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Official Report  
of the  
State  
Inspector of Oils

For the Year Ending December 31, 1913

Colorado



JAMES DUCE

Inspector

JOSEPH W. BURKHARD

CHARLES ST. CLAIR

Deputies

DENVER, COLORADO

THE SMITH-BROOKS PRINTING CO., STATE PRINTERS

1914

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To His Excellency,

ELIAS M. AMMONS,

Governor of the State of Colorado.

Dear Sir: As directed in section 4 of the act of 1899 governing this office, I herewith submit the report of the transactions which have taken place since I assumed the duties of the office on April 20, 1913. The inspections made by the former inspector between January 1 and April 20 are included under a separate heading.

I wish to take the opportunity of thanking you personally for the advice and assistance and many acts of kindness I have received from you during the past year.

Obediently yours,

JAMES DUCE.

Feb. 2nd, 1914.

# Official Report

of the

## State Inspector of Oils

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### FINANCIAL STATEMENT

From January 1, 1913, to April 20, 1913, there were inspected 3,876,676 (three million, eight hundred and seventy-six thousand six hundred and seventy-six) gallons of kerosene and gasoline.

From April 20 to December 31, 1913, there were inspected 9,219,360 (nine million, two hundred and nineteen thousand, three hundred and sixty) gallons of kerosene and gasoline.

The total for the year is 13,096,036 (thirteen million, ninety-six thousand and thirty-six) gallons.

The inspection fees of one mill per gallon, since April 20, amounted to \$9,219.36 (nine thousand, two hundred and nineteen and thirty-six hundredths dollars).

Of the fees, \$8,928.25 (eight thousand, nine hundred and twenty-eight and twenty-five hundredths dollars) was collected and paid to the State Treasurer.

A balance is thereby left, owing the state, on December 31, of \$823.46 (eight hundred and twenty-three and forty-six hundredths dollars). (This money has since been collected and paid to the State Treasurer, with the exception of \$23.35 [twenty-three and thirty-five hundredths dollars] which is outstanding.)

The discrepancy between the above figures is explained by the fact that an additional sum of \$532.36 (five hundred and thirty-two and thirty-six hundredths dollars) was collected from firms which had shipped uninspected oil into the state prior to April 20.

The total income from inspection fees, since April 20, then, was \$9,751.71 (nine thousand, seven hundred and fifty-one and seventy-one hundredths dollars).

During the period from April 20 to December 31 the following expenses were incurred and paid:

Salaries for Inspector and deputies.....	\$3,246.00
Traveling expenses.....	474.55
Incidentals, including printing, postage, etc.....	113.62
Total .....	\$3,834.17

A net balance to the state of \$5,917.54 is left for a period of eight months and ten days. This balance does not include amounts which may be recovered from railway companies which have been importing and using uninspected oils.

### THE PRODUCTION OF CRUDE OIL IN COLORADO

During 1913 the production of crude oil in the state was:

	Gallons
Florence fields.....	5,444,450
Boulder fields.....	322,949
Total .....	5,766,999

All of this was refined in the state.

The production of the Boulder fields is declining, the wells being surely, although slowly, drowned out through neglecting to plug abandoned wells.

The Florence field continues to show a fair production, which is likely to continue for years.

### PROSPECTS OF FUTURE DEVELOPMENT

Prospecting for new oil-producing fields has been carried on at various points in the state, and there seems to be good reason for hoping that Colorado will soon have a largely increased production of crude oil. The strike in the Debeque field, at the well owned by the Grand River Oil and Gas Company, proves the value of that section, and the present year will see actual development work carried out in that district.

The Falcon (El Paso County) field is being prospected by eastern capitalists, who are commencing operations in good shape. Interesting developments may be looked for.

Work is being carried on at Aurora, near Denver; in Weld County, Mesa County, Delta County, Las Animas County, and the San Luis Valley. Drilling is still going on in the Rangeley field. That oil in commercial quantities exists in the latter field has been fully demonstrated, and as soon as transportation lines are available it will doubtless become a shipper.

Colorado has several districts that it would well repay the capitalist to develop, and we understand that negotiations are pending with this in view in several of the districts.

Until recently, while money was being freely invested in prospecting for oil in other states, Colorado's great opportunities were being overlooked. However, there appears to be evidence that the tide is turning toward this state, and the near future will see much more active operations carried out in this line.

