

The State of Wyoming.

Office of State Geologist,

Cheyenne.

December 1st, 1908.

Hon. Bryant B. Brooks.

Governor of Wyoming.

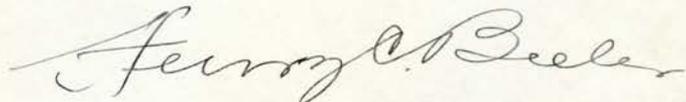
Cheyenne, Wyo.

Sir:-

As provided by Section 7, Chapter 48, Session Laws, of the State of Wyoming, 1901, I have the honor to hand you herewith, my report as State Geologist for the years 1907 and 1908, together with recommendations for the continuance and betterment of the work of this department, and which I trust will receive your favorable consideration.

I beg to express my sincere appreciation for the many courtesies extended to me by your self and the other State officers during the seven and one-half years of my term as State Geologist, and to bespeak the same for my successor in office.

Very Respectfully,



State Geologist.

REPORT OF THE STATE GEOLOGIST.

1907 - 1908.

The past two years have witnessed two extremes of mining, a year of great prosperity and a year of greatest depression in the business world, all financial matters tied up and mining properties throughout the country idle for months at a time.

At the present writing, the effects of a revival in business is being experienced in a small way and many of the idle mining companies are protecting their interests by assessment work and a better tone is evident in the letters of inquiry from investors now being received.

The completion of the new railroads to hitherto isolated sections of the state have been instrumental in attracting new people to regions known to be of mineral worth for many years but which have been cut off from active communication with the markets and could not compete with the more accessible section of the west where it is possible to reach the mines in a pal man car, without loss of time and in comfort.

The average investor considers these things quite as much as the mine showings, as they are matters he can readily grasp and have their bearing upon the success of the enterprise.

The cutting down of the contingent *fund* of this office to \$2,000 from \$3,000 as asked for to properly carry out the work in hand together with the Red Canon Investigation work, as well as calls for the Geologist on legal cases has cut down the efficiency of the work performed, reduced the amount of fees received and lessened the showing for these two years, without accomplishing any saving for the State.

As provided by law, the work of examination and reports on mines has been made the principle business of this office and all calls answered as promptly as possible.

REPORTS BY THE GEOLOGIST.

During 1907 - 1908, applications have been received and reports made upon twenty-six properties situated in eight counties of the State, the fees for the same amounting to \$978.00.

This work in detail is as follows, a brief outline of the report given in each case, together with amount of fee collected;

STATEMENT OF REPORTS MADE AND FEES RECEIVED.

No.	Date	Description	Fee
82,	February 1st, 1907,	for Henry Schwartz, Denver, Colorado, a report on the Kopper Crown Group, at <i>Halls</i> , twenty-two miles West of Cheyenne, in Laramie County,	\$50.00
83,	January 19th, 1907,	for Horace Adams, <i>Halls</i> , Wyoming, a brief report on the Arizona Group, at <i>Halls</i> , twenty-two miles West of Cheyenne, in Laramie County,	\$50.00
84,	March 2nd, 1907,	for A. E. Minium, Casper, Wyoming, a report on the Jadeville Asbestos Group, <i>Casper</i> Mountain, seven miles South of Casper, Natrona County,	\$25.00
85,	March 2nd, 1907,	for A. E. Minium, Casper, Wyoming, a brief report on the McConnell Asbestos Group, Seven miles South of Casper, Natrona County,	\$25.00
86,	March 16th, 1907,	for C. E. Orchard, Lander Wyoming, a preliminary report on oil lands, five miles East of Lander, Fremont County,	\$28.00

- 87, March 10th, 1907, for the Strong Copper Mining Company, Leslie, Wyoming, a second report on the Strong Copper Mine at Leslie, sixteen miles East of Laramie, in Albany County, \$100.00
- 88, July 11th, 1907, for the Wyoming Asbestos M. M. & M. Company, Casper, Wyoming, a report on the *Serpentine* Group, on Smith Creek, sixteen miles South-east of Casper, in Natrona County, \$25.00
- 89, July 18th, 1907, for E. K. Boyson, Chicago, Illinois, a brief report on the showings of the Wyoming Sulphur Company's property, three *and* one-half miles North-east of Thermopolis, in Fremont County, \$25.00
- 90, September 6th, 1907, for Amos Boyson, Chicago, Illinois, a preliminary report on the McGowan-Le Claire Group, at Willow Creek, eighteen miles South-west of Thermopolis, Fremont County, \$25.00
- 91, September 19th, 1907, for L. Cavanaugh, Denver, Colorado, a second report on the showings of the Winona Group, in the Sunlight District, near Painter, Wyoming, about fifty miles North-west of Cody, in Big Horn County, \$25.00
- 92, September 30th, 1907, for J. S. Boyd, Idaho Springs, Colorado, a brief report on surface showings on the Sherman Group, near Sherman Station on the Union Pacific Railroad, in Albany County, \$25.00
- 93, September 30th, 1907, for Dr. A. B. Hamilton, Laramie, Wyoming, a brief report on the Hamilton Group, near Devil's Gate, twenty-three miles from Centennial, in Carbon County, \$25.00
- 94, October 1st, 1907, for August Bopp, Cheyenne, Wyoming, a

- report on the Bucanear Group, six miles South of Sherman Station on the Union Pacific Railroad, in Albany County, \$35.00
- 95, October 9th, 1907, for Benton & Simmons, Centennial, Wyoming a brief on the Kansas Group, six miles South-east of Keystone, in Albany County, \$35.00
- 96, October 23rd, 1907, for J. W. Aydolette, Shawnee, Oklahoma, a supplementary report on the Raven Group, twenty-five miles East of Encampment, in Carbon County, \$35.00
- 97, October 23rd, 1907, for G. P. Hinton, Encampment, Wyoming, a report on the Century Group, eighteen miles South-west of Encampment in Carbon County - 25.00.
- 98, October 34th, 1907, for J. H. Manning, Kansas City, Missouri, a supplementary report on the Snake River Consolidated property, fourteen miles South of Battle, Carbon County, \$35.00
- 99, October 26th, 1907, for Omar Powell, New York City, a report on the Snow Bird Group on Elkhorn Mountain, twenty-six miles South of Douglas, in Converse County, \$35.00
- 100, October 26th, 1907, for Sydney K. Bartlett, Cheyenne, Wyoming, a report on the Guernesey Placer Claims, one mile South of Hartville, Laramie County, \$35.00
- 101, December 2nd, 1907, for Bernard Holtum et al, Cheyenne, Wyoming, a report on the showings of the Mechanic Group, situated about one-half mile East of Atlantic, Fremont County, \$35.00
- 102, December 21st, 1907, for Clarence D. Clarke et al, Washington, D. C. a brief general report on the general conditions noted in the Miners Delight Mine, twenty-eight miles South-west of Lander, in Fremont County, \$35.00

