



Hunt Institute for Botanical Documentation
5th Floor, Hunt Library
Carnegie Mellon University
4909 Frew Street
Pittsburgh, PA 15213-3890
Telephone: 412-268-2434
Email: huntinst@andrew.cmu.edu
Web site: www.huntbotanical.org

The Hunt Institute is committed to making its collections accessible for research. We are pleased to offer this digitized item.

Usage guidelines

We have provided this low-resolution, digitized version for research purposes. To inquire about publishing any images from this item, please contact the Institute.

Statement on harmful and offensive content

The Hunt Institute Archives contains hundreds of thousands of pages of historical content, writing and images, created by thousands of individuals connected to the botanical sciences. Due to the wide range of time and social context in which these materials were created, some of the collections contain material that reflect outdated, biased, offensive and possibly violent views, opinions and actions. The Hunt Institute for Botanical Documentation does not endorse the views expressed in these materials, which are inconsistent with our dedication to creating an inclusive, accessible and anti-discriminatory research environment. Archival records are historical documents, and the Hunt Institute keeps such records unaltered to maintain their integrity and to foster accountability for the actions and views of the collections' creators.

Many of the historical collections in the Hunt Institute Archives contain personal correspondence, notes, recollections and opinions, which may contain language, ideas or stereotypes that are offensive or harmful to others. These collections are maintained as records of the individuals involved and do not reflect the views or values of the Hunt Institute for Botanical Documentation or those of Carnegie Mellon University.

About the Institute

The Hunt Institute for Botanical Documentation, a research division of Carnegie Mellon University, specializes in the history of botany and all aspects of plant science and serves the international scientific community through research and documentation. To this end, the Institute acquires and maintains authoritative collections of books, plant images, manuscripts, portraits and data files, and provides publications and other modes of information service. The Institute meets the reference needs of botanists, biologists, historians, conservationists, librarians, bibliographers and the public at large, especially those concerned with any aspect of the North American flora.

Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.

[illegible]

La Redacción de la Revista Sudamericana de Botánica recibió, de su antiguo colaborador OTTO DEGEN, de la Universidad de Hawái, la siguiente comunicación que merece ser leída y observada, también en nuestro Continente. Se trata de un caso típico, desgraciadamente no muy raro, en ciertos países nuevos, de que el Gobierno, por intermedio de la Universidad u otra autoridad, publique, costeadando la impresión, un trabajo "botánico", sin preocuparse de los errores que contenga y de los efectos y consecuencias que tal obra produzca en los círculos científicos del país y del extranjero.

"HAWAII'S CROP PARADE", by DAVID LIVINGSTON CRAWFORD. Ll. D. 305 pp. \$ 2.50. The Advertiser Publishing Co. 1937.

When a book under authorship of a university president appears, it is bound to attract attention. Hundreds, perhaps thousands, of copies find their places upon the shrine-like shelves of public libraries and schools among standard works of reference. The statements made in such books are accepted as authoritative, in fact, as Gospel Truth by the great majority of readers. They have usually been checked and rechecked by the author to reduce errors as far as humanly possible, in fairness to the implicit trust placed in such books by the reading public.

President DAVID LIVINGSTON CRAWFORD's "Hawaii's Crop Parade", an attractively bound book of 305 unillustrated pages appears at first glance to belong to such a library shrine. It deals chiefly with the introduced flora of the Islands, not with the native plants that bloom relatively unknown on our mountainsides. It concentrates on "A review of useful products derived from the soil in the Hawaiian Islands, past and present". After devoting 31 pages to "Agricultural Prospecting" and a very readable chapter to the "Historical

Club at Rumson, N. J.; and Short Hills Garden Club, at Short Hill, N. J. He lectured on "Dahlias and Their Culture" before the Massachusetts Horticultural Society on September 13 and 14.

Aided by a grant from our Exploration Fund, Professor M. A. Chrysler of Rutgers College, spent part of August in western Cuba, prosecuting studies upon the Cycads of that region. He obtained for us plants of two native species of *Zamia* and of *Microcycas calocoma*; our esteemed correspondent, Dr. Juan T. Roig, Botanist of the Cuban Agricultural Experiment Station, gave him valued assistance. Returning north, Professor Chrysler obtained for us plants of two other species of *Zamia* in Florida.

Mr. Otto Degener, who is spending the year at the Botanical Garden, studying his collections of Hawaiian plants, addressed the Torrey Botanical Club on October 29 on "Plant Collecting in Hawaii." After graduation from the Massachusetts Agricultural College with the degree of B.S. in 1922, Mr. Degener made plant collections in the Canadian Rockies and on Mt. Rainier in Washington and then proceeded to Honolulu for a year's graduate work in botany and zoology at the University of Hawaii, from which he received the degree of M.S. in 1923. During that period he made collections on the islands of Oahu, Hawaii, Maui, and Kauai. During the past year he has been a graduate assistant in botany in the Massachusetts Agricultural College.

The following visiting botanists enrolled in the library during the summer: Miss Mabel A. Rice, Wheaton College, Mass.; Prof. N. M. Grier and class, Cold Spring Harbor, N. Y.; Professors H. M. Fitzpatrick, H. H. Whetzel, L. W. Sharp, and L. F. Randolph, Ithaca, N. Y.; Prof. Frank D. Kern, State College, Pa.; Messrs. John C. Wister and John M. Fogg, Jr., Philadelphia, Pa.; Dr. J. N. Rose, Prof. E. O. Wootton, Dr. W. T. Swingle, and Miss Anna E. Jenkins, Washington, D. C.; Prof. A. E. Waller, Columbus, Ohio; Prof. Bruce Fink, Oxford, Ohio; Dr. Earl E. Sherff, Chicago, Ill.; Mr. Willard N. Clute, Joliet, Ill.; Prof. John T. Buchholz, Fayetteville, Ark.; Prof. H. S. Reed, Riverside, Cal.; Mr. Chas. S. Parker, Seattle, Wash.; Prof. Harold L. Lyon, Honolulu, T. H.; Mr. Lawrence Ogilvie, Bermuda; Prof. P. A. Bourne and Mr. T. B. McClelland, Mayagüez, P.

Rev. First Pan-Pac. Conf. 1927 R

440

PAN PACIFIC CONFERENCE: PROCEEDINGS

Arctic life zones, and varies in altitude from 8,000 to 12,000 feet. It is a region containing a very interesting flora and fauna. Selection of such areas involves the solution of several very important problems; and before such areas are set aside, there should be an exhaustive study made of all possibilities from both the scientific and administrative point of view. This is vitally necessary, because eventually there will be far more visitors in our national parks than there are to-day.

These few remarks have merely been for the purpose of introducing the subject of the reservation of natural areas for scientific study, an important project, not only in the national parks but also in all parts of our country.

The CHAIRMAN. There will surely be further discussion of this matter of the reservation of areas for scientific study, and I should be glad for further remarks from anyone of the delegates.

Mr. HAMLIN. In setting aside such areas, either in or out of national parks, I have heard it suggested by scientific men that it is exceedingly advisable to set aside many such areas under Government supervision—areas which would be located in every typical section of the country, for purposes of scientific research. One reason which they have mentioned is to me an exceedingly interesting one, namely, that of the values of plant life for food and medicine. It is a curious thing that of the plants we use in these respects to-day, many were entirely unknown before the discovery of America. As a matter of fact, the plants of the Western Hemisphere were absolutely unknown to the people of the Eastern Hemisphere. No duplication was found, and the same is true of animals, excepting the dog. This is a most interesting and curious fact. It is doubtful if we have reached the end of our tether in developing our food plants and medicinal herbs; and it is extremely advisable that every country the world over should set aside typical areas and hold these inviolate until such a time shall arrive when scientific investigation may bring to the world a discovery of inestimable value.

The CHAIRMAN. Thank you, Mr. Hamlin. Is there further discussion on this subject?

Mr. DEGENER. It seems to me that the entire Hawaiian Islands should be protected against the introduction of harmful exotic plants and animals. Within our archipelago different plants and animals are found on different islands. It is also true that the natural communities of plants and animals differ greatly even in different valleys on the same island. The island of Kauai, which lies to the northwest of us, is the oldest of the chain, and has therefore the deepest canyon, and the most varied flora and fauna. Hawaii is the largest, and also the youngest island, and has not yet been in existence long enough to develop deep canyons. If we could only make the public

lat. *non adv*
Q—In a column a few months ago you referred to potatoes as spuds. As I recall it was a column mentioning that British spuds had to be improved to compete in the European Common Market. Can you tell me how the word "spud" originated?

A—I can't, and the dictionary is no help, but one of my "fans" can. Shortly after this column was published I had a letter from a Sister Columba Collan of the Benedictine Sisters who said she came from Bangor, County Down, Ireland, and she wrote as follows: *6/6/74*

"Spud equal society for the Prevention of Unhealthy Diets."

This name was coined by a group of Englishwomen in, I think, the early 19th century. This group considered the potatoes injurious to health and tried to prevent their use even though this would have been a calamity for the 'poor Irish.' From the S.P.U.D. movement was born the humble spud—the potato."

REVIEWS

THE PRINCIPLES OF ANIMAL HYGIENE AND PREVENTIVE
VETERINARY MEDICINE: by Leunis Van Es. John Wiley & Sons,
New York. 1932. 768 pages with 78 figures. \$6.50.

This comprehensive work is a result of the author's fruitful career in the field of animal diseases. It consists of 53 chapters. The introduction cites the scope of hygiene as embracing genetic hygiene, environmental hygiene, and biologic hygiene. Then follow chapters dealing with such subjects as heredity, the soil, air and ventilation, water and food in their various relations to hygiene and preventive medicine. Each chapter closes with a list of complete references to pertinent recent literature. The chapter on foods is especially commendable, dealing with nutritive substances, various factors in spoiled food, the more common poisonous plants, extraneous impurities, infection and a series of good diagrams for hygienic feeding of large and small animals. Other subjects treated include the more important of the fungous, bacterial, virus, and protozoan and metazoan diseases of domestic animals. With the exception of the important subject of helminthiasis which is covered in only a few pages, the work is well balanced. Its wealth of material prepared in scientific but relatively non-technical form makes it admirably adapted for use not only by veterinarians and stockmen but also by Red Cross and other health workers and by laymen generally.—J. E. ACKERT.

ILLUSTRATED GUIDE TO THE MORE COMMON OR NOTE-
WORTHY FERNS AND FLOWERING PLANTS OF HAWAII
NATIONAL PARK, WITH DESCRIPTIONS OF ANCIENT
HAWAIIAN CUSTOMS AND AN INTRODUCTION TO THE
GEOLOGIC HISTORY OF THE ISLANDS: by Otto Degener. Pub-
lished by the author, 1930. \$4.00. (Obtainable from Otto Degener at
2220 University Ave., Honolulu, T. H., or at 7 Goodrich Ave., Field-
ston, Riverdale, New York City.

A general work in which the plants of the Hawaii National Park are taken up with a view of facilitating the naming of many of the plants that one might see in trips through the park. The black and white line illustrations bring out the characteristics of the most important plants; other illustrations, including several photographs, add to the value of the book. Contour maps and a general discussion of the geology and the development of the Hawaiian Islands make the book useful to others than purely botanists. It is such a book as one would like to have to study before, during, and after each visit in this National Park. Much credit is due Mr. Degener for the assembling of this material.—FRANK C. GATES.

FLORA OF MELANESIA

Native name.....Dialect.....
Collector.....
Exact locality.....
Habitat.....
Altitude above sea.....
Tree; shrub; vine; herb.....
Height of plant.....Diam.....
Flower.....
(Odor, color, etc.).....
Fruit.....
(Kind, odor, color, etc.).....
Special notes.....
Economic uses.....
Date.....

HORACE MANN A 'MODERN'

'Father' of Our Common Schools, Who Died 75 Years Ago, a Progressive in Ideas

By ROLLO G. REYNOLDS,
Principal Horace Mann School.
SEVENTY-FIVE years ago, on Aug. 2, 1839, Horace Mann died. By most laymen his name is remembered vaguely as that of an educator. To many educators he is known only in a general way as "the father of the American common school."

Yet, contrary to a general assumption, Horace Mann was not a teacher. He was primarily a statesman, who rendered his main service to the Commonwealth as legislator and administrator through bettering the condition of its schools. He was a reformer, who started many educational movements (notably that for the consolidation of district schools), which are not yet completed today.

As one reads the almost unbelievable number of his reports, speeches and letters, one is amazed at the modernness of his ideas. If Horace Mann were here today he could easily be one of the outstanding speakers at the most progressive of teachers' conventions. His philosophy expounded there would sound much like that of John Dewey in its liberality and in its focusing of emphasis on the child.

A New Englander.

His principal work was done in his native State of Massachusetts. Born in Franklin on May 4, 1796, he attended college in Rhode Island at Brown University, but returned to Massachusetts to study and practice law. By 1827 he was elected to the State Legislature, and there in ten years later secured the appointment of a board of education to revise the school laws and reorganize the common-school system of the State.

His twelve years' service as secretary of that board and the annual reports on educational policy which he wrote are his chief monuments today. Neither his later terms in Congress nor his presidency of Antioch College at Yellow Springs, Ohio, where he championed, respectively, the anti-slavery cause and that of co-education, have left so deep a personal impress upon modern thought.

Equal educational opportunities for all children regardless of where they lived; learning to read by words and groups of words rather than by letters; the provision of libraries for all schools; the efficacy of activity in education; character building as one of the great aims of education—all these and a host of other topics he discussed in his reports and addresses with a point of view as modern as that of those who discuss them today.

Work to Improve Schools.

He was a great campaigner for

the material welfare of schools. Up and down Massachusetts he traveled, arguing for consolidation of schools in order better to classify and grade pupils and to give children better advantages at less cost. He pleaded for more hygienic school houses, better ventilation, more light. He was a severe critic of school books written from the viewpoint of adults and forced upon children.

Indeed, the illustrations and comparisons which he used a century ago to show the ability of Massachusetts to finance the education of its children during a depression might well be compared with recent publications of the National Education Association in its campaign for saving the schools of today. One example will suffice. He wrote:

What is engulged in the vortex of crime in each generation would build a palace of more than Oriental splendor in every school district in the land, would endow it with a library beyond the ability of a lifetime to read, would supply it with apparatus and laboratories for the illustration of every study and the exemplification of every art, and munificently requite the services of a teacher worthy to preside in such a sanctuary of intelligence and virtue.

War and Education.

Even his illustrations of what money spent for war could do if spent on the education of children are strikingly similar to those frequently heard in recent months. Only the figures used are different. In his annual report to the Board of Education of Massachusetts he wrote, as its secretary:

In our town meetings and in our school districts, meetings wealthy and substantial men oppose the grant of \$15 for a school library, and of \$30 for both library and apparatus, while at West Point they spent \$50 in a single lesson at target firing. I suppose the cost of a common foot-soldier in the army cannot be less than \$250 a year. The average cost of female teachers for the public schools of Massachusetts last year was only \$13.60 a month, inclusive of board, or at a rate which would give \$163.20 for the year.

In his educational philosophy, like the "progressive" educator of today, he questioned the value of the formal recitation, the examination and all teaching methods which entailed gender among the pupils a competition of activity in education; character building as one of the great aims of education—all these and a host of other topics he discussed in his reports and addresses with a point of view as modern as that of those who discuss them today.

Surely he was proclaiming the modern philosophy of children's interests and children's participation when he wrote:

Children should also be encouraged to frame questions for themselves, for their own working; and, within certain limits, to frame questions for each other. In some parts of arithmetic, such an exercise would be of great utility, as it would help them to

understand more thoroughly the nature, the number and the relation of the terms necessary to form a practical question. Preparing questions would fasten more securely in the mind the principles for their solution.

Of the ordinary school recitation Horace Mann said:

I feel that too much value is ordinarily attached to the recitation. I fear it is often regarded as an object, and not as an instrument; as the goal and not as the path that leads to it.

But his opinion of examinations was not much higher:

The manner in which school examinations have heretofore been conducted has tended to make the moral progress of the children secondary to their literary attainments.

But perhaps most like a modern educational philosopher did Horace Mann sound as he paid his respects to the competitive spirit in the schools of his time, and set forth what he thought the outcome would be:

So, if a teacher desires that his pupil should be a great man rather than a good one, or that he should acquire wealth rather than esteem; or that he should master the Latin and Greek languages rather than rule his own spirit; or attain to high official preferment rather than love the Lord his God with all his heart, and his neighbor as himself—then he will goad him on by the deep-driven spur of emulation, or any other motive, until he outstrips his fellows, at whatever peril to his moral nature.

Horace Mann would be quite at home in the company of those who are students of the educational, economic and social problems which face us today as the result of the depression. In discussing the unwillingness of the rich to support public schools for all children, he wrote, in 1846:

I believe that this amazing



Horace Mann.

dereliction from duty, especially in our own country, originates more in the false notions which men entertain respecting the nature of their right to property than in anything else.

society of which we necessarily constitute a part must be preserved; and, in order to preserve it, we must not look merely to what one individual or one family needs, but to what the whole community needs; not merely to what one generation needs, but to the wants of a succession of generations.

We think that our educational and social conditions are peculiar to our times; that our problems are new and different. Horace Mann, were he here today, would not find them so strange, and how much in common he would have with those who are struggling to solve them!

Garden Opens

Fall Lectures

The fall series of illustrated lectures, which are given without charge every Saturday afternoon in the Museum Building at the New York Botanical Garden in Bronx Park, tomorrow, September 8, with a lecture on the mountains of Hawaii and the exotic plants that grow there.

Native autumn wild flowers will be the subject of the following Saturday, and the national parks of the United States September 22.

"Rambles in Hawaiian Mountains" is the title chosen by Otto Degener, formerly on the faculty of the University of Hawaii, for the opening lecture. He will describe regions where he has explored for plants, ranging from sea-level up into mountains nearly 14,000 feet high.

A resident of the Islands for ten years, Mr. Degener is now studying his collection of approximately 40,000 Hawaiian plants at the New York Botanical Garden in the preparation of his third book on the Flora of the Islands. During his collecting he visited most of the Islands of the Hawaiian Archipelago. On the Island of Molokai he camped in the mountains for five months with a kanaka or native as assistant. On this island alone he collected strange tree-violets and an enormous lobelia resembling a telegraph pole with a cabbage on top. This lobelia has straight, white flowers about three inches long. Other kinds, with curved flowers, are pollinated by a strange group of honey-birds whose beaks have the same curve as the flower. If the beak were straight, the birds, which feed on nectar, would be unable to probe the curved flowers for the nectar contained within.

These lobelias are just a few of the strange plants peculiar to the Hawaiian Islands, islands that, Mr. Degener declares, are truly a botanist's paradise of the Pacific.

Description of new book for FREE record in Cumulative Book Index, published by
The H. W. Wilson Company, 950-972 University Ave., New York City
The Cumulative Book Index is published monthly. Advertising rates on application.

Otto Degener, B. S., M. S.

Author

(Full Name)

Title: Illustrated Guide to the More Common or Noteworthy
Ferns and Flowering Plants of Hawaii National Park With
Descriptions of Ancient Hawaiian Customs and an Introduc-
tion to the Geologic History of the Islands. (Cover Title:
Plants Hawaii National Park)

Botany, Ethnology, (and Geology)

Series and Number

2000

6

1

9

in.

XV

+

313

2

Maps

Edition

No. of vols.

Size

No. of pages

Illustrations

Binding

imitation leather

Date of publication

12/30

Name and Address of Publisher

Otto Degener, Box 1133, Honolulu, Hawaii

(From whom the book may be obtained)

9-20-10,800

Herbarium Prof. Dr. ing. e. h. Dr. techn. e. h. V. Engelhardt

Flora von Italien

Smilax aspera L.

Standort: An Mauer von Cigale, Nord Lissone

Früher

5/5

1938

leg. V. Engelhardt

published in the July (1934) issue of the Transactions of the American Microscopical Society, Vol. LIII, No. 3. J. E. Ackert, Editor

REVIEWS

295

FLORA HAWAIIENSIS, OR NEW ILLUSTRATED FLORA OF THE HAWAIIAN ISLANDS: by Otto Degener. Published by the author, 1932. \$3.50. (Obtainable from Otto Degener at 2222 University Ave., Honolulu, T. H., or at 7 Goodrich Ave., Fieldston, Riverdale, New York City.)

This is the first of a series of loose-leaf books in which the flora of the Hawaiian Islands is to be taken up in the manner of a standard manual of botany on a larger scale than one would expect from just the term manual. Description of the families and keys to the genera and species are given. The plants included are illustrated with full-page outline drawings in black and white and a few from paintings in color, well executed to bring out the salient details for recognition. With very few exceptions, the drawings are original. Following the drawing, a rather full description of the plant is given in most cases. The type locality is indicated, the local range and finally the extra-Hawaiian range. One cannot speak too highly of the plan of the work and the fine quality of the drawings included. As succeeding issues are made, the loose-leaf arrangement permits assembly in a systematic order. The present volume includes a hundred plants distributed among various families of higher plants.—FRANK C. GATES.

TEXTBOOK OF GENERAL ZOOLOGY, Second Edition, Rewritten and Reset: by Winterton C. Curtis and Mary J. Guthrie, with the collaboration of Katharine R. Jeffers. John Wiley & Sons, Inc., New York. xv + 588 pages with 438 figures. \$3.75.

This work is a revision of the 1927 general zoology textbook by Winterton C. Curtis and Mary J. Guthrie. The 21 chapters in the former work are reduced to 17 in the present one and the arrangement of the material is somewhat altered. After a brief introduction, the authors launch into the vertebrates, using the frog as a type, for the reason that the student will be more interested in an animal somewhat like himself. Next follows an excellent chapter on vertebrate organ systems related to metabolism in which are stressed the nature of protoplasm, food, digestion, assimilation and related subjects. Emphasis is placed upon endocrinology in the vertebrates. Then begins work on the cell following logically through cell division, reproduction and development to heredity and variation which are given strong treatment.

At the end of chapter seven a definite break occurs which might well be termed part two. Here begins the classification and organization of animal groups, the work proceeding from the Protozoa through the Porifera, Coelenterata, Platyhelminthes, Nematelminthes, Mollusca, Trochelminthes, Annelata, Mollusca, Echinodermata to the Arthropoda. The classification is carried through classes for each of these phyla with the ex-

CITIZEN TOTAL IN POPULATION SHOWS A GAIN

Number of Residents
Board of Health Director
Past Fiscal Year Sent to Governor

Although Hawaii's population declined 1,263 to 378,530 during the year ending June 30, 1934, the territory's population registered an increase of 4,831 in the same period.

These figures are revealed in a report submitted to Governor Joseph B. Poindexter today by Frederick E. Tropea, president of the board of health. His population statistics have been compiled by the bureau of population and pure food.

The following tabulation shows Hawaii's population as of June 30, 1934, by areas, with a comparison with totals as of December 31, 1933:

	1933	1934
Honolulu city	142,218	141,976
Rest of Oahu	65,130	65,028
City of Honolulu	15,430	15,409
Rest of Hawaii	60,803	60,502
Kauai	6,818	6,837
Mauai	37,232	37,176

Mauai county	58,400	58,300
Totals	379,580	378,948
The following tabulation shows comparative population figures by nativity:		
	Dec. 31, 1933	June 30, 1934
Hawaiian	21,948	21,796
Asiatic-Haw'n	15,794	16,250
Caucasian-Haw'n	17,906	18,169
Portuguese	29,094	29,236
Puerto Rican	7,239	7,280
Spanish	1,263	1,267
Other Caucasian	45,980	45,888
Chinese	26,966	26,989
Japanese	147,507	148,024
Korean	6,844	6,838
Filipino	58,530	58,700
Others	776	711

Totals 379,580 378,948

The decrease in the Filipino population, the Hawaii during the six months' period was 1,830, or more than the total decrease for the entire territory.

