Nancy Hanks Lincoln Public Library

THIS three-volume set of books was published in 1936 to preserve for future Hawaii the invaluable memoirs of Sanford Ballard Dole and Lorrin A. Thurston.

As one of the original six hundred subscribers of this limited edition you have shared in the not inconsiderable cost of publication and your set has been registered in the office of the publishers under Number

259

Advertiser Publishing Co., Ltd.,
Honolulu

LORRIN A. THURSTON

Asa and Lucy G. Thurston, members of the first company of American missionaries to Hawaii and grandparents of Lorrin A. Thurston, from a daguerreotype taken about 1868

WRITINGS

of

LORRIN A. THURSTON

Edited by

ANDREW FARRELL

HONOLULU
ADVERTISER PUBLISHING CO., LTD.
1936

PRINTED IN
UNITED STATES OF AMERICA
BY
ADVERTISER PUBLISHING CO., LTD.
HONOLULU, HAWAII, U. S. A.

Preface

This volume, the third of the Thurston-Dole set, contains portions of the original joint manuscript: Mr. Thurston's more personal reminiscences, and therefore unsuited to his *Memoirs of the Hawaiian Revolution.* To them I have added the chapter on Jack London, which Mr. Thurston did not include in his memoirs, and some selected writings in *The Honolulu Advertiser,* of which he was president for many years. Some minor editing of the newspaper writings has been done, principally for typographical and stylistic reasons. My aim has been, not only to republish articles and editorials intrinsically interesting and important, but also to give a cross section of his work, to indicate the variety of his interests, his grasp, and his extraordinary knowledge of Hawaii. One may doubt whether any other person has known so much about so many things Hawaiian.

Although his interests were wide and his information was encyclopedic, they were merely preparatory, one might say, to action. Probably more than any other man, he overthrew the throne; a true beginning of public works was made while he was minister of the interior; he was a pioneer in stimulating travel to the islands; he fathered the Hawaiian Volcano Research Association. Instances might be multiplied. To do, to do! — for he was no recluse. In his declining years, when he was far from well, he voyaged repeatedly to this rock or that atoll, usually in small craft lacking the comforts that his age and health required, as though he were echoing Tennyson's *Ulysses:*

> ". . . for my purpose holds
> To sail beyond the sunset, and the baths
> Of all the western stars, until I die."

ANDREW FARRELL.

Honolulu, 1936.

Table of Contents

List of Plates

CHAPTER I

Missionary Descent and Early Years

This book was begun as a statement by Sanford B. Dole on "high spots in Hawaiian history," in which he had participated, or which he had observed. At Mr. Dole's suggestion, I have been drawn into it, with the object of rounding out the several stories by the addition of my observations and experiences. This expansion of the original intention would seem to render desirable a biographical sketch of myself, as showing the viewpoint from which I have written and the opportunities I have had to know of what I am writing. With this brief explanatory note, I proceed.

Forbears Come to the Islands in First Band

I was born at Honolulu on July 31, 1858, being one of the third generation of the so-called "missionary stock," my father's parents, Asa Thurston and Lucy Goodale Thurston, having arrived in Hawaii in 1820, as members of the first band of missionaries who came here under the auspices of the American Board of Commissioners for Foreign Missions, the A.B.C.F.M. Both were from Massachusetts, he a native of Fitchburg, and she of Marlboro, places a few miles west of Boston. They revisited their homeland, but were members of the mission until it closed in 1863, after which they remained in Hawaii for the rest of their lives, my grandfather dying on March 11, 1868, and my grandmother on October 13, 1876.

Pay Increased Twenty Dollars for Each Baby

Traducers of the missionaries are wont to refer to their "luxurious living" in the islands. A side light on this "luxurious living" is the fact that the salary of an American missionary to Hawaii, with which he supported himself and his family, was $400 a year, with an increase of $20 a year for each baby that joined the family circle. The wife of the missionary, although she was as much a missionary as her husband, having her life work laid out for her as a teacher,—not only as a literary teacher, but as a teacher of housekeeping, sewing, cooking, and care of children, and generally known in the district as "Mother"—received no salary whatever. My Grandmother Thurston told me of an incident illustrating the economical character of the American Board. The family was without a dictionary; she proposed to the children that, if they would go without butter made from the milk of the family cow, she would sell the butter and buy a dictionary with the proceeds. The children agreed, and the book was bought, but afterward, the authorities of the American Board having discovered how she obtained it, the cost was deducted from her husband's salary.