### THE OIL TRADE OF THE STATE

The oil refiners and wholesale distributors of the state have given every possible assistance to the office in carrying out the work of inspection, and they have shown a strong desire to conform with not only the letter, but the spirit of the law. No suggestion has been made by the office to them that has not been fairly and loyally considered.

The present law does not protect the legitimate oil dealer as fully as could be wished.

During the past eight months we have investigated a number of complaints as to the quality of kerosene. In the vast majority of cases the fault has been wholly due to the unclean manner in which the oil has been stored by the retailer.

Complaints as to the quality of gasoline have been made and investigated. The majority of these complaints had their foundation in the vendor having misrepresented the specific gravity to the purchaser. In a number of instances the purchaser had supplied himself with cheap so-called "testing instruments," and had overlooked the fact that to make a test of gasoline it was necessary to make proper allowances for temperature. All gasoline sold is labeled by the wholesale distributors with a label or tag giving the copy of the certificate issued by the office showing the actual test made of the shipment. The purchaser can demand a copy of the label; if this were more generally done, much of the present misrepresentation would be impossible.

### OIL FOR USE IN COAL MINES

The Mine Inspection Law passed by the last legislature contained a section stipulating that all oils used for illuminating purposes in coal mines should be of a certain standard. Together with Professor Hunter, of the State University, and Mr. James Dalrymple, the State Coal Mine Inspector, we have carried out a number of tests of oils for this purpose. A grade of oil has been submitted which, while it gives off considerably less smoke than that formerly used in coal mines, is still not altogether satisfactory. We are still working upon the matter and hope in the near future to be able to find an oil which will fulfill the requirements; but whatever oil is used, unless coal-mine operators keep their

oil in clean storage, and the coal miners themselves pay more attention to the lamps they use and the manipulation of them, it cannot be hoped to do away with the unhealthful and disagreeable smoke in coal mines.

#### FACILITIES FOR TESTING AND INVESTIGATING

With the consent of the State Auditing Board, an agreement was made with the Mechanical Engineering Department of the State University by which we are now able to use their laboratory for investigating purposes. The arrangement has been of great service to the office and has enabled us to have work carried out that was wholly beyond our reach before.

We are now in position to get the fullest possible data upon all classes of oils, including practical working tests. As the work of the office progresses, this will become increasingly valuable.

#### UNINSPECTED OIL NOW BEING USED

Several railway companies operating in this state are, and have been ever since the inspection law was passed in 1899, importing and using, without any inspection from the office, kerosene and various mixtures containing mineral oil for illuminating purposes. They are also using (without any inspection) large quantities of gasoline, which, under the act passed in 1909, was made subject to inspection.

Their attention has been called to these violations. There appears to be reason for believing that this matter will be settled in the near future, and we are working, under the advice of the Attorney General's office, to this end.

#### RECOMMENDATIONS

In view of the fact that the present law needs considerable amendment, following your advice and consent, we invited those interested in the oil industry to meet at Boulder on February 5, for the purpose of getting the fullest possible information on the subject. Arrangements for that meeting were completed, and all branches of the industry were represented.

I respectfully suggest the following amendments to the present law:

1. That owners be compelled to plug all wells in such a manner as to protect surrounding properties from flooding.
2. That all wells drilled through coal seams be so cased and protected as to prevent danger from gas escaping into such coal veins.
3. That the records of all wells drilled in the state be filed in the office of the State Oil Inspector, such records to state exact

location, depth drilled, strata passed through, particulars of water encountered.

The reasons for the above are:

a. Such a provision would prevent the destruction of property and give more security to capital invested in oil wells. Many states have such a provision, and in Colorado the present condition of the Boulder County oil fields affords an example of the advisability of such provisions here.

b. This matter has been investigated by the United States Bureau of Mines, whose emphatic opinion it is that such precautions ought to be taken. In several eastern coal fields accidents have occurred which may be attributed to neglecting to take such precautions.

c. Such a provision would be the cause of no expense or inconvenience to well-owners. The information would be of great value to the state in assisting in future developments along many lines, especially in locating underground water flows.

4. A fourth recommendation is that all wells producing gas, which gas is not put to a beneficial use, should be so capped as to preclude waste.

At the present time one well in Mesa County is wasting approximately 250,000 cubic feet of gas every twenty-four hours. The waste of gas in Boulder County is estimated by a competent and reliable authority to be between 450,000 and 500,000 cubic feet for every twenty-four hours. This waste tends to depreciate surrounding properties by drawing from the natural gas reservoirs, by reducing the gas pressure, and by increasing the liability to flooding in the producing strata.

