MINERAL WEALTH OF CANADA.

This subject is treated of in a little work compiled by Mr. H. B. Small, *of the Department of Agriculture*, which contains a large amount of well digested information, taken from the best authorities. According to Prof. Dawson "there is scarcely a stream in British Columbia in which the color of gold is not found." In the last twenty years the Pacific Province has dug $40,000,000 worth of gold, and it is estimated that $10,000,000 worth a year could be obtained by means of increased working capital. British Columbia exported 500,000 tons of coal last year. Nova Scotia contains inexhaustible coal beds and valuable gold deposits. On the Cape Breton coast there are submarine coal beds of incalculable wealth. The Lake Superior region is rich in silver, copper and iron, but the best deposit can only be reached by the expenditure of a large amount of capital. In the country drained by the Lievres, north of Ottawa, Vennor has discovered and developed great beds of phosphate, and the same article is found in considerable quantities in Frontenac. Thousands of tons are exported annually to Liverpool from this region, the price sometimes reaching $25 per ton, and the mines of the Kingston and Ottawa district are said to be rich enough to supply the world for an indefinite period. As for coal, the valuable formations of Nova Scotia and British Columbia are supplemented by beds in the North-West of surpassing extent and importance. West of Edmonton there is a coal field 25,000 square miles in extent. *At a moderate calculation this will yield* 250,000,000 tons. North of it lies another coal field of incalculable wealth, and further north still the croppings prove the existence of endless seams of coal. Petroleum is found floating on the surface of the streams and is gathered by the Indians. In the extreme north away towards the watershed of the Mackenzie river, gold is found but no attempt has yet been made to test its abundance. There are also indications of silver and copper, and the iron deposits are rich and well defined.

FIRES IN SEPTEMBER.

The New York *Bulletin* publishes its usual monthly list of fires in Canada and the States at which the loss was not under $10,000, and states that last month witnessed 123 such fires, the losses by which aggregate $6,205,000. The lesser fires and those not reported it estimates at $1,300,000, making the total loss for the month $7,500,000. It appears that during the five years, 1877-1881, the average loss by fire in September in the United States and Canada has been $5,950,000, the figures of each year being as follows, according to the *Chronicle's* tables:—September, 1881, $6,433,500; September, 1880, $6,944,600; September, 1879, $5,614,100; September, 1878, $4,558,800; September, 1877, $6,199,400. It will be seen, therefore, that the fire waste of last month was $1,500,000 above the average, or in the ratio of 25 per cent. increase, taking the five years together. And by the following list of fires in Canada during the same month it will be seen that the Dominion has furnished its full proportion to the loss for that period, as they aggregate $832,000, or over one-tenth of the total:—

	Loss.	*Ins.*
St. Hyacinthe, P.Q., foundry	$ 40,000	$ 10,000
St. Anne de Plaines, P.Q., dwelling.	10,000	.....
Iroquois, Ont., flour mill, &c	18,000	10,000
St. Hyacinthe, P.Q., foundry	10,000	6,000
Peterboro', Ont., carriage factory, &c	25,000	10,000
Belleville, Ont., various	10,000	.....
Walford, Ont., stores	20,000	.....
Quebec, various	150,000	100,000
Kingston, Ont., grain warehouse	20,000	12,000
Dundas, Ont., planing mill	15,000	.....
Dundas, Ont., cotton mill	15,000	.....
Montreal, barracks	500,000	.....
Fargo, D.T., car stables	10,000	2,000
Cincinnati, oil store	10,000	10,000
Peterboro', Ont, various	20,000	.....

As to the probable losses of the year it seems likely to hold a bright place in the fire record. On this point the *Bulletin* says:—Now that three-fourths of 1882 have passed, enough is known to prove that this is to be a red-letter year in the matter of fires. Thus far in 1882 not less than $67,500,000 has become ashes, being $5,000,000 more than in the same nine months of 1881, $7,000,000 more than in 1880, $500,000 more than in 1879, and $17,000,000 more than in the same nine months of 1878.

A BANKER'S SUICIDE.

