

laboratory of the chemist, then, by all means let go your fireworks of wise-sounding words, and make the problem no less etymological than geological. Yet I would suggest that if we are to learn to collect new facts and to make fresh observations, rather than to continue increasing the number of glittering generalizations and fascinating speculations, we must write and talk so that the miner, as well as the engineer, may understand and become interested in the accumulation of the facts and observations, without which mining geology is only amusing guesswork. We must enlist the services of those whose eyes have been trained amid the darkness of the underworld, and take our inquiry from the lecture room to the mine.

Few things are more despairing than the unpractical theories of certain geologists on the one side and the wild explanations of the practical miner on the other. Instances of the former are becoming rare, but notwithstanding the teaching of geology, and the spread of an elementary knowledge of natural science, it is discouraging that the miner, the foreman and sometimes the mine manager should so often show an entire want of confidence in the teachings of the scientific authorities. This is largely due to the fact that those men do not read the literature of the subject because it has a language which to them is to a large extent unintelligible. To these men, who have no dictionary at hand, we might owe an invaluable gathering of facts and observations, if only plain English were more generally used.

Some years ago, when visiting a well known mine in Queensland, I was shown a report written by a gentleman who had many of the letters of the alphabet after his name. In that report a certain lode was described as "traversing on the one hand a metamorphic matrix of a somewhat argillo-arenaceous composition, and on the other hand what appears to be a felspathic terfaceous igneous rock. What did he mean? Let us take down the dictionary and translate. A "metamorphic matrix of a somewhat argillo-arenaceous composition," being translated, is equivalent to an "altered material of a sandy clay composition," which being further interpreted, may seem something, but certainly does mean very little, and is as descriptive of mud as of anything else.

Let me offer a few common illustrations of the unnecessary use of foreign, especially Greek and Latin words. Why do we say "argentiferous" and "auriferous" when "silver-bearing" and "gold bearing" are fully as expressive. When a man means "mud" why does he write "argillaceous matter?" Why call a thing "arenaceous" when we mean that it is "sandy?" Do not our own English words "bed" and "bedding" say everything that is told by the Latin "stratum" or the Latin-English "stratification?" Why say "folia" when it is equivalent of "leaves," and why use "interfoliated" when "interleaved" would do just as well? Finaly, why not call a spade a spade and not an agricultural implement for triturating the soil?

To quote a recent example, Prof. or Posepney, in his new and masterly contribution to the literature of ore deposits, has introduced several fresh terms, which appear to me to be uncalled for, and which only make more bewildering the classification of lode formations. He gives us "idiogenous," "xenogenous" and "hysteromorphous" with their allies, "idiogenite," "xenogenites" and "hysteromorphies." They are all ugly words, and wherein do they improve upon "primitive" or "original" for the first, "secondary" or "foreign" for the second, and "later" for the third? To the man who knows Greek these new terms may indeed convey certain finer shades of meaning, but the benefit to be derived is small compared to the harm done by the further bewildering resulting from their usage.

To sum up the whole matter, the use of simple language in geology, as everywhere else, will conduce to clearness of thought and expression exactness of observation and knowledge.

MINERAL STATISTICS AND MINES.

The Annual Report for 1891, Division of Mineral Statistics and Mines Geological Survey of Canada, edited and compiled by Elfric Drew Ingall, A. R. S. M., England, Mining Engineer in charge and H. P. H. Brumell, F. G. S. A., Assistant to the Division, has just been received. The value of the work is largely minimized by its late appearance but as this was caused by the absence on sick leave of Mr. Ingall and other exceptional causes no complaint can be made, but we trust this report will be speedily followed by the report for 1892. In this as in previous reports the value of the work is greatly enhanced by special papers those by H. P. Brumell on Natural Gas and Petroleum being very full and interesting. We have already, through the courtesy of the Division, been furnished with the general statement of the mineral products of Canada up to and including 1892 which were laid before our readers in a previous issue of THE CRITIC so that there is no necessity of reproducing this statement here and we will pass to page 135 of the report where, under the heading of "The precious metals", the subject of gold is treated as follows:

The production of gold for 1891 was 51,303 oz., valued at \$930,614, as compared with 64,046 oz in 1890, valued at \$1,149,776. The details of this production are given in table 1, which, compared with the figures for last year, shows the following features.

