

Twelve Hundred Rubber Plants

Botany

There are easily 1,200 species of plants in the world that have rubber in their veins, as Thomas Edison said in his recent birthday message. There are probably nearer 12,000 such species, if we take into consideration all that have even a little rubber. The problem is to make any of them pay, and especially to make any of those that are hardy in temperate climates into paying sources of the gum that bounces.

If Edison's hopes of establishing rubber plantations in the United States are to be realized, either hardy forms of the present rubber-yielding plants of the tropics will have to be evolved, or certain rubber-yielding plants native to the temperate zones will have to be bred up to a point where their rubber content will pay for its own extraction.

All the present rubber trees and vines are warm-climate plants. The

A Giant of the Islands

Zoology

There is a picture, entitled "Dignity and Independence," that used to be the delight of the late-Victorian drawingroom. It depicts a huge mastiff in his kennel, with a tiny terrier reposing between the big dog's paws. As striking and strange a contrast is afforded by a photograph made by the New York Zoological Society of one of their recently acquired giant tortoises from the Galapagos Islands, weighing 350 pounds, with a tiny three and three-quarter-ounce specimen perched on his head. Due to uncontrolled killing of these huge reptiles on their native archipelago, the species is in danger of extermination, so that it was thought advisable to send in an expedition to bring out as many living tortoises as possible, and establish breeding stocks at a number of tropical and temperate stations.

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North American Indians had no regular chimneys on huts or pueblos until the white man introduced this fashion.

A study of 5,000 negro school children from six to fourteen years of age, in a southern city, showed that negro girls after the age of eight or nine years are taller than negro boys up through the fourteenth year.

Para rubber tree, *Hevea*, which now produces by far the larger part of the world's crop on the East Indian plantations, is decidedly a tropical form. It will just consent to grow in southern Florida, but will not grow for money unless it is permitted to hug the equator. It is out of the question for the United States proper, though it would thrive in the Canal Zone and the Philippines.

The original "India rubber" of the Orient was the product of a species of fig, the same tree used as an ornamental in thousands of apartments, and in larger size as a display piece in many greenhouses. This tree is slightly hardier than the *Hevea*, but is still very sensitive to frost, and could hardly be expected to pay its way even in the South unless new varieties better adapted to our climate can be produced.

Perhaps third in present importance as a rubber producer is the Madagascar rubber vine, related to our

milkweed, which Mr. Edison is now trying out in the South. Even in the tropics it now produces only a small fraction of the world's rubber, but it might be exploited more advantageously by plantation methods and with more modern means of extraction than those now practiced in its native home.

In our own semi-arid Southwest, and more extensively in the adjacent states of Mexico, there is a native bush, the guayule, which contains rubber in paying quantities. It has the distinction also of yielding its rubber as tiny bits of the pure substance, not as a milky juice or latex which has to be given complicated and expensive treatments before it can be used. Guayule is now being cultivated by a corporation which has a large plantation in southern California, but even this native rubber plant requires the desert heat for profitable growth and holds out little hope of becoming adapted to the colder North.

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