The following tabulation shows the citizen and non-citizen population of Hawaii, by nativity, as of June 30, 1934:

	Citizens	Non-Citizens
Other Caucasians	44,503	1,183
Chinese	21,640	1,349
Filipino	13,139	43,561
Hawaiian	21,796	—
Japanese	105,957	42,067
Korean	3,965	2,673
Asiatic-Haw'n	16,250	—
Caucasian-Haw'n	18,169	—
Portuguese	27,217	2,019
Puerto Rican	7,280	—
Spanish	1,009	258
All others	686	25

Totals 281,613 97,335

The total of citizens compares with 276,781 on June 30, 1933, and the number of aliens with 102,167 on the same date.

The decrease in population in the six months ending June 30, last, was 632.

Increase of 4,831 Recorded Despite Shrinkage in Population

Hunt Institute for Biological Documentation

under water, so it staid, for a period of seven and a half minutes.

Five days later, the Iphigenia lost an anchor, and in this case the cable had evidently been cut. Word was sent to Kamehameha that unless the anchor was recovered, the ship would be subjected to a cannonade by the guns of the two ships. Divers were once more set to work, a rope was attached to the anchor and it was hauled on board. When ashore, Kaiana, Kaiana, who wished to remain on Hawaii, was sent ashore with many presents, such as tools, pieces of cloth and bars of iron.

In the following year, 1789, Douglas returned to Kealahou, and while there learned of a plan to kill him and seize his ship, Kaiana, who was mixed up in this affair, tried to attach the blame to Kamehameha. Douglas, however, learned the truth of the matter, and on arriving at Kealahou, he gave his letter, stating that he was a shipmaster who could trust Kamehameha to try to build a ship for Kamehameha as a friend.

When Capt. Ingraham of the American ship Hope arrived at Kealahou in 1791, he learned that the Lady Washington commanded Davis, who had been there before him. This being the case, the Lady Washington was the first American ship to anchor in Kealahou. It is assumed that this was during this visit of the Lady Washington that James Boyd, the mate, and the Rev. John Howell, the clerk, left the ship to establish their residence in Kona.

Ingraham was handed a letter from Kendrick and another from the Spaniard, Quimper, who had been in the bay a short time before. These letters told of arrangements of plots to seize respectively the ships of Kendrick and Quimper. The plots were frustrated by Kamehameha the Great, who afterwards banished Kaiana from Kona for having been involved in them.

TOO MUCH EXPENSE INVOLVED IN PLAN

Quimper's ship was the Princess of Wales, a vessel that had been captured by the British at Nootka. When the Spanish authorities at Nootka learned from traders about these islands, according to Restarick, they sent Quimper supple with fearful that some visiting vessels might do great injury. Some visitors reported favorably, but the expense of establishing such a settlement was deemed too great.

This incident is additional proof to show that Cook's discovery in 1779 gave the Spanish their first knowledge of the Hawaiian islands, for they had been searching for a place to call for many years. Quimper wrote that at the time of his visit 16 ships had visited the group since the death of Cook.

In March, 1792, Capt. George Vancouver, who had been with Cook, arrived in the bay, but remained only a few days. Kamehameha handed Vancouver a letter from Quimper, recommending the king as friendly and reliable. Vancouver received the king as a chief he had seen while here with Cook.

Vancouver returned from the northwest coast in February, 1793, and again anchored at Kealahou. He was the recipient of many presents, including feather cloaks and helmets. Vancouver was visited by two of his countrymen, Young and Davis, who told him of the capture and the Fair American, and how Kamehameha regretted the transaction.

and of his continued kindness to the other officers of the Discovery.

The English navigator found the king seated on the island of Owyhee, and these brought back the good supply of fresh water, for which payment was made with two pieces of iron.

It was at this time that sheep and cattle, and also orange trees and useful seeds, were given to Kamehameha by Vancouver. The idea was that these would be useful to the Hawaiians and later would be of use to provision visiting ships.

TRIED TO BUILD SHIP FOR KAMEHAMEHA

In January, 1794, Vancouver made his last visit to Kealahou. According to Vancouver, James Boyd was in the service of Kamehameha. The English captain decried Boyd as being "industrious and ingenious man," who was to build a ship for Kamehameha. A quantity of wood had already been collected by Boyd as the first step in this project.

Although Boyd, with Young and Kendrick, they asked Vancouver to lend them ships' carpenters to help them. The keel was soon laid of the ship, which was 29 feet long, and was the first modern vessel to be built in the Hawaiian Islands.

It was through the kindly offices of Vancouver that Kamehameha became reconciled to Kaianamun. Settlement of this quarrel between king and spouse was made aboard the Discovery while anchored in Kealahou. In summing up his opinion to the Hawaiians as he had seen them during his several visits, Vancouver said: "Our reception by these unlettered people, called savages, was such as seldom equaled in civilized nations, in contrast with the inhospitality shown us in Monterey and San Francisco."

Just before Vancouver sailed, a most important ceremony took place on the island of Hawaii to the Great South. Such a session had been frequently discussed with Kamehameha, who favored it because it was fearful that some visiting vessels might do great injury. Some visitors reported favorably, but the expense of establishing such a settlement was deemed too great.

BRITISH FLAG GOES UP: SALLIE FIRED

A council of chiefs was held at which the question of cession was fully discussed and, according to Restarick, the king possessed any objections that were made. Consequently having been taken on shore, a ceremony took place on shore, at the conclusion of which the British flag was hoisted and a salute was fired from the ships. Vancouver took possession of the Hawaiian Islands in the name of his Britannic majesty, and on Kamehameha's residence was affixed a copper plate bearing the following inscription: "On the 25th of February, 1794, Tamahehahamehah (Kamehameha), king of Owyhee (Hawaii), in council with the principal chiefs of the island, assembled on board his Britannic majesty's sloop Discovery, in Karakakooa bay, and in the presence of George Vancouver, commander of the said sloop; Lt. Peter Puget, commander of his said

to majesty's tender the Chatham, and the other officers of the Discovery; after due consideration, unanimously ceded the island of Owyhee to his Britannic majesty, and acknowledged themselves to be subjects of Great Britain."

Although the British government never accepted the cession, it was acknowledged by other nations. Ebenezer Townsend, an American who was here in 1798, knew of the cession, and he reported that when a vessel arrived, Kamehameha would always ask for the latest news about his "sovereign," King George. According to Townsend, Kamehameha the Great had an exalted opinion of the English, "because they had been there in the king's ships and had brought him presents."

After 1794, when Kamehameha removed to Kailua, ships began to visit that port and also that of Kailua rather than Kealahou. It was in after years that Honolulu became the leading port of the islands. In 1802, Turnbull visited Kealahou, and while there saw a good deal of the Englishman Young, who acted for the king in dealings with foreigners.

Turnbull reported that under Young and Davis there had been of different species of that tree. It built for the king some 20 vessels ranging from 30 to 70 tons burthen. Young told him that after Cook's death, the Hawaiians feared retaliation, and that was the reason the chiefs did not visit ships until after the coming of Vancouver's expedition.

OLINDA FRUIT GROWING WELL

Nono Star District Has Great Possibilities As Fruit Region, Says

Dr. Krauss

There is every likelihood that the Olinda region will become an important fruit growing region, in the opinion of Dr. F. G. Krauss, director of the University of Hawaii agricultural extension service.

On a recent visit to Maui, Dr. Krauss inspected several fruit projects. Reporting in the recent Extension Letter of the service, he said:

"The Dave Fleming orchard was found in very prosperous condition because the trees are well pruned and the soil well cultivated. Many of the old avocado trees are being top worked with improved varieties. A half dozen fine cashew trees were found in full fruit. A ten acre orchard is being planned for Haden mangoes.

"The two carob trees near Honolulu, which N. F. Ambrose, county agent, is especially interested in disseminating seedlings, we found in full pod and it seems to the writer, at least, that the tree is worthy of wider distribution.

"The orchard project of O. S. Childs at Olinda, covering about 12 acres, is making headway, considering the severe drought through which it has passed during the past year. The small apple orchard of M. Kobayashi of Waialua is making excellent development. Considerable fruit was harvested from some of the young trees."

1000 AUSTRALIAN CEDAR TREES ARE PLANTED ON OAHU

Planters' Experiment Station Concentrates Activity In Helemano District

Since the recent rains, a thousand Australian cedar trees have been planted in the upper Helemano district of Oahu, according to a report from the planters' experiment station. The Maunawili ranch has planted some 2500 trees supplied from the station's Honolulu nursery.

The eucalyptus forest on the land of Kawaioo, this island, is also proving valuable, the report states, and under a source of seed of different species of that tree. It has been planted some years ago by the Hawaiian Agricultural Co. and is systematically arranged.

Forestry operations locally call for eucalyptus plantings in only a limited degree, it is explained, but the seed is in demand in other tropical countries and thus is a valuable material for purposes of seed exchange. There are now available the eucalyptus citridora, eucalyptus cornuta, the crebra, the globulus, the hemiphila, the leucocylon, the longifolia, the muelleriana, the paniculata, the saligna and the siderophylla.

In the Hilo reserve, maintained by a group of plantations, and including the Hilo and Lapa-hoehoe sugar companies, which have entered into a cooperative agreement with the territorial board of agriculture and forestry in order to support the forest reserve above them, 16,363 trees have been planted. The Honoumuli district has received 1930; the Pihonua district 200; the Punahoa district 11,100; and the Papaikou district, 2200.

The Kohala project, comprising the Kohala mountain reserve and the Hamakua-Pali reserve, reports the planting of nearly 1000 trees in the lands of Haleiwa, Waipahoehoe and the new forestry projects on Kauai in which plantations on that island have organized their forestry unit and are working in cooperation with the forestry department of the planters' association, now has trees in readiness for planting and operations will begin, it is stated, despite the danger of dry weather in the near future.

Scenes From Nassau

Every Saturday afternoon The New York Botanical Garden, Bronx Park, stages a free educational programme.

The feature on May 4th was "Plants of Tropical Regions with Scenes from Nassau" by Mr. Otto Degener, collaborator in Hawaiian Botany.

Mr. Degener wintered at Nassau this year.

MARYKNOLL IS ON LAND ONCE IN "SUBURBS"

Fruit Trees Standing On
Property Give Idea of
How Region Was Once

By GWENFREAD ALLEN

Fruit trees of many varieties on the grounds of the Maryknoll school on Wilder Ave. and of the adjoining home of the Maryknoll sisters on Dole St. stand as evidences of the once suburban atmosphere of this district.

The house itself stands as a landmark in the district, dating back well towards three quarters of a century.

The land was a part of the original Punahou tract, given by Boki in 1829 to the Rev. Hiram Bingham. Thus, strange as it may be, the property which so early in its recorded history was intended as a site for a Congregational school, has now become the site of a Catholic school. And, in the years between, it was for a period the home of an official of the public school system of the monarchy.

But Punahou never used any of its land makai of Wilder Ave. and the school and mission authorities later sold the tract. The area between Wilder Ave. and Dole St., facing 300 feet on each street, became the property of the Paris family, who built the home which is still standing.

At the time, and for several decades later, Wilder Ave. was just a winding trail makai of the rock once of Punahou, just wide enough for an old fashioned wagon and team of horses to go along, kamaikai recall. Dole St. was a more developed thoroughfare, and so it was natural that the house was built to face this street.

The property later was sold to D. C. Baldwin, son of the Rev. Dwight Baldwin, one of the earliest missionaries to Hawaii. Mr. and Mrs. D. C. Baldwin had been married on the mainland in 1837 soon after Mrs. Baldwin completed his studies at Yale, and they came immediately to the islands, first living at Lahaina, then in Kohala, and then at Lahaina again. Then they went back to Mrs. Baldwin's birthplace, where Mr. Baldwin was a school librarian at Yale college, before they returned to Honolulu and took up their residence at the Dole St. home.

Here, for nine years, Mr. Baldwin was inspector general of the public schools of the kingdom. One of their children, Nathaniel, died during their residence in Honolulu. Of the other eight children who romped and played in the old house, one, Charles W. Baldwin, inherited his father's interest in education and later won 37 years in the school department, retiring in 1930 as principal of Kaahumanu School.

The other children were Lillian, Charlotte (Mrs. Frank Atwell), Eraman Dwight, Lillian, Margaret, Winifred Morris (Mrs. John Wed-

A Rural Area 40 Years Ago



The driveway entrance—some 40 years or more ago—to the home now occupied by the Maryknoll sisters on Dole St. near Alexander looks very different from its present appearance. Below, a group on the lawn during the occupancy of Mr. and Mrs. Henry Davis. Left to right: Henry Davis Jr., Florence Davis (Mrs. P. E. Shea of Schofield), Beatrice White, Mrs. Charles T. Olin, Esther White and Emily Davis.

Mr. Baldwin's hobbies was the collecting of land shells, and a small cottage on the property housed his collection.

The Baldwins left the Dole St. home to go to Maui, where Mr. Baldwin became vice principal of Lahalauna seminary, and for several years the house stood deserted. Then, in 1886, Henry Davis moved into it to remain until 1901, when he moved to a house owned by Queen Liliuokalani on the mauka.

All of the Davis children except the oldest son, Foster, were born on Dole St., these including Emily, Elmer, Alan, Florence and Henry.

Even during the last decades of the 19th century when the home had already been standing for some time, the district had the air of a suburban area. The streets were lit more than dirt trails. The Hawaiian church, surrounded by its

district, now so thickly built up with cottages on 50 foot frontages or less, were still scattered.

On the area bounded by Alexander, Dole, Punahou and Wilder, there were only two houses, the Lyons house, pictured in The Star-Bulletin last week, on Alexander and Dole Sts., and the present convent. The big area at the corner of Alexander and Wilder Ave. was for some time planted to sorghum for the cattle of Dr. Whitney, who lived where the Kapiolani maternity hospital is now.

The land was from the Davis property to Punahou belonged to Claus Spreckels, as did a large tract across Dole St. makai, where Mr. Spreckels later built.

The land was for a long time overgrown with algaroba and weeds, in which condition it remained for many years until it was divided into the house lots and sold after the death of the owner. Across Punahou St. there was a line of state homes, and at Punahou park stood an old Hawaiian church, surrounded by its burial ground.

In all the trees now standing on the grounds were set out, Gerrit P. Wilder obtained his early interest in horticulture from the trees here. Mr. Davis imported the famous No. 11 mango, besides having a large number of other mangoes growing. There were tropical fruits galore—orange, sour sops, sweet sops, cherimoyas, avocados, purple and white star apples, breadfruit, tangerines, cashew nuts, gacinas, and Samoan palms. One row of palm trees led to the house, another bordered a drive along the seaward side of the lot, which circled around to the side entrance of the house and then led to the barn.

Animals of all kinds were housed in the rear half of the lot. Pigs, rabbits, cows, horses, sheep, dogs, guinea fowl, pigeons, chickens, monkeys, parrots and canaries found room to roam here.

Last private owners of the house were Mr. and Mrs. Alexander (Alikia) Dowsett. Members of a prominent island family, they moved into the house early in the 20th century and occupied it for a number of years.

Five office leaves, most of them printed on both sides, have been issued by Dr. Otto and Ida Deffenoe for their "Flora Hawaiiensis," a new illustrated botanical flora of the Hawaiian Islands. These leaves present a description of the plant on one side and an illustration of it on the other. Publication was aided by a grant from the National Science Foundation.

Groups included are: The casuarina family and its familiar ironwood tree; the native family and a key to its genera; the pineapple family and key to its genera; the scotch watercress, a member of the mustard family.

Dr. Deffenoe has been working on the flora of Hawaii in search of a more healthful climate in 1931, and the following year married the stepdaughter of a prominent Honolulu physician and ophthalmologist, Dr. Wesley Newcomb.

Dr. Deffenoe has been working on the flora of Hawaii in search of a more healthful climate in 1931, and the following year married the stepdaughter of a prominent Honolulu physician and ophthalmologist, Dr. Wesley Newcomb.

Dr. Deffenoe has been working on the flora of Hawaii in search of a more healthful climate in 1931, and the following year married the stepdaughter of a prominent Honolulu physician and ophthalmologist, Dr. Wesley Newcomb.

FLORA HAWAIIENSIS

By E. H. DEFFENOE

Dr. Deffenoe has been working on the flora of Hawaii in search of a more healthful climate in 1931, and the following year married the stepdaughter of a prominent Honolulu physician and ophthalmologist, Dr. Wesley Newcomb.

Mark Twain In Paradise

By MILDRED LEO CLEMENS, F. R. G. S.
Copyright, 1935, By The Star-Bulletin

The Star-Bulletin offers herewith the story of Mark Twain's adventures in the Hawaiian Islands, an account written by a cousin who has visited here and who has for this land the same deep regard borne by the world famed humorist. The series will consist of 20 chapters.

CHAPTER 9

To island folk the following incident as related to me by Charles S. Crane will add interest to the foregoing account of that voyage by water made by Mark Twain when he shipped in the Boomerang with the father of the present supervisor.

"Charlie" Crane, as I knew him in 1916, told me his father remembered Mark Twain's visit to the islands in 1866 and told me a story connected therewith. But, somehow, I never recorded the details at that time and it was not until one day in 1934, during my last visit to the islands, that I determined the next time I saw Mr. Crane I would corner him, or lasso him or do something to get that tale.

We met one day near the post-office, both seemed in a hurry, but I turned after our passing aloha and hailed Mr. Crane and never let him escape until I had made notes as related and here it is: Capt. Ezra D. Crane, father of "Charlie," came to the Hawaiian Islands in 1846, from New Bedford, Mass., and became captain of one of the inter-island schooners that ran between the islands.

One day the captain and his vessel (the Boomerang) were both at the pier in Honolulu when a man unknown to the captain came down to the dock and asked, "Where does this craft go?"

"Well, we're going up to Hawaii," said the captain.

"Do you take passengers?" further queried the stranger. "Yes," replied the captain.

"What time do you sail?" was the next query.

The captain informed his questioner and before long the ship to sail Mr. Clemens appeared with an old-fashioned carpet bag (a two handled contraption) and booked passage on the ship for Hawaii.

On the voyage the cook was taken sick and the captain turned cook and tried to make biscuits and Mark Twain wrote, "His intentions were good but his biscuits were damnable."

It was not until later that the captain learned the identity of his noted passenger.

One needs only to thumb the pages in Roughing It, written five years after his island visit, to see vividly the impressions that particular voyage made on Mark Twain. It was all new, strange, fascinating, a fringe edge of which was still remaining in the islands and on inter-island travel 30 years later when in 1916, for the first time the writer sailed those same channels of sapphire hue with their emerald island settings.

Mark Twain first visited the Kona district, landing at Kailua. He tells us in The Innocents at Home or Roughing It, "By and by we took boat and went ashore at Kailua, designing to ride horseback, through

the pleasant orange and coffee region of Kona, and rejoin the vessel at a point some leagues distant. This journey is well worth taking."

Who of us who have spent languorous days in Kona's never ending summer but that feel the soft lull of these lines, "The trail passes along on high ground—say, a thousand feet above sea level, and usually about a mile distant from the ocean, which is always in sight, save that occasionally you find yourself buried in the forest in the midst of a rank tropical vegetation and a dense growth of trees, whose great boughs overhang the path, haunted with invisible singing birds and fragrant with the odor of flowers."

He tells us that "we stopped some time at one of the plantations, to rest ourselves and refresh the horses." The plantation here mentioned may have been that of the Lacks (grandparents of the late Mel Nicoll), who in Mark Twain's day lived in North Kona at Holualoa, nine miles from Miss Ella H. Paris' present home. Miss Paris told me during my visit with her last year



Mark Twain coming to their old home in Kona and talking with her father.

that she knew Frances Lack (Mel's mother, later Mrs. Coon), and that Mark Twain stopped with the Lacks.

During my first visit to Hawaii in 1916 I was introduced to Mrs. Coon at the pier in Hilo. She had been over to visit Melvin and Gladys Nicoll, and was sailing on the same steamer I was returning on to Honolulu. On our voyage Mrs. Coon (Frances Lack Nicoll Coon) told me this story about Mark Twain, who had visited at her father's plantation.

"A gentleman who gave his name as Clemens had come to the plantation and after the custom of those days had asked if he might stay there for a time. He was most welcome and proved a delightful well-to-do man. But father was essentially practical and farming on a re-passes along on high ground—say, Our guest took life a little too eas-

ily, I suppose, and one day father said to mother, somewhat testily, 'I wonder who that dunder is? He's too lazy to hoe a row of potatoes.' After awhile Mr. Clemens (for such he had introduced himself) went away, without having reformed. One day there came an autographed copy of an article by 'Mark Twain' acknowledging our hospitality and giving a beautiful description of our place which he called 'an oasis in the desert.'

Father scratched his head when he saw the signature, then said, much mollified, 'So that was Mark Twain' (for that name did mean something to us), then added, with the old spirit, 'Well, anyhow, he was too lazy to hoe a row of potatoes!'

Miss Paris remembers Mark Twain coming to their old home and talking with her father. He was dressed, she told me, 'like a traveler, a little rough looking.' She did not hear or remember what was said but she remembers his visit. Mr. Paris (the first missionary in the Kau district of Hawaii) was a regular subscriber to the powerful Sacramento Union in which Mark Twain's weekly letters were then appearing.

Wednesday—Twain explores the Napoosoo region.

Books On Hawaii Given To Library Harlingen, Texas, May 1942

HARLINGEN—Otto Degener, former University of Hawaii botanist who said that he had no way of storing his books, has given three volumes on Hawaii to the Harlingen Public Library.

Mrs. Gerald W. McKenna, librarian, Tuesday acknowledged the receipt of three bound and three unbound volumes from Degener.

Two of the volumes are "Flora Hawaiiensis," on the flora of the island. It is illustrated.

Another of the bound volumes is "Plants of Hawaii National Park." In it, Degener emphasizes the culture of ancient Hawaii as exemplified by the use of native plants found in Hawaii National Park and other parts of the islands. There is a non-technical discussion of the formation of the island, Hula dancing, history of the sugar cane and pineapple industries, surf riding, etc.

There is a color picture of the volcano Kilauea at night.

ISSUE WARNING ON SOUR GRASS

Drive out sour grass!

This is the call sounded by the Hawaii agricultural experiment station.

The grass is one of the worst grass pests ever to find its way into the territory, the agronomy division of the station reports, and in a short time it has spread rapidly over Oahu until it now menaces all pastures as well as cultivated lands. A few small spots have been reported on Maui and Molokai as well.

In agricultural notes No. 141 issued by the University of Hawaii agricultural extension service, J. C. Ripperton and E. Y. Hosaka urged united action on the part of the entire community to rout out the grass.

"A dollar spent in keeping out this grass would be more effective than many dollars spent otherwise in pasture improvement," they say.

"Where only small patches occur as on Maui and Molokai, these should be dug up and destroyed. If the plants have flowering heads, these should be carefully removed and burned, since they scatter from the head very easily. The infested area should be visited periodically for a year or two and any new seedlings coming up from scattered seed dug up before they flower.

"Once the grass gains a foothold of any size, it is probably not possible to eradicate it. Attempts



are being made on Oahu to eliminate it by means of very vigorous grasses like kikuyu grass and tall grasses like panicum grass and elephant grass."

Sour grass, sometimes called Puerto Rican grass, is not often confused with other grasses, the agronomists point out. Panicum torridum has the same silvery flowering head but is dissimilar otherwise. The plant is a bunch grass, upright in growth, and three to four feet tall. The flowering heads are silvery in appearance.

'Diogenes' Makes Amends For His Article On Hawaii

By "DIOGENES"
(In the Literary Digest for November 24)

"Diogenes" of the Literary Digest has made amends handsomely for a recent article, second here with much unfavorable comment. The article, which followed President Roosevelt's visit to Hawaii, was taken as a reflection on the capacity of the islands for self government and particularly as an expression of doubt that the young islands of Oriental ancestry would be loyal to the United States.

Protests went from Hawaii to "Diogenes" and in a later issue appears the article reprinted here-with.

President Roosevelt's trip to Hawaii last summer stirred the people of the "Paradise Islands" to more than demonstrations of the "aloha spirit" with song, parades, leis, and a lively concern for his fishing luck.

Always extremely anxious that the Territory of Hawaii shall be recognized as "an integral part of the United States," the Hawaii people became, with the President's visit, more acutely sensitive to comment about them on the mainland than they had been ever before.