5. A fifth recommendation is that the office should have power to regulate the storage of all kerosene and gasoline, with a view to preventing danger from fire or explosion. The storage of such oil in unclean tanks and receptacles, and the accumulation of empty barrels and packages in and around stores and dwellings, should be regulated.

There are a number of instances in the state where oil is stored and handled in such a manner that it is a constant source of danger to both life and property; and, as mentioned previously, a number of complaints as to the quality of oil have been investigated, and the reason for these complaints has invariably been found to be the neglected and unclean state of the storage tanks.

6. As Recommendation No. 6, artificial coloring of all oils used for illuminating purposes should be prohibited.

The artificial coloring of such oils is not good practice, it being used in some instances to sell oils of a bad color which otherwise would be unsalable, and in other instances to sell oil as a "Natural Red Oil" for which very superior qualities are claimed by the vendor.



7. A seventh recommendation is that all automatic measuring devices be so sealed that it is impossible to deliver short measure from them.

Several states have such a provision. It is advisable in this state. Several instances are known where unscrupulous dealers in gasoline have cut prices and so manipulated their measuring devices that they have been able to recoup themselves for the loss in price by giving the customer short measure. While these are extreme cases, it is not at all unusual to find devices so constructed that the measure can be readily manipulated.

8. All oils used for lubricating purposes should bear a label stating plainly their quality.

The above provision is necessary. Oils for lubricating purposes are being put on the market in this state by firms not incorporated here, the oils being wholly unfit for the purposes for which they are sold. They are used in lieu of the well known brands, and are sold to the customer with the usual remark that they are just as good as such and such an oil. Lubricating oils cannot be judged by simply looking at them and smelling them. Some of the prettiest-looking oils are the most harmful, and great damage is often done to machinery, especially automobile engines, by the use of inferior oils. Compelling all dealers in lubricating oils to state fully on their labels the nature of the oil contained in the package would be to the benefit of the legitimate oil dealer. It would hamper no business save that of those engaged in unfair competition.

To illustrate what can be done under the present law, we give the following example: A lubricating oil which was claimed, among other good things, to increase the efficiency of automobile engines and to clean the cylinder of all carbon deposits, was further claimed, owing to all the ingredients of the mixture being of the same specific gravity, to be impossible for any chemist to analyze. A young man was sold the right to sell the oil in this state for five hundred dollars, a small payment being made at the start. Not being able to bring the arrangement to a satisfactory termination, the purchaser appealed to the office. Upon a sample being tested, it was found to be a mixture of a common grade of lubricating oil and kerosene scented with mirbane. The mixture having been sold as a lubricating oil, we had no authority to interfere. The owners had registered as a corporation in an adjoining state, but were not registered in this state and had paid no flat tax. As the corporation law had no penalty clause, we were unable to proceed against the owners for this. The district attorney for Denver, however, filed information against them for running a confidence game when obtaining money for the right to sell their product in this state. The manager was arrested and tried, and, while a conviction was not secured, the manager was warned to be more careful in the conduct of his business in the future. The manager left the state.

That the well-known brands of lubricating oils put out by reputable oil firms are being pirated by unscrupulous outside dealers can be seen in many parts of the state. These oils often do considerable damage to the machinery upon which they are used, and the damage is done before the user realizes that in judging the qualities of lubricating oil something more than the appearance of a sample and an inviting price is required.

At the present time oils sold as lubricating oils, no matter in how misleading a manner they are described to the purchaser or how unfit they are for the uses for which they are intended, are outside of the control of this office.

9. All preparations purporting to be "improvers" for oils used for power purposes should be labeled with a tag giving particulars of the mixture and the power units contained.

It is a generally accepted fact among engineers that, owing to the customary improper regulation of the feed of gasoline engines, from 25 to 30 per cent more gasoline is used than is required to secure the highest efficiency. This knowledge has been taken advantage of by manufacturers, who have placed so-called gasoline "improvers" upon the market under various fancy names. These "improvers" have been extensively advertised, and the printed claims of a panacea for all the troubles of the automobile owner rival the most extravagant assertions of the patent-medicine trade in its balmiest days.

