

Peel parishes in Carleton, and a third in the Tobique valley, in Victoria.

As much interest has recently been excited by the reported discovery of gold-bearing rocks in New Brunswick, Mr. Robb visited some of the lands in Victoria county which had been leased for gold mining purposes. He also visited and made special examination of those localities, within the general area designated, which have been supposed to be productive of other mineral of economic value, or in which mining operations have been instituted. Quartz veins, forming apparently lenticular masses and running in the strike, characterize the slates in many parts, and several in Victoria were pointed out to Mr. Robb as having yielded the precious metal. None of it was visible to the naked eye, and specimens of the quartz were therefore sent to the Survey Office for assay. They have been analyzed by Dr. T. Sterry Hunt, but no gold has been found in them. This, however, is not to be taken as absolute proof of the absence of the precious metal in every part of these veins; for the presence of gold in quartz is so capricious that, of several specimens taken from the same vein, some may yield a fair quantity and others none at all. The slates in which most of the auriferous quartz occurs in the eastern townships of Quebec, are classed as the Upper Silurian, and they appear to have some resemblance to those of Victoria. The discovery of alluvial gold also in Victoria, asserted by several respectable persons, is a further evidence on the subject, though none of it rewarded the trials of Mr. Robb.

During several months of the season I availed myself of the services of Professor W. B. Bailey, of New Brunswick College, Fredericton, and Mr. G. P. Mathew, of St. John, on an exploration in southern New Brunswick. These gentlemen worked in unison, sometimes together and sometimes separately, but in the latter case always finally comparing results. The area of their investigation comprehended the western portion of the counties of St. John and King's, and the greater part of the county of Charlotte, or geologically, a metamorphic district included between St. John and Nerepis rivers, on the east, and the boundary of Maine on the west, extending north from the Bay of Fundy and several of its islands on the coast, towards the southern boundary of the great carboniferous area of the province.

This region appears to embrace a complicated distribution of rocks belonging to the Laurentian, Huronian, Lower Silurian, Upper Silurian, Devonian and Carboniferous eras, and, when well studied out, may, in a comparatively small area, afford the means of co-relating different members of the whole series of formations in localities where each may be more extensively spread. Messrs. Bailey and Mathew have heretofore directed their efforts to the elucidation of this intricate region, but on this occasion they have carried their investigations into much greater detail. They have ascertained many new facts, which will serve to correct the results of previous partial explorations, and greatly advance a subject still far from complete.

In their investigations, Messrs. Bailey and Mathew did not fail to bestow careful attention upon the various economic substances which occur in the district examined. Those which are likely to prove available are the ores of iron, lead and copper, with building stones, marbles, roofing slates, graphite and peat.

The attention of Mr. D. Honeyman was applied in Nova Scotia to an examination of various parts of the townships of Maxwelton, Arisaig and Antigonish, in the counties of Pictou and Antigonish, especially those extending along the sea-coast for a few miles inland, embracing rocks of the Silurian and Carboniferous eras. Belonging to the latter on both sides of Antigonish harbor, there are important deposits of gypsum, well situated for the purposes of trade, and the recent investigations of Mr. Honeyman appear to have

considerably extended the surface under which the mineral was previously known to exist.

In Nova Scotia I availed myself also, for a short time, of the services of Professor H. How, of King's College, Windsor, whose attention was directed to various parts of the county of Digby, where the ores of iron, with some indications of copper and lead, appear to be the chief substances of economic interest.

About three months of my own time have been occupied in the investigation of the structure of that part of the Pictou coal-field in Nova Scotia which lies southward of New Glasgow, and extends several miles on each side of the East river. In this I was aided by Mr. E. Hartley, and, with the view of hastening the examination as much as possible, we divided the work into two parts. That on the west side was wholly committed to Mr. Hartley, that on the east was undertaken by myself.

The true structure of a coal-field, in which valuable seams of the fuel exist, being a matter of great commercial importance, no pains should be spared in making it out; but where, as in the present instance, it is of a complicated character, while natural exposures and crop workings are but few, it will demand much time to accumulate the number of facts required to arrive at a satisfactory conclusion.

The New Glasgow productive coal measures appear to lie between two great up throw faults, which are about three miles apart on the East River, and run nearly parallel to one another in a bearing northward of west. The coal field is about ten miles long between Middle and Sutherland Rivers, and it is broken by several obliquely transverse faults. The measures suffer from undulations, and in several parts the coal seams abut against the one bounding side fault or the other.

On the west side of the East River, the principal coal bed, being the one on which are established the Albion, the Acadia, the Intercolonial and the Nova Scotia collieries, is called the main seam. It is about thirty-five feet thick at the first named colliery, and about twenty feet at the others. Beneath this there is a seam of twenty-four feet, one of five feet and one of eleven feet, all in a thickness of about 500 feet; besides which about 200 feet lower, there is a four feet seam, made up partly of coal and partly of a species of carbonaceous shale, yielding much oil by distillation, and formerly giving it great value.