An illustration of this comes in Diogenes in the form of protests he has received from Hawaii against some of the comment on this page on August 11, 1934.

Particularly the Americans in Hawaii declare that the racial picture as it was painted puts an altogether exaggerated emphasis on Japanese population, and entirely too little emphasis on citizen population, and on the steady development of good social and political conditions. All of the dozen races living happily and progressively together.

Japanese Population
It was pointed out then that the "Japanese vote" was gaining numerically at a rapid and steady rate and that this rise in the Japanese vote caused apprehension both to military and naval authorities, and to the civilian elements.

I commented that "official records made available to the president show that these citizens of Japanese origin, most of them only one generation removed from their ancestral soil, are being made voters at a record-breaking rate, promising them racial plurality in the next general election, a numerical majority within the decade, and thus make legislative control, and, possibly, even seats in congress."

Dr. Adams' Analysis
Opposed to this conclusion is an analysis received from Dr. Ramon Adams, former professor of sociology at the University of Hawaii, who is credited with being perhaps the foremost authority on Hawaii's population trends.

Dr. Adams, in a recent analysis, found that whereas in 1924 the Japanese in Hawaii constituted 44 per cent of the total population, they constituted but 40 per cent. Also, in the year ending June 30, 1924, children of Japanese blood born in Hawaii constituted 48 per cent of all children born that year.

The Japanese in Hawaii, alien, as

well as citizen born, are dropping fast in the percentage tables. Doctor Adams said. Furthermore, the alien generation is passing fast by death and removal, and the citizen generation is growing up as an American group.

Chance of Government?
I commented that "the pressure for taking steps now to keep Hawaii distinctly American comes quietly from the American national defense authorities on the islands, and that there is a growing conviction that the United States should support the present system of self government with a commission form, the commissioners of which would be appointed from Washington."

Vigorous and sturdy objection to any such course comes from the islands, whose ability to govern themselves.

In the recent political campaign in the territory, "home rule" was ardently espoused by both parties with the Republican party leading in a slashing attack on the national administration for encouraging certain congressional legislation alleged to have the effect of weakening self government in the islands.

"Carpetbag" Bill
The people of Hawaii were especially incensed over a bill which passed the house, but later was withdrawn from the senate by President Roosevelt, and which would have opened the way for the appointment

of a mainland as governor. This so-called "carpetbag" bill has been insinuated by the Republicans as evidence that the national administration is not standing by the principle of development of local self government in Hawaii. President Roosevelt, in his speech to the Hawaiians, said: "Your administration will not forget that you are in very truth an integral part of the nation."

The Jones-Costigan Sugar Control act, the constitutionality of which recently was upheld by Justice Bailey in the District of Columbia supreme court, has similarly been under fire in Hawaii. Hawaiians people hold that it discriminates against Hawaii in its quota provisions, and that by lumping Hawaii with Cuba and the Philippines, it classifies Hawaii as a possession, instead of as an integral part of the United States. The domestic territory. The trustees of the Hawaiian Sugar Planters' association entered the suit for injunction, but behind their action was the indignant protest of large number of the people of the territory.

Campaign Issues Cited
This too, was a campaign issue in the recent territorial campaign. The Republican party came out with a united front against the Jones-Costigan legislation. The Democrats split on it. One faction, led by the present delegate to congress, L. McCandless, opposed the legislation as the Republicans had done. The other, led by John H. Wilson, Democratic national committeeman for Hawaii, endorsed the legislation. Wilson himself became a candidate for the delegate nomination against his fellow Democrats. The latter won easily in the primary; thus both the Republican and Democratic standard-bearers in

the fall campaign in Hawaii were exponents of pronounced opposition to this prominent piece of Democratic national legislation. Apparently in protest against the national administration, Hawaii went Republican thus soon after President Roosevelt's visit.

Cummings Is Quoted
Hawaii's "place in the nation" is really the question, and the issue underlying all the citizens are order and persisting in their demand that their territory shall be recognized as truly American. They quote Attorney General Cummings, who, after a visit to the islands, announced publicly in Washington that Hawaii is a "most law-abiding, well-governed community, with an all-pervading spirit of democracy, and evidence of tolerance that is most gratifying."

And on any suggestion that their young citizens were not, in the main, loyal and dependable in an emergency, they rise up in indignant protest.

Mandarin Is Easily Cooked With Other Citrus

By S. F. AMBROSE

This article on mandarin hybrids is one of a series by Mr. Ambrose on Fruits You Ought to Know. Mr. Ambrose will answer questions addressed to him at his home at Waiakoa, Maui. Send stamped, addressed envelope.

The mandarin hybridizes readily with other citrus varieties, either naturally or by hand pollination. Last August, John Hoffman, engineer with East Maui Irrigation Co. gave us some limes he had found growing up in the forest along the ditch trail.

Upon examination, these wild "limes" were found to be of the kid glove type, with flesh the color of a tangerine and the sections splitting apart just like the tangerine. It had the mixed flavors of lime and tangerine but was acid, like the lime. This was probably a lime-tangerine hybrid that occurred in the wild from a chance seedling. Mr. Hoffman is propagating it for his home.

Mr. Ambrose
Referring to USDA yearbook of 1937, we find a description of some of the finest tangerine or mandarin hybrids we have today.

The Tangelo
The tangelo is a mandarin (tangerine) pomelo cross and gets its name from "tang" of tangerine and "elo" of pomelo. Two of the earliest such hybrids were the Sampson and Thornton. Both are being grown here, but have not proved popular on account of short season, disease susceptibility and poor keeping qualities.

Eight other hybrids were introduced ten years ago by the USDA and gave us some fruits far superior to the earlier introductions. Four varieties with the same advantage as the first tangelos gave us fruits with greater resistance to disease, longer ripening season and better keepers. They are Orlando, Seminole, Minneola and Yalaha tangelos.

Crossing the Sampson tangelo back on the grapefruit gave a new

brid called by some the tangelolo but correctly named wekiwa tangelo. The fruit is smaller than the parents but pink fleshed.

Probably the best tangelo for our Hawaiian conditions may be the San Jacinto, especially for the warmer areas, since it succeeds where it is too hot for other varieties. It was not produced by crossing, but is a seedling of another tangelo. There are several other tangelos, but the writer has never been able to get enthusiastic about any of them. We have eaten many without pleasure and have not a single tree in our orchard.

Journal N. Y. B. G.
Portrait of Fiji
And of a Personality

NATURALIST'S SOUTH PACIFIC EXPLORATION. FIJI. Otto Degener. 303 pages, illustrated with 100 plates. Published by the author, P.O. Box 187, Waiakoa, Oahu, T.H. 1949. \$5.

Otto Degener has a niche in botanical history for giving his name to the Degeneriaceae, the genus *Degeneria*, and numerous little "degeneri" as specific names. He now has another niche: as the author of this volume, which recounts his explorations while with the Amherst Archbold expedition on the motorized jink *Cheng-Ho*. Here is a book to take its place beside the classics of the 19th century traveling naturalists, thoroughly modern yet in an established style and tradition that has a parallel in such compositions as Prokofiev's "Classical Symphony."

The author has a rare trait of choosing his native friends with discernment, and of gaining their affection with their confidence—a task difficult in a land where

the race problem is no letter (or worse) than in our own Lynch-southern towns. As a result, this delightful account of his wanderings about the islands, filled with the human side of his experiences yet presented with the impartiality of a scientist (even to a minutely detailed description of yangona drinking, with clocked notations, some at one-half min-

"Parts of the book appeared originally in the Journal of the New York Botanical Garden for September and October 1941, with quite intervals during the ceremony," all

give us an exciting picture of the island's today.

The book is written with a complete lack of that "diplomacy" that often colors the words of professional lecturers and travelers and others seeking to climb success's ladder, and the narrative is backed by supporting chapters on the history of Fiji and its customs. When today has gone, the volume will serve the ethnologists of the future for its basic data of this age.

"Portrait of Otto Degener" might well be the subtitle of this unusual book, which is all the more pleasing since the picture appears unplanned and unconsciously drawn. A hundred little anecdotes, some uncomplimentary to himself, and the absence of such stories as many authors use to prime their pomposity, all have

their cumulative effect. As one closes the book, one knows not only Fiji, but also Otto Degener the man—so sage and kindly that one wishes more of his kind would tread the earth.

FRANK E. ELLIS,
Aton Forest, Norfolk, Conn.



In the upper picture, Mrs. Alexander G. Hawes Jr. is shown placing a lei on the Pacific cable on December 23, 1902, at the ceremonies just before the opening of the service. The cable came ashore at Sans Souci, where Mr. and Mrs. Hawes had gone to live a short time before. At the left, in the photograph, are Mr. Hawes, who was aide-de-camp to Governor Sanford B. Dole, John H. Blas, Mrs. Ranny Scott, Dr. Frank Humphris, Mrs. Humphris, Gilchrist Hatch, Dr. Herbert, S. S. Dickinson, and Dr. G. P. Wilder. Below, left, a "turn of the century" group on the pier extending seaward from Sans Souci. Right, a view of the "old lanai" as it was when it was occupied by Robert Louis Stevenson in 1893.



Standing Up for Hawaii's Rights

I The Jones-Costigan Act

(Editor's Note: The writer of this series of articles is a kamaaina resident of Honolulu—born in the islands and thoroughly familiar with economic, social, racial conditions here.)

II Oriental Populations

When annexation of the Republic of Hawaii to the United States was being negotiated, it was urged by the Hawaiian commissioners that the elective franchise be not extended to Orientals, since such people had never been eligible for citizenship under either the Monarchy or the Republic of Hawaii; also, that the elective franchise to all citizens of the territory-to-be should be placed on a qualification basis; third, that the contract labor system be permitted to continue. All of these suggestions were in the discretion of congress, overruled.

Under the contract labor system Hawaii had full control of immigration from the Orient, not only with respect to the number to be admitted periodically, but also the length of their stay in Hawaii and the purpose for which they would be permitted to remain. Involved in this control was this very important power—to send back to their homeland any immigrants who violated their contract of employment or who decided against renewing the same at the expiration of the original term of years.

Abrogation by congress of this system resulted in the necessity for a constant replenishment of Oriental (and later, Filipino) laborers who quit the plantations for the towns and suburbs of Hawaii, there to compete in business and the mechanical trades with Occidentals.

Now, just what is this "menace"? Has it been defined, and, if so, has it any foundation in fact? Although not officially acknowledged, it inheres in the surging tide of the Oriental vote in Hawaii.

From a careful and scientific an-

alysis by Dr. Romano Adams incorporated in a pamphlet, entitled "Administration in Hawaii," printed for the use of the congressional committee on territories and insular affairs, published January 16, 1933, we quote the following:

"Studies in the trends of the population of Hawaii: . . . 'Next to the white people of American and North European ancestry the lowest refined birth rate, age and length of residence considered, is that of the Japanese.'"

"Whatever may have been the causes that have operated on the American mainland to diminish the birth rate among the people of the old American stock, they appear to be operative among the Hawaiian born descendants of the immigrants from China, Japan and Portugal."

In the same article this prediction is made: "It now appears to be probable that by 1940 the Japanese will have 25 to 30 per cent of the citizens eligible to vote."

Actual results of recent elections in Hawaii show these things to be true:

(1) That none of the racial stocks vote as a group;

(2) That where a candidate has appealed for support by reason of his common racial origin with that of his constituency, one of two things has happened:

(a) If he is a native-born Hawaiian, his election appearances are successful; or (b) if he is a foreigner, other racial groups have "pitched up" against the candidate. This has been true in conspicuous instances: the Japanese, Koreans, and Chinese, as groups.

(b) The voters of his own race have rejected him for the very reason he put forward by the candidate in support of their support, i. e., that he was of their common racial origin.

In response (b) we find the most convincing answer to the fears expressed on the mainland as to an overwhelming local Oriental electorate and government. For these union Americans by absorption, whether

Chinese, Japanese, or Filipino, are born American citizens—are not really aware of the repercussions attendant as 'our own farmers' potential in such a political reversal to feudalism. By their responses at the polls they expressed unmistakably their resentment toward politics by polychromes or polyglots. (Next article: Loyalty of New Citizens.)

ISLES SHOULD KNOW STATUS SAYS JOURNAL

Hon. Star-Bull

Sympathy For Hawaii Urged In Review of Reviews

Editorial Column 12/29/34

(Special Star-Bulletin Correspondence) SAN FRANCISCO, Dec. 14.—Expressing sympathy for Hawaii in her fight concerning sugar quotas, the Review of Reviews, weekly news service bulletin, this week gives a resume of island history, saying that the islands "want to know whether they are in the union or out of it." Going back into the days of annexation, the editorial states that Hawaii was never Spanish. . . . The first treaty proposed that Hawaii come in as a state . . . but later a territorial status was agreed upon, and the formal compact provides for incorporation "into the United States as an integral part thereof."

Statesmen's Errors "But 36 years is a long time," the editorial goes on, "2,000 miles is a long distance from the mainland, and statesmen sometimes err." President Roosevelt himself, adding dressing on sugar restrictions last February, said: "I believe that we can increase the returns to our own farmers, contribute to the economic rehabilitation of Cuba, provide adequate quotas for the Philippines, Hawaii. . . . This was Hawaii cast out of the union. The people who live there—82 per cent of whom are native

People Aroused "They come after the people of a foreign country; after the Filipinos, who once had to be congered and are now acquiring independent status by demand. . . . The Jones-Costigan act that followed perpetuates this discrimination against Hawaii, and the people of the islands are aroused. They pay internal revenue taxes to the Treasury greater than the combined taxes of Arizona, New Mexico, North and South Dakota, and Wyoming." Honoluluans and other island residents at Hotel Stewart this week ve included David L. Crawford, and Mrs. Frederick G. Krauss, a Beatrice Krauss and Wentworth Kihney.

Plants and Customs

We have received a copy of the book "Plants of Hawaii National Park Illustrative of Plants and Customs of the South Seas" by Otto Degener, B.S., M.S. Mr. Degener was formerly a Botanist at the University of Hawaii and a Naturalist at the Hawaii National Park. He also acted as Collaborator in Hawaiian Botany at the New York Botanical Garden and served as Botanist on the Archbold "Cheng-Ho" Expedition to Fiji, 1940-41.

The book is fully illustrated with drawings and describes in detail plants peculiar to the tropics. It should be of special interest to anyone in the Bahamas who would like

to study the history of plants and learn something of their habitat. Hawaiian Daily Tribune 2/25/1967

Botanist Has Third Volume

By E. H. BRYAN, JR.

Flora Hawaiiensis, the new illustrated flora of the Hawaiian Islands, book 3, by Otto Degener is published by the author.

Otto Degener, Hawaii's free-lance botanist, has made available to the public the descriptions and excellent illustrations of another hundred plants found in Hawaii.

The first volume of his loose-leaf flora appeared in 1933; the second in 1935; and now comes the third "century." Each is a systematically arranged series of loose leaves, which have been printed gradually during the interval between their issue in substantial, gaily-adorned, black and yellow covers. Key names and numbers make it possible for the pages to suit his personal fancy, either in one systematic sequence or by special topics.

One page is devoted to each plant species, with a well drawn illustration on one side and notes and description on the other. Besides a detailed, somewhat technical botanical description of the plant, the information includes its scientific and common names, references to synonymy, type locality and range. These species pages are interspersed with keys and notes regarding higher classifications or groups of plants.

One feature of this issue is an 18 page "Glossary of Botanical Terms." The student of botany must, unfortunately, learn a new language in order to understand exactly what the botanists write. In fact, much botanical information is written entirely in Latin. But even when the scientist is supposedly writing in English, he uses a great array of technical words which have very special meanings. Some 650 of these are carefully defined, with two pages of sketches to illustrate the meaning of 11.

The loose-leaf arrangement makes possible the indefinite expansion of this flora, as well as giving the author a chance to correct or change pages already issued. It is estimated that there are between 2500 and 3000 species of plants well established in Hawaii. We look forward with pleasure to the forthcoming 22 to 27 volumes, by which time many more plants will have been introduced. The job will never be finished, but what there is good, and to be recommended to all those interested in Hawaiian plants.

Growth Of Macadamia Nut



A sample page from Otto Degener's new illustrated flora of the Hawaiian Islands, the third volume of which has just been issued. This is the plate illustrating the macadamia nut.

FLYING SPRAY

By KENNETH P. EMORY

Honolulu, No. 23 Bulletin

(Flying Spray appears every Friday in The Star-Bulletin)



RETURNED VOYAGERS OFFER CORAL TO THE GODS

Arriving off its home island a Tuamotuan double-canoe received a garland of leaves to be draped over its bows. A master of ceremonies, twirling his carved staff, danced and sang at the edge of the reef. As the people assembled to take hold of the long ropes by which the canoe was to be hauled ashore, he led them in lively and merry songs which roused their spirits of the effort.

We have seen how the canoe was taken ashore gliding over the butts of coconut leaves. When it lay housed in its shed, each traveler took his thank offering, and a piece of coral representing the body of Ruahatu, god of the ocean, and went to the tribal, open-air temple. Laying his coral on the altar of Ruahatu, he presented his offering to the priest.

Large fish, turtles, pigs or dogs were obtained for a feast to which the ancestral gods would be invited. The animals were dispatched and cut up on the temple grounds. The best parts were set aside to be offered to the gods and then consumed by the priests and chiefs, earthly representatives of the gods.



DANCES HIGHLIGHT THE HOMECOMING

While the food was cooking in the great earth ovens, solemn and sacred songs were sung by the men. When the food was cooked,

it was divided. Each ate his fill and then repaired to the tribal assembly ground. When all had gathered, the orators started off with chants in honor of the voyagers, the lands visited, and exploits of their ancestors. Songs in praise of the canoe were sung. Then spear-fighting and other contests were held, and finally dancing carried the festivities in to the night.

At the termination of the canoe welcoming ceremony held for us at the island of Vahitahi, the elders remained seated on their mats, conversing until the bonfires which had lighted the assembly ground burned down. It being a fine night they wrapped themselves in their mats, and, right where they were, lay down to sleep, lulled by the gentle rustle of coconut leaves overhead.

Much of this traditional ceremony remains in modern Hawaii. When the refitted MATSONIA first arrived offport her bow was hung with a giant malle lei — island acknowledgement of her safety, speed and luxurious comfort. — Castle & Cooke, Ltd., General Agents for Matson Navigation Company. (Adv.)

Man Killed In Park Av. Crash

George Ludwig Degener 3d, thirty, of Timberlane, Tuxedo Park, N. Y., was killed and a companion injured when a car in which they were riding collided with another at 59th St. and Park Ave. at 4:15 a. m. yesterday.

Mr. Degener, a bond salesman for Rand & Co., 1 Wall St., was thrown from the car by the impact, striking a plate glass window at 505 Park Ave., on the northeast corner of 59th St.

Henry Peckham, of 321 E. 79th St., a driver of the car in which Mr. Degener was riding, was taken to Roosevelt Hospital suffering from concussion and a fractured shoulder. His condition was described as good.

In the other car were Jack Lipsman, seventeen, of 1137 White Plains Road, the Bronx, who was uninjured, and Frank Wilt, twenty-three, of 1680 Third Ave., who was treated at Roosevelt Hospital for an injured right shoulder and discharged. Police said Mr. Peckham's car was going south on Park Ave. and turned left to go east at 59th St. The car driven by Mr. Lipsman was going north on Park Ave., when the accident occurred.

Mr. Degener was a member of the Tuxedo Club. Surviving are his wife, Mrs. Louise M. Hegeler Degener; a son, George; his father, George L. Degener 2d; a brother, John M. Degener; a step-brother, Monroe B. Hall; a step-sister, Miss Joan Hall, and his grandmother, Mrs. S. L. Degener.

SANS SOUCI'S HISTORIC HOME OF OLD HAWAII

Waikiki Place, Once Residence of R. L. S.; On Route of Cable From Mainland

By GWENFREAD ALLEN

One of the best known of all Waikiki homes is Sans Souci, made famous by the residence there of Robert Louis Stevenson.

For many years Sans Souci—the name means "Without a Care"—was borne also by the Potsdam palace of Frederick the Great—has been one of the showplaces of Waikiki. Its original 15 acres have been reduced in size, but it still is an extensive holding and borders a particularly attractive part of the coast, rich in literary lore and surrounded by an air of gracious hospitality.

Sans Souci was originally the property of Allen Herbert who, 50 years ago last June "determined to open his premises at Kapiolani park as a family resort and watering place."

"The management of the place will be in the hands of Mr. and Mrs. Hamilton Johnson," said a Honolulu paper of that day. "No more pleasant place, either for a picnic or residence, can be found."

Ownership later passed from Mr. Herbert to Mrs. Alexander Hutchins-Hawes Jr. and from her to her son-in-law, Judge Francis March Hatch, Hawaiian minister to Washington for many years.

In 1893, Judge Hatch leased the property to George Lycurus, who in more recent years has been manager and proprietor of the Hilo hotel and Volcano House.

Stevenson Recalled

It was in the first year of Mr. Lycurus' lease of Sans Souci that Robert Louis Stevenson was a guest there. Many years afterwards, Allen Hutchinson, who sculptured a Harriet, Hatch Hartwell, and a bust of Stevenson, wrote a description of Sans Souci at that time.

It was in one of the rambling hangings of Sans Souci, facing the surf, that Stevenson gave me meetings," Mr. Hutchinson wrote.

"In 1893, Sans Souci was a rambling hostelry, nestled among the coconut and palm trees of Waikiki beach. It was kept by an Englishman named Simpson, and was truly Bohemian, with no pretense at modern luxury; the only beach hotel can remember. The main building was a ramshackle wooden structure a huge room which served as a dining room combined, a 'lanai' to which the kitchen and offices were attached.

"The guests occupied small bungalows, thatched-roof affairs about by 12, the bed being the principal article of furniture. It was in one of these bungalows that Stevenson had established himself, propped up with pillows on the bed, in his shirt sleeves."

Writer Often Ill

Although Stevenson's illness confined him often to his room, at other times he was able to be about the grounds and go to the beach. He loved to lounge with his feet on the porch, looking out at the sea, and pointing out to the beach the distant mountains.

mountains.

During the first part of Stevenson's visit, he was busy writing "The Master of Ballantrae," which appeared serially in a prominent eastern magazine. That finished, he enjoyed his leisure and delighted in receiving Honoluluans who called upon him.

Extending out from the Sans Souci property into the water was a long pier, which held interest as being the only deep water pier in Waikiki. Its construction was advised by Admiral Hugh Rodman, then a captain and a friend of the Hatch and Hawes families.

Later, for 12 years, Sans Souci was the home of Mr. and Mrs. Alexander G. Hawes Jr.

During their occupancy, the Pacific cable was laid, and a part of the property was sold to the cable company for a place where the cable might be brought ashore. This was one of a number of pieces of Sans Souci land which were sold, another piece being used for the Castle-Irwin home where the War Memorial natatorium now stands and another part for the McInerney home between the natatorium and Sans Souci.

The opening of the cable was a particularly gala event in Honolulu, and Sans Souci was thronged with thousands who attended the all day open house.

In the absence of other members of the family in Washington, Mrs. Hawes Jr. was invited to make a speech on this occasion and place a lei on the cable.

She cherishes as mementoes of the event a piece of cable given her as a souvenir and messages of congratulation sent her by persons prominent in communication circles.

Nor was this the only time Sans Souci was the scene of interested visitors.

"Hordes of tourists used to drive into the grounds in order to see where Robert Louis Stevenson had lived," Mrs. Hawes recounts. "They would ask for a leaf from the banana and banyan trees which Stevenson used to write under."

"Finally, I had to stop giving the leaves as souvenirs, as the trees were nearly stripped bare of their foliage."

The property is now owned by Harriet, Hatch Hartwell, and Mrs. Charles Hartwell and she and her husband make their home there.

Several of the older buildings have been torn down, but others are standing, including the house built by Judge Hatch when he first made his permanent home at the beach.

