

FOURTH BIENNIAL REPORT
OF THE
STATE INSPECTOR OF OILS

TO THE
GOVERNOR OF IOWA.

JUNE 30, 1891.

PRINTED BY ORDER OF THE GENERAL ASSEMBLY

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REPORT OF STATE OIL INSPECTOR.

To HON. HORACE BOIES, *Governor of Iowa*:

SIR—In compliance with the statutes governing the inspection of illuminating oils I submit herewith my report as State Inspector of Oils, during the fifteen months of my official term, beginning April 1st, 1890, and terminating June 30th, 1891.

Shortly after my term of office began I received from my predecessor in office reports of inspection for the nine months previous, which reports are included herein and made a part of this report.

I found, when assuming charge of the office, deputies stationed as follows: At Keokuk, Davenport, Dubuque, Marion, Des Moines, Council Bluffs, Sioux City, Humboldt, Mason City, Cedar Falls.

At this time inspectors are located as follows:

J. J. Dunn.....	Dubuque.
F. O. Udall.....	Dubuque.
Chas. F. Reffley.....	Keokuk.
W. G. Mercer.....	Burlington.
Wm. Bruhn.....	Davenport.
M. P. Healy.....	Cedar Rapids.
E. C. French.....	Ottumwa.
I. Van Metre.....	Waterloo.
Geo. W. Hyatt.....	Fort Dodge.
John Morris.....	Des Moines.
Ed. L. Gardner.....	Knoxville.
Frank S. Widl.....	Marshalltown.
E. Rosch.....	Council Bluffs.
C. K. Smith.....	Sioux City.

The appointment of additional deputies and creation of new stations was found to be necessary in order to better protect the people of the State, prevent violations of the law and prevent the use of the stencils by others than deputies or those under their personal supervision and control.

I have made it a special duty in every station in the State where there is a storage tank and no resident deputy to see that the person

to whom is given custody of the stencil is not directly or indirectly interested in the manufacture or sale of petroleum or its products, and is under the personal supervision and control of the Inspector to whose district the station belongs.

When I assumed charge of the office of Inspector I found two deputies in the city of Des Moines who had charge of the Knoxville station in addition to the three houses or plants in Des Moines. Each was equally responsible to the State Inspector for the district and the management of affairs therein, and one not more than the other in case of violation or accident. I concluded it best to change this and appointed a deputy at Knoxville, who is responsible for that station, and one in the city of Des Moines, who is given a salaried assistant under his personal supervision and control.

The district including Marshalltown and Cedar Rapids, whose deputy had headquarters at Marion, I divided, and appointed a deputy at Marshalltown and one at Cedar Rapids.

The Keokuk district I also divided, appointing one deputy at Keokuk and another at Ottumwa, and to the latter added part of the former Council Bluffs district.

The district of Mason City I found had for twelve months prior to June, 1890, but sixteen hundred and ninety-five barrels of oil inspected and branded. The deputy, with headquarters there, resigned and I attached that to the stations of Eagle Grove and Fort Dodge and appointed a deputy at Fort Dodge for the district.

In the latter part of 1890 I sent an order to each deputy in the State as follows:

To.....Deputy Inspector of Oils,

At.....

The revised rules and regulations for the inspection of illuminating oils in Iowa provide that the Inspector's brand must be placed on the package, cask or barrel with bright colors in clear distinct letters, and must be affixed by the Inspector in person or by some person under his personal supervision and control, who is not directly or indirectly interested in the manufacture or sale of any product of petroleum.

No package shall be branded previous to being filled with oil. The brand of an inspector is deemed to be his official signature and must not be permitted to pass out of his custody or control. If this rule, or any portion of it, has been in the past violated at your station, you will at once proceed to comply with the rule as herein set forth. You will see that if through pressure of business, sickness or absence, you cannot attach the brands in person, under no circumstances are you permitted to allow this work to be done by any person interested directly or indirectly in the manufacture or sale of petroleum or its product.

You must have the branding done by some one under your personal supervision and control.

Please acknowledge receipt of this.

(Signed.)

J. J. DUNN,

State Inspector of Oils for Iowa.

Within a reasonable length of time after the issuance of this order I received from all deputies acknowledgments of the receipt of the order and statements showing a strict compliance therewith. And I feel at this writing that the rules regarding stencils are being obeyed at every station in Iowa.

EXPLOSIONS.

It affords me pleasure to be able to report that no explosion of kerosene oil has occurred in Iowa during the fifteen months of my incumbency of the office. When newspaper accounts of fire originating in kerosene lamps were received I caused the same to be thoroughly investigated and in each case found no explosion, the real cause being carelessness, the oil used was up to the required flash test, no loss of life, no injury to person, and very little damage to property.

No deliberate and intentional violations of the law have occurred since my term of office began. Iowa wholesale dealers are familiar with its provisions and obey them.

Some parties have been in the habit of buying oil by the barrel outside of the State. This oil is sold by agents who tell the purchaser it is all right. When the oil is received the purchaser proceeds to use or divide it with his neighbor without first having the same inspected. This of course constitutes a violation and when discovered and called to answer the charge he admits the offense, says he thought the Milwaukee or Chicago Inspector's brand was sufficient, and promises to be careful in the future. Some cases of this kind are pending, some have been dismissed, but in all cases of violation known to this department the facts have been presented to the county attorney or grand jury for prosecution.

I attach hereto a statement of number barrels of oil rejected, number barrels of oil approved, number barrels of gasoline rejected for illuminating purposes, and amount of fees for same for the term beginning July 1st, 1879, and ending March 31st, 1890, as per reports turned over to me by my predecessor in office. I also attach statement of number of barrels of oil rejected, number of barrels of oil approved, number barrels of gasoline rejected for illuminating purposes and amount of fees received for same for the term commencing April 1st, 1890, and ending June 30th, 1891.

This latter statement is from the beginning of my term of office and shows:

The number barrels oil rejected.....	3,400
The number barrels oil approved.....	231,057
The number barrels gasoline rejected	84,142
Total amount of fees for same.....	\$27,652.80
Expense of Inspector's office including surplus stationery, postage, traveling expense, salary, and commission of Deputies and helpers.....	22,841.66
Balance for fifteen months.....	4,811.14

REPORTS OF INSPECTORS.