Some few examples of this undesirable trade have appeared upon the Colorado market, and, having no statute upon which to base our actions, we have been unable to do more than check the sales. As instances of these we give the following:

In the first example the mixture was sold at \$4.50 per gallon in bulk and \$1.25 per quart in quart cans. The preparation was to be used in quantities of four ounces to ten gallons of ordinary gasoline, and it was boldly claimed that if the directions on the package were properly and fully carried out there would result a saving of 30 per cent in the fuel. We obtained samples, and had both analyses and practical tests made. The use of the mixture did result in a saving of 25.6 per cent in gasoline; but the saving was entirely due to the proper regulation of the feed of the motor. The preparation was simply good, plain gasoline, which could have been brought without the advertised "advice" at one-twentieth of its actual price.

In another case the apparent success of the preparation stimulated competition; and another preparation was advertised at a reduced price. The compounders of the latter mixture arranged to recoup themselves for the loss due to cutting price by making their mixture contain only 75 per cent gasoline, the remaining 25 per cent being kerosene.

10. Power should be given the office to seize and confiscate all oils that are being placed on the market without having been

duly inspected, and inspectors should have the right of access to all premises where there is reason to believe that there is stored uninspected oil. Also, it should be the privilege of the office to examine the books of all transportation companies for information regarding oil shipments.

Had this office the above power, the tedious negotiations which have been drawing themselves out with railway companies which have been using uninspected oil for years could have been brought to an issue by a court, and the state would have collected a considerable revenue.

11. All mixtures of "casing head gas" should be labeled with a statement as to what they are.

The efforts to mix compressed gas with naphtha or low-test gasoline, without redistilling, has not yet proved a success, and all such mixtures are liable to stratify and form a highly volatile substance which is extremely dangerous.

12. The present tests for both kerosene and gasoline should be amended.

The existing law was passed in 1899. The condition of the oil trade was very different at that time from what it is today. The sale of gasoline was proportionately very small; in consequence of which small demand for gasoline and a large demand for kerosene for illuminating purposes, there was a tendency among refiners to allow a larger percentage of the lighter oils remain than was safe for use as an illuminant. The matter, then, of prohibiting oils with a low flashing point was an item of public safety.

Today the demand for gasoline has so increased that the refiners use every effort to separate the lighter oils. For the illuminating oils of this state there is no standard of either color or residue which can be demanded, and, as the law now stands, we can prevent an oil from being sold only when it contains too great a quantity of light, expensive oils. We have no power to prevent an oil being placed on the market in a dirty or adulterated condition. Such oils are shipped into the state in competition with those put on the market by firms which are doing a reputable business.

The instrument prescribed to be used by this law is susceptible to change under certain conditions, and does not, under such conditions, give a reading which can be depended upon. To illustrate this, we have carried out a number of tests with it, and with the Pensky-Martin Closed Automatic Cup.

The Bureau of Mines at Pittsburg has carried out a number of experiments. (See bulletin by Allen.)

All gasoline oils are tested by the hydrometer and by the reading of the Baumé scale. This scale-reading has no bearing on either the quality or the purity of gasoline; in fact, it is im-

possible with the scale even to tell whether the mixture is gasoline at all. It is also misleading, as the general public believes that the higher the reading of the Baumé scale, the better the gasoline, whether it is so or not. High-test gasoline may ignite in an automobile engine quicker than one of ordinary grade, but it does not, as a rule, contain as many power units per gallon, and gallon for gallon will not do the same work.

An effort should be made so to arrange tests for both kerosene and gasoline that they may be as nearly as possible uniform with those of surrounding states. The wide differences between such tests required by different states are not in the interest of efficiency or economy, and tend unnecessarily to hamper the refiner.

The following comparative tables, showing the variety of tests, are taken from the address of the secretary of the National Petroleum Association presented before the state delegates when in conference on uniform legislation, under the auspices of the National Civic Federation. These tables will show the variety of tests required and the difference between tests with the open and closed cups:

#### DIFFERENCE IN OPEN AND CLOSED CUPS

As Shown by 1,000 Samples Tested by Tagliabue Cup and Abel Closed, by Sir Frederick Abel, 1877

92 samples export oil, difference.....	25°
208 samples export oil, difference.....	26°
225 samples export oil, difference.....	27°
281 samples export oil, difference.....	28°
162 samples export oil, difference.....	29°
9 samples Water White, difference.....	20°
1 sample Water white, difference.....	21°
9 samples Water White, difference.....	22°
1 sample Water White, difference.....	23°
4 samples Water White, difference.....	24°
8 samples Water White, difference.....	25°

