fan
Acken Coal Co.	2	West of Mystic	C. M. & St. P.	Slope	Long wall	Horse	Fan
Peerless	2	West of Mystic	C. M. & St. P.	Shaft	Long wall	Steam	Fan
Mystic Coal Co.	2	West of Mystic	C. M. & St. P.	Shaft	Long wall	Steam	Fan
Artic Coal Co.	1	West of Mystic	C. M. & St. P.	Slope	Long wall	Mule	Furnace
Mystic Coal Co.	3	West of Mystic	C. M. & St. P.	Slope	Long wall	Horse	Fan
Lodwick Coal Co.	29	Mystic	C. M. & St. P.	Shaft	Long wall	Steam	Fan
Peerless Coal Co.	6	Mystic	C. M. & St. P.	Slope	Long wall	Steam	Fan
Lodwick Coal Co.	12	Mystic	C. M. & St. P.	Slope	Long wall	Horse	Furnace
Winnifred Coal Co.		East of Mystic	C. M. & St. P.	Slope	Long wall	Steam	Furnace
Beggs Coal Co.		1½ miles east of Mystic	C. M. & St. P.	Shaft	Long wall	Horse	Furnace
Elgin & Barret Coal Co.		1½ miles east of Mystic	C. M. & St. P.	Slope	Long wall	Steam	Furnace
Inter-Ocean Coal Co.		1½ miles east of Mystic	C. M. & St. P.	Shaft	Long wall	Steam	Fan
Lodwick Bros. Coal Co.		Clarkdale	C. M. & St. P.	Shaft	Long wall	Steam	Fan
Fowler & Wilson Coal Co.	5	Rathbun	C. M. & St. P.	Shaft	Long wall	Steam	Fan
Unity Block Coal Co.		Darbyville	C. M. & St. P.	Slope	Long wall	Steam	Furnace
Carbon Block Coal Co.	30	South of Centerville	C. R. I. & P.	Shaft	Long wall	Steam	Fan
Domestic Coal Co.		Cincinnati		Shaft	Room and pillar	Horse	Furnace
White Oak Coal Co.		North of Exline	C. R. I. & P.	Shaft	Room and pillar	Horse	Furnace
Ira A. Guinn Coal Co.		Coal City		Drift	Room and pillar	Horse	Furnace
J. R. Wright		South of Centerville		Shaft			
J. Sears		South of Centerville		Shaft			
W. Smith		South of Centerville		Shaft			
Citizens Coal Co.		South of Centerville		Shaft			

Walnut Coal Co.		South of Centerville		Shaft			
White Oak Coal Co.		Centerville	C. R. I. & P.	Shaft	Room and pillar	Horse	Furnace
Monitor Coal Co.		Centerville		Shaft	Room and pillar	Horse	Furnace
Star Coal Co.		North of Centerville		Shaft	Room and pillar	Horse	Furnace
Trio Coal Co.		Northeast of Centerville		Shaft	Room and pillar	Horse	Furnace
Rock Valley Coal Co.		North of Centerville		Shaft	Room and pillar	Horse	Furnace
John Schrum Coal Co.		North of Centerville		Shaft	Room and pillar	Horse	Furnace
John Koontz Coal Co.		Centerville		Shaft	Room and pillar	Horse	Furnace
Leslie Coal Co.		Mystic		Shaft	Long wall	Horse	Furnace
Manufacturer Coal & Coke Co.	10	Coal City	I. & St. L.	Slope	Room and pillar	Steam	Fan
Fowler & Wilson Coal Co.	2	Rathbun		Slope	Room and pillar	Mule	Furnace
S. D. Morrow Coal Co.		Coal City		Slope	Room and pillar	Mule	Furnace
Maggie Linn Coal Co.		South of Centerville		Shaft	Room and pillar	Horse	Furnace
Woodland Coal Co.		Centerville		Shaft	Room and pillar	Horse	Furnace
Oak Grove Coal Co.		South of Numa		Shaft	Long wall	Horse	Furnace

MINES IN MONROE COUNTY (PART), THEIR LOCATION, ETC.

Corporation, Firm or Operator	Mine No.	Location of Mines	Railroad Connection if any	Kind of opening	System of working	Power used	Means of ventilation
Wapello Coal Co.	5	Northwest of Hiteman	C., B. & Q.	Shaft	Room and pillar	Steam	Fan
Wapello Coal Co.	6	Northwest of Hiteman	C., B. & Q.	Shaft	Room and pillar	Steam	Fan
Smoky Hollow Coal Co.	6	4 miles southeast of Hynes	C., B. & Q.	Slope	Room and pillar	Steam	Fan
Smoky Hollow Coal Co.	7	4 miles southeast of Hynes	C., B. & Q.	Slope	Room and pillar	Steam	Fan
Phillips Fuel Co.	6	West of Foster	C. M. & St. P.	Shaft	Room and pillar	Steam	Fan
Hocking Coal Co.	3	3 1/2 miles south of Albia	Iowa Cent.	Shaft	Room and pillar	Steam	Fan
Star Coal Co.	---	Northwest of Albia	C., B. & Q.	Shaft	Room and pillar	Steam	Fan
White Ash Coal Co.	---	South of Avery	C., B. & Q.	Slope	Room and pillar	Steam	Fan
Albia Coal Co.	---	South of Albia	Iowa Cent.	Shaft	Room and pillar	Steam	Fan
National Union Coal Co.	---	Southwest of Hiteman	C., B. & Q.	Shaft	Room and pillar	Steam	Fan
Hocking Coal Co.	4	West of Hocking	Iowa Cent.	Shaft	Room and pillar	Steam	Fan
Smoky Hollow Coal Co.	8	South of Hynes	C., B. & Q.	Shaft	Room and pillar	Steam	Fan

MINES IN LUCAS COUNTY, THEIR LOCATION, ETC.

Inland Fuel Co.	---	3 1/2 miles northeast of Chariton	C., B. & Q.	Shaft	Room and pillar	Steam	Fan
Skidmore Bros. Coal Co.	---	Northeast of Lucas	C., B. & Q.	Shaft	Long wall	Horse	Furnace

MINES IN WAYNE COUNTY, THEIR LOCATION, ETC.

Numa Block Coal Co.	2	1 mile east of Seymour	C. M. & St. P.	Shaft	Long wall	Steam	Fan
Numa Block Coal Co.	3	Seymour	C., R. I. & P.	Shaft	Long wall	Steam	Fan
Carey Bros. Coal Co.	---	4 miles southwest of Seymour	---	Shaft	Long wall	Steam	Furnace
L. K. Edwards Coal Co.	---	4 miles south of Confidence	---	Shaft	Long wall	Steam	Furnace
Jos. Hayhurst Coal Co.	---	3 1/2 miles south of Confidence	---	Shaft	Long wall	Horse	Furnace
John Hayhurst Coal Co.	---	South of Confidence	---	Shaft	Long wall	Horse	Furnace
L. Frye Coal Co.	---	South of Confidence	---	Shaft	Long wall	Steam	Fan

MINES IN TAYLOR COUNTY, THEIR LOCATION, ETC.

Union Coal Co.	---	East of New Market	C., B. & Q.	Shaft	Long wall	Horse	Furnace
Campbell Coal Co.	---	East of New Market	C., B. & Q.	Shaft	Long wall	Horse	Furnace
New Market Coal Co.	---	East of New Market	---	Shaft	Long wall	Horse	Furnace
Coke Coal Co.	---	East of New Market	C., B. & Q.	Shaft	Long wall	Horse	Furnace
N. Easter Coal Co.	---	2 miles east of New Market	---	Shaft	Long wall	Horse	Furnace
Welch & Dreman Coal Co.	---	2 miles east of New Market	---	Shaft	Long wall	Horse	Furnace

MINES IN PAGE COUNTY, THEIR LOCATION, ETC.

Johnson & Co.	---	2 miles west of Clarinda	---	Shaft	Long wall	Steam	Furnace
H. Howard Co.	---	West of Clarinda	---	Shaft	Long wall	Horse	Furnace
Person Coal Co.	1	2 miles southwest of Clarinda	---	Shaft	Long wall	Horse	Furnace
Coin Coal Co.	---	Coin	---	Shaft	Long wall	Steam	Jet

MINES IN ADAMS COUNTY, THEIR LOCATION, ETC.

M. Jones	---	Carbon	---	Shaft	Long wall	Horse	Furnace
J. F. Ruth	---	Carbon	---	Shaft	Long wall	Horse	Furnace
J. F. Wild	---	Carbon	---	Shaft	Long wall	Horse	Furnace
Herm Day	---	West of Carbon	---	Shaft	Long wall	Horse	Furnace
McKay & Howell	---	West of Carbon	---	Shaft	Long wall	Horse	Furnace
H. K. Dermirjean	---	Northwest of Carbon	---	Shaft	Long wall	Horse	Furnace
Dougherty & Son	---	Briscoe	---	Shaft	Long wall	Horse	Furnace
F. Well	---	Northwest of Nodaway	---	Shaft	Long wall	Horse	Furnace
C. Dixon	---	Corning	---	Shaft	Long wall	Horse	Furnace

TABLE NO. 1.

SHOWING NUMBER OF MINES, OUTPUT OF COAL, NUMBER OF MINERS AND OTHER EMPLOYEES IN DISTRICT NO. 1 FOR YEAR ENDING JUNE 30, 1909.

Name of County	Number of Mines		Tons of coal produced	Number of miners employed	Number of underground employees	Number of outside employees	Total number of employees
	R. R.	Local					
Appanoose	00	27	1,186,524	3,065	606	303	4,084
Monroe (part)	14		1,340,374	1,460	612	254	2,326
Lucas		2	9,717	27	8	6	41
Wayne	2	8	142,640	328	117	48	493
Taylor	3	2	13,347	47	13	6	66
Page	4	4	14,054	54	16	10	80
Adams		9	18,413	100	10	13	123
Total	79	52	2,725,009	5,101	1,382	780	7,213

TABLE NO. 2.

SHOWING NUMBER OF MINES, OUTPUT OF COAL, NUMBER OF MINERS AND OTHER EMPLOYEES IN DISTRICT NO. 1 FOR YEAR ENDING JUNE 30, 1910.

Name of County	Number of Mines		Tons of coal produced	Number of miners employed	Number of underground employees	Number of outside employees	Total number of employees
	R. R.	Local					
Appanoose	60	19	1,188,289	3,282	661	230	4,163
Monroe (part)	11		1,192,697	1,407	586	241	2,234
Lucas		2	10,410	25	8	5	33
Wayne	2	5	135,376	296	115	43	454
Taylor	3	3	10,727	47	11	5	63
Page		4	12,247	53	14	10	77
Adams		9	19,021	98	16	12	126
Total	76	42	2,428,767	5,208	1,411	536	7,155

TABLE NO. 3.

SHOWING THE OUTPUT OF THE COAL PRODUCING COUNTIES OF DISTRICT NO. 1, FOR THE PAST SIX YEARS.

Counties	1905	1906	1907	1908	1909	1910
Appanoose	895,480	1,056,656	1,157,067	1,107,866	1,186,524	1,188,289
Monroe (part)	1,129,357	1,260,544	1,346,297	1,301,374	1,340,374	1,192,697
Lucas	165,256	151,432	126,579	74,288	9,717	10,410
Wayne	104,873	121,288	159,758	124,465	142,640	135,376
Taylor	15,651	19,505	15,951	13,861	13,347	10,727
Page	17,166	17,378	15,981	14,045	14,054	12,247
Adams	19,577	21,517	20,490	17,700	18,413	19,021
Total	2,347,300	2,640,510	2,843,023	2,658,500	2,725,069	2,428,767

TABLE NO. 4.

SHOWING TONNAGE IN DISTRICT NO. 1, FOR PAST TEN YEARS, WITH NUMBER OF FATAL ACCIDENTS AND NUMBER OF EMPLOYEES, WITH TON PER ACCIDENT, ETC.

Year	Number of fatal accidents	Tons of coal produced each year	Number of employees	Tons of coal mined per accident	Number of employees for each accident
1901	18	1,964,050	5,302	109,114	295
1902					
1903					
1904	13	2,305,470	6,796	184,987	523
1905	7	2,347,300	7,250	335,323	1,036
1906	16	2,048,519	7,075	128,032	442
1907	9	2,813,923	7,080	315,891	787
1908	15	2,633,500	7,069	176,900	471
1909	8	2,725,069	7,213	340,634	901
1910	10	2,428,767	7,411	242,877	741

SECOND DISTRICT

BIENNIAL REPORT OF THE
SECOND DISTRICT.

EMBRACING THE FOLLOWING COUNTIES.

MAHASKA,
MARION,
KEOKUK,
DAVIS,
ADAIR,

MONROE (Part)
WAPELLO,
VAN BUREN,
WARREN,
JEFFERSON.

R. T. RHYS, INSPECTOR,
Ottumwa, Iowa.

LETTER OF TRANSMITTAL.

HON. BERYL F. CARROLL, Governor of Iowa:

SIR.—I have the honor to submit herewith my report as Mine Inspector of the Second Inspection District for the biennial period ending June 30, 1910.

Very respectfully,

R. T. RHYS, INSPECTOR.

REPORT OF THE SECOND INSPECTION DISTRICT

The counties composing the second inspection district are the same as reported in the last biennial report ending June 30, 1908, namely: Monroe (part), Mahaska, Wapello, Marion, Keokuk, Van Buren, Davis, Warren, Adair and Jefferson.

There are in the district at the present time 103 mines, employing 2,946 miners, 955 inside laborers, and 386 outside laborers, making a total of 4,327 persons employed in and around the mines of the district.

The coal production of the district for the biennial period ending June 30, 1910, was 4,233,050 tons.

Compared with the biennial period ending June 30, 1908, it shows a decrease in the production of 508,101 tons, and that there are 225 less men employed in and around the mines of the district. The largest decrease occurring in Monroe county, caused principally by the abandonment of large mines by the Consolidation Coal Company in the above said county. The part of Monroe county, included in the second inspection district, has heretofore ranked first in production, but now is exceeded by Mahaska county, and drops to second place.

The production of coal, the number of men employed and the fatal and non-fatal accidents in each county is given elsewhere in this report.

ACCIDENTS.

During the biennial period ending June 30, 1910, there occurred in and around the mines of the district, 22 fatal, and 81 non-fatal accidents, and were due to the following causes:

Accidents Due to	Fatal	Non-Fatal
Fall of slate and coal.....	12	38
Fell down shaft.....	1	1
Fell under or hit by pit car.....	3	20
Suffocated by carbonic oxide gas.....	2	1
Electrical shock.....	1	1
Run over by railroad flat.....	1	1
Caught between motor and roof.....	1	1
Windy shot.....	1	1
Dust explosion.....	1	1
Other causes.....		16
Total.....	22	81

Number of wives made widows, 11.

Number of children left fatherless, 23.

Were this number of men killed in the same mine and at the same time, by falling of slate, dust or gas explosion, or some other catastrophe it would undoubtedly arouse the sympathy of the people of our state, and likely measures would be taken to prevent if possible the occurrence of a like disaster; and also steps taken to help the widows and orphans in their distress. But the above fatalities happened one by one, at different mines and times, more as some one has said "Like the skirmishes of an army rather than like forces engaged in battle." It is not the spectacular catastrophes that account for the greatest loss of life in our mines, but it is the minor accidents, whereby the lives of one, or two are lost each time. People may not have known, or have forgotten the untimely end of these men. Not so with their widows and orphans and "The Old Folks at Home." These bereaved ones should receive from us no less sympathy, or care, than the unfortunate ones who are deprived of their loved ones through an explosion or some other catastrophe. Their loss amounts to the same, and their needs are as great and their battle in life after the bread winner is gone is just as hard with one as with the other. Then why the difference? To my mind there is no question of legislation more important and humane, that our coming state legislature can take up than that of industrial accidents, and to enact an equitable and efficient liability and compensation law that will promptly compensate, without litigation, workingmen for injuries received in the course of their employment.

Ex-President Roosevelt says:

"That there was no sound economical reason for distinction between accidents caused by negligence and those which are unavoidable and that the law should be such that the payments for those accidents would become automatic instead of being a matter of law suit. 'It is neither just, expedient nor humane,' he declared, 'it is revolting to judgment and sentiment alike that the financial burden of accidents should be thrust upon the sufferers who are the least able to bear it.'"

President Taft takes a similar position:

"I am hopeful," he said, "that before many years have passed we shall be able to adopt a system by which there shall be settled promptly on rules specified with the same degree of certainty that they are specified in an insurance policy, how much a man shall receive for an injury—proportionate to the disabling character of the injury."

Many other leading men of our country have expressed similar views that the cost of industrial accidents should be paid neither by employes nor by employers but by the industry. In other words the injury and the loss of life of workingmen should be a part of the natural cost of the undertaking and charged against the business itself, exactly as is done now with worn out or broken machinery. The experience of Great Britain, Germany, Belgium, Denmark, Finland, Italy, Netherlands, Norway, British Columbia, Cape of Good Hope, New Zealand, Queensland, South Australia, and even that of Spain, is an ample demonstration that this principle can be applied to our industrial condition without perceptibly increasing the burden of industry.

In my last report I recommended a more systematic and stringent inspection of the working face, by the mine foreman, or some other competent person, with the view of aiding or compelling the miner to keep his place in a reasonable safe condition. I regret that neither this, or any other suggestion made by the mine inspectors in their last biennial report was adopted. The supervision of the face has been carried on in the same irregular way and the usual heavy list of casualties have taken place, when if a better supervisory method was in vogue, it would in all probabilities reduce the number considerably.