Report of inspection for the month of July, 1889.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gasoline rejected for illuminating purposes.	Amount of fees.
F. O. Udall.....	110	2,179	1,542	\$ 306.00
John Behrens ..		1,257	619	156.65
Geo. L. Stearns ..		1,418	920	187.80
J. K. Mason		601	635	91.85
Chas. Beardsley		423	516	68.10
M. Stone		498	896	94.60
F. R. Laird		596	1,272	123.20
H. Keerl		113	111	16.85
W. H. Lynchard.....		439	912	89.50
J. B. Swineburne		319	194	41.60
E. P. Heizer		407	560	68.70
Total	110	8,250	8,177	\$ 1,244.85

Report of inspection for the month of August, 1889.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gasoline rejected for illuminating purposes.	Amount of fees.
F. O. Udall.....	115	3,430	1,300	\$ 419.50
John Behrens.....		884	97	97.50
Geo. L. Stearns		1,657	879	209.65
F. N. Chase	115	138		25.30
J. K. Mason		1,192	508	144.60
Charles Beardsley.....		759	746	113.20
M. Stone		1,011	813	141.75
F. R. Laird		648	1,064	118.00
H. Keerl		111	111	16.65
W. H. Lynchard.....		710	875	114.75
J. B. Swinburne		126	221	23.65
E. P. Heizer.....		848	660	117.80
Total.....	230	11,514	7,359	\$ 1,542.35

Report of inspection for the month of September, 1889.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gas-oil rejected for illuminating purposes.	Amount of fees.
F. O. Udall.....	2	2,318	1,572	\$ 310.70
John Behrens.....		1,832	717	219.05
Geo. L. Stearns.....		2,022	736	239.00
F. N. Chase.....		30		3.00
J. K. Mason.....	3	2,471	445	269.65
Chas. Beardsley.....		1,676	194	177.30
M. Stone.....		1,062	615	136.95
F. R. Laird.....		2,079	696	242.70
H. Keerl.....		111	110	16.60
W. H. Lynchard.....	5	1,953	692	230.40
J. B. Swinburne.....		990	332	115.60
E. P. Heizer.....		949	526	121.20
Total.....	10	17,494	6,635	\$ 2,082.15

Report of inspection for the month of October, 1889.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gas-oil rejected for illuminating purposes.	Amount of fees.
F. O. Udall.....	65	6,262	106	\$ 638.00
John Behrens.....		3,062	690	240.70
J. K. Mason.....	1	2,280	82	232.20
Chas. Beardsley.....		1,788		178.80
Geo. L. Stearns.....		2,786	662	311.70
M. Stone.....		2,849	272	298.50
F. R. Laird.....		2,150	560	243.00
H. Keerl.....		271		27.10
W. H. Lynchard.....		1,649	393	184.55
J. B. Swinburne.....		1,488	223	159.95
F. N. Chase.....		1,334	575	162.15
E. P. Heizer.....		1,554	359	173.35
Total.....	66	27,473	3,922	\$ 2,950.00

Report of inspection for the month of November, 1889.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gas-oil rejected for illuminating purposes.	Amount of fees.
F. O. Udall.....	68	2,142		\$ 221.00
John Behrens.....		1,830	82	187.10
W. H. Lynchard.....		1,172	256	131.50
Geo. L. Stearns.....		1,453	334	162.00
F. N. Chase.....		473		47.30
J. K. Mason.....	1	1,468	115	152.65
Chas. Beardsley.....		336		33.60
M. Stone.....		1,540	241	166.05
F. R. Laird.....		1,313	314	147.00
J. B. Swinburne.....		441	83	48.25
E. P. Heizer.....	34	1,174	268	134.20
Total.....	103	13,342	1,723	\$ 1,430.65

Report of inspection for the month of December, 1889.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gas-oil rejected for illuminating purposes.	Amount of fees.
F. O. Udall.....	110	4,092		\$ 420.20
John Behrens.....		3,242	111	329.75
Geo. L. Stearns.....		2,639	305	279.15
J. K. Mason.....		2,576	225	268.85
Chas. Beardsley.....		2,455		245.50
M. Stone.....		1,833	330	199.80
F. R. Laird.....		2,183	417	239.15
W. H. Lynchard.....		2,535	313	269.15
F. N. Chase.....		970		97.00
J. B. Swinburne.....		972		97.20
H. Keerl.....		333	82	37.40
E. P. Heizer.....		1,480	286	162.30
Total.....	110	25,310	2,069	\$ 2,645.45

Report of inspection for the month of January, 1890.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gas-oil rejected for illuminating purposes.	Amount of fees.
F. O. Udall.....		3,909	404	\$ 411.10
John Behrens.....		2,870	83	291.15
George L. Stearns.....		2,803	222	291.40
J. K. Mason.....		2,807	114	286.40
Charles Beardsley.....		1,239	301	138.95
M. Stone.....		1,566	101	161.55
F. R. Laird.....		2,766	556	304.40
W. H. Lynchard.....		2,008	198	210.70
F. W. Chase.....		1,163	356	134.18
J. B. Swinburne.....	1	1,057	111	111.35
H. Keerl.....		154		15.40
E. P. Heizer.....		1,473	324	163.50
Total.....	1	23,815	2,770	\$ 2,520.10

Report of inspection for the month of February, 1890.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gas-oil rejected for illuminating purposes.	Amount of fees.
F. O. Udall.....		3,258	387	\$ 345.15
John Behrens.....	112	2,433	83	253.65
Geo. L. Stearns.....		2,402	406	260.50
J. K. Mason.....		1,058	193	115.45
Chas. Beardsley.....		1,467	406	167.00
M. Stone.....		942	110	99.70
E. R. Laird.....		958	286	110.10
H. Keerl.....		193	110	24.80
F. N. Chase.....		710		71.00
W. H. Lynchard.....		1,304	330	146.90
J. B. Swinburne.....		241	110	29.60
E. P. Heizer.....		1,023	369	116.25
Total.....	112	15,944	2,690	\$ 1,740.10

Report of inspection for the month of March, 1890.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gas-oil rejected for illuminating purposes.	Amount of fees.
F. O. Udall.....		1,956	390	\$ 215.10
John Behrens.....		2,305	29	231.95
George S. Stearns.....		1,890	217	199.85
J. K. Mason.....		1,510	222	163.10
Charles Beardsley.....		652		65.20
M. Stone.....		1,261	330	142.60
F. R. Laird.....		856	319	101.55
M. Keerl.....		144		14.40
F. N. Chase.....	4	262	389	45.65
W. H. Lynchard.....		1,056	200	116.00
J. B. Swinburne.....		546		54.60
E. P. Heizer.....		920	338	108.90
Total.....	4	13,358	2,434	\$ 1,457.90

Consolidation of inspections by months from July 1, 1889, to March 31, 1890.

MONTHS.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gas-oil rejected for illuminating purposes.	Amount of fees.
1889.				
July.....	110	8,250	8,177	\$ 1,244.85
August.....	230	11,514	7,359	1,542.35
September.....	10	17,494	6,635	2,082.15
October.....	66	27,473	3,922	2,950.00
November.....	103	13,342	1,723	1,430.65
December.....	110	25,310	2,069	2,645.45
1890.				
January.....	1	23,815	2,770	2,520.10
February.....	112	15,944	2,690	1,740.10
March.....	4	13,358	2,434	1,457.90
Total.....	746	156,500	37,779	\$ 17,613.55

Report of inspection for the month of April, 1890.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gas-oil rejected for illuminating purposes.	Amount of fees.
F. O. Udall.....	110	1,156	271	\$ 129.15
John Behrens.....		553	100	60.30
F. N. Chase.....		199	266	44.20
Geo. L. Stearns.....		1,382	691	172.75
M. Stone.....		540	230	65.50
J. K. Mason.....		2,226	704	257.80
F. R. Laird.....		1,411	793	180.75
H. Keerl.....			73	3.65
W. H. Lynchard.....		610	527	87.35
J. B. Swinburns.....		681	143	75.25
E. P. Heizer.....		539	275	67.65
C. K. Smith.....	17	256	164	35.50
Total.....	127	9,553	4,237	\$ 1,179.85

