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RHIPSALIS IN THE WEST INDIES *

By N. L. Britton

Rhipsalis is a genus of leafless jointed cacti, with round, angled, or flat branches and small flowers, consisting of numerous species, mostly natives of tropical America, but a few species occur in eastern tropical Africa and the widely distributed *R. Cassutha* grows also in Ceylon. In this Old World distribution the genus differs from all other cacti, the family being otherwise American in distribution, except for several Opuntias, which have become naturalized in southern Europe and northern Africa.

These African species are of great interest from the standpoint of geographic distribution because they are the only cacti native in any part of the Old World. From the large preponderance of species in America it seems certain that the ancestors of the African kinds must have been transported from the American tropics to those of Africa in past geologic time, and the method of transportation, unless there was land connection between the continents, can only be guessed at. There are many genera in other families of plants common to the American and African tropics, however, and this indicates the probability of former land connection, over which their ancestors might have spread by well-known natural means.

The genus was established by Gaertner (Fruct. & Sem. 1: 137. 1788), the type species being *R. Cassutha* Gaertn. Adanson (Fam. Pl. 2: 243. 1763) had previously proposed the generic name *Hariota*, for presumably the same species (Plumier, Plant. Amer. 190, *pl. 197. f. 2*), and this figure is cited by Linnaeus (Syst. ed. 10, 1054. 1759) under *Cactus parasiticus*, but Linnaeus at the same place, and before his citation of Plumier's figure,

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cites Sloane, Jamaica, *pl. 224. f. 3 and 4*, which is a species of *Vanilla*, probably *V. Eggersiana* Rolfe. Inasmuch as Adanson did not typify *Hariota* binominally, and as the type of *Cactus parasiticus* L. is a *Vanilla*, it would appear that the name *Hariota* must be passed over, although it was taken up by Dr. Otto Kuntze (Rev. Gen. Pl. 261. 1891), and the species of *Rhipsalis*