To make the mining of coal absolutely safe is beyond the range of possibility. Accidents will happen under the best of laws, methods and care. There is however a unanimity of opinion that a large number of our mine accidents can be prevented if only reasonable care is exercised. This being true, and there is no room to doubt it, it carries with it the charge that some one is negligent or careless. The operator declares that he is not guilty. That the class of avoidable accidents referred to, were all due to the carelessness of the men themselves. The press of our country has so frequently made similar statements, as an explanation for the cause of some of our mine disasters in other states until many regard them as humorous sayings. That the carelessness of mine workers has been used many times as a cloak to cover the negligence of mine and state officials I have not the least doubt; but be that right or wrong as to the cause of mine fatalities in other states, so far as the mine fatalities of our own state is concerned no one that will give the matter an impartial investigation will deny but what the charges against the miners of Iowa has too much truth in it to be regarded as a

joke. Much as we would like to, we can not get away from the fact, that whoever else may be careless, there are also careless mine workers. If there are operators and mine foremen, and there are some, who are not always as careful as they should be to see that their mines are fully complying with all the requirements of the law, that will take advantage of their position to impose conditions some times that may appear uncalled for; let us not forget that there are also mine workers, who are not always vigilant to observe all the law; that will retaliate for conditions imposed when the opportunity offers itself; that want to do very much as they please, and that will kick against and ignore rules and regulations that were adopted with no other motive in view than that of their protection and safety. These matters should receive the sober thought of every mine worker if he wishes to do his part to reduce the number of mine accidents. He should pause long enough to ascertain whether or not he has allowed evil practices to grow on him, or, whether the strenuousness of making a livelihood by mining coal in these modern days of high prices on the necessities of life, has not carried him little by little beyond the boundary of safety and common sense. I refer particularly to the way some men are using explosives. There has developed among us of late, through the excessive use of explosives, what I shall call, for lack of a better name, an "Explosive miner" whom through his reckless use of explosives is a menace not only to human life and property but to wages as well; for it is evident to me that through his insane method of mining coal, he sets the pace, and compels others to a certain degree, in order to be able to compete with him, to do as he does. The wages of this explosive miner are falsely made, for they are not secured through superior skill in the art of mining, but through reckless daring, at the sacrifice of safety and some times his own life, or, that of his fellow workman.

But the operator in my humble opinion makes a serious error when he deludes himself to believe that he is entirely guiltless of the accidents referred to. Modern conception of the responsibility and the duties of employers of labor, has made his position of holding the miner wholly responsible for the safety of his working place an untenable one. Whether the operator wants to or not, the public is coming to hold him more and more responsible for the life and health of those in his employ. And who but he who employs without restriction in our state, the unexperienced and the careless miner should be responsible for their safety, regardless of what

part of the mine they may be employed, or, the labor they may be performing? Were every mine worker careful and equally capable to take care of his working place, no inspection or supervision by another party, nor, a number of other things would be necessary; and it is this fact that all mine workers are not careful and equally capable to take care of their working places that makes it imperative upon him who employs them, to see that some more experienced and careful person or persons, be designated to watch over those of less experience and careful person or persons, be designated to watch over those of less experience and care, so as to save them from harm or destruction. I am well aware that some mine officials are making efforts along this line, but they are few, and I observe that their inspection has not the regularity nor the force of discipline behind it that it should have. The same is true of their attitude towards drivers. The mine foreman or the boss driver will invariably inform a new driver of the places on his run where he is to sprag the cars, and the number of sprags he should use. To some this instruction given when employed is heeded and is sufficient, but to others it is not, and soon they risk it down steep hills as fast as the mule can run, with few sprags or none at all, and the least mishap means almost instant death. True enough, drivers should not do this, and are certainly guilty of wrong doing to do so, after they have been told not to do it. But are mine foremen and boss drivers doing their full duty simply by telling drivers to us sprags, and that probably not more than once in a very formal way, and then knowingly allow them, day after day to endanger their lives by driving over these places without sprags? For a mine official to notify his employees to do, or not to do certain things, and then allowing them continually to violate his instruction is not enough to prevent accidents; nor, does it in truth free him of being responsible in part for their occurrence. The peace officer in our town would not be doing his full duty, simply by cautioning the auto driver not to drive to exceed the speed limit of the city or state, and then permit him to ride habitually as fast as he could; nor by notifying the people not to violate the law and then allow them continually to do it with impunity, neither is the mine official doing his full duty simply by telling his employees to do or not to do certain things. He is to the mine very much the same as the peace officer is to the community, or the captain is to his ship. When proper notices fail to be effective, then he should firmly and impartially demand obedience to his instructions and to

the rules and regulations of the mine under his charge, and also observe and require obedience to the laws of the state governing mines, so that the lives of the men under his care may be properly protected. To this end, that accidents in our mines may be reduced and lives may be saved, I again respectfully recommend that reasonable discipline be impartially enforced by mine officials and willingly submitted to, by all mine workers, and that the mine foreman, or some other careful and competent person or persons, designated by him, be required to inspect all working parts of the mine, once each day the mine works, or oftener if in his judgment the circumstances require it, and observe carefully the condition of the roof, and timbering, and if need be to instruct the workmen as to the proper method of timbering for the security of the roof, and when a working place becomes unsafe from any cause, he shall order the person or persons working therein to cease mining, or loading, and not to remain in such working place except as may be necessary to make it safe, until the place is made safe.

ESCAPE WAYS.

Recent disasters in mines has very impressively called our attention anew to the necessity of every mine having in convenient places safe ways of escape, and no question of late has, and is giving the inspector greater difficulty to settle than this, especially is this true in extensive mines.

The problem of making a law to insure more and better escape ways that would be just and applicable to all mines is a difficult one. Nature has not blessed our great state with that uniformity of coal veins, depths and stratas that we can deal justly nor wisely by one uniform law to govern this matter. In doing so we are liable to impose too much task on some and not enough on others. What may be easy and feasible in one locality or mine may not be in another, because of the differences in their natural conditions. Our operators and miners recognize these differences in their "Joint Agreement" by dividing the state into four or five districts; each district has as near as possible within its boundary alike natural conditions, and these conditions are taken into consideration when they form a scale of wages for the men employed therein. For similar reasons, natural conditions, such as the depth of the coal from the surface, the character of the strata over-lying it, and also other important things should all be taken into consideration in

making a law to govern the manner and the number of escape ways to be made in the mines of our state.

The average depths of shafts in the second inspection district will probably not exceed ninety feet, and the strata through which they have been put down is not difficult to penetrate. Very nearly the same conditions prevail in a large portion of the first, and part of the third inspection district, and partly because of this favorable natural conditions it gives me great pleasure to report that in the last two years, some of the operators having extensive mines, have constructed more than one escape shaft to their mines. Some mines have two and others have three escape ways besides the hoisting shaft. Not only does this make their mines safer and better ventilated, but they find it also less expensive method than to keep in repair long passages. I take no credit for the existence of some of these escape shafts, for they were the voluntary acts of the operators themselves, and I wish hereby to commend them for their good example; because our law is interpreted as requiring only two openings for each mine or vein of coal worked, and the majority of our mines have only this number. If all our operators and mine officials would show the same spirit and willingness to do better, or more than the law requires of them, where it is evidently weak or inadequate, there would be no just cause to complain along this line, but unfortunately not all of them exhibit such disposition. Some by nature do things, and grant things sparingly, and what they do is seldom done well. They leave things to exist to the extreme limit of endurance, and are moved to make improvements or repairs only when compelled by law to do so, or, when further operation of their mines without them is evidently impossible, even if the law was not enforced against them. I do not wish to be understood as saying that this class of operators have no regard for the safety of their employees, for it would not be truth; but what I wish to say is, that their standard of what a safe and well kept mine should be is much too low. The margin of safety, convenience and comfort they allow in the operation of their mines are too small when we consider that human life and human health are at stake. To make and keep a mine in a reasonably safe and orderly condition, means the expenditure of money, and that this very often has excessive influence in keeping down to a minimum the standard of safety and the good order of our mines no one can deny. The fault however is not always in the lack of spending

money enough, but often in the way it is wasted to patch up old things when their usefulness has long passed, and their safety are seriously questioned. Frequently do we see as much, if not more money, spent in the course of a few months, to keep an old air course, or escape way open (and often this could only be done in a fair passable condition at best) than it would take to make a new escape way in a more convenient place nearer the working face.

But it must be admitted that there are some coalfields in our state where natural conditions are not favorable to the sinking of many shafts in the above manner referred to. It would make the development of some of these coalfields at the present time prohibitive, if many shafts were demanded; because of the depth and the nature of the strata covering the coal. This however is no reason why those parts with favorable conditions, which constitute probably two-thirds of the present working coalfields of the state, should not grant and be required by law to make more than two openings when certain conditions exist. What all these conditions should be and what should be given consideration in deciding whether more than two openings be made in certain mines, is a matter over which there is a difference of opinion. Our law as it is at present takes no cognizance of some things and conditions that I believe it should, and that is demanded today by an awakened public sentiment for the proper protection of human lives in our coal mines. It makes no distinction in the matter of escape way between the little country mine employing only five or six men, and the mine that employs its hundreds; nor between mines extending only a few yards from a way of escape and mines a mile or more from it; and I beg to differ with those who claim that the distance of the working face from a place of escape is immaterial and should not be considered. I sincerely believe that the distance that men are required to work from a place of safety or escape, the number of men employed in the mine, as well as some considerate thought for their convenience and comfort should be recognized by our law as factors in deciding the number of escape ways necessary to a mine. Proper convenience rightly used is an added safety, and it is more than any operator should ask, or expect, for men to work contentedly when they are a great distance away from an escape way, and the way leading to it very often low and in poor condition, when they know that probably not more than sixty or seventy-five feet of cover is on the coal, and that a shaft can easily

be put down that would add safety and convenience to all concerned.

We find that our present law governing the ventilation of our mines, prescribes that in no case shall the air current be a greater distance than sixty feet from the working face, except in entries, in that case the distance shall not be greater than seventy feet without a written permission of the mine inspector of the district to go beyond the limit named. If the law deems it necessary in order to protect the miner's health, to place limitation over which he shall not go beyond without proper ventilation, can it not as well, and is it not more necessary and of greater importance, for it to place limitations beyond which no man shall risk his life without a safe way of escape? In saying this I do not wish to be understood as advocating the putting down of escape shafts strictly every so many yards, or something of that sort, regardless of condition or circumstances; but I do mean to say that I believe the state, through its inspectors, should have some say so, as to how far any coal mine, be it shallow or deep, shall be developed beyond the place of escape for the men employed therein. The state should have power of supervision and the same right to fix limitations for escape ways as it has now for ventilation and break-throughs.

Necessary as escape ways are to a mine, it is well for both operators and miners to remember, that the safety of men should not be left entirely to the efficiency of one or two escape ways. Greater care should be exercised to arrange the mine, both below and on the surface, for the safety of lives. Better fire proof top works and buildings should be erected, and these so placed as far as is practical, so that one would not endanger the other in case of fire. With an improvement along this line, as well as better kept traveling ways leading to the escape ways, the demand nor the need of more escape ways would not be so great.

TELEPHONES.

I wish to commend those operators that have installed telephones in their mines, and to recommend that those who have not, operating mines of similar size, be required to do so; so that in case of danger, men could be notified at once and be able to get out of the mine in the least possible time, or in case of injury to any of the men below, physicians and aid could be hurried to the place, or be in readiness on the surface. Promptness has often prevented ser-

ious results, and our mine operators should not withhold from our mines such swift and useful invention as telephones. Our coal mines need them and are entitled to them, as much as our homes and offices. Every device that can be put into practical use should be adopted for the protection of human lives, and the installation of telephones in our mines has proved very efficient and a great saving in more ways than one, and had the scene of a mine disaster a few months ago, been equipped with mine phones, it is reasonable to presume that many lives would have been saved.

Other important additions and changes are needed in our mining law in order to keep up with the progress of mining, to better protect the lives and property, and to render the service of the mine inspector more efficient to the state and the coal industry, such as:

(1) The prohibition, or the regulation of gasoline engines and gasoline oil in mines.

(2) The admitting of acetylene lamps, with certain regulations, as lawful lights in coal mines.

(3) That the state oil inspectors be required to enter the different coal mines of the state frequently, to inspect the oil used in them for illuminating purposes.

(4) The prohibition of thawing dynamite in the mine by any person while men are at work in the mine.

(5) The location, the material to be used in constructing, and the equipment of underground stables, be subject to the approval of the inspector before their installation.

(6) The places where road grades necessitates sprags or brakes to be applied or removed, should have a clear level width of not less than two and one-half feet between the side of the car and the rib or timber, to allow the driver to pass his trip safely and keep clear of the cars at such places.

(7) The maps of mines to be made by competent surveyors, and to have the certificate of the person making the survey acknowledged before notary public or justice of the peace, that the map is correct and showing the information required by law; sworn also by the mine foreman of the mine at the time the survey was made, that to the best of his knowledge and belief, the map correctly represents the excavation of the mine for the period named. And within thirty (30) days after it is made, a true copy or blue print of such map should be delivered by the operator, to the inspector

of the district, and of every survey and extension made thereafter; said copies to be the property of the state.

(8) The abolishing of swinging doors from haulage roads and main air courses in mines.

(9) The manner and the material used in the construction of air stoppings to be subject to the approval of the inspector.

(10) The number of men allowed to work on the same continuous current of air or split, to be not over eighty (80) without the written permission of the inspector.

(11) That every mine operator employing twenty (20) or more persons, be required to procure a standard make anemometer, and the same kept at the mine for the use of the mine foreman or his assistant, so that he or his assistant can, and also to be his duty to correctly determine the quantity of air in circulation in different parts of the mine, and make a written record of the measurements, at least twice a month in a book especially for that purpose.

(12) The duties, powers and responsibilities of mine superintendents, mine foremen and mine engineers should be defined by law.

These and other measures that could be named are some of our present needs.

In conclusion, permit me to say, that our state may not be able to truly boast of its many rich veins of coal, or in the number of great mines, or in its total production of coal; nor have we reached that point yet, where the miner receives all that he deserves, nor as much as our operators would willingly grant, and will grant when conditions permit it; yet with all our short comings, I doubt if there is a state in the union, where mining life is on a higher plane, or as high; where the miner enjoys greater freedom; where his rights are better recognized and respected; or where more friendly feeling and equality exist between operators and miners than in our own beloved state. This respect for one another's rights among our people, and the sincere interest you have always taken in the safety and the welfare of our miners, and the many courtesies you have extended this department, is sufficient guarantee that our state will continue to lead in making her mines the safest, and her miners the most intelligent, prosperous and happiest in all the land.

FATAL ACCIDENTS IN DISTRICT NO. 2, FOR TWO YEARS ENDING JUNE 30, 1910.

Date	Name of Deceased	Occupation	Cause of Death	Employed by	County
1908					
August	21 Fred Bunn	Miner	Fall of slate	J. P. Boggs Coal Co.	Mahaska
October	5 Andrew Hornick	Driver	Fell under loaded car.	Garfield Coal Co., No. 4	Mahaska
October	23 John E. Swanson	Timberman	Fall of slate	Consolidation Coal Co., No. 10	Monroe
November	4 Frank York	Miner	Fall of slate	Wm. McIntosh Coal Co.	Wapello
December	16 George Gasper	Dayman	Fell down escape shaft	Consolidation Coal Co., No. 15	Monroe
1909					
February	16 Edward Darnall	Miner	Electric shock	Consolidation Coal Co., No. 12	Monroe
May	23 Burrell Johnson	Rockbreaker	Fall of slate	English Creek Coal Co.	Marion
June	19 Guy Dottson	Snaker	Suffocated by gas.	Siemon Coal Co.	Van Buren
June	10 Harry Biggs	Snaker	Suffocated by gas.	Siemon Coal Co.	Van Buren
July	7 Clyde Spears	Miner	Fall of slate	Phillips Fuel Co., No. 5	Wapello
July	23 Edward Perry	Miner	Fall of slate	Atwood Coal Co.	Mahaska
July	23 Thomas Clemens	Miner	Fall of slate	Clemens Bros. Coal Co.	Mahaska
August	18 Robert Moore	Driver	Run over by loaded mine car	Consolidation Coal Co., No. 14	Mahaska
August	27 George Graves	Miner	Fall of slate	Consolidation Coal Co., No. 12	Monroe
August	31 W. H. McCullen	Top boss	Run over by loaded railroad flat	Consolidation Coal Co., No. 12	Monroe
September	27 Dominick Patkins	Miner	Fall of slate	Phillips Fuel Co., No. 8	Wapello
1910					
January	3 Edward Holman	Miner	Fall of slate	English Creek Coal Co.	Marion
January	10 Bert Messer	Motorman	Fall of slate	Consolidation Coal Co., No. 12	Monroe
January	22 Frank Coleman	Motor trailer	Caught between motor and roof	Consolidation Coal Co., No. 15	Monroe
February	25 W. H. Smith	Shot firer	Windy shot	Consolidation Coal Co., No. 15	Monroe
March	28 Wm. Paulks	Driver	Fell under mine car.	Mammoth Vein Coal Co., No. 11-A	Marion
December	1909 Dan Pearsol	Miner	Fall of slate	Green Ridge Coal Co., No. 2	Mahaska

NON-FATAL ACCIDENTS IN DISTRICT NO. 2, FOR TWO YEARS ENDING JUNE 30, 1910.

Date	Name	Occupation	Cause of Accident	Character of Injury	Employed by	County
1908						
July	29 Jas. Heathcote	Miner	Fall of slate	Broken ribs and back injured	Rex Fuel Co., No. 1	Mahaska
August	1 Wm. Baker	Miner	Fall of slate	Broken jaw	Crescent Coal Co., No. 5	Mahaska
August	5 Wm. Daniels	Miner	Fall of slate	Broken leg	Phillips Fuel Co., No. 5	Wapello
August	13 Silas Hittle	Miner	Fall of slate	Back, head and face injured	Bremen & Snider	Marion
August	20 Jas. White	Driver	Run over by loaded car	Two ribs cracked	Crescent Coal Co., No. 5	Mahaska
September	1 Chas. Logan	Driver	Fall of slate	Leg broken	Green Ridge Coal Co., No. 1	Mahaska
September	24 Jos. Yates	Miner	Spark from lamp to keg of powder	Face, chest and arms burnt	Central Coal Co., No. 3	Monroe
October	6 Mon White	Rockbreaker	Piece of rock	Hit in the eye	Crescent Coal Co., No. 2	Monroe
October	3 W. E. Owen	Miner	Fell off tail chain	Broken leg	Central Coal Co., No. 2	Monroe
October	24 Charles Ruggles	Powderman	Keq of powder exploded	Head, arms and chest burned	Consolidation Coal Co., No. 12	Monroe
October	27 Thos. Rudge	Miner	Fall of slate	Back and shoulders injured	Phillips Fuel Co., No. 5	Wapello
October	29 Joe Garrett	Driver	Car jumped track	Foot mashed	Consolidation Coal Co., No. 14	Mahaska
November	9 Wm. Henry	Cagehelper	Piece of coal fell down shaft	Broken arm	Consolidated Coal Co., No. 12	Monroe
November	13 John Lewis	Driver	Fell under car.	Pelvis bone broken	Green Ridge Coal Co., No. 1	Mahaska
November	28 Evan Stafford	Driver	Fell under car.	Leg broken	Bolton-Hoover Coal Co., No. 2	Mahaska
November	Ellis Brown	Driver	Fall of slate	Broken arm	Crickett Coal Co.	Mahaska
December	31 Grant Dye	Miner	Fall of slate	Hips crushed	Garfield Coal Co.	Mahaska
December	Thos. Holdsworth	Dayman	Hit by car	Leg broken	Crickett Coal Co.	Mahaska
1909						
January	11 Lewis Moon	Trailer after motor	Hit by empty car.	Leg broken in two places	Consolidation Coal Co., No. 12	Monroe
January	16 Thos. Llewellan	Driver	Fall of slate	Back bruised	Crawford Coal Co.	Mahaska
January	23 J. T. Jones	Driver	Fell off tail chain	Dislocated ankle	Mamth Vein Coal Co., No. 5	Marion
February	10 Geo. Bridges	Shot firer	Kerosine lamp exploded	Burned face and hands	Consolidation Coal Co., No. 14	Mahaska

NON-FATAL ACCIDENTS IN DISTRICT NO. 2, FOR TWO YEARS ENDING JUNE 30, 1910.—Continued.

