

CHINA SILK.

The tutelage of China is proceeding apace. It is quite curious how unpractical the Asiatic mind is in regard to some of the most important matters of everyday life. The prosperity of whole provinces in China depend upon silk cultivation. It has been perfectly clear for some considerable time that that industry is in a condition of decadence owing to disease among the silk worms. Mr. Rocher, the commissioner of customs for Shanghai, in his report on the trade of that port during last year, called attention to the inferiority of last year's cocoon in China, the spread of disease amongst the worms, and the general lowering of the vitality of the breeds. Mr. Rocher has followed up this warning by a letter to the Viceroy—which has been published in *The Chinese Gazette*—in which he makes some very emphatic statements respecting the extent and reality of the evil. Nine years ago, when the question of Chinese silk culture was taken up by a predecessor of Mr. Rocher, many of the silk-growing districts were still free from disease, but in consequence of the neglect of the warning then given the disease has since made "enormous progress," and China seems to be threatened with that general extermination of the silkworm which had almost been completed in France and Italy when Pasteur began his memorable researches into its causes, and succeeded in arresting its march and re-constituting the industry in both countries. It may now be said, Mr. Rocher urges, that almost all the silkworms in China are diseased, and the effect on the silk-producing capacity of the worms is very marked.—*Draper's Record*.

ABOUT SUGAR.

Writing on the origin of sugar a contributor to *The North American Review* observes that sugar is a constituent of most plants, in greater or less degree, at some period of their growth. Its exact position or function in the metabolism of plant tissue is still a matter of theory among chemists, but its wide distribution is becoming more and more evident as time goes on. Even the cereal grains, formerly supposed to be merely storehouses for starch, have lately been found to contain notable quantities of sucrose and saccharose, the specific name used by chemists to distinguish the substance in question from its congener carbo-hydrates possessing a sweet taste. The popular name for this substance, however, cane sugar, indicates the plant containing it in sufficient abundance to first attract the attention of mankind. This plant, *saccharum officinarum*, probably originated in Asia, whence it has spread gradually to all tropical regions, its easy propagation from eyes on the cane itself assisting materially in its dissemination. The cultivation of this plant for its sweet qualities stretches far back into the past, "sweet canes" being mentioned in the Hebrew Scriptures, and its use in China probably antedated even this mention; yet the extraction of sugar from its juice, and especially the use of the substance as a special article of food, is a matter of comparatively recent date. For centuries it was used in Europe only as a confection or a medicine, and it was not until the beginning of the 17th century, a hundred or more years after it was first cultivated in the eastern hemisphere, that it began to be an article of commerce and was imported to any extent into Europe. Once begun, however, its modern development down to the present day, when it constitutes one of the world's greatest industries, the product of which reaches the consumer for the greater part as a chemically pure article, is little short of marvelous; in truth its history cannot be surpassed in interest by that of any line of human endeavor.

NEW YORK MONEY MARKET.

Henry Clews & Co. say, under date New York, December 2, 1899: The stock market is still chiefly dominated by monetary conditions; and until these show a more favorable tendency the upward movement in securities is likely to meet with considerable difficulty if carried out upon any considerable scale. Apart from this factor the outlook is especially favorable, as has been repeatedly explained in our previous advices. The chief concern, therefore, is the course of the money market until after January 1. The advance in the Bank of England rate, of course, means that no relief can be expected in that quarter in the form of gold imports; especially while the Transvaal war shows no sign of an approaching end. Considerable hope has been entertained that the return of currency from the interior would bring the supply of loanable funds in New York nearer to normal conditions, but it is not safe to place too much reliance on these anticipations. Funds are now returning, but less freely than expected, the great activity of trade and industry everywhere retarding the movement. Meanwhile, the treasury receipts continue to exceed expenditures; and had it not been for Secretary Gage's offer to buy bonds some sharp manipulation of money rates would have been possible. The Secretary has shown his wisdom in extending the time for offers of bonds until December 23rd; that being the only available method of offsetting the effects of cumbersome treasury operations. Up to date the offers have amounted to nearly \$17,000,000. The market shows a decided disposition to run on specialties; and some excitement was manifested on reports of a deal between Pennsylvania and Baltimore and Ohio which seem to have had no other foundation than some sort of working understanding which will prevent losing competition. Congress opens on Monday, but is likely to be a much less disturbing factor than usual; while President McKinley is expected to come out with a strong gold standard message.

