

beet-root sugar can be manufactured in many parts of Europe at a less price than must be given for cane sugar. In Mr. Sullivan's elaborate pamphlet he insists very strongly on the great advantages possessed by Ireland for growing beet; and he estimates the cost of obtaining pure sugar at from £16 17s. to £19 18s. per ton, according to the quantity of sugar in the root. We are afraid that this comparative estimate is too sanguine in favor of Ireland; but certainly enough has been done on the Continent, and there is so much probability of the expense of the manufacture being still further reduced, that the experiment now making in Ireland on a grand scale to manufacture sugar from beet-root, to compete with sugar manufactured from cane in our own colonies and paying equal duties, seems fully warranted. There is at least a probability of success.

Of all Bonaparte's mighty schemes and conquests, it is singular that none have had such abiding and important results as his temporary prohibitions of trade—intended to be only temporary, but to effect the ruin of England. From his Berlin and Milan decrees there has sprung a great manufacture, which is giving a permanent direction to the industry and improvement of Europe, and has done more than all our squadrons on the coast of Africa to suppress the slave trade, by reducing the price of sugar and rendering slave labor unprofitable by bringing it into competition with free labor. Of such consequences none of the men of 1810 had the most remote conception; and we every day see similar instances, more distinctly proving of nations than of individuals, that the Divinity "points our actions rough hew them as we will." Another important truth is made manifest by this great change, viz. that all the supposed advantages of soil and climate are of little importance in creating wealth, compared with industry, knowledge, and skill.

Following the examples, of which we have given a rough and brief sketch, a company has been formed for manufacturing beet-root into sugar in Ireland, and a factory, erected after the designs of Mr. Ashenurst, of Dublin, covers a large area at the entrance of the town of Mountmellick, in Queen's County, sixty miles from Dublin, and six miles from Portarlington railway station. In little more than three months the first building has been completed. It is the first step for introducing the manufacture into Ireland. It is erected with a refinery, replete with all the appliances necessary to produce sugar of the first quality by the most approved continental methods, combined with some improvements which will ultimately reduce the cost of manufacture much below that on the Continent. The cost of the building, inclusive of machinery, was £10,000. It has two steam-engines, together of 40 horse power, and employs 160 laborers. In addition, the company's operations afford occupation to a considerable number of laborers in cultivating beet—in-

creasing their resources, and finding a market for the produce of the land. From the superior quality of the root produced, Ireland appears admirably adapted to the growth of the beet. At present the supply is limited, and the price enhanced by the company's demands. They were not anticipated, and the farmers of the locality were not prepared for them. The company requires 300 tons of beet-root per week, which will soon exhaust all the produce of the neighbourhood. It is feared, therefore, that they will be limited in their operations by wanting the raw material, of which, however, an abundant supply is expected next spring. The average produce is said to be 26 tons per acre, at 16s. per ton, which is 10 tons per acre more than is produced on the Continent. The price, however, is 3s. higher than on the Continent; but the company has made contracts for next season at the continental prices. The results already attained promise ultimate success. The promoters have had the courage to brave popular prejudice, and prove to sceptics, that results effected in continental Europe could be attained in Ireland, where climate and soil are favorable to the object. The company have also erected an auxiliary establishment at Donnyhouse, Queen's County, for the purpose of cutting and drying the beet-root, by which its saccharine property is retained uninjured for an indefinite period, enabling, which is one of its advantages, the manufacture to be continuously carried on. The maximum strength in saccharine matter of the continental roots is 7 per cent. raw, or 6½ per cent. refined sugar. The trials of the root of Ireland of this year gave 7½ per cent. in raw sugar. Refined sugar was to be made in the first week of April, although not largely, in consequence of the excellent quality of the grain of the raw sugar.

The cost of manufacturing the sugar from the root on the Continent averages £9 per ton; at Mountmellick the cost has been £7 5s. per ton. This result has been attained by superior machinery and superior arrangements to those of the Continent; and it is reasonable to hope even for further economy in cost of production. The total cost of manufacturing raw sugar on the continent averages £17 15s. per ton at the present price of roots. At Mountmellick the total cost is £17 per ton. There is no reason, therefore, why the company may not succeed. It is incorporated by Royal charter, and has a capital of £120,000, with the privilege of extending it to £300,000. The company purpose to erect in the present year six factories more in Ireland, which will be indebted to the company for the successful introduction of a new and important manufacture, suited to her climate and her wants.

The difficulties to be overcome were not merely mechanical: the laborers required instruction in the details of the various processes. The results now attained, after a few weeks' instruction, are full of encouragement. The