Report of inspection for the month of May, 1890.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gas-oil rejected for illuminating purposes.	Amount of fees.
J. J. Dunn.....		1,304	1,561	\$ 208.45
F. O. Udall.....		1,257	1,274	189.40
John Behrens.....		155	111	21.05
H. Keerl.....		390	720	75.00
Geo. L. Stearns.....	5	1,572	570	186.20
J. K. Mason.....		676	442	89.70
F. N. Chase.....		1,013	916	147.10
F. R. Laird.....		539	607	84.25
W. H. Lynchard.....		234	268	38.80
J. B. Swinburne.....	10	629	531	90.45
C. K. Smith.....				
Total.....	15	7,789	7,000	\$ 1,130.40

Report of inspection for the month of June, 1890.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gas-oil rejected for illuminating purposes.	Amount of fees.
J. J. Dunn.....		2,057	943	\$ 252.85
F. O. Udall.....		1,017	111	107.25
John Behrens.....		475	221	58.55
F. N. Chase.....		111	188	20.50
Geo. L. Stearns.....		116	203	21.75
L. S. Sauer.....	4	1,059	836	148.10
C. F. Relfley.....		333	175	42.05
E. C. French.....		641	194	73.80
F. S. Widl.....		1,989	1,303	264.05
John Morris.....		242	333	40.85
Geo. W. Hyatt.....	10	602	715	96.95
C. K. Smith.....				
Total.....	14	8,642	5,223	\$ 1,126.70

Report of inspection for the month of July, 1890.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gas-oil rejected for illuminating purposes.	Amount of fees.
J. J. Dunn.....		1,775	1,575	\$ 256.25
F. O. Udall.....		1,136	1,040	165.60
John Behrens.....		201	536	46.90
E. C. French.....		604	983	109.55
C. F. Relfley.....		446	733	81.25
L. S. Sauer.....		586	623	89.75
I. Van Metre.....		264	1,132	83.00
E. Rosch.....		191	376	37.90
F. S. Widl.....		1,867	3,198	346.60
John Morris.....		646	692	99.20
Geo. W. Hyatt.....		535	905	98.75
C. K. Smith.....				
Total.....		8,251	11,793	\$ 1,414.75

Report of inspection for the month of August, 1890.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gasoline rejected for illuminating purposes.	Amount of fees.
J. J. Dunn.....	2,431	672	\$ 276.70
F. O. Udall.....	908	830	132.30
John Behrens.....	343	19	35.25
E. C. French.....	1,358	569	164.25
C. F. Reffley.....	1,115	232	122.60
W. G. Mercer.....	610	561	89.05
L. S. Sauer.....	411	404	61.20
I. Van Metre.....	2,167	1,113	272.35
John Morris.....	919	368	110.30
E. Rosch.....	382	359	56.15
F. S. Widl.....	629	222	74.00
George W. Hyatt.....	817	869	125.15
C. K. Smith.....			
Total.....		12,090	6,209	\$ 1,519.40

Report of inspection for the month of September, 1890.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gasoline rejected for illuminating purposes.	Amount of fees.
J. J. Dunn.....	.....	4,667	858	\$ 509.60
F. O. Udall.....	.....	1,148	.....	114.80
John Behrens.....	.....	962	82	100.30
Wm. Bruhn.....	.....	1,036	209	114.05
C. F. Reffley.....	.....	1,576	298	172.50
W. G. Mercer.....	.....	1,176	332	129.20
I. Van Metre.....	.....	746	111	80.15
E. C. French.....	.....	2,546	621	296.65
L. S. Sauer.....	111	2,734	1,163	332.05
John Morris.....	5	2,231	1,757	310.95
E. Rosch.....	.....	110	110	24.70
E. L. Gardner.....	82	1,386	529	165.05
Geo. W. Hyatt.....	.....	844	294	99.10
F. S. Widl.....	.....	926	762	130.70
C. K. Smith.....	.....		
Total.....	198	22,088	7,026	\$ 2,579.90

Report of inspection for the month of October, 1890.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gasoline rejected for illuminating purposes.	Amount of fees.
J. J. Dunn.....	.....	5,371	221	\$ 548.15
F. O. Udall.....	.....	3,063	.....	306.30
Wm. Bruhn.....	105	316	118	48.00
E. L. Gardner.....	.....	2,840	800	324.90
W. G. Mercer.....	.....	1,881	225	199.35
C. F. Reffley.....	.....	1,325	317	148.35
E. C. French.....	.....	4,640	1,387	559.25
John Morris.....	259	1,127	334	137.70
L. S. Sauer.....	83	2,537	1,018	904.60
E. Rosch.....	.....	1,335	306	148.80
F. S. Widl.....	.....	1,126	277	126.45
Geo. W. Hyatt.....	.....	2,104	173	219.05
I. Van Metre.....	.....	1,518	647	184.15
C. K. Smith.....	.....		
Total.....	447	29,192	5,823	\$ 3,255.05

Report of inspection for the month of November, 1890.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gasoline rejected for illuminating purposes.	Amount of fees.
J. J. Dunn.....	303	3,207	472	\$ 374.60
F. O. Udall.....	.....	2,793	350	296.80
Wm. Bruhn.....	.....	1,966	.....	196.60
W. G. Mercer.....	.....	617	.....	61.70
E. C. French.....	5	904	111	96.45
C. F. Reffley.....	114	307	.....	42.10
E. L. Gardner.....	421	3,517	637	425.65
John Morris.....	10	1,165	227	118.85
L. S. Sauer.....	.....	1,322	242	144.30
E. Rosch.....	.....	813	92	85.90
F. S. Widl.....	.....	1,884	333	205.05
Geo. W. Hyatt.....	.....	729	262	86.10
I. Van Metre.....	1	1,501	483	174.25
C. K. Smith.....	.....		
Total.....	854	20,725	2,318	\$ 2,318.35

Report of inspection for the month of December, 1890.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gas-oil rejected for illuminating purposes.	Amount of fees.
J. J. Dunn.....	110	4,760	666	\$ 520.30
F. O. Udall.....		2,912		291.20
Wm. Bruhn.....		3,440	1	344.05
W. G. Mercer.....		1,744	118	180.30
C. F. Reffley.....	219	1,639	222	196.90
L. S. Sauer.....		3,630	642	475.30
John Morris.....	802	1,266	110	132.10
E. C. French.....		1,396		139.60
I. Van Metre.....		1,986	353	216.25
E. Rosch.....		329		32.90
E. L. Gardner.....		1,675	111	173.05
F. S. Widl.....		1,717	82	175.80
Geo. W. Hyatt.....		1,353	334	152.00
C. K. Smith.....				
Total.....	1131	27,847	2,639	\$ 3,029.75

Report of inspection for the month of January, 1891.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gas-oil rejected for illuminating purposes.	Amount of fees.
J. J. Dunn.....	229	4,938	111	\$ 499.35
F. O. Udall.....		3,284		328.40
Wm. Bruhn.....		1,213	20	122.30
W. G. Mercer.....		269	132	33.50
C. F. Reffley.....	229	3,487	504	396.80
John Morris.....		1,132	117	119.05
E. C. French.....	2	1,085	221	119.55
Geo. W. Hyatt.....		2,044	226	215.70
E. Rosch.....		404		40.40
E. L. Gardner.....		1,724	286	186.70
F. S. Widl.....		2,709	110	276.40
I. Van Metre.....		443		44.30
M. P. Healy.....		235	5	23.95
L. S. Sauer.....		1,411	416	161.90
C. K. Smith.....				
Total.....	231	24,378	2,148	\$ 2,568.38