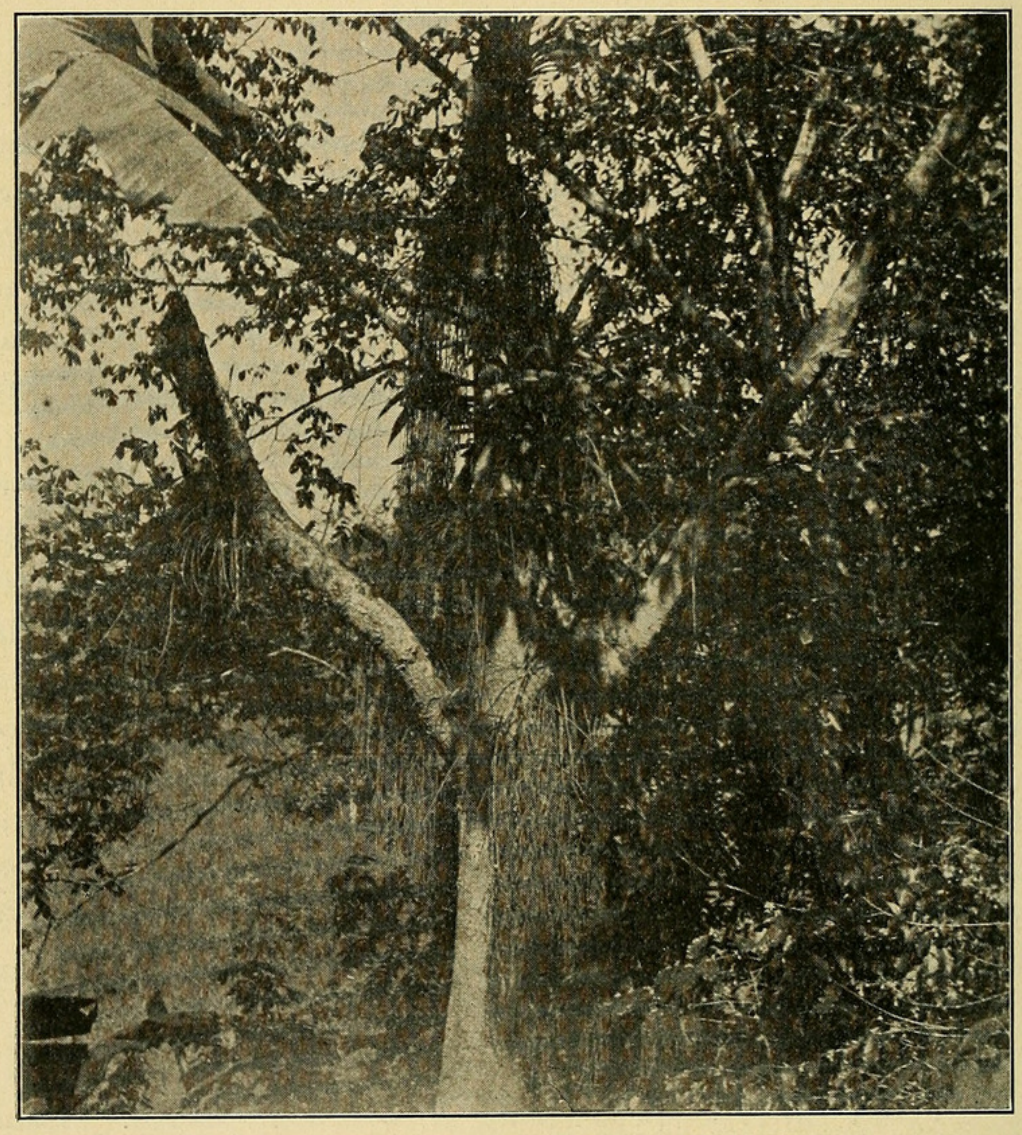

FIG. 1. *Rhipsalis Cassutha* Gaertn. Near Utuado, Porto Rico. Photographed by Dr. Marshall A. Howe.

known to him transferred to it. Through Linnaeus's blunder of uniting two widely different plants, which he knew only from illustrations, we are apparently prevented from using the name *Hariota*, and the next oldest available generic name is *Rhipsalis*.

The species of *Rhipsalis* are mainly epiphytic, drooping from

trees, though sometimes found on cliffs, and they are mesophytes rather than xerophytes, inhabiting moist or wet regions. Some of them bear spines or bristles at the areoles of young shoots, which usually fall away early, leaving the mature plants quite unarmed, but a few South American species bear spines even when mature. Their flowers are whitish, yellowish, or pink, often almost rotate when widely expanded, the perianth-segments few, the perianth-tube short or none; the stamens are few or numerous and shorter than the perianth; the fruits are globular or oblong, white or yellowish berries with a watery pulp full of small seeds.

Three species are now known from the West Indies, which may be classified as follows:

Joints terete, slender (*Eurhipsalis*). 1. *R. Cassutha.*
Joints flat (*Phyllorhipsalis*).
Joints 4–6 cm. wide; flowers 15 mm. long; berry oblong. 2. *R. alata.*
Joints 1–2.5 cm. wide; flowers 6 mm. long; berry subglobose. 3. *R. jamaicensis.*

1. **Rhipsalis Cassutha** Gaertn. Fr. & Sem. 1: 137. 1788
Cassytha filiformis Mill. Gard. Dict. Ed. 8. 1768. Not L.
Cactus parasiticus Lam. Encycl. 1: 541. 1783. Not L.
Cactus pendulus Sw. Fl. Ind. Occ. 2: 876. 1800.
Cactus caripensis H.B.K. Nov. Gen. 6: 66. 1823.
Cereus caripensis DC. Prodr. 3: 467. 1828.
Rhipsalis parasiticus DC. Prodr. 3: 476. 1828.
Cactus fasciculatus Willd. Enum. Suppl. 33. 1813.
Rhipsalis parasitica Haw. Syn. Pl. Succ. 187. 1812.
Rhipsalis fasciculata Haw. Suppl. 83. 1819.
Rhipsalis cassythoides G. Don, Gen. Syst. 3: 176. 1834.
Rhipsalis dichotoma G. Don, Gen. Syst. 3: 176. 1834.
Rhipsalis undulata Pfeiff. Enum. 156. 1837.
Rhipsalis Hookeriana G. Don, Gen. Syst. 3: 176. 1834.
Hariota parasitica Kuntze, Rev. Gen. Pl. 262. 1891.

