

The Function of Forestry in Hawaii

(Continued from Page Twenty-Five.)
territorial government and by private interests. This work has been going on for the last thirty years and is constantly increasing in extent and importance. The trees principally planted are several kinds of eucalyptus, the Australian ironwood and silk oak, and the Japanese cedar. Wood and timber cut from the planted forests in Hawaii are now being used for fence posts, railroad ties, bridge timbers and wagon work. Practically all the construction timber now used in Hawaii is imported from Puget Sound and northern California, mainly redwood and "north-west" (Douglas fir).

Assistance to Tree Planters.

The division of forestry is taking an active part in encouraging the planting of valuable trees throughout the Territory. This it does in three ways:

(1) By giving advice and suggestions to those desiring to do forest work, as to what, where and how to plant; (2) by distributing free, or at the bare cost of propagation, seedling trees, ready for planting, of the kinds most in demand; and (3) by introducing into the Territory and testing in experimental gardens, trees of economic importance new to the Islands.

This branch of the work of the division of forestry is under the direct charge of Mr. David Haugis, the forest nurseryman, who from long experience with island conditions is well equipped to give valuable assistance to those desiring his services. Many inquiries can be answered by letter or in person, if the one desiring information will call at the government nursery, or, for the cost of his traveling expenses, Mr. Haugis will visit the locality where the work is to be done, and makes suggestions on the ground on how best to accomplish the results desired.

Free Distribution.

At the government nursery on King street in Honolulu and at subnurseries that have been established at Kalaheo, Kauai, and at Hilo, Hawaii, seedling trees of the kinds most in demand are kept constantly on hand, so that persons desiring to plant small areas may be readily supplied. Other subnurseries on each of the larger islands will be established as soon as funds are available. Extensive forest planting can best be done from temporary nurseries established near the area to be planted.

From the government nursery many trees are annually given away free. Arbor Day, the second Friday in November, in particular, is a time of free distribution. This year over 50,000 trees were given away for Arbor Day planting to homesteaders and other landowners, to schools and to the public generally.

Plant Introduction.

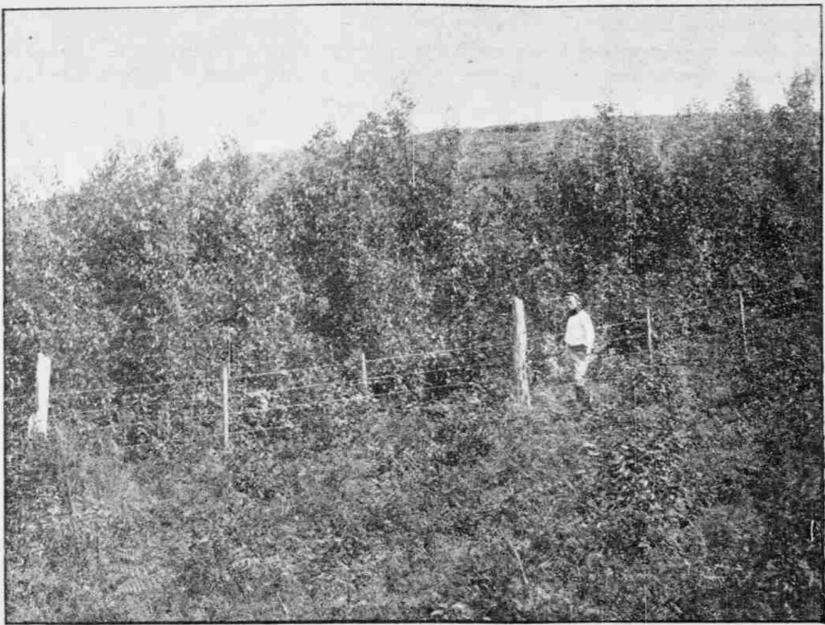
An important phase of forest work in Hawaii is the introduction into the Territory of trees of economic value. Many excellent kinds have already been secured and have become established. Much more work remains to be done both in introduction and forest planting, for there are considerable areas of waste land throughout the Territory that can only be made productive by being brought under forest.

Seed of trees and shrubs new to Hawaii is secured through purchase and exchange with botanic gardens and similar institutions throughout the world. On its arrival the seed is carefully handled in specially constructed germination houses at the government nursery. The seedlings are next moved to the recently established experimental garden in Makiki Valley, where, as soon as they are large enough, they are planted out and carefully watched. Ultimately those that prove to be of special value under local conditions will be propagated in large numbers and generally distributed.

To experiment with trees that require to be planted at the higher elevations, experimental plots have been established on the other islands where the newly introduced plants can be tried out. The information obtained in regard to these plants is published from time to time in the reports of the division of forestry.

The Planted Groves of Eucalyptus.

An investigation of direct practical value to all landowners in Hawaii is the study of the planted groves of eucalyptus, just now being undertaken. By means of careful measurements of the trees in the planted groves of known age, it is possible to construct simple yield tables, showing what one who plants certain kinds of eucalyptus may expect after a given number of years in the way of posts, ties, wood or timber. There already exists in Ha-



HOW CULTIVATION PAYS IN FORESTRY.

