

The Jeannette's Long Drift.

The hope that, notwithstanding the disastrous fate of the Jeannette, the expedition might have made important discoveries in high latitudes before she was caught in the ice has been dispelled. It is now known from the survivors that from the time she entered the ice, in the vicinity of Herald Island, September 6, 1879, she was practically helpless. For nearly two years she drifted with the ice northward; while for a year and a half she was leaking badly, her fore-foot having been "twisted" on the first day of 1880. She was finally crushed by the ice June 12, 1881. No discoveries of moment were made during the long drift. Lieutenant Danenhower telegraphed from Irkutsk, February 1, that the whereabouts of Commander De Long had been discovered.

To Make Rubber Packing Air and Steam Tight.

The packing is brushed over with a solution of powdered rosin in ten times its weight of stronger water of ammonia. At first, this solution is a viscid, sticky mass, which, however, after three to four weeks, becomes thinner and fit for use. The liquid adheres easily to rubber, as well as to wood and metal. It hardens as soon as the ammonia evaporates, and becomes perfectly impervious to liquids.

MULTIPLE PRESSURE SUGAR MILL.

WITH INJECTIONS OF WATER, STEAM, AND LIQUOR BETWEEN EACH PRESSURE.

The special feature of this sugar mill—the first which has been made with such a large number of rollers—is that the canes are not only submitted to successive and increasing pressures, but that, while passing under the rollers, before each of the last three pressures, they are injected at the will of the attendant of the apparatus, with either steam, liquor, or water. The liquor used for this purpose is derived from the two last pressures, and is directed on to the preceding ones in the same order as their degree of density according to the saccharimeter.

It is this system which the inventors have called the "Multiple Pressure Sugar Mill," for which they have recently taken out a patent.

It is well known that, according to different analyses, sugar cane when ripe, and when freshly cut, has the following composition:

Water, 72; sugar, 18; cellulose and ligneous matter, 9.50; insoluble salts, 0.50; total 100.

Up to the present time, with the different forms of apparatus employed for extracting the juice from sugar cane and the use of the most improved machinery, such as triple effects and vacuum pans, no more than from 8½ to 9 kilogrammes of sugar have been obtained per 100 kilogrammes of crushed cane; and this result has only been obtained in exceptional years, when the weather has been most favorable for the development and ripening of the canes.

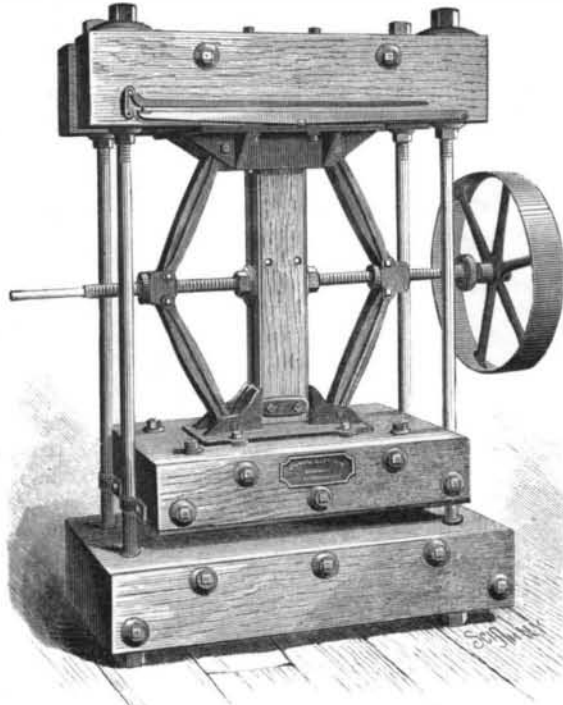
The home sugar industry, however, can reckon a much larger percentage. This is easily explained by the fact of its being able from its situation to employ, to the best possible advantage, all the new processes and machinery as they are brought to light, more especially in the large European industrial centers. This superiority in the quantity of sugar obtained, and the number of large works which have been erected during recent late years, have increased in considerable proportions the home sugar production; and as the consumption has not kept pace with this production, the value of sugar has consequently decreased. As the colonial planters could not, without danger to their industrial existence, submit to the fall of price which has taken place, they have endeavored to discover a remedy for this state of things. This remedy has been found by extracting from the cane itself the greatest possible quantity of the 88 or 90 per cent of juice which it contains.

As the other forms of apparatus, with the exception of the mill, have been successively modified and brought to a comparative degree of perfection, it followed that the roller mill had also to be improved.