- 103, July 31st, 1908, for the Gold Standard Mining, Milling, and Improvement Company, Huron, South Dakota, a general report on the conditions noted on the Gold Standard Placers, near the head of the Little Big Horn River, in Sheridan County, \$100.00
- 104, August 15th, 1908, for the North American Asbestos Company, Kansas City Missouri, a general report on the conditions noted on the North American Asbestos Group, on Casper Mountain, seven miles South of Casper, Natrona County, \$50.00
- 105, September 22nd, 1908, for A. L. Cox, St. Paul, Minnesota, a brief report on the conditions shown in the tunnel and workings on the Continental Copper Mining Company, twelve miles West of Encampment, in southern Carbon County, \$25.00
- 106, September 14th, 1908, for the Wyoming Consolidated Asbestos Company, Kansas City, Missouri, a general report on their asbestos properties on Casper Mountain and on Smith Creek, all lying South of Casper, Natrona County, \$25.00
- 107, November, 14th 1908, for the Batavia Arapahoe Mining and Milling Company, Batavia, N. Y. a general report on the conditions noted at their property on Hoodoo Creek, Copper Mountain, about twenty-one miles North-east of Shoshoni, in Fremont County, \$25.00

Total fees received, \$875.00

These fees have all been collected and covered into the State Treasury, as provided in Section 5, Chapter 45, Session Laws of Wyoming, 1901, the usual receipts taken and duplicates filed with the State Auditor, as provided for all State accounts.

PRESENT CONDITIONS OF THESE PROPERTIES.

The properties listed above have all felt the effect of the 1907 panic and some of them were not able to carry out the plans made at the time the Geologists report was called for but the majority of them have worked to some extent during the past year.

Nineteen of these properties worked during 1908, of these sixteen are already equipped to begin work in the spring of 1909, and the remainder are private properties which may be worked at any time.

The extension of the fees of this office to apply to all forms of mineral deposits permitted the examination of several new fields and represent oil and sulphur deposits as prospects in this list. Drilling is now going on in this field as a result of this examination and the sulphur deposit is being opened up and a mill put in for the immediate production of commercial sulphur.

The reasons for applying to the State Geologist for a report are many. New prospects are submitted for opinion as to their worth of prospective value; distant owners solicit information about their properties or progress of work; formal advice on working is requested that the directors may proceed intelligently and order special work; supplementary reports are called for that stockholders may be informed as to progress and general reports wanted in order that properties may be submitted for sale or lease.

Generally the reports of this office deal with surface or shallow working conditions, as the mining districts of the State are either new or slow in development and but few calls for the services of the Geologist come from producing or developed mines.

STATE GEOLOGIST FEES.

The amendment to the provision in regulating the fees of this office, in Section 3, Chapter 45, Session Laws, 1901, became effective April 1st, 1907, and all examinations since that date have been made subject to that revision. This provided that all fees for prospects shall be twenty-five dollars, with an additional fee of twenty-five dollars per day for examination of developed mines or where the conditions of the examination warrant such a *charge, as* a proper recompense to the State.

In each of the foregoing cases, except numbers 103 and 104, the property was clearly in the prospect class and the time required for the examination was short, hence the minimum fee was charged. Number 103 was placer land, of considerable extent and required an extended examination to cover, and a long trip to reach; therefore the fee was placed as stated and was perfectly satisfactory to the applicants. Number 104 was of lode property which had been examined by this office under unfavorable conditions and the present examination was for the purpose of making a detailed report under the most favorable circumstances hence the fee was adjusted to suit the condition of the property.

It is believed that the present arrangement of fees is the most practical method *of* providing for this work by a State officer and has been approved by the mining men of the state, as not interfering or competing with the examinations of private engineers or geologists.

Here it may be mentioned that the taking up of the

Red Canon Placer Salting matter seriously interfered with the work of mine examination by this office and resulted in the cutting down of at least one half of the amount of fees earned in this manner, as at the time of beginning this work, orders for some eight or ten additional reports were booked and ready to be taken up but were laid aside for the Red Canon preliminary work, and when they could be again reached, the snow in the mountains prevented the work or the order had been withdrawn.

During the season of 1908, the contingent funds of the office were so small that but little field work could be done, and this added to the general business depression, which crippled mining everywhere, again cut into the fees earned by this office, with combined result that the returns for the past two years are the smallest since the first years of the work.

TABULATED STATEMENT OF FEES AND REPORTS.

In this connection, attention is particularly directed to the following tabulated statement, which shows, by counties, all reports made to date since the re-opening of this office under the present law of 1901, and further shows its progress and the location of the most active mining centers up to the present time.

COUNTY	1901		1902		1903		1904		1905		1906		1907	1908	Total			
	No.	Fee	No.	Fee	No.	Fees	No.	Fees	No.	Fees	No.	Fees						
Albany	1	\$25.00	3	\$75.00	2	\$50.00	3	\$100.00	2	\$75.00	7	\$275.00	4		32	\$775		
Big Horn	1	25.00	..	..	..	..	..	..	..	..	2	50.00	1		4	100
Carbon	7	275.00	7	175.00	5	250.00	4	175.00	9	450.00	3	150.00	4	100	40	1000		
Converse .....	..	..	..	..	..	..	2	75.00	..	..	..	..	1	\$25	10	275
Fremont .....	..	..	..	..	1	25.00	..	..	..	..	1	25.00	5	175	8	200
Johnson .....	..	..	..	..	..	..	3	75.00	..	..	..	..	3		3	75
Laramie	1	50.00	2	75.00	2	50.00	3	75.00	2	50.00	1	25.00	3	125	14	450		
Matrona .....	..	..	..	..	..	..	..	..	..	..	..	..	3	75	5	150
Sheridan .....	..	..	..	..	..	..	..	..	..	..	..	..	1	100	1	100
													21	\$ 650	5	\$225	167	\$3725

THE WYOMING VOLUNTARY PUBLICITY LAW.

Chapter 93, Session Laws of Wyoming, 1903.

This law was a strictly original idea, put forth as a practical means of determining by actual experiment, just what was the real sentiment among the legitimate operators on both sides, both promoters and buyers of stock, and the results obtained have shown that the man who is putting a new mine before the public, as a straight business proposition, rather courts that avoids publicity.

The whole aim and object of this law is to provide a means of distinguishing an honest mining venture which must offer its stock to the public to carry out the necessary work of development, from any of the hordes of mining fakes that literally infest the investment market today, and a sworn statement, as provided, protected by proper penalty for perjury, is believed to be the reasonable means of protecting both the legitimate promoter and the investor, who seeks a legitimate speculation, not a wild leap in the dark, and is willing to take chances on the ore, if the greater chances of jugglery in the promotion be eliminated to a reasonable degree.