#### COMMERCIAL CONDITIONS

The change in commercial conditions as related to petroleum and its products is best shown by comparison of prices in the year 1880 and at the present time:

		Cents a Gallon
Illuminating oil in bulk in	1880.....	8
	1909.....	6
Gasoline in bulk in	1880.....	2
	1909.....	9
Naptha in	1880.....	2
	1909.....	7
Benzine in	1880.....	2
	1909.....	7

In 1880 illuminating oil produced from crude was 84.3 per cent of the value thereof; in 1904 it was 52.2 per cent of the value thereof.

In 1880 naphtha, gasoline, and benzine were 6.8 per cent of the value of the products of crude petroleum; in 1904 they were 12.2 per cent of the value.

From 1880 to 1904 the quantity of illuminating oil increased 146.6 per cent, while naphtha, gasoline, and benzine increased 286.8 per cent, and in value 619.7 per cent.

The above figures are taken from the Bureau of Statistics, and show beyond all question their changed relations and the fact that none of the volatile portions of the crude oil are permitted to remain in the illuminating oil.

In 1880 the largest use of gasoline, naphtha, and benzine was in their crude state for the production of gas for enriching water gas.

At the present time their greatest and most valuable use is their production for motive power, which is constantly increasing and which eliminates the possibility of their ever being used to adulterate illuminating oils.

#### STATE OILS GOVERNING SALE OF OILS

The laws of the different states relative to the testing of illuminating oil are shown in the following table, giving the flash, the fire test, by the instrument required to be used by the state law, and also the equivalent of such flash or fire test by the Tagliabue cup, for purposes of comparison of the states:

#### TABLE SHOWING LEGAL TESTS

Alabama—No test required.
Arizona—No test required.
Arkansas—150° fire test Tagliabue equal to 120° flash.
California—No test required.
Colorado—110° fire test equal to 80° flash.
Connecticut—140° fire test Tagliabue equal to 110° flash.
Delaware—115° fire test Tagliabue equal to 85° flash.
Florida—No test required.
Georgia—100° flash test Elliott equal to 129° flash.
Idaho—120° fire test Tagliabue equal to 90° flash.
Illinois—150° fire test Tagliabue equal to 120° flash.
Indiana—120° flash test Tagliabue equal to 120° flash.
Iowa—105° flash test Elliott equal to 134° flash.
Kansas—110° flash test Foster equal to 100° flash.
Kentucky—130° fire test Tagliabue equal to 100° flash.
Louisiana—125° flash test Tagliabue equal to 125° flash.
Maine—120° fire test Tagliabue equal to 120° flash.
Maryland—110° fire test Tagliabue equal to 80° flash.

Massachusetts—110° fire test Tagliabue equal to 80° flash.  
 Michigan—120° flash test Foster equal to 110° flash.  
 Minnesota—120° fire test Tagliabue equal to 90° flash.  
 Mississippi—No test required.  
 Missouri—150° fire test Tagliabue equal to 120° flash.  
 Montana—No test required.  
 Nebraska—110° flash test Foster equal to 102° flash.  
 Nevada—No test required.  
 New Hampshire—100° flash test Tagliabue equal to 100° flash.  
 New Mexico—125° fire test Tagliabue equal to 95° flash.  
 New York—100° flash test Elliott equal to 129° flash.  
 North Carolina—100° flash test Elliott equal to 129° flash.  
 North Dakota—105° flash test Elliott equal to 95° flash.  
 Ohio—120° flash test Foster equal to 110° flash.  
 Oklahoma—115° flash test Tagliabue equal to 115° flash.  
 Oregon—No test required.  
 Pennsylvania—110° fire test Tagliabue equal to 80° flash.  
 Rhode Island—110° fire test Tagliabue equal to 80° flash.  
 South Carolina—No test required.  
 South Dakota—105° flash Elliott equal to 134° flash.  
 Tennessee—120° flash test Tagliabue equal to 120° flash.  
 Texas—No test required.  
 Utah—110° fire test Tagliabue equal to 80° flash.  
 Vermont—110° fire test Tagliabue equal to 80° flash.  
 Virginia—No test required.  
 Washington—120° fire test Tagliabue equal to 90° flash.  
 West Virginia—No test required.  
 Wisconsin—105° flash test Tagliabue equal to 105° flash.  
 Wyoming—105° flash test Elliott equal to 134° flash.