On the east side, besides an oil-shale seam of about four feet, on a different horizon however from the one just mentioned, there are among other coal seams of minor importance, one of four feet, one of six feet, and one of eight feet, all of good quality, with others of inferior quality but greater thickness beneath. The most important of the whole is the eight feet seam, which where exposed is of excellent quality, in its whole thickness. It has been only lately opened by Messrs. McBean on their three mile area, much of which it will underlie; the crop of it having already, since I left Nova Scotia, been traced three quarters of a mile, running obliquely transverse between the two great up throw faults mentioned.

I have further to mention the investigations of Dr. T. Sterry Hunt, on which he is preparing a detailed report nearly complete. This will contain his investigations of the salt wells of Goderich and its vicinity, being a continuation of the details given in his report of 1866, with an account of the new wells sunk at Clinton and Kincardine, and analyses of the various brines; details on the making of salt in boilers as pursued at Goderich, and comparisons between the results obtained there and at Syracuse in New York; the difficulties of this system with our brines, and the advantages of evaporating in pans. It will contain a description of the method of making salt by solar evaporation, with suggestions for its introduction in the Goderich region, and the methods of refining and preparing salt for market; the whole based upon careful comparative studies made at Syracuse in 1868.

It will comprehend also observations on our iron ores, and the mode of working them; analysis of the Laurentian ores from various localities; investigations of the chemical composition of the iron sands of the lower St. Lawrence; description of the direct method of extracting iron from ores in the bloomery fire, as practised in the United States and at Moisie, its advantages and economies in certain cases, as compared with puddled iron; a description of Ellerhausen's process, and the probable utilization by it of our iron sands; with general remarks on the manufacture of iron and steel, based on the studies at the Exhibition in Paris in 1867, and subsequent observations in Canada and the United States; as well as considerations on the use of peat, sawdust and other cheap fuels.

Lastly, it will contain examinations and assays of gold bearing ores from the Hastings district, with notes on the occurrence of gold there; assays of bismuth and antimonial ores from the same region, and other miscellaneous matter.

Real Estate.

SALES IN BELLEVILLE.—A chancery sale took place on the 30th Oct., at the court house, of the estate of the late John Turnbull. The sale was conducted by G. S. Tickell, auctioneer, of Belleville. Below is the list of lots, prices and purchasers:—Part of lot 16, 10th concession Rawdon, 50 acres, M. Jellett, \$30; part of lot 24, 10th concession Rawdon, 445 acres, C. J. Starling, \$380; lot 18, 13th concession Rawdon, 200 acres, Andrew Thomson, \$1,000; lot 12, 14th concession Rawdon, Mr. Moss, Toronto, \$240; lot 13, 14th concession Rawdon, John Bell, \$100; lot 5, 13th concession Rawdon, Mr. Moss, \$400; lot 4, 14th concession Rawdon, Mr. Moss, \$400; lot 1, 11th concession Rawdon, Andrew Thomson, \$410; lot 18, 6th concession Madoc, near the Richardson gold mine, J. Turnbull, \$320; north 30 acres lot 19, 1st concession Hungerford, A. Thomson, \$60; south half lot 2, 8th concession Richmond, county Lennox, C. J. Starling, \$720; east half lot 28, south Charlotte street, Belleville, and building thereon, A. A. Campbell, \$1,920; lot 25, north Charlotte street, Belleville, vacant, Mr. Moss, \$375; one acre of land in Belleville, John Bell, \$600; water lot, with buildings thereon, A. T. Petrie, \$410; lot 18, east Front street, buildings, Mr. Moss, \$1,800; lot 39, east Pinnacle street, buildings, Mr. Doyle, \$580; park lots 9 and 10, 2nd concession Thurlow, Jacob Cronk, \$480; park lot 20, east side of Front street, and valuable buildings thereon, J. J. Thurlow, \$3,300; 34 ft. on Front street, valuable stone buildings, William Turnbull, \$3,300; 33 feet on Front street, with valuable buildings, Henry Turnbull, \$3,800; park lot 24, east Front street, with frame buildings, J. W. Thompson, \$3,750; park lot 24, with stone building, Walter Fanning, \$3,550; park lot 24, Bridge street, 46 feet frontage, Walter Fanning, \$1,550; valuable lot on west side Front street, brick buildings thereon, James Wilson, \$13,000; total, \$42,575.

SALES IN TORONTO.—At the auction rooms of Messrs. F. W. Coate & Co., on the 30th Oct., a lot of building ground on George street, extending from Palace street to the Esplanade, having a frontage on each of the latter streets of 60 feet by about 400 on George street, was started at \$800, and rose to \$1,260, at which price it was knocked down to Mr. R. J. Griffith, of this city. A piece of land opposite the Exchange buildings, on Wellington street, having a frontage of 25 feet on that street, and running 114 feet through to Front street, where the frontage measures 50 feet, was also put up. The bidding rose to \$7,500, but the upset price to start with was \$20,000, and the land was therefore withdrawn.

SALE AT HAMILTON.—The Freeman estate property, situated in Barton and Ancaster, was sold by auction by Mr. T. N. Best, on the 2nd inst.