

in practice, the thing is not so easy: the amount of separation of the apparent paths of the planet over our screen—the sun—can only be laboriously determined from their length, because simultaneous observations are out of the question; and as the difference in the lengths of the paths—that is, the time the planet takes to travel over the sun—is thus the point of inquiry, it is necessary to make this difference as great as possible to give accuracy to the result. From this requirement comes the necessity of choosing the stations at which the transit is to be observed, most carefully bearing in mind at the onset that the earth is a rotating globe—a consideration which greatly complicates the matter."

The principal stations in 1874 will be—Owhyhee, Marquesas Islands, Kerguelen's Island, Mauritius, Rodriguez Island, New Zealand, and Alexandria.

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*Page 230.*—THE TROPICAL FOREST.

As an addendum to the text, we offer our readers the following glowing picture of tropical vegetation in the virgin forests:—

"The reader who is familiar with tropical nature only through the medium of books and botanical gardens, will picture to himself in such a spot many other natural beauties. He will think that I have unaccountably forgotten to mention the brilliant flowers which, in gorgeous masses of crimson, gold, or azure, must spangle these verdant precipices, hang over the cascade, and adorn the margin of the mountain stream. But what is the reality? In vain did I gaze over these vast walls of verdure, among the pendent creepers and bushy shrubs, all around the cascade, on the river's bank, or in the deep caverns and gloomy fissures; not one single spot of bright colour could be seen, not one single tree, or bush, or creeper bore a flower sufficiently conspicuous to form an object in the landscape. In every direction the eye rested on green foliage and mottled rock. There was infinite variety in the colour and aspect of the foliage, there was grandeur in the rocky masses and in the exuberant luxuriance of the vegetation, but there was no brilliancy of colour, none of those bright flowers and gorgeous masses of blossom so generally considered to be everywhere present in the tropics. I have here given an accurate sketch of a luxuriant tropical scene, as noted down on the spot; and its general characteristics as regards colour have been so often repeated, both in South America and over many thousand miles in the Eastern tropics, that I am driven to conclude that it represents the general aspect of nature in the equatorial (that is, the most tropical) parts of the tropical regions. How is it, then, that the descriptions of travellers generally give a very different idea? And where, it may be asked, are the glorious flowers that we know do exist in the tropics? These questions can be easily answered. The fine tropical flowering-plants cultivated in our hot-houses have been culled from the most varied regions, and therefore give a most erroneous idea of their abundance in any one region. Many of them are very rare, others extremely local, while a considerable number inhabit the more arid regions of Africa and India, in which tropical vegetation does not exhibit itself in its usual luxuriance. Fine and varied foliage, rather than gay flowers, is more characteristic of those parts where tropical vegetation attains its highest development, and in such districts each kind of flower seldom lasts in perfection more than a few weeks, or sometimes a few days. In every locality a lengthened residence will show an abundance of magnificent and gaily-blossomed plants; but they have to be sought for, and are rarely at any one time or place so abundant as to form a perceptible feature in the landscape. But it has been the custom of travellers to describe and group