Plant often 1 m. long or longer, much branched, light green, pendent from trees or on cliffs, the branches flexible; flowers 6–8 mm. long; petals about 4, ovate, obtuse; stamens about 9. [Figure 1.]

Type locality: Not cited.

ILLUSTRATIONS: Gaertn. *loc. cit. pl. 28. f. 1;* Hook. Exot. Fl. **1**: *pl. 2;* Lodd. Bot. Cab. *pl. 865;* Bot. Mag. *pl. 3079, 3080;* DC. Pl. Grasses, *pl. 59.*

DISTRIBUTION: CUBA: Matanzas (*Rugel 767; Britton & Shafer 450*); Madruga (*Britton & Shafer 788*); Calicita near Cienfuegos (*Combs 470*); vicinity of San Luis, Oriente (*Pollard & Palmer 356; Maxon 4012*). HAITI: Port Margot to Corneil (*Nash 228*); La Brande to Mt. Balance (*Nash & Taylor 1660*). PORTO RICO: Yauco (*Garber 63; Sintenis 3823*); between Aibonito and Cayey (*Heller 516*); near Aibonito (*Underwood & Griggs 488*). JAMAICA: near Rio Grande Ford, Cuna Cuna Trail (*Fredholm 3207*); Belvidere (*Harris 7646*); vicinity of Castleton (*Maxon 836*); Moneague (*E. G. Britton 2956*). San Luis Potosi, Mexico, to Costa Rica, Colombia, Bolivia, Venezuela, and Brazil. Tropical Africa. Mauritius. Ceylon.

The young shoots are often quite bristly, but the mature plant becomes smooth; flowers are sometimes developed before the bristles fall away. In the West Indies the plant has not been observed by me at a greater altitude than about 500 meters.

2. **Rhipsalis alata** (Sw.) Schum. Fl. Bras. **4**^{2}: 288. 1890

Cactus alatus Sw. Prodr. 77. 1788.

Cereus alatus DC. Prodr. **3**: 470. 1828.

Rhipsalis Swartziana Pfeiff. Enum. 131. 1837.

Hariota alata Kuntze, Rev. Gen. Pl. 262. 1891.

Rhipsalis Harrisii Gürke, Monats. Kakt. **18**: 180. 1908.

Pendent from trees and on rocks, sometimes 5 meters long, with several long branches; joints broadly linear, lanceolate or linear-oblong, often constricted at the middle or above it, bluntish at the apex, decurrent below into a stipe-like base, rather fleshy, bright green, about 1 mm. thick, 2–4 dm. long, 4–6 cm. wide, the midvein prominent and stout, the margins crenate-undulate, the lower crenations 1–2 cm. long, the upper ones 4–8 mm. long, the main lateral veins ending in the sinuses; flowers yellowish-white, about 15 mm. long; petals 10, lanceolate, acutish, the outer slightly longer than the inner, erect and nearly parallel; stamens numerous, about one half as long as the petals; style slender, about three times as long as the five linear stigmas; berry ovoid, rounded at both ends, yellow-green, 1 cm. long. [FIGURE 2.]