Report of inspection for the month of February, 1891.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gas-oil rejected for illuminating purposes.	Amount of fees.
J. J. Dunn.....	110	1,578	216	\$ 176.60
F. O. Udall.....		2,451	557	272.95
Wm. Bruhn.....		1,937	136	200.50
W. G. Mercer.....		874	222	98.50
E. C. French.....	5	1,791	209	189.55
C. F. Reffley.....		905	222	101.60
F. S. Widl.....	115	1,159	261	128.95
M. P. Healy.....		229		22.90
E. L. Gardner.....		3,043	730	341.30
John Morris.....		1,592	396	179.00
E. Rosch.....		1,181	232	129.70
I. Van Metre.....		600	96	64.80
Geo. W. Hyatt.....		1,095	285	123.75
C. K. Smith.....				
Total.....	115	18,435	3,562	\$ 2,033.10

Report of inspection for the month of March, 1891.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gas-oil rejected for illuminating purposes.	Amount of fees.
J. J. Dunn.....	115	3,258	443	\$ 347.95
F. O. Udall.....		1,403	194	150.00
Wm. Bruhn.....		391	224	50.30
M. P. Healy.....		1,434	223	154.55
W. G. Mercer.....	3	854	5	85.65
C. F. Reffley.....		835	222	94.60
E. C. French.....	118	719	111	77.45
F. S. Widl.....		1,650	443	198.65
John Morris.....		634	1	63.45
E. Rosch.....		231	116	28.90
E. L. Gardner.....		534	111	58.95
Geo. W. Hyatt.....		1,009		100.90
I. Van Metre.....		1,081	445	130.65
C. K. Smith.....				
Total.....	118	14,033	2,538	\$ 1,542.00

Report of inspection for the month of April, 1891.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gasoline rejected for illuminating purposes.	Amount of fees.
J. J. Dunn.....		819	294	\$ 96.60
F. O. Udall.....				
Wm. Bruhn.....		1,737	255	173.70
C. F. Reffley.....		218	228	34.55
M. P. Healy.....		622	617	73.60
W. G. Mercer.....		1,271	679	157.95
John Morris.....	39	1,602	698	198.05
E. Rosch.....		1,265	255	161.40
H. C. French.....		560	152	68.75
F. S. Widl.....		847	369	92.30
I. Van Metre.....		1,050	111	123.45
Geo. W. Hyatt.....		331	549	38.65
C. K. Smith.....		761		103.55
Total.....	39	11,083	4,207	\$ 1,322.55

Report of inspection for the month of May, 1891.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gasoline rejected for illuminating purposes.	Amount of fees.
J. J. Dunn.....		1,545	1,889	\$ 248.95
F. O. Udall.....		560	1,125	112.25
Wm. Bruhn.....	111	460	527	83.45
M. P. Healy.....		623	882	106.40
W. G. Mercer.....		151	185	24.35
C. F. Reffley.....		116	398	31.50
E. C. French.....		1,090	2,457	231.85
John Morris.....		771	1,251	139.65
E. Rosch.....		1,039	1,461	176.95
I. Van Metre.....		443	558	72.20
Geo. W. Hyatt.....		649	440	86.90
F. S. Widl.....		119	118	17.80
E. L. Gardner.....		646	761	192.65
C. K. Smith.....				
Total.....	111	8,212	12,052	\$ 1,434.90

Report of inspection for the month of June, 1891.

NAME OF INSPECTOR.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gasoline rejected for illuminating purposes.	Amount of fees.
J. J. Dunn.....		769	570	\$ 108.10
F. O. Udall.....		1,310	588	160.40
Wm. Bruhn.....		642	457	87.05
M. P. Healy.....		521	255	64.85
W. G. Mercer.....		529	294	67.60
C. F. Reffley.....		894	509	114.85
E. C. French.....		1,194	1,106	174.70
John Morris.....		560	831	98.35
E. Rosch.....		411	375	59.85
F. S. Widl.....		789	324	95.55
Geo. W. Hyatt.....		511	361	69.15
I. Van Metre.....		574	799	97.35
C. K. Smith.....				
Total.....		8,739	6,478	\$ 1,197.80

Consolidation of inspection by months, from April 1st, 1890, to June 30th, 1891.

MONTHS.	No. barrels of oil rejected.	No. barrels of oil approved.	No. barrels of gasoline rejected for illuminating purposes.	Amount of fees.
1890.				
April.....	127	9,553	4,237	\$ 1,179.85
May.....	15	7,789	7,000	1,130.40
June.....	14	8,642	5,222	1,126.70
July.....		8,251	11,793	1,414.75
August.....		12,090	6,208	1,519.40
September.....	198	22,088	7,026	2,579.90
October.....	447	29,192	5,823	3,255.05
November.....	854	20,725	3,206	2,318.35
December.....	1,131	27,847	2,639	3,029.75
1891.				
January.....	231	24,378	2,148	2,568.30
February.....	115	18,435	3,552	2,083.10
March.....	118	14,033	2,538	1,542.00
April.....	39	11,083	4,207	1,322.55
May.....	111	8,212	12,052	1,434.90
June.....		8,739	6,478	1,197.80
Total.....	3,400	241,057	84,142	\$27,652.80

I may add when reviewing the record made by this department for the past fifteen months: No willful violation of law, few violations, no loss of life, no injury to person, little if any damage to property, no explosion of kerosene or other illuminating oils. I have had the hearty co-operation of the State Board of Health, and I think a fair share of the credit for the showing made by this report is due to the efficiency of Mr. L. F. Andrews, Assistant Secretary of the State Board of Health, who has always been ready to assist and aid the Inspectors in the discharge of their duties to promote the efficiency of the department and insure the safety of the people of the State.

J. J. DUNN.

OIL INSPECTORS' RULES AND REGULATIONS.

THE INSTRUMENTS.

RULE 1. The instrument to be used in testing oil under the provisions of Chapter 185, Acts of the Twentieth General Assembly, as amended by Chapter 149, Laws of the Twenty-First General Assembly, shall be that made by EIMER & AMEND, New York, and shall have inscribed thereon the words: "Oil Tester, Iowa State Board of Health," and shall be constructed as shown in the following diagram:

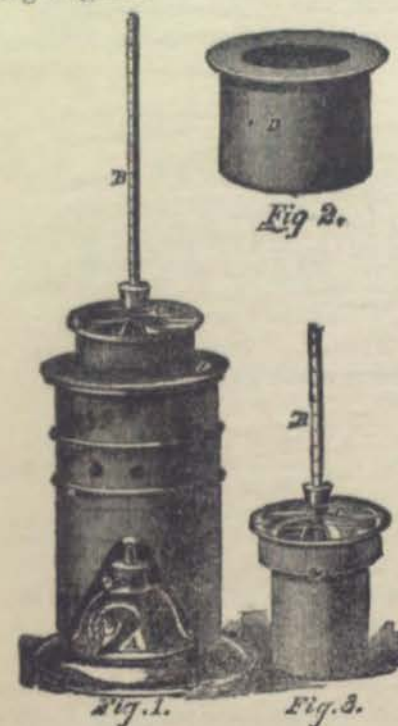


Fig. 1 represents the instrument entire. It consists of a sheet copper stand $8\frac{1}{2}$ inches high, exclusive of the base, and $4\frac{1}{2}$ inches in diameter. On one side is an aperture $3\frac{1}{2}$ inches high for introducing a small spirit lamp, A, or better a small gas-burner, instead of a lamp, when gas is available.