Date	Name	Occupation	Cause of Accident	Character of Injury	Employed by	County
February	10 Robert Wade	Shot firer	Kerosine lamp exploded	Burned hands and face	Consolidation Coal Co., No. 14	Mahaska
February	24 Jas. Struth	Miner	Fall of coal	Arm injured	Evland Coal Co., No. 6	Mahaska
March	3 Jas. Highbarger	Driver	Caught between cars	End of finger cut off	Phillips Fuel Co., No. 5	Wapello
March	10 Chas. Jones	Cager	Coal fell down shaft	End of finger cut off	Crawford Coal Co.	Mahaska
March	14 Scott Mitchell	Miner	Fall of coal	Hip and three ribs broken	English Creek Coal Co.	Marion
March	21 A. Swan	Miner	Fall of slate	Back injured	Amos Gray Coal Co.	Mahaska
March	22 Ed Vance	Coupler	Caught between cars	Fingers mashed	Consolidation Coal Co.	Monroe
April	15 J. B. Lewis	Motorman	Caught between motor	Hand injured	Consolidation Coal Co., No. 10	Monroe
April	29 Jas. Williams	Driver	Caught between car and rib			
May	7 Peter Grevetts	Driver	Caught under car	Mashed hand	Crescent Coal Co., No. 5	Mahaska
June	3 John Smith	Miner	Fall of slate	Broken leg	Crickett Coal Co.	Mahaska
June	6 Fred H. Dillard	Track helper	Fall of slate	Broken leg	Consolidation Coal Co., No. 14	Mahaska
June	15 Geo. Storey	Timberman	Fall of slate	Sprained back	Mammoth Vein Coal Co.	Marion
June	17 G. N. Chocklette	Driver	Caught between cars	Leg broken	Crickett Coal Co.	Mahaska
June	29 M. B. Gilmore	Miner	Fall of slate	Back bruised and jaw and nose broken	Crescent Coal Co., No. 5	Mahaska
July	2 Carl Dial	Trapper	Caught between cars	Leg cut	Crescent Coal Co., No. 10	Monroe
July	17 Geo. Skelton	Driver	Fall of slate	Leg broken	Consolidation Coal Co., No. 10	Monroe
July	17 Andrew Bell	Driver	Falling timber	Leg broken	Crescent Coal Co., No. 5	Mahaska
August	19 Jas. Drury	Trailer	Failed to set brake on motor	Leg broke and bruised	Consolidation Coal Co., No. 15	Monroe
August	24 Wm. Williams	Topman	Removing car from cage	Finger cut off	Consolidation Coal Co., No. 12	Monroe
August	24 John Sneddon	Miner	Fall of slate	Cracked two ribs	Crescent Coal Co., No. 5	Mahaska
September	23 Joe Baines	Miner	Fall of slate	Collar bone broken	Phillips Fuel Co.	Wapello
September	23 Jake Brown	Motorman	Gasoline oil ignited	Burnt hands and face	Consolidation Coal Co., No. 12	Wapello
September	23 John Davis	Miner	Fall of slate	Broken arm and back	Consolidation Coal Co., No. 14	Mahaska
October	7 Frank Cervac	Miner	Fall of slate	Sprained hip	Crescent Coal Co., No. 6	Monroe
October	13 Jas. Mitchell	Slate man	Fall of slate	Broken leg	English Creek Coal Co.	Marion
November	3 Alex Simpson	Miner	Fall of slate	Broken leg	Consolidation Coal Co., No. 10	Monroe
November	9 Nick Koopman	Driver	Fell in front of car	Hips injured	English Creek Coal Co.	Marion
November	22 Fred Clark	Driver	Fell off chain tail	Badly bruised	Green Ridge Coal Co.	Mahaska
November	26 Sam Magandola	Miner	Fall of slate	Back injured	Phillips Fuel Co., No. 5	Wapello
November	27 Ralph Looney	Miner	Fall of slate	Back injured	Garfield Coal Co.	Mahaska
November	28 Oliver Earris	Miner	Run over by car	Right leg broken	Consolidation Coal Co., No. 14	Mahaska
December	3 Joe Bannister	Driver	Fell off tail chain	Leg broken	Consolidation Coal Co., No. 6	Mahaska
December	3 Robert Ingalls	Coupler	Caught between cars	Finger cut off	Consolidation Coal Co., No. 12	Monroe
December	4 A. C. Hurst, Jr.	Trapper	Caught between cars	Right hand mashed	Consolidation Coal Co., No. 14	Mahaska
December	14 Erastus Reed	Pumper	Caught by pump engine	Mashed hand	Crescent Coal Co., No. 5	Mahaska
1910						
January	4 Bert Yohe	Chunker	Coal from chute	Mashed hand	Crescent Coal Co., No. 6	Monroe
January	6 George Sinks	Shot firer	Dust explosion	Burned hands, face and body	Central Coal Co., No. 3	Monroe
January	10 Henry Shrader	Miner	Fall of slate	Back injured	Phillips Fuel Co.	Wapello
January	11 Earl Owens	Miner	Fall of slate	Dislocation of knee cap	Phillips Fuel Co.	Wapello
January	16 Steve Bowen	Driver	Kicked by mule	Ribs fractured and jaw cut	Phillips Fuel Co.	Wapello
January	19 Clyde Borres	Miner	Fall of slate	Back injured	Crescent Coal Co., No. 6	Monroe
January	29 Oskar Ek	Miner	Fall of slate	Thumb mashed	Phillips Fuel Co.	Wapello
February	1 Carl Nelson	Miner	Fall of coal	Injured on head	Crescent Coal Co., No. 5	Mahaska
February	10 Tony Oberts	Miner	Fall of slate	Back injured	Phillips Fuel Co.	Wapello
February	18 Otto Adament	Miner	Fall of slate	Back and hip injured	Beacon Coal & Mining Co.	Mahaska
February	18 Wm. Ademant	Miner	Fall of slate	Side and arm injured	Beacon Coal & Mining Co.	Mahaska
March	4 John D. Toigs	Miner	Fall of slate	Bad scalp wound	Crickett Coal Co.	Mahaska
March	Walker Byers	Driver	Fell from tail chain	Dislocated hip	Green Ridge Coal Co.	Mahaska
May	25 Ole Larson	Miner	Fall of slate	Bruised back	Rex Fuel Co.	Mahaska
May	26 Harry Sesok	Miner	Fall of slate	Fractured ankle	Crescent Coal Co., No. 6	Mahaska
May	Paul Jourivick	Miner	Fall of slate	Back injured	Green Ridge Coal Co.	Mahaska
June	10 Wm. Jones	Driver	Run away car	Bruised body and leg	Consolidation Coal Co., No. 15	Monroe
June	17 Lewis R. Nolan	Coupler	Caught between cars	Finger cut off	Consolidation Coal Co., No. 15	Monroe
June	18 Ed Long	Timberman	Caught between car and rib	Fractured ankle	Empire Mining Co.	Marion
June	24 John Masal	Miner	Fall of slate	Leg broken	Beacon Coal & Mining Co.	Mahaska
June	26 Leo Sternmole	Timberman	Fall of slate	Crushed fingers	Crescent Coal Co., No. 6	Monroe
June	29 John Taylor	Driver	Run over by car	Back strained and hip cut	Crescent Coal Co., No. 6	Monroe
June	29 T. Wilson	Miner	Fall of slate	Broken and dislocated ankle	Rex Fuel Co.	Mahaska

MONROE COUNTY (Part).

There are nine mines at present in operation in the part of the county belonging to the second inspection district, and their total production in the last biennial period ending June 30, 1910, was 1,401,850 tons, and gave on an average employment to 1,372 men.

The Consolidation Coal Company No. 15, and the Crescent Coal Company No. 6, are the only new shipping mines opened in this part of the county since the last report was issued. One shipping mine and three local mines were abandoned in the same period.

The mines of the county operated on an average 237 days in the year ending June 30, 1909, and 236 days in the year ending June 30, 1910.

Three fatal accidents occurred in and around the mines of this county belonging to this district, during the year ending June 30, 1909, and five fatal accidents during the year ending June 30, 1910. In the first year 229,585 tons, and in the second year 142,618 tons of coal were produced for every life lost. One life was lost for every 376 persons employed in the first year and one life lost for every 283 persons employed in the second year.

The principal mines are operated by the Consolidation Coal Company. This company was organized in 1875, with headquarters at Muchakinoek, in Mahaska county, and was reorganized under the present ownership in 1881, with headquarters at Buxton, in Monroe county. The town of Buxton has a population of nearly five thousand people, chiefly colored. It is by far the largest mining town in the state, and possesses good homes, schools, churches and \$20,000 Y. M. C. A. building. The miners are taken to and from the mines in special trains. The company operates three mines in the county, Number 10, 12 and 15. Number 10 mine, will soon be abandoned. It was commenced in the year 1900, and had a basin of coal to mine of about six hundred and forty acres. Number 16 mine, which is northwest of No. 10, is now under construction. The vein of coal in the above mines varies in thickness from four to seven feet, and is reached in No. 10 shaft at a depth of 100 feet; in No. 12 shaft at 182 feet and in No. 15 shaft at 189 feet. Creditable efforts are made to make the mines safe. Number 12 mine has three available escape shafts besides the main hoisting shaft, and number 15 mine will soon have two. The tipples are all of steel and the equipment on top and bottom are of the best.

West and little north of Mine No. 12 of the Consolidation Coal Company is the Fraker mine, and also the Crescent Coal Company mine No. 6. The former mine will soon be abandoned, but the latter is a new mine, built and equipped very substantially.

The Central Coal Company operates two mines at Lockman. Both mines are slopes. Their No. 3 mine is one of the best constructed slopes in the district and it is their principal mine.

The Coalfield Fuel Company are now operating what was formerly called the Granger mine, at Coalfield. The recent improvements made by this company to this mine has made it to yield double its former capacity. This mine and also those of the Central Coal Company are located on the Iowa Central Railway.

MAHASKA COUNTY.

This county ranks first in the district in the production of coal for the biennial period ending June 30, 1910. The total production for the said period was 1,741,062 tons. This output came from 30 mines and gave employment on an average to 1,738 men.

One of the principal new mines opened in this county in the last two years is the Rex Fuel Company No. 2, at Durfee. Seldom do we see in this state a better basin of coal than the one they now work in this mine. It ranges in thickness from five feet to eight feet. Of good quality and reasonably free from impurities.

The Green Ridge Coal Company, Lakonta, bought the Greenholph Bros. slope and have developed it into a large shipping mine. It is now the principal mine of this company.

The Lakonta Coal Company has opened a new slope about one mile southwest of Laconta. It has a very promising future of producing much coal.

The Beacon Coal and Mining Co. have a new slope on Garfield Coal Co. mine No. 3, switch at Beacon. Most of the work so far has been pillar work of adjoining abandoned mines; but it is expected that the main entries will soon be in several acres of solid coal.

The shipping mines of the county were operated on an average 228 days and the local mines 155 days in the year ending June 30, 1909, and 233 and 165 days respectively in the year ending June 30, 1910.

The number of fatal accidents in the county in the year ending June 30, 1909, were 3, and 3 in the year ending June 30, 1910. For every life lost 277,548 tons were produced in the first year

and 302,472 in the second year. One life was lost for every 618 persons employed in the first year and one for every 540 in the second year.

MARION COUNTY.

Not much change in the coal industry of this county has taken place since the last report was issued.

The principal shipping mines are the English Creek Coal Co., The Empire Mining Co., The Harvey Coal Co., and the Fairview Coal Co.

The Empire Mining Co., succeeding the Mammoth Vein Coal Co. at Everist, are preparing to make a new slope, north of their Mine No. 5. New tippie will be built on No. 5 mine switch, and the coal hauled with electric motor over the surface to the same. Important improvements are also contemplated at No. 11 mine, when II-A, will make underground connection with the same.

The Harvey Coal Co., has opened a new slope about one and one half mile southwest of Harvey, and the coal is hauled over a tramway to the C. B. & Q. Ry. The coal is of good quality and the mine will employ this coming winter about twenty five or thirty men.

Fairview Coal Co., has a new shaft about two miles south of Runnels, on the Wabash Railway. The coal is about three and one half feet thick. It is expected however that as the mine extends more under the hill and away from the crop, the coal will be thicker and dryer.

The English Creek Coal Co., is on a branch switch of the C. R. I. Ry., about two and one half miles east of Knoxville, and it ranks among the principal mines of the county.

The shipping mines worked on an average 218 days and the local mines 184 days for the year ending June 30, 1909, and 215 and 175 respectively in the year ending June 30, 1910.

One fatal accident occurred in the mines of the county for the year ending June 30, 1909, and two for the year ending June 30, 1910.

For every life lost 292,607 tons were produced in the first year and 134,528 tons in the second year. One life was lost for every 667 persons employed in the first year and one for every 297 persons in the second year.

The total production of the county for the biennial period ending June 30, 1910, was 561,663 tons.

WAPELLO COUNTY.

The total production of this county for the two years ending June 30, 1910, was 447,718 tons. This is 70,052 tons less than were produced in the preceeding two years.

Mines No. 8 and 9 at Bear Creek, owned by Phillips Fuel Co., of Ottumwa, are the only new mines of importance opened in this county in the last two years. Underground connections were made between the above two mines some months ago and now No. 8 has been abandoned and all the coal is hoisted through shaft No. 9. This mine at present is producing a large tonnage and has a promising future. Mine No. 5 at Rutledge, owned by the same company, has been a very productive mine and gave employment to a large number of men. It is now however extensively developed and will soon exhaust the basin of coal within reach of the present shaft.

The Anchor Coal Co., mine No. 2 is located at Laddsdale, on the C. R. I. Ry. Two separate veins of coal are worked in this mine. What is called the middle vein is reached at a depth of about 68 feet and what is called the third vein is about 12 feet below it. The veins range from 3 to 5½ feet in thickness. The coal produced in this mine is acknowledged to be one of the best in the state.

The shipping mines worked on an average 291 days and the local mines 183 days, for the year ending June 30, 1909, and 251 and 190 respectively in the year ending June 30, 1910.

One fatal accident occurred in the mines of the county for the year ending June 30, 1909, and two for the year ending June 30, 1910.

For every life lost 222,987 tons were produced in the first year and 112,365 tons were produced in the second.

One life was lost for every 500 persons employed in the first year and one for every 276 persons employed in the second year.

There are twenty three mines in operation in the county which give employment on an average to 553 persons.

Keokuk, Jefferson, Davis, Van Buren, Warren and Adair counties, have no mines with railroad connections. They are all local mines and the majority of them are very simply equipped with mule haulage and gin hoist. The coal beds in some of these counties are pockety and too local in extent and the market too limited to warrant much expenditure of labor or capital. They do however lucrative business and employ many men in the fall and winter and altogether produce a large amount of coal.

LIST OF COMPANIES, SUPERINTENDENTS, ETC., IN SECOND DISTRICT.

MAHASKA COUNTY.

Name of Company	Superintendent	Postoffice Address	Shaft or Slope	Plan of Working	How Ventilated	Power Used	Shipping or Local
Bolton-Hoover Coal Co., No. 2	John Canty	Oskaloosa	Slope	Room and pillar	Fan	Steam	Shipping
West End Coal Co.	W. P. Shoemaker	Oskaloosa	Shaft	Room and pillar	Fan	Steam	Local
Garfield Coal Co., No. 3	John H. Ramsay	Oskaloosa	Slope	Room and pillar	Fan	Steam	Shipping
Garfield Coal Co., No. 4	John H. Ramsay	Oskaloosa	Shaft	Room and pillar	Fan	Steam	Local
David Lewis & Sons	David Lewis	Beacon	Slope	Room and pillar	Furnace	Horse	Local
Levi Wassenschovne Coal Co.	Levi Wassenschovne	Beacon	Shaft	Room and pillar	Fan	Horse	Local
Barrowman & Oakley Coal Co.	R. R. Barrowman	Oskaloosa	Shaft	Room and pillar	Fan	Horse	Local
Crescent Coal Co., No. 5	W. S. White	Oskaloosa	Shaft	Room and pillar	Fan	Steam	Shipping
Rex Fuel Co.	W. W. Spencer	Busey	Shaft	Room and pillar	Fan	Steam	Shipping
Rogers Coal & Mining Co.	J. N. Ball	Olivet	Shaft	Room and pillar	Fan	Steam	Shipping
Charles Feaster Coal Co.	Charles Feaster	Roschill	Shaft	Room and pillar	Furnace	Horse	Local
Phillips & Hull Coal Co.	Dan Phillips	Beacon	Slope	Room and pillar	Furnace	Horse	Local
Atwood Coal Co.	Alex Walker	What Cheer	Shaft	Room and pillar	Fan	Steam	Shipping
Eveland Coal Co.	John Price	Eveland	Shaft	Room and pillar	Fan	Steam	Shipping
Western Fuel Co.	G. E. Fraker	Oskaloosa	Slope	Room and pillar	Fan	Steam	Shipping
Hamilton Coal Co.	Amos Gray	Oskaloosa	Slope	Room and pillar	Fan	Steam	Shipping
Amos Gray Coal Co.	Amos Gray	Eldonville	Slope	Room and pillar	Grate	Horse	Local
Clement & Hartshorn Coal Co.	Wm. Hartshorn	Beacon	Shaft	Room and pillar	Furnace	Horse	Local
Jas. Studham Coal Co.	Jas. Studham	New Sharon	Shaft	Room and pillar	Furnace	Horse	Local
Crawford Coal Co., No. 1	John Cruickshank	Beacon	Shaft	Room and pillar	Fan	Steam	Shipping
Crawford Coal Co., No. 2	John Cruickshank	Beacon	Shaft	Room and pillar	Fan	Steam	Shipping
Crickett Coal Co.	J. G. Harrold	Crickett	Shaft	Room and pillar	Fan	Steam	Shipping
Beacon Coal & Mining Co.	W. F. Phillips	Oskaloosa	Slope	Room and pillar	Fan	Steam	Shipping
Green Ridge Coal Co., No. 1	J. M. Timbrell	Laconta	Shaft	Room and pillar	Fan	Steam	Shipping
Green Ridge Coal Co., No. 2	J. M. Timbrell	Laconta	Slope	Room and pillar	Fan	Steam	Shipping
Laconta Coal & Mining Co.	G. E. Fraker	Laconta	Slope	Room and pillar	Fan	Steam	Shipping
Consolidation Coal Co., No. 14	E. M. Baysoar	Buxton	Shaft	Room and pillar	Fan	Steam	Shipping
Evans Bros. Coal Co.	Dave Evans	Given	Shaft	Room and pillar	Furnace	Horse	Local
Malcor & Evans	Clement Malcor	Given	Shaft	Room and pillar	Furnace	Horse	Local
Smith Bros. Coal Co.	Frank Smith	Eveland	Slope	Room and pillar	Furnace	Horse	Local
McDaniel & Deeringer Coal Co.	Frank Smith	Beacon	Slope	Room and pillar	Furnace	Horse	Local
Williams Bros. Coal Co.	E. F. Williams	New Sharon	Shaft	Room and pillar	Furnace	Steam	Local
Jas. P. Boggs Coal Co.	Jas. P. Boggs	Given	Slope	Room and pillar	Furnace	Horse	Local

MONROE COUNTY.