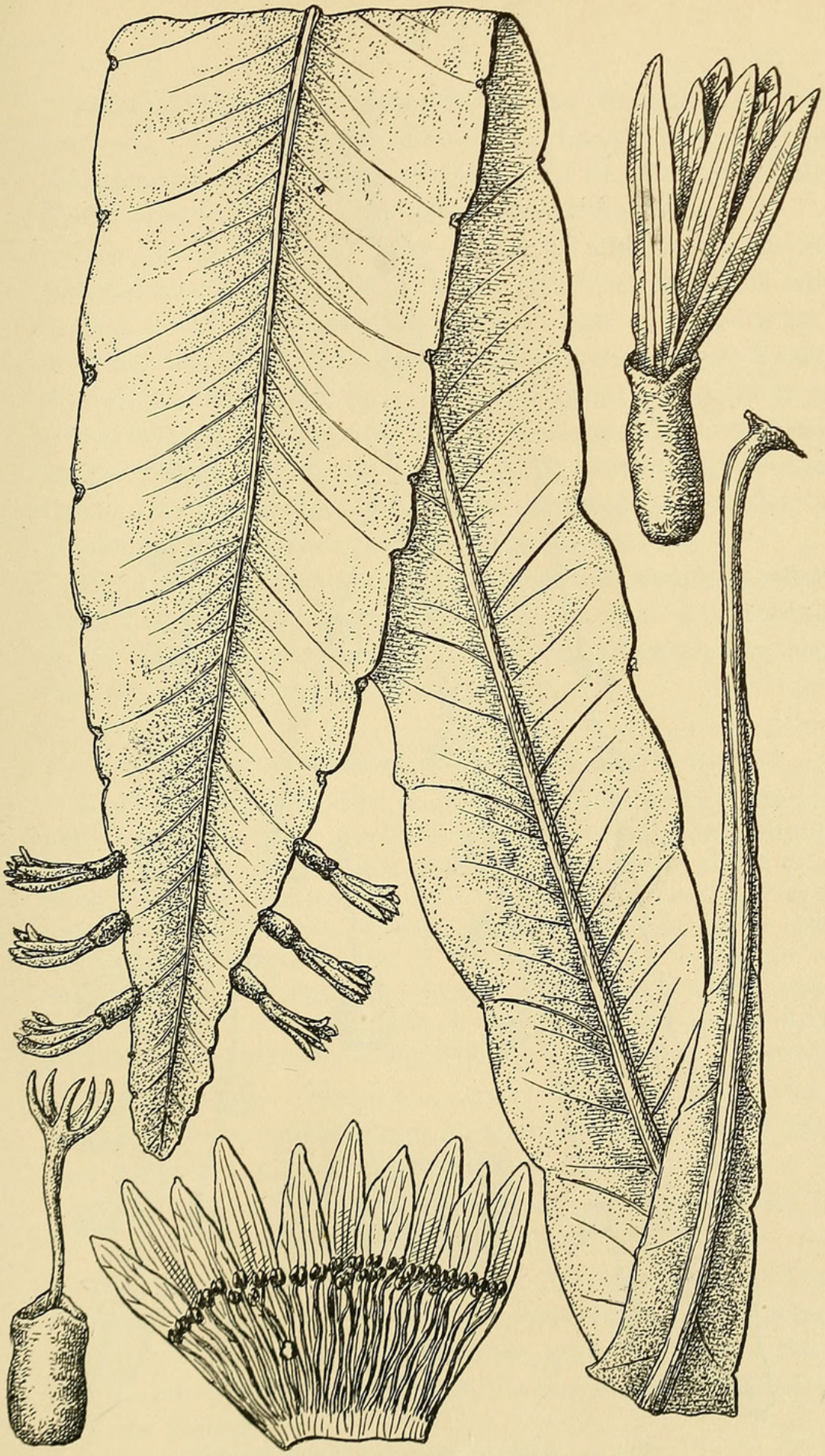

FIG. 2. *Rhipsalis alata* (Sw.) Schum.