The Water-bath, Fig. 2, is also of copper, $4\frac{1}{2}$ inches in height, and four inches in diameter inside, provided with a flanged cover. The opening in the cover $2\frac{1}{2}$ inches in diameter. The flange, which supports the bath in the cylindrical stand is one-fourth inch projection. The capacity of the bath is about 20 fluid ounces, which is indicated by a mark on the inside.

Fig. 3 represents the oil cup, which is also of copper. The section below the flange is $3\frac{3}{8}$ inches high and $2\frac{1}{4}$ inches in diameter. The section above the flange is 1 inch high, and $3\frac{3}{8}$ inches in diameter, and serves as the vapor chamber. A small flange at the upper rim serves to hold the cover, which is of glass, in place.

To prevent reflection from the otherwise bright surface of the metal, the inside is blackened by forming a sulphide of ammonia. The capacity of the oil cup is about ten fluid ounces, when filled to within one-eighth of an inch of the flange, which joins the oil cup and the vapor chamber.

The cover of the oil cup, C, is of glass, $3\frac{3}{8}$ inches in diameter; is perforated on one side with a circular opening, which is filled with a cork, through which passes the thermometer, B. On the rim is another oval opening three-fourths of an inch deep, and the same in width, through which is to be passed the flashing jet in testing. The glass cover is used instead of metal, that the operator may more readily note the exact point at which the flash occurs. A small gas jet one-fourth of an inch in length is best for igniting the vapor. Where gas cannot be had, a small waxed linen twine is the best, which can be easily prepared by dipping the twine in melted beeswax.

THE FLASH TEST.

RULE 2. The test shall be made as follows:

Remove the oil cup, and fill the water bath, D, with cold water to the mark on the inside. Place the oil cup in the water bath, and fill it with oil to within one-eighth of an inch of the flange. Care must be taken that oil does not flow over the flange. Remove all air bubbles with a piece of dry, soft paper. Place the glass cover, C, on the oil cup and adjust the thermometer so that its bulb shall be entirely covered by the oil.

Fill the lamp with alcohol only for heating the water bath. Trim the wick carefully, and so adjust the flame that the degree of heating will not exceed two degrees per minute.

When the temperature of the oil has reached 90° Fahrenheit, the test should commence by inserting the torch, which should have a very small flame, into the oval opening in the glass cover, passing it in at such an angle as to have the flame about half way between the oil and the cover, and reaching near the center of the vapor chamber.

The motion should be steady and uniform, rapid and without

any pause. This should be repeated at every two degrees rise of thermometer until 100° is reached, when the lamp must be removed and the torch applied at each degree of temperature, until 105° is reached. Great care must be exercised to secure accuracy at this point, and to this end the torch should be applied just before the temperature reaches the 105° point. If no flash is shown at this point, replace the lamp and continue the test at each two degrees rise, until the flashing point is reached, which is indicated by the appearance of a slight bluish flame on the surface of the oil. *The lowest point at which this vapor flame appears*, and a perceptible flash is produced, is to be designated as the flashing point. The temperature of the oil must be noted before the torch is applied. The flame of the torch must not touch the oil. Oil that flashes at 105° or below that, must be rejected.

As cold oil will expand by heating, care must be taken that it does not rise so as to flow over or on the flange or shoulder of the oil cup. That part of the oil cup comprising the vapor chamber must be dry and entirely free from oil above the flange.

The water bath must be filled with cold water, for each separate test, and the oil cup carefully and thoroughly wiped dry of oil from the previous test.

FOR TESTING THREE HUNDRED DEGREES.

RULE 3. The instrument to be used for testing oils which come under the provisions of section ten of the law, shall consist of the cylinder, shown in Fig. 1 of the diagram, the copper oil cup, shown in Fig. 3, the copper collar D, for suspending the oil cup in the cylinder, and an adjustable wire support for suspending the thermometer in the oil.

RULE 4. To ascertain the igniting and burning point, under section ten of the law, the test should be made as follows:

Fill the cup with the oil to be tested to within three-eighths of an inch of the flange joining the cup and the vapor chamber above. Care must be taken that oil does not flow over the flange, by expansion from heating. Place the cup in the cylinder, covered with the collar, D. Adjust the wire support so that the thermometer bulb, when supported thereon, will be just covered by the oil, the bulb also being near the center of the cup. Place the lamp or gas jet under the cup. Adjust the flame so that the degree of heating will not exceed ten degrees each minute until 250° Fahrenheit is reached, when the rate must not exceed 5° a minute above

that point. The torch to be used must be the same as described in Rule 1, for obtaining the flash point. Apply the torch lightly across and above the surface of the oil at each 5° rise in the temperature, until the oil ignites and burns. The lowest point at which the oil will ignite and burn is to be taken as the burning point, and no oil which burns at a temperature below 301° Fahrenheit must be approved for the purposes set forth in section ten of the law. When approved, the package, cask, barrel or vessel containing the oil from which the oil tested was taken, must be branded, "Approved, above 300° Fire Test," as provided in section one of the law. The actual point at which the oil burns must be branded on the barrel. If it burns at 300° or below that, it must be rejected. In this test the water bath cup and the glass cover are not used, the flame of the lamp being applied direct to the bottom of the oil cup.

GENERAL RULES.*

RULE 5. All instruments, testers and thermometers to be used by inspectors, must be procured from the office of the State Board of Health.

RULE 6. Inspectors must have all previous brands of tests, from packages, casks or barrels removed before affixing their brand thereon.

RULE 7. Brand No. 1 must be circular in form, not less than eight inches in diameter, outside measurement, with ample margin to protect the vessel or barrel from the stensil brush, and must contain the following words: "Approved, flash test.....degrees, Iowa." And, also the name of the inspector, date of inspection and degree of test. It must also be arranged for adjustable dates, and the degrees of test.

RULE 8. Brand No. 2 shall be square in form, not less than seven inches outside measurement, without date, and must contain the following words: "Rejected for illuminating purposes.....degrees, Iowa." It must contain the name of the inspector.

Brand No. 3 shall be of like form and dimensions as brand No. 1, and shall contain the words: "For illuminating cars, Approved (or rejected as the case may be),.....degrees, Iowa.....189..... Inspector." It shall have adjustable spaces for dates, degrees; and the words "approved" and "rejected." It must also contain the name of the inspector. No oil must be approved for illuminating cars that burns at a temperature below 301 degrees Fah.

Brand No. 4 shall contain the word "Rejected," in letters not less than three-fourths inches square, to which shall be added the name of the inspector and the word "Iowa." This brand shall be affixed to packages, casks or barrels containing gasoline, benzene, and naphtha.

RULE 9. The inspector's brand must be placed on the package, cask or barrel, with bright colors, in clear, distinct letters, and must be affixed by the inspector in person, or by some person under his personal supervision and control who is not, directly nor indirectly, interested in the manufacture nor sale of any product of petroleum. No package, cask or barrel shall be branded previous to being filled with oil. The brand of an inspector is deemed to be his official signature, and must not be permitted to pass out of his custody or control.

