The Periodical Examination which the Board of Arts proposes to hold, and the certificates it offers to successful candidates, is of such importance that it ought to receive every encouragement, while the programme of examination at once suggests the proper subjects of study for the classes of a mechanics' institute. In the present depressed circumstances of these institutes, it would be impossible to take up all the subjects; and in making a selection, whilst the tendency would probably be to take up the most practical and necessary—such as arithmetic, mathematics, chemistry, mechanics, drawing and agriculture—the claims of those branches which have relation to the communication and the discipline of thought should not be neglected. The study of English, in all its forms of grammar, composition, and the examination of high-class literature, and the practice of discussion, under judicious management, have the highest claims in the education of the common people, where the common people hold such civic and political power as in this country.

But as the kind of instruction and the management of classes must form a subject of large consideration, I forbear to trespass any further on your columns for the present.

I am, Sir, respectfully yours,

R. L.

Toronto, June 19, 1861.

NOTICES OF BOOKS.

The Metals in Canada. A Manual for Explorers, containing Practical Instructions in Searching for and testing the value of Metallic Ores, with special reference to Canada: By JAMES L. WILLSON, and CHARLES ROBB, Mining Engineers. Montreal: B. Dawson, & Son. 1 Vol. paper, pp. 80.

This little work is, as its authors profess it to be, a compilation from various learned treatises on the subject of mining, and more particularly from the Reports of the Provincial Geological Survey. It sets forth in a very clear and concise manner the forms and modes of deposit, and other circumstances under which ores of the more useful metals, with the exception of iron, have been or are likely to be found in Canada, together with notices of the most important mines throughout the world that bear analogy to those in this country. It also gives short practical directions for making surface explorations, and for testing and examining many of the metals and minerals.

A work of this kind, small though it be, is likely to prove of great utility not merely to those who are practically engaged in investigations of this nature, but also to all whose attention is directed to the mineral wealth existing in the country. There is no doubt that as long as coal and the precious metals are supposed to be hidden beneath the surface of the earth, requiring only skill and knowledge to bring them forth, the minds of the community are continually harrassed and perplexed by reports of coal mines, veins of silver, and similar discoveries. Under such circumstances, when the public are excited, and individuals are ready upon the slighest grounds to plunge into mining speculations the negative knowledge afforded by works of this description is surely of no slight value. The ability to set at rest such vain expectations, and unfounded opinions on subjects of so great moment to the welfare of the community is undoubtedly by no means unimportant.

"At the present time," as our authors state in their introduction, "a variety of circumstances combine to give an impetus to mining enterprise in this country. The recent discoveries of valuable deposits of copper and lead in the eastern part of the Province, the continued and greatly increased yield of the former metal in the Lake Superior region, and its proportionably diminished production in Cornwall, taken in conjunction with the increasing demand for this article, the removal of the government restrictions on explorations, and greater liberality in regard to grants of land for mining purposes, the recovery from recent great commercial depression, and the universal attention which has lately been directed in England to the development of the resources of this Province." We cannot, in fine, refrain from expressing the gratification we feel at being able to recommend a work of this description, emanating as it does from Canadian pens. It is a pleasing proof that our country is advancing in scientific attainments, and that its great natural resources stand in a fair way of being properly developed.

The Canadian Agriculturist, or Journal and Transactions of the Board of Agriculture for Upper Canada.—Toronto.

We have received the semi-monthly numbers of this excellent publication from the 1st January to the present time, and have invariably found their contents not only instructive and interesting, but well adapted to diffuse a great variety of much needed practical information among the farmers of Canada. Written comment on a Journal which has reached its thirteenth volume is wholly unnecessary, but we may be permitted to express our conviction that the Canadian Agriculturist under its present management will rapidly increase in public favour and estimation; and become a means of diffusing a knowledge of the science and practice of Husbandry, throughout a people at present eminently agricultural in their pursuits, and to a very large extent dependent upon their soil for its support.

Selected Articles.

ON SOME POINTS IN AMERICAN GEOLOGY.

BY T. STERRY HUNT, M.A., F.R.S., OF THE GEOLOGICAL SURVEY OF CANADA.

Concluded from page 166.

Such was the state of the question when Mr. Hall came forward bringing his great knowledge of the sedimentary formations of North America to bear upon the theory of continents and mountains. These were first advanced in his address delivered before the American Association for the Advancement of Science, as its President, at Montreal in August, 1857. This address was never published, but the author's views were brought forward in the first volume of his *Report on the Geology of Iowa*, p. 41, and with more detail in the introduction to the third volume of his *Palæontology of New York*, from which we have taken the abstract already given. He has shown that the difference between the geographical features of the eastern and central parts of North America is directly connected with the greater accumulation of sediment along the Appalachians. He has further shewn that so far from local elevation being concerned in the formation of these mountains, the strata which form their base are to be found beneath their foundations at a much lower horizon than