Other examples of "luxurious living" appear in other incidents. There was no regular communication between the United States and Hawaii during the early days of the mission, supplies being sent out by tramp traders and whale ships. A box of clothing, linen, and so forth, sent to my Grandmother Andrews from her old home in Kentucky, wandered over the Pacific from China to Tahiti, about the Arctic Ocean and other waters, until it

finally was delivered after twenty years, when the contents were found to be completely mildewed and rotted. My mother told me that the provisions forwarded from Boston and apportioned to the missionaries, as part of their supplies, were often so deteriorated that flour had to be chopped from a barrel with a hatchet. She also recalled that the family went outdoors several times when corned beef was put on to boil, and remained outdoors until the meat was cooked, to avoid the rank odor that filled the house. Another "luxurious living" incident concerned a missionary whose trousers had become so worn that they were no longer usable. His wife made him a pair of a discarded skirt, of flimsy material. Obviously the skirt of that time was somewhat more voluminous than one of today, which probably would not be large enough to make more than a pocket handkerchief for the venerable gentlemen.

Flour Chopped From a Barrel With Hatchet

My Grandfather Thurston, while a boy attending Yale University, made the Bully Club, as the strongest member of his class and as an expert wrestler. On his arrival in the spring of 1820 at Kailua, Island of Hawaii, where he was stationed, he was told that an American Negro, a resident of Kailua, was making threats against him as a "damned missionary,"—the first use of the classic phrase that I know of; the Negro stated that he did not want any "damned missionaries" to interfere with him; the first time he met my grandfather, he would give him a licking. A few days later, my grandfather met the Negro on the road and said: "Are you the gentleman who has been

Classic Phrase Used by Negro; Plans Beating

announcing his intention of licking the missionary?" The Negro answered: "I am;" immediately lowered his head, and made a rush at Mr. Thurston to butt him. As he came on, Mr. Thurston braced himself, caught the Negro in a mighty grip, and threw him over his shoulder. The man fell upon his head on the road, where he lay groaning; and he took no further steps to "lick the damned missionary." Tradition has it that the Negro afterward became one of the firmest friends of Mr. Thurston, always referring to him, with the greatest respect, as "my friend the missionary."

Tables Turned by Missionary; Assailant Out

Another gross libel is that the "damned missionaries stole all the poor Kanakas' land." All land transactions in Hawaii appear in the records of land patents, real estate transfers, and probate courts; and they show no large real estate holdings by any missionary. Specific declarations of unduly large and illegitimately acquired holdings and property accumulations by Samuel T. Alexander, Henry P. Baldwin, Charles M. Cooke, and George N. Wilcox, all "mission boys," likewise are gross libels. I happen to have been intimately acquainted with all of them. Each began as a poor youngster; each accumulated a fortune by hard work, simple life, rigid economy, and a keen business mind. They are exemplars of whom any community might be proud—men who build up a country, making it strong and prosperous and worth living in.

Work, Economy, Keen Business Minds: Success

William P. Alexander never obtained title to any land in Hawaii, except his mission home site

at Wailuku, Island of Maui, which was deeded to him by the American mission when it retired from the Hawaiian field in 1863. Samuel T. Alexander, the son of the missionary and one of the founders of Alexander & Baldwin, Ltd., returning to Hawaii from college in the East, stayed over to work in the mines of California. There he failed of riches, and arrived in Hawaii so short of money that his only pair of trousers was made of a flour sack—the seat bore the name "Golden Gate Flour Co." As a child, I visited the family of Samuel T. Alexander with my mother, when he was manager of the Waihee Plantation, on Maui. Henry P. Baldwin, who afterward became the junior member of Alexander & Baldwin, was the head overseer under Mr. Alexander.

