

Henry Perrine, Pioneer Horticulturist of Florida *

by T. RALPH ROBINSON

PLANT introduction, so all important to a newly developed region like Florida largely dependent on her horticultural products, is commonly thought of as a recent enterprise. And so it is, at least on a systematic and world wide basis such as is exemplified in the monumental work of Dr. David Fairchild and his collaborators of the United States Department of Agriculture, such men as Popenoe, Swingle, Meyer, Dorsett, Cook, and Collins. Private introductions by such men as Pliny and Egbert Reasoner, Taber, Meade, and Nehrling have also contributed richly to Florida's store of plant material during the last half century. While we are at this meeting stressing the historical side of Florida's horticultural development it seems especially fitting to remind our present day fruit growers that almost 100 years ago a valiant and well planned effort was made to establish in Florida new industries capable of producing for the nation many of the tropical crops that were at that time either unknown or secured through costly importation. This was the dream and lifetime effort of Dr. Henry Perrine, to whom Florida has given, I fear, scant recognition. Some account of his life, aims, and tragic death may serve to accord to him the belated tribute due to such a "hero of agriculture," a title recently bestowed upon him in an appreciative and fascinating article contributed to the Bulletin of the Garden Club of America (November, 1941). This article was written by Frances Cleveland Preston, wife of the late President Grover Cleveland and a step-daughter of Henry E. Perrine, a son of Dr. Perrine.

Henry Perrine was born April 5, 1797, at New Brunswick, New Jersey, of French Huguenot ancestry. He studied medicine and soon after receiving his degree in Philadelphia went to Ripley, Illinois, to practice medicine, later removing to Natchez, Mississippi. Due to ill health following accidental poisoning he decided to seek a still milder climate and secured in 1827 an appointment as U. S. Consul at Campeche,

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Yucatan, where he remained for ten years. He was interested in botany and made extensive collections of the plants growing in that region. These herbarium specimens are now to be found in the collections of the New York Botanical Garden. During his stay in Yucatan he survived serious attacks of both yellow fever and cholera and is credited with having had unusual success in treating these diseases among the natives, services which he rendered gratuitously.

Soon after his arrival in Yucatan he received from Richard Rush, Secretary of the Treasury, at the instance of President John Quincy Adams, a circular letter calling on consular officers to secure plants of probable utility for cultivation in the United States. A Treasury Circular of September 6, 1827, states that "Dr. H. Perrine appears to be the only American Consul who has unreservedly devoted his head, heart, and hands to the subject of introducing tropical plants in the United States and his voluminous manuscripts alone exhibit a great amount of labor and research which promises to be highly beneficial to our common country." Some of the manuscripts referred to were later published as Congressional documents, a few of which may be worth citing. In Senate Document No. 300, published in 1838, the following papers were published: "Letters on Tropic Plants," "Meteorologic Tables of Indian Key" (Fla.), "Geography of Plants," "List of Official and Economic Plants of the Tropics" (a list of plants already introduced by him into south Florida), "Cuban Economic Plants," and "Tropic Fiber Plants." In the House of Representatives Report No. 564 appear "Plants of Mexico," "The *Agave sisalana* or Sisal Hemp," "Letters on Tropical Plants," and "Propagation of Fibrous Leafed Plants." This later report also states that upward of 200 species and varieties of tropical economic plants were already planted, mostly in boxes, at Indian Key, Florida, ready for removal to the mainland when the Seminole Indian war should cease.

While gathering together this material for trial in Florida, Dr. Perrine conceived the idea of forming a colony under a government grant for the planting of tropical crops after preliminary trials had shown that they offered promise of success. Meanwhile he established connections with settlers on the lower East Coast of Florida, notably Captain Dubose of Cape Florida, at the southern end of Biscayne Bay, and Mr. Charles Howe of Indian Key. To them he sent seeds and plants collected about Campeche, many of which were established in nurseries and test plantings before his return to the United States in 1837. In 1838 Congress passed an act granting to Dr. Perrine and two associates, James Webb of Key West and Charles Howe of Indian Key, a township of land (6 square

miles) on lower Biscayne Bay for the propagation and cultivation of tropical plants. This is said to have been the first agricultural grant made by Congress. By a curious coincidence the tract granted lies only a short distance south of the present Plant Introduction Garden of the United States Department of Agriculture, the latter location being acquired originally by the government for a flying field known as Chapman Field.

Soon after the grant was made Dr. Perrine returned to the United States, stopping off at New Orleans en route north. There he was invited to settle in Louisiana and was offered a tract of land on La Fitte Island for his plant introduction work. He was, however, convinced that the southern tip of Florida, then considered almost worthless, offered the best opportunity for the growing of the tender tropical crops in which he was chiefly interested.

