

RECIPROCITY.

WHILE the course of trade and the maintenance of good prices for produce during the past two years has kept down any feverish anxiety in Canada for the renewal of the reciprocity treaty, it has been satisfactory to notice the steady growth of sentiment in the United States which demands a reversal of the policy of abrogation. In spite of the many powerful interests and the strong protectionist feeling which have grafted themselves on American politics, the benefits of a mutual interchange of products between Canada and the United States are acknowledged, and a disposition is manifested in Congress to pave the way for a new treaty. Mr. Schenck of the ways and means committee of the House of Representatives, has reported a resolution from the committee which has been adopted by the House. This resolution declares that "while the House does not admit any right in the executive or treaty-making power to continue a treaty or convention with any foreign government by which import duties are mutually imposed, it is, however, of the opinion, and recommends to the President that negotiations with the government of Great Britain be renewed and pressed, if possible, to a definite conclusion regarding commercial intercourse, and securing to American citizens the rights claimed by them in the fisheries on the coast of the British Provinces in America, and for the navigation of the St. Lawrence river from its source to the sea."

There can only be one word of fault to find with this resolution. American citizens have no rights to the fisheries on the coast of the British Provinces. They may have the privilege, however, if they choose to reciprocate. If Congress will decide to admit the coal of Nova Scotia, there would be no difficulty in effecting a concession to Americans of the privilege of fishing in British American waters.

The recommendation of Congress is important, in that it paves the way to the resumption of negotiations, and indicates a spirit that will make the settlement of a new basis for a treaty much easier than the last attempt proved, which was hampered by notions of legislative reciprocity and all the prejudices which Mr. Morrill, then in the hey-day of his leadership in commercial legislation, aroused to defeat or restrict the usefulness of reciprocity.—*Kingston News*.

BEET ROOT SUGAR.

THE rapidly increasing demand for sugar in this country, owing, in part to the increase of our population, the more general cultivation of fruits, and their preservation by means of the canning process, together with the uncertainty attending the supply from Cuba, shows the importance of causing a thorough inquiry to be made concerning the adaptability of our soil for the culture of the sugar beet. The experiments that have been made in various sections north of Louisiana with cane and sorghum, have not, as yet, been so successful as to encourage their cultivation to any extent, though it is perhaps possible to cultivate them profitably in most Southern States; but the cultivation of sugar beets has everywhere been attended with the most satisfactory results. We see no reason why the manufacture of sugar from these roots should not be more largely encouraged by agricultural associations throughout the country. The manufacture of this class of sugar has gained ground in Europe with a rapidity almost unparalleled in the history of commerce. Introduced into France at a time when the wars of Napoleon the First had closed the West India colonies against that country, it flourished so vigorously in a few years that, when the prohibition was removed from the importation of West India sugars, and the beet sugar manufacturers looked for nothing but ruin, to their amazement they found that the new product was not only well able to hold its own against the foreign staples, but that the manufacturers of the West India article were themselves uneasy at the prospect. Since that time the cultivation of beet sugar has been pursued in France, Belgium, Russia, Austria and the Zollverein; and in 1859, the latest date at which we find statistics of the production of these countries recorded, the amount manufactured was, in tons, as follows:—

France.....	115,000
Belgium.....	117,500
Zollverein.....	119,000
Russia.....	40,000
Austria.....	70,000
Total.....	475,000

The cultivation of the beet for sugar presents some advantages over that of the cane. The saccharine matter in the cane varies from 10 to 30 per cent, in the beet root from 5 to 15. In the former it is, in the latter 10 per cent, is generally admitted as a fair average. This would seem to show an advantage on the side of the cane, but it is neutralized by the facility of manufacture possessed by the beet. There is in the cane 90 per cent of liquid to 10 per cent of solid matter; in the beet root 95 per cent is liquid, and only 5 per cent is gummy fibre, &c. In the process of manufacture from 75 to 80 per cent of liquid is gained, on an average, from the beet, while but 50 per cent is the yield of the cane, and it does not yield more than 60 per cent with the best appliances. Thus from 7½ to 8½ per cent of the 10 per cent of saccharine matter contained in the beet root is realized as sugar, while, in the cane, from 10 to 12 per cent of the 18 per cent contained is recovered. The process of crystallization still further modifies the difference in favour of the beet root. Modern improvements have diminished the residue, in the form of molasses, to from 1½ to 2½ per cent, which saves from 6 to 7 per cent as solid crystallized sugar. The superiority of the cane is further reduced when we take into consideration the fact that it requires more time to ripen than the beet root. An accurate estimate shows that four crops of

the root can be harvested against three of the cane. A calculation based upon the foregoing data demonstrates that on an average 100 pounds of cane yield 6 pounds of crystallized sugar and 3 pounds of molasses; while 100 pounds of beet root yield from 6 to 7 pounds of sugar, and from 1½ to 2½ pounds of molasses. When, however, we come to consider the relative productiveness of the soils of the European countries above mentioned, and the tropics, we find that the average of production is in favour of the latter, the main annual produce per acre of sugar in the colonies, &c., being 2,400 pounds, as against 1,300 pounds per acre in Europe.

