

Mountain, included, in addition to rocks somewhat similar to those of the other two, great masses of serpentine, potstone and soapstone, and was seen in Bolton, Brompton and Broughton. The extensive deposits of Acton were supposed to belong to the upper or Sillery division.

Of the many copper mines which were started some twenty-five years ago, or when the copper boom was at its highest, very few are at present in operation. Of many of those which long since suspended operation, several causes for their discontinuance may be assigned. In some cases their failure was doubtless largely caused by a lack of size in the mineral veins; in others this was due presumably to the poverty or leanness of the ore as well, a conjunction which, taken in connection with the depressed condition of the copper market, rendered the profitable extraction of the mineral impossible. The difficulty of producing metallic copper under such adverse conditions was such that, although extensive smelting works had been erected at large expense at several points, these had of necessity to be abandoned, and have rapidly fallen into decay. The ores from the great lodes of Capelton have for years been shipped direct from the mines to the extensive acid works near New York, where they were treated directly for the manufacture of sulphuric acid, the residue being subsequently utilized for the extraction of the metallic copper, and in this way, owing to the great extent of the deposit and the facilities for mining and shipment, the mines at this place have continued to be worked at a profit. Within the last two years, sulphuric acid works have been started on the spot, by which means the expense of transferring so great a bulk of raw material can be avoided. Could this new industry be combined with that of the production of phosphate from the Ottawa valley, and the manufacture of artificial fertilizers established on the larger scale, still further benefit should accrue; since undoubtedly, in view of the present greatly impoverished condition of much of the wheat-producing lands of Ontario and Quebec, the use of these fertilizers must of necessity shortly become very considerable, or the profitable raising of wheat in these countries must become a thing of the past. In character, the copper ores of the townships may be classed under three heads, viz., the yellow sulphuret or chalcopyrite, with which is very frequently found a large percentage of iron pyrites; the vitreous or copper glance; and the variegated, other-