Recent changes in the business situation imply an increase in the circulation wants of the country very much larger than is generally imagined; and yet there is nothing in the National banking laws that provides scope for the expansion of the bank currency, and hence, during the past twelve months of urgent demand for money, the volume of the bank notes has remained stationary. The pressure of this retail demand for currency must be satisfied, at whatever cost to other interests; and the consequence is that the supply of "lawful money," gold and legal tenders, out of which the banking reserves are compounded, is mercilessly drawn upon. This reduction of the reserves compels the banks to reduce their loans and discounts; and in that way the credits which are transacted through the use of cheques and without money are smaller and inevitably contracted. It is exactly at this point that the crushing stringency of late months has risen, and it is a fact that this position is created and enforced by inflexible law that clouds the prospect of the money market with an uncertainty more or less paralyzing

NEW BUILDING-MATERIAL.

Under the name of "keramo," a new building-material, composed principally of glass, and manufactured at Penzig, Silesia, has been placed on the market. As far as known, this material is made from powdered glass waste, which is hardened by a special devitrifying process and combined by means of strong pressure. In this way the transparency, brittleness, and fragility of the glass are destroyed, but other prominent properties—extraordinary hardness, stability against exposure to the weather, non-conduction of heat, non-in-

flammability, insensibility to oil, grease, acids, etc.—are retained in this new material. Keramo can be used with good results for wainscotings in the interior of buildings, for covering floors in houses, kitchens, washing-rooms, verandahs, balconies, etc., for rough-casting of walls exposed to the weather, as well as for staircases, which are to be fireproof. The color depends upon the color of the glass used in the manufacture. The price of keramo is about 6s. 8d. per square yard.—*The Ironmonger*.

LOBSTER REGULATIONS.

The lobster fisheries regulations for the season of 1900 have been drawn up at the marine department. They are based upon the recommendations of the lobster commission. The close season along the Bay of Fundy coast and adjacent islands from the Maine boundary along New Brunswick, around Cape Sable, and as far as Halifax, is from May 31st to Dec. 14th, inclusive. The close season along Nova Scotia coast from Halifax to a point between Martin Point and Michaud Point, C. B., and including Chedabucto and St. Peter's Bay and adjacent islands and Gut of Canso, as far as a line from that point to Inverness county lighthouse opposite, is from July 1st to March following, inclusive; along Cape Breton coast from Red Point to Cape North and around to Cape St. Lawrence, also along the coast and waters of the Magdalen Islands, including Bird Rocks and Bryon Island, and along the north shore of the Gulf of St. Lawrence, from the Bay of Blanc Sablon westward to the head of the tide, the close season is from August 1st to April 30th, inclusive. The season along Northumberland Straits is not yet fixed. In all other parts the close season is from July 11th to April 19th, inclusive. Along the Northumberland Straits from a line drawn from Chock Fish River, N.B., to West Point, P.E.I., and a line from Indian Point, near Cape Tormentine, to a point in Prince Edward Island, not yet absolutely fixed, the size limit is seven inches. Along the Bay of Fundy coast and around Nova Scotia as far as Halifax, the limit is nine inches. Elsewhere the limit will be eight inches. The taking of berried or soft shell lobsters will not be permitted. Traps must not be placed in water two fathoms or under, and traps or other apparatus for taking lobsters must not be set within a distance of less than one hundred yards from any salmon net. Mutilated or broken up lobsters may not be sold to canners excepting for domestic consumption. Lobsters purposely mutilated or broken up, or cooked or broken lobster meat, shall be liable to seizure and confiscation unless possessed for domestic purposes, the proof of which will devolve on the possessor.

—The annual meeting of the Metal and Hardware Association, of Montreal, was to be held this week, to appoint officers.

—From Berlin, news has arrived that the German imperial telegraph authorities have decided to curtail their copper requirements by using instead iron telegraph wire, and either copper-sheathed iron wire or else aluminium wire for telephonic purposes. One of the elevated railroads in Chicago, it is said, is now going to use aluminium for its feed-wires owing to the high price of copper. Three sizes of aluminium cable will be employed, the largest being 1½ inch in diameter, and the Pittsburg Reduction Works have received an order for 150,000 lbs. It is said that 47 lbs. of aluminium wire will answer the same purpose as 100 lbs. of copper wire.