In many parts of the United States, and particularly in the rich soil of California, the sugar crop could be raised as well, if not better, than in any of the European countries where its cultivation has been so successful. The soil of many parts of our Southern States, and which are not adapted to wheat or cotton, will be found admirably suited to the cultivation of beet roots. In Europe the white Silen beet is preferred for this purpose, yielding as it does a juice richer in sugar, and more free from salts than the other kinds. The yield per acre in France and Belgium is from 14 to 15 tons, and about Magdeburg from 10 to 12 tons. In cultivating the beet it is found that the direct application of manure to growing crops injures the richness of the juice, and it should therefore be avoided. One of the greatest drawbacks to the business in Europe is the necessity of digging the roots and storing them through the winter, when they are found to lose a certain per centage of their saccharine juices through the action of the light and frost. In many portions of this country we enjoy the advantages of a climate almost tropical, and the roots may be allowed to remain in the ground through the winter without injury. In view of these facts, we hope the matter will receive the attention it deserves. There is, indeed, no reason why, in the course of a few years, the manufacture of beet sugar should not become an important branch of industry in the United States, and why we should not be enabled to supply our refineries with the larger portion of the sugars needed for home consumption.

EARLY COMPLETION OF THE SUEZ CANAL.

AN eminent English engineer, who accompanied the Prince of Wales on his trip to Egypt, has made a report on the Suez Canal between the Mediterranean and Red Sea, which shows pretty conclusively that the work is likely to be successful. British prejudice was strongly against this great enterprise at the outset, on the ground that it was in the hands of a French company, and was likely to be made a means of aggrandizement to France, and English engineers of distinction, Mr. Robert Stephenson, for example, who was in Parliament at the time, and justly esteemed one of the greatest engineering authorities of the day, pronounced with confidence against the practicability of the attempt to cut a ship channel, as proposed, from one sea to another. The work, however, now approaches completion, another year will see the canal in operation; eminent English engineers confess that the difficulties foreseen by Mr. Stephenson have been successfully met, or are in a way to be met; and the London Times now ridicules the idea that Great Britain could have any objection to French construction and management of such a roadway of commerce, the Viceroy of Egypt having taken due measures to secure it equally to the use of all nations. The total length of the canal is 99 miles. The depth of the channel is 26 feet, and the width of the bottom 72 feet. For 22 miles, distributed in different sections where the cut was deepest, the width at the surface of the water is 196 feet. Through 77 miles it is 327 feet. Fifty-three million cubic yards of excavation are already completed, and important incidental works of great cost, such as a canal to bring fresh water from the Nile. There remain 25,000,000 cubic yards of excavation, a large amount of work, but not greater than can be put through in a year at the rate of progress of the last few months. Above 8,000 workmen, nearly 400 camels, and 60 dredging machines, are at present employed. There are two points only at which there is danger that the drifting sands of the desert will ever fill up the canal. At these points dredging machines may have to be kept more or less at work. A singular feature of the route of the canal is what are called the Bitter Lakes, which cover an extent of 100,000 acres, and from which the daily evaporation amounts to 250,000,000 cubic feet at one period of the year. To supply this loss, which causes a fall of the surface of more than five-eighths of an inch daily, a considerable current must flow in from the Red Sea retarding navigation the one way and assisting it the other. A harbor 600 acres in extent has been formed by extensive breakwaters at the North end of the canal. To prevent the waves made by passing vessels from washing the banks, a lining of loose stone will be given. As to the probable profit of the work when done, much will depend upon whether packets are built specially for this line with steam facilities for the passage of the canal, and of the Red Sea, the calms of which do not permit dependence upon sails. Sailing vessels which would require steam tugs through the canal and down the Red Sea, could not afford, in the judgment of the engineer from whom we report we have drawn these facts, to go by that route to the East.

Extensive steel works are in progress of construction at Bridgeport, Conn., and the Williams Silk Factory is to be converted into a manufactory of hats.

