

EIGHTEEN HUNDRED AND SIXTY-SEVEN.

IN our last issue, we considered the old year from a commercial point of view—now we propose to add a few remarks on the new. Eighteen hundred and sixty-seven opens very favourably. One of the London papers has predicted that it will be a season of peace and quietness, and while it may not be without its spots of war, still the prospect is one of comparative tranquillity.

So far as British America is concerned—to which we shall refer in particular—the new year will be one of the very highest importance—no which promises to be ever memorable in our history. “As certainly as the sun shines above us,” to use the words of a leading Statesman, British America will be one and indivisible before the twelve months expire. The British Parliament has been called to meet on the 4th of February, and we may expect that the Act of Confederation will be passed before the first day of April. Soon thereafter the Governor or Viceroy will take the first steps towards setting the machinery of the new Government in motion. He will first have to choose advisers from the different Provinces—very probably on the same principle as obtains at present, some leading politician being entrusted with the power of forming a Government. This done, the local Governors will be appointed, who will, in turn, form their local Ministries, after which writs will issue for elections, both for the Federal and local Legislatures. These important events will render eighteen hundred and sixty-seven a very exciting year throughout British America, and it will hereafter be memorable, either for good or evil, according as our union with the sister Provinces proves satisfactory or not.

Commercially—our prospects during the new year, upon which we have entered, are satisfactory enough. With Confederation, increased trade with the Maritime Provinces must result, and as the Federal Government will occupy a higher position among nations than our present Legislative bodies do, we may conclude that their effort to expand our trade with foreign countries, will be more successful than such endeavours have been in the past. The continued high prices and taxation existing in the United States will continue to assist our trade, and render this country the most attractive to immigrants. The report of Mr. Commissioner Wells, of the United States, showing the toils of which they have been guilty in abolishing reciprocity, must render the adoption of a new treaty more likely, but we hardly think it will be renewed this year; if the Americans can do without it, how ever so can we. We have learned during the past ten months, that we are by no means dependent on the United States for our commercial prosperity. This has done Canada an immense amount of good, contributing to our independence and self-respect, and the prolongation of the lesson for another year, may do good both to ourselves and our neighbours.

Not much may be said as to what eighteen hundred and sixty-seven has in store for the world generally. With fast-sailing steamers, the iron horse, and electric telegraphs, the yet hidden events of the year will come rushing upon us daily. The star of peace, however, appears to be in the ascendant. Europe is comparatively tranquil. The Orient suffers from no serious troubles. South America is at war—Mexico in disorder. But this is the normal state of things with them, and the centres of commerce are but little affected thereby. In other respects, the new year promises to be one of great importance to many nations and peoples. Let us hope that its close will find them happier and better than its beginning.

UNITED STATES TARIFF.

THE Tariff of the United States is again about to receive Congressional attention, and various interests will bring their influences to bear to secure advantages real or supposed for themselves. Commissioner Wells has prepared a Tariff Bill, looking to make some important changes in the present Tariff. Of the proposed changes which may affect Canadian interests, the principal are the reduction of duty on tanning wools and wools classed with them from 10 per cent, and 1 per cent ad valorem as at present, to 6 per cent, and the placing of oat, round timber and timber for ship on the free list.

It is not at all likely that the wool growers will quietly submit to any reduction in duties which were enacted for their benefit, and the manufacturers in order to make sure of the support of those interested in furnishing the raw material may be obliged to re-

frain from insisting on the reduction, as it is likely that demands will be made for a further advance in the duties on Woollen goods. The present condition of the Woollen trade is exceedingly unsatisfactory, and manufacturers appear to think that the great remedy for the evils under which they are groaning is to be found in more protection to native production. The regulation of the Tariff seems to have become a battle ground for diverse interests, and to have ceased to be considered in its bearing upon the prosperity of the country at large. Starting with the assumption that to make the United States materially prosperous beyond all other countries, nothing was wanting but the increased development of all sorts of industries, whether immediately profitable or unprofitable, the tariff was gradually raised, till capital, enterprise, and labour were attracted from other pursuits, and numerous wealthy and influential corporations established in various localities. A policy that perhaps at first was really meant to benefit the whole country and increase its wealth, appears now to be followed in defence to the political influence, the power of the purse enables these wealthy capitalists and their followings, to wield in Congress, whither men are sent supplied with the shew of war to have the tariff set right, and it is not at all improbable that not only will the wool growers succeed in retaining the present duties on wool, but that the manufacturers will, in order to secure for them the home markets, receive further legislative aid by a still higher tariff on foreign goods.

FROM THE WEST.

ADVICES received by us from Western Canada state that up to the time of our correspondent's writing, the sleighing had been comparatively poor. In some localities very little snow has fallen, and this, too, whilst several parts of the Eastern States have had regular old-fashioned snow storms. The holidays have passed over very quietly throughout the West, and there is a general desire for good sleighing, which is expected to enliven business during the next six weeks. The wheat fields have been rather too long exposed to the frosts without having the usual covering of snow. In the fall, the growing crops were very luxuriant, promising an abundant return for the farmer's labours. We hear no fears expressed as to damage done to the wheat as yet, but it is to be hoped that winter's heavy mantle will soon envelope the fields thoroughly. In some of the back districts, sleighing is better, and the farmers are busy getting the remainder of their produce out to market.

