out, or sown in a seed-bed and pricked out. Three or four days after the petals have fallen, the capsule is scored with a small knife, and the juice that exudes is scraped off and formed into balls. That is the whole process of preparing the product for market.

Comium (Hemlock)—Digitalis (Foxglove).

These are used in considerable quantity; both plants are naturalized in several parts of New Zealand—about Wellington, for instance.

Carraway.

This is used both as a drug and a confection. It might as well be grown here as imported, as there is not the slightest difficulty about its growth; the same culture that suits common parsley will suit the carraway.

Santonine.

This is a valuable worm medicine, the best for children that is known. It comes from the deserts of Tartary; but it will grow very easily in New Zealand. The common southernwood of the gardens is the typical plant, *Artemisia maritima*. The flower-buds are what are used for medicine. They are exceedingly minute, about 120 weighing one grain. Twelve thousand hundredweights are taken into St. Petersburg annually. It is a medicine which soon loses a portion of its effect on keeping, and is therefore all the better for being fresh.

Henbane.

This is a medicine of great importance. An Auckland druggist offered to give 12s. per pound for as much of the dried herb as could be grown. This and the belladonna were introduced into Auckland some years ago, and did very well in the gardens. These are of very easy culture, the henbane especially might be grown by the acre much more easily than a crop of turnips. The leaves, stems, and seeds of the plant are used.

Camphor Laurel and Sassafras Laurel.

The camphor laurel grows well about Auckland, and might be cultivated for manufacture. The process of extracting the camphor as pursued by the Chinese is very rough, and might easily be improved upon. The wood is reduced to chips and boiled, and the camphor is given off in vapour.

Liquorice.

This is already in the colony, and could easily be cultivated for manufacture. It is in cultivation in Nelson. It is principally grown in South France, Spain, and Portugal. The import into England is over 4,500 tons annually. It belongs to the pea family. The cultivation is simple, the root being the portion used. Spanish liquorice is simply the inspissated sap of the root.

Saffron.

This can be grown with the greatest ease. It is a *Crocus*, and the cultivation of it is very simple. It may be grown in any ordinary garden-soil. The part used is the stigma of the flower. It is usually collected by children and women in the countries where it is grown. It is used in staining leather, and various other industrial processes. I believe the manufacture is quite simple.

Perfumes.

Flowers for perfumes could be grown with great advantage in many parts of the colony. The Oamaru District is admirably suited for those varieties which are not affected by frosts, such as lavender.

Garden-seeds.

These can be grown in large quantities for export.

The public service might be furthered by the publication of a short account of the economic plants adapted for cultivation in New Zealand, with notes on their culture and the localities best adapted for them. Baron Mueller published in Victoria a list of plants adapted for culture in that colony, which has been productive of great good. That list would not be adapted for New Zealand; neither does it go so far as it should.

Neglected Forest Products.

I have sent a memorandum to the Minister for Public Works on the use of firewood for fuel in locomotives through forest districts. I may say that, when engaged in examining the forests with a view to organizing the Forests Department, we had occasion to go into the question; and were informed that the locomotives could be altered so as to burn wood instead of coal at a very small cost. As a matter of fact, wood is used for locomotives in India, the United States, and some European countries, where higher rates of speed are attained than are required by us. It appears to me that the substitution of wood for coal on these lines would be attended by three primary advantages—first, a saving in the cost of working expenses; second, the utilization of waste material, affording additional outlets for labour; third, the diminution of the risk of the destruction of the forests by fire. It is obvious that the waste tops and branches left to get dry do more than the standing forest to feed the fire. A moment's thought will suffice to show the saving in cost of using wood instead of coal on such lines as the Manawatu and Taranaki lines. I think I am correct in saying that the saving would be about one-fifth. The great advantage, however, is the additional security to the forests. I consider this a very important matter.

No. 33.

On the Cultivation of Saffron (*Crocus sativus*), by Mr. Thomas Kirk, F.L.S.

Written at the request of the Chairman.

Saffron may be cultivated in any ordinary soils. The corms should be planted about four inches apart in the rows, and twelve inches between the rows. This will allow them to increase for several years without rendering it necessary to incur the cost and labour of replanting. They should be