

GRATIFYING PROGRESS.

THOSE wise individuals who predicted that it would be impossible to carry on trade between the Maritime Provinces of our Dominion, and Ontario, and Quebec, must have their ideas somewhat rudely shaken by the statistics of the past two financial years. We refer at present more particularly to the trade in breadstuffs. Very seldom in the history of commercial affairs, has been witnessed a more rapid revolution than has taken place in Nova Scotia and New Brunswick, as regards their supplies of the "staff of life." Formerly, they obtained almost all the flour which they consumed from the United States, Boston, New York and Portland sending to them the largest shipments. Since the Reciprocity treaty has been abolished, however, and we have become joined under one Government, the great bulk of their flour has been obtained from Canada, the largest port on being sent via the Grand Trunk Railway and Portland, but no inconsiderable quantity direct from Montreal and Quebec. The quantity of flour sent by Grand Trunk in '66 and '67 was as follows:—

Where to—	1866. Barrels.	1867. Barrels.
St. John, N.B.	110,874	119,291
St. Stephen, N.B.	3,725	400
Halifax, N.S.	96,360	106,864
Amherst, N.S.	600	2,800*
Annapolis, N.S.	300	...
	161,859	228,345

Besides the above quantity of flour, there were shipped from Montreal via St. Lawrence, in 1867, (in round numbers,) 131,000 bbls, as against 122,000 in the previous year; from Quebec, 62,000 bbls as against 44,000, showing an increase of exportation by our noble river of 27,000 bbls. Some of the Ontario flour also finds its way to our eastern fellow-subjects via the Suspension Bridge and Boston. In 1866 the quantity thus sent amounted to 4,600 bbls, but last year it increased to 21,380 bbls. Summing up the total, we sold during our last financial year 443,979 bbls of flour to Nova Scotia and New Brunswick, as against 324,081 during the previous year—an augmentation of 119,898 bbls.

When it is remembered that as late as 1864, our exports of flour to these Provinces only amounted to a few thousands of barrels, and that the United States supplied nearly all they consumed, the extraordinary change which has taken place in this branch of trade can be easily understood. And it is gratifying to know that there has been some increase in our exchange of other agricultural products. The returns of this city show that in oat and corn meal, in wheat and in peas, the sales were considerably greater during last year than the previous one.

Another important fact bearing on our Inter-provincial trade was mentioned in Parliament during the budget discussion. It was shown by statistics that, taking the entire exports from Ontario and Quebec to the Eastern Provinces, there has been a great advance during the preceding financial year; the figures showing a total value of articles exported in the year ending 30th June, 1867, of \$3,418,589 as against \$1,571,116 in 1865-66. This is an increase of very nearly 120 per cent. These facts speak for themselves, and require no comment. They indicate that these British Provinces can trade successfully with each other, and we have no doubt that in a very few years, many will be astonished at the extent of the commerce which will spring up between us.

* Sent to Windsor, N.S.

THE WOOL SEASON.

THE wool season is just commencing, and some anxiety, and not a little uncertainty is felt, as regards the range which prices are likely to take. Our advices from the Province of Ontario inform us that the greater portion of the sheep have now been clipped, although some sections are not so forward as others in this respect. As a general rule, the sheep begin to manifest signs of casting their fleeces about the 1st of June, although the time varies a week or two according to the character of the season. There is every reason to believe that our clip this season will be fully up to those of previous years—that is, the yield will show an increase in 1868, equal to the increase of the past few years. The fears of those who supposed that the lower prices offered last season as compared with some previous years, would decrease the supply, will, we feel assured, not be realized; for

although better prices had previously been given than in 1867, still farmers did very well with their wool and could well afford to dispose of it at the prices then going. We consider wool even at 25c. per lb. one of the best paying crops which the Dominion raises, and last summer prices were about 30c on an average. The farmers did much better with their wool than those, generally, who purchased it. We care not whether our home manufacturers are taken, or speculators who purchased to sell again—not many made much by the operation, whilst not a few firms lost heavily. Some of the heaviest Canadian purchasers last season got bitten rather severely, especially a few who expected to make something handsome by re-selling in the Boston and New York markets. These circumstances will undoubtedly effect the price of wool in Canada this season. We learn that in Ontario the wool season is opening with a languor which has not been experienced for several years past. Commissions are difficult to obtain, and manufacturers are very cautious in their movements. Very little wool had been offered up to Saturday last at any of the principal markets, holders evidently waiting in expectation of more competition and higher quotations. What few purchases had been made were obtained at from 23c to 25c per lb.—which prices farmers submitted to with considerable grumbling. By the end of the week, deliveries will be considerable and prices somewhat settled; by next week the season will be at its height for it is hardly to be expected that much wool will be held back by the farmers any great length of time after the market has become steady and regular. We are decidedly of opinion that the prices of wool will range low during the whole season. We do not see any circumstances likely to cause much of an upward tendency, and although we would not say such a thing is impossible, still we do not think it probable. The American tariff seems to affect this considerably. Wheat and lumber are not affected much by the Congressional duties, but the case seems different with our wool, the greater portion of which generally finds a market across the lines. However, as we have already remarked, we consider wool a good crop to raise even at 25c per lb., and if the price is not so great as our farmers have obtained for several years past, it is gratifying to know that they were seldom ever more prosperous than they are at present or better able to get along with a moderate return for this article. As the wool season advances, we may have something further to say upon this subject.

FISH MANURE.