The development of the land grant as planned was prevented, however, by the disturbances in south Florida due to the Seminole War then in progress. Accordingly, when Dr. Perrine with his wife, daughter, and son came to Florida in 1838, traveling by way of Key West, he settled for the time on Indian Key, a small island of about 12 acres lying a few miles southeast of Lower Maticumbe Key. There Charles Webb and three or four other families with their servants and slaves were already established. There were docks, shops, and warehouses, and the island seems to have been something of a trading post for coasting vessels of light draft. There many of his seeds and plants had already been sent and he spent the next 18 months in further propagation work and in making actual plantings. Plantings, however, were necessarily restricted to the nearby keys, selecting the most favorable locations but leaving the plants to nature's care and an occasional visit from himself. It is small wonder then, when we consider the rocky nature of these keys, that few plants survived without human care to stand as memorials of his labor.

Among the products listed in various documents as desirable for culture and ready for introduction were Sisal hemp, yam, ginger, cassava, indigo, sugar cane, pimento, tea, orange, shaddock, grapefruit, lime, citron, sugar apple, banana, plantain, pineapple, coconut, sapodilla, sour sop, avocado, mango, mamey sapota, olive, boxwood, and ship timber. Various spices and medicinal plants were also included and the white mulberry was introduced to afford the basis for a silk industry. His interest extended even to bee culture and he sent several swarms of stingless bees from Yucatan to Mr. Howe at Indian Key.

The Indian Key colony felt secure from Indian attack on their isolated island, but in the early morning of August 7, 1840, a band of Indians

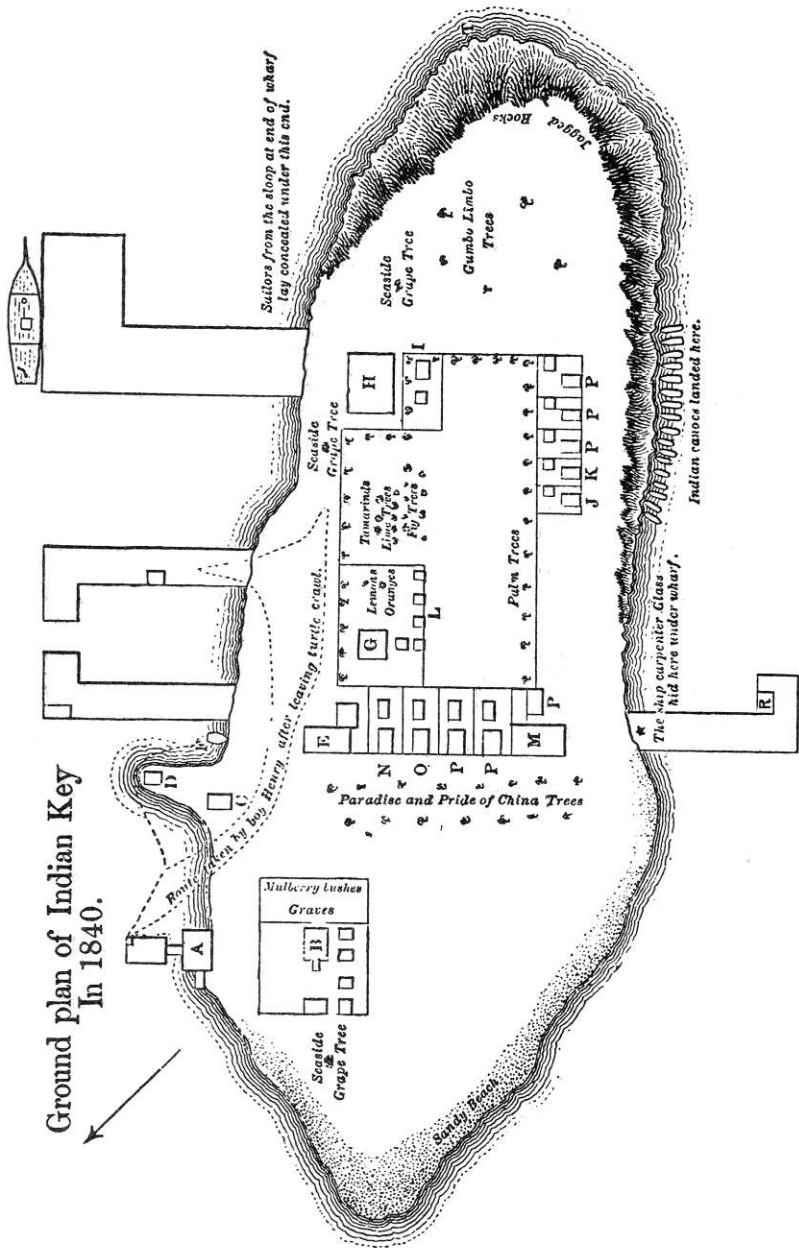
(locally called "Spanish Indians") under Chekika landed without being observed, the party consisted of 17 canoe loads. But for a wakeful workman the whole colony would probably have been annihilated at daybreak. As the attacking party lay hid waiting for daylight they were discovered by Bieplet and the premature attack began between 2 and 3 in the morning. Under cover of darkness many members of the colony escaped to boats or lay hid in the bushes or rock crevasses until the Indians left after daylight. Dr. Perrine, however, together with five or six other members of the colony, fell a victim of their brutal attack. Had he sought safety in flight he might also have escaped, but he felt confident that by parleying with the savages in Spanish he could dissuade them and avert a general attack on the colony. His wife, son, and daughter concealed under the house in a sort of cistern or tidewater bath, had a most miraculous escape. With the house burning down over their heads they managed by desperate digging with bare hands to loosen some palm posts, or piles, that barred passage way to the bay shore and emerged just at a most opportune time to seize a nearby boat and escape. The boat they took was one that the Indians had started loading with loot from the storehouse, and the Indians had just left the boat to secure another load of provisions when they made their fortunate escape. They were soon picked up by a passing schooner and taken to a military post at Tea Table Key, where they were cared for until they could start their long sad journey northward.