Some weeks ago a young gentleman of good parts and great promise, the eldest son of a well-known Bucharest banker, Mr. Rosenthal, blew his brains out because he had had the misfortune to lose a sum of 20,000 lei—about £800—between his father's house and the chief post-office, whither he had been enjoined to convey that amount in bank-notes to be registered and despatched to one of Mr. Rosenthal's correspondents at Jassy. Four days after the funeral of this unfortunate youth his sorrowing mother was examining the clothes worn by him at the time of his suicide, when her fingers encountered a hard substance within the lining of his overcoat. This substance, upon further investigation, turned out to be the sum of money supposed to have been lost. The bank notes had been inclosed in an envelope, *duly sealed and prepared for* registration according to the Roumanian postal regulations. Young Rosenthal had thrust the envelope into the inner breast-pocket of his great coat, and it had slipped down between the cloth and lining through a hole in the pocket, of which the poor fellow was either ignorant or unmindful. When, on arriving at the post-office, he missed the money, he became violently agitated and hurried home in the hope that he might have left it behind him. The anguish of mind he experienced upon finding that hope frustrated probably prevented him from even thinking of subjecting his garments to a careful examination; he rushed up to his bedroom, locked his door, and ended his life by his own hand a few seconds later. The horror of this ghastly tragedy has, of course, been deeply intensified by the discovery that there really had been no cause for the agony of despair which prompted young Rosenthal to commit suicide.

ENVELOPED IN LIGHTNING.

It is not often that a person is placed in the same extraordinary circumstances and escape as luckily as did the wife of Mr. John E. Hill, section foreman, G. T. R., during the recent thunder storm. Mr. Hill lives in a house on the company's property adjoining the Southwold and Yarmouth townline, about a mile and a half north of St. Thomas, says the *Journal*. The telegraph wires pass over the top of his house, and one of the poles is close to it. One end of the family clothes line, which is made of telegraph wire, is attached to this telegraph pole, and connects with four other posts, set for the purpose, forming a square whose sides are about twelve feet. At the commencement of the storm Mr. Hill was in the centre of the square, doing some work. The lightning struck the wires, just one-fourth of a mile away and shivered every one of the poles to atoms. When it reached the pole at the house the remaining force all went down on to the clothes line, and escaped *to the earth by way of the posts.* Mrs. Hill was enveloped in a sheet of lightning flame. For some moments she was transfixed, and could not speak or move, but when the electricity passed away she found herself all right, barring a queer feeling which she could not banish for some time. No doubt if the telegraph wire had not completely surrounded her, she would have been killed, as the fluid must have struck her with great force owing to her proximity to the pole. The shattered poles are being replaced, and Mr. Hill requests that the one at the end of his house be placed some distance away. He thinks it is not a desirable neighbor.—*London Free Press.*

THE OLDEST NEWSPAPER.

The oldest newspaper in the world is the *King Pau*, or "Capital Sheet," published in Pekin. It first appeared A.D. 911, but was irregular in its issues until 1351. Since then it has been published weekly until the 4th day of June last, when by order of the reigning emperor, it was converted into a daily, with three editions, morning, mid-day, and evening. The first edition appears early and is printed on yellow paper. This issue is called *Hsing-Pau* ("Business Sheet"), and contains trade prices, exchange quotations, and all manner of commercial intelligence. *Its circulation is a little over 8,000. The second edition,* which comes out during the forenoon, also printed upon yellow paper, is devoted to official announcements, fashionable intelligence, and general news. Besides its ancient title of *King-Pau* it owns another designation, that of *Shuen-Pau* or "Official Sheet." The third edition appears late in the afternoon, is printed on red paper, and bears the name of *Talani-Pau* ("Country Sheet"). It consists of extracts from the earliest editions and is largely subscribed for in the Provinces. All three issues of the *King Pau* are edited by six members of the Han-Lin Academy of Science, appointed and salaried by the Chinese State. The total number of copies printed daily varies between 13,000 and 14,000.

ANOTHER NEW MOTOR.—Engineers are devoting their attention to compressed air and accumulated electricity as the best mode of *propelling tramcars and mural railways.* Experiments with both these agents were described at the meeting of the British Association, and both appear to have made substantial progress towards actual application. Sir Frederick Bramwell gave a description of a self-contained tramcar worked by compressed air which is at present working at Nantes, in France, and which is about to be introduced under his superintendence on the London tramway system. Sir Frederick said the system worked admirably at Nantes. The tramway line is 2⅝ miles long, the cars are always crowded, and the travellers are thoroughly satisfied with this method of locomotion. This, then, is a hopeful experiment as regards tramcars, and Colonel Beaumont has also applied compressed air to the working of railway trains in an almost equally practical form.

SECURE ENVELOPES.—The fact is familiar to all, that an ordinary envelope may readily be opened by moistening the paper over the gum, after which operation, if done neatly, the contents may be noted, and the missive again sealed and sent to its destination. A perfect safety envelope, however—not one admitting of any such manipulation—may, it is said, be secured by treating that part of the paper covered by the flap with a solution of chromic acid, ammonia, sulphuric acid, sulphate of copper, and fine white paper. The flap itself is coated with a solution of isinglass in acetic acid, and when this is moistened and pressed down on the under side of the envelope, a solid cement is formed, insoluble in acids, steam, water, &c.