On one side of the fence the young eucalyptus forest was cultivated; on the other side, where L. von Tempsky stands, no cultivation was done. Both sides were planted at the same time for experimental purposes.

—Photo by R. K. Bonine.

wai a good public sentiment in favor of tree planting, but much more planting would be done if the owners of waste land, suitable only for growing trees, knew with fair accuracy what they might expect in the way of returns from the money invested in starting forest plantations. The object of the present study is to give precisely this information.

Botanical Investigations.

To formulate far-reaching plans for the wise management of the native Hawaiian forest, it is necessary that more exact information than is now available be got together concerning the trees, shrubs, vines and undergrowth, that together make up the plant family we call a forest. One of the first steps in this matter is the gathering of specimens of foliage, flowers and fruit. For over a year now, Mr. Joseph F. Rock, the botanical assistant of the division of forestry, has been at work systematically collecting botanical material for the herbarium. Eventually, when the specimens are named and properly mounted, the collection will be of great value to all those interested in the Hawaiian forest.

Along with the collection of herbarium specimens of trees and shrubs, Mr. Rock is also making a collection of the native and introduced forage plants and of the weeds found on the stock ranches. The object of this investigation is that ultimately there may be devised methods whereby the valuable plants may be spread and the undesirable kinds eliminated.

Forest Fire Service.

At its session in 1905, the legislature enacted a forest fire law, modeled closely on an act prepared for the State of California by the law officers of the United States forest service. The essential provisions of this forest fire law are the establishment of a skeleton organization for fighting forest fires, the authorization of special periods of forest fire danger, during which persons desiring to burn brush in the vicinity of woodlands must first obtain permits, and the fixing of penalties for injury resulting from the willful or negligent misuse of fire.

By statute, the superintendent of forestry is ex-officio chief fire warden. Throughout the Territory, district fire wardens have been appointed—mainly plantation managers—who have authority, and whose duty it is, to stop any forest fires that may occur in their districts. Fortunately, during the past three years there have been few forest fires of any importance in Hawaii—a fact due in part, at any rate, to a better understanding of the damage resulting from forest fire and a wider public sentiment in favor of the forest, that have been developed by the campaign of education in regard to forestry that has been carried on during the past few years.

Underlying Reasons for Forest Work.

Adequately to fulfill their mission, such movements as forestry and conservation require the backing of a strong and enlightened public sentiment. Being charged with the duty of carrying on work that has so vital a bearing on the welfare of the people, forest officials are justified in spending time and effort in making clear what forestry is and why it is that forest work is necessary under such conditions as obtain in Hawaii. It is for this reason that reports are prepared, speeches made and contributions written for the newspapers and for the monthly journal of the board, the Hawaiian Forester and Agriculturist. The end justifies, not only the means, but also the time and the labor expended.

The purpose of all forest work in Hawaii is wholly practical. Continued economic prosperity in Hawaii rests in the wise use of land and water. Without the native forests we can not have a dependable water supply. And without the planted forests we should suffer from the lack of a local supply of wood. All the efforts of the division of forestry are, in the end, aimed to meet more fully one or the other of these two essential needs. The purpose

of forestry in Hawaii may in a word be summed up to be what a recent definition has given as the meaning of the broader term conservation—"the greatest good of the greatest number for the longest time."

PRINCESS OF DARKNESS ARRIVES IN AMERICA

Eusapia Paladino, the medium whose performances are styled "the despair of science," has come to America. About her have waged the battles of savants; on her way across the Atlantic she froze the marrow of the steamship company in a stateroom seance; she converted Prof. Cesare Lombroso, the world-famous criminologist, to a strong belief in spiritism, though late in his life, to be sure; she has been detected attempting trickery during a seance, on the one hand; on the other, she has submitted to the most rigid tests of scientific men to produce triumphantly phenomena which upset all their cool hypotheses, and reduced them to the rank of common puzzled guessers.

The names of psychologists who have examined this medium make an imposing catalogue. They represented a good share of the scientific institutions and societies of Europe before Professor Lombroso made public avowal that she had him stumped. Among them, one notes Sir Oliver Lodge, Prof. Charles Richet and M. Flammarion; but the list could be continued up to more than thirty. Meanwhile, the ability of this Italian peasant woman, untaught and mentally rather sluggish, to stultify some of the keenest brains of Europe, even supposing the whole performance to be a cheat, smells a bit diabolical. Men like to be deceived, it is true, but not scientific men who are trying to expose a fraud.

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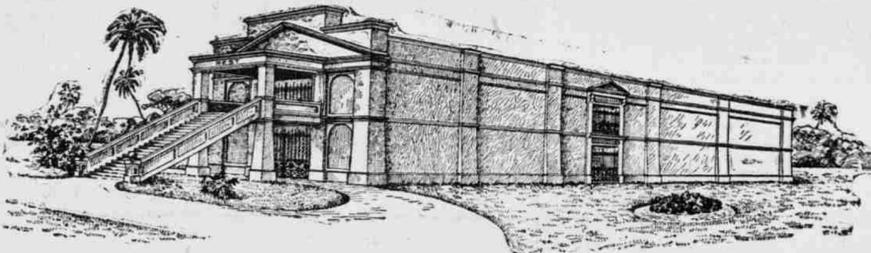
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