It is at once apparent that compliance with the provisions of this law is ENTIRELY OPTIONAL and that the questions asked may be answered as a whole or in part, so long as no deliberate misstatement is made in the replies given.

Investors are expected to draw their own conclusions from the statement as filed, both from the facts given and the facts omitted, as the law simply provides the manner of obtaining the facts, without any attempt to dictate what shall be given.

One can readily see that a full and concise statement reflects more credit on the management of a company, than a partial or evasive answer, with the most important points omitted, but this is a matter solely for the consideration for the man who inquires, and he is entitled to his own opinion.

Filings Under This Law.

Up to the present time, December 1st, 1908, fifty-seven filings have been made and accepted as complying with the provisions as above given, and a number rejected as containing matter personally known to the Geologist to be erroneous or misleading, but in no case has any attempt been made to force the filing of a statement or interfere with the matter contained therein.

The companies included in the list of filings represent all sorts and conditions of mines in various stages of development, from a new prospect to the Ferris-Haggarty mine, with a production record behind and a larger one ahead. The filings were made for many reasons and purposes, to sell stock, to keep old stockholders posted, to help development, to furnish a public statement of the affairs of the companies in several instances, and to start a new company out square with the world in a number of others.

It will be noted that several companies appear with each year's filings and in these cases the filings were made for the purpose of placing an authoritative statement on the records of the State and the company, or as an answer to questions as to progress made during the last year.

THE WYOMING VOLUNTARY PUBLICITY LAW.

Under Chapter 93, Session Laws of Wyoming, 1905, known as the Voluntary publicity Law, twenty-three filings were made during 1907-1908, and fees paid as follows:-

No.	Date		FEES
	1907		
35.	Jan. 3rd,	Strong Mine, Leslie, Albany County; The Strong Mining Company, by Dr. I. R. Swigart, Manager, Leslie, Wyoming.	\$1.00
36.	Jan. 3rd,	Williams-Luman Mine, Depass, Fremont County; The Williams-Luman Mining Company, by Thos. G. Smith, General Manager, Depass Wyoming.	\$1.00
37.	Jan. 3rd,	Topoka Mine, Lake Creek, Albany County; The Topoka Copper Company Ltd., by C. E. Simmons, Superintendent, Holmes, Wyoming.	\$1.00
38.	Jan. 5th,	Cuprite Mine, Holmes Albany County; Medicine Bow Mines Company, by Wm. Benton, Manager, Holmes, Wyoming.	\$1.00
39.	Jan. 18th,	Oshkosh-Wyoming Mine, Dillon, Carbon County; Oshkosh-Wyoming Mining Company, by H. O. Granberg, Secretary, Oshkosh, Wisconsin.	\$1.00
40.	Jan, 17th,	Independence Mine, Dillon, Carbon County; Independence Mining Company, by H. O. Granberg, Secretary, Oshkosh, Wisconsin.	\$1.00
41.	Jan, 17th,	Jack Pot Mine, Copperton, Carbon County; Jack Pot Mining Company, by H. O. Granberg, Secretary, Oshkosh, Wisconsin.	\$1.00
42.	Jan. 17th,	Stemp Springs Mine, Copperton, Carbon County; Stemp Springs Coal & Power Company, by H. O. Granberg, Secretary, Oshkosh, Wisconsin.	\$1.00

43. Jan. 17th, Anchoria Mine, Rawlins, Carbon County;
Anchoria Copper Mining Company, by H. O.
Granberg, Secretary, Oshkosh, Wisconsin. \$1.00
44. Jan. 21st, Penn-Wyoming Mines, Encampment, Carbon County;
Penn-Wyoming Copper Company, by L. M. Fishback,
Treasurer, 732 Monadnock Block, Chicago, Ill.
\$1.00
45. Feb. 2nd, Cerulean Mine, Copperton, Carbon County;
Cerulean Mining Company, by O. T. Gilbert,
President, Blair, Wisconsin. \$1.00
46. Feb. 2nd, Hamilton Mine, Carbon County; Hamilton Mining
Company, by A. B. Hamilton, Treasurer, Laramie,
Wyoming. \$1.00
47. Feb. 4th, Pluto Mine, Dillon, Carbon County; Pluto Gold
and Copper Mining Company, by H. O. Gran-
berg, Oshkosh, Wisconsin. \$1.00
48. Feb. 4th, Azurite Mine, Dillon, Carbon County; Azurite
Mining Company, by H. O. Granberg, Secretary,
Oshkosh, Wisconsin. \$1.00
49. Feb. 21st, Winona Mine, Painter, Big Horn County; The
Gold-Copper Mining and Milling Company, by
L. Cavanaugh, President, 210 Mercantile Block,
Denver, Colorado. \$1.00
50. Mar. 7th, What Cheer Mine, Encampment, Carbon County;
What Cheer Copper Mining Company, by O. S.
Alers, Manager, Riverside, Wyoming. \$1.00
51. Apr. 22nd, Pease Mines, Three Forks, Carbon County;
Snake River Consolidated Mining Company,
by L. A. Pease, General Manager, 1118 Ash -

	Land Block, Chicago, Ill.	\$1.00
52. Oct. 8th,	Three Forks Mines, Three Forks, Carbon County; by James H. Manning, Financial Agent, 319 Keith and Perry Building, Kansas City, Mo.	\$1.00
53. Dec. 20th,	Elkhorn Mine, Saratoga, Carbon County; Elk- horn Copper Mining Company, by Ray Campbell, Manager, Saratoga, Wyoming.	\$1.00
5	1908	
54. Feb. 5th,	Burr Mine, Lewiston, Fremont County; Lewiston Gold Mining and Milling Company, 408 Naaman Building, Denver, Colorado, by C. A. Kitzmiller Vice-President, Denver Colorado.	\$1.00
55. Mar. 18th,	Gold Standard Placers, Little Big Horn River, Sheridan County; The Gold Standard Mining, Milling and Improvement Company, Huron South Dakota, by F. E. Griffith, Manager, 706 La- fayette Ave., Kansas City, <i>Kansas</i>	\$1.00
56. Nov. 27th,	Leighton Group, near Dillon, Carbon County; Leighton Wyoming Mining Company, 1109 Wells Building, Milwaukee, Wis., by J. L. Leighton, Manager, Dillon, Wyoming.	\$1.00
57. Dec. 1st,	Shawnee Mine, near Encampment, Carbon County; Shawnee Wyoming Copper Mining Company, Shawnee, Oklahoma, by A. M. Coffin, Vice- President, Shawnee Oklahoma.	\$1.00

Total Filing Fees,

\$33.00

CERTIFIED COPIES ISSUED.

As the law expressly provides for the issuing of certified copies of any statement filed under this act, it may be interesting to show how far this provision has been made use of by inventors.