This new apparatus of Messrs. Lahaye & Brissonneau, of Nantes, France, embodies the latest improvement in this direction. This mill, of which the accompanying figure represents a perspective view, is furnished with two pairs of rollers, which are shown in cross section. It has already been working for two years in Guadaloupe, at the Courcelles Sugar Works, belonging to Messrs. Dubos frères.

PRESS FOR THE MANUFACTURE OF BELTS.

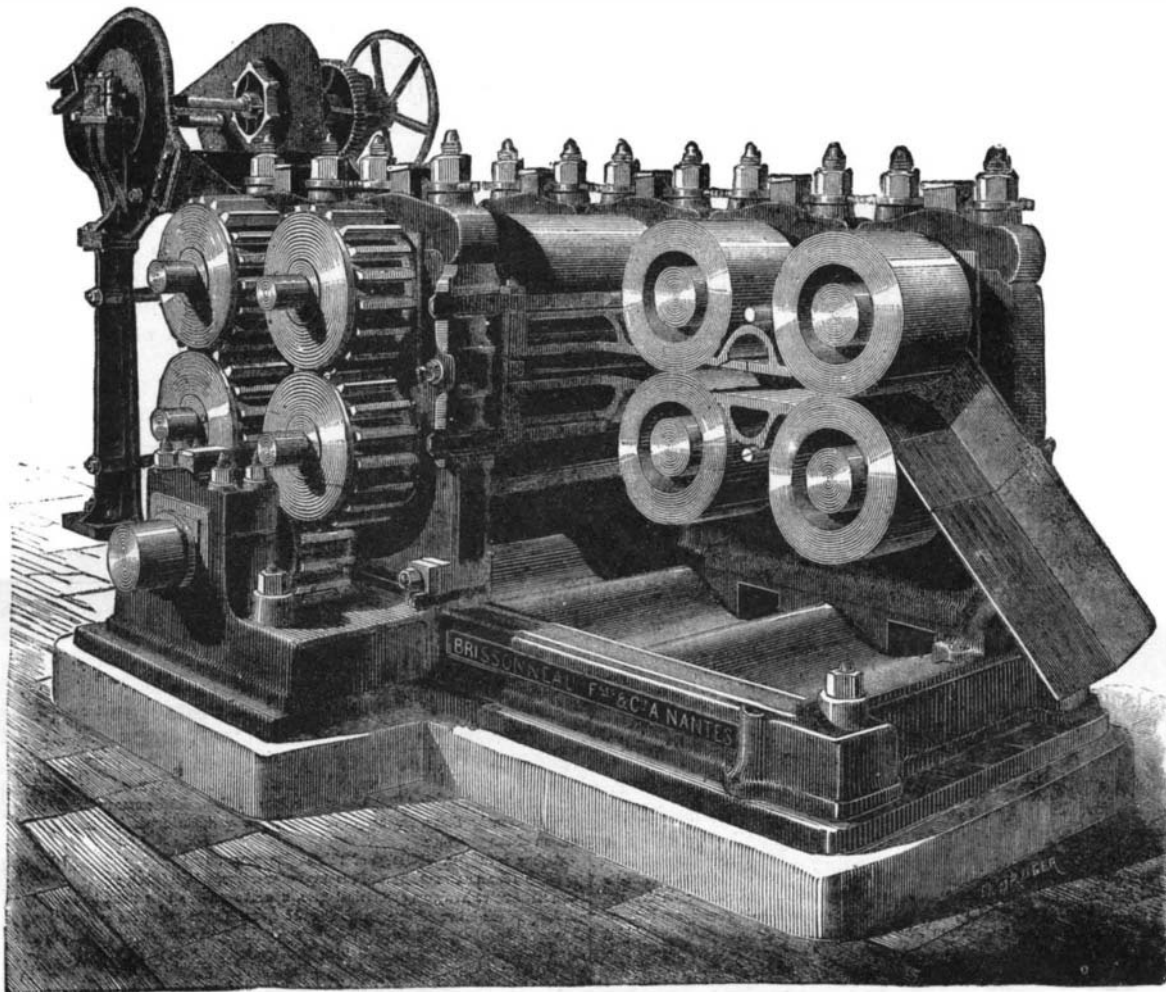
The press shown in the engraving is particularly designed for the manufacture of belts twelve inches or more in width; are used by a number of the leading manufacturers of the country; has a wood frame with a heavy iron plate, planed smooth and true, bolted to the underside of platen. On the base of the press is placed a sheet of rubber the size



BOOMER & BOSCHERT'S PRESS FOR THE MANUFACTURE OF BELTS.

of the platen and an inch or more in thickness; and between the rubber and iron plate the belt, after being connected, is pressed. The rubber plate seems to bring the pressure to bear on all parts of the belt alike, even if the thickness of same should be unequal.