Nova Scotia shows a falling off of 1,204 oz., and British Columbia of 3,801 oz., whilst the estimated quantity for the North-west Territories and Yukon district is less by 7,853 oz. Quebec and Ontario only register a slight increase of 115 oz. on their small production.

The alluvial gold product of British Columbia, added to that resulting from the mining of the auriferous lodes of Nova Scotia, constituted, as in the past, all but a small fraction of the production given above. The deficit

in the former province is due to the continuation of the exhaustion of the shallower placer deposits which have hitherto furnished nearly all the gold.

Of the other items in the below given table No. 1, the amount credited to Ontario is due to the working of quartz, that credited to Quebec is a close estimate of the results of the gold washed from the gravels of the Chaudiere district.

The amount credited to the North-west Territories, &c., comprises a close estimate of the gold washed out of the bars of the Saskatchewan River, together with the mean of several estimates of the gold washed on the Yukon River in Canadian territory.

GOLD.

TABLE 1.

PRODUCTION BY PROVINCES.

Province.	Ounces.	Value.	No. of men.
Nova Scotia.....	23,154	\$451,503	498
Quebec.....	90	1,800	....
Ontario.....	100	2,000	19
North-west Territories (including Yukon District).....	2,676	45,500	100
British Columbia.....	25,283	429,811	1,199
Total.....	51,303	\$930,614	1,816

British Columbia.—The statistical details regarding the gold-mining industry of this province, as supplied by the Provincial Department of Mines, have been compiled, etc., &c.

The amounts of gold reported by the banks of the Province, as exported during the year, are as follows:—

Bank of British Columbia.....	\$196,588
Messrs. Garesche, Green & Co.....	144,654
Bank of British North America.....	16,934
Total.....	\$358,176

Add one-fifth; estimate of gold carried away in private hands..... 71,635

Production of gold as estimated by the provincial authorities..... \$429,811

EXPORTS.

Provinces.	1887.	1888.	1889.	1890.	1891.
Ontario.....	\$ 6,650	\$	\$ 2,660	\$	\$ 1,000
Nova Scotia.....	321,379	163,412	101,671	304,521	.....
Manitoba.....	.....	50	261	.....	110
British Columbia...	592,300	464,696	414,658	402,271	343,582
Totals.....	\$920,329	\$628,151	\$609,250	\$706,792	\$344,692

SILVER.—From information obtained directly from the Division, the production of silver in the Dominion during 1891 had a value of \$406,233, which at the average market price for the year of 98 cts. = 414,523 ozs. This amount represents the calculated silver contents of the argentiferous iron and copper pyrites mined in the Eastern Townships of Quebec, together with the production of the silver mines proper of the Thunder Bay district of Ontario including also a small amount entered as exported from British Columbia, and the silver contents of a small amount of argentiferous galena mined in the Province of Quebec. This amount shows an increase of 13,836 ozs. over the production of last year, but a decrease of \$14,489 owing to the considerable depreciation in the value of the metal.

Table No. 1 shows the progress of the industry for the past five years.

SILVER.

Table 1.

PRODUCTION OF SILVER.

Year.	Ontario.		Quebec.		British Columbia.		Total.	
	Ozs.	Value.	Ozs.	Value.	Ozs.	Value.	Ozs.	Value.
1887.	190 495	\$190 495	146 898	\$146,898	11 937	\$11,937	349 330	\$349 330
1888.	208,064	208,064	149 388	149,388	37,925	37,925	395,377	395,375
1889.	181,609	162 309	143 517	133,666	53,192	47,873	383 318	343,848
1890.	158,715	166,652	171,545	180,122	70,427	73,948	400,687	420,722
1891.	225,633	221,120	185 584	181,872	3 306	3,241	414,523	406,233

The exports of the ores of this metal as compiled from the books of the Customs Department are given in Table 2 following.

SILVER.

Table 2.

EXPORTS OF SILVER ORE.

Province.	1887.	1888.	1889.	1890.	1891.
Ontario.....	\$184,763	\$208,064	\$203,871	\$203,142	\$222,071
Quebec.....	450	5	2,500	900	.....
Nova Scotia.....	.....	.....	50	.....	.....
Manitoba.....	3,741	.....	5	.....	.....
British Columbia...	17,331	10,939	5,737	100	3,241
Totals.....	\$206,285	\$219,008	\$212,163	\$204,142	\$225,312

The balance of the report on gold in Nova Scotia with accompanying tables is from the report of the Provincial Department of mines and is ancient history here.

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