

BEET SUGAR.

ITS ECONOMICAL PRODUCTION IN THE PROVINCE OF QUEBEC.

A Paper by F. A. BARNARD, Esq., Director of Agriculture, Department of Agriculture, Quebec.

PART I.—BEET SUGAR.

Beet sugar may be called one of the productions of this country; and it is not one of the least fruitful inventions of this wonderfully inventive age. In 1747, Margraff, a distinguished German chemist, made known to the world, for the first time, that several root plants contained sugar amongst which is the beet. However, it was only in 1796 that the first efforts to manufacture beet sugar were made by Ch. François Achard, disciple of Margraff. These efforts proved successful, and several manufacturing factories were started in Germany, at the beginning of this century. A book was published on this subject by Achard, in 1812, giving such lucid information on the whole question that it took nearly half a century before more light could be brought on it. Achard's writings on the economic production of beet sugar in Europe must have been very effective indeed since several continental governments at once took up the subject. Napoleon the First, who, by his peculiar genius, foresaw clearly the political use to be derived from this source, gave the greatest impetus to the new production, which received an additional assistance from the fact of the continental blockade, against England, of most continental ports in Europe. Even Russia paid as much as 50,000 roubles to assist in the establishment of the first beet sugar factory in that country. France lavished its millions of francs for the same purpose, and the different States of Germany offered and gave all the assistance they could to similar establishments in their respective provinces. Even England seems to have taken fright at the continental efforts to ruin its colonial trade in sugar for it is stated on good authority that Achard was offered \$30,000 at first if he would only state, in print, that he had been mistaken in his assertion that beet sugar could be economically produced. And as early as 1811 this offered bribe was increased to \$100,000, but it was again scornfully rejected by the proud but honest German, in the interest of humanity. It would seem that England's spite could not be hidden, and that somewhat later, Sir Humphrey Davy was induced to state in his "Treatise on A