Seventy-three certified copies have been requested and issued by the Geologist to date, the greater number being that of the Penn-Wyoming Copper Company, which has had thirty-two calls, and scattered from one end of this country to the other as well as two from Europe.

Other statements have been called for from the most unexpected sources, and in nearly every instance the makers of the filing have expressed their entire satisfaction with the working out of this law.

Certified Copies of Statements, filed under this law, have been issued as follows:-

Date	No.	To whom issued.	Fee
1907			
Jan. 3rd,	30,	Dr. I. H. Swigart, (2 copies)	\$1.00
Feb. 3rd,	46,	F. W. Hinesay, (1 copy)	\$1.00
May, 6th,	44,	J. W. Hutton, (1 copy)	\$1.00
May, 8th,	44,	C. P. Fields, (1 copy)	\$1.00
May, 18th,	44,	F. C. Hecrow, (1 copy)	\$1.00
May, 18th,	37,	Daily Mining Record (1 copy)	\$1.00
May, 26th,	37,	A. F. March, (1 copy)	\$1.00
May, 29th,	37,	H. H. Eames, (1 copy)	\$1.00
May, 30th,	44,	Pierce Underwood, (1 copy)	\$1.00
May, 31st,	44,	G. R. Simonds, (1 copy)	\$1.00
May, 6th,	44,	J. H. Roberts, (1 copy)	\$1.00

July, 2nd,	44,	H. Alexander,	(1 copy)	\$1.00
July, 2nd,	44,	A. W. Buley,	(1 copy)	\$1.00
July, 19th,	44,	E. P. Palmer,	(1 copy)	\$1.00
Aug. 17th,	28,	H. J. Schirkowsky,	(1 copy)	\$1.00
Aug. 17th,	42,	<i>E. H. Langmire</i>	(1 copy)	\$1.00
Sept. 20th,	44,	Daily Mining Record,	(1 copy)	\$1.00
Sept. 30th,	16,	Horn,	(1 copy)	\$1.00
Nov, 6th,	44	Mitte & Merrill,	(1 copy)	\$1.00
Nov. 18th,	40,	Wm. A. Wilt,	(1 copy)	\$1.00
Nov. 18th,	43,	Wm. A. Wilt,	(1 copy)	\$1.00
1908				
May, 23rd,	42,	Henry Witten,	(1 copy)	\$1.00
May, 23rd,	44,	C. T. Stackdale,	(1 copy)	\$1.00
Sept. 2nd,	55,	T. J. Jones,	(1 copy)	\$1.00

\$25.00

Total Fees Under Voluntary Publicity Law; 1907-1908.

Filings,	-----	\$ 23.00
Certified Copies,	-----	25.00

Total, \$ 48.00

The panic of 1907 and 1908 showed in the results under this law as only three each of the filings and certified ^{copies} appear for the year 1908, which clearly indicates that the law has been used by the small investors, (which it was intended to help), and as this class of people was hit the hardest by the money shortage, inquiries naturally dropped off and will be few until the people generally have time to think of new investments and money to invest once more.

CONCLUSIONS.

This experiment has shown that the legitimate mining man certainly does not fear publicity and rather prefers to make a public statement of his enterprises, in order that the stockholders or any one else may be informed as to the general affairs of his companies.

The principal criticisms have come from small investors who evidently expected a report on the property and advice as to the desirability of the stock as a speculation, and these were much disappointed as not finding a stock quotation, as well as a stock recommendation from the Geologist enclosed therein.

From this fact, it is concluded that properly designed "Compulsory Publicity Law" would be supported by the better class of mining enterprises, as well as similar development enterprises in other lines, which would of course be subject to the same restrictions, and it is also evident that this could best be done by requiring that the most complete information possible relating to all phases of the new company, its property and interests, be filed at the time of incorporation, in addition to the present requirements.

This would vary in the different States, as the incorporation requirements are not the same in all States, but the salient features of the plan should correspond by united action on the part of the legal departments of the several States interested, in order to secure the most practicable results and thus obstruct the pathway of the fakir, mining or otherwise, as much as possible.

Contingent Expenses.

Three thousand dollars was the sum asked for to properly conduct the work of this office for the years of 1907 and 1908, and two thousand dollars the sum allowed.

Cutting down the working funds simply cut down the amount of work which could be done and diminished the efficiency of the office in a corresponding degree, without actually saving any money to the State or the State gaining in any way.

STATEMENT OF EXPENDITURES TO DATE.

Traveling Expenses,	\$ 620.68
Board while traveling,	\$ 105.00
Stenographer and Typewriting,	\$ 140.00
Postage and Telegraphing,	\$ 288.01
Records Stationary and Printing,	\$ 437.28
Papers, Magazines and Books,	\$ 6.00
Office Furniture,	\$ 129.60
Miscellaneous,	\$ 141.36
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	\$ 1873.47
Balance on hand,	126.53
	<hr/>
	\$ 2000.00

The sum of Five thousand dollars is asked for to adequately perform the work by this office which should be covered during the years of 1909 and 1910. The demands of the mineral industry on this office are daily increasing and there is an abundance of work ahead to keep the most active department constantly on the move, and there is also a growing demand for the publications of this office among the better class of investors than ever before, whose inquiries must be promptly and correctly answered if the mining and mineral resources of the State are to be developed and made productive and therefore profitable to the State.

In this connection I would respectfully refer you to the article in this report entitled "The Future of the Office" and the "Department of Mines" article following.

ACCIDENTS.

These have happily been few in number in the mines of the State, during the past two years, though there have been a number of accidents, which do not come under the Law requiring same to be reported to this office. In a number of cases the Geologist made it his business, as inspector, to inquire into the conditions surrounding these occurrences and made suggestions to prevent a recurrence of the same.

Only one accident was reported under the Law, and this was fatal. Frank O. McCormick was killed in the Haggarty Mine at Rudefska, in Carbon County, on August 16th, 1907, by a rush of ore and water from a shoot. Mr. McCormick and the Superintendent, J. Hanson, were engaged in opening up the shoot, as Mr. Hanson knew it to be dangerous, and engaged in it himself with Mr. McCormick, having fully warned him of the presence of the water and rock above, and they both fully understood what they were about.

One car had been loaded with waste rock, and the sheet had been closed and McCormick had moved away from the sheet, to get his locomotive to move up another car, when the water rushed out of the sheet, and submerged Mr. Manson. McCormick came back to help Manson, and a second rush of water and rock came, and McCormick was killed by having his head jammed between the sides of the car and the upright timbers of the tunnel.

I made a personal investigation of this occurrence at the Mine, and I find that there is to be no blame attached to the Company for this accident, which was simply one of those occurrences which may happen to any man who works under ground. At the same time I also inspected the Magarty Mine and found the same to be in good shape, and the work going on in a workmanlike manner.

