

Observations should especially be made on the fruits and seeds of those plants which have become widely distributed throughout the tropical regions of the world, apparently without the intervention of man ; but further observations on other plants of different natural orders may be of great value with reference to questions of geographical distribution.

The following instructions have been drawn up for the botanical collectors as to objects of special attention at particular places :—

*Porto Rico.*—In collecting, distinguish the plants of the Savannas from those of the mountains, which, if possible, should be ascended. The palms and tree-ferns are quite unknown; marine algæ also are wanted.

*Cape Verde Islands.*—Make for the highest peaks, where the vegetation is peculiar and analogous to that of Madeira and the Canaries.

*Fernando Noronha.*—Land if possible. Very remarkable plants are said to occur, different from those of Brazil.

*Trinidad.*—A complete collection is required. A tree-fern exists, but the species is unknown.

*Prince Edward's Island and Crozets.*—Two spots more interesting for the exploration of their vegetation do not exist upon the face of the globe. Every effort should be made to make a complete collection.

*Kerguelen Island.*—A thorough exploration should be made, and the cryptogamic plants and algæ diligently collected. The Antarctic Expedition was only there in midwinter; flowering specimens of *Pringlea* are wanted.

*Auckland and Campbell Islands.*—The floras should be well explored.

*South Pacific and Indian Oceans.*—Attend to general instructions, more especially as regards palms and large monocotyledons generally. Marine algæ are said to be scarce, and should be looked for all the more diligently. In the North Pacific, south temperate algæ are said to prevail.

*Aleutian Islands.*—Collections are particularly wanted.

Every effort should be made to land on islands *between Lat. 30° N. and 30° S.* along the marked track (between Vancouver Island and Valparaiso), so as to connect the vegetation of the American continent with the traces of it that exist in the Sandwich Islands.

*Straits of Magellan.*—Cryptogams are abundant, but very partially explored.

The following additional notes have been drawn up for the more especial guidance of the botanists of the circumnavigation :—

*Phanerogams.*—1. Fleshy parasitic plants (*Balanophora*, *Rafflesia*, &c.) are little suitable for dissection and examination unless preserved in spirit; and the same remark applies to fleshy flowers and inflorescences generally. Dried specimens, however, are not without their value, and should always be obtained as well.

2. The stems of scandent and climbing plants are often very anomalous in their structure. Short portions of such stems should be collected when the cross section is in any way remarkable, with the foliage, flowers, and fruit when possible. A few leaves and flowers should also be tied up between two pieces of card, and attached at once to the specimens of the stem, so as to ensure future identification.

3. Attention should be given to the esculent and medicinal substances used in various places. Specimens should be obtained, and whenever possible they should be accompanied by complete specimens of the plants from which such substances are obtained.

4. The common weeds and ruderal plants growing about ports or landing-places should not be overlooked, and, as far as practicable, trustworthy information should be recorded as to the date and circumstances of the introduction of foreign species.