The press is designed to be run by power, but may be used as a hand press, a pulley being keyed fast to one or both sides of the press screw and actuated by a countershaft on which are pulleys for both crossed and straight belts, for running the press up or down, as required. As the screw is run rapidly the press can be operated very quickly. Upon the head beam is fastened a system of levers called an "indicator," and which seems to show the amount of pressure



MULTIPLE PRESSURE SUGAR MILL.

being applied, so that having found the requisite amount of pressure to do a certain kind of work, the same pressure can always be applied.

This firm also manufacture presses made entirely of iron for any width of belt, and to be worked by hand or power, as may be preferred.

Further information may be obtained by addressing Messrs. Boomer & Boschert, 96 West Water street, Syracuse, N. Y.

American Manufactures Abroad.

Although the general impression is that the important position held by America in foreign markets is due almost wholly to our immense production of raw material, yet American manufactures also obtain a recognition, all the more notable from the fact that it is generally reluctant. Even in Russia, to which our direct exports are inconsiderable, the reputation of American hardware is so high that it is sold to some extent by German and English houses, but the most of the goods sold as American are imitations. The American Consul at Moscow says even the names of the makers of goods selected for imitation are retained in the spurious and inferior products. The Consul at Crefeld, Germany, reports that the preference for American sewing machines is so great that the German manufacturers adopt the brands of American makers, and attempt to justify the deceit on the ground that the makers' names are mere commercial terms, like Bessemer steel or Windsor soap, and do not designate any special make. It is also reported that German manufacturers vigorously assail the character and quality of American goods, while constantly putting cheap imitations of them on the market. An adjustable chair vaunted as superior to anything made in America was found, on examination, to be an exact imitation of an American chair. Nevertheless, stores in Germany making a specialty of the sale of American sewing machines, stoves, agricultural implements, and labor-saving articles, are doing a flourishing business. The market would become extensive were it not for the tariff imposed by the empire. A growing trade in American shirtings and jeans has already been wiped out by tariff exactions. But while American products are grudgingly received, there is no indisposition to appropriate the discoveries of American inventors. Our consul at Lyons reports that a machine for testing silk fiber, which is coming into general use in France and Italy, is the design of an American inventor.—N. Y. Sun.

The Chicago Cable Road.

The first car of the new cable road for street service in Chicago was run over the road January 26. The trial is reported highly satisfactory to the managers and directors of the enterprise. A speed of eight miles an hour, it is said, can be maintained without difficulty.

Manufacture of Wooden Shoes.

The London Globe says that the wooden shoe is quite a national institution of France; and in Brittany, more than in any other part of the country, its "clank" is heard everywhere. People wear it almost habitually there who would fight shy of it elsewhere, save on high days, holidays, and *en grande tenue*, when "there is nothing like leather." Hence follows the necessity for a sufficient large brother-

hood of sabotiers, who, as they could not possibly live in towns or large villages, by reason of the cost of transport of the rough material exceeding the price of the manufactured goods—Mam'sell Marie's well-made shoon aforesaid may be bought for a mere trifle—are forced to reside in the woods and forests, or other places where suitable timber may be available. He is a regular Bedouin, this sabotier, and, like that nomad, can say, "The rope which holds my tent has seen all cities perish." The never-altering end and aim of a Breton wooden shoemaker's being is to fabricate sabots, and out of this groove he and his never run. Such as the father is, such is the son, and, for the matter of that, his daughter also. Children, so to speak, are to the manner born of making sabots, and at so tender an age as five or six years they may be seen smoothing, blackening, varnishing, stringing together in lots the coverings which their parents and other relatives have cut, shaped, and hollowed out into chausures for the human foot. When a sufficient load of sabots has been completed at a certain fixing, the sabotier goes with it to the nearest village or town where his

wholesale dealer resides, and to whom he disposes of the lot. With the money thus obtained he replaces a few articles absolutely necessary for his wants, and with the residue pays for timber already bought, felled, and utilized.

REMEDY FOR HICCOUGH.—Dr. M. S. Leslie, of Lexington, Ky., says that the best remedy in ordinary hiccoughs is about twenty-five grains of common table-salt placed in the mouth and swallowed with a sip of water.