Other inspections have been made from time to time in the various working properties of the State but as most of this work is carried on on a prospecting basis, I did not consider it necessary to make a formal report of each inspection. In future years, when there are numbers of working and producing mines in the various metals, it will then be necessary to have a detailed inspection and report of the various properties at stated periods.

Authority for this extended inspection and method of keeping the records is already established in the statutes of the State and all that remains to be done is to provide a proper fund for carrying out the law.

PUBLICATIONS.

During the years 1907 and 1908, the Geologist has issued the following bulletins;

Report of the State Geologist to the Governor, 1905-6, 45 pages,	3000 copies
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The Mining of Wyoming and of the United States, 116 pages; issued in connection with the Department of Immigration.	3000 "
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Prospecting in the Black Rock- Long Creek Vicinity, Fremont County, 16 pages.	3000 "
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The Wyoming Voluntary Publicity Law, 12 pages	3000 "
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Wyoming Mines, 1907. 48 pages.	3000 "
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The South Pass Gold District, Third Edition,	3000 "
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Total Circulation,	17,000 "
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These publications have had the widest possible circulation throughout the United States and some parts of Europe, have been quoted and copied in many of the leading mining journals and general press and made the facts of Wyoming mining familiar to the reading public generally.

In addition to the above pamphlets, the State Geologist has secured the introduction into the leading mining authorities of reliable statements of Wyoming Mineral Resources, where it is available to all inquiries and yearly is consulted by thousands all over the world.

Here it may be mentioned that the State Geologist, as

as a member of the Department of immigration has edited the mineral portions of the State of Wyoming pamphlets, 1907 and 1908, designed and edited the "Whoming--Why Not" and "Some Views of Wyoming" pamphlets and contributed generally to the press on these Immigration matters.

INDUSTRIAL MAP OF WYOMING.

In the fall of 1907, the State Geologist took up the matter of an industrial map of Wyoming with the Clason Map Company, 510 Commonwealth Building, Denver, Colo., publishers of western maps of all kinds, and agreed to furnish the data available regarding the mineral portions of Wyoming, as well as any general data which might be required or desirable in order to make as complete a map as possible.

The result of months of work on the various subjects is a splendid map of the State and is now on general sale and being placed before the public everywhere, where everyone of the maps advertise Wyoming and its resources constantly.

On this map are shown in contrasting colors, the mineral districts, coal land areas, mineralized areas, situation of oil fields; also agricultural land, irrigated lands, irrigation projects under construction, irrigation projects surveyed, all of these latter being furnished by the State Engineer, as well as information regarding streams, etc., from the records of his office.

As these maps are published in various forms, for many purposes, all classes of people are reached and information about the State is widely circulated.

This map forms the first of what will be a series of Industrial Maps of the State, appearing as circumstances warrant or the trade demands, each more elaborate than the preceding, more accurate and of greater value to the user, with a constantly growing circulation and ~~consequently greater~~ consequently greater advertisement of Wyoming.

The State was under no expense in getting up this map, aside from the Geologists time in gathering, compiling and editing the data for this map, and it is considered one of the best methods of presenting the States resources available at this time.

THE RED CANON PLACER CASE.

On October 9th, 1907, the following item appeared in the Natrona County Tribune, published at Casper, Natrona County, Wyoming, A. J. McKler, Editor, and was widely copied and circulated throughout the mining world:

"LANDER" GOLD PROPERTY SALTED

T. L. Greenough, the Capitalist, and Associates Faked
to a Finish.

About three weeks T. L. Greenough, the capitalist, from Missoula, Mont., and about twenty more capitalists from Montana and Washington, passed through Casper on a standard Pullman car on their way to Lander where they had purchased 36,000 acres of gold placer lands, including water rights, at an expense of \$30,000, and after a thorough and exhaustive "test" by expert assayers it was pronounced to be worth wealth amounting to billions. Every body wanted some of the land, and a great rush was made to locate claims around the Greenough property. Now it turns out that the property was "salted", and the Greenoughs have ordered operations suspended and have cancelled all orders for material not already shipped. The representative of the company at Lander is very reticent and says he is unable to learn the cause of the order to suspend operations, but from an absolutely reliable source it is learned that the assays were not correct and that in every test where a good amount of *gold* was found the property was

"salted. All the lumber, machinery and other mining material as well as the orders for the commissary supplies en route have been ordered stopped and returned, and the workmen have been released without reservation. They are now hauling back the stuff which had already left Lander for the mines, including a car of dynamite."

The statements contained in the above item and similar publications which followed it, in the State Mining and general press caused a storm of comment distinctively unfavorable to all Wyoming enterprises and worked an incalculable harm to the mining industry of the State, regardless of individual merit or the real history of the properties condemned in this way.

Inquiries were received by the State Geologist from all parts of the United States and some from Europe, asking about many properties in the State, the chief burden of the inquiry being, "is this property the same or near the Red Canon placers we have been reading about," and showing that all the mining enterprises of the State were thus placed under suspicion.

On Oct. 15th, 1907, the following telegram was received
by the Governor of Wyoming;

"The Western Union Telegraph Company.

Hudson, Wyo., Oct. 15th, '07

Gov. E. B. Brooks.

Cheyenne, Wyo.

The people of this section indignant over report of Red Canon
Placer Company's fields being salted, which mean untold damage to
our state and this section and demand a rigid investigation by
state.

E. H. Aronson.

Shoshoni."

Immediately on the return of the State Geologist from
work in the field, on October 16th, 1907, Acting Governor Schnitger
ordered him to take up this matter and investigate the whole affair
and report to the Governor. The State Geologist at once advised
the Acting Governor and Governor Brooks, on his return, that this
was a work of considerable magnitude, which would involve an ex-
penditure of more money than was available in the State Geologists
contingent fund and the work was liable to be held up for lack of
funds to carry out their instructions.

The Governor then ordered the State Geologist to pro-
ceed as far as possible with the investigation and all other work
of this office was practically dropped for the time being.

The State Geologist wrote to as many of the Greenough
party as could be reached, asking for their statements of the
case; to the banks, prominent citizens of Lander and vicinity,
either personally known to him or mentioned in the published

reports of the matter, and received, uniformly courteous answers.

Being advised from Governor Brooks, from his home in Casper, that Mr. J. D. Greenough was at Lander, the State Geologist immediately went to Fremont County, met Mr. Greenough on November 10th, 1907, went over the property with him and interviewed him regarding the whole matter. At the same time Captain Henderson and many other citizens familiar with the placers were interviewed, their opinions ascertained and information gathered regarding the Original Red Canon Placers and the adjacent placers, gravel conditions and productions made in previous years.