The Stevenson lanai, now familiarly known as "the old lanai," is also there, being used as a ballroom, although it has been remodeled during the years. The pine floor has been covered with tile, and the curved pillars have been removed to form a partition, thus dividing the building. But the picture of hulls which was painted on the pillars by Stevenson's artist-stepson, Lloyd Osbourne, were carefully preserved and are in other parts of Sans Souci today.

Just across the lanai are two rooms which Stevenson also occupied but which have been remodeled in recent years.



John Tennant

46 PRESTON STREET, BRIGHTON, 1, SUSSEX, ENGLAND

3/4/29
S2 DEGENER (Otto) PLANTS OF HAWAII
NATIONAL PARK Illustrative of Plants and Customs of the South Seas. With 314 pp. text, map and 96 figures in the text, 8vo. wrappers, 1945 16/-
Photo-lithograph edition of Ferns and Flowering Plants of Hawaii National Park.
A specimen of the giant Pandanus from Japan, sent by Secretary H. P. Woodcock, the Hawaiian Promotion Committee to the secretary of the New York Chamber of Commerce.
100 YEARS AGO—1900
A specimen of the giant Pandanus from Japan, sent by Secretary H. P. Woodcock, the Hawaiian Promotion Committee to the secretary of the New York Chamber of Commerce.
H 12/29
H 5/29

ARGOSY BOOK STORES, 114 East 59th St., New York 22, N. Y.

PLANTS OF HAWAII NATIONAL PARK Illustrative of Plants and Customs of the South Seas; by Otto Degener.

A grand new work by the famous botanist—314 pages and 96 figures will prove invaluable to any student of botany or the Pacific Islands.

Degener's New Island Flora Of Public Interest

200 Excellent Drawings
Of Hawaiian Plants
Included

Flora Hawaiensis, the new illustrated flora of the Hawaiian Islands, by Otto Degener. Books 1 and 2, 1932-1935. (\$3.50 each.)

Review by E. H. BRYAN, JR.*

Pictures speak a universal language. To understand a scientific description one must first learn the technical language of the scientist; but even a little child should be able to recognize a well drawn picture.

That is the main reason why we believe that the general public should hear more about Otto Degener's illustrated flora of Hawaii. Now that his second volume is completed and on the market, there are available 200 excellent drawings of Hawaiian plants. Each drawing depicts a different species, some native to the islands, some introduced.

By this time professional botanists are well acquainted with this loose-leaf flora; so it is not to them that this review is addressed. Rather, we hope that it will serve as an introduction for this valuable publication to some of the thousands of students, teachers, parents, lovers of Nature and of the great out-of-doors, and visitors to Hawaii, who may want to know more about the plants which grow in our forests, our

gardens, along our streets, even in wayside fields.

A GOOD BEGINNING

The reader should not yet expect to find in this a complete flora of Hawaii. Degener has undertaken a tremendous task, which will occupy his time and resources for many years to come, if he succeeds in carrying out his plan. It has been estimated that there are at least 2,500 species of flowering plants and ferns in Hawaii. The 200 species pictured and described to date are thus but a good beginning. But they include many kinds concerning which inquiries are frequent, as well as several new species; and already a very useful and valuable contribution to the subject has been made.

The arrangements, in loose-leaf form, is capable of indefinite expansion and revision. The pages are not numbered, but are arranged according to a simple but ingenious system of classification. Or, for that matter, the pages may be removed and rearranged in any way the owner may choose.

For each species one side of the page holds the illustration, the other the printed data. The drawings show the leaves, flowers, fruit, and details of important parts. The other side sets forth the scientific and common names of the plant family, genus, species, and authority; reference to the original description of the plant, and other names by which it has been known and their references; a careful description of the plant; its type locality, local range, and other regions in which it is known. At the top of the page is the key number and names by which the pages may be arranged, or by which the species may be found in the book.

Although but 100 species are given in each volume, these contain around 300 pages, for there

are pages which discuss the families and genera of plants and give keys by which these and the species may be separated; and indices will be included.

EXPERIENCED BOTANIST

Degener has been in Hawaii since 1922, and during this time he has been an energetic and enthusiastic student of the plants of these islands. For a time (1925-27) he taught systematic botany at the University of Hawaii, and he was also Naturalist at the Hawaii National Park in 1929. He has built up one of the largest private collections of Hawaiian plants in existence, numbering between 40,000 and 50,000 specimens. Two years ago he took his specimens back to the New York Botanical Garden, which contains one of the finest herbaria, especially of Pacific Island plants, in the world, and made an intensive study of Hawaiian species. Recently he returned to Hawaii.

At his own expense he has employed and developed several collectors and student artists, who have assisted him in collecting plants and making drawings of them. In 1930 he published an excellent "Illustrated Guide to the more common or noteworthy Ferns and Flowering plants of Hawaii National Park," which in addition to being what its name suggests gives much information about ancient Hawaiian customs and plant usages, and notes on the geologic history of the islands.

Copies of these books may be obtained from the Honolulu Paper Co. and other book stores, or they may be obtained directly from Degener at 2220 University Avenue, Honolulu. Although we may not all agree with Degener's nomenclature, for it is hard to see old established names supplanted by new ones, nevertheless these books contain a wealth of valuable information, and the illustrations are excellent. They are to be commended to anyone interested in Hawaiian plants.

A Hawaiian Plant



FROM NEW FLORA—This attractive drawing of the familiar, wayside partridge pea is an example of the high quality of illustrations of Hawaii plants to be found in Otto Degener's new Illustrated Flora of the Hawaiian Islands.

*Curator, B. P. Bishop Museum, Honolulu.

SAVAGE CIVILIZATION. By Tom Harrison. 461 pp. New York: Alfred A. Knopf. \$4.

By MARTHA GRUENING

TOM HARRISON is a young English biologist and explorer who, at the age of 22, led the Oxford expedition to the New Hebrides. His work with the expedition was ornithology, but becoming fascinated with native life he remained behind when the other members of the expedition returned to England. For about two years he lived among the natives, chiefly at Malekula, and became probably as nearly one of them as any white man ever has. One result is the present book, an extraordinary and fascinating mixture of autobiography, adventure story, travel book, history and cultural study. It is almost wholly unlike any other book I have read in any of these categories. Written with incomparable zest and freshness of observation, it combines the careful observation of the scientist with an extraordinarily wide and thorough documentation, a distinctly clear-eyed approach to New Hebridean culture untainted by any "white man's burden" preconceptions, a crisp and vigorous style and a gift for anger. It is at the forces in non-savage civilization by which savage civilization has been so nearly annihilated that this anger is directed.

Mr. Harrison is not sentimental about this civilization. He is merely objective, accepting and seeking to understand its limitations as well as its achievements. His studies have convinced him that the record of the New Hebrideans in their contact with white men over several centuries of recorded history has been definitely superior to that of the latter in many respects. Here, particularly, his objectivity and his documentation are impressive. He does not see all white explorers as cruel or cunning and pays tribute to the comparative humanity of two great navigators, Captain Cook and Bougainville. But he gives free reign to his anger as he reviews the cruelties, treacheries and stupidities of such later adventurers as the sandalwooders, the copra dealers, the blackbirders and of the governments which protected them. He is not only angry and bitter but completely convincing on these heads, as well as on the official and missionary stupidity which has contributed to native depopulation. He is not, however, anti-missionary; on the contrary,

After two years [he writes], when I had got used to missionary manners . . . I say with Robert Louis Stevenson:

"With all their gross blots, with all their deficiency of candor, humor and common sense, the missionaries are still the best and most useful whites in the Pacific."

I go further: I say that if the missionaries had come to the islands and done nothing, just sat down and drawn salaries until they died or were murdered, they would still be the best people in the Pacific. For every one else was doing worse than nothing.

Because of this worse than nothing, because of white greed and violence, because of epidemics accidentally or deliberately introduced, there has been an undoubted cultural decay among the natives as well as actual depopulation on a tremendous scale. Iconoclastic here as elsewhere, Mr. Harrison has vigorous and original things to say against the widespread idea of the inevitable psychological despair of the native in the face of white civilization, popularized by Rivers and others. He echoes Lord Olivier's contempt for the "mysterious law of nature which causes native races to die out before the white," and agrees with his dictum that "the causes are only a mystery at a distance. On the spot they are easily recognizable as violence and starvation, and civilized drink and disease."

Certain weaknesses in the New Hebridean character and culture—since, as Mr. Harrison recognizes, people are fundamentally pretty much alike—have also contributed to this decay. One is the New Hebridean version of keeping up with the Joneses. In primitive as in less primitive societies prestige has great psychological importance, and in both it is based to a large extent on possessions. Among New Hebrideans in their native state it is the possession of pigs, which are at once food and medium of exchange, the source of wealth and power and the chief objects of ritual sacrifice. After 110 years of trade contact, the native has additional wants, but they are fewer than in a society less rigidly traditional.

The white has yoked the Hebridean onto iron, mouth organs, guns and tobacco with definite effect. Calico has been in demand where the natives wish to join the mission or to cease making their difficult

tasks. . . . He wants the harsh cutting axe-blade, the quick killing gun; never mind the twiddly bits or ornamented handles. Yet, in immaterials nothing can exceed the twiddliness of graded society rites or the continuous line drawings so like Paul Klee.

It follows naturally that "by Western standards the Hebridean is definitely a crude artist in the tangible arts, a fine artist in the dance of life. I doubt if it is safe to judge axes and culture by its highest art, its minority passions. The integration of art and every individual in the community must be considered. In the Hebrides every man is a simple material artist with keynote efficiency."

In this connection the author particularly stresses the basic commonality of savage life. "Hebridean art is skill guided by rules, the rules of the past and of purpose. . . . Individual art would be against the whole training of native life." Also, "Tools are of the simplest. These uncivilized have not sought better ones. For centuries that was their success, in slow growth from firm roots. Stone implements imposed their simplicity on the objects made." They also imposed a long, slow rhythm on native life which the impact of white civilization and the quick cutting metal axe have tended to destroy.

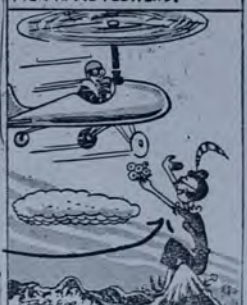
But in spite of such changes and the accretions and exchanges with other native as well as with white cultures, tradition is still the dominant force in native life. As Mr. Harrison sees it, "Tradition confines the native between, as it were, two parallel lines. One line bounds the spiritual and ghostly beliefs, often vague, the other determines down to the tiny details of domestic and food-relationship. Within these confines the whole community is pushed by the forces of psy-

chology in one zigzagging progression. It is as if the whole of England were one class of business man." A class who were, however, never "vandal, anti-social or mean." This is apparently his final and reasoned appraisal, based on a full experience of savage ways, even those ways which are most repugnant to Western ideals, such as the cruelty and crudity of sex initiations which shock Western readers who may take child labor, modern warfare and other civilized brutalities in their stride, and the utilitarian practice of cannibalism which still exists in Malekula within ten miles of two radio stations, the mission stations of three denominations and the official representatives of two civilized governments.

No review can do full justice to the range of this book, to its richness and variety, its poetry, its vigor and breadth of outlook and its almost incredible narrative. Despite an ordered plan explained by the author in the introduction, the reader is plunged into so many curious and complicated aspects of both savage and civilized life that he may well share the slight bewilderment expressed as follows in Mr. Harrison's unique and characteristic summary:

"I asked that a space* be left in this book, after the index; six pages. With the whole book in print I could round it off, gather together all the threads, put civilization in a coconut shell. But today I am 25 and maybe I don't know quite enough, after all. I had better head for central somewhere and learn to cut down a tree with a stone axe while there is yet time. Time for What? Time (at last) for a quick one. . . ."

BOTANIST TO USE HELICOPTER TO SCALE HAWAIIAN PEAK-WHERE NO MAN HAS EVER REACHED-TO PICK RARE FLOWERS!



"My hero! I knew you'd finally make it!"

Special Alumni Edition
Ka Leo o Hawaii, 5/26/37

WEDNESDAY, MAY 26, 1937

Alumni

Otto Degener '23 Reviews Book By Crawford On Hawaiian Crops

of the dedication program at the new Beretania tennis court which has been renovated by W. R. and A. L. Castle in memory of their parents.

ADMITTED TO PRACTICE

Thomas M. Waddoups was admitted on Wednesday, May 12, to practice law in the district courts of the territory. Waddoups was popular at the university, being one of the peppiest cheer leaders at Manoa.

FRIENDS GREET DR. KEMP

Attorney General and Mrs. Samuel B. Kemp invited 150 friends to greet Dr. Dorothy Kemp, practicing physician from San Francisco, at a cocktail party given the earlier part of May. Dr. Kemp with Jane Kay Worthington was instrumental in founding Gamma Chi Sigma, one of the leading sororities at the university. She left on the Lurline, May 21, to resume her work in California.

VISITING IN HONOLULU

Domingo Los Banos, who was an exchange from Stanford to the university in 1920-21, has been in Honolulu studying agricultural techniques. He is now employed by the Kauai Pineapple and Fruit Co. in Kalaeo, Kauai.

ATTEND CONVENTION

Miss Doris Sugimura, '33, Miss Mary Akinaka, '34, and Miss Chikoko Sadayasu, '29, attended the N.H. territorial convention as advisers from Hawaii. They visited with friends in Honolulu the last weekend in May.

BON VOYAGE

Carlos Hancey, who has been nominated for the Board of Governors, is leaving on June 19, for Salt Lake City, Utah, where he will meet Mrs. Hancey. After a vacation on the coast, the Hanceys will return in the early fall to resume their work at the university.

SAILS ON EMPRESS

Mrs. Bertha Russell, charter member of the Wahi-alua chapter, is now a teacher at McKinley, leaving Saturday, June 12, on the Empress of Russia for the N.E.A. convention in Detroit. Her daughter is accompanying her as a major in physical education at an eastern college.

FIRST CHINESE ON CLIPPER

Miss Gladys Ling-Ai Li, '30, who has been lecturing on the west coast, claimed the distinction of being the first Chinese woman to take the Clipper for the first commercial trip to China the earlier part of this month. Ling-Ai, as she is professionally known, was active in Hawaii Quill work, being president in '29.

PICNIC AT KIHAI

Alumni of the Central Maui chapter, led by Louis Gaspar, will take merry with a farewell picnic at Kihai Kalama park on Friday, May 28. Clever invitations have been sent out by the secretary, En Ferreira.

WILL STUDY MUSIC

Mrs. Alice Bell, former teacher in the music department, will study music in Salt Lake City.

"HAWAII'S CROP PARADE" by D. L. Crawford. The Advertiser Publishing Co. \$2.50. Review by Otto Degener, M.S., Univ. of Hawaii '23; Faculty, Univ. of Hawaii 1925-27.

When a trained scientist, a world-acknowledged authority on Hawaiian Psyllidae or Jumping Plant Lice, blossoms forth with a book on plants, both entomologists and botanists prick up their ears. The entomologists must regret that one of their learned members has forsaken their fold for greener pastures, while the botanists must welcome a valuable neophyte to a study sorely neglected in Hawaii. When the self-same author turns out to be no less a personage than the president of the University of Hawaii, because of the prestige of the position, not only the scientists but also the layman will take notice.

President David L. Crawford in "Hawaii's Crop Parade" has given us a volume that, after some

changes, deserves a place in the library beside Neal & Metzger's "In Honolulu Gardens" and Kuek and Tongg's "The Tropical Garden." Like these two popular garden books it deals chiefly with the well-known or important plants of the Islands, not with the obscure ones that bloom unseen in our mountain recesses. Unlike these books, however, it concentrates on "a review of useful products derived from the soil in the Hawaiian Islands, past and present," and is not concerned with ornamental plants. After devoting 31 pages to "Agricultural Prospecting" and a very readable chapter to the "Historical Outline of Agriculture in Hawaii," the author parades various crops before us in alphabetical order. On the first page stand, for instance, Abaca, Acacia, Akala, Alcohol, while on succeeding pages march such subjects as Avocado, Bees and Beekeeping, Coffee, Dairying, Eucalyptus, Frogs, Goats, Horses, Indigo, Macadamia Nut, Ostrich, Pineapple, Sugar Cane, Taro, etc. This parade, after dealing with a good 300 distinct topics, ends on page 289 with Yard-Long Bean and Yerba Mate. The expected straggler, Zizyphus jujuba, has found his place among the Js.

At the modest sum at which "Hawaii's Crop Parade" can be procured, this work is evidently not a business venture in the literary field but the ripe result of a labor of love. It is largely a well-documented and attractively bound compilation, compact and not interspersed with troublesome maps and illustrations. Where such a large array of subjects is given, errors are apt to appear, and in this instance their number is generously large. The reader can, by the simple expedient of pasting several pages of ERRATA on the inner covers, have a very instructive reference work.

It is usually wisest for the successful entomologist to stick to his bugs no less than for the successful cobbler to stick to his last. According to the reviewer's belief a book on crops to be worth while and safe for classroom use should be written by a trained botanist or agriculturist, hardly by a university president perhaps distraught with executive duties. From a perusal of the plant names alone, it is perhaps fortunate for our University that "Hawaii's Crop Parade" is not an official document. Should the author retire from administrative duties this year to return to teaching, the reviewer suggests that he go back to insects, his first love, and not go back to plants.

Wedding Bells

Friends of Edwina Leilani O'Brian will be interested to learn that Miss O'Brian will be married to Lloyd Kaapana in Honolulu, the early part of June. Graduates of the university, Edwina and Lloyd are teachers on Hawaii.

LESLIE-WISE

Announcement has been made of the marriage of Miss Haunani Leslie to John Wise, Jr., football player, on Saturday, May 8, with Rev. John H. Wise officiating.

EHLERT-GODBOLD

The marriage of Miss Virginia Ehlert and Wilfred Godbold was solemnized at the Central Union Church, Saturday, May 8, with Rev. J. Leslie Dunstan reading the marriage lines. Mr. Godbold received his B.A. from the university, and law degree from Alabama.

TRIMBLE-BARRUS

Miss Estelle Trimble, daughter of Mr. and Mrs. Charles Trimble of San Antonio, Texas, and Nelson Barrus, '36, will be married on Saturday, June 5. They will reside at Wai'alua, where Mr. Barrus is employed.

TYLER-BROWN

With the Rt. Rev. S. Harrington Littell officiating, the wedding of Miss Elizabeth Ann Tyler to Louis Brown took place Wednesday, May 19, at St. Andrew's cathedral. Following the ceremony a reception was held at the Kaaliwai home of Mr. and Mrs. Fred Harrison. Mrs. Brown is a member of Gamma Chi Sigma.

Keaka, and Mrs. Mary Tyau are leaving June 5 on the Lurline to attend the Mormon convention in Salt Lake City, Utah. Following the convention the party will continue to Detroit for the N.E.A. conference and then proceed to New York. They plan to fly from New York to Salt Lake City.

Students Vote For Compulsory Payment Of Dues

Students at the University think class dues should be made compulsory according to their votes in the recent election. 283 voted in favor of compulsory dues, while only 12 voted against it.



Photo by W.P. Mill, H.A.S. 1932-33
RARE PLANT—This Hawaiian "sweet pea" was found on Keauhou Ranch and photographed in 1932.

Ka'u plant commemorated on upcoming postage stamp

Hawaii Tribune-Herald, Sunday, June 3, 1979—

An endangered Hawaiian plant, "Vicia menziesii," found only in the Ka'u district, will be honored nationally on a commemorative 15-cent postage stamp to go on sale June 8.

The Hawaiian name for this rare native plant has been lost since the arrival of continental man in the Islands. "Vicia" was first seen by a western naturalist, Archibald Menzies, in 1794 in the upper Kapapala forest in Ka'u.

Later botanists found it on only four occasions in upper Mauna Loa forests despite extensive searching.

It was considered extinct for 50 years until Dr. Wayne Gagne of the Bishop Museum rediscovered a clump in the Kilauaea Forest Reserve above 5,000 feet elevation.

This commemorative stamp will be issued on a sheet of stamps featuring four endangered U.S. plants; three from mainland states and the fourth being this "Vicia" or wild broad bean that is a relative of the garden sweet pea.

The 'ohi'a-koa forests of upper Keauhou Ranch and Kilauaea forest are its last remaining habitat, shared with four endangered species of Hawaiian forest birds.

The survival of this attractive climbing vine with colorful flowers is threatened by logging, cattle grazing and wild pigs. "Vicia" is the only Hawaiian plant so far to be given official federal and state recognition of its endangered

Otto Degener '23 Reviews Book By Crawford On Hawaiian Crops

"HAWAII'S CROP PARADE" by D. L. Crawford. The Advertiser Publishing Co. \$2.50. Review by Otto Degener, M.S., Univ. of Hawaii '23; Faculty, Univ. of Hawaii 1925-27.

When a trained scientist, a world-acknowledged authority on Hawaiian Psyllidae or Jumping Plant Lice, blossoms forth with a book on plants, both entomologists and botanists prick up their ears. The entomologists must regret that one of their learned members has forsaken their fold for greener pastures, while the botanists must welcome a valuable neophyte to a study sorely neglected in Hawaii. When the self-same author turns out to be no less a personage than the president of the University of Hawaii, because of the prestige of the position, not only the scientists but also the layman will take notice.

President David L. Crawford in "Hawaii's Crop Parade" has given us a volume that, after some changes, deserves a place in the library beside Neal & Metzger's "In Honolulu Gardens" and Kuck and Tongg's "The Tropical Garden." Like these two popular garden books it deals chiefly with the well-known or important plants of the Islands, not with the obscure ones that bloom unseen in our mountain recesses. Unlike these books, however, it concentrates on a review of useful products derived from the soil in the Hawaiian Islands, past and present, and is not concerned with ornamental plants. After devoting 31 pages to "Agricultural Prospecting" and a very readable chapter to the "Historical Outline of Agriculture in Hawaii," the author parades various crops before us in alphabetical order. On the first page stand, for instance,

Abaca, Acacia, Akala, Alcohol, while on succeeding pages march such subjects as Avocado, Bees and Beekeeping, Coffee, Dairying, Eucalyptus, Frogs, Goats, Horses, Indigo, Macadamia Nut, Ostrich, Pineapple, Sugar Cane, Taro, etc. This parade, after dealing with a good 300 distinct topics, ends on page 289 with Yard-Long Bean and Yerba Mate. The expected straggler, Zizyphus jujuba, has found his place among the Js.

At the modest sum at which "Hawaii's Crop Parade" can be procured, this work is evidently not a business venture in the literary field but the ripe result of a labor of love. It is largely a well-documented and attractively bound compilation, compact and not interspersed with troublesome maps and illustrations. Where such a large array of subjects is given, errors are apt to appear, and in this instance their number is generously large. The reader can, by the simple expedient of pasting several pages of ERRATA on the inner covers, have a very instructive reference work.

It is usually wisest for the successful entomologist to stick to his bugs no less than for the successful cobbler to stick to his last. According to the reviewer's belief a book on crops to be worth while and safe for classroom use should be written by a trained botanist or agriculturist, hardly by a university president perhaps distraught with executive duties. From a perusal of the plant names alone, it is perhaps fortunate for our University that "Hawaii's Crop Parade" is not an official document. Should the author retire from administrative duties this year to return to teaching, the reviewer suggests that he go back to insects, his first love, and not go back to plants.

DR. OTTO DEGENER

West Hawaii Today, Friday, May 25, 1979-17

Dr. Otto Degener, author of eight books on Hawaii's native plant life, has been commended by the Hawaii State Legislature for "his contribution to the preservation and enhancement of Hawaii's wildlife resources."

Degener, presently living in the volcano area, has devoted more than a half-century to the study, research and compiling of information concerning the preservation of Hawaii's natural resources, according to the senate resolution.

"Flora Hawaiiensis" is a seven book reference to many plants found in Hawaii. The book was written by Degener especially for use by professional botanists. It is published in loose leaf form so that new discoveries can be added to the booklets. Degener and his wife, who assisted him in collecting the material for the books, have provided for a trust to continue the "Flora" series after their deaths.

Degener also authored and included many of his illustrations in "Plants of Hawaii National Parks Illustrative of Plants and Customs of the South Seas."

