APPENDIX B.

MINING IN CANADA.—SULPHUR ORES AND PHOSPHATES.

(From the N.Y. Engineering and Mining Journal.)

Time works marvels in the lives and interests of individual citizens, but much more so in the history of manufactures and of states. We live on the eve of great changes, and the wisest among us, not blinded by political bias, can see that the probable reform of the tariff in the near future must bring with it certain radical alterations in our manufactures and commerce. Whether serious changes in the trade of the two countries occur or not, there are raw materials in Canada which are now valuable, and will speedily become more so as our consumption of sulphuric acid and fertilisers increases. Except coal, sulphur ores, and phosphates, the minerals of Canada possess but little interest for the American investor. Now and then he may meet with something worth notice in other directions, but not often. In the case of sulphur ores and phosphate, it is not so; for outside of our Carolina supplies of phosphate, there is none so near or so rich as the apatite of Canada, while our available sulphur ores are widely distributed.

It is not many years ago since Canada phosphate began to attract notice in the United States and Europe. Of late years, Americans have kept a steady lookout for property in Canada which they could work themselves for the requirements of their own factories. The importance of the fertilizer trade in its present condition and the proportions it promises to assume in the near future, are the principal causes of this diversion of interest. It is not many years ago that the home manufacture was expressed in five figures; now it takes seven. This change has been accomplished in the short space of ten years. What it will be in the next decade will depend mainly on the supply of the raw material, and especially on the cost of sulphur acid. When Canada apatite first came on the market, some eight years ago, practical men shook their heads at the hard and unpromising looking material. Many of the mills then in use in fertilizer-works were the buhrstones used to pulverize coprolite and other comparatively soft material. The difficulty of grinding has now been overcome, and it is no longer a source of danger to workmen and of perplexity to manufactures. Instead of using it as they did coprolite, it is mixed largely with other softer materials, which enables the operating chemist to first saturate the apatite with sulphuric acid, and use Carolina phosphate or bone-ash as a drier. The use of these materials assist largely in lengthening the chemical action of decomposition; the carbonic acid of the softer