

veins of quartz near Heron Bay, carrying considerable galena, zinc blende, iron and copper pyrites, also gold and silver, as proven by the assays made by Mr. McDermid, of Silver Islet. It lies in the talcose and chloritic slates of the Huronian series which occupy the coast of Lake Superior for ten or twelve miles, and runs back towards White Lake some 50 miles or more. I have not seen the veins myself, but I will give their character, &c, as near as I could gather from those who have.

The veins lie within a mile or so of the Bay; at the surface their widths vary from 1 to 4 feet, composed of vitreous quartz with some bitter spar; all the specimens I saw from them were charged with the above mentioned ores. One of these veins seems to conform in dip and strike with the slates, which strike about E. N. E., with a dip nearly vertical.

The other bears nearly N. and S., intersecting the slates, upon this a shaft was sunk some 40 feet last winter. The lode is said to be much wider in the bottom (5 to 6 feet), and richer in ore than at the surface.

I noticed, in going up the Pic River some years ago, a large patch of granite, similar in appearance to that above mentioned as occurring on Jackfish Lake near the gold mine. It is enclosed within the slates, and lies within about a mile or of the Heron Bay lodes. It must have terminated between the river and the lake shore near Heron Bay, as I examined the coast and could not find it pass on. Not having seen its line of contact, I am unable to say what relations it bears to the slates. Having seen it in about the same position in regard to each of these gold-bearing lodes, which lie about 150 miles apart, I thought it worthy of mention, as it may or may not have something to do with the presence of the precious metals in these veins.

Since the discovery of gold at Jackfish Lake, there have been many lodes of quartz found on this side of the Height of Land in the vicinity of Kashabowie and Shebandowan Lakes, which are said to yield by fire assay from a few dollars up to \$100 or more per ton, but as far as I am aware, none of them show the free gold, and, with one or two exceptions, the galena, zinc blende, and silver ore are wanting. These, as yet, are totally undeveloped, but in all probability some of them will be good.

Now we know that these metalliferous slates occupy a large portion of the country from Thunder Bay westward, between the American boundary and the Dawson Route, extending in a few places to the north of the latter in broad belts. From the results of the partial explorations already made—of which I have given a short account in this paper—we must conclude that the metalliferous wealth locked up in this extensive tract must be very great between gold, silver, lead, and iron. On the American side of the line, in Minnesota, in this same formation, near where it crosses, have been discovered large deposits of iron, which will soon be made available, as they commenced last summer to build a railway from Lake Superior to tap them. In order to explore and work it to advantage it would be necessary to have a railway connection between Lake Superior and the chain of water courses on the Height of Land which penetrates the above mentioned tract in all directions in the form of lakes and streams, otherwise none but rich mines of the precious metals could be worked, iron mines being out of the question, there being 45 miles over a rough road from Lake Superior to the nearest body of this chain of waters. This railway connection we expect to have in a few years, as the Government is going to build the link between Lake Superior and Fort Garry as soon as the surveys are finished.

**BEHAVIOUR OF CHLORIDE OF SILVER WITH CONCENTRATED SULPHURIC ACID AND WITH SOLUTION OF CHLORIDE OF IRON.**—It is generally maintained that chloride of silver is not at all, or only imperceptibly, attacked by sulphuric acid. This is decidedly erroneous. If chloride of silver, either precipitated and washed, or crystallised, or even fused, is heated with concentrated sulphuric acid for some time in a covered porcelain capsule, the chloride of silver is completely decomposed and dissolved, with escape of hydrochloric acid. The precipitated chloride decomposes most readily. Chloride of silver is also soluble in chloride of iron, a fact which must not be overlooked in determinations of silver.

## DOMINION.

Two one thousand gallon tanks are being put down in London for fire purposes.

The Cariboo gold claims are all washing up over wages.

Mr. Alex McNab has been appointed Provincial Engineer of Nova Scotia.

—The St. John's, P. Q., Woollen Mills are getting in some iron machinery. The profits for the past year have been very good.

—The first cup and saucer were made in the St. John's, P. Q., Stone China Ware factory on the 4th inst.

The Teeswater salt works are suspended for the present. In a short time the directors will hold a meeting for consultation as to future working.

A new and finely finished passenger car for the Riviere du Loup Railway has just been completed at the New Brunswick Railway workshop, the first turned out by the Company.

The clearing of the wood off the Louisbourg Railway Line commenced on Saturday the 21st ult., at Louisbourg, the ancient capital of Cape Breton.

Several of the Goderich salt works have commenced operations. They are now in full blast, working night and day. The prospects are favourable for the season's business.

The plaster trade of Windsor, N. S., and vicinity is opening. Since the 23rd of March, 17 vessels, carrying 3,940 tons, have cleared at Windsor for the United States ports. During March, seven vessels, carrying 1,400 tons, left Cheverie for the States.

The Bothwell Advance understands that the G. W. B. Co., have signified their willingness to assist in furthering the proposed scheme for "tapping" the Thames. It is probable that definite action towards accomplishing the work will be taken during the ensuing summer.

The Coatcook Knitting Company have received an order from a house in Ontario for the manufacture of 1,000 dozen shirts and drawers. The Company have given orders for the erection of a warehouse near the factory, 24 x 60 feet, which the local paper affirms is to be built in nine days. Mr. Charles Merrill has the contract.

**MANGANESE IN NOVA SCOTIA.**—Manganese has been found on the Six-mile road, near Wallace, Nova Scotia. As a ditch was being dug, large quantities of the mineral were discovered, and samples were sent to Halifax and pronounced pure and valuable.

The Government surveyors have entered upon their work on the mainland. Mr. Turner, with Mr. Bonson, takes the survey on the Yale road. Mr. Ralph will push forward the township surveys, and Mr. Pinder will complete some surveys at Port Moody, left unfinished by the Royal Engineers.

The *Almonte Gazette* says:—A liner named Sabourin, in one of Mr. McLachlin Bros. shanties, made on the 26th inst., a stick of square white pine measuring 59 feet in length, with a girth of 29 inches by 30 in., free from rot, knot or shake, and straight on four lines. Notwithstanding its immense size, it and another stick containing 164 cubic feet were drawn to the river, a distance of 2½ miles, by one team, making a load of 520 cubic feet.

Detroit is to have a self-propelling steam fire engine. Its preliminary trial in Manchester, N. H., resulted satisfactorily, as it climbed the various grades it had occasion to ascend very easily, and turned corners with little, if any, loss of power.

**CANADIAN IRONSTONE.**—The discovery of large deposits of rich iron ore in the provinces of Quebec and Ontario, is rousing attention to the subject of the manufacture of iron in Canada. The large importation of iron from England into all parts of the Dominion and its marked increase during the past year, when prices ruled unusually high, are facts which have not escaped attention.—*Engineering*.