University in the South Pacific

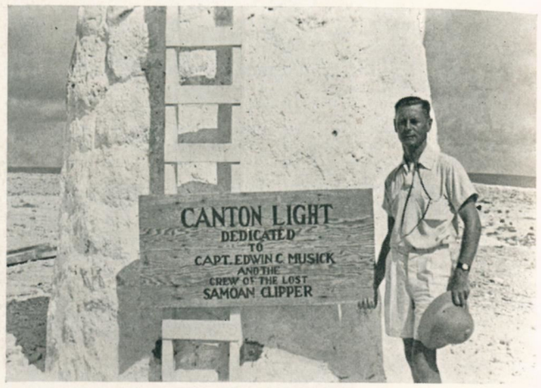
By H. H. Warner

THE University of Hawaii is constructively interested in every phase of the administration of the five American Equatorial Islands—Canton, Enderbury, Howland, Baker and Jarvis—as well as American Samoa. The University has cooperated with the Federal departments under the jurisdiction of which the Islands have been placed, and also with the United States Coast Guard of the Treasury Department which has been, and is, doing splendid work in relation to them.

The Director of the University of Hawaii's Agricultural Extension Service has made two trips on the Coast Guard Cutter *Taney* to these five islands. He also has visited American Samoa and other South Pacific islands. He has kept the President of the University—David L. Crawford—well informed on the subject.

There is no real soil on any of these American Equatorial Islands. The formation is coral sand and coral rock covered deeply in places with a layer of guano. With an average rainfall of less than twenty inches a year, the ground is sparsely covered with spreading weeds where the sand is not too coarse. With the exception of half a dozen or so wind-blown coconut palms, on Canton and Enderbury, and one or two wild heliotrope trees on Baker there is very little tree growth on these barren islands. The trade winds turn the propeller operating the generator for the radio batteries instead of gently caressing the swaying palm trees.

Soon after the first colony was established on Jarvis Island various kinds of trees in nursery cans were sent down with the idea of planting near the camps and affording some shade for the colonizing American boys. Recent observations indicate that even when planted in the coarse coral sand the ironwood, kamani nut and wild heliotrope trees are growing wherever they have received regular water and protection from the wind. Most of the early shipments have died for lack of proper care.



Musick Memorial Light, Canton—*By Author.*

Pan-American Airways has erected facilities on Canton Island for an air base on the Hawaii-New Zealand Air Route. It was felt worth while trying to do something on that island by way of developing the growing of fresh vegetables for local consumption. With a considerable force of PAA employees, in addition to our colonists and others, the demand for anything in the way of home-grown vegetables is quite apt to exceed the supply. It seems likely, too, that following the pattern established on Midway and Wake Islands, the Pan-American Airways eventually will develop some work along the same line or possibly add to such a development as the University is starting.

Accordingly, the University Agricultural Extension Service designed a so-called greenhouse about ten by ten feet and eight feet high, and sent the material necessary for its construction to Canton last autumn with enough half-inch mesh wire to cover the entire building for protection against rats, hermit crabs and birds. Later, the *Taney* transported some seedling tomato plants and thirty to forty sacks full of black sand from Punchbowl

Canton Island—University Greenhouse in center—*By Author.*

American and British Flags Fly Over Canton Island—*By Author.*

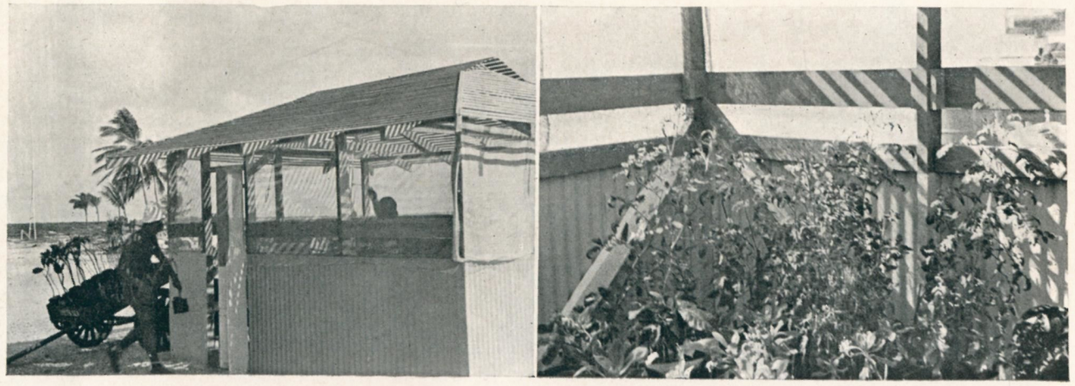
in Honolulu. By growing vegetables in this soil and putting a measured amount of chemical fertilizer in the sprinkling can, surprising results have been obtained. Tomatoes growing in boxes of this black sand in the "greenhouse" have reached a height of six feet. Seeds of papayas, lettuce, beets, carrots and cucumbers have been planted and reports by radio from Canton indicate rapid growth and no disease. It is impossible to use the coral sand for this work because certain chemical reactions with the fertilizer solutions result, and it is thought that this so-called "pot-culture" is easier to care for than the water-culture method.

What is more important, however, is the need for conserving water even when Pan-American Airways' large distilling plant will go into operation. With the experience gained on Canton, it is hoped that similar gardens may be established on the other islands.

The whole project is unique in American annals.

In October of 1937, while visiting American Samoa aboard the *Taney* with Dr. Ernest Gruening and Governor Joseph B. Poindexter, the Director of the University's Agricultural Extension Service, laid the groundwork for establishing one or more 4-H Clubs. Today, there are two flourishing 4-H Clubs in American Samoa —one in the village of Iliili and the other in Fagasa. Both girls and boys belong to the same club. The work consists of village sanitation, killing coconut beetles, and caring for a school garden. The school authorities, under the general direction of the United States Navy, are expecting to organize several additional clubs. It has been said that this is the farthest agricultural extension in the United States. Certainly there are no other 4-H Clubs as far west or as far south as these in American Samoa.

None of these activities of the University of Hawaii would have been possible without the interest and the assistance of the U. S. Coast Guard and its able officers and men on the Coast Guard Cutter *Taney*. Whatever may have been accomplished of value on these islands by the University is largely due to the fine cooperation of this branch of the federal government. With the increasing importance of these American Equatorial Islands, Hawaii is sure to occupy a more important place in the administration of Pacific affairs and the University of Hawaii is happy to have some part in their development.



Exterior and Interior of University Greenhouse on Canton Island—*By Author.*