Consolidation Coal Co., No. 10	E. M. Baysoar	Buxton	Shaft	Room and pillar	Fan	Steam	Shipping
Consolidation Coal Co., No. 12	E. M. Baysoar	Buxton	Shaft	Room and pillar	Fan	Steam	Shipping
Consolidation Coal Co., No. 15	E. M. Baysoar	Buxton	Shaft	Room and pillar	Fan	Steam	Shipping
Regal Coal Co.	G. E. Fraker	Oskaloosa	Shaft	Room and pillar	Fan	Steam	Shipping
Central Coal Co., No. 2	T. L. Evans	Lockman	Slope	Room and pillar	Furnace	Steam	Shipping
Central Coal Co., No. 3	T. L. Evans	Lockman	Slope	Room and pillar	Furnace	Steam	Shipping
Coalfield Fuel Co.	Chas. Bloomfield	Coalfield	Slope	Room and pillar	Furnace	Steam	Shipping
Abram Hillabide Coal Co.	Abram Hillabide	Eddyville	Slope	Room and pillar	Furnace	Horse	Local
Crescent Coal Co.	W. S. White	Oskaloosa	Shaft	Room and pillar	Fan	Steam	Shipping

KEOKUK COUNTY.

Armstrong Bros. Coal Co.	Thos. Armstrong	What Cheer	Shaft	Room and pillar	Furnace	Horse	Local
Lee Brother Coal Co.	James Lee	What Cheer	Shaft	Room and pillar	Furnace	Steam	Local
Maxwell Coal Co.	Robt. Maxwell	What Cheer	Shaft	Room and pillar	Jet	Horse	Local
Carson Bros. Coal Co.	Thos. Carson	What Cheer	Shaft	Room and pillar	Furnace	Horse	Local
What Cheer Coal Co.	Jas. A. Cowan	What Cheer	Shaft	Room and pillar	Grate	Horse	Local

WAPELLO COUNTY.

Wm. Dempster	Wm. Dempster	Ottumwa	Shaft	Room and pillar	Furnace	Horse	Local
Standard Coal Co.	Joe Hyde	Ottumwa	Shaft	Room and pillar	Fan	Steam	Local
Ottumwa Brick & Construction Co.	Thomas Williams	Ottumwa	Shaft	Room and pillar	Fan	Steam	Shipping
Anchor Coal Co.	W. R. Daun	Ottumwa	Shaft	Room and pillar	Fan	Steam	Shipping
Star Coal Co.	E. Jones	Ottumwa	Slope	Room and pillar	Fan	Steam	Local
Phillips Fuel Co., No. 5	E. J. Erskine	Rutledge	Shaft	Room and pillar	Fan	Steam	Shipping
Phillips Fuel Co., No. 8	E. J. Erskine	Rutledge	Shaft	Room and pillar	Fan	Steam	Shipping
Phillips Fuel Co., No. 9	E. J. Erskine	Rutledge	Shaft	Room and pillar	Fan	Steam	Shipping
Trio Coal Co.	Howell Price	Ottumwa	Shaft	Room and pillar	Fan	Steam	Local
J. J. Halton Coal Co.	J. J. Halton	Ottumwa	Shaft	Room and pillar	Fan	Horse	Local
Brown Bros. Coal Co.	Charles Brown	Ottumwa	Shaft	Room and pillar	Fan	Steam	Local
Geo. Ryerson Coal Co.	Geo. Ryerson	Kirkville	Shaft	Room and pillar	Furnace	Horse	Local
Geo. Knight Coal Co.	Geo. Knight	Ottumwa	Shaft	Room and pillar	Furnace	Horse	Local
J. M. Sicles Coal Co.	J. M. Sicles	Eldon	Shaft	Room and pillar	Furnace	Horse	Local
Wm. McIntosh Coal Co.	Wm. McIntosh	Eldon	Shaft	Room and pillar	Furnace	Horse	Local
W. A. Goodwin Coal Co.	W. A. Goodwin	Eldon	Shaft	Room and pillar	Furnace	Horse	Local
John Kelly & Sons	John Kelly	Kirkville	Shaft	Room and pillar	Furnace	Horse	Local
James Newell Coal Co.	James Newell	Blakesburg	Shaft	Room and pillar	Furnace	Steam	Local

LIST OF COMPANIES, SUPERINTENDENTS, ETC., IN SECOND DISTRICT—CONTINUED.

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WAPELO COUNTY—CONTINUED.

Name of Company	Superintendent	Postoffice Address	Shaft or Slope	Plan of Working	How Ventilated	Power Used	Shipping or Local
T. W. Jones & Sons Coal Co.	T. W. Jones	Ottumwa	Shaft	Room and pillar	Fan	Horse	Local
H. E. Ruhe Coal Co.	H. E. Ruhe	Ottumwa	Slope	Long wall	Furnace	Horse	Local
Edward Gullick Coal Co.	Edward Gullick	Kirkville	Slope	Room and pillar	Furnace	Horse	Local
O'Neil Coal Co.	J. O'Neil	Kirkville	Slope	Room and pillar	Furnace	Horse	Local

MARION COUNTY.

English Creek Coal Co.	John H. Ramsay	Oskaloosa	Shaft	Room and pillar	Fan	Steam	Shipping
Empire Mining Co., No. 11	J. E. Anderson	Everist	Slope	Room and pillar	Furnace	Electric	Shipping
Empire Mining Co., No. 5	J. E. Anderson	Everist	Shaft	Room and pillar	Fan	Steam & Electric	Shipping
Empire Mining Co., No. 11-A	J. E. Anderson	Everist	Slope	Room and pillar	Furnace	Electric	Shipping
Fairview Coal Co.	Runnells	Runnells	Shaft	Room and pillar	Jet	Steam	Shipping
Harvey Coal Co.	Phillip Bishop	Harvey	Slope	Room and pillar	Furnace	Horse	Local
Dolph Coal Co.	R. C. Dolph	Pella	Shaft	Room and pillar	Fan	Steam	Local
Long & Sons Coal Co.	M. M. Long	Everist	Slope	Room and pillar	Furnace	Horse	Shipping
Jas. Staley Coal Co.	Jas. Staley	Harvey	Shaft	Room and pillar	Furnace	Horse	Local
Wm. Miller Coal Co.	Wm. Miller	Knoxville	Slope	Room and pillar	Furnace	Horse	Local
Bleischmidt Bros. Coal Co.	Chas. Bleischmidt	Bussey	Shaft	Room and pillar	Furnace	Horse	Local
Pella Coal & Land Co.	J. B. Vreeelaar	Pella	Slope	Room and pillar	Fan	Horse	Local
Youkon Coal Co.	J. B. Vreeelaar	Otley	Slope	Room and pillar	Furnace	Horse	Local
Lone Star Coal Co.	J. L. Rickabaugh	Otley	Slope	Room and pillar	Furnace	Horse	Local

VAN BUREN COUNTY.

H. Findley & Son Coal Co.	H. Findley	D'ds-Leando.	Shaft	Room and pillar	Furnace	Horse	Shipping
Ratcliff Coal Co.	H. L. Ratcliffe	D'ds-Leando.	Shaft	Room and pillar	Furnace	Horse	Shipping
Felmeo Coal Co.	A. M. Felmeo	D'ds-Leando.	Shaft	Room and pillar	Furnace	Horse	Shipping
Cahill Coal Co., No. 1	F. M. Cahill	Farmington	Shaft	Room and pillar	Furnace	Horse	Local
Cahill Coal Co., No. 2	F. M. Cahill	Farmington	Shaft	Room and pillar	Furnace	Horse	Local

Hessler Coal Co.	John Hessler	Farmington	Shaft	Room and pillar	Furnace	Horse	Local
H. Knott Coal Co.	H. Knott	Farmington	Shaft	Room and pillar	Furnace	Horse	Local
A. R. Gardener Coal Co.	A. R. Gardener	Bentonsport	Slope	Room and pillar	Furnace	Horse	Local
Siemon Coal Co.	A. Siemon	D'ds-Leando.	Shaft	Room and pillar	Furnace	Horse	Local

WARREN COUNTY.

H. L. Carpenter Coal Co.	H. L. Carpenter	Lacona	Slope	Room and pillar	Furnace	Horse	Local
John Debaugh	John Debaugh	Lacona	Slope	Room and pillar	Furnace	Horse	Local
Harrison Miller	Harrison Miller	Lacona	Slope	Room and pillar	Furnace	Horse	Local
Andy Hiner	Andy Hiner	Milo	Slope	Room and pillar	Furnace	Horse	Local
Ferrell & Meyers Coal Co.	D. Ferrell	Carlisle	Shaft	Room and pillar	Furnace	Horse	Local
Overton Coal Co.	Ely Overton	Somerset	Shaft	Room and pillar	Furnace	Horse	Local
Bales Coal Co.	N. D. Bales	Milo	Slope	Room and pillar	Furnace	Horse	Local
Murray Coal Co.	J. F. Bennett	Lacona	Slope	Room and pillar	Furnace	Horse	Local

JEFFERSON COUNTY.

Fairfield Coal Co.	C. S. Henness	Bloomfield 7.	Shaft	Room and pillar	Furnace	Horse	Local
Lewis Beckman Coal Co.	Lewis Beckman	Bloomfield 7.	Slope	Room and pillar	Furnace	Horse	Local

DAVIS COUNTY.

Henry Hastings Coal Co.	Henry Hastings	Floris	Slope	Room and pillar	Furnace	Horse	Local
James Fayne Coal Co.	James Fayne	Eldon	Slope	Room and pillar	Furnace	Horse	Local
George Christy Coal Co.	George Christy	Floris	Slope	Room and pillar	Furnace	Horse	Local

FIFTEENTH BIENNIAL REPORT OF THE

STATE MINE INSPECTORS.

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TABLE NO. 1.

SHOWING NUMBER OF MINES, OUTPUT OF COAL, NUMBER OF MINERS
AND OTHER EMPLOYEES, IN DISTRICT NO. 2, FOR
YEAR ENDING JUNE 30, 1909.

Name of County	Number of mines	Amount of coal of all kinds produced	Number of miners employed	Number of other inside employees	Number of outside employees	Total number of employees
Monroe (part)	10	688,756	706	338	85	1,129
Mahaska	29	832,645	1,246	417	182	1,845
Marion	15	299,607	470	139	58	667
Wapello	21	222,987	329	94	77	500
Keokuk	4	13,884	30	5	4	39
Van Buren	8	15,006	34	6	15	55
Warren	8	4,474	25	-----	5	30
Davis	3	1,480	7	-----	2	9
Jefferson	2	2,100	7	2	2	11
Total	100	2,074,039	2,844	1,001	480	4,275

TABLE NO. 2.

SHOWING NUMBER OF MINES, OUTPUT OF COAL, NUMBER OF MINERS
AND OTHER EMPLOYEES, IN DISTRICT NO. 2, FOR
YEAR ENDING JUNE 30, 1910.

Name of County	Number of mines	Amount of coal of all kinds produced	Number of miners employed	Number of other inside employees	Number of outside employees	Total number of employees
Monroe (part)	9	713,094	953	291	72	1,416
Mahaska	30	907,417	1,115	247	158	1,520
Marion	14	269,056	408	127	59	604
Wapello	22	224,731	368	117	63	553
Keokuk	5	17,300	21	5	5	31
Van Buren	9	16,032	31	7	16	54
Warren	8	5,200	28	-----	4	32
Davis	3	1,600	9	-----	3	12
Jefferson	2	3,181	13	1	1	15
Total	106	2,158,111	2,916	995	386	4,327

TABLE NO. 3.

SHOWING THE OUTPUT OF THE COAL PRODUCING COUNTIES OF DIS-
TRICT NO. 2, FOR THE PAST SIX YEARS.

Counties	1905	1906	1907	1908	1909	1910
Monroe (part)	287,770	1,183,143	1,095,473	855,687	688,756	713,094
Mahaska	678,400	570,178	680,870	772,463	833,643	907,417
Marion	372,855	326,094	394,481	227,745	292,607	269,056
Wapello	368,029	210,701	273,556	244,214	222,987	224,731
Keokuk	18,191	8,473	15,000	11,900	13,884	17,800
Van Buren	12,543	7,345	13,050	17,518	15,006	16,032
Warren	9,483	21,787	3,585	8,920	4,474	5,200
Davis	1,115	-----	2,410	4,364	1,480	1,600
Jefferson	2,060	-----	1,900	2,000	2,100	3,181

TABLE NO. 4.

SHOWING TONNAGE IN DISTRICT NO. 2, FOR PAST TEN YEARS, WITH
NUMBER OF FATAL ACCIDENTS AND NUMBER OF EMPLOYEES
WITH TON PER ACCIDENT, ETC.

Year	Number of fatal accidents	Tons of coal mined each year	Number of employees	Tons of coal mined per accident	Number of employees for each accident
1901	13	1,870,123	2,969	143,856	305
1902	-----	-----	-----	-----	-----
1903	-----	-----	-----	-----	-----
1904	8	1,072,523	4,580	240,565	566
1905	6	2,488,550	4,994	414,758	832
1906	13	2,318,624	4,181	179,125	322
1907	12	2,429,305	4,326	202,442	377
1908	9	2,251,846	4,579	230,205	539
1909	9	2,074,919	4,275	230,548	475
1910	13	2,158,111	4,327	166,009	533

THIRD DISTRICT

BIENNIAL REPORT OF THE
THIRD DISTRICT.

EMBRACING THE FOLLOWING COUNTIES:

POLK,
WEBSTER,
GREENE,
SCOTT,

JASPER,
BOONE,
GUTHRIE,
DALLAS,

EDWARD SWEENEY, INSPECTOR,
Des Moines, Iowa.

LETTER OF TRANSMITTAL.

HON. BERYL F. CARROLL, Governor of Iowa:

SIR,—I have the honor to submit herewith coal report of the Third Inspection District covering the biennial period ending June 30, 1910.

EDWARD SWEENEY, Inspector.

REPORT OF THE THIRD DISTRICT

In commencing this report, covering coal mining data of the Third (Iowa) Mining District, I feel a sense of pride in the thought that the Iowa coal mining industry is in safe hands. That the Iowa coal miners and coal operators merit praise from the people of the entire state. At this writing our coal mines are in fairly active operation and our coal miners are happily earning reasonably good wages at a season of the year which is usually dull in the entire bituminous coal mining territory. This happy situation is due entirely to the soundness and earnestness of the minds of the men who are handling the coal mining industry of Iowa.

The miner's wage scale, and what is commonly known as the Joint Agreement, terminated March 31, 1910, after being in effect for a period of two years. April 1, 1910 found the greater portion of the bituminous coal mines of the United States—including Iowa—without a wage agreement and in suspension. This because of the wide differences that existed between the coal operators and coal miners, as indicated by proceedings of their several national meetings held between January 1st and March 31st, 1910. General suspension and national strike, was common talk, yet while our state was included or affected by Joint Convention results, the leaders were cautious against improper alliances or damage to home mining conditions. Iowa miners wanted in full measure such wage advances as is relatively fair with national conditions. As soon as the wage question was decided upon in National Convention, the Iowa miners proceeded with negotiations in Joint Convention in Des Moines and after much hard labor concluded with their employers a wage scale and working agreement which is to continue in force until March 31, 1912, and which is said to be a sound and creditable settlement of what threatened to be a very serious situation. In addition to the amicable adjustment of the wage question for a period of two years, there were arrangements made for a commission plan of dealing with the housing of miner's families, with a reasonable rent cost, better sanitary conditions, good schools in the mining villages for better education to miners' children, and for the cleaning out of every mining camp in the state the evil breeding and degrading so-called Blind tigers—rum dens—which have been such demoralizing and crime-

breeding institutions. In connection with this proposed "uplift work" the Iowa miners and operators deserve not only the praise but hearty co-operation and support of all the loyal good citizens of the state.

When we consider that neighboring states (especially Illinois) are now involved in a serious miner's strike, we are happy in the knowledge that Iowa has, after two month's suspension, the best state agreement made in 1910.

Notwithstanding that there was a suspension of all coal mining in Iowa mines during April and May, 1910, there has been for the biennial period a substantial increase in coal production in the third district.

Some few old mines have been abandoned and new mines have been put in operation, all of which is reported in the mining details of each county comprising the third district.

Some changes have been made in the mining districts. Owing to the size of the third district and with a view of dividing the Inspectors' labors, Jasper county has been added to the list of counties comprising the second district, and in the Sixteenth Biennial Report will be reported as part of the second inspection district.

POLK COUNTY.

There are employed in the coal mines of Polk county 2,943 men, which is an increase over previous years. The coal production will show an increased tonnage. 1909 shows 289,039 tons more coal than 1908, while the year ending June 30, 1910, compared with 1909 shows an increase of 89,555 tons.

