BEETROOT SUGAR.

THE manufacture of sugar from beetroot has taken its place as one of the leading industries of Continental Europe. For many years, though it was a well ascertained fact that certain varieties of the beet family, notably the white Silesian beet, contained a large proportion of saccharine matter, from the want of knowledge and experience, it was found impossible to produce a marketable sugar at a cost that would permit of competition with American cane sugar. Many trials, more or less unfortunate in their results were made, until, by degrees, by the invention of proper machinery and the knowledge gradually acquired from the various experiments entered into, the initial difficulties were overcome, and now many of the countries of Europe are large manufacturers.

The following are the statistical returns of the quantities produced in the countries mentioned for the year 1865:—

Holland	lbs.	10,000,000
Sweden	"	30,000,000
Belgium	"	35,000,000
Prussia	"	100,000,000
Austria	"	190,000,000
Germany	"	370,000,000
France	"	640,000,000

France, it will be seen, takes the lead. She not only supplies her own markets, but exports largely to England, where the beetroot comes directly into competition with the American and Colonial cane sugar. The imports into Great Britain last year were about 100,000,000 pounds, and they have been much larger during the present year. The erection of new factories is constantly going on, in many places the peasants themselves clubbing together furnishing the funds necessary, the labour and the raw material which they raise on their farms, on a principle, more extensively applied, but similar to that on which so many cheese factories have been started here in Canada. When these sugar factories have been established by capitalists, a handsome return has always been received for the money invested, and in years when the crop of beets is abundant, the profits have mounted to fifty and even sixty per cent. on the paid-up capital. The beetroot sugar, when it leaves the factory, is a refined sugar, white as any loaf, though not quite so heavy as the ordinary sugar. No other sugar is now in use in the interior of Germany and Austria, and we suppose before years have elapsed, not a pound of cane sugar will be consumed on the Continent.

It seems to us that the time has fully come when a beginning at least should be made in the introduction of this important industry into Canada, an industry which will not only be of great advantage directly in supplying an article of food, which, in the ideas of our people, has become one of prime necessity at a cost below what they now pay, but also in stimulating the raising of a crop to which both the soil and climate of many portions of the British Provinces are admirably adapted. The productiveness of the beet crop is well known, and of the sugar beet is even greater than of the ordinary red beet, as it grows to a very large size. The cost of tillage and harvesting is much less than attends the culture of any of the cereals, and the price which the sugar manufacturer could afford to pay would amply remunerate the farmer for raising them.

The imports of sugar into Canada for the year ending June 30, 1866, amounted to nearly thirty-eight millions of pounds, but a small proportion of which was exported. And as the population increases in number and wealth, so will the consumption of sugar increase, making its cost a matter of very serious moment. Under Confederation, the home market will be very greatly enlarged, and will, for many years, afford purchasers for all the beet sugar that can possibly be made here.

We propose now to demonstrate the feasibility of carrying on the manufacture of beet sugar profitably in this country from information we have received directly from an extensive German manufacturer, whose figures may be considered perfectly reliable. And if we can induce a few of our capitalists to investigate the subject for their own satisfaction, and to erect even a single factory, we believe we shall have done them no less than the country at large, a very great service.

In answer to questions propounded, the German manufacturer states that the building is usually from five to eight hundred feet square, made of stone, brick, or wood, as may be most convenient. The machinery, including five steam engines of various sizes, would cost from $20,000 to $30,000, some of which would have to be imported from France or Germany. Water power could be used to furnish motive power, but as steam is requisite for some of the processes, it would probably be more economical to use it altogether. The estimated cost of fuel in Germany is given by one informant as about 5¼ c per 100lbs of beets but as coal imported from England is the fuel used, the cost here would probably be much less. The capacity of the factories varies of course, but in one of average size, the quantity consumed per day of twenty-four hours is 1,500,000 lbs. The raw sugar yielded is on the average 9 lbs. per 100 lbs. of beets. The cost of raising and harvesting is set down at $50 per acre, and the yield in average seasons at about 18 tons to the acre. If $4 per ton were paid to the farmer it would leave him the handsome profit of $22 per acre. The crushing of the beets is carried on from October till February or March, at which time they begin to lose a portion of their saccharine matter; the operation of refining can be pursued during the summer months. For a factory of the capacity above named, it would be necessary to employ about twenty skilled, and one hundred unskilled laborers, the latter we presume, needed only during the winter months.

Let us now make a calculation of the cost of carrying on the factory, which is to be capable of converting into sugar 1500 cwt of raw beets *per diem* for 150 days, and for which a capital of $150,000 would be abundantly sufficient.

225,000 cwt. of beets at 20 c	$45,000
Fuel—an over estimate	13,000
Wages, 20 skilled men per annum, $400	8,000
" 100 unskilled men for 150 days at $1.	15,000
Manager's salary	2,000
Office and incidental expenses	7,000
To cover wear and tear of machinery and other unestimated expenses	10,000
	$100,000

225,000 cwt gives 9 per cent. of raw sugar	20250 cwt.
Losing in refining, say 25 per cent.	5062½ cwt.
15187½ at $8,	$121,500
Profit	$21,500

In this calculation we make no allowance for the value of the molasses and refuse left after the manufacture of the raw sugar, nor of the syrups yielded by the refining process. Our informant tells us that every 100 lbs. of beets yield on the average 2¼ lbs. of molasses, worth about 75 cents per 100 lbs. The refuse makes a very nutritive food for cattle, worth in Germany $8 per 100 lbs., but here may be set down at 50c. The syrup obtained may be estimated at 10 per cent. in weight of the raw sugar, the loss allowed in refining being 25 per cent., 253,125 lbs. at $1 25 per 100 lbs.