The gravel on the Red Canon Placers was found to be partly frozen on examination and the Geologist decided that by the time the proper arrangements could be made for a suitable force, money secured, and work commenced, the ground would be frozen hard and unfit for a thorough, fair and impartial sampling and test, necessitating a second examination and a double expense to the State, and that actual work on the ground would have to be postponed until the spring of 1908.

In the meantime correspondence had been opened with Messrs. Greenough, and on December 4th, 1907, the State Geologist met their examining Engineer, Dr. W. F. Edwards, of Pittsburg, Pa., at Chicago, and went over the whole matter in detail with him, being shown original reports, maps and notes regarding the work on the ground.

Dr. Edwards was most courteous in answering all questions at once and offered every facility for getting at the facts of the work and its progress.

On the return of the Geologist from Chicago, copies of reports and maps were received from Messrs. Greenough, through

their attorneys Messrs Wakefield and Witherspoon, Spokane, Wash.. These reports and maps were sent for the information of the State Geologist and are confidential, hence cannot be published at this time.

At this time Mr. H. E. Reddin, formerly foreman under Dr. Edwards during the sampling work on these placers, came to Cheyenne at the request of the Geologist but without expense to the State, and went over the matter with the Geologist, answering his questions, and giving many details of the work and ground.

All expenses of this work were paid out of the Contingent Fund of the State Geologist, seriously interfering with the work of the office in all other lines, and it was found that this appropriation would not cover the work of examining the placer area under dispute, hence other steps were found necessary.

A careful consideration of all possible sources of income was made and it was found that there was absolutely no State funds which could be used for carrying this field work in the thorough manner demanded by the conditions under which the investigation was begun, the estimate being that at least \$2000 would be required to thoroughly sample the ground by a crew of competent, disinterested placer miners and the actual contents of the gravel determined.

In May, 1908, Messrs. Greenough advised this office, through their attorney, Mr. E. H. Fourt, of Lander, Wyo., that they were desirous of having the investigation completed and would contribute up to \$500 to complete the field work. After consultation with Governor Brooks, it was decided that the State could not proceed under this arrangement with justice to all parties concerned, and the proposition made by the Geologist, to both

Messrs. Greenough and Captain Henderson, as principals in the matter, that the State should proceed with the field work and that the expense should be divided equally between them, all accounts to be made under the usual restrictions for State Accounts.

Messrs. Greenough accepted this Captain Henderson declined, stating that his financial affairs would not permit him to assume the expense.

This ends the matter until an appropriation can be made by the Tenth Legislature for the purpose of completing the field work, examining, sampling, assaying and publishing a report of the whole matter, which certainly should be done and circulated as widely as possible in order that the real facts may be known and the wrong done to Wyoming mining be repaired to some slight degree.

For this purpose I would ask that an appropriation of at least \$2000 be made and that the work be completed as early in 1909 as conditions will permit.

As my term of office expires before this work can be done, I will do all in my power to aid my successor in office in this matter and will also serve without pay during the examination of the ground, should my services be desired at that time.

The Basin Gas Well.

During November, 1907, the attention of this office was called to a burning gas well situated at a point on the Big Horn River, opposite the town of Grey Bull and seven miles north of Basin, the county seat of Big Horn County.

Investigation showed that this well had been sunk by the Peay-Hill Oil and Development Company of Denver, and was fired without their knowledge or consent.

The first gas was struck at a depth of 127 feet but was only a small pocket in the shale, the next at 260 feet and the main flow at a depth of eight hundred feet in the loose sandstones of the Dakota Cretaceous formation.

A reducer was put on the cap of the well reducing the diameter from six and one-quarter inches to two inches, and a wooden plug inserted to stop the flow of gas. At the time however, the whole depth of the well had not been cased and some of the gas escaped up around the casing, finding escape to the air through cracks and holes in the shale formation but was not on fire or doing any damage, and was unavoidable.

On September 18th, 1907, some boys or other persons set fire to this escaping gas in one of the fissures and it soon lighted the escaping gas around the well casing, which burned out the wooden plug and lighted the main torch, which burned until October, 1908, when it was finally shut off.

A chapter of accidents contributed to keeping this well burning so long, material for capping the well being delayed in shipment and was destroyed by fire in the depot fire at Grey Bull. Other material was ordered and misssent, causing other delays but

the well was finally capped and the flow stopped,

This well became famous throughout the Basin region and many photographs were taken of it. Postals cards were made from some of these plates and scattered all over the country, advertising Northern Wyoming, and the Burlington Route folders have a picture of the burning well showing one of the resources of this region, all of which is of benefit to the State, but the waste of gas is to be regretted.

Various local and legal questions arose as a result of the finding and burning of this well, and litigation further delayed the work of stopping the waste, but this was all finally adjusted to the satisfaction of all interested, the land sold to other parties, new wells drilled for gas and oil, some of which were very successful and arrangements made to utilize the gas for local purposes for the time being.

The Geologist visited the well on May 14th, and found the facts of the case to be substantially as reported by the Peay-Hill Company.

During the consideration of this matter, it was strongly urged by oil and gas well drillers that the limit of 30 days placed upon an escaping well was too short to apply practically and that the statute be changed to admit of a longer time, it being urged that in isolated places where freights are subject to several transfers and liable to be delayed in transit, the entire time would be taken up by delays entirely beyond the control of the owners or drillers but they would be liable for a heavy fine and other penalties, should some adjoining owner or agent take advantage of the other provision of the act and make trouble for them.

This seems to be reasonable and in view of the present activity in the oil fields of the State, some action should be taken to remove as many obstructions from drilling as possible, and to give the man who is willing to expend his money and time in developing the oil resources of the State all reasonable encouragement.

EXPERT EVIDENCE BY THE STATE GEOLOGIST.

DURING THE past few years applications have been received and reports made as provided by law, by this office, upon properties under dispute as to title, either by the United States Government various departments or between litigants claiming the same land under different acts of Congress.

In either case the State Geologist has been called upon, after making the State report on the property, to give expert testimony as to the value of the land and the mineral quality or lack of mineral findings, in other instances, and had been compelled by subpoena or summons to attend these hearings of the Court until his testimony was heard or perhaps dispensed with, even though he had been summoned for the purpose of testifying.

This attendance was frequently in direct conflict with work of the office, interfered with examinations which had been called for in due form, the fees paid and delayed the fulfilment of the State's contract with the applicant to examine the property at the earliest moment, and took up the time of the Geologist without due compensation from the State for the officer's services.

Under the law regulating this office, no provision exists for the State Geologist acting as expert witness for any one or in any case, and this is clearly an abuse of the Geologist's time for private gain, as there is no reason why the State should provide the services of an expert of any description, free to those who happened to get into a dispute regarding their possessions or lands.

Those who engage in this mining litigation should be compelled to pay their own experts to settle their own question,

without asking the State to provide one free of charge, as is the case under the present arrangement.