This capitol county continues the second largest coal producing county in the state and the banner county of the Third District. It is the pivotal point of a large coal area and gives merit to the claim, that while Iowa is not a booming coal state, and is commonly and very properly known as one of the best farming states in the United States. It is at the same time a reliable possessor and producer of coal. Without blow or bombast we have grown in our production of coal from three and one-half million tons in 1894 to nearly eight million tons in 1910. It should be remembered that during April and May, 1910, there was no coal production in Iowa. Our mines were in suspension. Everybody connected with the business just seemed to be enjoying a needed rest. It is characteristic of our people that conservativeness shall govern. Good

sound earnest work shall be the order of things so that while a number of the county's older mines have been abandoned during the past year, new and larger operations have been constructed and others are in course of development. Such pioneer coal men as Charles Worth of the Bloomfield Coal Company, who has made a study of Polk county coal resources, cannot stay out of the mining business. Hence while abandoning his older properties, he is now contemplating an early development of new mines. It should be remembered that for a number of years the greater portion of Polk county's coal production was from small mines, commonly called local or wagon mines, which were usually located along the Des Moines river. The new order of things, however, has brought Polk county out into the fore front as a county of large mines. 'Tis out on the broad, rich and fertile prairies, where we find the new and modern coal mines, with a productive capacity of one thousand tons per day, such mines often surrounded by fields of tall, yellow corn that will yield from 75 to 100 bushels to the acre.

A prominent coal man from another state who was visiting the writer recently, was being toured around Des Moines and over Polk county, when he remarked: "Surely this is God's country, such a magnificent rich farming country and nearly all that land is underlaid with four feet of good steam coal." God and nature have been exceedingly kind to the people of Des Moines. The city and state may well feel proud of Polk county.

JASPER COUNTY.

There was produced in this county 333,340 tons of coal during the year ending June 30, 1909, and for the year ending June 30, 1910, 334,186 tons of coal. Only one fatal accident has occurred in this county during the two years ending June 30, 1910, and seven serious accidents.

This county is the second largest in coal production among the counties comprising (up to the present time) the Third Inspection District. Hereafter Jasper county will be reported among the counties of the Second Inspection District. Owing to the large development of mines in the Third District and with a view to more evenly divide the inspection service it was deemed best to place Jasper county into the Second District.

Mining operations are, as heretofore, largely in the vicinity of Colfax and SeEVERS, and the usual success attend these operations.

BOONE COUNTY.

There was produced in Boone county for the year ending June 30, 1909, 271,994 tons of coal and for the year ending June 30, 1910, 247,186 tons. Four fatal accidents have been reported from this county, and thirteen serious accidents.

Boone county has had its reverses in coal mining and time and money have been wasted in following the ghostly belief that coal is only found along streams as first discovered in this country by Father Marquette and his party of explorers of the Illinois and Mississippi river valleys.

Mining operations of the present time in Boone county are largely in the vicinity of Ogden.

The Boone Coal & Mining Company has recently sunk a large shaft west of Fraser. The Ogden Coal Company is now sinking their number two shaft one and one-half miles south of the town of Ogden. The Smith-McClure Coal Company is sinking a large mine just two miles north of Ogden in the center of a large coal field that has been prospected with very flattering prospects for successful mining.

The mining town of Fraser seemed doomed to failure for a time but now comes new coal discoveries and mine development, that is a modest reminder to us that, "the darkest night is sure to be followed by day."

The future coal industry of Boone county is very promising.

DALLAS COUNTY.

This county is fast forging its way to the front as a coal producing county. When we recall that it is just a few years since coal was first found in a quantity to justify the belief that extensive operations might be ventured, we are reminded that the mysteries of the earth are great indeed, and that Iowa soil seems to be rich on top, while holding great treasure beneath.

The Saylor Coal Company, with large operations in Polk county, are now sinking one and one-half miles south of Madrid, a large mine that promises to figure strong in the future large coal tonnage in Dallas county.

The Phillips Fuel Company of Ottumwa are sinking a large mine in the vicinity of Scandia. The two new operations herein mentioned will have shipping connections with the Chicago, Milwaukee & St. Paul Railroad.

The Reese Brothers have just completed extensive prospecting for coal and have flattering prospects for the operation of big tonnage mines in that field.

All of the operations herein referred to will be on the room and pillar plan.

WEBSTER COUNTY.

This county produced within the biennial period 108,573 tons of coal. Mining in the vicinity of Lehigh is decreasing rapidly but the county's coal tonnage will be continued and largely increased by the development of new fields south of Otho, where large operations have been installed. More new mines are sure to be sunk in this new and large coal field where hundreds of acres have been prospected with success.

GUTHRIE COUNTY.

Guthrie county produced 24,269 tons of coal during the biennial period ending June 30, 1910. This is a slight decrease in the tonnage for the biennial period ending June 30, 1908, but is due to the suspension of operations during the deliberations and signing of the Joint Agreement.

There was reported one fatal accident in this county during the biennial period just closed.

The mines of this county lack shipping facilities, hence the coal mined is consumed locally. The mines are operated on the long wall system.

GREENE COUNTY.

The production of coal in Greene county for the biennial period ending June 30, 1910, is 28,940 tons. Mining in this county is not carried on very extensively at the present time, there being but four or five mines in operation only one of which has any railroad connection. The others supply the local trade.

Only one accident (fatal) was reported from the mines of this county for the biennial period just closed.

SCOTT COUNTY.

At the present time only two mines are in operation in this county. They produced for the biennial period ending June 30, 1910, 5,560 tons of coal. Only about 15 persons are employed in producing coal in this county. No accidents have occurred in the mines of this county for the past two years.

The coal is marketed locally as there is no railroad connection with the mines.

LIST OF COMPANIES, SUPERINTENDENTS, ETC., IN THIRD DISTRICT.
POLK COUNTY.

Name of Company	Superintendent	Postoffice Address	Shaft or Slope	Plan of Working	How Ventilated	Power Used	Shipping or Local
Norwood-White Coal Co., No. 1	Geo. Wilson	Des Moines	Shaft	Room and pillar	Fan	Steam	Shipping
Norwood-White Coal Co., No. 2	Geo. Wilson	Des Moines	Shaft	Room and pillar	Fan	Steam	Shipping
Eagle Coal Co.	E. A. Sayre	Des Moines	Shaft	Room and pillar	Fan	Steam	Local
Hollingsworth Coal Co.	H. E. Hollingsworth	Des Moines	Shaft	Room and pillar	Fan	Steam	Shipping
Delaware Coal Co.	J. Lindbloom	Des Moines	Shaft	Room and pillar	Fan	Steam	Shipping
Wright Coal Co.	J. D. Owen	Des Moines	Shaft	Room and pillar	Fan	Steam	Shipping
Saylor Coal Co.	J. D. Owen	Des Moines	Shaft	Room and pillar	Fan	Steam	Shipping
Coaldale Fuel Co.	J. D. Owen	Des Moines	Shaft	Room and pillar	Fan	Steam	Shipping
Blount & Evans Coal Co.	Isaac Evans	Des Moines	Shaft	Room and pillar	Fan	Steam	Local
Walnut Creek Coal Co.	L. B. Kirkpatrick	Des Moines	Shaft	Room and pillar	Fan	Steam	Shipping
Economy Coal Co.	Peter Reynolds	Des Moines	Shaft	Room and pillar	Fan	Steam	Shipping
Valley Union Coal Co.	B. J. Bosley	Commerce	Shaft	Long wall	Fan	Steam	Local
Beck Coal Co.	Thos. Beck	Des Moines	Shaft	Room and pillar	Fan	Steam	Local
Keystone Coal Co.	E. M. Gray	Des Moines	Shaft	Room and pillar	Fan	Steam	Shipping
Swanwood Coal Co.	Fred Norwood	Des Moines	Shaft	Room and pillar	Fan	Steam	Local
Ray Coal Co.	T. A. Ray	Des Moines	Shaft	Room and pillar	Fan	Steam	Local
Madison Coal Co.	W. F. Moore	Des Moines	Shaft	Room and pillar	Fan	Steam	Local
Caleb Johns Coal Co.	Caleb Johns	Des Moines	Shaft	Room and pillar	Fan	Steam	Local
Glenwood Coal Co.	Caleb Johns	Des Moines	Shaft	Room and pillar	Fan	Steam	Local
Western Coal & Mining Co., No. 1	T. W. Carpenter	Des Moines	Shaft	Room and pillar	Fan	Steam	Shipping
Carpenter Coal Co., No. 1	C. W. Carpenter	Des Moines	Shaft	Room and pillar	Fan	Steam	Local
Iowa Coal Co.	J. D. Thomas	Des Moines	Shaft	Room and pillar	Fan	Steam	Shipping
Bloomfield Coal Co.	Chas. S. Worth	Des Moines	Shaft	Room and pillar	Fan	Steam	Shipping
Bennett Bros. Coal Co.	John Bennett	Des Moines	Shaft	Room and pillar	Fan	Steam	Local
Maple Block Coal Co.	H. M. Shuler	Des Moines	Shaft	Room and pillar	Fan	Steam	Shipping
Gibson Coal Co.	Wm. E. Gibson	Des Moines	Shaft	Room and pillar	Fan	Steam	Shipping
West Riverside Coal Co.	Geo. Simpson	Des Moines	Shaft	Room and pillar	Fan	Steam	Shipping
Enterprise Coal Co., No. 1	Ed. Walters	Des Moines	Shaft	Room and pillar	Fan	Steam	Shipping
Enterprise Coal Co., No. 2	Ed. Walters	Des Moines	Shaft	Room and pillar	Fan	Steam	Shipping

WEBSTER COUNTY.

Sunnyside Coal Co., No. 1	C. L. Housberg	Stratford	Shaft	Long wall	Fan	Steam	Local
Butler Coal Co.	Floyd Butler	Coalville	Shaft	Long wall	Fan	Steam	Local
Sam McClure Coal Co.	Sam McClure	Ft. Dodge	Shaft	Long wall	Fan	Steam	Shipping
Crooked Creek Coal & R. R. Co.	W. W. Whitford	Webster City	Shaft	Long wall	Fan	Steam	Shipping
Craig & Dawson Coal Co.	E. W. Dawson	Kalo	Shaft	Long wall	Fan	Steam	Shipping

BOONE COUNTY.

Big Five Coal Co., No. 1	W. C. Bricker	Montgona	Shaft	Long wall	Fan	Steam	Shipping
Smiley & Heaps Coal Co., No. 1	Robert Heaps	Boonesboro	Shaft	Long wall	Fan	Steam	Shipping
Boone Block Coal Co.	George Heaps	Boonesboro	Shaft	Long wall	Fan	Steam	Shipping
Zimbleman Coal Co.	W. J. Conway	Boonesboro	Shaft	Long wall	Fan	Steam	Shipping
Ogden Coal Co.	D. E. Reese	Ogden	Shaft	Long wall	Fan	Steam	Shipping
Martin Pestotnik Coal Co.	Martin Pestotnik	Boone	Shaft	Long wall	Natural	Horse	Local
W. D. Johnson Coal Co.	H. H. Canfield	Boonesboro	Shaft	Long wall	Fan	Steam	Shipping
Coal Valley Coal Co.	Robt. Dunnean	Montgona	Shaft	Long wall	Fan	Steam	Shipping
Boone Coal & Mining Co., No. 5	Frank Burris	Fraser	Shaft	Long wall	Fan	Steam	Shipping
Boone Coal & Mining Co., No. 7	Frank Burris	Fraser	Shaft	Long wall	Fan	Steam	Shipping

JASPER COUNTY.

Carson Bros. Coal Co.	A. Carson	Newton	Shaft	Room and pillar	Fan	Horse	Local
Hanson & Mead Coal Co.		Prairie City	Shaft	Room and pillar	Exhaust	Steam	Local
John Bruce Coal Co.	John Bruce	Monroe	Shaft	Room and pillar	Furnace	Horse	Local
French Coal Co.	Vernon French	Newton	Shaft	Room and pillar	Natural	Steam	Local
Lister Coal Co.	Alfred Lister	Newton	Shaft	Room and pillar	Furnace	Steam	Local
Snooks Bros. Coal Co.	Thos. Snooks	Newton	Shaft	Room and pillar	Natural	Horse	Local
Colfax Consolidated Coal Co., No. 7	Wm. Abrams	Colfax	Shaft	Room and pillar	Fan	Steam	Shipping
Colfax Consolidated Coal Co., No. 8	Wm. Abrams	Colfax	Shaft	Room and pillar	Fan	Steam	Shipping
McAllister Coal Co.	McAllister	Newton	Shaft	Room and pillar	Fan	Steam	Local
Warrick Coal Co.	E. A. Young	Des Moines	Shaft	Room and pillar	Fan	Steam	Shipping

LIST OF COMPANIES, SUPERINTENDENTS, ETC., IN THIRD DISTRICT—CONTINUED.
GUTHRIE COUNTY.

Name of Company	Superintendent	Postoffice Address	Shaft or Slope	Plan of Working	How Ventilated	Power Used	Shipping or Local
Clippert Coal Co.	Wm. Merchant	Bagley	Shaft	Long wall	Furnace	Horse	Local
W. D. Thomas Coal Co., No. 1	W. N. Scott	Stark	Shaft	Long wall	Natural	Steam	Local
Scott Coal Co.	W. H. Scott	Yale	Shaft	Long wall	Natural	Horse	Local
Mansell Coal Co.	John Mansell	Yale	Shaft	Long wall	Fan	Horse	Local
W. B. Condit	W. B. Condit	Fanders	Shaft	Long wall	Natural	Horse	Local
I. S. Suddard	F. D. Suddard	Yale	Shaft	Long wall	Natural	Horse	Local
Sipe & Hughes, No. 1	F. D. Sipe	Yale	Shaft	Long wall	Furnace	Horse	Local
J. J. Clark	J. J. Clark	Bagley	Shaft	Long wall	Natural	Horse	Local
Burley & Gibson Coal Co.	Will Gibson	Yale	Shaft	Long wall	Natural	Horse	Local
O. K. Coal Co.	John Marchant	Phora	Shaft	Long wall	Natural	Horse	Local

GREENE COUNTY.

Buckeye Coal Co.	Michael Feith	Rippey	Shaft	Room and pillar	Natural	Horse	Local
Goodwin Coal Co.	Thos. Goodwin	Grand Jct.	Shaft	Long wall	Natural	Steam	Shipping
Willow Grove Coal Co.	H. A. McElhenny	Angus	Shaft	Long wall	Fan	Steam	Local
Snake Creek Coal Co.	James Bennett	Rippey	Shaft	Room and pillar	Fan	Steam	Local

DALLAS COUNTY.

High Bridge Coal Co.	H. Price	High Bridge	Shaft	Room and pillar	Fan	Steam	Shipping
Scandia Coal Co., No. 1	H. Zeok	Madrid	Shaft	Room and pillar	Fan	Steam	Shipping
Dawson Coal Co., No. 2	T. C. Thorpe	Dawson	Shaft	Room and pillar	Fan	Steam	Shipping

SCOTT COUNTY.

Buckmeyer Coal Co.	Jas. Buckmeyer	Buffalo	Shaft	Room and pillar	Grate	Steam	Local
Winfield Coal Co.	Frank Winfield	Buffalo	Shaft	Room and pillar	Grate	Horse	Local

ACCIDENTS.

The question of Mining fatalities and mine accidents has become so alarming as to invite national attention and international co-operation through an exchange of ideas and comparison of means for prevention.

There seems to be no possible remedy for the prevention of all the accidents occurring in coal mines. It is, however, an insult to the manhood and intelligence of the people identified with mining affairs in this country, to say a remedy for materially reducing the number and frequency of mining fatalities cannot be found. In Iowa we have been fortunately free for a number of years from mine holocausts and disasters. Compared with other coal mining states we have good reason to be glad that we have fared so well. Nevertheless we have no right to repose in the belief that there is no need of work and vigilance. There is always need for much work and solemn sentinel duty. There is always lurking in the future of all mining operations, an uncertainty of a swift and lightning-like, death dealing disaster. We should, therefore, keep in mind the adage of wisdom. "That an ounce of prevention is worth a pound of cure." In our neighbor state of Illinois, there occurred in a mine, in which marsh or mine gas was practically unknown, at Cherry (Illinois), the most appalling disaster in the history of modern mining. The roll of dead, the number of widows and fatherless children, the long dark nights of agony and anguish, the heart-breaking screams and the awful picture of uncontrollable grief, during the long days and weeks of rescue work, and the indescribable story of that disaster, can at least remind us of our obligations in the premises of such possibilities. The writer and Inspector Rhys were directed by Governor Carroll to proceed to Cherry, Illinois, and render such aid as might be possible. We spent several days there and in co-operation with other mine inspectors and mining men, joined in the groups of rescue parties organized to go into the mine, which by that time was a death-trap, presenting an underground picture of horrible possibilities. Rescue work under such conditions and circumstances is well calculated to test men's nature and manhood and very souls. In the presence of such scenes and labors we are reminded, "that the world is all akin." There was heroic work performed by all

participants in the rescue efforts. The modesty of brave men who seek neither praise nor newspaper notoriety is worthy of mention. To the Chicago firemen, however, there is due particular praise and thanks for the valuable work they performed at the most daring risks to their lives down in the burning, falling mine. Those men and their labors made possible the rescue of the twenty-one men who were brought out alive, after eight days in the living grave. The United States Government Mine Rescue Station work was here introduced and valuable aid was rendered through the use of the mine rescue helmets.