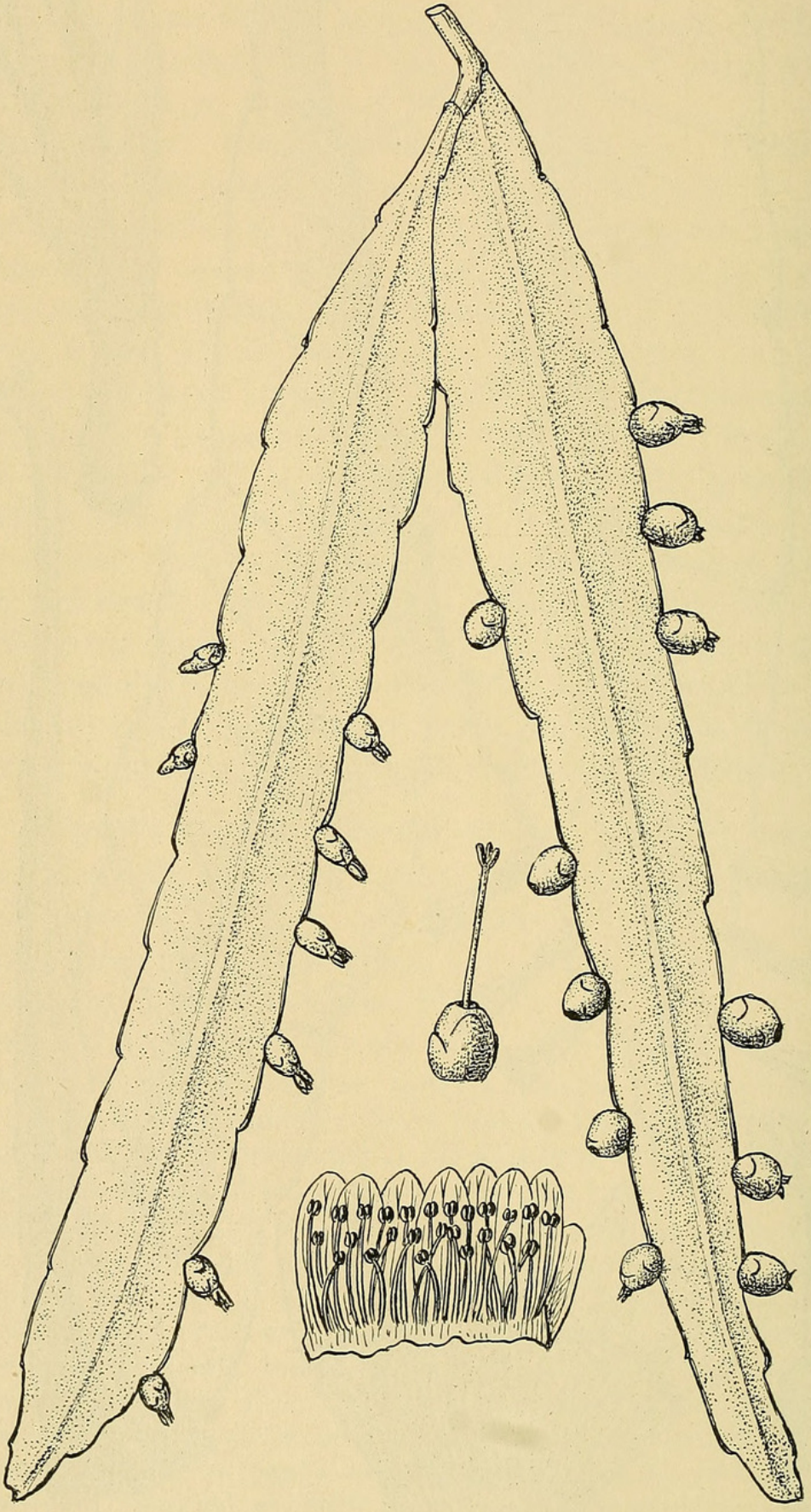

FIG. 3. *Rhipsalis jamaicensis* Britton & Harris.