SINCE the first article on this subject was written, we have learned that on the shores and among the islands of the Bay of Fundy, the manufacture of fish manure has been for some time carried on to a considerable extent. Whatever is done, however, is performed in a desultory kind of a way, and without any regard to producing an article fit to transport to any distance from the place of production. The fish is boiled and the oil expressed, and there the matter ends; the residue, the manure, technically called "pumice," is not subjected to any drying process, but is allowed to heat and ferment; in the course of which process a great portion of the ammonia is given off, and its most valuable properties lost. The only exception to this is in the case of an American who, some time since, purchased an entire island in the vicinity of Eastport, and engaged systematically in the manufacture of "fish guano," which he now exports in large quantities, and, as we are given to understand, with a very handsome profit. Yet for even the rude product which is the general rule, the demand is far greater than the supply, as is evidenced by the fact that within the last three years the price has gone up from \$3 to \$7 per ton, and there can be no doubt that a properly prepared article would command three or four times that price.

We now proceed to give an outline of a more complete and elaborate process than any we have yet attempted to describe, leaving to those more immediately interested the task of deciding on its value and applicability to our own circumstances. It seems that about 1851 M. Molon, of Concarneau, in France, bethought himself of manuring his land with the offal left after the preparation of sardines. He lived in the department of Finistère, near the sea, and consequently had facilities for the purpose. The offal itself could obviously only be employed near the spot, and within a short time; but M. Molon set to work to consider how he might make a manure both portable and lasting. He

at length resolved on the adoption of the plan of boiling the fish, of whatever kind they might be, to draw off the oil, dry the remainder, and then reduce it to a powder. This powder he found to contain 12 per cent. of nitrogen, and 14 per cent. of phosphate of lime. Applying this at the rate of about 300 pounds to the acre, as a top dressing to wheat, half in the fall and half in the spring, he found the result highly advantageous. M. Molon, therefore, resolved to carry out the project on a large scale. It is known that the cod fishery of Newfoundland yields 1,400,000 tons of fish per annum, of which more than 700,000 tons of bones, heads and offal, are thrown into the sea. A vessel was fitted out, and a quantity of this offal collected and made into manure, which was found similar in kind to the other. This was considered conclusive, and the next year a member of the firm went out again, taking with him all the necessary materials and implements for carrying on the manufacture on a large scale. The factory was established at Kerpon, near the Straits of Belle Isle, and from thence fish manure has been sent to France. In the mean time, the same parties established a similar factory at Concarneau, where about 300 or 400 persons are engaged in the sardine fishery. The factory was established close to the sea, where the fish could be at once discharged. The resources of the place are equal to the manufacture of five tons of manure daily, from about twenty tons of fish or fish offal. All the offal of the curing houses at Concarneau and the neighbourhood, as well as the coarse fish which happen to find their way into the nets, are made available for benefiting the land, instead of being allowed to pollute the sea. The working apparatus comprises a steam engine of ten horsepower, two boiling pans, surmounted with steam-jackets, twenty-four screw presses, a rasping machine, a large oven and an iron mill for reducing the manure to powder. The processes are conducted in the following way:—The fish, or offal, is placed in the boiling pans, each of which contains from half a ton to a ton, steam is admitted inside the jacket which surrounds the pan, and an hour's boiling suffices. The boiled fish is then removed, and placed in iron cylinders about a foot in diameter, blocks are placed on the top, and the whole mass is subjected to the action of a screw press. All the cylinders are pressed gradually and in turn by one man who manages the whole; the water and oil are pressed out of the fishy mass, and exudes through small holes in the sides of the cylinders, whence it falls into a trough placed beneath. The presses being loosened, the fish, now, of course, comparatively dry, is turned out in the form of a complete cake. The rasping machine reduces this cake to a sort of pulp, which is placed upon flat trays and passed to the oven which constitutes the drying apparatus. The oven is sixty feet in length, and is capable of containing 500 of these trays, which are ranged five tiers in height and five in breadth. The trays run upon a tram-way, and as fast as one is introduced (that is after the oven is once filled) another is taken away at the opposite end. A current of air heated to 150 degrees Fahrenheit plays through the oven, and the operation of introducing and removing the trays is carried on uninterruptedly. The fish thus dried is thrown into a heap, then shovelled into the hopper of a mill, where it is ground to powder, and finally stored in bags. As the consumption of fuel is an important item, we may state that about 112 lbs. of coal is consumed in preparing a ton of the fish-manure. The manure itself sells readily at a rate which, if reduced to our weights and currency, would amount to \$36 per ton of 2,000 pounds, and the oil is probably worth from 40c to 50c per gallon in addition. In concluding this subject, we may remark that after conversing with a number of intelligent men, all practically acquainted with the fisheries, we can come to no other conclusion than that there is here lying a source of wealth which only asks for the aid of intelligent enterprise to become very profitable. No where do we find any doubt expressed as to the abundance and permanency of the supply, and in the words of our former authority, Mr. Sullivan,—"When we recollect what a large amount of offal has hitherto been wasted on our coasts, the vast quantity of coarse fish which have been rejected and thrown again into the sea; but, above all, when we consider the vast extent of ocean teeming with animal life, which has contributed so little toward the sustenance of mankind, we cannot help thinking that at Concarneau has been laid the foundation of a great branch of industry." These words are as true now as on the day when they were written, and with Mr. Sullivan we ask, "Who will be the pioneer?"