RULE 10. Upon the inspection of oil by an inspector, the inspector shall deliver to the owner of the oil, or the person for whom the inspection was made, a certificate of inspection, which shall be in the following form:

*As amended and adopted by the State Board of Health, November 20, 1890, and approved by the Governor, November 21, 1890.

APPROVED TEST.

Brand of Oil	Degrees.
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.....
.....
.....
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.....
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.....
.....

REJECTED TEST.

.....
.....

APPROVED TEST.

Brand of Oil.	Degrees.
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REJECTED TEST.

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No. barrels approved
 No. barrels rejected
 Total No. barrels @..... Inspected
 For whom Inspected
 Date of Inspection..... 188.....
 No. of Certificate.....
 Dep. Inspector.

OIL INSPECTOR'S CERTIFICATE.

RECEIVED OF
 as fees for the inspection of
 LITRINATING OIL, under Chapter 186, Laws 1884, State of Iowa, as amended by Chap-
 ter 149, Laws of 1884. Barrels
 No.
 Dollars.

[FRONT.]

(PRESERVE THIS CERTIFICATE.)

Total Fees, \$
 100
 (STUB.)

Dep't. Inspector.

RULE 11. Where oil of different grades, or standards, is placed in receiving or storage tanks, an inspection must be made, and the actual standard obtained of oil from such tanks, after it is put into barrels for sale and use. There must be no average test, by taking an average of the different qualities or standards of oil before it is placed in such tanks. Where a number of barrels are filled consecutively from a tank, an inspection of one barrel would suffice for that particular lot of barrels, *provided*, no oil has been added to the tank during the process of filling the barrels. The barreling, testing and branding must constitute one transaction. There must be no lapse of time therein.

RULE 12. Oil received from jobbers is frequently of various standards, and the actual standard cannot be ascertained except by a separate test of each barrel. The statute plainly requires all oil to be inspected when in barrels, and that each barrel, cask, tank or vessel shall be inspected. There must be no average or cumulative tests. For instance: a sample of oil taken from five barrels of 102 degree oil and five barrels of 108 degree oil, would give a mixture that would, when tested, cause the whole ten barrels to be rejected, whereas five barrels, separately tested, would have to be approved.

RULE 13. The practice of jobbers in delivering oil to retail dealers without inspection is a direct violation of law. The delivery constitutes *prima facie* evidence of sale. A retail dealer receiving a lot of uninspected oil cannot justify himself for selling such oil on the ground that the jobber is responsible to the State for the violation of law. He should immediately notify the inspector that the oil is in his possession. Inspectors must exercise diligence to arraign offenders and stop the practice. They must, with strict impartiality, insist upon obedience to law in their respective districts.

RULE 14. Oil in transit must not be inspected outside of the district to which it is sent.

RULE 15. No deputy shall inspect oil that has been inspected by another deputy, unless so directed by the State Inspector.

RULE 16. In cases of dispute between an inspector and a dealer as to a test of oil, the question, together with a sample of the oil in dispute, must be sent to the office of the State Board of Health for adjudication.

RULE 17. The sample must be so marked as to be readily identified. Inspectors must regard their duties as inspectors paramount to all other duties, and upon notification, must perform them without delay.

RULE 18. If accidents occur from the use of illuminating oil, the inspector of the district wherein they occur, should ascertain all the facts and circumstances, and report them to the State Inspector, or to the State Board of Health, and if possible, procure and send by express to the State Board of Health, a sample of the oil causing the accident.

DECISIONS OF THE ATTORNEY-GENERAL.

OFFICE OF THE STATE BOARD OF HEALTH, }
DES MOINES, IOWA, July 1, 1884. }

S. MCPHERSON, *Attorney-General*:

Notice is received at this office that deputy inspectors are disregarding entirely Rule 6 of the State Board of Health, requiring previous brands on barrels to be erased or canceled. This refers only to the words or figures "150° Fire test," or "175° Fire test"; or it may be the degree of test made by some inspector under the old law in this State.

The sole object of this rule is to protect the public against overbranding oil, that is, branding and selling oil at 175° to 150° fire test, when in fact it is but 120° or 130°, according to the Iowa legal standard. Oil that flashes at 100° will burn at 115° to 120°. In all tests made in this office with oil branded by the refiners at 150° fire test, the highest flash test was 110°, and the fire test was 130°. The public do not understand the relative difference between 100° flash test and 150° fire test; hence the desire of refiners to retain the brand of 150° fire test, as it enables them to sell oil at a high grade price when in fact it is only 130° fire test.

It was to prevent this overbranding and fraud upon the public that the law was made requiring the degree of test to be put upon the barrel, and the State Board only more fully carried out that object in Rule 6.

The question, therefore, is, had the State Board authority to make the rule?

Your opinion is requested at as early a moment as possible.

Yours truly,

R. J. FARQUHARSON, *Secretary*.

OFFICE OF THE ATTORNEY-GENERAL, }
RED OAK, July 11, 1884. }

By section 2, chapter 135, Laws of Twentieth General Assembly, the State Board of Health is required to adopt rules and regulations as to the use of the oil tester. By section 14, the Board is to adopt the necessary rules for the inspection of oils, which would include the brand affixed, etc. Under these provisions, Rule 6, complained of, was adopted. I have no reason to say that it is illegal; and do not believe it is. It should be enforced.

S. MCPHERSON,
Attorney-General.

OFFICE OF THE ATTORNEY-GENERAL, }
RED OAK, June 19, 1884.

In my opinion it is not an inspection of *all* oil to mix that from a number of barrels and take the test of the mixture, for the very reason it only shows the average.

S. MCPHERSON,
Attorney-General.

OFFICE OF ATTORNEY-GENERAL, }
CENTERVILLE, IOWA, Feb. 23, 1885.

BUREN R. SHERMAN, Governor:

I have the honor to acknowledge the receipt of your communication the 18th inst., in which you propound to me the following questions, and solicit my official opinion in response thereto, viz.:

1st. Whether or not the branding of oil by an Iowa inspector, at a uniform standard of 100° flash point, is in accordance with the object and intent of section 1, chapter 185, Laws of Twentieth General Assembly?

2d. Is it the intent and purpose of the statute, and the rules of the State Board of Health for the inspection of oils, that the inspector shall brand each barrel, cask or package with the number of degrees of *actual* flashing point which he finds the oil to be?

3d. Is it the purpose of the inspection to show the actual standard of all oil inspected, and not an average of that it is not below 100° F.?

Section 1, chapter 185, Laws of Twentieth General Assembly, directs the inspector to fix his brand or device, "*Approved flash test — degrees*" (inserting the number of degrees); or * * * "*Rejected for illuminating purposes, flash test — degrees*" (inserting the number of degrees).

It would seem that the language is so plain that there could be no two constructions. If the only object had been to test the oils in order to see if they were above 100° flash test, then it would only have been necessary to require the inspector to brand, etc., with the word "approved."

It was clearly the intent and purpose of both the statute and the rules of the Board of Health to require the actual number of degrees of flash test to be plainly stamped on every barrel, cask or parcel inspected. If above 100° to mark it approved; if 100° or less, to mark it rejected for illuminating purposes.

The legislature evidently had two purposes in view in the enactment of the law:

1st. To protect consumers and the public against danger of fire, etc., from the use of inferior and unsafe oils.

2d. To protect consumers and dealers from imposition by selling to them inferior approved oils for superior approved oils.