A BANK CLERK LIBELLED.—A curious libel case arose out of a transaction which took place in the Bank of Montreal at St. Mary's some months ago. The receiving-teller in the Bank in taking a deposit found that there was a $5 bank-note in addition to those marked on the slip. The depositor discovered this when the teller was going over the notes, and called the attention of the teller to it. The teller said, "Go the deuce," or something stronger, and shoved the note into his pocket The depositor again applied for the $5, and met with a similar answer, and then wrote to the bank authorities detailing the transaction. In consequence of this the clerk was dismissed and then sued the depositor for libel. The case has been dismissed without going to trial.—*Globe.*

COST OF ELECTRIC LIGHT.

As long as the motive power for electric light was supplied from the galvanic battery, it remained simply a scientific toy, as the cost of supplying the current by the decomposition of zinc was so great as to preclude any competition between the electric light and gas.

The light, however brilliant and beautiful, was too costly to be brought into practical general use, and for upwards of thirty years it simply remained a product of the laboratory or was exhibited occasionally to light up and illustrate an otherwise dull lecture.

But the electric light of to-day, with its electricity produced from dynamo machines, is so far superior to gas, and can be produced at so much less cost, that, in a very few years, electricity, will supersede gas for the purpose of illumination, just as gas drove out the spluttering tallow dip of our forefathers.

To illustrate: A dynamo machine for ten arc lights, with lamps, complete, sells for about $1,400, although when competition becomes more active the prices will be materially reduced.

Ten horse power is more than sufficient to run the machine; some manufacturers claim that each lamp of 2,000 candles requires but two-thirds of a horse power.

The cost per annum for each horse power is not more than $50, reckoning ten hours' work per day.

Each lamp consumes about ten cents' worth of carbon per night.

Cost per annum for ten lights of 2,000 candle power each:

Horse power	$500 00
Carbons	365 00
Care and attendance	100 00
Wear and interest on plant twenty-five per cent	350 00
Total	$1,315 00

Though these lamps are rated at 2,000 candle power, yet, for the purpose of actual lighting, and making a liberal allowance for ground-glass globes, dust, etc., we will assume that each lamp gives but 600 candle-power effective light.

Ten lamps at 600 candles each—6,000 candles multiplied by 365—2,190,000 candles.

A five foot gas burner gives a light equal to 25 candles; burning ten hours it consumes 50 feet of gas, each candle-power taking two feet of gas.

Two million one hundred and ninety thousand candles =4,380,000 feet of gas. A light equal to 4,380,000 feet of gas for $1,315 is equal to 30 cents per thousand feet for gas. Before our gas companies reduce the price to that figure the millennium will have arrived.

But until they do this they cannot successfully compete with electricity.

It will be seen that in making these comparisons we have made the largest possible deductions from the electric light, and have given to gas all that its most ardent advocates can claim for it.

Our calculations have been based on arc lights only, but Mr. Edison *claims that incandescent lamps also can be* afforded at a less rate than gas.

The pure white of the electric light, compared with the dim yellow of gas, the ability to distinguish colors, the absence of heat and injurious effect to clothing, pictures, &c., the cleanliness and the purity of the air in halls, all tend to hasten the introduction of the electric light.

Much has been said upon the dangers of lighting by electricity, and as these articles have been written for an insurance journal it is necessary briefly to allude to this bugaboo that has been so industriously paraded to frighten the ignorant.

We unhesitatingly assert that the fire risk is far less from electric lights than from gas.

There is no danger of leaks, that fill the building with explosive gas; no danger of suffocation from burners left accidentally open.

The only dangers are:—

If two wires not properly insulated should cross each other; but every man with common sense enough to go into the house when it rains will look out, first, that wires are properly insulated, and secondly, that they do not come too near each other.

As to imaginary danger to fireman with wet axes, &c.; there is about as much chance of such an accident as there is of being struck by lightning. Furthermore, the progress of electric lighting is such that in a very short time all wires will be placed underground.

But says some wiseacre: "If a man should touch the two poles of the dynamo, or take in his hand the two naked wires, would it not hurt him?" Most certainly it would kill him, and there would be one fool less in the world.

When the bear sitting on the saw log felt the saw scratching his back deliberately turned and hugged the saw until he was scientifically bisected, was there in this incident any valid reason why saws should be discountenanced?—*Insurance Times.*

WAR AU NATUREL.—The charge of Lieutenant Long at Chalouf was certainly picturesque. He had a party of sailors and Highlanders under his command and was endeavouring to turn the Egyptian flank when he came to the fresh water canal. He took off his clothes, swam over for a boat and ferried his men across, where he had hardly time to deploy them when the enemy showed a disposition to advance. The gallant lieutenant ordered a charge and dashed forward at the head of his men without stopping to put on his clothes. His costume consisted of a pair of boots and a cholera belt of red flannel.