The Senate resolution stated that the people of Hawaii "owe a bottom-line debt of gratitude to Dr. Degener for his lifetime perseverance in relating humankind to the natural environment upon which we ultimately depend for survival as a species."

Degener, who is celebrating his 80 birthday this year, will receive a copy of the resolution from the State Legislature whose members feel that "this outstanding service of Dr. Otto Degener in fostering the preservation of community's precious

91

Were the browsing and trampling herbivores removed from Niihau, perhaps a few seeds of endemic plants lying dormant in the soil for 50 to 100

Chaulmoogra Oil History Is Traced By Hawaii Scientist in This Review

Monographie der Gattung *Hydnocarpus* Gaertner. By Hermann Sleumer, Botanische Jahrbücher, 69, 111-94 (plus 4), 1938.

Reviewed and Discussed by
OTTO DEGENER

The monograph of the genus *Hydnocarpus*, the source of chaulmoogra oil, by Hermann Sleumer of the Botanical Garden and Museum, Berlin-Dahlem, Germany, in spite of its technical title, is of especial interest to us here in the islands.

Hydnocarpus, at times incorrectly called *Tarakotogenes*, has been one of our most costly groups of plants. J. F. Rock, famed botanist, explorer and former faculty member of the University of Hawaii, was commissioned to go to Siam, Burma, etc., especially to procure *Hydnocarpus* seed for cultivation in the islands. He was successful in finding several kinds, one actually new to science. These, cultivated in our Forest Reserve under the expert supervision of Charles S. Judd, were to furnish a steady supply of chaulmoogra oil for chemical and clinical experimentation in search of a specific remedy for leprosy, the malapke of the islands.

We spent a king's ransom over a score of years solely in the chemical study of various derivatives, chiefly esters, of chaulmoogra oil, expressed from *Hydnocarpus* seed. The pioneer work had been done years ago in foreign laboratories. According to L. E. Warren:

"In working out the constitution of the fatty acids from chaulmoogra oil, Power and his collaborators prepared the ethyl esters, as well as several other esters, of the fatty acids."

"In 1909 a patent was taken out in Germany by a German concern for the process of preparing the ethyl and other esters of the fatty acids of chaulmoogra oil. At about the same time the same firm took out a patent for the products in Great Britain — all this despite the fact that the products and the methods for their preparation had been described in the chemical literature several years before by Power and his co-workers and their work had been given wide publicity by abstracts in scientific publications."

"The ethyl esters were sold by the German firm under the proprietary name of 'antileprol'. So far as can be learned 'antileprol' was intended to be taken by the stomach. It attracted but little attention from the medical profession, perhaps a reticence for the injustice of the patent grants. The ethyl esters are liquids which are soluble in water, thus lending themselves to use by subcutaneous, intramuscular, and intravenous injections. Hollmann and Dean appear to have been the first to carry out intensive treatment of leprosy with the ethyl esters of the fatty acids of chaulmoogra oil. Dr. Dean, as chemist, prepared the esters and Dr. Hollmann administered them."



OTTO DEGENER

"This very early history is generally known in the islands, giving rise to false rumors of propriety."

Granted permission to duplicate the patented processes, Dean, Wrenshall, Fujimoto, the legislator Guechi and a few others increased our knowledge of the chemistry of the oil a bit further. Their numerous concoctions, financed by a liberal government, were elaborately and carefully studied clinically at the Kalihi Receiving station, at Kalaupapa, and elsewhere chiefly by Drs. Hollmann, N. E. Wayson, Badger and a few other physicians. Their findings were as a whole disappointing. The effects were also carefully studied by the patients. In themselves and in others, with the result that most of the patients refuse to be injected with the various concoctions, and only a very limited number request it.

According to Dr. Ernest Muir, any kind of counter-irritant is just as useful as chaulmoogra oil, upon which hopes have risen high. "Acids painted on the leper's body sometimes cause the cells to reject, multiply, and eat up the bacilli."

According to Dr. George W. McCoy: "Actually this drug has a very limited usefulness. It is not certain that it is of any use at all in the treatment of the disease."

Dr. L. E. Warren's statement, which should be heeded by our social workers and directors of housing projects, is significant: "Leprosy, like tuberculosis, is a malady that claims most of its victims from the homes of poverty. The individual whose nutrition is normally rarely contracts the disease, regardless of the exposure to infection. Whatever the treatment in the disease, the value of hygiene, good food and an open-air life is emphasized by all clinicians."

Dr. Muir maintains that "Leprosy will have disappeared before sci-

ence finds a cure for it. All that is necessary to stamp it out is to prevent contagion by segregating lepers and removing children from leprosy parents, see that the general population has enough to eat and keeps clean."

In the Hawaiian islands the study and use of chaulmoogra oil and its derivatives have been practically abandoned, thus ending the waste of funds that can be so profitably expended elsewhere. According to the latest expert opinion, a few derivatives are efficacious in arresting the advance of leprosy. About equally beneficial results are, however, likewise gained from various derivatives of olive oil. With this discovery, our groves of *Hydnocarpus* have lost their former importance and now remain little more than botanical curiosities and aids to reforestation.

Dr. Sleumer, at the outset of his monograph, quotes a statement made by Rock in 1922, that *Hydnocarpus* is insufficiently known and requires monographic study. With the present booklet he admirably fills this need. He devotes three pages to the history of our knowledge of the oil as a reputed remedy for skin diseases. For example, the Hindus used it before the time of Buddha. The Hindus' ancient legends prove the existence of a species, *Hydnocarpus*, about 1708, in a medicinal plant, "Pentiso" of Siam, and recommended for skin diseases. The natives of Cochinchina, the Sunda Islands and the Philippines used various kinds of *Hydnocarpus* medicinally. The seeds are likewise often used to intoxicate fish to facilitate their capture. Since the end of the 18th century, a lively export trade of seeds from Siam to China and Japan existed. Europeans did not learn of chaulmoogra oil until Van Rheede's mention of it in 1678. Sleumer sets us right about the confusion of *Gynocardia* and *Hydnocarpus* oils, and briefly describes the chemical nature of the latter.

Eight pages are devoted to the botanical relationship and description of *Hydnocarpus* as a group. This is followed by about 50 pages of careful descriptions of all known kinds, 43 in all. Thereafter comes a chapter of 18 pages on the ecology, distribution and culture of the tree. Particular reference is here made to the Oahu plantings at Waiahole and in Manoa. Fifteen pages describe the fruit and seeds, both macroscopically and microscopically, of commercial kinds. A table shows at a glance which kinds are known to produce chaulmoogra oil, the size of their fruit and the number of seeds per fruit. Three useful lists are added: one for determining all 43 kinds of *Hydnocarpus*, based on botanical characters.

For identifying the commercial kinds, based on their fruit and the nature of the rind or pericarp; and one for identifying the commercial kinds from the microscopic features of the rind. A line drawing of 47 plates, and a plates showing microscopic features of the seed completes this paper.

It is indeed a pity that the author of this scholarly and exhaustive study did not choose to illustrate the flowering and fruiting twigs of at least one kind of *Hydnocarpus*. The

1937. In the opinion of Leprosy in Hawaii, there is some question as to whether the disease was introduced to the islands in 1853. Dr. Dwight Baldwin, however, asserts that the disease was brought by a native chief from abroad about 1740. He thinks it may, the earliest definite record of the disease in the islands is in 1763. Two years later, the famous leper settlement was established on Molokai.

Hawaiian Foods

From the Lectures of the Late John H. Wise

(Under this heading The Star-Bulletin is publishing serially a lecture by the late John H. Wise, Hawaiian scholar, on food. The lecture was delivered to students at the Kamehameha schools.)

NO. I

The Hawaiians must have had a very well balanced diet in the early days; you have heard of their size, you have heard of their fine physique, and you know that it can only come through good proper food.

The Hawaiians had poi as their basic food, poi and fish, a great combination, but they had several ways of cooking their food and their meat and fish to make these articles very appetizing.

Taro, sweet potato, yam, and breadfruit the scientists tell us were imported into Hawaii—all those different foods were brought into the country at some rather later dates.

I know that breadfruit came rather late to Hawaii—it was brought in from the south by the early voyagers to Hawaii and there is a legend of its coming.

It was planted in Kualoa, a strange place to plant it, but it is supposed to be the first place where it was planted, and then investigations spread all over the islands.

Breadfruit likes moisture in the soil, more than other trees, and you notice a tree from which fruit drops off before it is ripe. He then that tree is not getting sufficient moisture. They grow in little gulches and valleys where there is lots of moisture in the ground.

Taro was reduced to poi but must have been done some hundreds of years ago.

The Samoans do not reduce their taro to poi, they eat it after it is cooked of course but never reduce it to poi.

The Tahitians reduce their taro to poi.

Being limited in their cooking utensils, the Hawaiians had only one way of cooking their taro, their sweet potato, yam, and breadfruit was to excavate an imu and put their wood in there and heat stones.

When the stones were hot they were covered up with grass, then the taro, or whatever they had to cook, was put on, and then the whole pile covered with old mats, old tapas, and leaves that had been prepared for coverings.

If the imu were made quite hot, and this could always be told by the appearance of the stones, then it would cook the taro in about two hours, otherwise it would take three hours to cook an imu of taro, sweet potato took less time, breadfruit still less, and bananas were eaten as sort of luxury as you eat your baked bananas now. It was also cooked by the Hawaiians in the imu—this was sort of a luxury and it took three or four days to cook an imu of it.

I remember as a boy of 6 years we had to go out and dig taro root and then I learned that it was easier to take the taro root from the

Degener's New Hawaiian Flora Now Appears

FLORA HAWAIIENSIS: NEW ILLUSTRATED FLORA OF THE HAWAIIAN ISLANDS, by Otto Degener. Printed by The Star-Bulletin Press for Mr. Degener.

Reviewed by Clifford Gesley

Otto Degener's contributions to botany in Hawaii have already attracted interest with his "Plants of the Hawaii National Park" a few years ago and studies of various of his "New Illustrated Hawaiian Flora." The first pages have now appeared in the journal of the Pan-Pacific Research Institution. The first pages have now appeared in the journal of the Pan-Pacific Research Institution.

Mr. Degener undertakes no less a task than the description and illustration of all native and introduced ferns and fruit plants in the islands. He then that tree is not getting sufficient moisture. They grow in little gulches and valleys where there is lots of moisture in the ground.

Mr. Degener, who has been devoting his time to this task after a period of teaching botany at the University of Hawaii, has evolved a method of keeping his book elastic, by publishing it in groups of about 100 plant descriptions and illustrations, bound in a simple but substantial folder from which they may be removed if obsolete or to which others may be added in their proper order.

The plan of the work is to give a family description, a synoptic key to the genera of that family found in the islands or in a second type of treatment, a generic description and a key to the island species, or, third, a specific description and an illustration.

The portion now available at book and drug stores in Honolulu or from the author himself, comprises 332 pages, including 106 full page plates, four of which are in color. We are informed that it sells for \$3.50.

In addition to the descriptive portions the author says the completed work will include keys for the determination of families, a general description of the islands, maps, accounts of the origin and relationship of the Hawaiian flora, a his-

Saturday, 1933 Star-Bulletin
WEST INDIAN MAHOGANY C 209



Drawing by Otto Degener from his "Flora Hawaiiensis" or "New Illustrated Hawaiian Flora," which is reviewed today. The tree is planted along Kalakaua Ave.

torical sketch of Hawaiian botany, a glossary of botanical terms, an index, etc.

Such a book surely will be of great value to students of the subject and useful as well to those who without botanical training, are interested in the plants of the territory and desire a ready means of identifying them. Although the scientific descriptions are necessarily in technical language, considerable information is given which is intelligible to any reader, and one with no knowledge of botany at all can scarcely fail to recognize the plants from Mr. Degener's carefully executed drawings.

The common as well as botanical names are given, and also the Hawaiian name in many cases; one learns where the plant grows, whence it came, if introduced, its uses, if any, and whether it is edible, poisonous, or merely ornamental; the derivation of the name, and other information.

To commend Mr. Degener's "Flora Hawaiiensis" is not to detract from the value of other works that have appeared in this field. They all have their place, and are useful for various purposes, with their varying compasses of popular or scientific interest. The new work, when completed, may be expected to be more comprehensive, and its loose leaf arrangement offers certain advantages in keeping it abreast of developments as the author's researches continue.

Botanist Has Third Volume

By E. H. BRYAN, JR.

Flora Hawaiiensis, the new illustrated flora of the Hawaiian Islands, book 3, by Otto Degener is published by the author.

Otto Degener, Hawaii's free-lance botanist, has made available to the public the descriptions and excellent illustrations of another hundred plants found in Hawaii.

The first volume of his loose-leaf flora appeared in 1933; the second in 1935; and now comes the third, "Century 2." Each is a systematically arranged series of loose leaves, which have been printed gradually during the interval between their issue in substantial, gaily-adorned, black and yellow covers. Key names and numbers make it possible for the owner of a set to rearrange the pages to suit his personal fancy, either in one systematic sequence or by special topics.

One page is devoted to each plant species, with a well drawn illustration on one side and notes and description on the other. Besides a detailed, somewhat technical botanical description of the plant, the information includes its scientific and common names, references to synonymy, type locality and range. These species pages are interspersed with keys and notes regarding higher classification groups of plants.

One feature of this issue is an 18 page "Glossary of Botanical Terms." The student of botany must, unfortunately, learn a new language in order to understand exactly what the botanists write. In fact, much botanical information is written entirely in Latin. But even when the scientist is supposedly writing in English, he uses a great array of technical words which have very special meanings. Some 650 of these are carefully defined, with two pages of sketches to illustrate the meanings of 71.

The loose-leaf arrangement makes possible the indefinite expansion of this flora, as well as giving the author a chance to correct or change pages already issued. It is estimated that there are between 2500 and 3000 species of plants well established in Hawaii. We look forward with pleasure to the forthcoming 22 to 27 volumes, by which time many more plants will have been introduced. The job will never be finished, but what there is good, and to be recommended to all those interested in Hawaiian plants.

Growth Of Macadamia Nut



A sample page from Otto Degener's new illustrated flora of the Hawaiian Islands, the third volume of which has just been issued. This is the plate illustrating the macadamia nut.

New Method Discovered For Trapping Mango Flies

Experiments by Stephen Au, entomologist of the Territorial board of agriculture and forestry on Kauai, in trapping mango flies have led to what Colin G. Lennox, president of the board, characterizes as extremely promising as a practical way to reduce ravages of mango flies in a specific area.

"Biological control, through the introduction of parasites which will prey on the mango fruit flies, will remain the real answer to the problem," says Mr. Lennox.

"Meantime, trapping the flies will help to reduce their numbers in a given area. This trapping can continue to be an aid in control even if parasites are successfully introduced."

MR. AU, IN the course of his work with farmers on Kauai, has given special attention to the control of fruit flies.

Like many other persons, Mr. Au was impressed with the manner in which citronella oil attracted the flies. Many persons

mango flies of both sexes as the citronella oil is with the male flies.

He thought at first he had found the solution of the problem in the use of mashed leaves of the native *Kaunohi* mokihana.

More detailed studies showed, however, that the females "leaving the mokihana traps" strictly alone as they did the citronella traps.

HE NEXT tried several types of organic matter. Finally he discovered that decaying dead mango flies would attract female flies. In experiments, traps baited with dead mango flies caught about 45 flies in every 24 hours. Most important, the flies caught averaged about 70 per cent females.

When the contents of the trap were not removed and water was added, further decomposition of the flies made the traps even more attractive with the result that three times the number of flies would be caught.

MR. LENNOX suggests that the owners of mango trees or other trees whose fruit have been damaged by the mango fly put these discoveries to practical advantage. He has tried a home-made trap in his own home garden with success.

Here is how he suggests the trap be made:

Place a few drops of citronella oil in the bottom of an old tin can, and make several holes in the sides of the can big enough for mango flies to enter easily. Over the open top of the can invert a glass jar.

THE MALE mango flies will enter the can, attracted by the citronella, and then fly upward to the jar, seeking light. They will be unable to find their way back to the can outlets.

After a day or so, when there is a collection of flies in the glass jar, remove the jar, taking care to cover it quickly with a piece of paper or plate so that the flies do not escape.

Put water in the jar to drown the flies, and leave the jar open under the tree. Female flies will be attracted to the mass, fly in, and drown themselves.

THERE IS no objectionable odor from the traps in a garden. Mr. Lennox says.

While the oil of citronella will attract the male flies from some distance—hundreds of feet—the decayed organic matter will attract the females only 20 or 30 feet.

Hence, while one citronella trap is enough for a large area, the other traps must be placed about 50 feet apart from one another.

For a yard with only one tree affected by mango fly damage, he suggests one or two traps under the tree.

BUT entomologists soon found that only male mango flies were being caught by the citronella. Female flies ignored the trap and continued to do great harm to fruit. Reproduction of the flies continue unabated despite reduction of male flies in the population.

Mr. Au set himself to work to attempt to discover an attractant which would be as effective with

New Heart Therapy 'Could Save Over 900,000 Lives a Year'

An amazing new heart therapy, which uses magnesium and potassium, has proven more than 95 percent successful in preventing heart attacks in cardiac patients.

The revolutionary treatment has been hailed as a "breakthrough." And one medical expert says it could save more than 900,000 lives a year.

It has no side effects and is successful even with patients suffering from severe heart disease or previous heart attacks.

"As soon as you start this treatment your risk of a heart attack will decrease by 95 percent," declared Dr. Hans Nieper of Hannover, West Germany, who pioneered the treatment. "Anybody could use this therapy, even if they have not had a history of heart disease or a heart attack — and get the same 95 percent decrease in heart attacks as my patients."

And Dr. Gerhard Schuurmann of Burgsteinfurt, West Germany, who's successfully treated patients with the same therapy for more than three years, praised it as a "revolutionary breakthrough."

Nieper — a member of the International Academy of Preventive Medicine and the American Association for the Advancement of Science — declared: "The therapy is simple — and remarkably effective. It can give years of extra life to heart patients."

The therapy involves treatment with magnesium orotate and potassium orotate. Potassium orotate is simply potassium in a mineral base that carries it to the heart. Along with these, Dr. Nieper also gives the patient bromelain, an enzyme extracted from pineapple stems.

Both magnesium and potassium orotate are available from Natural Foods in Toledo, Ohio, and bromelain is available by prescription. These substances are administered in pill form, four times a day. The cost would be about \$1.70 a day.

"There's absolutely no question of side effects — there's no toxicity," said the doctor.

The magnesium and potassium work to strengthen the heart, he said, and the bromelain acts as a "pipe cleaner" for coronary arteries

and vessels, preventing the narrowing of arteries which contributes to heart attacks. "It's protective therapy," he said, adding that the therapy uses completely natural substances. "They're not drugs. They're a food supplement."

In trials with more than 150 patients over two years — all of them suffering from serious coronary disease or from previous heart attacks — Dr. Nieper discovered his therapy was 95 percent successful in preventing new heart attacks.

Without the therapy, Dr. Nieper said, 24 to 30 percent of his 150 patients — 36 to 45 people — would

have died from heart attacks over the 2-year test period.

And Dr. Schuurmann, who used the same therapy on more than 150 patients in his private practice, declared: "Not a single one of them has had a heart attack since the treatment started. The majority of these patients were on the verge of heart attacks when they started my treatment. They were all suffering from serious heart disease."

Dr. Garry F. Gordon, of Sacramento, Calif. — president of the American Academy of Medical Practitioners — declared: "Dr. Nieper is widely regarded as a medical genius. He's developed a revolutionary new treatment for heart disease. There's no doubt whatsoever that his therapy offers new hope

for millions of Americans who suffer from heart problems."

Dr. Gordon used potassium and magnesium to treat over 700 of his cardiac patients over two years. "And 85 percent of them got dramatic relief of symptoms," he said.

Although one-third of his patients had had previous heart attacks and all were suffering from serious heart disease, Dr. Gordon enthused, "less than 1 percent succumbed later to a new heart attack."

More than one million victims will die from heart disease in 1973, according to the American Heart Assn. "But the Nieper therapy could save more than 900,000 of these lives," said Dr. Gordon.

— JOHN COOKE

Otto Degener's Immense Work Now Two Books

FLORA HAWAIIENSIS or NEW ILLUSTRATED FLORA OF THE HAWAIIAN ISLANDS. By Otto Degener, B.S., M.S.

Otto Degener, formerly botanist at the University of Hawaii (1923-27) and naturalist at Hawaii National Park (1929), at present collaborator in Hawaiian Botany, New York Botanical Garden, has now brought to two volumes of approximately 300



OTTO DEGENER

pages each his monumental study of the ferns and flowering plants of Hawaii.

The book is one of the sort undertaken only by those who early envisage an articulated life program and devote to it the energies of all their days. Mr. Degener's task has already been the occupation of several years and the publication by its loose leaf binding is so planned that as new portions come they may be inserted in their correct places. The book says of itself: "The Flora Hawaiensis, and present as new work, covers the

latest descriptions of all the native and foreign Ferns and Flowering Plants growing in the Hawaiian Islands.

It will give the common English, Hawaiian, and the one correct scientific name of each plant, as well as the synonyms by which it is known in other publications.

"It will state whether the plant is endemic, indigenous or introduced; it will give the exact range of the plant in these islands and its general range elsewhere; and it will give its present and former uses and such other information as may be of interest or importance.

"It will include keys for the determination of families, genera and species.

In addition, it will contain a general description of the islands, maps, accounts of the origin of the Hawaiian flora, an historical sketch of Hawaiian botany, a glossary of botanical terms, an index, etc."

This gigantic promise has already been fulfilled to the extent of Book I and II. The plant descriptions are commonly accompanied by full page drawings in black and white and County megacantha, the plant grows in the best of

HONOLULU STAR-BULLETIN

SEPTEMBER 21, 1952

Chaulmoogra Oil History Is Traced By Hawaii Scientist in This Review

Monographie der Gattung
Hydnocarpus Gaertner. By Her-
mann Sleumer. Botanische Jahr-
buecher, 63, 1:1-94 (plus 4), 1938.
Reviewed and Discussed by
OTTO DEGENER

The monograph of the genus *Hydnocarpus*, the source of chaulmoogra oil, by Hermann Sleumer of the Botanical Garden and Museum, Berlin-Dahlem, Germany, in spite of its technical title, is of especial interest to us here in the islands.

Hydnocarpus, at times incorrectly called *Taraktogenos*, has been one of our most costly groups of plants. J. F. Rock, famed botanist, explorer and former faculty member of the University of Hawaii, was commissioned to go to Siam, Burma, etc., especially to procure *Hydnocarpus* seed for cultivation in the islands. He was successful in finding several kinds, one actually new to science. These, cultivated in our Forest Reserve under the expert supervision of Charles S. Judd, were to furnish a steady supply of chaulmoogra oil for chemical and clinical experimentation in search of a specific remedy for leprosy, the malpake of the Hawaiians.

We spent a king's ransom over a score of years solely in the chemical study of various derivatives, chiefly esters, of chaulmoogra oil exported from *Hydnocarpus* seed. The pioneer work had been done years ago in foreign laboratories. According to L. E. Warren:

"In working out the constitution of the fatty acids from chaulmoogra oil Power and his collaborators prepared the ethyl esters, as well as several other esters, of the fatty acids.

"In 1909 a patent was taken out in Germany by a German concern for the process of preparing the ethyl and other esters of the fatty acids of chaulmoogra oil. At about the same time the same firm took out a patent for the products in Great Britain, — all this despite the fact that the products and the methods for their preparation had been described in the chemical literature several years before by Power and his co-workers and their work had been given wide publicity by abstracts in scientific publications.

"The ethyl esters were sold by the German firm under the proprietary name of 'antileprol'. So far as can be learned 'antileprol' was intended to be taken by the stomach. It attracted but little attention from the medical profession, perhaps a retribution for the injustice of the patent grants. The ethyl esters are liquids which are soluble in water thus lending themselves to use by subcutaneous, intramuscular, and intravenous injections. Hollmann and Dean appear to have been the first to carry out intensive treatment of leprosy with the ethyl esters of the fatty acids of chaulmoogra oil. Dr. Deane, as chemist, prepared the esters and Dr. Hollmann administered them."



