at Montreal a satisfactory jobbing trade is reported by dealers. The heavy metal trade is of fair volume, and the general feeling is steady. A weakening in pig lead is noted. Orders are coming in freely for galvanized iron. A number of case lots have been called for, principally American of the lighter gauges of 24 x 28. One and a half inch pipe has been advanced 12c. per 100 feet, being now quoted at $6.50.

The production of pig iron in the United States increased nearly 42 per cent. during 1897, and the weekly output in December reached the enormous quantity of 226,224 tons, the largest in the history of the country. As to price, however, the showing was not so favorable, No. 2 foundry pig, for instance, being quoted at the close $1.25 per ton lower than at the opening of the year.

Wholesale dealers in plumbers' supplies have been notified by the Customs Department that the duty on galvanized boilers has been advanced from 25 to 30 per cent. This means an addition to the cost of each boiler of about 50 cents.

ARTIFICIAL BLACK MARBLE.

A new discovery has been made by a Calabrian engineer—the manufacture of artificial black marble—and this industry is now being carried on in Catania. The artificial marble has been patented in Italy and other countries, says a writer to the American Architect. It can be made into any form desired, and fully takes the place of black marble, resembling it so closely that it is difficult to distinguish it from the real article, while its cost is said to be very much less.

The process is said to be as follows: Common white sandstone is first cut in the desired shapes; then the various pieces are placed in a large, square iron tank, upon a heavy wire-grating, the latter resting a few inches above the bottom of the tank, in order to keep the stone from touching the bottom, and to permit the fluid to penetrate freely everywhere; the stones must not touch each other. Then, through an iron pipe, a molten mass of volcanic asphalt and coal-tar pitch, mixed, I believe, in equal parts, is let into the tank from an adjoining boiler until the molten mass fully covers the pieces of sandstone. The liquid is kept boiling in the tank for thirty-six hours; then the stones are taken out, placed upon a brick floor to cool off and dry, and are afterwards polished in the same manner as other marble.

The artificial product is said to resist acids, is not damaged by atmospheric action, moisture, heat or cold, and is claimed to be aseptic.

In the same manner, the firm also prepares pressed tilings for flooring, roofing, etc., which are said to be perfectly watertight and aseptic.

I am told that a mass of sand, cement and water, after having been thoroughly kneaded, is put into forms, put under a press, which works quite rapidly, taken out and dried a while, and then placed in tank-boiler for thirty-six hours, as in the manufacture of the artificial black marble, and, after being cooled off, is placed in a rotary grinding or polishing machine. This machine consists of a large, round, stationary grindstone, upon which revolves an iron frame, with partitions therein for holding the tiles in place.

OWNERSHIP OF BUILDING MATERIALS.

The question of ownership of building materials has given rise to much litigation, says the Builder's Reporter. It was laid down by Lord Watson that materials provided by the builder and portions of the fabric, whether wholly or partially finished, although intended to be used for the execution of the contract, cannot be regarded as appropriated to the contract or as "sold" unless they have been affixed. But the building owner can obtain the right to unaffixed materials by contract or agreement, or delivery on ground is supposed by itself to confer some rights over materials on him. A case has just been decided at Liverpool in which an ingenious point was raised, for the defence turned on the argument that a building agreement to be valid in such cases required registration. The plaintiff, Mr. W. O. Callow, entered into a contract with a builder to sell the land for building purposes on a building agreement which vested the materials brought on the land in Mr. Callow, and gave him a right to take possession of and sell the land and materials on default by the builder in fulfilling his part of the agreement. The plaintiff having taken possession under the agreement, the defendants, Messrs. Galt, Edmunds & Co., a firm of timber merchants, with the consent of a partner of the builder, went on to the land and removed certain timber and materials which they had supplied to the builder and for which they had not been paid. The plaintiff thereupon brought this action for trespass to the land and for conversion of the timber removed by the defendants. It was held by Mr. Justice Bruce that the decisions in Brown v. Bateman and Reeves v. Barlow applied to the case. In them it held that the moment materials were brought upon premises the property in them passed in law to the building owner, and that an agreement respecting them was not a bill of sale, and did not require registration. His lordship thereupon gave judgment for the plaintiff for £60, the agreed value of the timber removed, in addition to £1 paid into Court in satisfaction of the trespass.

TO KEEP BRICK WALLS DRY.

The National Builder says that to keep a brick wall dry apply the following solutions: One composed of castile soap and water. The proportions are three quarters of a pound of soap to one gallon of water, and half a pound of alum to four gallons of water, both substances to be perfectly clean and dry and the temperature of the hot air not above 50 deg. Fahr. when the compositions are applied. The first, or soap wash, should be laid on when boiling hot, with a flat brush, taking care to form a froth to the brickwork. This wash should remain twenty-four hours so as to become dry and hard before the second, or alum wash, is applied, which should be done in the same manner as the first. The temperature of this wash when applied may be 60 deg. or 70 deg. Fahr., and this also should remain twenty-four hours before a second coat of the soap wash is put on. These coats are to be applied alternately until the walls are made impervious to water. The alum and soap thus combined form an insoluble compound, filling the pours of the masonry and entirely preventing the water from entering the walls.

The cost of building is wonderfully reduced by machinery, says a writer in the Manufacturers' Gazette. Walls made of brick, stone, cement, plaster, etc., are reduced in cost more than one half. Large buildings, the estimate of which is about $1 per cubic foot, can be built for 30 or 40 cents per cubic foot by the employment of labor saving machinery and devices. Cement and mortar, all the materials for stone work, with the brick and stone itself, may be mixed and handled almost entirely by machinery. A derrick, lifter and crane will perform in an incredibly short space of time work that it formerly took days and scores of men to complete. It would be advantageous if the same power and appliances could be so arranged as to be utilizable in small towns on the same principle as those used in large cities. As it now is in suburban localities almost everything is done by hand.