#### RECAPITULATION OF STATES

Compared with the equivalence of the Tagliabue flash test:

Twelve states have no oil-inspection laws: Alabama, Arizona, California, Mississippi, Montana, Nevada, Oregon, South Carolina, Texas, Virginia, and West Virginia.

Twenty-three states use the Tagliabue tester: Louisiana, 125°; Arkansas, Illinois, Indiana, Missouri, Tennessee, 120°; Oklahoma, 115°; Connecticut, Michigan, 110°; Wisconsin, 105°; Kentucky, New Hampshire, 100°; New Mexico, 95°; Idaho, Maine, Minnesota, Washington, 90°; Delaware, 85°; Maryland, Massachusetts, Pennsylvania, Rhode Island, 80°; also Colorado, 80°.

Six states use Elliott's tester: Georgia, New York, North Carolina, 129°; Iowa, South Dakota, Wyoming, 134°.

Five states use Foster's tester: Michigan, Ohio, 110°; Nebraska, 102°; Kansas, 100°; North Dakota, 95°.

## STATES ON TAGLIABUE BASIS

3 states have a test equal to 134° flash Tagliabue.  
 3 states have a test equal to 129° flash Tagliabue.  
 1 state has a test equal to 125° flash Tagliabue.  
 5 states have a test equal to 120° flash Tagliabue.  
 1 state has a test equal to 115° flash Tagliabue.  
 4 states have a test equal to 110° flash Tagliabue.  
 1 state has a test equal to 105° flash Tagliabue.  
 1 state has a test equal to 102° flash Tagliabue.  
 4 states have a test equal to 100° flash Tagliabue.  
 2 states have a test equal to 95° flash Tagliabue.  
 4 states have a test equal to 90° flash Tagliabue.  
 1 state has a test equal to 85° flash Tagliabue.  
 5 states have a test equal to 80° flash Tagliabue.  
 All states have an average of 106° flash Tagliabue.

## COUNTRIES ON TAGLIABUE BASIS

Great Britain—73° flash test Abel equal to 100° flash.  
 Australia—70° flash test Abel-Pensky equal to 97° flash.  
 New Zealand—100° flash test Tagliabue equal to 100° flash.  
 Barbadoes—83° flash test Abel equal to 110° flash.  
 Bermuda—73° flash test Abel equal to 100° flash.  
 British Honduras—100° flash test Tagliabue equal to 100° flash.  
 Canada—85° flash test Abel equal to 112° flash.  
 Ceylon—73° flash test Abel equal to 100° flash.  
 Denmark—73° flash test Abel equal to 100° flash.  
 France—95° flash test Granier equal to 90° flash.  
 Germany—69.8° flash test Abel-Pensky equal to 96.8° flash.  
 Holland—69.8° flash test Abel-Pensky equal to 96.8° flash.  
 India—73° flash test Abel equal to 100° flash.  
 Italy—75° flash test Abel-Pensky equal to 102° flash.  
 Japan—86° flash test Abel-Pensky equal to 113° flash.  
 Norway—71.6° flash test Abel-Pensky equal to 98.6° flash.  
 Russia—82.4° flash test Abel-Pensky equal to 109.4° flash.  
 Spain—No test required.  
 Sweden—71.6° flash test Abel-Pensky equal to 98.6° flash.

Average test of all foreign countries, 101½° flash.

The states requiring the gravity of oil to be taken as well as the fire test are: Idaho, Kansas, Minnesota, Nebraska, North Dakota, Ohio, South Dakota, Washington, Wisconsin, and Wyoming. The gravity on illuminating oil is fixed at not less than 46, unless it be produced from Kansas, Oklahoma, or Colorado crude, when a gravity of 42 is permitted. Two of the states fix 63 as the minimum gravity at which gasoline should be sold.

## CONCLUSION

I hereby wish to acknowledge the valuable assistance I have received from the Attorney General and Assistant Attorney General, Wendell Stephens. It is largely due to their efforts that we were able to collect the sum of \$502.35 for fees from uninspected oils which had been shipped into the state.

I also wish to commend Deputy Inspectors Charles St. Clair and Joseph Burkhard upon the very able manner in which they have fulfilled the duties of their positions; and to thank them for their cheerful co-operation with myself in the work of the office.

Obediently yours,

JAMES DUCE.



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