Production of Cast Iron. — The *Revue Universelle des Mines* gives the following particulars of the world's production of cast iron, which may be of interest to our readers:—In 1880 the production of cast iron of the whole world was 838,000 tons, in 1885 it was 19,406,000 tons. During the period comprising between 1865 and 1886, the increase of production, calculated for the year of greatest production was: In the United States 456 per cent.; in Germany 237 per cent.; in Austria 152 per cent.; in England 76 per cent.; in France 64 per cent.; in Belgium 63 per cent.; and in Sweden 53 per cent. Great Britain produces more than the United States, which in return consumes more cast iron than steel. The consumption of the United States is at the present day one-fourth of the cast iron and one-third of the steel produced by the entire world. The diminution of cost of production effected in modern times by the improvements carried out in processes of manufacture is wonderful. Thus, a gross of steel pens, which are to-day sold at Birmingham for 4d., formerly cost £7 to produce. This industry is so important that a single manufactory at Sheffield now weekly sends to Birmingham 20 tons of rolled steel to be converted into pens.

An Engineering Feat.—An engineering work of singular magnitude and importance has just been inaugurated at Arques, near St. Omer, in France. The undertaking so successfully inaugurated is the work of Mr. Edwin Clark, C.E., of Great Marlow. The *Colliery Guardian* says: the work comprises a canal lift, superseding the series of ordinary locks, which at present so seriously impede the traffic on the large canal system communicating with Belgium. The Continental canals are on a much larger scale than our own, the canal boats usually carrying from 210 to 230 tons. The ground at this particular spot rising very rapidly, there are five or six locks in close contiguity, involving great loss of time and great cost in their management. By this invention of Mr. Clark's the canal boats are now lifted the whole height of nearly fifty feet at one operation, occupying only a few minutes of time, and no loss whatever of water. This singular machine consists practically of a gigantic hydraulic press, whose piston is 3 ft. 3 in. in diameter and 50 ft. in length, by means of which the boats themselves, actually afloat in an enormous tank or reservoir, are bodily raised or lowered, water and all, to the required height. This reservoir is in reality an actual length of the canal itself, made of wrought iron plates, separated from the rest of the canal by iron gates, which are opened when it is raised into its proper position at the required height. There are two such presses, the one descending while the other is ascending, and they thus balance each other, and no steam engine or other mechanical power is required, although the weight lifted at each operation, including the water and the loaded barges, is very nearly a thousand tons. Sixteen hundred barges have already been lifted prior to this public inauguration, the task being performed by a single man, whose only work is the opening and shutting of a small valve, and the operation only occupies a few minutes. A smaller lift on this principle was erected by Mr. Clark some years since in Cheshire, and was then patented, but he has just completed a still larger lift in Belgium, which will be opened during the present month. The same system is now being adopted in Canada for transporting sea-going vessels across the isthmus which intervenes between the Bay of Fundy and the Gulf of St. Lawrence.

Grindstones.—A correspondent of an eastern paper gives a description of a visit to the Bay of Fundy and along the shores, where the grindstone quarries are located. The superintendent of the quarry says when the tide is out his men go down at the rocky shore and work out near the water. At low tide the men on the shore drill some holes in the ledge, put in powder, and blast out great pieces of rock. When the tide rises again they float out big logs and empty barrels over where the loosened rocks are. When the water goes down again they fasten a big rock to the raft with heavy chains so when the tide again rises it lifts up the raft and the rock with it. Then they tow as near the shore as they can. If it is the right kind and size for a millstone, sometimes it is allowed to lie there until the workmen, with stone chisel and hammer, work it into proper shape. At other times, by means of a derrick, it is drawn out on the wharf. Then it is rolled on a track and hauled to the factory.

In Reply to Dr. Selwyn.

ST. IGNACE, Mich., Aug. 16th, 1888.

SIR,—I noticed in the last copy of the REVIEW a letter from Dr. Selwyn repudiating the idea that Canadians are ignorant of the value of their mineral resources. I regret to say that my experience proves the existence of that state of ignorance. I failed in getting a blast furnace company started in Toronto chiefly on account of the dense ignorance of everything connected with the Canadian iron deposits shown by almost all the business men on whom I called in connection with the above project. Numbers asked if I would not be obliged to bring ore from the States for the furnace. One leading business man refused to listen to anything on the subject because "there are no iron ores in Canada." Out of one hundred and thirty leading men on whom I called, only seven showed an intelligent knowledge of the Canadian ores. They all knew more or less about Sudbury; but the large majority were surprised to learn that there were plenty of iron deposits within 200 miles of Toronto. The work of the Geological Survey is unnoticed by the greater portion of the public. Yours, etc.,

SAMUEL D. MILLS.