OTTO DEGENER

This very early history is generally known in the islands, giving rise to false rumors of property.

Granted permission to duplicate the patented processes, Dean, Wrenshall, Fujimoto, the legislator Euechi and a few others increased our knowledge of the chemistry of the oil a bit further. Their numerous concoctions, financed by a liberal government, were elaborately and carefully studied clinically at the Kalihi Receiving station, at Kalaupapa, and elsewhere chiefly by Drs. Hollmann, N. E. Wayson, Badger and a few other physicians. Their findings were as a whole disappointing. The effects were also carefully studied by the patients, on themselves and in others, with the result that most of the patients refuse to be injected with the various concoctions, and only a very limited number request it.

According to Dr. Ernest Muir, any kind of counter-irritant is just as useful as chaulmoogra oil, upon which hopes have risen high.

"Acids painted on the leper's body sometimes cause the cells to reject, multiply, and eat up the bacilli."

According to Dr. George W. McCoy: "Actually this drug has a very limited usefulness. It is not certain that it is of any use at all in the treatment of the disease."

Dr. L. E. Warren's statement, which should be heeded by our social workers and directors of housing projects, is significant: "Leprosy, like tuberculosis, is a malady that claims most of its victims from the homes of poverty. The individual whose nutrition is normal rarely contracts the disease regardless of the exposure to infection. Whatever the treatment in the disease, the value of hygiene, good food and an open air life is emphasized by all clinicians."

Dr. Muir maintains that "leprosy will have disappeared before we

ence finds a cure for it. All that is necessary to stamp it out is to prevent contagion by segregating lepers and removing children from leprosy parents, see that the general population has enough to eat and keeps clean."

In the Hawaiian islands the study and use of chaulmoogra oil and its derivatives has been practically abandoned, thus ending the waste of funds that can be so profitably expended elsewhere. According to the latest expert opinion, a few derivatives are efficacious in arresting the advance of leprosy. About equally beneficial results are, however, likewise gained from various derivatives of olive oil. With this discovery, our groves of *Hydnocarpus* have lost their former importance and now remain little more than botanical curiosities and aids to reforestation.

Dr. Sleumer, at the outset of his monograph, quotes a statement made by Rock in 1922, that *Hydnocarpus* is insufficiently known and requires monographic study. With the present's booklet he has doubtless filled this need. He devotes three pages to the history of our knowledge of the oil as a reputed remedy for skin diseases. For example, the Hindus used it before the time of Buddha. The Hindus' ancient legends prove, Dr. Sleumer says, a tradition of its use as a remedy for leprosy in 1536, first mentioned was "Pentao" of Siam, and recommended for skin diseases. The natives of Cochin-China, the Sunda Islands and the Philippines used various kinds of *Hydnocarpus* medicinal oils. The seeds are sometimes used to intoxicate fish to facilitate their capture. Since the end of the 18th century, a lively export trade of seeds from Siam to China and Japan existed. Europeans did not learn of chaulmoogra oil until the Danish mentions of 1763. Sleumer sets us straight about the confusion of *Gynocardia* and *Hydnocarpus* oils, and briefly describes the chemical nature of the latter.

Eight pages are devoted to the botanical relationship and description of *Hydnocarpus* as a group. This is followed by about 30 pages of careful descriptions of all known kinds 43 in all. Thereafter comes a chapter of 8 pages on the ecology, distribution and culture of the trees. Particular reference is here made to the plantings at Waiahole and in Manoa. Fifteen pages describe the fruit and seeds, both macroscopically and microscopically, of commercial kinds. A table shows at a glance which kinds are known to produce chaulmoogra oil, the size of their fruit and the number of seeds per fruit. Two useful keys are added: one for determining all 43 kinds of *Hydnocarpus* based on botanical characters; a

for identifying the commercial kinds, based on their fruit and the nature of the rind or pericarp; and one for identifying the commercial kinds from the microscopic features of their rind. A bibliography of 47 titles, and 4 plates showing microscopic features of the seed completes this paper.

It is indeed a pity that the author of this scholarly and exhaustive study did not choose to illustrate a flowering or fruiting twig of at least one kind of *Hydnocarpus*. The

123) 223. As to the origin of leprosy in Hawaii Moorell Macfarlane quotes Dr. W. Hillebrand as having treated the first case in 1853. Dr. Dwight Baldwin, however, asserts that the disease was brought by a native chief from abroad about 1740. He that as it may, the malady became widespread, inasmuch that the policy of segregation at a point near Honolulu was entered upon in 1853. Two years later, the famous leper settlement was established on Molokai.

Reader: This is an interesting reading material. It is a valuable reference to the history of leprosy in Hawaii. The illustrations are of a plant by such an illustration that it is a valuable reference to the history of leprosy in Hawaii. The illustrations are of a plant by such an illustration that it is a valuable reference to the history of leprosy in Hawaii.

It's Not All as Easy as This!

crossed 1500 leagues from Greenland to Bering Strait; that the Kingdoms of America and Asia are close together, and that to find a northwest passage one must go beyond the ice limit. Cook inaugurated on board ship new principles of hygiene still followed in our day. Finally he opened to savage peoples which he visited new horizons of civilization, commercial and religious. A poet of the time said (literal translation):

His ship on arriving announced to them peace,
His ship on departing left them benefits.

"France showed a most chivalrous spirit, in spite of the war then raging between the two nations when the English and French ships were pursuing each other in all the seas and burning all captures. M. de Sartin, minister of marine, issued the order: 'Considering the utility of the recent discoveries of Cook, the neutrality of the English ships is established, and all armed vessels are to treat them as neutrals.' (Spain and the American colonies) both at war with England, issued similar orders to their vessels."

"In these Pacific times, gentlemen, the Geographical Society of Paris can invoke no precedent more eloquent on this side of the channel, than observing the centenary of a man who is one of the glories of sea service and at the same time one of the benefactors of humanity."

This estimate of the accomplishment of Cook given by a Frenchman is valuable, for, if it were given by an Englishman it might be thought prejudiced in his favor.

HIS CHARACTER GOOD

I have said nothing of the personal character of Cook, but a few words are necessary. It is strange that while early navigators and men like William Ellis in his journal of two years in Hawaii (1822-1824) all give testimony as to the esteem in which the Hawaiians held Cook, and their regret at his death, yet Jarvis, Dibble and others tried to depict him as cruel and as having allowed himself to be worshipped as a god. It is positive that neither Cook nor those with him knew what the ceremony meant in which he took part. A like honor was paid to Captain Douglas of the *Intrepid* in 1788.

There is no space here to quote from the journals of those who were with Cook, it is enough to say that they were unanimous in expressing their esteem, confidence and admiration for his ability.

Again I will take a foreigner's estimate of Cook as it was naturally free from national bias. Heinrich Zinnerman was a coxswain on board the *Resolution* and kept his journal in German. This has recently been translated and the Hawaiian Historical Society has a copy. He wrote at length on the character of Cook after telling of his death, of which he was an eye witness. I give here the salient points.

First he gives a description of him as being "tall, handsome, strong, etc." "He was exceedingly strict, and so hasty tempered that the least contradiction made him very angry. He was inexorable over the regulations of the ships. . . . If anything was stolen when we were among the natives the strictest punishment was meted out. . . . He was just and upright in all his feelings. He never swore, not even when he was in a rage. He was scrupulously clean, and the example in this direction had to be followed by every soul on board. . . . Moderation was one of his virtues. I never once saw him drunk. He ate very sparingly, much more so than any other sea officer. . . .

CLEAN AND FEARLESS

"Never was there a breath of suspicion in regard to his dealings with women. While all the men allowed themselves to be led astray, he alone remained clean and uncontaminated. In all enjoyments he loved equality and on special occasions food and drink were served to officers and men in equal portions. . . .

"Fearlessness was one of his outstanding characteristics. He had instinctive knowledge how to deal with native and the pleasure in intercourse with them was evident. He loved the natives and had the art of pleasing and charming them. . . . He gave them presents and had their diseases cured. . . .

"It is not necessary to idealize Cook, we must judge him by the time in which he lived. He was a great man, and his discoveries were given to the world for the benefit of mankind. His discovery of Hawaii was the beginning of its modern history. We do well to honor him and to mark his arrival here by a fitting celebration, which will be international in its character and world wide in the interest it will invoke."

AN ADD FROM GEORGE MUNRO

Editor The Advertiser:

It was pleasing to see in The Advertiser of October 23 Miss Josephine Soper's suggestion that there be a collection of the different species and varieties of the native Hawaiian white hibiscus in the Liliuokalani Gardens. However, I would add that the collection should include all species of the native rainforest hibiscus. Perhaps even the rare *Hibiscadelphus* and *Kokia* of the drier locations could be grown there. The Hawaii Audubon Society hope to cooperate with the Park Board and try them in the Hawaiian Wildlife Refuge soon to be under construction in Kapiolani Park. The Society also hope to have growing there the two native dryland forms of *Hibiscus brackenridgei*.

Both these varieties grew on Lanai. The tree-like form with a straight gray stem 4 or 10 feet high was a striking plant in contrast to the prostrate brownish barked variety that grew among the rocks. The low growing kind was leafless and dead looking in the dry months but beautifully green and flowering lavishly in the wet season.

All these collections of almost unknown Hawaiian plants eventually will add considerably to the Tourist attractions of Hawaii.

Y. S.

GEORGE C. MUNRO



OTTO DEGENER, BOTANIST

Otto Degener's Flora Hawaiensis In 3rd Century

FLORA HAWAIIENSIS OR NEW ILLUSTRATED FLORA OF THE HAWAIIAN ISLANDS. By Otto Degener. B.S., M.S., Botanist at University of Hawaii 1925-27; Naturalist at Hawaii National Park 1928. Third "Century." 310 pp. \$3.50. Published by the Author.

Otto Degener's Flora Hawaiensis has already taken a goodly number of years, enabling its author modestly to say, "I have spent more continuous, uninterrupted time in the exploration for and study of Hawaiian plants than any other student."

The published work resulting from these prolonged researches is in the form of "loose leaf fascicles, termed 'centuries,' each containing approximately 100 plant descriptions and 100 full page illustrations, some in color."

To purchasers of the "century," it is explained how the loose leaves are to be rearranged "in taxonomic sequence. Nature does not present her products in orderly fashion."

neatly classified, and Degener takes his plants as he finds them. When the search is finished, if ever, the buyer who has followed instructions will have every Hawaiian plant's description in its proper place.

Says Otto Degener gaily—in a communication, not in the book—"Book III is pau and now I am ready to jump into Book IV." It takes about two years to prepare one of these "books" or "centuries," so Book IV may be expected about 1940. When the last will be finished, deponent saith not. Such enduring scientific enthusiasm, however, is an inspiration and the value of the "centuries" to botanists is beyond dispute.

The author's own description of the present volume reads: "A posty-

bound volume of 310 pages, containing 123 full page plates . . . an illustrated glossary of 18 pages, descriptions of four plant families, 21 genera, 113 species, and 38 varieties and forms. Twenty-seven species and 22 varieties or forms are absolutely new to science or herein first published in necessary or desired new combinations to indicate their true place in the Plant Kingdom."

Mr. Degener is a staff member of the New York Botanical Garden and worked there during 1933-34 on technical problems not soluble here.

Botanist Has Third Volume

Jan. 1934 615/38

By E. H. BRYAN, JR.

Flora Hawaiensis, the new illustrated flora of the Hawaiian islands, book 3, by Otto Degener is published by the author.

Otto Degener, Hawaii's free-lance botanist, has made available to the public the descriptions and excellent illustrations of another hundred plants found in Hawaii.

The first volume of his loose-leaf flora appeared in 1933; the second in 1935; and now comes the third "century." Each is a systematically arranged series of loose leaves, which have been printed gradually during the interval between their issue in substantial, fully-adorned, black and yellow covers. Key names and numbers make it possible for the owner of a set to rearrange the pages to suit his personal fancy, either in one systematic sequence or by special topics.

One page is devoted to each plant species, with a well drawn illustration on one side and notes and description on the other. Besides a detailed, somewhat technical botanical description of the plant, the information includes its scientific and common names, references to synonymy, type locality and range. These species pages are interspersed with keys and notes regarding higher classification groups of plants.

One feature of this issue is an 18 page "Glossary of Botanical Terms." The student of botany must, unfortunately, learn a new language in order to understand exactly what the botanists write. In fact, much botanical information is written entirely in Latin. But even when the scientist is supposedly writing in English, he uses a great array of technical words which have very special meanings. Some 650 of these are carefully defined, with two pages of sketches to illustrate the meanings of 71.

The loose-leaf arrangement makes possible the indefinite expansion of this flora, as well as giving the author a chance to correct or change pages already issued. It is estimated that there are between 2500 and 3000 species of plants well established in Hawaii. We look forward with pleasure to the forthcoming 22 to 27 volumes, by which time many more plants will have been introduced. The job will never be finished, but what there is good, and to be recommended to all those interested in Hawaiian plants.

Balloon Fish Kills Two Men Who Eat It

HONOLULU, Hawaii, July 4. Eating a poisonous variety of balloon fish, known among the Hawaiians as opohue, caused the death of two Chinese in this city recently. The men succumbed within twenty minutes from the time they had partaken of the fish.

Growth Of Macadamia Nut



A sample page from Otto Degener's new illustrated flora of the Hawaiian Islands, the third volume of which has just been issued. This is the page illustrating the macadamia nut.

PROTECTION FOR ISLAND BIRDS

2064 Makiki St., Honolulu, T. H., Jan. 21, 1939.
Editor, The Star-Bulletin, 7/25/37

Sir: Until the year 1937 the wonderful bird life on the islands off the coast of Oahu had not been studied. While making a survey of the birds of Hawaii in 1937 in cooperation with local institutions I undertook this. In July, 1937, I became a cooperative bird-bander with the biological survey. Since then I have banded 4,243 birds of five species on eight islands off the east coast of Oahu; 1,505 of these were on the little island of Popoia by the shore at Kailua.

Richard B. Black suggested banding on the islands under his charge to the south. Also that we might bring in a circuit including Midway and the bird reservation. Mr. Black arranged that I would accompany the Tancy on her July, 1938, job.

The result is that 2,547 birds of six species were banded on five islands of the Line and Phoenix groups. If any of these banded birds are found in distant seas and incursions and numbers on the bands are noted, the biological survey will be notified and important information of the birds' movements will go on record.

When banding much information on the habits of the birds is gained. (1) Little understood color changes are to be studied. (2) Whether groups keep together at sea and return at the same time — already we have evidence of this; (3) whether the pairs keep together from year to year — we banded in 1938 mated pairs and expect to find some interesting facts when we return to band again next April; (4) whether they return to the same island — out of 69 birds that returned in 1938, only one had changed islands.

The idea of a circuit seems likely to be realized.

Food Production Suggestions

By GWENFREED ALLEN
Farm and Garden Editor,
The Star-Bulletin

Why not vary your diet a bit and make use of wild roadside plants? Otto Degener of Wailua, state member of the New York Botanical garden, suggests this. You will find it fun sampling plants hitherto unknown to you as foods.

Guard against eating any roadside plants that have been sprayed with weed killers. Also, do not overeat when trying a new dish. Watch how it agrees with you first.

"If you like the peculiar bitter taste sometimes found in lettuce, try the puaile as an interesting food," M. Degener suggests.



Puaile
The puaile is found in lettuce, try the puaile as an interesting food," M. Degener suggests.

"It is found along roadsides and in gardens and cultivated fields in regions of average to copious rainfall—upper Manoa and Nuuanu on cleared land about Round Top and Tantalus. It is a pretty plant or half to one and a half feet high with thin tender leaves, sometimes purplish beneath. Its few flower heads are red to somewhat purple and, as its Hawaiian name implies, produce seeds blown from place to place by the wind.

"When gathering it, do not destroy the plant. Leave the root and an inch or so of the stem so that cluster of delicate leaves can form for the next harvest. The entire plant, especially before it has produced flowers, can be eaten raw as a salad. With age, the stem becomes stringy, like asparagus, due to the formation of woody strands. If the puaile is too bitter, boil it as a substitute for spinach."

Mr. Frederick Hadden banded birds on Midway Island in 1937 and will continue, by favor of the navy and the lighthouse service I shall band this year on islands of the bird reservation, under a special permit from the secretary of agriculture, and near Nihoa.

The Service Panahi Bishop museum provides funds for these trips and has more data than is given the biological survey. These will be available locally for future students.

On Howland Island Mr. James E. A. Kinney helped considerably by banding 1,319 birds for me after I left.

A bill permanently to protect our five migratory wading birds will come before the legislature meets. Although well-wishers of the birds should write their members to vote for it. If protected these birds can then increase and be a pleasure to residents and tourists. Trapping systems can be banded and much learned of their wanderings. The matter of this bill and the birds to be protected will be dealt with at greater length later on.

Yours truly,

C. MUNRO.

C. Coleman, who has been recently received from the East Indian government and is very anxious to have the article cultivated here, believes it will add to the prosperity of the islands. He will send packages of the seed to all who ask for it and hopes they will report their success or failure to The Advertiser or the Garden.

Berlin-Dahlem, 14.2.39.

Sehr geehrter Herr Degener,

Mit Ihrem letzten Brief und dem Zeitungsausschnitt über meine Arbeit haben Sie mir eine grosse Freude gemacht, wenn nun auch Chaulmoogra nicht die Rettung für die Leprakranken zu sein scheint. Ich habe Ihren Artikel dem Prof. Schlossberger vom hiesigen "Institut für Infektionskrankheiten Robert Koch" gezeigt, der seit vielen Jahren sich mit Lepra beschäftigt hat, der man deutscherseits sofort erhöhte Aufmerksamkeit wird schenken müssen, wenn die Kolonien wieder zurückgegeben werden, was wir an unserem Museum sehr hoffen.

Ich sende Ihnen mit gleicher Post drei Exemplare meiner Arbeit, wovon Sie gleich eines an den Dr. F.R. Brunot weiterverkaufen können. Wenn Sie im nächsten Brief insgesamt drei Dollar für mich einlegen, dann sind meine Unkosten gedeckt und Sie können die Exemplare verkaufen wie Sie wollen.

Unterdessen ist ein Paket mit Pflanzen von Ihnen an meine Adresse für das Museum angekommen. Die Briefmarken lege ich wieder für Sie bei.

Vor kurzem sandte ich Ihnen meinen Artikel über die Xylosma-Arten von Polynesien-Malesien. Darin sind auch Ihre Nummern erwähnt.

Mit Dank und Gruss verbleibe ich Ihr sehr ergebener

H. Henner

- (33) 223. As to the origin of leprosy in Hawaii there is some uncertainty. Sir Morell Mackenzie quotes Dr. W. Hillebrand as having treated the first case in 1853. Dr. Dwight Baldwin, however, asserts that the disease was brought by a native chief from abroad about 1840. Be that as it may, the malady became widespread, inasmuch that the policy of segregation at a point near Honolulu was entered upon in 1863. Two years later, the famous leper settlement was established on Molokai.

years might just possibly germinate by reducing the number of goat, axis and reproduce their kind. But such a deer, blacktailed deer, sheep, mouflon, hope is very visionary indeed. The fact and pronghorn on those islands where remains that the endemic biota is, the endemic vegetation and the animals associated with it are still gone, and to try to replace it would be possible to save. These are the higher impossible — than it was sending our lands with rainforests. Presently, the State of Hawaii is the laughing stock of biologists and ordinary citizens throughout the world for the inane fumbling with God-given natural resources.

Now that we have practiced genocide, with the aid of our herds of goats and cattle, on the biota of Niihau we cannot bring it back. All the king's horses and all the king's men cannot put Humpty Dumpty together again. Niihau is broken like Humpty Dumpty, the egg, in an ancient lullaby.

There is, however, a future for both Niihau and Kahoolawe. These islands are largely waste land covered with kawe, weeds and grasses of modest forage value for game animals. If Gov. Burns wishes to promote the further existence of native plants and animals — may the good Lord have mercy on the souls of those who practice genocide on His creations — he should reduce the destruction of such organisms

DR. OTTO DEGENER

112 Animals Of Hawaii

By SPENCER W. TINKER
University of Hawaii
NO. 31—THE HUMPBACK WHALE
Humpback whales are the clowns of whalehood and are consequently always approached by whalers with interest because of the antics which these sea beasts perform.

Other whales may be counted in fun to do one of a few definite things, but the humpback never, so whalers are always at a loss to know which way the beast will go. Only one rule seems to hold true, however, and that is that a "humpy" will do the thing which is least expected of him.

Distribution — The humpback whale is found in both the Atlantic and Pacific oceans from the north



Humpback Whale

temperate zone to the south temperate zone, but does not invade the colder waters of the polar regions.

Humpback whales used to be quite common about the island of Maui during the winter season, and were occasionally captured and brought to land. They are still abundant about the island and are occasionally washed ashore.

Economic Importance—This species provided the impetus for the whaling boom of 1903, in the Antarctic ocean and still provides a large component of the total catch of the whaling industry.

The amount of oil present in an individual varies. In the larger specimens which are in good health the yield may reach 75 barrels, while in the case of females caring for large young the blubber may be entirely gone and the whole animal may net only 10 barrels of oil.

Habits — Humpbacks occur both singly and in schools, some of which were reported to have been so large that they covered "the sea as far as the eye could discern."

These animals feed upon small fish and crustacea which they strain from the water with the aid of the finely frilled baleen structure within their mouth.

These whales have a very characteristic habit when diving or throwing the flukes out of the water. This habit permits mariners to recognize them at some distance.

Like most whales they migrate northward and southward with the seasons to avoid the colder weather.

Description—This whale known to the old Hawaiians as the "kahola" is probably the commonest of the larger whales about the islands. It is one of the most easily recognized of all of these marine animals because of its habit of throwing its flippers out of the water before diving and by the presence of a small fin on the back.

In length the humpback varies from 45 to 50 feet and presents a very unshapely body, the anterior part of which is much too large for

the trunk.
The body is black above and is usually marbled with white beneath while the flippers may be either black above and white beneath or entirely white.

These whales are often beset with large barnacles which when rubbed off or removed leave small whitish areas that give the whale a very singular appearance.

The throat is covered by a number of longitudinal folds of skin or flutings and the flippers which are scalloped on the edge may attain a length of from 10 to 14 feet or nearly one third the length of the body.

The mouth of this whale contains rows of frilled featherlike whalebone or baleen suspended from its jaws. These structures found in the heads of a paid representative of the largest whales are a device for straining small fish and other organisms from the water as it passes into the mouth and out over the lips.

(Next Week—The Right Whale)

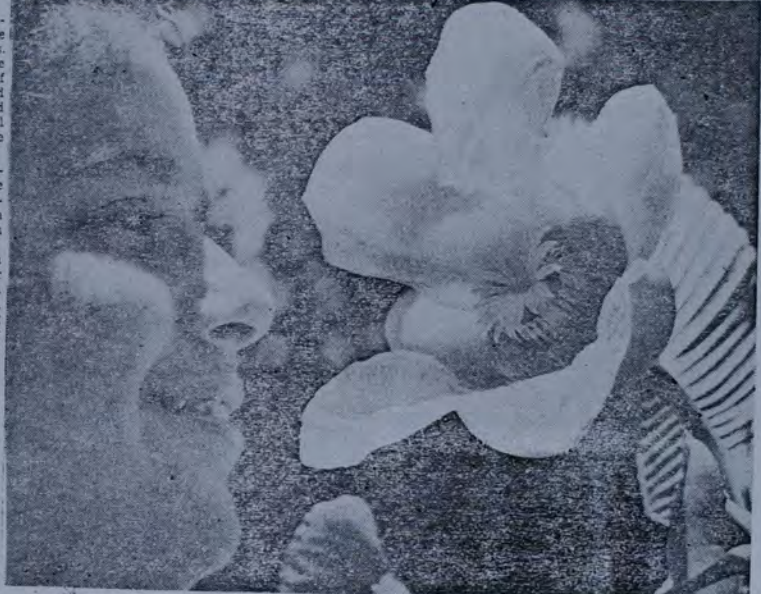
About 1855 the Cavendish, a British, or Chinese variety as it is sometimes called, was introduced into the islands and found a congenial home. In about seven or eight years there was an export of the fruit. This was some years before Capt. Baker first turned the prow of his two-masted schooner toward the island of Jamaica, where he made the beginning of the great banana industry, the forerunner of the industry which has extended to most of the suitable territory in the West Indies and Central America.