Trousers Made of Flour Sack for Alexander

About that time, Messrs. Robert Hind and James Renton, two English mechanics in the employ of the Honolulu Iron Works, founded a small dry-land sugar plantation at Paia, Maui, which they ultimately sold to Messrs. Alexander and Baldwin. Mr. Baldwin once told me that, in connection with his original purchase of real estate, which formed the foundation of his subsequent fortune, he spent a whole month in Honolulu, seeking to borrow $1,800 with which to consummate the purchase, and that he paid twelve per cent interest. Neither Mr. Alexander nor Mr. Baldwin ever "stole any land from the poor Kanakas." All the land they obtained, they bought and paid for in the open market with money they had made by the sweat of their brows. No man ever lived in Hawaii who was more devoted to the

rights and interests of the native Hawaiians than was Henry P. Baldwin, both at the time indicated and throughout a long life devoted to the physical and financial development of Hawaii, and to the political development and interests of the native Hawaiian people. [Robert Hind, in March, 1872, obtained four and one-half acres of land from the Haiku Sugar Co. The area was surrounded by about a thousand acres obtained at the same time from the same company by Samuel T. Alexander and Henry P. Baldwin. A sugar mill was erected on the small Hind holding, and the land and the mill were sold by Mr. Hind to Messrs. Alexander and Baldwin in October, 1872. Details of the transaction are obscure.—*Editor.*]

True History: No Missionary Stole Any Land

The charge that the missionaries "stole the poor Kanakas' land" has been reiterated so often by the uninformed that it is regarded generally as historical fact. As a matter of correct history, however, no Hawaiian missionary ever stole any land in Hawaii, or otherwise obtained land by illegitimate means. Of approximately eighty missionaries who came to the islands, only a half dozen or so acquired any lands except the homesteads, consisting of a few acres each, where they were living when the American Board abandoned the Hawaiian field in 1863. At that time, the board conveyed to each missionary the homestead on which he lived. A half dozen or so missionaries, who got additional holdings, bought them from the Hawaiian government at the rate of a dollar or so an acre for a few acres of pasture land, that being the

rate at which the government was selling land to all comers.

Some of the land was found fit for the cultivation of sugar cane, and was used for that purpose. The total area of such property of missionaries was in the hundreds of acres, a drop in the bucket of the total area of thousands of acres that entered into cane cultivation. The slur that the missionaries acquired land illegitimately is a cheap libel, utterly without foundation, formulated in an age when there was "no God and no law west of Cape Horn," by those to whom any man who "lived with his own wife, paid his bills, and did not get drunk" was a "missionary," and anyone under the American Board of Commissioners for Foreign Missions was a "damned missionary." I have no apologies to make for the "mission boys." They need none.

God and Laws Wanting West of Cape Horn

Among the few retired missionaries whose land became of value for sugar purposes was the Reverend Elias Bond, of the Kohala District, Island of Hawaii. His land was turned into the Kohala Sugar Company. For years, the dividends received by Mr. Bond from his Kohala Sugar Company interests were devoted to philanthropic purposes, until he became one of the most noted contributors to charity in the islands. Another retired missionary who became wealthy was Samuel N. Castle. During the active days of the American Board in Hawaii, he was a business manager of the mission in Honolulu. At the close of the mission in 1863, Mr. Castle and his business associate, Amos S. Cooke, entered into a partnership, conducting a

Kohala Sugar Dividends Pay for Charities

store in Honolulu and afterward becoming sugar plantation agents. The firm of Castle & Cooke prospered, and Mr. Castle became wealthy. His estate was inherited by his widow and several children, and for years Honolulu philanthropic institutions have been largely supported by the Castle family.

Philanthropies Largely Helped by the Castles

Once I was in the Castle Estate office, talking with the business manager, when one of the Castle daughters entered and spoke in an aside to him. After she had departed, the manager turned to me and said: "I'll bet you can't tell what she wanted. She said that she owed a grocery bill for the last month amounting to $27, but she had overdrawn her bank account in paying some subscriptions for a school, and she wanted to know whether I thought it would be all right for her to overdraw still further in order to pay her grocery bill for the month." And that from a "damned missionary" family, whose income amounted to thousands of dollars annually.

Lorrin Andrews, my mother's father, was born at Wethersfield, Connecticut, near Hartford. When he was ten years old, his father yoked a pair of oxen; with his wife and several children, he went across country to the Western Reserve in Ohio, where he settled. The family grew up with the country, and has since become connected with the center of education in that section. My grandfather was in his teens when an uncle in Connecticut wrote that, if the young man would work for him in summer and vacations, the uncle would take

Young Andrews Goes to Ohio Across Country

care of his education. Young Andrews accepted the invitation, and returned on foot to Connecticut, where he went to school, and finally graduated from Jefferson College, Jefferson, Pennsylvania, and the Princeton Theological Seminary. He returned to Ohio and became a school-teacher, being assigned to a school in Washington, Mason County, Kentucky, where he met my grandmother, Mary Wilson. Her father was a Presbyterian clergyman, who had gone from Virginia to Kentucky with his family in the early days. An incident in his history is of interest, as it was afterward reflected in the life of my grandfather in Hawaii.