The calculation will then stand thus:—

Profit as above	$21 5 0
Add 6,200 cwt molasses, at 75c	4,650
10,000 cwt refuse, at 50c	5,000
2 530 cwt syrup, at $1 25	3,162

We do not think we have at all under estimated the expenses, nor have we over estimated the value of the product, as we have set it down at $8 per cwt., whereas refinery prices are $10 for a lower grade of sugar.

Were there no cane sugar to be imported into Canada, over a score of these factories could be supported, giving employment directly to 3000 laborers for at least half the year and to a large number indirectly in the cultivation of the 20,000 acres required to furnish the raw material. This for Canada alone, and as it is now. To what extent this industry might be developed in the future, it would be difficult to place a limit, but that is a consideration which need not occupy attention at present, as we are not sanguine enough to imagine that timid capitalists will be induced to invest their money to any great amount until the experience of a few of the more enterprising ones shall have furnished demonstration in fact of what we have endeavored to do by figures, that money so invested will yield large returns and at less risk than almost any other investment that could be named.

Sugar Refinery in Nova Scotia.

It appears that a mammoth sugar refinery is about to be established at Woodside, Dartmouth, N S, which the Lower Province papers say will be one of the most extensive establishments of the kind in the world. The erection of the building will be commenced between this and spring, and when it is completed the product of the factory will, it is said, be able "to compete with those of other countries in the emporiums of the world."

BANKING IN CANADA AND OTHER BRITISH COLONIES.

WE are assured on very high authority that for persons to measure themselves by themselves, and compare themselves with themselves, is not wise. Universal experience confirms this, and points out the desirableness of observing and noting what other persons do, if improvement is desired, and stagnation is to be avoided. That Canada has many points of excellence, none who know it would for a moment dream of disputing, and not the least of her good points is that she possesses a banking system, or rather a number of banking institutions, of remarkable excellence and stability. The returns of these banks, however, are not in some respects what might be expected, considering the age and importance of the colony, and on comparing them with the statements of institutions in other British dependencies, we must confess that in many important particulars they fall very considerably behind.

These statements, let us observe, are not merely interesting from a technical point of view. It is not bankers only who are interested in observing banking returns; since these returns and statements afford remarkably correct indications of the condition of mercantile and financial business in the localities in which their operations are carried on.

We have before us the reports of banking companies in two or three British Colonies, and shall refer to them here for the purpose of comparing them with our own. The three first are in Australia, two of them in new South Wales, and one in Victoria.

The Commercial Banking Company of Sydney has a Capital (if expressed in our currency) of $2,000,000, and a Reserve of $500,000, the last being considerably larger than that of any of our banks in proportion to its capital. It declares this year the respectable dividend of 15 per cent, and gives a bonus of one per cent. in addition. An examination of its statement reveals the secret of this prosperous state of affairs in the fact that the deposits amount to more than four times the capital, and the discounts to five times the amount. We need not point out what a striking contrast this presents to our own banks, some of which have a deposit line of even double the capital, and the majority of whose discounts are less even than that. We may gather from this that there is a large accumulation of realized wealth in the community of New South Wales, and an active condition of business in Sydney, its capital.

The City Bank, Sydney is a smaller institution, and has only been in business some two and a half years. It has a capital of $1,000,000, deposits $1,500,000, and discounts $2,000,000. The result of its half-year's work was that after declaring an 8 per cent dividend, an addition of 5 per cent was made to the Rest, and it seems in a fair way of attaining a position of prosperity.

Passing to the rich and prosperous Colony of Victoria, the great seat of the gold mining operations of Australia, we find the principal bank there—or at all events the principal local bank—in a well established position after an existence of thirteen years. It seems to have spread its operations over every nook and corner of the land, for it reports no less than 28 branches and 15 sub branches, a development of banking which must be looked upon as wonderful, considering the size and population of the Colony. Its capital is $2,500,000, its Rest $500,000, its deposits $8,000,000, its circulation $3,500,000, and its discounts $11,000,000. It declares a dividend of 10 per cent. per annum, which seems to be considered lower than what might have been expected, and a mark of a very cautious policy. The Directors in their report refer to the state of the money market as a justification for fixing the dividend at so low a rate; this state of matters being of course the reflex influence of the severe crisis in England last summer. The moment the news reached Australia the banks shut down, a tight money market was the order of the day, and in answer to the earnest appeals of their customers for discount, managers could only fall back on the well accustomed formula—"wait for the next mail." It is noticeable that all the banks above referred to hold their meetings half-yearly, and the older ones seem to have spared no expense in erecting banking premises—this item in the Bank of Victoria standing once at no less a sum than $875,000, of which $240,000 was subsequently written off. Australia is well known to be a fine field for banking, principally in consequence of the large amount of imports and exports in proportion to the population, which, of course, gives rise to bank-