The Indians left the island shortly after daybreak, having set fire to all the buildings and destroyed everything of value which they could not carry off. In the burning of the Perrine house all of the records made by Dr. Perrine were lost, together with a large chest of seeds all ready for planting when conditions became favorable. This chest incidentally played a part in saving the lives of the Perrine family, as the Doctor used it to conceal the trap door leading to the cistern-like bath where the wife and children were placed in hiding on the approach of the Indians.

During the following day some of the survivors, including Dr. Perrine's young son, returned to the scene of desolation and Mr. Howe gathered up the charred remains of Dr. Perrine's body which he buried near a Sisal plant on Matacumbe Key, a plant in which Dr. Perrine had shown special interest.

For most of the details regarding this tragic affair we are indebted to a book written and privately printed some forty-five years later (1885) by the son, Henry E. Perrine. This rare volume, being written largely for the benefit of his children and grandchildren, is entitled "The True

Ground plan of Indian Key
In 1840.



Story of Some Eventful Years in Grandpa's Life." The author was 13 years old at the time of the Indian Key Massacre and he gives a vivid and circumstantial account of that wild and tragic night. In the book is included a detailed map or "Ground Plan of Indian Key in 1840." This map shows seven good sized houses besides numerous cabins for servants and slaves. Three good sized piers are shown, and locations are indicated for tree plantings already made, such as lime trees, lemons, oranges, figs, tamarinds, mulberries, palm trees, etc. At this point it may be stated that none of these plantings today survive. The writer had the privilege six years ago to visit Indian Key, in company with David Fairchild, who of course had a special interest in this pioneer attempt to introduce tropical plants into Florida. We found that the Sisal plants introduced by Perrine had taken the whole island, it being possible to walk only around the extreme shores of the rocky island because of the dense jungle formed by the thicket of "century plants." The foundation walls of the home of Charles Howe are still intact, showing that the house must have been a substantial building. Little else remains to indicate that the island was ever inhabited, much less witnessed the beginning of an ambitious and unique horticultural enterprise unexampled in all previous history. It would seem to be a fitting project for this Horticultural Society to see that a proper tablet be prepared and erected on Indian Key as a Florida memorial to Dr. Perrine—truly a martyr to his horticultural zeal.

It is idle perhaps to speculate as to what would have been the effect on Florida's horticultural development had Dr. Perrine's heroic efforts not been terminated in such a catastrophe. The only plants known to have been introduced by him on the Keys which seem to have survived despite