BEETROOT SUGAR.

IN a late number of this Journal we laid before our readers information, showing the cost and profitable profit of manufacturing sugar from beetroot. We now propose to make them acquainted with the process of manufacturing, as it is carried on in Germany, leaving out technical details which would be unintelligible and useless to most people.

There are many varieties of the beet family, all of which are more or less sugary in their nature, but the variety universally used for sugar-making, and which, according to the information we have received, contains from 8 to 10 per cent of saccharine matter is that known as the Silesian Sugar Beet.

As soon as the crop arrives at maturity it is gathered with as little delay as possible, and taken to the factory. The roots are carefully cleaned and then ground by machinery until their cellular system is entirely destroyed. The pulp thus obtained is pressed, and the saccharine juice which results is then purified, either with sulphuric acid or lime. After undergoing this process of purification, the juice is filtered through bags until it is quite clear, and deposits no more sediment. When filtration is satisfactorily completed, the liquid is then boiled in large cauldrons for the purpose of evaporation, until it acquires a certain thickness. Under a former system, a portion of diluted sulphuric acid was then added, barely enough to show a weak alkaline reaction. A small quantity of the acid, however, was found to exercise a deleterious influence on the sugar, rendering it of a crumbling nature. The boiling juice is now poured through flannels, turning to a beautiful light colour, and is afterwards well evaporated in pans. The syrup obtained after evaporation is sufficiently complete, is dark, and its colour, as well as its tiny body, must be removed. This is accomplished by filtering it through animal charcoal, after which a quantity of lime water, in which white

of egg has been well beaten, sufficient to render the syrup somewhat alkaline, is added, and it is then poured into copper pans for the final process of evaporation. For this, vacuum pans are chiefly used instead of open pans, the juice boiling more rapidly, owing to the diminished pressure of air. When, by the application of certain tests, it is found that the syrup has attained a sufficient consistency, it is poured into forms which have been previously moistened. An operation, called the disturbance of crystallization, is repeated several times, by passing a wooden stick through the syrup from the sides to the centre of the forms which are then placed in a warm room for a few days. When the molasses has drained off, the product is raw sugar. This, though of pleasant flavour, is little used, and usually goes through the refining process before leaving the factory.

The saccharine nature of the beet was first discovered about the middle of the eighteenth century by the druggist, Margraf, in Berlin, Prussia, but it was not till the close of that century that its manufacture into sugar received much attention. Lampadius was the first to establish a factory, but Achard and Hermstadt obtained results more satisfactory than those of Lampadius. Trommsdorff and the National Institute of Berlin, as well as Parmentier, after some experience, came to the conclusion that, from the expenses attending the manufacture of this sugar, it could never advantageously come into competition with West Indian cane sugar.

The closing of the continental ports by the Emperor Napoleon during the early part of the present century, favoured the manufacturers, and a few factories were established in France and in Saxony. These were enabled to maintain themselves until the downfall of the Emperor, the German ones even for some years later.

This new industry languished for some years till in 1825, it took a fresh start in Belgium. New machinery was invented, and considerable progress was made. The French produce increased from 8,000,000 pounds in 1829 to 80,000,000 in 1835. This rapid progress raised fears, on the part of the French government, for their Colonial sugars, and a tax was imposed on beet sugar. In Germany, also, the progress at this time was rapid, and large factories were erected in various parts of Austria, Hungary, Saxony, Prussia, Bavaria, Hanover, Wurtemberg, Baden, Hesse, and Anhalt. Russia, too, turned its attention to sugar-making and with great success. While Austrian policy favoured the manufacture of sugar at home by increased duties on the foreign article, the German Zollverein began seriously to consider the increasing deficiency in the imports of Colonial sugar, and a tax was imposed on Beet sugar.

Notwithstanding this, the factories continued in unabated and successful operation, new ones were erected and at the present time Prussia has within its limits (as they were before the late war) upwards of 150 factories. These, as well as those in other parts of the continent, all pay handsome dividends, and in favourable years the returns on capital invested are far beyond the current rate of interest on money, rising as high as fifty or sixty per cent. to the shareholders.

In many places factories are established on the co-operative system, the peasant farmers themselves contributing funds for the erection of a factory, and the purchase of machinery, and then raising the beets on their farms to supply the raw material and giving their labour during the winter months when the factory is in operation. Of course they obtain the services of skilled men to superintend the manufacture, and of others to attend to the commercial and financial details of the undertaking. We see no reason why this system could not be adopted in Canada advantageously, just as we have seen the great profit arising from the establishment of these factories which are now in existence in every part of the country where dairy farming can be profitably carried on.

Objections have been made, based on the severity of our Canadian winters, but granting that they are much more severe than those of France, and even Northern Prussia, they are less meliorant than those of Sweden and Russia, where factories are in successful operation. The objection has also been stated that beets cannot be raised in Canada at a sufficiently low price, but as far as our information goes, the soil in many places is admirably adapted for the purpose and the yield to the acre beyond what we stated in our calculations. We are at present making further inquiries on this point, and obtaining detailed information from various farmers as to the cost of raising, and the average yield per acre, under average cir-