

Scotia should bear part of the expense of the larger map, but this is not within the province of that Legislature, while it is the plain duty of the Survey to publish a map of some economic value, that may be useful to those whom it more immediately concerns, rather than one which, while showing the general configuration of the country, has no utility beyond that point. We understand that strenuous efforts will be made to have this error rectified in the coming session, and the probable ending of the matter will be that the Department will be put to double the expense that would have been incurred had not false notions of economy interfered with the duty owed to the public in general, and an important mining region in particular.

Exports of Canadian Asbestos, 1890.

The following official returns of the shipments of Canadian asbestos have been very kindly furnished by Mr. Frank Grundy, general manager of the Quebec Central Railway. As will be seen, there has been a very substantial increase over the exports of the previous year:—

	Tons.
Coleraine station	158½
Black Lake station.....	2,518¼
Thetford mines.....	5,148¼

Or a little over..... 7,825

The shipments of previous years have been:—

Year.	Quantity	Value.	Year.	Quantity	Value.
1879...	300	\$19,500	1885..	2,440	\$142,441
1880...	380	24,700	1886..	3,458	206,251
1881...	540	35,100	1887..	4,619	226,976
1882...	810	52,650	1888..	3,936	277,742
1883...	955	68,750	1889..	5,588	360,144
1884...	1,141	75,097	1890..	7,825	

Silver Exports.

From official returns received we are enabled to give the following statement of the exports of silver ore and bullion from the Port Arthur silver district:—

MONTH.	ORE.	BULLION.
January.....	\$18,050	
February.....	1,525	
March.....	100	
April.....	2,500	
May.....	10,450	500
June.....	770	
July.....	800	
August.....	56,000	
September.....	45,190	
October.....	30,000	
November.....	35,400	
December.....	20	500
	\$200,805	\$1,000

The cost of the recent Australian strikes has been estimated at over one million and a quarter sterling. The loss to labor in the three Colonies of Victoria, New South Wales and South Australia, is reckoned at £909,000, to trade, at £305,000, and to the Governments, in maintenance of military and police, and loss of wharfage and customs dues, at £80,000.

Petroleum in Canada

The production of petroleum in Canada is at present entirely confined to one district, Lambton County, Ontario. Indications of oil have been discovered elsewhere throughout almost the whole of the Dominion, but with one exception, they have not proved of a paying nature, and all operations hitherto commenced have resulted in failure. In Nova Scotia, oil is known to occur, it being frequently seen to rise through the waters of Lake Ainslie, and swamps in the district are often found to be covered, and many springs impregnated with petroleum. Several companies have been formed to test this district, but beyond "indications," nothing has been found. Desultory boring has been done in New Brunswick also, on similar indications and with identical results. At several points in the Province of Quebec, notably in the Gaspé Peninsula, oil is known to exist, and a small amount of exploratory work has been done, and here the prospects are somewhat better than in the two former provinces, but so far no results of any importance have followed. But one attempt has been made to strike oil in Manitoba, by the Manitoba Oil Company on the banks of the Vermilion River, but although boring was carried on to a depth of 743 feet, nothing was obtained, and the effort was finally abandoned as useless. But in the region lying to the north of the territories of Alberta and Saskatchewan, and drained by the Peace and Athabasca rivers, lies an immense oil region, the exploration of which, slight as it has been, has been sufficient to show that it is of great value in this respect, and may be expected at a future time to contribute largely to the output of Canadian petroleum.

As has been observed, however, the production is at present confined to Lambton County, Ontario, where the oil occurs in two distinct "pools" known as the Oil Springs and the Petrolia fields, the former comprising an area of about 2 square miles, and the latter of about 26 square miles. Data are unfortunately wanting to show the production of these pools since their first development, though the output for the past few years has been in the neighborhood of 600,000 barrels per annum. In the earlier years, before the economic operation of the wells was understood, the waste was very great; oil was at one time quoted at ten cents per barrel, and during the spring and summer of 1862, it is estimated that 5,000,000 barrels of petroleum floated off upon the waters of Black Creek.

It is estimated that some 3,500 wells are now being pumped, 2,500 of which are in the Petrolia field, and the remainder on the Oil Springs field. About 400 new wells are annually drilled, to take the place of about the same number that are annually abandoned. The oil from these is run off by pipe lines into the tanks of the various tanking companies, the total capacity of which is about 1,000,000 barrels, certificates being issued to the owners therefor.

Thirteen refineries are in operation, nine of

which are located in Petrolia, two in London, one in Sarnia, and one in Hamilton. These employ about 260 men in and about the works, and throughout the oil producing territory there are about 2,000 men employed directly or indirectly, in the production of crude and refined oil.

The exact output of the wells in 1890 cannot at this date be ascertained, but it is estimated at 675,000 barrels of 35 imperial gallons each, as against 639,991 barrels in 1889. The average price per barrel in the latter year was 95½ cents, considerably less than in 1890, as will be seen by the subjoined table, for which we are indebted to Mr. James Kerr, secretary of the Petrolia Oil Exchange:—

MONTH.	HIGHEST PRICE.	LOWEST PRICE.	AVERAGE PRICE.
January.....	\$1.03	\$1.01¼	\$1.02¼
February.....	1.11	1.02	1.05¾
March.....	1.09½	1.05½	1.07¾
April.....	1.10	1.06¼	1.07.7
May.....	1.08	1.07	1.07.51
June.....	1.16	1.07¾	1.10.18
July.....	1.37	1.16	1.23.04
August.....	1.35½	1.31	1.32.77
September.....	1.31¾	1.27¾	1.30.45
October.....	1.32	1.28	1.29.3
November.....	1.36¼	1.28½	1.32¾
December.....	1.35	1.27	1.30.2
Whole year....	1.37	1.01¼	1.17¾

An interesting lecture on "Asbestos," was delivered by Dr. R. W. Ells, before the Ottawa Field Naturalists' Club, on the 17th inst. The lecturer began by tracing the history of asbestos as known to man, from the earliest times, and then proceeded to describe the different varieties, their modes of occurrence and distribution throughout the world, with special reference to the importance of the Canadian field. The remarkable growth of the industry was then commented on, and the uses and manufactures to which it is applied, while the other non-conducting substances which might compete with the mineral were touched upon. With reference to the characteristics of the different qualities of serpentine from which asbestos might be extracted in paying quantities, Dr. Ells, who, it may be remarked, is an unquestionable authority upon the subject, stated that the brown, weather-beaten, siliceous serpentine does not carry asbestos at all; it is rarely found in the soft, slaty, greasy formation of the south, which is very different from the massive serpentine of Thetford and Black Lake. Regarding the age of the formation, he held that the older the richer, and that more asbestos may be looked for in the Cambrian than in later serpentines, an hypothesis borne out by the experience of quartz gold mining. There is a very large asbestos field in the Laurentians of the Ottawa valley and elsewhere, which is only beginning to be known, and in some localities, there is certainly every prospect of finding it in considerable quantities, although, perhaps, not to as great an extent as in the Eastern Townships. We hope to give the full text of this valuable paper in our next month's issue.