JAMAICA: Woodstock, near Newmarket, Westmoreland (*Britton 1583; Harris 9995*); Belvidere, Hanover (*Harris 7619*); Kempshot, Hanover (*Britton & Hollick 2408*); Mandeville, Manchester (*Britton 3751*). The plant flowers in autumn.

This species has been misinterpreted by authors, commencing with Grisebach (Fl. Br. W. I. 302. 1860) and the name *alatus* applied to the other somewhat similar plant of Jamaica to be described below. I have satisfactorily identified it from Swartz's description, and by the aid of a tracing of a type specimen preserved in the herbarium of the British Museum of Natural History, kindly sent at my request by Mr. A. B. Rendle, and Professor Urban informs me that the Swartz specimen preserved in the Stockholm Herbarium is also certainly this species.

The name *Rhipsalis alata* is to be found incidentally mentioned under *Cereus alatus* in Steudel, Nomencl. ed. 2, **1**: 333, published in 1841, without any description of the plant referred to, and is therefore a hyponym to be disregarded.

3. **Rhipsalis jamaicensis** Britton & Harris, sp. nov.

Pendent from trees, the young shoots quite bristly, the older joints smooth; plant 3–10 dm. long, the main axis angular; joints 1–4 dm. long, 1–2.5 cm. wide, dull green, about 2 mm. thick, the apex bluntish, the base narrowed into a stipe 1–6 cm. long, the margins low-crenate; flowers yellowish green, about 6 mm. long, the petals about 7, oblong to oblanceolate, not very widely expanding, obtusish; ovary oblong, with a few scales; stamens 20–24; style much longer than the three oblong stigmas; berry globose, white, 6–8 mm. in diameter. [Figure 3.]

JAMAICA: Troy, Cockpit Country (*Britton 511*, type); vicinity of Troy (*Maxon 2813*); near Montpellier (*E. G. Britton 2863*); Bath to Cuna Cuna Gap (*Britton 3502*).

In "Gesamtbeschreibung der Kakteen.," p. 636, the late Professor Schumann, erroneously describing this plant as *Rhipsalis alata*, refers the Costa Rican *Rhipsalis coriacea* Polak. Linnaea **41**: 562, 1877, to it as a synonym. This species is, perhaps, its closest relative, but after growing the two side by side at the New York Botanical Garden, I am convinced that they are distinct.

Visitors to the New York Botanical Garden will find the collection of *Rhipsalis* in Range 1, House No. 7, of the public conservatories.

NOTES ON THE FLORA OF CENTRAL AND SOUTHERN DELAWARE

By Charles S. Williamson

So little is known of the flora of central and southern Delaware, that the following notes on specimens collected by members of the Philadelphia Botanical Club, during the summers of 1907 and 1908, may be of interest.

The first trip was taken by Messrs. Brown, Van Pelt and B. Long on September 21, 1908. Its purpose was to find a good location for the Symposium of 1909. The vicinities of Townsend and Millsboro were visited.

The Symposium was held at Georgetown, July 4 to 9. The attendance was very small, there being at no time more than five and on the first and last days only two botanists present. There were no formal meetings, but many interesting plants were found.

The afternoon of July 4 was spent on "the Hammock," about two miles east of Georgetown.

Other botanizing grounds visited in the vicinity of Georgetown were, Morris Pond, a large mill dam about eight miles east of our headquarters, Milton and the salt marshes beyond, Laurel and Bethel, Rehoboth, and Ellendale.

On July 20 Messrs. Van Pelt and Long visited Milford and Ellendale and collected many plants that had been overlooked or that were not in bloom on July 9.

On August 20 the same gentlemen, with Mr. E. B. Bartram, made a trip to Middletown and Smyrna, hoping to find *Alnus maritima* within the club limits. In this they were not successful, but they did find several plants that were new to the herbarium.

Finally, on August 29 I revisited several of the localities at which we had collected during the Symposium.

Pinus Strobus L. Rare, observed only east of Milton.