I would therefore recommend that the Tenth Legislature be requested to provide authority by enactment of the necessary measure, prohibiting the technical officers of the State from being used as expert witnesses except in cases where the State is interested, unless a fee covering the usual services of the officer in the special work of his office, per diem or otherwise, has already been paid as provided for the fees of his office, the officer in each case to have full authority to fix the fee and collect the same in advance.

In the case of the State Geologist, this fee should be fixed at \$35.00 per day, as in examination work on undeveloped mines in Section 5, Chapter 45, Session Laws of Wyoming, 1905 and amended 1907,

This will prevent summoning these officers unnecessarily or in cases where the sum involved does not warrant the expenditure of the sum necessary to secure the services of the expert witness, whereas now, this expert witness costs no more than anyone else and the officers time is taken up to no purpose, without benefit to the State or the Litigents.

The recent activity of the Departments of the General Government in mining and land affairs, National Forest contests of mining and other claims, disputes as to mineral or non-mineral character of land, coal and oil claims contests, have all resulted in bringing this office a great deal of charity business not provided for or contemplated by the founders of the office, and should be provided against.

There is no reason why the State should furnish expert testimony free of charge in the United States Land Office contests or provide private litigants with the means of carrying on their disputes, unless a proper fee is paid to the State for the services of the officer. The various statutes provide duties for the officers, prescribe certain qualifications for each one, hence there is no doubt as to the feasibility of providing for the proper investigation of this matter with justice to all sides.

FUTURE OF THE OFFICE.

Since the re-establishment of the office of the State Geologist in 1891, after a lapse of some ten years, the work of the Geologist has been limited and practically crippled by appropriations so small that no field work whatever could be attempted and but little practical work attempted.

Certain work was prescribed "to encourage the growth and development of the mining industry" and this has faithfully been carried out to the limit of the means provided by the various legislatures but these amounts have been totally inadequate for the work in hand and but small actual advance could be made.

The mail work of the office alone has grown until the entire time of one clerk and stenographer could profitably employed and there is enough work in the field to keep the Geologist and two assistants busy the year around. But under the present system this is impossible and all that can be done is to keep up the office work as well as may be and do desultory field work as occasion is afforded.

After seven years active experience in this office and acting entirely in the interest of the State at large, I would re-

spectfully recommend that either an entirely new course be adopted so as to permit the office to do the work demanded or that the office be allowed to lapse, as was done from 1891 to 1901.

This latter course is recommended solely as a matter of economy and plain business. It is better to leave the work undone and the growing mining industry of the State to take care of itself, as it can do, than to spend money each year for the small result now possible under the present system, until a proper representation and administration is demanded by the mining interests themselves.

There is certainly work enough to keep an active department busy all the time and attract a desirable class of capitalists who are actually able to carry out the required works and make mines on a commercial scale, instead of a few promoters who must depend on small stock sales to keep the properties going on a limited scale, and who, while they are honest in their endeavors, simply have not the money to carry out their plans and generally the property and State suffers.

With a properly equipped mining department, aid could be extended to these enterprises by opportune reports and publications and capital attracted, where it is most needed and the work kept going, the money expended throughout the State and new taxable properties brought in. Under the law providing for a tax on the output of mines, an ample income is assured to the State as soon as mines are made to produce on a commercial scale and it is necessary to the interest of the State to speed the day of production and resultant taxation and income.

A DEPARTMENT OF MINES.

As a means of accomplishing this result, I would recommend the establishment of a Department of Mines, to embrace the offices of State Geologist and the Coal Mine Inspectors, under the direction of a Commissioner appointed by the Governor, who shall be required to collect and keep on file for instant reference and proper publication, all necessary information relating to the whole mineral industry of the State, and at the same time carry to a much higher degree of efficiency, the various provisions for mine inspection, both coal and metal, now on the statute books, at a less money cost to the State than is represented by the present expense of the two departments.

The Wyoming Constitution provides for the office of State Geologist and Inspector of Mines, but not for the Coal Mine Inspectors as has been claimed and at present existing by statute.

The article is as follows;

"Article IX

Mines and Mining.

Inspector of Mines.

Section 1. There shall be established and maintained the office of Inspector of Mines, the duties and of which shall be prescribed by law. When said office shall be established, the Governor shall, with the advice and consent of the Senate, appoint thereto a person proven in the same manner by law to be competent and practical, whose term of office shall be two years."

Section 6 of the same article provides for the office of State Geologist.

A careful search of the Constitution fails to show such provision for the Inspectors of Coal Mines and there is no legal reason why this office should not be combined and put under the direction of or as a part of, a Department of Mines, of which the Commissioner shall be Inspector Of Mines, as the Constitution provides.

If it were legal and possible for the Legislature to create and maintain the offices of two Inspectors of Coal Mines not provided for in the Constitution, it is also possible for the Legislature to do away with these two offices, create the Department of Mines as suggested with the Commissioner made inspector of Mines, thus making the office a constitutional one, and promote the efficiency of the work of the State.

The coal mining interests of Wyoming are too great and too important and too many lives depend upon the active enforcement of the acts now in force, to do away with any of the safeguards thrown around the man who works underground, and this suggestion is made solely in the interest of efficient and effective administration of the mines of the State.

The Commissioner can also be made State Geologist, reversing the present arrangement whereby the State Geologist is Ex-officio Inspector of mines. One salary would be paid as now and the whole work directed by one hand, instead of three as at present.

Modern business methods all tend towards the concentration of inspection and executive work under one head in the great plants and there is no doubt but what this principle can be suc-

cessful to the mineral and mining departments of Wyoming with a marked benefit both to the State and the mining interests.

This Commissioner should be a man experienced both in coal and metal mining, a geologist, and capable of directing work in the various fields of mining and allied industries, both from a practical and theoretical standpoint, and at the same time be able to write readily and accurately that his bulletins may attract notice and receive consideration from investors and scientific men alike.

The Mine examination of the present State Geologist law should be retained and the work of this office carried on but on a larger scale and made more efficient. Also, the examination of all state mineral lands should be made under his direction.

A field assistant should be employed, capable of making geological reports, under the direction of the Commissioner, and used to gather information for preliminary work and general information for the bulletins and for filing, as hereinafter mentioned, as well as being sent to verify reports of finds and on special investigations, and co-operate with the coal mine inspectors or the Commissioner when required.

A stenographer would be required for the correspondence and to compile material on the mining industry of the State, keep records and files, cardindex system of the mines and mining projects, production tables and general office work.

For the coal mine inspection, two inspectors as at present and qualified by examination by the Commissioner and holding their appointment from him, but carry out the present provisions for Coal Mine Inspection under his direction, and in addition,

gather other information on mineral matters in their districts and report directly to the Commissioner all matters relating to their work, which information would be filed and used as occasion required. This coal department should be made a most important department and of greater practical value to the State and the miners themselves.