In Hawaii, the export continued to increase slowly, but has never reached the proportions of its rival then but one steamer per month plying between Hilo and the main-

land. About 35 or 40 years ago, A. J. Campbell was engaged in the culture of bananas as well as in ship- ping, and the industry prospered under his care. He applied to it the science and principles of agricultural science. The bunches were large, and the selling end of the business was in the hands of a paid representative of the banana industry of the West Indies and Central America. It was in 1870 that Capt. Baker made his trip to Jamaica, and the production end of the business, and brought home a few bananas, to see the size of the fruit. The present importation of bananas to the United States amounts to between

40,000,000 and 50,000,000 bunches per year, valued at about \$12,000,000, at the ports of entry. Practically all this fruit comes from the West Indies and Central America. During the last several years the importation from the eastern islands and mainland has not increased as rapidly as in the former years, probably owing in large part to the devastations of a new disease which has swept over a considerable portion of the banana area.

Hon. Advertiser 10/22/37



DEENA INDICA.—That's the name of the flower; the girl is Miss Mary Eileen Oliveira, 2080 Metcalf street. The bloom, one of the magnolia family, faces downward with the leaves toward the sky. The plant in Miss Oliveira's yard is about the size of an avocado tree, and the center of the flower resembles that of the night-blooming cereus. (Advertiser Photo by Danny Morse.)

Bananas Have Long Grown Here, But Export Is Small

By ROBERT YOSHIMURA
HILO, Hawaii, Feb. 22.—The history of the culture of the banana in Hawaii extends back to the days when the only method of cultivation was the one sided by the human hand.

bunches has never yet been brought up to standard. For many years the shipment of bananas from Honolulu to San Francisco has been about 20,000 bunches per month, and the great

40,000,000 and 50,000,000 bunches per year, valued at about \$12,000,000, at the ports of entry. Practically all this fruit comes from the West Indies and Central America. During the last several years the importation from the eastern islands and mainland has not increased as rapidly as in the former years, probably owing in large part to the devastations of a new disease which has swept over a considerable portion of the banana area.

ALOHA TOWER Dec. 27, 1939

By DR. A. W. SLATEN

SEEING A SCIENTIST IN HIS WORKSHOP is an exhilarating experience. There's Otto Degener, for instance, one of Hawaii's distinguished botanists. An hour or two with him in his bachelor quarters on Mokuleia beach took this writer to the peak of Mt. Helicon, where the Muses dwell.

It's impressive how any kind of superb craftsmanship—though it be altogether unrelated to your own line of work—inspires you to tougher trying for the ideal. It may be music it may be acting, it may be photography, it may be portraiture, it may be sheer clear thought—it may be anything, for whatever is done well stimulates us to do our own task better. There is, so to speak, a comradeship of craftsmen all the world over, and one artist spurs on another.

Degener is an artist in the discovery and identification of hitherto unclassified Hawaii plants. He takes his car and his trailer, establishes camp, then fraternizes with fields, tracks mountain trails, searches sides of streams—hunting out hiding places of shy specimens that have escaped their merited note. Patience is his philosophy and a pressed plant his reward.

The plant is taken to camp, carefully studied, accurately catalogued as to genus, species, subspecies, variety, subvariety, mutation, hybrid, sport or anything else it may be. It is properly pressed, sent to the mainland for mounting on sheets of paper—work which is done by skilled women employees of the government—and is deposited as a loan with Bishop museum. The plant's story goes into that Who's Who Among Hawaii's Botanical Incog.

H. Sta. Bulletin

nities—Degener's Flora Hawaiiana, three volumes of which already have appeared.

You might think that around the dwelling place of a botanist you would find a profusion of rare and beautiful flowers. Not so—in this case, at any rate. Muscovy ducks waddle and quack, guinea hens chatter their endless gossip, pigeons nest in cans on the ironwoods, ingeniously protected by spring traps that make any venturesome rat a suicide. But about the only plants are ironwoods and coconuts. For one thing, Mokuleia sand is not surcharged with sustenance. For another, a botanist is a botanist and botany as a science is like anatomical dissection—it deals with the dead.

It's an inspiration, though, to be in Degener's den, to see the scientist in his workshop, the Flora Hawaiiana proofs he is reading, the pressed plant specimens he has on hand, the scholarly books all about—and, best of all, to listen to Degener talk.

Mokuleia beach is a long way from Mt. Helicon, but a visit in the scientist's workshop takes you instant to the place where the Muses dwell.

Moral for everybody: Do your work the best you can. Put into it everything you have. Make it as nearly ideal perfection as you—with your inner and outer limitations—are able to achieve. Thus you will inspire others in utterly unrelated endeavors and, too, you will win for yourself a diploma of membership in the Comradeship of Conscientious Craftsmen of the World!

Excellent appearance and easy, low-cost maintenance have convinced many home owners that Hunan or centipede grass is an ideal cover for lawns.

Native to China this creeping plant, which looks like a small version of St. Augustine or buffalo grass, is scientifically called Eremochloa ophiuroides. It forms a dense turf which requires little or no mowing because it is naturally low growing.

HUNAN grass readily adapts itself to existing conditions. It thrives in soils ranging from poor to fertile—in dry, sandy soils as well as wet clayey media.

It prefers full sun but also succeeds in shade. Another plus factor is that it is easy to control and can be kept out of cultivated areas.

The best propagation method is from runners or stem cuttings with at least four nodes. These may be planted end to end in rows from four to six inches apart.

THE GROUND should be kept moist until the plants have taken root. Periodic light doses of a complete fertilizer applied either broadcast or with irrigation water hastens establishment.

Once a good turf is formed the grass will take a surprising amount of traffic.

The State Board of Agriculture yesterday authorized a public hearing on proposed changes in regulations on the giant African snail to benefit gourmets and scientists.

The proposal would allow keeping and propagation, with proper safeguards, of the voracious snails for culinary and scientific purposes. It is now illegal to harbor the snails.

The board, in its first meeting this year on the Big Island also approved two other actions of its committee on organisms: 1—Easing in some respects of the embargo against inter-island shipment of bananas because of the leaf disease.

2—Release of the schreckenssteinia festaliella, or blackberry stem girdler, on Maui and Kauai at least four nodes. The insect, a specific host for the blackberry plant, will control rampant growth of blackberries in pastures, the board hopes.

CHRISTMAS TREES IN HAWAII

Christmas in the 50th State is much the same as in other parts of our country. The tree usually used is a conifer. The particular species depends on what happens to be readily available. Pine, fir, spruce and Douglas Fir are perhaps the best known and more often used for this purpose. Here in Hawaii where we have no native conifers, people have long depended on imported trees for this purpose. However, for many years, the principal tree used has been the Douglas Fir of which over 100,000 are imported annually from the Pacific Northwest. This species makes an excellent Christmas tree, but they are harvested early, and many of them reach Hawaii about Thanksgiving time coming as deck loads on a freighter. By December 25, some of them are pretty sad looking. Another thing wrong with Douglas Fir as well as some other conifers is the fact that they do have dangerous insect pests, which, under present plant inspection and lax quarantine regulations, are likely to be brought in and these may have a very serious effect on our expanding timber industry.

Hawaii does have locally grown substitute trees, among which is the Mexican Cypress (*Cupressus lusitanica*), which is shown here with the grandchildren cutting their own for 1961. It is a rapid growing tree (reaching 5 ft. under favorable conditions in twelve months' time); and it is acceptable in Hawaii. Presently efforts are being made to grow all of the trees required here for Christmas consumption. Douglas Fir will grow and grow well above 5,000 ft. in elevation, and several species of true pines will grow at lower elevations. Other species which are produced locally and used to some extent are Norfolk Island Pine (*Aracauria excelsa*), and Sugi (*Cryptomeria japonica*).

1962 SEASON'S GREETINGS!

Irma and Bill Bryan



22 Victoria
100 Vitis
173 Waltheria
118 Zizyphus

ALOHA TOWER Mrs. S. L. Bull

By DR. A. W. SLATEN

12/27/39

SEEING A SCIENTIST IN HIS WORKSHOP is an exhilarating experience. There's Otto Degener, for instance, one of Hawaii's distinguished botanists. An hour or two with him in his bachelor quarters on Mokuleia beach took this writer to the peak of Mt. Helicon, where the Muses dwell.

It's impressive how any kind of superb craftsmanship—though it be altogether unrelated to your own line of work—inspires you to tougher trying for the ideal. It may be music, it may be acting, it may be photography, it may be portraiture, it may be sheer clear thought—it may be anything, for whatever is done well stimulates us to do our own task better. There is, so to speak, a comradeship of craftsmen all the world over, and one artist spurs on another.

Degener is an artist in the discovery and identification of hitherto unclassified Hawaii plants. He takes his car and its trailer, establishes camp, then fraternizes with fields, tracks mountain trails, searches sides of streams—hunting out hiding places of shy specimens that have escaped their merited note. Patience is his philosophy and a pressed plant his reward.

The plant is taken to camp, carefully studied, accurately catalogued as to genus, species, subspecies, variety, subvariety, mutation, hybrid, sport or anything else it may be. It is properly pressed, sent to the mainland for mounting on sheets of paper—work which is done by skilled women employees of the government—and is deposited as a loan with Bishop museum. The plant's story goes into that Who's-Who Among Hawaii's Botanical Inoc-

rites—Degener's Flora Hawaiiensis, three volumes of which already have appeared.

You might think that around the dwelling place of a botanist you would find a profusion of rare and beautiful flowers. Not so—in this case, at any rate. Muscovy ducks waddle and quack, guinea hens chatter their endless gossip, pigeons nest in cans on the ironwoods, ingeniously protected by spring traps that make any venturesome rat a suicide. But about the only plants are ironwoods and coconuts. For one thing, Mokuleia sand is not surcharged with sustenance. For another, a botanist is a botanist and botany as a science is like anatomical dissection—it deals with the dead.

It's an inspiration, though, to be in Degener's den, to see the scientist in his workshop, the Flora Hawaiiensis proofs he is reading, the pressed plant specimens he has on hand, the scholarly books all about—and, best of all, to listen to Degener talk.

Mokuleia beach is a long way from Mt. Helicon, but a visit in the scientist's workshop takes you instant to the place where the Muses dwell.

Moral for everybody is: Do your work the best you can. Put into it everything you have. Make it as nearly ideal perfection as you—with your inner and outer limitations—are able to achieve. Thus you will inspire others in utterly unrelated endeavors and, too, you will win for yourself a diploma of membership in the Comradeship of Conscientious Craftsmen of the World!

today denied that he had "insulted" Dr. Joseph F. Rock. Dr. Rock, noted botanist and ethnologist, has resigned as research professor in Chinese culture and withdrawn a \$250,000 gift offer because, he said, of Dr. Crawford's insult.

"If there was any insult it was in the way he took what I said," Dr. Crawford added.

He would not discuss the breach further.

"The matter is entirely in the hands of the board of regents committee," Dr. Crawford said. Dr. Crawford expressed the belief that Dr. Rock's decision to quit had been "growing in his mind for some time."

Dr. Rock said he had disagreed with Dr. Crawford regarding the care of his collection of Oriental books in the course of which he was insulted.

9/12/40

Staffs, and administrative officers serving under Crawford have been subjected to insults and humiliation such as was imposed recently upon the great scientist, Dr. Joseph F. Rock, whose services to education and to mankind and to science deserved something far different from the treatment he received. Knowing the university Head's capacity to hurt and to threaten his underlings, no matter how superior they may be to him in training, intelligence, ability, and kindness to fellow human beings, we are forced to the conclusion that our recent distinguished visitor and would-be benefactor of the University of Hawaii spoke justly, deliberately, and without misinterpretation, when he declared he declared he could endure the damage to his books but could not take President Crawford's insults. The President is noted for the wise distinction he draws between those over whom he wields the sword and those who are in a position to determine his fate, the Regents. One of his frequently used expressions is, "Do so-and-so or perhaps you would find things more to your liking elsewhere." Another is, "Do so-and-so or there will be some surgery." These are his ways of dealing with the cultured, educated, refined folks who serve the University of Hawaii and are responsible for the higher education of our youth. We understand now that the great gift of a quarter of a million dollars in value has gone to Harvard, a noble institution which will use the rare collection well. Nevertheless, we grieve deeply because we believe beyond a doubt that this particular gift was the just heritage of our own university and would have given new strength to the already flourishing Oriental Institute, that splurge which was twin to the faded-out Graduate School of Tropical Agriculture.

TO BLITZKRIEG

Forced retirement of David L. Crawford, as president of the University of Hawaii, is now declared to be on the must schedule of several local prominent civic leaders, who up to now have laid off this move in deference to Charles R. Hemenway, who retired this week as chairman of the board of regents.

It was also learned that Hemenway with his retirement will take a neutral position and let nature take its course. He is said also to have even lost his old enthusiasm for Crawford, the result of the resignation of Dr. Joseph F. Rock, noted scientist from the U. H. faculty and Dr. Rock taking his priceless book collection away from the University to give it to Harvard. Dr. Rock declared he could not stand any more insults from Crawford.

IN CHINA'S BORDER PROVINCES

The Turbulent Career of Joseph Rock, Botanist-Explorer

HERE is a most extraordinary disclosure of life in China's remote and mysterious Western Provinces. Unseen by diplomats, rarely penetrated by travelers, the border states of Choni, Muli, and Yungning are exposed as having been dominated by oppressive rulers, exploited by military factions, and ravaged by bandit raids. Few foreigners were welcome, yet "kings" and peasants opened their doors to a civilian scientist, Joseph Rock, who for nearly twenty-seven years (1922-1949) lived among them for the simple purpose of collecting plants for western museums and exploring and mapping mountains on the Tibetan border.

Joseph Rock was a self-made botanist, Austrian-born and naturalized American, who relished his solitary career in a society far different from his own. Funded by American museums he lived in style, was sought out by the Chinese rulers, most of whom were adolescent in their perceptions, and moved into the wilderness with an escort of soldiers and a group of carriers and muleteers. He

entered the humanities of Japan and worked on fantastic rituals and weird dances of the "posessed," he denounced the barbarous treatment of convict prisoners to the officials and recorded the maddening "squeeze" of poor farmers and the senseless waste of human lives and natural resources. While seeking such exotic flora as the Chamissoa tree

IN CHINA'S BORDER PROVINCES

by S. B. SUTTON

The Turbulent Career of JOSEPH ROCK, Botanist-Explorer



Rock, possessing an exposure of former terrain and added to western knowledge of the Anne Maclean and Muya Kanku, the latter, at 24,900 ft., towering on the Chinese-Tibetan border like another Everest. It was Rock who first told the western world about the designs in yak butter that are displayed at the annual butter festival that is quite unknown to tourists.

Duplicate with Rock papers
of Cho-ni in West China, I bequeath to the Deutsche Morgenländische Gesellschaft, Marburg/Lahn, West Germany, with the hope that full use will be made of the material; also all my manuscript maps of West China.

Item VIII: All clothing, wearing apparell, shoes, hats, etc., I bequeath to my nephew Robert J. Koc, Wittelsbachstrasse 4, Vienna II, Austria, of which I may die possessed.

Page II (Two)

In the event of the death of the said Paul R. Weissich of Honolulu, Hawaii, prior to my death I appoint Allen Stack of Honolulu, Hawaii, as my sole executor. I hereby direct that no bond shall be required from the said executors as such.

In witness whereof, I have hereunto and to the preceding page hereof set my hand and seal at Honolulu, Hawaii, this 14th day of April, 1962.

Signed, published and declared by the said Joseph F. Rock as and *Joseph F. Rock*
for his last will and testament, in the presence of us, being present at the same time, who at his request, in his presence and in the presence of each other, have hereunto subscribed our names as witnesses to the same this 14th day of June 1962.

Roland H. Force

Bishop's Museum Honolulu, Hawaii

Ed Green

Forster Garden

Honolulu, Hawaii

**PRES. CRAWFORD TO
BE GIVEN PURGE HINT**

THE HAWAII SENTINEL

9/12/46
Junius is wondering how the President of the university calculates when he uses his insult tactics on men and women of high intelligence who happen to be in his power and need or desire to keep their positions on the faculty and staffs of the university. We who know would be making a safe guess in saying that no less than

SEPTEMBER 19, 1940

THE HAWAII SENTINEL

No Insult Says
Crawford In
Reply to Rock

HEMENWAY'S
RESIGNATION
OPENS DRIVE

Dr. David L. Crawford, president of the University of Hawaii

10/19/42

ring the unfortunate Jeanne

Americans poured into the lonely, sparsely inhabited South Seas to help build Japan, but they are doing more than that. Unwittingly they have lifted the brown and black islanders out of an isolation that had lasted for centuries and they have stirred economic, social and political ambitions in the breasts of the natives that should have interesting repercussions.

Pango Pango may be remembered as the setting for W. Somerset Maugham's story, "Sadie Thompson," later to be staged as "Rain."

Dr. Degener is an internationally known authority on the flora of the South Pacific. A member of the Botanical Society of New York, he has had more than 100 books on botanical subjects translated by the German government for use in libraries in Germany.

Mrs. Degener, who is known professionally as Dr. Isa Degener, is also a well known botanist. The couple have just returned from a year in Europe and are en route to their home in Honolulu.

that should have interesting reper- Maugham's story, "Sadie Thompson," adapted for the stage as "Rain," Over a million stories, and are en route to their home in Honolulu, 2/23/54

...the ...
...the ...
...the ...

...the ...

The ...
...the ...
...the ...

The ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...

This ...
...the ...
...the ...

It was ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...

This ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

The ...
...the ...
...the ...

One ...
...the ...
...the ...

...the ...

The ...
...the ...
...the ...

And ...
...the ...
...the ...

Crawford's ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

The ...
...the ...
...the ...

Hawaii ...
...the ...
...the ...

...the ...
...the ...
...the ...

Possibility ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

★ ★ ★
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

...the ...
...the ...
...the ...

Hunt Institute for Botanical Documentation

Pres. Crawford to

the given Purge Hint

HAWAII CENTINEL 9/19/40

LOCAL NIPPON
BANK SEEKS
WAR DEPOSITS

TO AID MILITARISTS

Charges that the local branch of a Nippon bank is acting as agent to collect war funds for Japan, to carry on its war on China were being investigated by federal men here.

It was learned that letters have been addressed to thousands of Japanese in Hawaii to deposit as much as possible of their money in the local Nippon branch bank.

Ask Hawaii Aid

The writer is also known to have addressed many of these letters to American born Japanese and makes it plain that the money is to be used for. He declares:

Gentlemen.
Greetings upon your fine health
and activities.

Your ancestral land, Nippon, that cannot be forgotten even in your dreams, welcomes the 2600th year of the Imperial Rule of the Meiji Dynasty and now its people bend their hearts and energy to raise Asia through victory, which is their sacred mission.

NOV 1941

For three years this holy war has continued and we are all glad that the cause of overturning peace is winning its end. Still we must continue with strong will to win our sacred country.

Hawaii Alien Press Faces Curb By Congress; Activities Questioned

MAILING PRIVILEGE HIT

By JOHN K. LYNCH
(Special to Sentinel)

WASHINGTON, Sept. 19.—Possible early passage of a bill which would put under strict license all alien owned and controlled newspapers and periodicals, as well as alien schools which are charged with being responsible for instilling an alien ideology, into American born citizens, was predicted here this week.

This bill is declared to have the backing of the same group which pushed through congress the bill which provides for loss of American citizenship by those who spend more than six months in their racial land, without reasonable cause.

Ninein Hie

This alien residence bill was aimed at the Japanese both in Hawaii and continental United States, who go to Japan and become Nippon conditioned and then return under the name of Nisei, with dual citizenship, demand all the rights and privileges of full American citizens, often being used by alien parents and relatives to act as fronts for them in ownership of land which is denied them.

One member of this congressional group declared to be pushing the point that these alien press newspapers and periodicals should be barred the right of a second class mailing privilege. He said that this is a government-owned press and that it is a violation of the American constitution.

subsidy to an alien controlled shipping company, which might establish an office in the United States.

It was also being pointed out that this alien controlled press is a powerful factor in Hawaii election campaigns, influencing American citizens of the same racial stock as the owners of the alien newspapers.

Proof of the alien tisp of these newspapers in Hawaii was revealed by the fact that they are serviced by a special free news service, sent out daily from a Tokio controlled news agency, which specializes in Nippon colored news.

These alien newspapers were also charged with being the main factor in blocking Americanization of Hawaii born Japanese through campaigns said to have their origin in the Tokio foreign propaganda office.

224-754-5420

HEMENWAY'S RESIGNATION OPENS DRIVE

TO BLITZKRIEG

Forced retirement of David L. Crawford, as president of the University of Hawaii, is now declared to be on the must schedule of several local prominent civic leaders, who up to now have laid off this move in deference to Charles R. Hemenway, who retired this week as chairman of the board of regents.

It was also learned that Herndon with his retirement will take a neutral position and let nature take its course. He is said also to have even lost his old enthusiasm for Crawford, the result of the resignation of Dr. Joseph F. Rock, noted scientist from the U. H. faculty and Dr. Rock taking his priceless book collection away from the University to give it to Harvard. Dr. Rock declared he could not stand any more insults from Crawford.

What A Month

Crawford It was also learned he under fire from certain real American groups, who charge that he currently is a hot bed of anti-Communists, whose influence is inimical to the American concept of government.

Two members of the senate are named; a word is dropped as to the matter if an education was required, which is not the case.

PRES. CRAWFORD TO BE GIVEN PURGE HINT

HAWAII CENTINEL 9/19/40

LOCAL NIPPON BANK SEEKS WAR DEPOSITS

TO AID MILITARISTS

Charges that the local branch of a Nippon bank is acting as agent to collect war funds for Japan, to carry on its war on China were being investigated by federal men week.

It was learned that letters have been addressed to thousands of Japanese in Hawaii to deposit as much as possible of their money in the local Nippon branch bank.

Ask Hawaii Aid

The writer is also known to have addressed many of these letters to American born Japanese and makes it plain that the money is to be used for. He declares:

Centlemen,
Greetings upon your fine health and activities.

Your ancestral land, Nippon, that cannot be forgotten even in your dreams, welcomes the 2600th year of the Imperial Rule of the Miceli Dynasty and now its people bend their hearts and energy to raise Asia through victory, which is their sacred mission.

Holy War

For three years this holy war has continued and we are all glad that the dawn of overruling peace is breaking in Asia. Still we must continue with strong will to unite our whole country.

During this time your sincere ardor toward your ancestral land has been published in a local newspaper and on reading it I am compelled to state my sincere feelings.

Hawaii Alien Press Faces Curb By Congress; Activities Questioned

MAILING PRIVILEGE HIT

By JOHN E. LYNCH

(Special to Sentinel)

WASHINGTON, Sept. 19.—Possible early passage of a bill which would put under strict license all alien owned and controlled newspapers and periodicals, as well as alien schools which are charged with being responsible for instilling an alien ideology, into American born citizens, was predicted here this week.

This bill is declared to have the backing of the same group which pushed through congress the bill which provides for loss of American citizenship by those who spend more than six months in their racial land, without reasonable cause.

Nisels Hit

This alien residence bill was aimed at the Japanese both in Hawaii and continental United States, who go to Japan and become Nippon conditioned and then return under the name of Nisel, with dual citizenship, demand all the rights and privileges of full American citizens, often being used by alien parents and relatives to act as fronts for them in ownership of land which is denied aliens.

One member of this congressional group is declared to be pushing the point that these alien owned newspapers and periodicals should be barred the right of a second class mailing privilege, which is practically a government subsidy to aid the American press in economic survival.

EMI Provisions

This member of congress pointed out that the granting of this mail subsidy to the alien controlled

subsidy to an alien controlled shipping company, which might establish an office in the United States.