We are constantly hearing much about windy shots and the killing of shot firers, yet as a matter of fact more men are being killed at the miner's working face, by falls of coal and rock, than from blown-out or so-called windy shots. Classifying and comparing the causes is no excuse for our failure to prevent, as far as possible, all mine accidents. Much is written and spoken on the subject of mine accidents occurring in the coal mines of the United States and comparison is frequently made with the accident ratio in the coal mines of other countries. There is this important fact staring us in the face daily: That we fear to speak of the prime cause of most of our mine accidents, i. e., we have an army of untrained and impractical miners. The miner is fast falling into the ranks of the unskilled. The man who should be a practical coal miner has greased the plank, so to speak, and is fast sliding down into the list of a common or unskilled mine laborer. There is a lack of sound, practical workmanship in too many of our mines and among too many of our miners. There are several reasons for this unfortunate condition of affairs. Rush methods for a large coal production is primarily to blame. The wish for a mine full of workmen and for a large tonnage has blinded many of the larger coal companies to the necessity for thoroughly practical coal miners, and lax methods are the result. In a sort of sneaking way, impractical methods have grown into fixed mining conditions, so that human life is too frequently jeopardized. Much valuable fuel is wasted through being blown into dust and the reputation of the good old miner is seriously damaged. It is difficult to apply the needed remedy, but it must be done. Those now employed in our American coal mines must learn with or without a knowledge of our language that law and discipline are the prime essentials for the salvation of the American mining industry, the protection of the miners' lives and the protection of

the American mining property. Should we venture the belief that it is impossible to force back the damaging and destructive tendency of the situation is to offer insult to the intelligence and honor found in the ranks of coal miners and coal operators. Every intelligent miner should and will assist in bringing back the lax miners—back to the ways that showed skill, significant craft skill, in the work of the coal miner wherever found, or wherever employed at the business. Every honest coal operator will be a party to the reformatory work. They should employ none but competent men in this hazardous business. They should all keep in mind the conservation thought; that the coal will be needed for the use of future generations and to continue reckless mining methods is criminally wrong. Therefore let us have conservation of miner's lives and of the fuel that God never intended should be so recklessly wasted.

FATAL ACCIDENTS OCCURRING IN THE THIRD DISTRICT FOR THE TWO YEARS ENDING JUNE 30, 1910.

Date	Name of Deceased	Occupation	Cause of death	Employed by	County
1908					
September 9	Terry Higby	Miner	Powder explosion	Ogden Coal Co.	Boone
October 9	Clarence Brady	Miner	Fall of slate	Scandia Coal Co.	Dallas
November 22	Peter Houghton	Tool man	Struck by trip	Norwood-White Coal Co., No. 1	Polk
1909					
January 13	Fred Williams	Shot examiner	Windy shot	Enterprise Coal Co.	Polk
February 11	Joe Domich	Miner	Fall of slate	Saylor Coal Co., No. 2	Polk
February 26	Frank McElheny	Topman	Fell down shaft	Willow Grove Coal Co.	Greene
May 27	Fleming Arrowwood	Miner	Fall of slate	Norwood-White Coal Co., No. 1	Polk
June 1	James Spivack	Miner		Coaldale Fuel Co.	Polk
June 3	W. M. Weston	Miner	Fall of slate	Wright Coal Co.	Polk
June 7	Frank Tokesse	Miner	Fall of slate	Blount-Evans Coal Co.	Polk
June 26	William Brown	Driver	Fall of slate	Economy Coal Co.	Polk
July 29	Michael Kostwick	Miner	Fall of slate	Scandia Coal Co.	Dallas
August 7	H. K. Joshlin	Track helper	Fall of slate	Ogden Coal Co.	Boone
August 13	Chas. Shelley	Driver	Run over by car	Wright Coal Co., No. 1	Polk
August 26	Archie McGregor	Miner	Fall of slate	Economy Coal Co.	Polk
November 17	Charles Smedman	Miner	Fall of coal	W. D. Johnson Coal Co.	Boone
November 19	Charles Smith	Miner	Fall of slate	W. D. Johnson Coal Co.	Boone
November 20	Ray Cotton	Miner	Powder explosion	Hollingsworth Coal Co.	Polk
December 15	Geo. Hedley	Miner	Fall of slate	High Bridge Coal Co.	Dallas
December 15	Geo. Davidson	Miner	Fall of slate	High Bridge Coal Co.	Dallas
December 22	Joe Whipple	Miner	Fall of coal	Clipper Coal Co.	Guthrie
1910					
January 3	Steve Plakosick	Miner	Fall of slate	Wright Coal Co.	Polk
January 28	Geo. Hrala	Driver	Fall of slate	Maple Block Coal Co.	Polk
March 7	Arcusta Cesari	Miner	Fall of slate	Saylor Coal Co.	Polk
June 10	J. H. Odell	Miner	Fall of slate	Economy Coal Co.	Polk
June 14	A. Sattelli	Miner	Fall of slate	Saylor Coal Co.	Polk
June 18	Paul Bialise	Top laborer	Fell down shaft	Coifax Consolidated Coal Co.	Jasper

NON-FATEL ACCIDENTS IN DISTRICT NO. 3 FOR TWO YEARS ENDING JUNE 30, 1910.

Date	Name	Occupation	Cause of Accident	Character of Injury	Employed by	County
1908						
July 16	A. Knox	Miner	Motor ran into trip	Bruised	Coaldale Fuel Co.	Polk
July 16	A. Johnson	Miner	Motor ran into trip	Back sprained	Coaldale Fuel Co.	Polk
August 4	C. Bennett	Driver	Mile ran away	Leg and body bruised	Bloomfield Coal Co.	Polk
August 5	J. B. Owens	Timberman	Fall of slate	Back sprained	Norwood-White Coal Co.	Polk
August 8	Wm. Murray	Driver	Car jumped track	Thumb cut off	Bloomfield Coal Co.	Polk
August 21	Gerald Rodgers	Miner	Fall of slate	Leg broken	Coifax Consolidation Coal Co.	Jasper
September 1	Roe Bittner	Miner	Fall of slate	Leg broken	Clipper Coal Co.	Guthrie
September 3	Robert Davis	Driver	Fall of slate	Bruised about body	Scandia Coal Co.	Dallas
September 9	John Banks	Miner	Fall of slate	Leg broken	Saylor Coal Co.	Polk
September 23	Wm. Smith	Driver	Failed to sprag car	Leg broken	Maple Block Coal Co.	Polk
October 9	Frank Lipovach	Miner	Fall of slate	Broken leg	Coifax Consolidation Coal Co.	Jasper
October 12	Harry Taylor	Miner	Fall of cap rock	Broken ankle	Smiley & Heaps Coal Co.	Boone
October 14	Mark Ball	Miner	Fall of slate	Spine injured	Commerce Coal Co.	Polk
November 2	A. Jerome	Miner	Fall of rock	Back sprained, body badly bruised	Flint Brick & Coal Co.	Polk
November 16	Swan Pearson	Miner	Fall of slate	Spine broken	Bloomfield Coal Co.	Polk
November 17	Tony Bianchi	Driver	Caught between roof and car	Collar bone broken	Saylor Coal Co.	Polk
November 19	J. W. Price	Driver	Breaking mules	Leg broken	Maple Block Coal Co.	Polk
November	Thomas Pickle	Miner	Caught by car	Back sprained	Anderson Coal Co.	Polk
December 1	George Shenton	Miner	Fall of slate	Leg broken	McAllister Coal Co.	Jasper
December 3	S. Blain	Driver	Struck by car	Ribs broken	Norwood-White Coal Co.	Polk
December 16	C. F. Carlson	Miner		Collar bone and hip broken	Smiley & Heaps Coal Co.	Boone
1909						
January	Pete Anderson	Dayman	Fall of slate	Fractured foot	Coal Valley Coal Co.	Boone
January 6	John Craggs	Timberman	Fall of slate	Leg broken	Delaware Coal Co.	Polk
January 23	W. Lewis	Driver	Caught by car	End of thumb cut off	Saylor Coal Co.	Polk
January 26	Frank Capetto	Comp'y man	Hand caught between bumper and cars			
February	Tom sellers	Miner	Fall of Coal	Finger and thumb of left hand cut off	Enterprise Coal Co.	Polk
February 4	Joseph Scott	Miner	Fall of slate	Foot mashed	W. D. Johnson Coal Co.	Boone
February 6	E. Mickens	Driver	Caught between car and timber	Right hip and ankle fractured; back hurt	Madison Coal Co.	Polk
February				Finger cut off	Wright Coal Co.	Polk

NON-FATAL ACCIDENTS IN DISTRICT NO. 3 FOR TWO YEARS ENDING JUNE 30, 1910—CONTINUED.

Date	Name	Occupation	Cause of Accident	Character of Injury	Employed by	County
February	8 Dave Owens	Coupler	Caught between cars	End of fingers cut off	Saylor Coal Co.	Polk
February	12 Claude Boiles	Comp'y man	Fell off tail chain	Foot badly wrenched	Smiley & Heaps Coal Co.	Boone
February	24 Thomas Jones	Spragger	Caught by car	End of fingers cut off	Saylor Coal Co.	Polk
March	19 William Quick	Driver	Fell off tail chain	Back broken	West Riverside Coal Co.	Polk
March	23 James Watson	Mine Forem'n	Fall of ice in quarter shaft	Left arm and two ribs broken	W. D. Johnson Coal Co.	Boone
April	13 John Bulger	Miner	Chip from wedge struck eye	Loss of one eye	Gibson Coal Co.	Polk
April	21 V. Tomlonovich	Miner	Fall of slate	Leg broken	Colfax Consolidation Coal Co.	Jasper
May	3 R. D. King	Cager	Struck by car	Stomach injured	Enterprise Coal Co.	Polk
May	11 William Landles	Driver	Caught hand between car and rib	Two fingers broken	Ogden Coal Co.	Boone
June	3 Wm. Smith	Track layer	Caught by car	Leg broken	Madison Coal Co.	Polk
June	10 E. C. Snilson	Driver	Failure to sprag car	Bruised	Keystone Coal Co.	Polk
June	14 A. Geofredli	Miner	Fall of slate	Skull fractured	Wright Coal Co.	Polk
June	15 King McDonald	Miner	Struck by coal	Hand crushed	Norwood-White Coal Co.	Polk
June	19 Ed Murphy	Miner	Caught between car and roof	Fingers crushed	Norwood-White Coal Co.	Polk
June	19 J. Miller	Miner	Fall of slate	Hip dislocated and leg broken	Norwood-White Coal Co.	Polk
June	20 John Krowczyk	Miner	Fall of slate	Bruised and sprains	Keystone Coal Co.	Polk
June	23 W. H. Killbert	Miner	Caught between car and timber	Shoulder broken	Saylor Coal Co.	Polk
July	20 Geo. Comstock	Miner	Fall of slate	Right arm broken	Scandia Coal Co.	Dallas
August	5 Wm. Nobens	Miner	Cap rock fall	Two ribs broke	Smiley & Heaps Coal Co.	Boone
August	7 Harry Coddling	Trackman	Fall of slate	Leg broken	Ogden Coal Co.	Boone
August	23 John Boiles	Driver	Fell off tail chain	Body badly bruised	Smiley & Heaps Coal Co.	Boone
October	5 F. R. Peterson	Miner	Fall of coal and cap rock	Hip dislocated	Smiley & Heaps Coal Co.	Boone
October	3 Jos. Hilderbrand	Miner	Struck by fall of coal	Arm broken	Bennett Bros. Coal Co.	Polk
October	29 Everett Sparks	Driver	Caught by car	Leg fractured	Madison Coal Co.	Polk
November	11 John Dalton	Miner	Fall of slate	Fractured ribs	Bennett Bros. Coal Co.	Polk
December	20 Conrad Klute	Miner	Fall of coal and cap rock	Collar bone broke	Smiley & Heaps Coal Co.	Boone
December	23 Willis Phillips	Miner	Fall of slate	Broken leg	Norwood-White Coal Co.	Polk

1910						
January	5 Jos. Egan, Sr.	Miner	Fall of coal and cap rock	Four ribs broke and head bruised	Smiley & Heaps Coal Co.	Boone
January	14 John Drenshaw	Driver	Fell off tail chain	Right arm broken	Norwood-White Coal Co.	Polk
February	15 Paul Kapin	Miner	Fall of slate	Broken leg	Colfax Consolidation Coal Co.	Jasper
February	21 A. Marshall	Miner	Fall of slate	Bruised	Colfax Consolidation Coal Co.	Polk
March	31 John Swanson	Bot. laborer	Struck by trip	Broken leg	Colfax Consolidation Coal Co.	Jasper
June	11 W. H. Alexander	Miner	Fall of slate	Two ribs broke	Madison Coal Co.	Polk
June	24 Fred Anderson	Driver	Struck and run over by car	Head injured	Saylor Coal Co.	Polk

TABLE NO. 1.

SHOWING NUMBER OF MINES, OUTPUT OF COAL, NUMBER OF MINERS,
AND OTHER EMPLOYEES IN DISTRICT NO. 3, FOR
YEAR ENDING JUNE 30, 1900.

Name of County	Name of mines	Amount of coal of all kinds produced	Number of miners employed	Number of other inside employees	Number of outside employees	Total number of employees
Polk	33	1,647,136	2,714	337	392	3,943
Jasper	11	323,340	519	191	61	771
Boone	11	271,994	908	253	105	967
Dallas	3	262,700	805	73	33	411
Webster	8	60,487	144	49	27	220
Guthrie	12	14,383	83	15	10	108
Greene	4	13,240	39	11	8	53
Scott	3	2,960	19	14	3	36
Total	85	2,546,245	4,431	1,443	640	6,514

TABLE NO. 2.

SHOWING NUMBER OF MINES, OUTPUT OF COAL, NUMBER OF MINERS,
AND OTHER EMPLOYEES IN DISTRICT NO. 3, FOR
YEAR ENDING JUNE 30, 1910.

Name of County	Name of mines	Amount of coal of all kinds produced	Number of miners employed	Number of other inside employees	Number of outside employees	Total number of employees
Polk	29	1,736,692	2,943	758	339	4,040
Jasper	10	334,133	493	194	70	757
Boone	11	247,495	889	189	106	884
Dallas	4	240,953	325	113	37	474
Webster	6	48,086	137	47	20	204
Guthrie	9	9,885	49	3	9	61
Greene	5	15,700	68	11	12	91
Scott	2	2,600	11		1	12
Total	78	2,633,692	4,615	1,314	594	6,523

TABLE NO. 3.

SHOWING THE OUTPUT OF THE COAL PRODUCING COUNTIES OF DIS-
TRICT NO. 3, FOR THE PAST SIX YEARS.

Counties	1905	1906	1907	1908	1909	1910
Polk	1,694,521	1,266,224	1,425,376	1,358,097	1,647,136	1,736,692
Boone	422,802	276,505	238,082	218,491	271,994	247,495
Jasper	305,097	333,307	385,298	467,552	333,340	334,133
Webster	122,056	113,223	118,263	59,081	60,487	48,086
Greene	17,470	20,695	22,305	23,226	13,240	15,700
Guthrie	29,416	20,730	13,303	13,143	14,383	9,885
Dallas	13,599	9,888	31,370	103,700	202,700	240,953
Scott	5,210	860	2,500	2,750	2,960	2,600

TABLE NO. 4.

SHOWING TONNAGE IN DISTRICT NO. 3, FOR PAST TEN YEARS, WITH
NUMBER OF FATAL ACCIDENTS AND NUMBER OF
EMPLOYEES, WITH TON PER ACCIDENT, ETC.

Year	Number of fatal accidents	Tons of coal mined each year	Number of employees	Tons of coal mined per accident	Number of employees for each accident
1901	7	1,607,699	3,904	229,670	558
1902	13	1,633,152	3,878	127,166	298
1903	5	1,835,456	3,091	367,091	738
1904	10	1,846,386	4,989	184,638	499
1905	11	2,010,101	5,380	182,736	489
1906	8	2,040,342	5,566	255,042	695
1907	14	2,236,097	5,430	159,721	388
1908	14	2,249,960	5,934	160,713	464
1909	11	2,546,245	6,514	231,476	592
1910	16	2,635,692	6,523	164,735	467

FATAL ACCIDENTS OCCURRING IN THE THIRD DISTRICT FOR
THE TWO YEARS ENDING JUNE 30, 1910.

PERRY HIGBY.

On September 9, 1908, fatal accident occurred to Perry Higby, a miner in the employ of the Ogden Coal Company of Ogden, Boone County. Supposition is that he was filling jack from full keg of powder and spark dropped from lamp into the keg setting same off. Face, arms, back and breast were badly burned. Mr. Higby died the day following the accident.

CLARENCE BRADY.

On October 9, 1908, fatal accident occurred to Clarence Brady, a miner in the employ of the Scandia Coal Company of Dallas County. Fall of slate occurred breaking the neck and legs and causing death.

PETER HOUGHTON.

On November 22, 1908, fatal accident occurred to Peter Houghton, a tool man at Mine No. 1, Norwood-White Coal Company, Polk County. Mr. Houghton was on his way out of the mine, on main north entry, when he was struck by a trip of cars and instantly killed. He had been in the employ of the above company for 18 months.

FRED WILLIAMS.

On January 13, 1909, fatal accident occurred to Fred Williams (colored), a shot examiner and shot firer in the employ of the Enterprise Coal Company of Enterprise, Polk County. Accident occurred in Mine No. 2. Supposed to have been an explosion caused by a windy shot. Burned face, hands and neck. He died from injuries received on January 18, 1909. Williams made statement that he thought that explosion was caused by windy shot in another entry which stirred up the dust and exploded it. Mine had been sprinkled the day before.

JOE DOMICH.

On February 11, 1909, fatal accident occurred to Joe Domich, a miner at Mine No. 2, Saylor Coal Company, Polk County. He was at work in fifth south, off west north entry, when fall of slate occurred. Fracture of cranial vault at base of brain. Fracture of nose. Contusion over right eye involving temple, producing compression of brain by a blood clot. Squeezing of chest producing a hemorrhage of lungs and developing a hemorrhagic pneumonia. Domich died at 1:00 p. m., February 12, 1909.

FRANK McELHENY.

On February 26, 1909, fatal accident occurred to Frank McElheny, a top man in the employ of the Willow Grove Coal Company of Angus, Greene County. Young McElheny had neglected to close the gate at one side of the shaft and he ran the car in the wrong place and momentum of car pulled him into the shaft, the fall killing him instantly.

FLEMING ARROWWOOD.

On May 27, 1909, fatal accident occurred to Fleming Arrowwood, an employe of Norwood-White Coal Company of Norwoodville, Polk County. Accident occurred at Mine No. 1. Arrowwood came to his death from fall of slate.

JAMES SPIVACK.

On June 1, 1909, fatal accident occurred to James Spivack, a miner in the employ of the Coaldale Fuel Company of Coaldale, Polk County. There were no witnesses to the accident, and Mr. Spivack did not make any statement in regard to it. Mr. Spivack was injured through hips and lower portion of the body.

W. M. WESTON.

On June 3, 1909, fatal accident occurred to W. M. Weston, a miner in the employ of Wright Coal Company, near Ankeny, Polk County, Iowa. He was at work on second east entry, room 17, when fall of slate occurred, killing him.

FRANK TORESSE.