If the oil emit a combustible vapor at a temperature of 100° standard Fahrenheit closed test, then under the law it is unfit for use. If it emit such combustible vapor at 101°, same test, then it is barely fit for use. Its relative safety, and consequently its relative value, will depend upon the degree above 100° at which it emits such combustible vapor, and it is to enable the purchaser to know just the quality of oil he is buying, and to thus encourage the manufacture of superior oils in point of safety, that the provision for making the actual test was made in law.

The neglect of an inspector to brand the true test on the casks inspected, is a misdemeanor, and subjects him to fine and imprisonment, provided in section 11 of the law, and under the provisions of section 12, would authorize his removal by the Governor.

I am, therefore, clearly of the opinion that it is the duty of the inspector to carefully note and correctly stamp, or brand, on each barrel, cask or package, the exact actual degree of the flash test, and that it is not a substantial compliance with the law to mark an *average* test, or that the oil is not below 100° F.

A. J. BAKER,
Attorney-General.

OFFICE OF ATTORNEY-GENERAL, }
DES MOINES, March 13, 1885.

BUREN R. SHERMAN, Governor:

I have been somewhat tardy in answering your communication of the 2d inst., in relation to the inspection of coal oil, etc.

According to the best analysis I can make of the communication, I judge that the particular information you desire is, whether or not the State Inspector or his assistants are required to test oils in tanks, where several hundred barrels, for instance, are kept stored, and it is claimed to be for export out of the State.

If such oils are kept by the manufacturer, vendor or dealer, for the purpose of being offered for sale, whether to parties for export or otherwise, it is subject to inspection.

Section 1, chapter 185, Laws of 1884, provides as follows:

"It shall be the duty of such State Inspector, by himself or his deputies, * * * to examine and test the quality of all such oils *offered for sale*," etc. There is no distinction made between that offered for sale for use within the State and that offered for sale for export. But this is to be construed in connection with the remainder of the section in such a way as to give effect and meaning to each and every part thereof.

Further on in said section it is provided that "it shall be lawful for the State Inspector, or his deputies, to enter into or upon the premises of any manufacturer, vendor or dealer of said oils, and if they shall find or discover any such oils *kept for illuminating purposes*, that has not been inspected and branded according to the provisions of this act, they shall proceed to inspect and brand the same."

If, then, the oil is kept for sale for illuminating purposes, whether for use within or without the State, the inspector should see that the same is inspected and branded as required by the said chapter 185. He has the right to inspect such oil in tanks, but having done so it becomes his further duty "to see and know that the identical oil inspected in such tank is placed in packages, barrels or casks upon which the brand or device herein provided for shall have been placed."

So I am of opinion that when the inspector finds oil in such tanks, which he has good reason to believe is kept there for the purpose of sale for illuminating purposes, he has the right to demand its inspection, and to see that it goes into barrels, packages, or casks properly branded with the true test.

A. J. BAKER,
Attorney-General.

STATE OF IOWA.

CHAPTER 185—ACTS OF THE TWENTIETH GENERAL ASSEMBLY.*

AN ACT to provide for the inspection and to regulate the sale of petroleum and its products, and to repeal Chapter 172 of the Acts of the Seventeenth General Assembly, and Section 3901 of the Code, as amended by Chapter 149, Laws of the Twenty-first General Assembly.

Be it enacted by the General Assembly of the State of Iowa:

SECTION 1. That the Governor, by and with the advice and consent of the Senate, shall appoint a suitable person, resident of the State, who is not interested in manufacturing, dealing in, or vending any illuminating oils manufactured from petroleum, as State Inspector of Oils, whose term of office shall commence on the first day of April of each even-numbered year, and continue for the term of two years and until his successor is appointed and qualified. It shall be the duty of such State Inspector, by himself or his deputies, hereinafter provided for, to examine and test the quality of all such oils offered for sale by any manufacturer, vender, or dealer: and if upon all such testing or examination the oils shall meet the requirements hereinafter specified, he shall fix his brand or device. "Approved, flash test—degrees" (inserting the number of degrees), with the date over his official signature, upon the package, barrel or cask containing the same. And it shall be lawful for the State Inspector, or his deputies, to enter into or upon the premises of any manufacturer, vender or dealer of said oils, and if they shall find or discover any kerosene oil, or any other product of petroleum kept for illuminating purposes, that has not been inspected and branded according to the provisions of this act, they shall proceed to inspect and brand the same. It shall be lawful for any manufacturer, vender or dealer to sell the oil so tested and approved as an illuminator; but if the oil or other product of petroleum so tested shall not meet said requirements, he shall mark in plain letters on said package, barrel or cask, over his official signature, the words: "Rejected for illuminating purposes, flash, test—degrees" (inserting the number of degrees). And it shall be unlawful for the owner thereof to sell such oil or other product of petroleum for illuminating purposes. And if any person shall sell or offer for sale any of such rejected oil or other product of petroleum for such purpose, he shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be subject to a penalty not exceeding three hundred dollars.

SEC. 2. The State Inspector provided for in this act is authorized to appoint a suitable number of deputies, which deputies are empowered to perform the duties of inspection, and shall be liable to the same penalties as the State Inspector; provided, that the State Inspector may remove any of said deputies for reasonable cause. It shall be the duty of the inspector and his deputies to provide themselves at their own expense with the necessary instruments and apparatus for testing the quality of said illuminating oils, and when called upon for that purpose to promptly inspect all oils heretofore mentioned, and to reject for illuminating purposes all oils which will emit a com-

*This law is here given as amended by the Twenty-first General Assembly, and as it is in force at the present time, May 20, 1891.

bustible vapor at a temperature of one hundred and five degrees standard Fahrenheit thermometer, closed test, provided the quantity of oil used in the flash test shall not be less than one half pint. The oil tester adopted and recommended by the Iowa State Board of Health shall be used by the inspector and his deputies in all tests made by them. And said board shall prepare rules and regulations as to the manner of inspection, which rules and regulations shall be in effect and binding upon the inspector and deputies appointed under this act.

SEC. 3. The State Inspector before he enters upon the discharge of the duties of his office shall take the oath or affirmation provided by law, and file the same in the office of the Secretary of State, and execute a bond to the State of Iowa in a penal sum not less than twenty thousand dollars with sureties thereto, to be approved by the Secretary of State, who shall justify as provided by law, and in addition thereto state under oath that they are not interested, directly or indirectly, in manufacturing, dealing in, or vending any illuminating oils manufactured from petroleum; such bond to be conditioned for the faithful performance of the duties imposed upon him by this act, and which shall be for the use of all persons aggrieved by the acts of said Inspector, or his deputies, and the same shall be filed with the Secretary of State. Every deputy inspector shall take a like oath or affirmation prescribed herein for the State Inspector, and execute to the State a bond in the penal sum of five thousand dollars with like conditions and for like purposes, and with sureties thereto who shall justify and have like qualifications as herein provided for the sureties for State Inspector and such sureties shall be approved by the Clerk of the District Court of the county in which such deputy inspector resides, and said bond and oath shall be filed in the office of such clerk and such deputy inspector shall before entering upon the discharge of his duties forward said clerk's certificate of such filing to the Secretary of State to be placed on file.

SEC. 4. All inspections herein provided for shall be made within the State of Iowa, and the inspector and deputy inspectors shall be entitled to demand and receive from the owner or party calling on him or for whom he shall perform the inspection the sum of ten cents per barrel, and for the purposes of this act, a barrel shall be deemed fifty-five gallons.