The expense of the department would be somewhat less than the combined expenses of the State Geologists office and the Coal Mine Inspectors, but would be very much more efficient and of a greater practical value to the State.

Salaries should be about as follows;

Commissioner,	---	---	---	---	\$ 3400	per annum
Field Assistant,	---	---	---	---	1200	"
Coal Mine Inspectors, each,	---	---	---	---	1500	"
Stenographer,	---	---	---	---	500	"
Examining Board, Coal Mines,	---	---	---	---	400	"

Allowing a contingent of \$7000 would bring the total appropriation up to \$23,600, or \$200 less than is required to carry out the work of the two present departments for the coming two years, which is \$23,800.00.

Each year sees a greater portion of the States area actively prospected for the various minerals, coal, oil, etc., and each camp has so far developed its own characteristics formations and ores. To visit these various localities promptly, when opened up, and note their situations, means of access, ores and values, make an outline map of situations and general geology, is essential to the rapid development of the camp, and has an important effect on the future of the mines there.

To promptly bulletin these camps and finds should be made an important part of the work of the department but it is also one of the most expensive works which may be taken up.

It is also necessary that each field or each mine be personally visited, exact situations and productions be ascertained and general notes made as to the extent of the mines, machinery equipment and all other matters which would permit an accurate statement to be made of any camp or any field at any time and prevent mis-statements through ignorance or by "interested" persons which always works an injury to the camp and State.

The coal lands of the State are attracting a great deal of attention at the present time and a great many inquiries are received relating to coal lands, coal districts, and coal mines, which at present there is no means of answering accurately and in many cases, no answer can be returned, for the simple reason that nothing is on file about the locality referred to and inquiry causes a delay of weeks or no reply whatever is received. One case is recalled where five inquiries were sent out, one after the others and no reply received to any of them. Yet the intending investor acted in good faith as did this department, and the man to whom these letters were addressed, afterwards acknowledged that he intended to answer but that he was occupied with his own business and neglected the whole matter. As a result no investment was made and the State loses the tax on a working mine.

Under a working department as proposed, this information would have been at once available and the matter followed up, and the mine opened for production.

The Coal Mine Inspectors under the present arrangement, have no facilities for compiling statistics, publishing reports

of their work and observations in the mines, with suggestions for improvement in the laws regarding coal mining, or in fact, anything aside from the regular inspection of the mines in their respective districts. The only list of coal mines now available for distribution is that included in the yearly production table in the State of Wyoming Pamphlet, and this is not complete as some of the smaller mines are totaled together and their operators omitted. Within the last year such a list has been called for by business men in this State and elsewhere.

There is a great mass of material and information bearing on the Coal Industry of Wyoming which should be gathered, compiled and made of practical use to the coal producer and user, but until some action is taken it will remain unavailable and practically useless to anyone.

Even at the present time, cases are coming up where such an organization as the proposed department is demanded, as at Hanna and Diamondville during the coal mine disasters there, in which case the Commissioner would take charge at once, call in both Coal Mine Inspectors to the point of accident, use his field assistant and office force for gathering and compiling evidence, and accomplish a great deal in a short time, to protect both operators and miners.

Also in the Red Canon case, the whole force would have been put to work at this point immediately and the matter settled in short order, as in both the cases above, the men are immediately available, trained to work under a common direction and being under oath to the State, accustomed to working in harmony for the benefit of the State and knowing each other, could accomplish more in a given time than any other sort of new or temporary organization

could possible cover in the same or even a greater time.

In cases involving minerals on State Lands or conditions under which mineral leases should be granted, this department would at once be available and should begin an actual survey and report to the State Land Board of all lands held by the State, whether mineral or non-mineral, and have same ready for instant use, systematically arranged, whenever occasion demanded. This feature alone could be made productive of more actual cash revenue to the State than any other work of the office and should receive fullest consideration.

There is no way in which this office can be made entirely self-sustaining or a source ^{of} direct profit to the State, as is possible in the State Land Department and the State Engineers office, where certain commodities are arbitrarily given to the State and sold or administered for the benefit of the State alone. A proper fee should be charged for all records, examinations, copies of records issued and similar matters, all to be covered into the State Treasury as provided for all other fees but is not probable that this would provide a sum sufficient to cover the total expenses of the whole department.

To establish an arbitrary set of fees for the general services of this department would ^{be} to cripple its efficiency, as the whole usefulness of such an organization consists in the efficient administration of the laws governing the States Mining Industry and the protection of the men engaged in the production of minerals. The money benefit derived from this department must be indirect, through the development of minerals on State lands and increase of taxable mining properties and productions through active and legitimate advertising of the States resources.

There is every indication that such a department would be supported by the mining men of the State and that it would become of increasing importance and utility as it became established and provide a basis for systematic records of the mines of Wyoming.

The State Engineer's office is an example of what may be accomplished by a centralized, efficient department run on business principles and this suggestion is made here, simply as a matter of economical business administration for the State.

MINERAL PRODUCTIONS AND STATISTICS.

Every mining state except Wyoming has a law requiring the report, to the proper officer, of all minerals produced within its borders, and so each mining state except Wyoming has its proper rank among the nation's mineral wealth producers.

Every mining state except Wyoming is able to furnish inquiring investors with reliable statistics of the mineral productions, but Wyoming has had to be content with "estimates", more or less accurate, and to occupy an unobstusive place at the tail of the mineral producer's list.

The laws of Wyoming require that all facts relating to the coal mined in the State shall be reported to the Governor through the State Coal Mine Inspectors, and accurate statistics are at once available for all inquiries, and in this product alone does Wyoming receive credit for what is actually produced.

The iron mines at Sunrise are daily producing a great tonnage and the copper mines are beginning to be permanent producers, gold and other metals will follow, and now is the time to

complete legislation to give Wyoming proper credit for her mineral productions.

It is recommended that a law be enacted requiring the various mines and reduction works of the State to report their production, as well as all oil and other mineral product, to the Geologist, who shall be required to properly tabulate and publish such information, not from any one mine or works, but as a general statistics of each mineral for the State. Scarcely a day passes without such information being demanded on copper, iron, stone, etc., and until such a law is passed the answer must be the same—"No statistics available."

From various sources, more or less official, the following figures are compiled, corrected to date, and are as accurate as possible under the circumstances:

Copper, pounds

Gold, value

Silver, ounces

Iron, tons

The foregoing report embraces the business of the office, fees collected, examinations made, filings received and general work of the office under the laws quoted, together with recommendations for such legislation as experience in the work of the department has indicated will be for the best interests of the whole mining industry of Wyoming, and which I trust will receive attention.

It has been found impossible at this date to complete the report on the mines of the State and this work is now being carried on and the whole report will be printed in complete form later.

All of which is respectfully submitted.

Henry C. Decker
State Geologist.