

and friction matches from their factory near Quebec. another firm, also of Quebec, shewed a very fine assortment of steel and other springs. The display of agricultural implements was good. Mr. William Evans, of Montreal, was the largest exhibitor in this department. Messrs. Vanvliet, of Lacolle, shewed some very fine wooden ploughs. One of the most interesting exhibits in this department was Vessot's combined sower, harrow and roller. This seems to be a very useful implement, it attracted a good deal of attention from practical farmers on the ground. We saw many other exhibits in this department we should like to particularize, such as the castings, carriages, &c., but must refrain now from want of space. We will endeavour to describe some of them separately in a future issue.

The exhibition at London, Ontario, was also very successful. The President of the Association in a very interesting address stated that it is believed that no Exhibition on this continent precedes in importance that of Ontario, except that at St. Louis. In the course of his remarks the President observed that there was need in Ontario an institution in which teaching the science and practice of agriculture should be the leading feature. To secure this end the Government of that Province have engaged the valuable services of Prof. McCandless, late of Cornell University. Under his direction it is proposed to conduct an Agricultural College and Model Farm which shall be of such a nature as to claim the confidence and patronage of the farmers of Ontario. The next exhibition will be held in Toronto.

### LAKE SUPERIOR DISTRICT.

A tourist, who has lately returned from the North Shore of Lake Superior, describes in glowing colours the mineral resources on that side, and also states that when the navigation at Sault Ste. Marie is improved, mineral ores of great value, and vast quantities of lumber in that country, will find their way to the markets on the St. Lawrence, for shipment abroad. There is a fair proportion of arable land near the coast, ample to sustain the population engaged in mining and lumbering, and our informant is of opinion that ere many months elapse considerable settlements will be established on the Canadian coast of the Lake, and to some extent inland. The Dominion Government has recently caused to be erected a first-class lighthouse at Batchewana Bay, on the north shore of the lake. It has been placed on Carbay Point and lights up the coast, and the bay, which is a well protected and safe harbour. Being a first-class light it can be seen for more than twenty miles distant on the Lake. The coast in the immediate vicinity, but for this light, would be extremely dangerous, numerous vessels having been wrecked here in past years and many lives lost. The light-house is of wood, ballasted, however, with some sixty tons of stone. It is 80 feet high, of octagonal form, some 20 or 30 feet in diameter at the base, and 10 or 11 feet at the top, and is supplied with an excellent white light, obtained from Canadian oil furnished by the London, Ontario, Refining Company. The tower projects from the keeper's house, which is twenty-five feet in height. The first storeys of the tower are substantially braced, and the entire structure is of the first class. It will cost between \$12,000 and \$13,000. Carbay Point is about fifty miles above Sault Ste. Marie. There is an Indian village on the Bay of about 200 souls all semi-civilized, Catholic aborigines who are visited once a year, and sometimes oftener by Missionary priests. They are civil, well disposed and industrious, and subsist chiefly by trapping and fishing. That enterprising Scotch Canadian, J. A. (Cariboo) Cameron, has erected a saw mill on the Bay, and employs profitably some sixty labourers, chiefly French Canadians. The tourist predicts that the time is not far distant when a thriving town will grow up on the Bay. The much talked of Canada Pacific Railway must, it is said, eventually pass near to such town, and will, probably, be connected with it by a short branch. The United States authorities are constructing, on the south side of Sault Ste. Marie an additional canal to the old one made by them some years ago, which is found to be insufficient for the commerce between Lake

Superior and the lower lakes, two millions of dollars and more have already been expended on these canals; when finished large vessels can ply for seven months in the year between Lake Superior and Montreal, and other Lakes and St. Lawrence Ports. The trade, in small vessels, to and from Duluth, is already very valuable. During the past summer often 25 and 30 vessels (either propellers or schooners with steam tugs) have been waiting in one day to get through the Sault. Many cargoes of valuable ores, lumber from both shores of Lake Superior and grain for ports on the Lake in the States of Michigan, Wisconsin and Minnesota, and return supplies and merchandise go by this route. The proposed improvements at these straits are also highly important to the United States as well as the Dominion unless the canal from Lake Michigan to Lake Erie, heretofore spoken of, is constructed; and even if the latter is made, the former should not be abandoned.

### THE MARMORA GOLD MINES.

(From the Belleville Ontario.)

Prof. Bell, who has just returned from a visit to the Marmora mining region, informs us that appearances have much improved since his last visit a year ago. In the Cook mine they have worked down to the level of the shaft bottom, and will have to deepen that to enable the miners to work the present slope. The ore is abundant, and is becoming richer as the depth increases, visible gold being much more frequently met with than formerly, while the body of the ore yields better in the pan. The great want in these mines has hitherto been a good furnace which will drive off the arsenic and sulphur rapidly, effectually, and cheaply, and this at last seems to be upon the verge of completion. The revolving furnace put up under Mr. Dunstan's directions has been modified so as much to improve its efficiency, and further improvements have been suggested, and are about to be made upon it, which will both increase its effect and diminish the expense of working it. Experimental workings are now being made upon the tailings thrown out from former crushings with satisfactory results, showing beyond a doubt that a larger amount is still obtainable than that taken from them at first.

On the Gatling property but little additional work has been done. In the mining department two shafts have been put down, and a few openings made, from one of which a few barrels of ore have been sent to Swansea, the returns from which are stated as very satisfactory. This property has been fully and very favourably reported on by Prof. Chapman, of Toronto. In addition to the handsome and spacious dwelling house and boarding house erected last year, Mr. Gatling has put up what may fairly be termed a magnificent mill building, consisting of a deep and spacious stone basement surmounted by a well-finished superstructure, lined with felt paper. Within are placed two very fine upright engines of about 40 horse power, capable of being worked either together or independently, and a large boiler capable of running them both when necessary. Four batteries of five stamps each, making twenty in all, are also in their places ready to start work, and the hangers are up for the shafting. The flue for the roasting furnace is also more than half finished; but the furnace, pans, sluice boxes, &c., are not put in yet. We understand that the original plan comprehends the introduction of the chlorine process, which is perhaps the best adapted of any for the treatment of the Marmora ores after roasting, as the gold is mostly in such a fine state of division as to be readily reduced by the chlorine gas. Taken altogether, the prospect is healthy and encouraging, and we trust that ere long a monthly gold mining report will be a regular item in our commercial department.

At the Patent Office, Washington, every examiner is now favoured with the help of a lady clerk, who takes charge of the official correspondence and looks after the odds and ends of the examiner's business. There is one exception, however. The examiner of medical inventions is debarred from feminine assistance, and is compelled to keep a clerk of the masculine gender.