teen millions of tons of ore, magnetic ore counted only for one and one quarter millions of tons.

The prices of ore at the mines range widely :—From 66 cents per ton in Alabama ; 73 cents in Minnesota ; 98 cents in Wisconsin, to \$1.95 in New York and \$2.17 in New Jersey. Probably Ontario would cost as much at the mine as any New Jersey or New York ore with duty and long freight haul to enhance the price of the former.

"The quantities of ore in sight, the apparent case of mining, and the grade of material won on the Mesabi range may be pronounced marveleous ; but the other ranges (Gogebic and Vermilion) each in turn were surprises, and have done their part in making Lake Superior region the greatest iron ore producing district of the world, for ro other section has in forty years supplied 100,000,000 tons of this mineral. No other iron range so far discovered possesses greater apparent reserves than the Mesabi , conservative estimates formulated from the records of properties now exploited and worked, together with others determined by systematic explorations and analyses, show that the Mesabi range can supply ore which will equal in average iron and phosphorous contents , ouble the quantity, which the entire Lake Superior region has pre luced in fifty years. In this estimate there are not included a number of properties which have been imperfectly explored."

With this record before us, and of the value of any estimate prepared by so eminent an authority as Mr. Birkinbine there can be no question whatever, what ground can there be for any hope that even the remission of duty will galvanize into life the iron ore mines of Eastern Ontario or lead to the opening up of new mines in the Thunder Bay District? It is well therefore to face the inevitable correlation that unless the enterprise of this country is adequate to the task of developing its own iron manufacture it must remain tributary to the neighboring country, whose greater enterprise and intelligence have made such use of advantages they possess, (in no greater degree than we do ourselves,) that they may now compete with the world in the cheapness and excellence of their iron and steel.

Valuable Discovery of Corundum.

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The discovery of Corundum, in Carlow. Hastings County. Ont., announced by the Geological Survey, adds what is practically, if not actually, a new mineral of economic importance to the list of those already known in Canada ; for though corundum was noted by Dr. Hunt, many years ago as occuring in small crystals in Burgess, it has not since been identified there. The present discovery is due to Mr. W. F. Ferrier, who identified the mineral among some miscellaneous rock specimens, which, came into his hands, and after considerable difficulty succeeded in ascertaining the source of the particular specimen in question, approximately. Having informed the Director of the Survey of the circumstance, he was instructed to visit the locality indicated and endeavour if possible to find the deposit, which he succeeded in doing.

In the place examined by Mr. Ferrier and surveyed by Mr. A. A. Cole, who accompanied him, the corundum is described as occurring in a coarse grained reddish pegmatite, which forms, together with gneiss, a cliff from So to 100 feet high. Well developed crystals, often of large size, and irregular masses of the corundum are thickly distributed through the rock. The mineral was observed for a distance of 300 feet across the strike and was traced along the strike for about 700 feet.

The dimensions of this particular deposit, with the large proportion of corundum contained in the mass, appears likely to render it of immediate value; while it is more than probable that this is not an isolated occurrence, and that further discoveries of the same kind will be made in Hastings district now that attention has been called to the mineral. Next to the diamond, corundum is the hardest of all known substances, especially in its gem form. Its value depends entirely on its abrasive power, and can be easily deter ined by taking a piece of plate glass previously weighed, placing on it a weighed portion of the sample to be tested, rubbing the material on the glass and continuing the operation until the glass ceases to lose in weight, the total loss in weight giving the abrasive power of the sample. If the weighings are accurately made and the same weight of material is taken for each experiment the relative loss suffered by the glass will prove a sure indication of the relative value of the different samples and such experiments should always be tried on the corundum of any locality before deciding to commence mining. Almost all the corundum and a large proportion of the emery of commerce are used for the manufacture of the well known corundum ard emery wheels.

The mineral offers a good field for profitable operations, if it be borne in mind that the discovery and proper mining of the mineral are only a portion of the problem. The preparation for market is equally important and any neglect of this will surely prove most disadvantageous. A good article of well prepared corundum will sell for double that of emery of the same "number;" and although the latter is much reduced in price, rough ore being worth at present about \$20.00 per ton at the ports of shipment, at existing prices, a good mine, well managed, should pay very satisfactory profits.

EN PASSANT.

The following papers will be contributed to the Inter-Provincial Conference of Mining Engineers to be held in Montreal during the first week in February next in addition to those mentioned in our last issue. "Notes on some Mining Camps in British Columbia" by Mr. John E. Hardman, S. B., M. E. "The Responsibilities of the Mining Engineer" by Dr. Porter, Lecturer in Mining Engineering, McGill University. "The Mechanics of Mining" by Mr. D. W. Robb, Amherst. "The Canadian Pig Iron Industry," by Mr. George E. Drummond, Montreal. "Gold Quartz Mining in Canada and Victoria Australia' by Dr. A. R. C. Selwyn, C. M. G. Ottawa. "Initial Payments on Bonds and Options" by Howard West A. R. S. M. New Denver, B. C.

In one of his rugged truisms Carlyle asserts that a blockhead may do more harm to society than a deliberate villian. It is quite certain no interest has suffered more from the intermedling of fools and blockheads than the mining industries of the Dominion. For weeks past the Toronto World and Globe have been filled with "fake" mining despatches, evidently inspired and paid for by enterprising but unscrupulous brokers intent on unloading on a gullible public stock in. many of them absolutely worthless, British Columbia gold mines. Perhaps, however, the most notable and the most ridiculous were the remarkable series of dispatches published in the World, announcing the discovery of "a coal field," at Chelmsford, Ont., "quite equal in value to the best Pennsylvania anthracite," apparently inspired by an individual who has earned no great reputation as a mining engineer and who has c'ready figured as the promoter of a worthless gold mining venture in the same neighborhood entailing considerable loss to a number of prominent but too confiding citizens. But if the party in question is not a capable mining engineer he is shrewd enough and thoroughly understands that, like the beater of the other big drum, he has only to make enough noise and he will be sure to attract attention.

In our issue of August we took occasion to remind our readers that the discovery was in all probability anthraxolite, a substance years ago named by Professor Chapman and of little commercial value. It has been observed to occur at various points in Canada, as for instance in