

In 1881 a Royal Commission also specially investigated the subject, and reported fully, with voluminous evidence taken in all parts of the colony (App. H.R., H.—22, 1880).

It is somewhat difficult to ascertain, without extended inquiry, to what extent industrial employments have been developed since the above date; but several, at least, are now fairly established that were only alluded to prospectively in the report of the Royal Commission.

I attach a copy of reports which I made on the Industrial Exhibition at Dunedin in 1881, and that held at Christchurch in 1884, both of which afforded me an opportunity of observing evidence of the development I allude to; but, in order to place before you the present state of the various industries, so far as I am acquainted with them, I will take them in the order of the report of the Royal Commission of 1880.

1. *Linseed*.—Assisted by bonus, the lint plant and the production of oil and oil-cake has been well established. The climate has proved to be highly favourable, especially in the southern districts. No combination for the erection of district factories for the retting and preparation of the fibre has yet been effected, although the subject has been considered by parliamentary Committees. The technical knowledge required to form such combined factories, which on the Continent of Europe are, I believe, quite superseding the old system of the grower “retting” the flax, is an element in the development that will require to be imported. M. de Harven has some scheme of this kind with respect to the introduction of Belgian immigrants to this country.

2. *Sugar*.—The establishment in Auckland of extensive sugar-refining works makes it of pressing importance that, if possible, a sugar-producing crop should form part of the farmer's operations. Two sources have been suggested and experimented on—viz., sugar-beet and sorghum. The former is grown most successfully in the eastern aspect of the islands, as, for instance, Canterbury and Napier, and special legislation has been effected last session for its encouragement. Sorghum, grown in the northern part of the colony, treated by the recent improvement in the process of extraction recommended by the United States Agricultural Commissioners, has yielded to experiment a higher percentage of sugar than has been obtained in America. I attach an interesting paper, by Mr. Justice Gillies, giving the result of the latest of the experiments I refer to. (“Transactions N. Z. Institute,” XVI., 512.) What is required on this subject is an opinion obtained from the best authorities as to the present prospect (after the American experience) of the profitable production of sugar in temperate climates.

3. *Fruit Preserving*.—This industry was becoming rapidly established, but the fruit trees in most parts of the colony have suffered to an alarming extent from insect blights during the past few years. Any recent literature bearing on the subject would be very useful; also information as to the latest improvements in machinery for preserving and canning, and for the manufacture of glass, earthenware, and tin cans.

4. *Tanning Extract*.—Wattle trees for tan-bark are being grown to a small extent, but the subject does not receive the attention it deserves. Lately certain experiments relating to the preparation of extracts of the astringent principle of some of the native trees, made many years ago in Taranaki, are attracting renewed attention. It is found that not only the bark, but also the wood of smaller branches of many of the native trees and shrubs, that are at present destroyed in a most wasteful manner, will yield extracts of great value for tanning and dyeing. There is now a large export of bark of the toatoa to Germany for tanning and dyeing, by one process, the beautiful fawn-coloured leather now in fashion for ladies' gloves. Along the railway lines, especially in parts of the North Island, there is a deal of timber that yields extractive matter rotting on the ground or growing within easy reach. If portable machinery could be applied so as to save carriage of the bulky raw material, I have no doubt that very valuable extracts for the use of tanners and dyers could be profitably manufactured. I am under the impression that something of the kind is done in some parts of Europe and America, and information on the subject would be useful.

5. *Silk*.—The bonuses offered to encourage the silk industry have never been taken up. It appears to me that the mistake on the part of those who have tried is, that the mulberry trees are planted in the positions and under such circumstances as if the production of a fruit, and not abundance of succulent leaves, were aimed at. All varieties of the mulberry grow well, and also the ailanthus; and splendid samples of the “grain” and of the silk have been produced and exhibited. An expert, Mr. Federli, employed by Government, is very sanguine of the success of silk-worm culture in New Zealand, if only persons who have been born and bred to the business could be introduced as immigrants in sufficient numbers. The valuable feature in the culture of “grain” or ova in New Zealand would be, that, without having to be kept dormant for six months, during which period they are most liable to become diseased, the alternation of the season would permit of the eggs being sent to Europe by direct steamer just in time for the mulberry tree coming into leaf.

6. *Olives*.—Sufficient has been done to prove that the olive will succeed well in New Zealand. Being a plant of slow growth, its cultivation on a large scale cannot be encouraged too soon. For a long time to come the high rate of labour may prevent much attention to the production of oil, even after the olive trees bear well; but as the manufacture of the finest kinds of woollen goods develops, the demand for oil will spring up, as olive-oil, even of coarse quality, is necessary for woollen stuffs. A systematic importation of olive truncheons of the best varieties should be arranged for. We grow a good many here from eyes and buds; but they make feeble and uncertain trees, and after fifteen or eighteen years it is too late to discover that the wrong kinds have been propagated. (See I.—10, 1881, p. 7.)

7. *Tobacco*.—The growth and manufacture of tobacco is fairly established, and has succeeded well commercially. The Maoris grow quantities of coarse tobacco for their own use, and there is no doubt that the climate even in the interior of Otago suits the growth of the plant and the production of its valuable alkaloids. Sir Joseph Hooker, some years ago, sent out a variety of tobacco seed that succeeded better than any other kind in producing leaves; but the seed it produced was