On June 7, 1909, fatal accident occurred to Frank Tokesse, a miner in the employ of the Blount-Evans Coal Company, Mine No. 1, Polk County. He was at face of his room at work when fall of slate crushed him to death.

WILLIAM BROWN.

On June 26, 1909, fatal accident occurred to William Brown, a driver in the employ of the Economy Coal Company of Polk County. Accident happened at parting on second north entry. A fall of slate at the parting fell striking Brown and crushing his head.

MICHAEL KOSTWICK.

On July 29, 1909, fatal accident occurred to Michael Kostwick, a miner in the employ of the Scandia Coal Company of Dallas County. He was at work in his room when a fall of slate struck him, causing injuries from which he died on August 1st.

H. K. JOSHLIN.

On August 7, 1909, fatal accident occurred to H. K. Joshlin, a track helper in the employ of the Ogden Coal Company of Boone county. He was inside of the third north parting when fall of slate occurred crushing his head and killing him.

CHAS. SHELLEY.

On August 13, 1909, fatal accident occurred to Chas. Shelley, a driver in the employ of Wright Coal Company, Mine No. 1, Oralabor, Polk county. Shelley fell off car and was run over by two loaded cars which caused his death.

ARCHIE MCGREGOR.

On August 26 1909, fatal accident occurred to Archie McGregor, a miner in the employ of the Economy Coal Company, Polk county. McGregor was at work in his room when fall of slate struck him and killed him.

CHARLES SMEDMAN.

On November 17, 1909, fatal accident occurred to Charles Smedman, a miner in the employ of W. D. Johnson Coal Company of Boone County. Smedman was working in his own room next to Dave Webb. They had both of their places mined across (connected). Webb was cutting his coal down and told Smedman to look out as he (Smedman's) coal might come down also. Smedman replied that there was no danger of his coal coming down, but in a few minutes the coal broke and caught him, crushing the pelvic bones and injuring him internally, causing death.

CHARLES SMITH.

On November 19, 1909, fatal accident occurred to Charles Smith, a miner in the employ of W. D. Johnson Coal Company of Boone county. He was working in his room when a fall of slate occurred, crushing him to death.

RAY COTTON.

On November 20, 1909, fatal accident occurred to Ray Cotton, a miner in the employ of Hollingsworth Coal Company of Polk County. He was killed by the accidental explosion of powder while preparing a shot. He had been in the employ of this company over three years.

GEO. HEDLEY.

On December 15, 1909, fatal accident occurred to Geo. Hedley, a miner in the employ of High Bridge Coal Company of Dallas county. He was at work in his room when fall of slate occurred killing him instantly.

GEO. DAVIDSON.

On December 15, 1909, fatal accident occurred to Geo. Davidson, a miner in the employ of High Bridge Coal Company of Dallas county. Davidson was working in his room when fall of slate occurred causing his death.

JOE WHIPPLE.

On December 22, 1909, a fatal accident occurred to Joe Whipple, a miner in the employ of Clipper Coal Company of Guthrie county. He was caught by a fall of coal which crushed him to death.

STEVE PLAKOSICK.

On January 30, 1910, fatal accident occurred to Steve Plakosick, a miner in the employ of Wright Coal Company of Polk county. Plakosick was working in his room when fall of slate occurred which caused his death.

GEO. HRAHA.

On January 28, 1910, fatal accident occurred to Geo. Hraha, a driver in the employ of Maple Block Coal Company of Polk county. Hraha was in a room when fall of slate occurred which caused his death.

AUGUSTA CESARI.

On March 7, 1910, fatal accident occurred to Augusta Cesari, a miner in the employ of Saylor Coal Company, Polk county. He was working in his room when fall of slate struck him, causing death.

J. H. ODELL.

On June 10, 1910, fatal accident occurred to J. H. Odell, a miner in the employ of Economy Coal Company, Polk county. Mr. Odell was working at the face of his room when slate fell, crushing him to death.

A. SATTELLI.

On June 14, 1910, fatal accident occurred to A. Sattelli, a miner in the employ of Saylor Coal Company of Polk county. Sattelli was working in his room when fall of slate occurred, causing his death.

PAUL BINISSE.

On June 18, 1910, fatal accident occurred to Paul Binisse, a top laborer employed by Colfax Consolidation Coal Company of Jasper county. Mr. Binisse pushed a car of ash into shaft and held on to it which caused him to fall down the shaft. The fall caused his death.

NON-FATAL ACCIDENTS OCCURRING IN THE THIRD DISTRICT
FOR THE YEAR ENDING JUNE 30, 1910.

July 16, 1908, A. Knox, a miner in the employ of Coaldale Fuel Company, Polk county. Motor ran into trip on which he was riding. Bruised.

July 16, 1908, A. Johnson, a miner in the employ of Coaldale Fuel Company of Polk county. Motor ran into trip on which he was riding. Back sprained.

August 4, 1908, C. Bennett, a driver in the employ of Bloomfield Coal Company, Polk county. Mule ran away. Leg lacerated and body bruised.

August 5, 1908, J. R. Owens, a timberman helper, employ of Norwood-White Coal Company, Polk county. Fall of slate. Back sprained.

August 8, 1908, Wm. Murray, a driver for Bloomfield Coal Company of Polk county. Car jumped track knocking down slate. Thumb cut off.

August 21, 1908, Gerald Rodgers, a miner in the employ of Colfax Consolidation Coal Company, Jasper county. Fall of slate. Leg broken.

September 1, 1908, Roe Bittener, a miner in the employ of the Clipper Coal Company, Guthrie county. Fall of slate. Leg broken.

September 2, 1908, Robert Davis, a driver in the employ of the Scandia Coal Company, Dallas county. Fall of slate. Severely bruised about the body.

September 9, 1908, John Banks, a miner in the employ of Saylor Coal Company, Polk county. Fall of slate. Leg broken.

September 23, 1908, Wm. Smith, a driver in the employ of the Maple Block Coal Company, Polk county. Failure to sprag cars. Leg broken.

October 9, 1908, Frank Lipovach, a miner in the employ of the Colfax Consolidation Coal Company, Jasper county. Fall of slate. Broken leg.

October 12, 1908, Harry Taylor, a miner in the employ of Smiley & Heaps Coal Company, Boone county. Fall of cap rock and coal. Broken ankle.

October 14, 1908, Mark Ball, an employe of the Commerce Coal Company. Polk county. Fall of slate. Partial dislocation of spine.

November 2, 1908, A. Jerome, a miner in the employ of Flint Brick & Coal Company, Polk county. Fall of rock at face of entry. Back sprained and bruised and legs and hips bruised.

November 16, 1908, Swan Pearson, a miner in the employ of the Bloomfield Coal Company of Polk county. Fall of slate. Spinal column broken.

November 17, 1908, Tony Bionchi, a driver in the employ of the Saylor Coal Company of Polk county. Caught between car and roof. Collar bone broken.

November 19, 1908, J. W. Price, a mule driver in the employ of the Maple Block Coal Company, Polk county. Breaking mules. Leg broken.

November, 1908, Thomas Pickle, a miner in the employ of the Anderson Coal Company of Polk county. Caught by car. Back broken or sprained.

December 1, 1908, George Shenton, a miner in the employ of the McAllister Coal Company of Jasper county. Fall of slate. Leg broken.

December 3, 1908, S. Blain, a driver for the Norwood-White Coal Company of Polk county. Struck by car. Ribs broken.

December 16, 1908, C. F. Carlson, a miner in the employ of the Smiley & Heaps Coal Company of Boone county. Collar bone and hip broken.

January, 1909, Pete Anderson, a day man in the employ of the Coal Valley Coal Company, Boone county. Fall of slate. Fractured foot.

January 6, 1909, John Craggs, a timberman in employ of Delaware Coal Company, of Polk county. Fall of slate. Leg broken.

January 23, 1909, W. Lewis, a driver in the employ of the Saylor Coal Company of Polk county. Caught by car. End of thumb cut off.

January 26, 1909, Frank Capetto, a company man in the employ of the Enterprise Coal Company of Polk county. Hand caught between bumper and cars. Cut off finger and thumb of left hand.

February 1, 1909, Tom Sellers, a miner in the employ of the W. D. Johnson Coal Company of Boone county. Fall of Coal. Foot mashed.

February 4, 1909, Joseph Scott, a miner in the employ of the Madison Coal Company of Polk county. Fall of slate. Right hip and ankle fractured and back injured.

February 6, 1909, E. Mickens, a driver in the employ of the Wright Coal Company of Polk county. Caught between car and timber. Finger cut off.

February 8, 1909, Dave Owens, a coupler in the employ of the Saylor Coal Company of Polk county. Caught between cars. End of fingers cut off.

February 12, 1909, Claude Boiles, a company man in the employ of the Smiley & Heaps Coal Company of Boone county. Fell off tail chain. Foot badly wrenched.

February 24, 1909, Thomas Jones, a spragger in employ of Saylor Coal Company of Polk county. Caught by car. End of fingers cut off.

March 19, 1909, William Quick, a driver for the West Riverside Coal Company of Polk county. Fell off tail chain. Back broken.

March 23, 1909, James Watson, mine foreman, W. D. Johnson Coal Company, Boone county. Fall of ice in quarter shaft. Left arm and two ribs broken.

April 12, 1909, John Bulger, a miner in the employ of the Gibson Coal Company of Polk county. Was wedging down coal when small piece of steel from hammer struck him in the eye destroying the sight of one eye and necessitating its removal.

April 21, 1909, Venice Tomlonovich, a miner in the employ of the Colfax Consolidation Coal Company of Jasper county. Fall of slate. Leg broken.

May 3, 1909, R. D. King, a cager in the employ of Enterprise Coal Company of Polk county. Ran into by car. Struck in stomach.

May 11, 1909, William Landies, a driver in the employ of the Ogden Coal Company of Boone county. Caught hand between car and rib. Two fingers broken.

June 3, 1909, Wm. Smith, a track layer in the employ of the Madison Coal Company of Polk county. Caught by car. Leg broken.

June 10, 1909, E. C. Snilson, a driver for the Keystone Coal Company of Polk county. Failure to sprag cars. Squeezed and bruised.

June 14, 1909, A. Geofredl, a miner in the employ of the Wright Coal Company of Polk county. Fall of slate. Skull fractured.

June 15, 1909, King McDonald, a miner in the employ of the Norwood-White Coal Company of Polk county. Caught by coal and hand crushed.

June 19, 1909, Ed Murphy, a miner in the employ of the Norwood-White Coal Company of Polk county. Caught between car and roof. Fingers crushed.

June 19, 1909, J. Miller, a miner in the employ of the Norwood-White Coal Company of Polk county. Fall of slate. Hip dislocated and leg broken.

June 20, 1909, John Krowczyk, a miner in the employ of Keystone Coal Company of Polk county. Fall of slate. Bruised and sprains.

June 28, 1909, W. H. Kilbert, a miner in the employ of Saylor Coal Company of Polk county. Caught between car and timber. Shoulder broken.

July 20, 1909, Geo. Comstock, a miner for the Scandia Coal Company. Fall of coal. Right arm broken and cut on head.

August 5, 1909, Wm. Nohens, a miner for Smiley & Heaps of Boone county. Fall of cap rock. Two ribs broken.

August 7, 1909, Harry Coddling, a track man at Ogden Coal Company's mine. Fall of slate. Leg broken.

August 23, 1909, John Boiles, a driver for Smiley & Heaps of Boone county. Fell off tail chain. Body badly bruised.

October 5, 1909, Frank R. Peterson, a miner employed by Smiley & Heaps of Boone, Boone county. Fall of cap rock and coal. One hip dislocated.

October 8, 1909, Joseph Hilderbrand, a miner employed by Bennett Bros. Coal Company of Polk county. Fall of coal. One arm broken.

October 29, 1909, Everett Sparks, a driver for the Madison Coal Company of Polk county. Thrown or fell off car. Right leg fractured.

November 19, 1909, John Dalton, a miner employed by Bennett Bros. Coal Company of Polk county. Fall of slate. Three ribs fractured.

December 20, 1909, Conrad Klute, a miner, employed by Smiley & Heaps Coal Company of Boone county. Fall of coal and cap rock. Collar bone mashed.

December 23, 1909, Willis Phillips, a miner employed by the Norwood-White Coal Company of Polk county. Fall of slate. Leg broken.

January 5, 1910, Jos Egan, Sr., a miner employed by the Smiley & Heaps Coal Company of Boone county. Fall of coal and cap rock. Head badly bruised and four ribs broken.

January 14, 1910, John Drenshaw, a driver employed by Norwood-White Coal Company of Polk county. Fell off tail chain. Right arm broken.

February 15, 1910, Paul Kapin, a miner employed by the Colfax Consolidation Coal Company of Jasper county. Fall of slate. Leg broken.

February 21, 1910, A. Marshall, a miner employed by the Colfax Consolidation Coal Company of Jasper county. Fall of slate. Body bruised.

March 31, 1910, John Swanson, a bottom laborer, in the employ of the Colfax Consolidation Coal Company of Jasper county. Stepped in front of a trip of cars. Leg broken.

June 11, 1910, W. H. Alexander, a miner employed by Madison Coal Company of Polk county. Fall of slate. Two ribs broken.

June 24, 1910, Fred Anderson, a driver employed by Saylor Coal Company. Struck and run over by car. Head severely injured.

RECOMMENDATIONS.

In a measure we are living in a new mining age. Steel towers, electrical haulage, concrete timbers, fire extinguishers and underground telephones are changes in mining, which compared with the ordinary and the recent past is as strange as night is from day.

To the credit of the State of Iowa let it be said that we have no great volumes of complicated or self-contradictory mining laws. They are concise and plain but time and conditions demand for a general revision.

The introduction of much electrical machinery for haulage and other purposes in coal mine operation, and the employment of great numbers of non-English speaking men as mine workers makes necessary additional precaution. Laws and rules for the protection of life and property must be agreed upon and enforced.

Sentiment or favoritism can have no place in the life issue of coal mining. The leaders of both operators and miners have always been in hearty accord with our laws and that same influence can be relied upon now for co-operative effort.

The laws required will involve greater discipline and training for an impartial enforcement. It is a pleasure to report that but few mine owners in the third district hesitate about money expenditure when improvements are demanded, with a view to safeguarding the health and lives of the mine workers, however, we do find such operator once in a while, just as we find miners who need watching and occasionally deserve chastisement.

We need a sensible revision of our mining laws and with positive mine inspection service we will be doing much towards establishing authority and responsibility where such is now lacking. I have suggested that there is too much concern for and about a large coal tonnage and too little concern for safety in the premises of the new dangers surrounding electrical and other modern machinery used in the darkness of our modern coal mines.

The big mine disasters and accidents seem to be entirely with the largest and so-called modern mines. While we hear much about mine explosions, we seem to overlook the fact that most of the deaths and serious accidents occur at the working face from falls of rock or coal and this is a most painful reminder that we have too many unskilled men employed in the coal mines.

The national government has created a Department of Mines and of its needs and likely usefulness I made mention in my last report. The work of that department will be largely educational and in that particular and extent, most useful. 'Tis at the mines, however, and in the mines, and in the everyday life of real mining, that we must look for results. Our laws and officers for the enforcement of the mining laws will be judged by the amount of good done in our actual mining. To keep close to the coal and mining thereof is the surest way to find every needed remedy.

In recommending for a Mine commission of thoroughly practical coal men to prepare, for the consideration of the next legislature, a new mining law, I recall your own kindly interest in all things pertaining to Iowa's coal mining industry and the tender of your own good offices whenever needed. I am confident that your own good efforts in this connection will be heartily supplemented by the leaders and active men among the coal miners and coal operators.

In this connection I will report that during the week of June 14-17 inclusive, the three Iowa State Mine Inspectors attended a meeting in Chicago, Illinois, comprised of mine inspectors from nearly every state in the Union. The organization is known as the Mine Inspectors' Institute of the United States of America. An interesting session was held, given up to the reading of carefully prepared papers on mining topics, the discussion of mining laws and the necessity of uniformity of rules and laws where mining conditions, will justify. The Mine Inspectors' Institute is a well meaning organization and one calculated to accomplish great good. There will be earnest co-operation between the mine inspectors and the National Department of Mines, and Iowa should be represented at each year's session. The best talent and experience of mining men is active in this work.

George H. Harrison, Chief Mine Inspector of Ohio, and President of the Mine Inspectors' Institute of America, delivered the following address:

"I regret that we cannot congratulate ourselves on any material decrease in the number of mine catastrophies, or console ourselves that the number of individual fatalities has likewise decreased.

"It is pleasing, however, to note that the long and persistent agitation in favor of the establishment of a Federal Bureau of Mines has at last borne fruit, and that the bill for its establishment has become a law. With such a bureau conducted along proper lines, and an earnest and

faithful co-operation between the persons connected with the bureau and the state mining departments, a great and beneficial work can, no doubt, be accomplished.

"While I am heartily in favor of the establishment of rescue training stations for training a number of the most active mine inspectors in the work of rescue and use of helmets, I wish to impress upon you that it is still a nobler work to bend our energies and exercise our influence in the direction that will eliminate as far as possible, the necessity for rescue work.

"The only way, in my opinion, to accomplish this desirable end, is to seek uniformity of mining laws in every mining state where conditions are similar; removing, as far as possible and practicable, all seen and known dangers, and adopting such safe-guards as are best calculated to reduce ordinary accidents, explosions, and other calamities, to a minimum.

"Care, however, should always be fully exercised in order that no false feeling of safety be created, or the idea fostered that no responsibility should be assumed by the ordinary workmen. On the contrary, every man who enters a mine should be taught to understand, and should fully realize that there is no such thing as safety, and that the lurking and unseen dangers in a coal mine are greater than the ordinary dangers in any other vocation in life. He should also be taught the necessity of restraint on his own individual liberties, and that on his conduct and acts depend his own safety, and the safety of all others in the mine.

"It is a well-known, but deplorable fact, that a large majority of the lives lost in mines is the result of carelessness, or utter want of ordinary discipline among employes, which is one of the greatest sources of danger we have to fear and with which we have to contend.

"My colleagues from Ohio, and myself, are pleased to advise you that the mines in our state commenced operation last Saturday morning under a complete new code of laws. These laws were drafted by a commission of thorough, practical miners and mine managers, every member of which knew just what was needed, and how to apply it without consulting an army of political lobbyists, or hearing arguments from a group of paid attorneys representing either the plaintiff or the defendant in the case.

