

gentleman entertained a favorable opinion from the small surface exposures he was then able to see. But, in the winter of 1905, when in the same locality, Mr. Hussey remembered his previous mishap and made a short but more thorough examination of the region, with the result that he found other outcrops and an abundance of fragments or boulders of ore on the southern bank of Austen Brook. This convinced Mr. Hussey and Mr. Burns that the ore was distributed over a quite extensive area, and these gentlemen secured rights to search upon several five-mile locations in this district.

Through the assistance of friends, advice was received from Dr. Eugene Haanel, the Dominion Superintendent of Mines, and under his authority Mr. Einar Lin-

demann made a survey of a portion of the field with the magnetometer, in whose use Mr. Lindemann was skilled. The Government of New Brunswick were also petitioned (under statutory regulations) for the use of the diamond drill belonging to the Province, which was granted, and the first hole was finished about the beginning of December, 1906, by which time Mr. Lindemann had completed his magnetometric survey and filed his report. Mr. Lindemann's opinion, as expressed in his report, was favorable to the existence of large bodies of ore, but could not, of course, indicate the purity or otherwise of such ore. For this reason the then owners decided to continue the work of drilling the field and obtaining analyses of the ore found in the cores.

(To be continued.)

BOOK REVIEWS.

A Text-book of Assaying, by C. and J. J. Beringer. 11th edition. Revised by J. J. Beringer. Crown 8 vo. Cloth, 10s. 6d. Charles Griffin & Co., London.

Is not the appreciation of high standards our higher education, and is it not to the Old World that we look for our standards? This book is one of the standards. It is one of that most excellent series of metallurgical books edited by the late Roberts-Austen. Published in 1889, it has now reached its 11th edition. One of its authors was at one time chief assayer to the Rio Tinto Copper Company. Its 11th edition has been revised by the Principal of the Camborne Mining School, a school that boasts, and rightly, of being one of the most practical mining schools in the world. Not only is it in the heart of a mining district but it owns a mine that is worked by the students. And because it is in an old district in which there are few openings for mining engineers these students are trained not specially in tin mining but for work all over the world.

This book certainly should be one of our high standards, not alone in assaying, but a standard for all technical works; it should be a standard in technical teaching; a guide not alone for students but for professors.

It contains 450 pages, sparsely illustrated, showing in its remarkable freedom from errors great care in its production. It has a fairly good index and an elaborate table of contents. The book is divided mainly into three parts, of which the first, covering only 86 pages, deals generally with methods, apparatus and reagents and more specifically with chemical equations and the determination of specific quantities. Part II. deals with the metals and alkali earths and covers 258 pages. Part III. deals with the non-metals in 90 pages, of which only two are given to coal. In all, the determination of 56 elements, besides cyanogen and ammonium, is outlined with greater or less elaborateness, and eight pages are devoted to the examination of water, including the determination of albuminoid ammonia. This sounds more like an encyclopedia than a text-book. In fact, it is somewhat of both. Gold, silver, and tin are dealt with fully. In copper and lead the treatment is not so complete. Iron from the ordinary assayer's point of view, not the iron specialist's, is fairly well taken care of, as are also manganese and sulphur. The rest of the determinations are touched on chiefly in outline.

All this is excellent; the general plan is good, but when we come to the details, alongside much that is good we find much of which to complain. As a rule the descriptions are clear, the effort is made to show each step distinctly, and the writers have generally in view an ignorant and untrained student; but the writing is often rambling and repeats itself, and does not leave the clear, succinct impression that is essential for laboratory work.

Proper weight is not given to methods and statements; several methods being given to accomplish the same end without any statement as to which is the best or sufficient explanation as to when one may be better than another. For example, the subject of the parting of gold and silver is dealt with in detail, eight pages being devoted to it. The three methods of procedure of parting in flashes, parting in test tubes, and parting in glazed crucibles, are given equal emphasis. From an academic point of view they are all three equally interesting; but from a commercial point of view, when one is working against time, they are not in the same class. This consideration is not even hinted at. Again, despite the eight pages of details of parting, we have to go back several pages to learn that it is not necessary to flatten out the bead before parting, that it may be done in the round form if sufficient silver is present, and nowhere are we told that if sufficiently dilute acid is used and the operation allowed to proceed slowly a coherent gold skeleton may result. This is a very simple point, but is sufficient to make or break the possibility of getting out the day's results.

This diffusing or scattering of the information occurs in other places, for example, in dealing with cupels. In Chapter II. on Methods of Assaying, in the description of apparatus there are a few lines on the making of cupels. In Chapter IX. under the heading of Gold there is some more information on the making of cupels. But in the whole book there is not enough information to teach a man how to make a satisfactory cupel. There is nothing about the desirable qualities of the bone ash or its necessary coarseness or fineness. There is not a word about the many cupel making machines in use at the present day, nor a hint at possible substitutes, such as Portland cement, that so many use with complete satisfaction. There are seventeen pages altogether on cupellation, and except for the lack of succinctness, they deal fairly thoroughly with the sub-