There are thirty-two manufactories on the line of the Housatonic River at North and South Adams, having capital of from \$7,000,000 to \$10,000,000, and employing from 3,000 to 4,000 operatives.

GERMAN BARLEY.—The Toronto Leader perceives that one Mr. Hainforth of Cleveland is stated to have received within the last four days, a consignment of 4,000 bushels of barley direct from Germany. It is said to be of very superior quality, and the first ever received there from that country.

During the month of February 4,453 immigrants arrived in New York, of whom one-fourth went to the Western States, rather more than one-half to the central States, and the rest were scattered among the Eastern and Southern States, Canada, and other foreign countries.

Reports from plantations in middle and south-western Georgia represent that extraordinary activity is prevailing. Every hand is employed and paid liberal wages. Every acre will be planted which can be properly tended. A Macon paper says: "We think ten thousand more hands could now obtain employment in the black belt of Georgia, but they are nowhere to be found, and we must go forward with what we have. About as much cotton will be planted this year as last, but four times the amount of grain will be used; so that if the season is favorable, a much larger crop will be raised. We are afraid the area sown in small grain will be less."

A report has recently been laid before the Legislature of Massachusetts setting forth the depression of the American shipping trade, and asking certain measures of relief. To enable that trade to compete with the British, it is suggested that subsidies should be granted to ocean steamers, all duties and taxes on material of building remitted, and that sailing vessels be supplied with ship stores, free in bond, for use when afloat. It is the old standard vicious system of favoured interests. Not satisfied with being themselves burdened, and desirous to shift so much more on the shoulders of others. Why shipbuilders should be free of taxes, and railroad men or newspaper men have to pay their share, does not appear.

IRON IN CANADA.—There seems likely to be a considerable demand for railway and other iron this year in Canada—at any rate, an increased demand as compared with former years. The Intercolonial Railway, which, with the help of two or three existing lines, will be utilised, will place the eastern terminus of the Grand Trunk Railway of Canada at Rivière du Loup in communication with Halifax. Nova Scotia has been commenced this month, and its construction, which will extend over three years and involve an outlay of £4,000,000, must lead to the absorption of a considerable quantity of material. The most important work on this line appears to be a viaduct which will carry the rails over the river Restigouche. This structure will be 1,600 feet in length and about 70 feet high. The improving credit of the Grand Trunk Railway of Canada will also probably render that concern a better customer of rails, more especially as large portions of the line are said to require renewal.—*Iron Trade Circular*.

WAREHOUSE RECEIPTS.—The Kingston News of the 23rd instant says that a case bearing on warehouse receipts was lately tried at the Napanee assizes, in which the facts, as it is informed, were as follows:—

"Mr. Diamond advanced \$500 to Mr. McPaul, to be expended in the purchase of barley. McPaul bought the barley, obtained from Gray & Co., of Picton a receipt for it, and endorsed that receipt to Diamond. Gray & Co afterwards informed Diamond that they would deliver the grain to him. They afterwards refused to do so, and it seems they were allowed to put in evidence McPaul's letters to one Wilson, stating that he had purchased the barley for the latter. Upon this testimony it was contended that Diamond had not proved his right to the grain. The *News* then goes on to remark:—"If the statement of the case furnished us be correct we need hardly warn grain buyers to have nothing whatever to do with warehouse receipts. They are sufficient for the purposes of an enormous trade in other countries, but they are of no validity in Canada, in the face of such an interpretation of the law." It may be; but the *News* has unfortunately omitted to state the result of the suit; or, does it mean to say that the above view of the case was sustained by the Court?

CROWN LANDS.—The remarks made by us a few days in reference to the slowness of action on the part of the Commissioner of Crown Lands in putting lands into the market, have been seconded by the *Pembroke Observer*, which complains "that the Ontario Government apparently ignores that portion of the country, the Ottawa District, as a field for immigration, since they have not only withheld the free grant system but have withdrawn the public lands from sale. Our contemporary states that the County of Kentworth presents a fine field for immigration; and mentions that there are some 300 German families in that county, who are prospering, and if the free grant inducements were offered, they would communicate the welcome intelligence to friends and relatives in the fatherland, and the result would be a large increase of the number of settlers. The Germans are an industrious, thrifty race and the matter is certainly deserving of attention, those who have to do with immigration. We are glad to see our contemporaries calling attention to this subject, and urging upon the Government the necessity of putting the public lands into the market, and it is well that this recommendation comes from the supporters of the Government.—*Pembroke Intelligence*."