It was also pointed out that this alien controlled press is a powerful factor in Hawaii election campaigns, influencing American citizens of the same racial stock as the owners of the alien newspapers.

Proof of the alien tieup of these newspapers in Hawaii was revealed by the fact that they are serviced by a special free news service, sent out daily from a Tokio controlled news agency, which specializes in Nippon colored news.

These alien newspapers were also charged with being the main factor in blocking Americanization of Hawaii born Japanese through campaigns said to have their origin in the Tokio foreign propaganda office.

Alien Press Curb

They are also charged with being behind the drive to keep American born Japanese functioning as a dual citizen group rather than as full fledged American citizens.

The move to tighten up control over alien newspapers is said to have

HEMENWAY'S RESIGNATION OPENS DRIVE

TO BLITZKRIEG

Forced retirement of David L. Crawford, as president of the University of Hawaii, is now declared to be on the must schedule of several local prominent civic leaders, who up to now have laid off this move in deference to Charles R. Hemenway, who retired this week as chairman of the board of regents.

It was also learned that Hemenway with his retirement will take a neutral position and let nature take its course. He is said also to have even lost his old enthusiasm for Crawford, the result of the resignation of Dr. Joseph F. Rock, noted scientist from the U. H. faculty and Dr. Rock taking his priceless book collection away from the University to give it to Harvard. Dr. Rock declared he could not stand any more insults from Crawford.

What A Mess

Crawford it was also learned is under fire from certain real American groups, who charge that the university is a hot bed of alien ideologists, whose influence is inimical to the American concept of government.

Two members of the senate are already on record as pledged to probe the activities of the self-admitted Nazi professor, whose university salary is only \$2500 a month, which could not finance his social expenditures for the crowd who furnish him the information.

to Dan Balch, who got this week the job of superintendent of public works and chairman of the harbor board, following the death of Louis Cain.

This is the second key position within the last year that Washington has taken a hand in selecting the man to head territorial department.

U.S. Moves In

The appointment of the head of the board of health, made vacant by the death of Dr. Trotter, was filled, on recommendation from Washington, by Dr. M. F. Haralson, formerly connected with the United States department of Health in Washington.

The appointment of the Washington doctor is declared to have had behind it the idea that the interests of Washington could better be served by the placing at the head of the board of health a man who would be more responsive to Washington, than to the whims of local hyphenated politicians.

Also it is understood that Washington felt that the health of her 25,000 service men and of the first line of American defense in the Pacific, might better be served by a Washington official than one subject to the pressure of alien thinking politicians.

Get Man

This appears to be the same feeling in respect to the appointment of Sinclair, who came to Hawaii under orders from Washington to superintend PWA projects.

It was also learned that Balch will be superintendent in name only. The real man who will watch over Hawaii's potential national defense roads, airports and harbor will be Sinclair.

Sinclair it was learned will be given the job of cooperating with the army and navy officials in the expenditure of the large federal highway fund, which was lapsed back to the federal government when the legislature failed to appropriate matched money.

Handle Airports

This money will now be used to build military highways under the direction of army engineers. He will also have under his

Wall's over-statedhood conscious legislators from stirring up a publicity mess, over the appointment of two Washington malcontents to key territorial positions. As assistant superintendent of public works, Sinclair will sidestep a possible confirmation fight in the senate.

What may happen when Dr. Haralson comes up for confirmation is not predictable at this time until it is seen what the setup of the next senate will be.

Pres. Crawford to Be Given Purge Hint

(Continued from Page 1)

Backs Nazis

The activities of this man had been called to the attention of Crawford, by both local people and federal men, and is now subject for discussion in national magazines. Crawford has not appeared to desire any advice on this subject and with the return of this Nazi educator, announced that he was contemplating no action.

One of the factors that is expected to push Crawford back into possibly more activity as a director in local Big Business, is the excessive cost of maintaining the university, which is not equipped to give a degree in professions such as medicine, law or engineering.

Some Cost

The cost of maintaining this school is now over a million and a quarter dollars a year. The school handles around 2200 students. The cost of educating a student is around \$500 a year, of which a student contributes an \$100 a year tuition fee. The other four hundred a year per student comes out of the local taxpayers pocket or federal funds.

And how this bureaucratic setup under Crawford fares well, is evident with the employment of over 500 employees to administer to the wants of 2200 students.

Crawford's report shows that 75.6 of every dollar expended by the university, is paid out to salary bureaucrats.

teritorial government is both to have contributed 56.4 per cent, 55.8 per cent came from public sources, 23.6 from territorial appropriations, 23.7 from student fees, 18 per cent from auxiliary activities and the other small percentage came from miscellaneous sources.

Figure This

Yet, with this expenditure, point out the critics of Crawford a majority of students to really complete their education must, in the case of Japanese, in most cases go to Japan, or if a haole or other race go to the Mainland United States.

The move of those who are after Crawford's scalp is said to be the complete reorganization of the university and replacement of Crawford with some outstanding Mainland educator, who will not be handicapped by an oriental bias and create a faculty the equal of any first class American college on the Mainland.

Hawaii Alien Press Faces Curb by Congress

(Continued from Page 1)

veiling into possible fifth column cells, working out on American born citizens and teaching them by word or book, doctrines in conflict with American government concepts.

Possibility that all those, both alien and American born working on alien controlled and owned newspapers and periodicals, will be

used Wilder King, who is known here to be dependent election to the large of Japanese-American vs Hawaii. But in spite of his sition the bill is expected as did the bill voiding A citizenship of those who as much time in their race getting conditioned as all

Local Nippon B Seeks War Deps

(Continued from Page 1)
The Sumitomo Bank aids a domestic situation at home, although you are in a country, you are doing a gric life service.

The Sumitomo Bank forced over the responsibility ing as agent in a matter w presses the glowing love ancestral land and the will tional service.

Therefore, we make the conveniently handling this

Red Line Trans

EXPRESS AND FURNITURE REFRIGERATORS EXPERT REPAIRS REASONABLE 737 S. King Ph

STAMP LOVERS

Get your SCOTT'S NARIBO Albums at Curtis W. Hustad 821 S. Beretania St

ANNOUNCEMENT TO

Effective Sept. 16, 1940, the company of Mutual Telephone Co

SHORE-SHIP RADIO TELE WILL BE TRANSFERRED

R. C. A. COMMUNICATIONS

whose offices are at 233 S. King

Mutual Telephone Company wishes to the patronage during the years it has been offer that R.C.A. Communications, Inc., will be service to their satisfaction.

★ Cafe ★ Monte Carlo

64 S. Hotel TOM H. CHRONES, Manager Phone 3456

Charcoal broiled, juicy steaks and chops, served sizzling hot. Fresh frog legs, oysters and lobsters.

Bar Service: Finest mixed drinks from best liquors.

Call ... FOR A ROSECRANS

6277 METER TAXICAB

MUTUAL TELEPHONE

Hawaiian motif

A TOUCH of the South Seas was evident at the Thirty-fourth International Flower Show held at Grand Central Palace, New York City, recently. There Mrs. Howard S. Perry decorated a niche with tropical foliage, tapa and kawa bowls. It was "an interpretive composition honoring an outstanding botanist or naturalist who was a native of the Pacific Islands or did his main work there." The man selected for the year was Otto Degener, resident of Oahu since 1922, and author of several books about Hawaiian plants and native customs and, last year, of his *Naturalist's South Pacific Expedition: Fiji*. This last work describes his eight months' exploring for plants in the Fiji Islands as guest botanist on Mrs. Anne Archbold's fabulous junk-yacht *Cheng Ho*. It was during this trip that Mr. Degener discovered a tree belonging to a new plant family that now bears his name.



Hawaiian arrangement at New York show. Photo Bouffelle.

ments against statehood compare with the protests against annexation.

—Carl S. Carlsmith
Jillo, Hawaii

We have an article on that very subject coming up next issue.—Ed.

CHENG HO ADVENTURE

I herewith enclose a photo of the elaborately decorated stern of the *Cheng Ho* as a post-script to your recent article about that vessel. It



was snapped in Fijian waters just before the war. I was Mrs. Archbold's guest-botanist at the time, commissioned jointly by the New York Botanical Garden and Harvard to collect new and rare plant specimens.

I purchased the *Cheng Ho* from Mrs. Archbold in 1946 and six months later founded the *Cheng Ho Trading & Exploring Company, Ltd.*, with Capt. de-Bisschop and associates. Since I am not interested in trade, but in botanical exploration, I shall make only one trip a year on the *Cheng Ho* accompanied by a friend scientist eager to join me in research.

I am at present seeing my book on my *Cheng Ho* adventure in Fiji through the press. When that is pau, I shall be

ready to continue exploratory work. Perhaps one of the scientific readers of *Hawaiian Digest* will share the luxurious aft cabin with me at that time.

—Otto Degener
Mokulela, Oahu

HAWAIIANA-CALIFORNIANA

Last summer I ran across a bit of *Hawaiiana-Californiana* which I thought most interesting. According to one of the stories in G. E. Dane's book, "Ghost Town," Kamehameha IV ordered a fire engine which was shipped around the Horn as far as San Francisco. While the engine lay upon the docks awaiting shipment to the Sandwich Islands, the local firemen had seen and admired it. In fact they decided to try it out. After that, it seemed a shame to let such a fine little engine rust away at the Embarcadero. Consequently, it was housed in the station, and it proved to be such a light, handy engine that they eventually lost interest in whether Kamehameha ever saw it or not.

Meanwhile, as time went on and no Royal fire engine arrived in Hawaii, King Kamehameha set up inquiries which in due time spread across the ocean to the Golden Gate. So, the San Francisco firemen decided to unload the evidence.

The result was that the engine was bought by a committee from Columbia, California, a rip-roaring town which had twice burned to the ground. There she was known and revered as old Number 1, and I believe that if you go to Columbia today, you will find her holding a position of respect in the community.

—Mildred E. Shell
Fullerton, Calif.

Hawaiian Digest

By 1929-30 concentrated collecting in the Section that now is Haw. Volc. Nat. Park has resulted in what may be considered "Time Capsules" of carefully preserved plants presently located at the University of Massachusetts (my Alma Mater), New York Botanical Garden (of which Mrs. D., & I have been staff members for many years), Smithsonian Institution (which is closely associated with the National Parks), and Gray Herbarium of Harvard University; as well as in smaller institutions. One such institution is the local Bishop Museum. Being so close to our hunting ground, we had no purpose in "shipping coals to Newcastle" when that institution is already bulging with local specimens.

Though Mrs. Degener & I have owned an alternate home on the border of the Park in the village of Volcano and have been honored with collecting permits, we have seldom made use of them. It is unnecessary as practically all the plant taxa we see I collected in quantity fifty years ago.

As the delicate native vegetation succumbs more and more to aggressive exotics, in spite of heroic efforts by Park personnel, "time capsules" are of inestimable value. One instance, is the *Hibiscadelphus giffardianus* first described by J.F. Rock, exterminated in the wild state. The last tree grew on the edge of a collapsed lava tube in Kipuka Puaulu, ~~the~~ exposed legally to the browsing of Hereford cattle belonging to Brown's Ranch. I took a flowering twig for the making of the illustration in my Park book in 1929. All time capsules have good specimens of the unique plant, truly a National Treasure. These are not from twigs I could have cut from the last tree, but from fallen flowers and leaves that I frequently gleaned from the ground about it. Evidence of this action is in their appearance with an abscission layer or an injury. This remarkable species has been saved to the present day from extinction by the wisdom of Geologist Howard Powers who distributed seedlings grown in time about twenty years ago.

In closing, we consider a working herbarium at the Park indispensable for Naturalists and Rangers, but we disapprove of collectors limiting their pickings to just a specimen or two. Having seen what can happen to museums during wars, and might happen during volcanic eruptions, tsunamis, and other Natural disasters, we strongly recommend that duplicates be salted away at the Smithsonian and elsewhere to insure the preservation of at least some fragments somewhere for future individuals to admire and study.

Aloha,

Dr. Otto Degener
Naturalist, Haw. Nat. Park
1929

P.S. Plants distributed had been identified
according to current usage.

O.D.

Bethlehem
DRS. OTTO & ISA DEGENER
P. O. Box 154
Volcano, Hawaii 96785, U.S.A.

Dater 1984

Dear Supt. Ames:

Mrs. Degener & I were delighted to meet former Naturalist Mitchell who published with Fagerlund some years ago importantly concerning the Park. He expressed his surprise that the Haw. Volo. Nat. Park Herbarium lacked plants collected by the Degeners. Here is the verbose explanation/;

My sister & I came from New York City as tourists to the Kilauea Section of our Hawaii National Park in 1922. Just graduated from the Mass. Agr. College (soon to become the University of Mass.) in Amherst as botanist, I received permission from Supt. Thomas Boles to collect plants in the Park while residing in the Volcano House, since ~~by~~ by fire. I enclose a herbarium sheet of a fern I collected along the Byron Ledge Path Dec. 14, 1922 for the Park collection.

Fascinated by the Hawaiian Islands and convinced I should publish a "Flora of the Islands to replace Hillebrand's excellent work published posthumously in 1888 and hence out of date, I enrolled at the University of Hawaii to specialize in local Botany and receive my Master's in 1923. My thesis, "Gametophyte of Lycopodium cernuum in Hawaii" was based on the unusual growth of wawaeiole in Kilauea fumeroles. I published in the Bot. Gaz. 80:26-47. 1925.

I returned to the Mainland with my collection of Hawaiian herbarium specimens to study them critically in Amherst and New York, receiving credit toward a Doctorate from Columbia University while doing so.

In 1925 I returned to Honolulu to teach Botany at the University of Hawaii, having 102 students in Freshman Botany divided up into three sections. From overwork and my ambition to forge ahead with my project of publishing a Flora Hawaiiensis, I developed chronic tachycardia (malfunction of the heart nerve, but not of the muscle), and no longer could drive an auto legally. Aware of the floral richness of Haw. Nat. Park and having met Director Mather at some scientific meeting held in the Mauna Hotel in Waikiki, I applied for a position with the park Service. Consequently I was appointed the first Naturalist of Hawaii National Park. This included both the Haleakala and Kilauea Sections. Thanks to four pack horses, a mule and a few assistants, I had studied Haleakala vegetation from the Bolua Cave area and neighboring regions for about three weeks in 1927.

While Naturalist under Supt. Allen in 1929 I lived in a cottage with five students, most of them natural born artists I had trained in Honolulu to make scientific drawings of plants for me. I had most of them execute scientific drawings of the plants of the Kilauea Section at my expense. I had one student always available, because of my legal inability to drive, chauffeur me back & forth to work, even running the motion picture machine during my one hour lectures, sometimes as many as three per day, to boat loads of steamer tourists. The present ~~tank~~ observatory was the lecture hall.

With the coming of the school season it was impossible for me to continue my lecturing and other Park duties. So I resigned, taking up lodging in the Volcano House for about one and a half years. During that time, I worked on my illustrated book "Plants Hawaii National Park". I returned to my home in Honolulu with the manuscript in board covers, the Honolulu Star-Bulletin being the printer. The later famous Mr. Farrington was the salesman with whom I dealt.

Besides my collecting within Haleakala, I had spent 1929-30 combing especially the area within three miles hiking distance of the Volcano House. I concentrated on Flowering Plants and Ferns, but did not ignore some of the other groups as neither facilities nor funds for an herbarium were available at the Park, none of my collection of unicates and duplicates occur in the present herbarium. Besides acquainting Naturalist Mitchell of this fact, I wish to have others realize the importance of preserved plants, especially with the increase of Time.

FOR SALE

GOOD as well as shopworn; earthquake & flood endangered, foxed; hurricane & lava flow endangered; termite tasted & tested; tidal wave & tsunami exposed; & World War II bomb exposed books & pamphlets available. Rummaging in attic & elsewhere unearthed them. Prices subject to change; postage extra.

Naturalist's South Pacific Expedition: Fiji. Boards, very rare. 1949. Collecting Degeneriaceae & popular experiences.). \$45

Plants Hawaii National Park. Ed. 1. Boards, rare. 1930. Good, \$45; shopworn, \$30

" " # Parks. Later editions. Paperback. Excellent condition, Wholesale, \$5; retail, \$7.50

"Page Proof Plants Haw. Nat. Parks." Large monstrosity with some new plant name publications copyrighted & officially published Nov. 1983. Small edition catering to specialists mainly. \$50

Flora Hawaiiensis (& Fl. Hawaiiana) consisting of single sheet loose-leaf 3-puka punched, signed & publication-dated articles. Randomly bound in "Books" - NOT volumes - 1, 2, 3, 4 in separate board covers for convenient handling. Ed. 1 of 1,500 editions; long out of print.

Fl. Haw., "Books" - NOT Volumes - 1, 2, 3, 4 in SINGLE board cover - 1192 pages & 2. Shopworn, etc., \$15; good, \$22.50 (Copyrighted as unit 1946.)

Fl. Haw., "Book" 5. Ed. 1. Boards. Present copies unavailable as not yet collated.

Fl. Haw., "Book" 6. Ed. 1. Excellent condition. Boards. Wholesale, \$15; retail, \$22.50.

Fl. Haw., "Book" 7. Ed. 1. WITHOUT cover; complete only through Jan. 1984, "As is, where is". Wholesale \$15; retail, \$22.50

Order from authors: Drs Degener, P.O. Box 154, Volcano, Hawaii 96785 USA at prices subject to change; postage extra.

Occasional, unidentified herbarium specimens - try identifying them yourself via Floras - available gratis if you have them processed for born and as yet unborn monographers and students. Many of our more recently collected Hawaiian Archipelago taxa will hardly be as interesting as before as we both were shot at in 1979 by illicit Cannabis growers in a rarer region we were able to approach by jeep. We prefer dying of heart arrest in bed to dying of bullet wounds between Argyroxiphium taxa, even if new. What are we offered for a good, 1961 antique jeep built in Holland? Sold in Spring 1984

Many Degener's Hawaiian herbarium specimens scattered among 100 leading botanical institutions throughout the World are described & illustrated in the above publications. Those missing should appear in later "Books" of the Flora Hawaiiensis & Fl. Hawaiiana.

O., & J.

D.

In a rush because I was in hospital for 9 days with an embolus which might have been fatal.

Hunt

NATURALIST'S
SOUTH PACIFIC EXPEDITION:
FIJI

By

OTTO DEGENER, B.S., M.S.

Botanist, University of Hawaii, 1925-27
Naturalist, Hawaii National Park, 1929
Collaborator in Hawaiian Botany, New York Botanical
Garden, 1935
Botanist, Cheng Ho Expedition, 1940



PARADISE OF THE PACIFIC, LTD
HONOLULU, HAWAII
1949

CHAPTER XI

A Bachelor Acquires A Family

Ordenez entered in his diary for February 24, 1941: "Go hiking—Mr. Degener, Timothe and I. Reach the top of a neighboring mountain. Timothe is receiving inspiration in the botanical line. I guess he hasn't much to think or worry about. That's why he is absorbed in what he does manually. Mr. Degener is indeed happy, contented, and patient in his botanical accomplishments! Romance is evidently permeating my mind. Occasional day-dreaming is common! A great hinderance to success!"

February 24, that memorable day, we followed faithful Timothe into what he called the Nauwanga forest. That memorable day we found a tree with rather ugly flowers and, being as usual greedy for specimens to scatter far and wide among worthy institutions to stimulate study, I collected ample material. There were numerous flowers but considerable search disclosed only a single fruit. This collection, to which I gave the number 14,537, was pressed and dried like all other collections and in due time mailed from Nandativatu to Dr. Smith. Later, when I returned to my beach home in Hawaii Nei, Smith wrote me some astoundingly gratifying letters. I was flabbergasted! February 24 is truly far more important to me than the anniversary of my birthday or the date of my death. February 24 is my very private, personal, memorable "Memorial Day."

The story was told officially by I. W. Bailey and A. C. Smith in the *Journal of the Arnold Arboretum* 23:356-365, Pl. 1-5, 1942. I quote in part: "In 1934 the junior author [Smith] collected specimens of a fruiting tree on the Fijian island of Vanua Levu, but efforts to place the plant in a family failed. Neither fruit nor foliage suggested any plant previously known from the Pacific. Although wood from the trunk was available, no definite suggestion of a family could be made by those who examined the specimen. Recently, a re-examination of the wood and a study of the internal structure of the twigs and leaves indicated that the plant is related to the Magnoliaceae, and it has subsequently been ascertained that the plant is conspecific with a tree collected in flowering condition in the interior of Viti Levu by Mr. Otto Degener in 1941. This Fijian plant, which is now represented by ample foliage, flowers, fruits, and wood, is definitely a member of the ranalian complex. It exhibits close similarities to the Magnoliaceae, particularly in the internal structure of its vegetative organs, in its pollen, and in the vascularization of its stamens. However, we cannot place it in the Magnoliaceae, for reasons to be discussed on succeeding pages . . . These three families, Magnoliaceae, Himantandraceae, and the proposed Degeneriaceae, form a group with salient morphological similarities . . . The remarkable stamens and carpel of *Degeneria* deserve special consideration, since they are likely to prove of some significance in future discussions of the floral morphology of the angiosperms."



The tree *Degeneria vitiensis*, the only known member of the primitive *Degeneria* Family. (After Bailey & Smith)

To have one's name associated with an entirely new plant family is an honor almost unheard of. Nevertheless, I am not the family's original discoverer! Two other workers found trees belonging to the *Degeneriaceae* before I did. Dr. Smith, as mentioned in the quotation, discovered one on May 7, 1934, on Vanua Levu, in the "Lower Wainunu River valley, alt. 0–200 m." As he was the one who studied and published descriptions of the new species, genus and family with Dr. Bailey, he could not well name them for himself. This would violate good taste and a long-established custom. The second discoverer of *Degeneria* is my friend Mr. B. E. V. Parham, government botanist in Suva. After my find came to Dr. Smith's attention, I visited Mr. Parham at his Nanduruloulou home where he showed me his herbarium. Much of it had not yet been studied because of the pressure and confusion of war work. I then suggested that he ship his collection to Smith for determination. When Smith finally got the Parham plants on loan for study, he found a *Degeneria* among the lot. This had been collected at Nanduna, Viti Levu, in 1939, four years after Smith's find and two years before mine.

According to Dr. S. F. Blake at least one other family bears the name of a living botanist. This is *Chingithamnaceae* Hand.-Mazz., in *Sinensia* 2:126.1932, the type specimen for the family having been collected in Kwangsi by R. C. Ching. Botanist of the Metropolitan Museum of Natural History (Nanking) and Research Fellow of the China Foundation for Promotion of Education and Culture. This family is ignored, in error, in the *Index Kewensis*. But this work does record the fact that Handel-Mazzetti, who originally proposed the new family, soon regretted his action. By merging his genus *Chingithamnus* with *Microtropis*, he equated his *Chingithamnaceae* out of existence into the *Celastraceae*. The family *Degeneriaceae*, however, is still in good standing.

June, 1924, Herbert L. Mason collected a peculiar brown seaweed off Clarion, the most westerly of the Revillagigedo Islands, southwest of Lower California. It was named *Masonophycus paradoxa* after its discoverer and its unusual characters. It is so different from any other seaweed known that it constitutes a family all its own, namely the *Masonophyceae*. Thus, *Degeneriaceae* and *Masonophyceae*, each based on a single kind of plant, are the only valid plant families commemorating living botanists at this time.

Our collecting was so successful in the Nandala region that I felt we needed still another assistant. I spoke to Timothe. Yes. He thought a distant relative of his would be glad of the opportunity to earn some money, particularly as his father was old, almost blind, and not able to work as hard as formerly. A few days later a diffident, clumsy, raw-boned youth with large, fleshy lips and a mouth so big that it almost hid his face when he guffawed, reported for work. He was physically and mentally not Timothe's equal, and both seemed to acknowledge the truth of this fact. Danieli was a simple dullard who willingly climbed trees for orchids and other epiphytes on Timothe's slightest behest. One late afternoon, while we were putting away our plants between driers, I noticed a little rumpus—faithful, observant Timothe in quiet but intense anger suddenly frisked Danieli and drew forth my scissors secreted on his