REFERENCES TO GROUND PLAN

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| <p>A. Dr. Perrine's house with wharf in front</p> <p>B. Mr. Howe's house and negro dwelling kitchen, shop and cistern.</p> <p>C. Carpenter Shop.</p> <p>D. Blacksmith Shop.</p> <p>E. Store where the six Indians were when Mrs. Perrine and the children took the boat at F, which they were loading with plunder.</p> <p>G. Mr. Houseman's house, kitchen and negro dwellings.</p> <p>H. Large Warehouse under which two men and a boy were concealed in a cistern.</p> | <p>I. State Senator English's house and kitchen.</p> <p>J. Cottages of Glass and Beiglet who gave the alarm.</p> <p>L. Place where the Indians lay when discovered by Beiglet.</p> <p>M. Tropical Hotel.</p> <p>N. Mott's house and kitchen.</p> <p>O. Mrs. Smith and Mrs. Sturdy's house and kitchen.</p> <p>P. Other cottages and kitchens, vacant.</p> <p>R. Bath house where the old lady sought refuge.</p> <p>T. About the place where Mrs. Smith and baby and her mother Mrs. Sturdy crouched down behind the rocks.</p> |
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lack of human care are the so-called "wild limes," the Sisal, and a number of date palms scattered along the Keys. Pineapple culture was at one time practiced on some of the Keys and may have had its origin in plants which he set out on his frequent trips along the Keys seeking favorable locations for trial plantings. Houseman, who was one of the Indian Key colony, is known to have had a pineapple plantation on Matacumbe Key.

It is clear from his writings that he had great hopes for developing a fiber industry based on the Sisal and henequen fibers, both derived from two species of *Agave*, *A. sisalana* and *A. fourcroydes*. He had given these plants intensive study in Yucatan and published a description of the former as a new species, up to that time undescribed by botanists. His name remains today the valid name for the species, *Agave sisalana* Perrine. While the introduction of these fiber plants failed to develop a profitable fiber industry in Florida, it proved in later years to have an important effect on American agriculture. The sisal plant in particular found a congenial home in Florida and spread rapidly along both coasts. Some fifty years later when binder twine became essential in the operation of the recently invented reapers and binders the only source of supply of necessary fiber was in Yucatan. Mexico promptly established an embargo on the export of plants or seeds, enjoying for a time a highly profitable monopoly. From the sisal plants growing wild in South Florida, however, Florida nurserymen were able within a few years to furnish hundreds of thousands of seed bulbs, or bulbils, to the planters in other lands, notably Java where within a few years extensive plantations were in production. Thus through competitive prices American farmers and users of cordage were saved many millions of dollars during the past fifty years, and indirectly the dream of the plant introducer was realized.

Perrine's name has been perpetuated in Florida in the naming of the town of Perrine (first known as Perrineville) about 15 miles southwest of Miami. This town was founded by the son, Henry E. Perrine, when he revisited Florida in 1876, bringing with him eight other settlers from Buffalo and Palmyra, N. Y. They took up land on or near the Perrine Grant, but no serious effort appears to have been made to resume the plant introduction work on the scale undertaken by the father. Perrine at this time revisited Indian Key en route up the coast from Key West, but found no remains of the early plantings except a few palm trees and sisal plants, "every other trace of human habitation or care had disappeared." Likewise on Matacumbe Key, where a nursery had been started, no trace of the early plantings remained. He attributes part of

the loss of plants to the periodic hurricanes, one of which devastated the keys shortly before his arrival.

A recently introduced variety of lemon has been named the Perrine lemon. The Mexican or "Key" lime introduced by Perrine was used in numerous hybrids made by the citrus breeders of the United States Department of Agriculture. One of these new fruits, a hybrid between the lime and the Genoa lemon, seemed to meet the need of Florida for a lemon of medium size, good quality, free from lemon scab and anthracnose, and possessing great vigor of growth and fruitfulness. To this hybrid lemon when first introduced by the writer in 1931 at the Miami meeting of the Florida State Horticultural Society was given the name "Perrine," with the statement that "it would be only poetic justice, though long deferred, if one of the offspring of the Mexican lime he introduced should perpetuate his name and bring to the region he loved an additional source of income for citrus growers." The first commercial crop of the Perrine lemon marketed during the season just closing seems to have fully justified the hopes here expressed.

In the original grant made by Congress the hope was expressed that "through the introduction of tropical and sub-tropical plants there may be rendered valuable our hitherto worthless soils by covering them with a dense population of small cultivators and family manufacturers and that these will promote the peace, prosperity, and permanence of the union." We are fast seeing this hope realized in the region of which the Perrine Grant formed the nucleus, and the influence here set in motion is spreading rapidly over large portions of south Florida, where killing frosts seldom occur. Even a hundred years may be too short a time to properly evaluate the work of such a pioneer as Dr. Henry Perrine. Despite his seeming failure through tragic fate, yet his career may still serve as an inspiration to those of us today who are interested in developing new tropical crops and who are privileged to labor without the tremendous handicaps imposed upon his brave spirit. All honor to Henry Perrine, physician, botanist, plantsman, and pioneer introducer of useful plants chosen to serve his country's need.

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