"This is not any argument, however, that our new mining laws are perfect or faultless, nor is it an indication that they are as complete as the members of the commission desired them to be. While safety to life and limb should always receive first consideration, the increase in the cost of coal, the earning powers of employes, the increased responsibility and curtailment of the liberties of individuals, as well as competition from other mining states, are all potent factors that are zealously guarded against by one side or the other, and have to be reckoned with in the drafting of state mining laws, a fact which is the strongest evidence of the necessity of federal assistance and influence in securing uniform measures of law to govern mining in every state.

"Our commission, after careful consideration, and trying to cover every conceivable condition of present-day mining by specific law, and giving increased discretionary powers to the state mining department, made a unanimous report—the first time in mining history where three direct representative miners and three representative operators, and a contrary mine inspector, ever recommended an entire new mining code.

"I confess that it is a herculean task for seven men to assume the responsibility to settle so many questions of such vast and vital importance, and as the seventh member, and chairman of the commission, take this opportunity of expressing my high regard for the ability and spirit of fairness, as well as for the logical fighting qualities of the representatives of both miners and operators on the Commission, but above all, my admiration for their persistent determination to overcome every obstacle and submit a unanimous report.

"If you want to leave your measure for a new suit of clothes, you do not leave it with a blacksmith or a bricklayer; if you collide with a flying express and smash your automobile, you do not take it to an apothecary to have it repaired. If your watch fails to keep correct time, you do not call on a veterinary surgeon; if your wife requires a new dress made, or wants a new hat or bonnet, she does not go to a dentist or a druggist, and so on and so forth. If you want good, sane, sensible, practical mining laws, you must have them drafted, not by lawyers; not by doctors; not by dentists or politicians; nor by men who probably never saw a coal mine, but by good reasonable, broad-minded, practical men who understand and are familiar with all the conditions, difficulties and dangers met with in the operation of mines.

"For many years, and against much opposition for a time, particularly from miners' leaders, we have been advocating this method of securing legislation to govern the mines in Ohio, and the results so far are so gratifying that we highly recommend it to every mining state anticipating legislation of that nature. No legislation will prevent accidents or calamities where the management of mines are indifferent about the performance of their duties, or the safety of the men under their charge, or where careless employes consider their individual liberties paramount to the safety of others. Willful carelessness and criminal negligence should be vigorously prosecuted, and for repeated offences such violators of law should be driven out of the mine, in the interest of and protection to those who are careful and law-abiding.

"At Scranton, Pa., a year ago, when we accepted the kind invitation of our brother members from Illinois, to hold our second annual meeting in this city, we little expected to come here to express our sympathy with and share the regrets of these fellow-members of our institute as a result in their home state of one of the most peculiar, unlooked-for, and heart-rending catastrophes that mining history has ever recorded.

"Every mine inspector who has knowledge of the careless practice of some mine foremen in neglecting the ventilating system of their mines where carburetted hydrogen gas is generated, or is familiar with the general indifference of many employes in mines in regard to their own

safety and the safety of others, expects, and is not surprised when explosions occur; but who ever would have conceived such a circumstance as a hard-pressed and tightly-wired bale of hay catching fire and developing into a conflagration sufficient to cut off the egress at two mine openings about 500 feet apart, and causing the loss of 265 human lives, particularly where a number of men were working close to and had a full knowledge of the origin and progress of the fire, but seemingly made little effort either to report or extinguish it until too late.

"In mine catastrophes, there has been no parallel to the Cherry mine fire. The nearest to it was the Hartley Colliery accident in England on January 16, 1862, where a cast-iron engine pump beam, weighing about forty-four tons, broke in two at the center and one-half of it fell down the shaft, stripping out the partition and timbers, closing the shaft, and 204 persons slowly succumbed to the effects of carbonic oxide gas, generated by the combustion of fuel at the furnace after the shaft was closed; and Avondale, in Pennsylvania, on September 6, 1869, where fire from the ventilating furnace ignited the partition in the shaft, and carried the flames to the breakers and outside buildings, practically closing the shaft, and about 200 lives were lost.

"Unlike the Cherry calamity, however, in both instances, there was only one deep shaft opening, with wooden partition for ventilation, and a ventilating furnace in the mine.

"In the case of the Hartly calamity, the sympathies of the people of the entire nation for the entombed miners and their families was such, and popular indignation of such a strong and wide-spread character, that the English government at once enacted a law providing for two separate and distinct means of ingress and egress to mines, with not less than 100 feet of natural strata between. Similar provisions were made by legislative enactment in Pennsylvania, Ohio, and other mining states in this country, forced by the sacrifice of a similar number of lives at Avondale.

"At Cherry, however, there were two means of egress, nearly 500 feet apart; no such a thing as a furnace in the mine; no ordinary possibility for fire; two hoisting shafts where men could have readily been brought to the surface, yet we have the worst calamity that has ever occurred from any similar cause, and is proof positive that with all the safe-guards human mind can conceive and provide, there is no such thing as safety in a mine. A moment of forgetfulness, or a failure to diligently and constantly perform an important duty, may doom the entire force in a mine to death, in the twinkling of an eye. The hasty and cruel criticism indulged in against mine inspectors and others when mine calamities occur, by people totally ignorant of the circumstances, and unfit to pass judgment, makes it necessary that the slogan of this institute, and the watchword of every member, should be a strict performance of duty and a judicial, but rigid enforcement of the law."

SUMMARY

Of the Mine Inspector's Reports for the Two Years
Ending June 30, 1910

SUMMARY OF THE MINE INSPECTORS' REPORT FOR
THE TWO YEARS ENDING JUNE 30, 1910.

During the year ending June 30, 1909, the coal production of the state amounted to 7,346,253 tons, and that of the year ending June 30, 1910, was 7,222,480 tons.

In the first year of the biennial period 316 mines were in operation and 18,002 persons were employed; and in the second year 297 mines were in operation and 18,005 persons were employed in and around the mines of the state in the last half of February of each year.

The last two years shows a gain over the year 1908, and were the mines in normal operation from April 1st to May 15th of this year it is safe to say that the coal production of the last year ending June 30, 1910, would have exceeded that of any other year in the history of the state.

From April 1st to May 15th of this year, every mine in the state was idle, while a new scale of wages and working conditions were agreed upon between the operators and miners. Both parties are to be congratulated upon the peaceful settlement of their differences, while thousands of miners in other states are still idle through their failure to reach an agreement with their employers. The agreement signed extends to April 1, 1912, and the coal industry of our state has a promising outlook for the period named.

The following tables give the coal producing counties of the state, the number of mines, the coal output and number of persons employed in and about the mines for the two years ending June 30, 1910.

NUMBER OF MINES IN EACH COUNTY, THEIR COAL OUTPUT, NUMBER
OF MINERS AND OTHER EMPLOYES FOR YEAR
ENDING JUNE 30, 1909.

Number	County	Number of mines	Tons of coal of all grades produced	Number of miners employed	Number of other employees	Number of outside employees	Total number employed
1	Monroe	24	2,029,130	2,196	950	339	3,485
2	Polk	33	1,947,135	2,714	857	392	3,943
3	Appanoose	87	1,186,524	3,085	609	393	4,084
4	Mahaska	29	833,645	1,246	417	182	1,845
5	Jasper	11	833,340	519	191	61	771
6	Marion	15	292,607	470	139	68	667
7	Boone	11	271,094	638	233	106	967
8	Wapello	21	222,987	329	94	77	500
9	Dallas	3	205,700	305	73	33	411
10	Wayne	70	143,640	338	117	48	493
11	Webster	8	69,487	144	49	37	229
12	Adams	9	18,413	100	10	13	123
13	Van Buren	8	15,006	24	6	15	55
14	Guthrie	12	14,388	83	15	10	108
15	Page	4	14,054	54	16	10	80
16	Keokuk	4	13,884	20	5	4	29
17	Taylor	5	13,347	47	13	6	66
18	Greene	4	12,249	59	11	8	78
19	Lucas	2	9,717	27	8	6	41
20	Warren	8	4,474	25	5	5	30
21	Scott	3	2,900	19	14	3	36
22	Jefferson	2	2,109	7	2	1	11
23	Davis	3	1,480	17	8	2	27
Total		316	7,346,253	12,376	3,836	1,800	18,002

NUMBER OF MINES IN EACH COUNTY, THEIR COAL OUTPUT, NUMBER
OF MINERS AND OTHER EMPLOYES FOR YEAR
ENDING JUNE 30, 1910.

Number	County	Number of mines	Tons of coal of all grades produced	Number of miners employed	Number of other employees	Number of outside employees	Total number employed
1	Monroe	20	1,815,791	2,360	977	313	3,650
2	Polk	29	1,736,692	2,943	798	329	4,010
3	Appanoose	79	1,138,289	3,282	661	220	4,163
4	Mahaska	30	807,417	1,115	347	158	1,620
5	Jasper	10	834,136	493	194	70	757
6	Marion	14	293,056	408	127	59	594
7	Boone	11	247,495	589	189	106	884
8	Dallas	4	240,058	335	112	37	474
9	Wapello	22	224,731	298	117	68	533
10	Wayne	7	135,379	296	115	43	454
11	Webster	6	48,686	137	47	20	204
12	Adams	9	19,021	98	16	12	126
13	Keokuk	5	17,800	21	5	5	31
14	Van Buren	9	16,032	31	7	16	54
15	Greene	5	15,700	68	11	12	61
16	Page	4	12,247	53	14	10	77
17	Taylor	6	10,727	47	11	5	63
18	Lucas	2	10,410	25	8	5	38
19	Guthrie	9	9,885	49	3	9	61
20	Warren	8	5,309	28	4	4	39
21	Jefferson	2	3,181	13	1	1	15
22	Scott	3	2,000	11	3	1	12
23	Davis	3	1,600	9	8	3	29
Total		297	7,222,480	12,769	3,720	1,516	18,005

NUMBER OF MINES IN EACH DISTRICT, THEIR COAL OUTPUT, NUMBER OF MINERS AND OTHER EMPLOYEES FOR THE YEAR ENDING JUNE 30, 1909.

District	Number of mines	Tons of coal of all grades produced	Number of miners employed	Number of other employees inside	Number of outside employees	Total number of employees
Number 1.....	131	2,725,000	5,101	1,382	750	7,213
Number 2.....	100	2,074,930	2,841	1,001	480	4,275
Number 3.....	85	2,540,245	4,431	1,443	640	6,514
Total.....	316	7,340,253	12,376	3,826	1,800	18,002

NUMBER OF MINES IN EACH DISTRICT, THEIR COAL OUTPUT, NUMBER OF MINERS AND OTHER EMPLOYEES FOR THE YEAR ENDING JUNE 30, 1910.

District	Number of mines	Tons of coal of all grades produced	Number of miners employed	Number of other employees	Number of outside employees	Total number of employees
Number 1.....	118	2,428,707	5,208	1,411	596	7,155
Number 2.....	103	2,158,111	2,946	995	386	4,327
Number 3.....	78	2,635,602	4,615	1,314	594	6,523
Total.....	297	7,222,480	12,769	3,720	1,516	18,005

SUMMARY OF FATAL ACCIDENTS FOR THE TWO YEARS ENDING JUNE 30, 1910.

CAUSE OF FATAL MINE ACCIDENTS IN IOWA DURING THE YEAR ENDING JUNE 30, 1909, AND COUNTIES IN WHICH ACCIDENT OCCURRED.

Cause	Monroe	Polk	Appanoose	Mahaska	Marion	Jasper	Wapello	Boone	Dallas	Van Buren	Guthrie	Greene	Total
Fall of slate, coal, bat or rock.....	4	5	5	1	1		1		1				16
Fell down shaft.....	1	1											2
Fell under or hit by mine car.....	1	1		1									3
Suffocated by gas.....										2			2
Electrical shock.....	1												1
Windy shot.....	1	1											2
Explosion of powder, dynamite caps.....	1							1					2
Miscellaneous.....	1	1											2
Total.....	6	8	5	2	1		1	1	1	2		1	23

CAUSE OF FATAL MINE ACCIDENTS IN IOWA DURING THE YEAR ENDING JUNE 30, 1910, AND COUNTIES IN WHICH ACCIDENT OCCURRED.

Cause	Monroe	Polk	Appanoose	Mahaska	Marion	Jasper	Wapello	Boone	Dallas	Guthrie	Total
Fall of slate, coal, bat or rock.....	6	6	2	3	1		2	3	3		26
Fell down shaft.....	1					1				1	3
Fell under or hit by mine car.....	1	1	1	1	1						5
Caught between motor and roof.....	1										1
Windy shot.....	1										1
Run over by railroad flat.....	1										1
Caught between car and roof.....											1
Explosion of powder.....		1	1								2
Total.....	11	8	4	4	2	1	2	3	3	1	39

CAUSE OF FATAL MINE ACCIDENTS DURING THE TWO YEARS ENDING JUNE 30, 1910, AND COUNTIES IN WHICH ACCIDENT OCCURRED

Cause	Monroe	Polk	Appanoose	Mahaska	Marion	Jasper	Wapello	Boone	Dallas	Van Buren	Guthrie	Greene	Total
Fall of slate, coal bat or rock.....	8	11	7	4	1		3	3	4		1		48
Fell down shaft.....	1	2	1	2	1						1		7
Fell under or hit by mine car.....	1	2	1	2	1						2		9
Suffocated by carbonic oxide gas.....													2
Electrical shock.....	1												1
Run over by railroad flat.....	1												1
Caught between motor and roof.....	1												1
Windy shot.....	1	1											2
Caught between car and roof.....	1												1
Explosion of powder and dynamite caps.....	1	1	1					1					4
Miscellaneous.....		1											1
Total.....	17	18	9	6	2	1	3	4	4	2	1	1	67

SUMMARY OF NON-FATAL ACCIDENTS FOR THE TWO YEARS ENDING JUNE 30, 1910.

CAUSE OF NON-FATAL ACCIDENTS IN IOWA DURING YEAR ENDING JUNE 30, 1909, AND COUNTY IN WHICH ACCIDENT OCCURRED.

Cause	Monroe	Polk	Appanoose	Mahaska	Marion	Jasper	Wapello	Boone	Dallas	Guthrie	Adams	Total
Fall of slate, coal, bat or rock.....	11	11	14	11	3	4	2	3	1	1	1	62
Fell under or hit by mine car.....	15	19	2	8	1			3				49
Explosion of powder.....	3											3
Miscellaneous.....		2		4				1				7
Total.....	29	32	16	23	4	4	3	7	1	1	1	121

CAUSE OF NON-FATAL ACCIDENTS IN IOWA DURING YEAR ENDING JUNE 30, 1910, AND COUNTY IN WHICH ACCIDENT OCCURRED.

Cause	County										Total	
	Monroe	Polk	Appanoose	Mahaska	Marion	Jasper	Wapello	Boone	Dallas	Guthrie		Adams
Fall of slate, coal, bat or rock.....	15	4	3	11	1	2	5	5	1			52
Fell under or hit by mine car.....	13	3	5	5	2	1		1				30
Dust explosion.....	1											1
Explosion of powder.....			2									2
Miscellaneous.....	5			2		2					1	10
Total	34	7	15	18	3	3	7	6	1		1	95

CAUSES OF NON-FATAL MINE ACCIDENTS IN IOWA DURING THE TWO YEARS ENDING JUNE 30, 1910, AND COUNTY IN WHICH ACCIDENT OCCURRED.

Cause	County										Total	
	Monroe	Polk	Appanoose	Mahaska	Marion	Jasper	Wapello	Boone	Dallas	Guthrie		Adams
Fall of slate, coal, bat or rock.....	26	15	13	13	4	6	7	3	2	1	1	113
Fell under or hit by mine car.....	23	22	13	13	3	1	1					76
Explosion of powder.....	3		2	13	3			4				5
Dust explosion.....	1											1
Miscellaneous.....	5	2		6			2	1			1	21
Total	63	39	31	41	7	7	10	13	2	1	2	216

FATAL AND NON-FATAL ACCIDENTS IN THE MINES OF THE STATE DURING YEAR ENDING JUNE 30, 1909, WITH RELATION TO COAL PRODUCED AND NUMBER OF EMPLOYEES.

Districts	Number of accidents		Number of tons of coal produced	Tons of coal produced for each accident		Number of employees	Number of employees for each accident	
	Fatal	Non-fatal		Fatal	Non-fatal		Fatal	Non-fatal
	Number 1.....	8	39	2,725,069	340,634	69,874	7,213	902
Number 2.....	0	37	2,074,939	230,549	53,376	4,275	475	116
Number 3.....	11	43	2,546,245	231,477	56,583	6,514	592	145
Total	28	121	7,346,253	262,366	60,713	18,002	643	149

FATAL AND NON-FATAL ACCIDENTS IN THE MINES OF STATE DURING YEAR ENDING JUNE 30, 1910, WITH RELATION TO COAL PRODUCED AND NUMBER OF EMPLOYEES.

Districts	Number of accidents		Number of tons of coal produced	Tons of coal produced for each accident		Number of employees	Number of employees for each accident	
	Fatal	Non-fatal		Fatal	Non-fatal		Fatal	Non-fatal
Number 1.....	19	34	2,428,767	242,877	71,434	7,155	716	210
Number 2.....	13	44	2,158,111	166,009	49,048	4,327	323	98
Number 3.....	16	17	2,635,602	164,725	155,035	6,523	402	384
Total	39	95	7,222,480	185,192	76,026	18,005	498	190

TABLE SHOWING FATAL MINE ACCIDENTS IN IOWA FOR LAST FIFTEEN YEARS, THEIR RELATION TO COAL TONNAGE AND EMPLOYEES.

Year	Number of accidents	Tons of coal produced	Tons of coal per accident	Number of employees	Fatality rate per 1,000 employees
1896.....	22	3,525,400	160,254	11,451	2.
1897.....	21	3,799,734	190,464	11,678	1.8
1898.....	26	4,397,722	169,143	10,550	2.5
1899.....	20	4,949,310	247,466	11,029	1.8
1900.....	29	5,117,285	176,458	13,041	2.2
1901.....	27	5,441,893	201,550	13,175	2.
1902.....	55	5,514,206	100,258	33,002	4.2
1903.....	21	6,185,734	294,559	13,192	1.6
1904.....	31	6,214,379	200,464	16,315	1.9
1905.....	24	6,895,011	283,584	17,634	1.4
1906.....	37	7,017,485	189,661	16,323	2.2
1907.....	35	7,568,425	216,241	17,045	2.05
1908.....	28	7,155,434	188,301	17,312	2.9
1909.....	28	7,346,253	262,366	18,002	1.5
1910.....	39	7,222,480	185,192	18,005	2.1