SEC. 5. It shall be the duty of the State Inspector and every deputy inspector to keep a true and accurate record of all oils so inspected and branded by him, which record shall state the date of inspection, the number of gallons rejected, the number of gallons approved, the number of gallons inspected, the number and kind of barrels, casks or packages, the name of the person for whom inspected and the amount of money received for such inspection, and such record shall be open to the inspection of all persons interested; and every deputy inspector shall return a true copy of such record at the beginning of each month to the State Inspector. It shall be the duty of the State Inspector to make and deliver to the Governor for the fiscal period ending the thirtieth day of June, 1885, and every two years thereafter a report of the inspections made by himself and deputies for such period, containing the information and items required in this act to be made of record, and the same shall be laid before the General Assembly.

SEC. 6. If any person or persons, whether manufacturer, vendee [er] or dealer shall sell or attempt to sell to any person in this State any illuminating oil, the product of petroleum, whether manufactured in this State or not, which has not been inspected as provided in this act, he shall be deemed guilty of a misdemeanor and subject to a penalty in any sum not exceeding three hundred dollars, and if any manufacturer, vender or dealer in either or any of said illuminating oils shall falsely brand the package, cask or barrel containing the same, as provided in this act, or shall refill packages, casks or barrels having the inspector's brand thereon, without erasing such brand, having the oil inspected, and such packages, casks or barrels rebranded, he shall be deemed guilty of a misdemeanor, and shall be subject to a penalty not exceeding three hundred dollars, or be imprisoned in the county jail not exceeding six months or both in the discretion of the court.

SEC. 7. Any person selling or dealing in illuminating oils produced from petroleum who shall purchase, sell or dispose of any empty kerosene barrel, cask or package, before thoroughly cancelling, removing or effacing the inspection brand on the same, shall be guilty of a misdemeanor, and, on conviction thereof, shall pay a fine of one dollar for each barrel, cask or package thus sold or disposed of; and any person who shall knowingly use any illuminating oil, the product of petroleum for illuminating

purposes, before the same has been approved by the State Inspector of Oils, or his deputy, shall be guilty of a misdemeanor, and, on conviction thereof, shall pay a fine in any sum not exceeding ten dollars, for each offense.

SEC. 8. No person shall adulterate with paraffine or other substance, for the purpose of sale or for use, any coal or kerosene oils to be used for lights, in such a manner as to render them dangerous to use; nor shall any person knowingly sell or offer for sale, or knowingly use any coal or kerosene oil, or any product of petroleum, for illuminating purposes, which, by reason of being adulterated, or for any other reason, will emit a combustible vapor at a temperature less than 105 degrees of standard Fahrenheit's thermometer, tested as provided in this act; *provided*, that the gas or vapor from said oils may be used for illuminating purposes when the oils from which said gas or vapor is generated are contained in closed reservoirs outside the building illuminated or lighted by said gas. Any person violating the provisions of this section shall be deemed guilty of a misdemeanor, and shall, upon conviction thereof, be punished by imprisonment in the county jail not more than one year, or by fine not exceeding \$500, or by both such fine and imprisonment, in the discretion of the court; *provided, further*, that nothing in this act shall be so construed as to prevent the sale for and use in street lamps of lighter products of petroleum, such as gasoline, benzene, benzole, naphtha, or to prevent the use of machines or generators constructed on the principle of the "Davy safety lamp."

SEC. 9. It shall be the duty of the State Inspector, and of any deputy inspector, who shall know of the violation of any of the provisions of this act, to prosecute before a court of competent jurisdiction any person so offending. And in case the State Inspector, or any deputy inspector, having knowledge of the violation of the provisions of this act, shall neglect to prosecute as required herein, he shall be deemed guilty of a misdemeanor and punished accordingly, and, upon conviction, shall be removed from office.

SEC. 10. No oil, nor fluid, whether composed wholly or in part of petroleum or its products, or of other substance or material, which will ignite and burn at a temperature of 300 degrees on the standard Fahrenheit thermometer, open test, shall be carried as freight, nor shall the same be burned in any lamp, or vessel, or stationary fixture of any kind, in any passenger, baggage, mail or express car on any railroad, nor on any passenger boat moved by steam power, nor in any street railway car, stage coach, omnibus or other public conveyance in which passengers are carried, within this State. Any violation of the provisions of this section shall be deemed a misdemeanor, and the offender shall, on conviction thereof, be fined not less than one hundred dollars, nor more than one thousand dollars, and shall be liable for all damages resulting therefrom.

SEC. 11. If any inspector or deputy shall falsely brand or mark any barrel, cask or package, or be guilty of any fraud, deceit, misconduct or culpable negligence in the discharge of his official duties, or shall deal in, or have any pecuniary interest, directly or indirectly, in any oils or fluids used or sold for illuminating purposes while holding such office, he shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined not exceeding one hundred dollars, or imprisoned not exceeding thirty days, and be liable to the party injured for all damages resulting therefrom.

SEC. 12. It shall be the duty of the Governor to remove from office, and to appoint a competent person in the place of, any inspector who is unfaithful in the duty of his office.

SEC. 13. Any person who shall knowingly or negligently sell or cause to be sold any of the oils mentioned in this act for illuminating purposes, except for the purposes herein authorized, which are below the standard and test required in this act, shall be liable to any one purchasing said oil, or to any person injured thereby for all damages resulting from any explosion of said oil.

SEC. 14. Within sixty days after the passage of this act the State Board of Health shall make and provide the necessary rules and regulations for the inspection of illuminating oil, and for the government of the the inspector and deputy inspectors provided for in this act, and as contemplated by the provisions of this act, which shall be approved by the Governor of the State, and when so approved shall be furnished by said Board to the inspector and his deputies. When written complaint shall be presented to the Governor charging the inspector or any deputy with a failure or refusal to comply with or carry out said rules and regulations, or any provision of this act, he shall investigate such charge, and if well founded and sustained, the person against

whom such charges were made shall be removed from office by the Governor without delay. Said rules and regulations may be changed or modified by said board, subject to approval of the Governor, not oftener than once a year.

SEC. 15. Chapter 172 of the acts of the Seventeenth General Assembly, and section 3001 of the Code, are hereby repealed.

STATE INSPECTOR.

J. J. DUNN DUBUQUE.

DEPUTY INSPECTORS.

F. O. UDALL DUBUQUE.
 JOHN MORRIS DES MOINES.
 CHARLES K. SMITH SIOUX CITY.
 EMIL ROSCH COUNCIL BLUFFS.
 W. G. MERCER BURLINGTON.
 CHARLES F. REFFLEY KEOKUK.
 WILLIAM BRUHN DAVENPORT.
 M. P. HEALY CEDAR RAPIDS.
 F. S. WIDL MARSHALLTOWN.
 F. C. FRENCH OTTUMWA.
 ISAAC VAN METER WATERLOO.
 GEORGE W. HYATT FORT DODGE.
 ED. L. GARDNER KNOXVILLE.

EIGHTH ANNUAL REPORT

OF THE

Board of Dental Examiners,

STATE OF IOWA,

FOR THE YEAR 1890.

S. A. GARBER, D. D. S., SECRETARY,
 TIPTON.

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 1890.