THE INTRODUCTION OF THE AFRICAN ARROW—
POISON VINE STROPHANTHUS

by

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The recent discovery that cortisone, a very promising medicine for the relief of Arthritis, can utilize in its manufacture a substance found in the seeds of Strophanthus sarmentosus has brought a flood of newspaper discussion, and has resulted in the sending of expeditions to Africa in search of its seeds.

As I happened to be the first to bring to America, and grow, this particular species, it seems appropriate to publish in the Bulletin a brief account of the circumstances surrounding this introduction, even though it has not yet been definitely established that its seeds will yield the best basic substance for use in the synthesis of the drug.

It was in 1927. The Yacht "Utowana", equipped by my friend Allison Armour for plant collecting—seeds especially—and with a laboratory and library, was on its way down the West Coast of Africa.

On the scientific staff we had the good fortune to have Dr. J. M. Dalziel of Kew Gardens, who, as "Medical Officer" had spent several years in West Africa and whose "Flora of West Tropical Africa" has become a classic. He described for us in detail the methods which he had discovered by which the tribesmen made their poisonous decoctions into which they dipped the points of their spears and arrows and then let them dry.

One of the ingredients, perhaps the most important, was obtained from an Apocynaceous vine, Strophanthus sarmentosus. He was careful to add that enough strophanthine, a drug made from its seeds, can be carried on the point of a pin to kill a man in fifteen minutes, if injected into his blood stream.

This strophanthus vine is related to the Oleander, Allamanda and Carissa. Its pods are like those of the milkweed (Asclepias); fastened end to end like bulls horns. When you open them as you would a milkweed pod, the seeds float away like parachutes in the wind.

On January 8th we reached Bathurst, the port of that tiniest of British African colonies, the Gambia, and next day went on up the Gambia river 120 miles to take part in the Governor's "Pow Wow" on peanuts. We collected on this trip some interesting trees and shrubs now growing in South Florida.

The local Colonial Officer at McCarthy's island invited Dalziel and me to drive back along the river in his open car and we accepted although it was a blistering hot day. This gave us a chance to see the burned-over "Bush"; full of plants that might be introduced.

As Dalziel and I were walking along he gave a cry of delight; "Strophanthus! Strophanthus!" and pointed to the top of a large forest tree. Among its leaves I saw two curious double, straight, horn-like pods six inches to a foot long. These were borne by an immense climber or liana. To get the seeds a native had to fell the tree.

I see in my notes that the seeds arrived in Washington Feb. 21, 1927, and in November, 1932 vigorous plants were growing for distribution in the slat house at Chapman Field. I had suggested that this striking flowered liana be sent to the Panama Plant Introduction Garden and to Hawaii. The data regarding their final distribution is on file in Washington.

It was not until we reached the Gold Coast that I saw this vine in flower; back of the Aburi Experiment Station, inland from Accra. (See illustration in Exploring for Plants p. 531). But when the Utowana anchored at Konakry, the port of French Guinea, Dalziel, McKinney and I took the railway to Mamou and motored to Dalaba in the Fouta (Continued on Page 8)
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Djallon Mountains. This day in those West African mountains stands out as one of the most interesting of my many collecting trips and I would like to go back and get some of the beautiful and interesting trees and shrubs which grow there in the laterite soil; a soil by the way which when sunbaked tears your shoes to pieces with its sharp edges. We got some of the plants and these have done well in South Florida.

The Director of Agriculture in Conakry assured us that the Chief Oumarou of Dalaba would put us up for the night but when we arrived at his village we were a most disreputable looking trio and we could not blame him for not taking us into his spotless white guest house.

Back of the Chief’s house Dalziel spied an immense vine of the Strophanthus in full bloom. Naturally we wondered if he gathered the seeds for his arrows. Night was coming on rapidly as it does in the tropics and we were obliged to turn back. The Ford was old and patched and we discovered it had no lights but the driver declared he knew the road. But that ride back, down the narrow winding road, in the dark, I recall as one of those risky rides which one has to take if he gets off the highways. The town of Mamou had run short of water and a fire burned one of the thatched houses near where we slept, but never the less I would like to return and search for new plants for Florida in the Fouta Djallon Mountains.

Many changes are taking place there, for, as described by Mr. Claud Py now visiting us as representative of the “Institut des Fruits et Agrumes Coloniaux,” the French Government is establishing an Experiment Station near Mamou and he has come to collect American plants to try there.

But the Strophanthus vine is now growing in the Plant Introduction Garden at Chapman Field where people can see it. Some will be surprised at its immense size and the strange beauty of its flowers with their long streamer-like white petals. This vine has not fruited abundantly but a vine of it in Colonel Montgomery’s Palmetum has born seeds and it has been grown from cuttings.

It awaits the further discoveries of the chemists.