Freeing Slaves Vexes Gentry; Wilson Departs

The Reverend Mr. Wilson was the son of a well-to-do Virginia planter, who owned a considerable number of Negro slaves. When he died, his slaves were divided among his children. The Reverend Wilson was intensely opposed to slavery, and immediately freed the slaves willed to him by his father. His act so antagonized his neighbors, and they made life so uncomfortable for the reverend gentleman that, taking his wife and children, he went across country to the then undeveloped Kentucky. As related above, my grandfather became acquainted with the Wilsons, and married the oldest daughter, Mary. Through this connection, he assimilated strong antislavery sentiments, which were reflected in his future life as a missionary in Hawaii.

When he arrived in the islands, Mr. Andrews was assigned to establish a boarding school at Lahainaluna, back of Lahaina, Island of Maui, for

native Hawaiians. Lahainaluna was a bare, dusty, waterless section of red dirt. Water was taken to it by an irrigation ditch from an adjacent deep gulch, in which taro patches were situated, where the boys of the school produced their own food. For many years, the school was the leading institution of learning for the natives. The boys received not only a general education, but also were taught home economics, how to set type and print school papers, and even the art of copperplate engraving. Mr. Andrews taught all that, and personally constructed a press; plates were made by the boys, and pictures were printed for use in the schools of the kingdom.

Island Lexicon Is Compiled by Lorrin Andrews

In addition to translating part of the Bible into Hawaiian, Mr. Andrews produced a grammar of the Hawaiian language, which was the standard for years. In that same period, he also compiled a dictionary of the Hawaiian language, which was printed in Honolulu, and continued to be the standard until out of print. He continued to collect material for an addition to the dictionary, and my recollection is that he had accumulated about 2,500 additional words at his death, and had secured the definitions in English. Throughout the printed copy of the volume, there are additional definitions and corrections of definitions printed in the dictionary, a second edition of which has been published by the Hawaiian government, but the additional words, above referred to, are not included in the second edition.

Incidentally, a question is asked frequently, why the early missionaries used the letter "T" instead

of "K" in spelling Hawaiian words; that is, the name of Kamehameha was spelled "Tamehameha," and the port of Kailua was "Tailua." My Grandfather Thurston spelled his Hawaiian name "Tatina," instead of "Kakina," the Hawaiianizing of the name Thurston. My conclusion is that the first missionaries learned the Hawaiian language from the son of Kaumualii, or Tamoree, King of Kauai, who gave the sound of "T" instead of "K," after the usage of Kauai and Niihau. The name, as spelled by the missionaries, was George Tamoree, instead of Kaumualii. The prince, who had left Honolulu as a sailor, came from Boston with the first group of missionaries, teaching them Hawaiian on the voyage.

Slave Owners' Aid Resented; Three Resign

It came to the knowledge of Mr. Andrews and the Reverend Jonathan S. Green, an American missionary stationed at Makawao, Island of Maui, and of another missionary, that the American Board of Commissioners for Foreign Missions was accepting money from certain slave owners of the South. The missionaries, regarding such money as "tainted," protested to the American Board against its acceptance. When the board refused to recognize the protest, the missionaries resigned, and withdrew from the mission. Our family annals relate that, in the first year after his resignation, when my Grandfather Andrews moved to Lahaina and became the chaplain of the seamen's mission at that port, his cash salary was $28 for the year. With that salary, and with such sweet potatoes, taro, and fruit as were contributed by the Hawaiians in return for services that he rendered them,

my grandfather supported himself, his wife, and six children. After he had spent a year in Lahaina, the Hawaiian government appointed him probate judge in Honolulu, whereupon he removed to that city, and remained there until his death in 1868. He also acted as secretary to the royal privy council and as chaplain of the Legislature.

Goes to School in Windjammer via Cape Horn

My father, Asa Goodale Thurston, was born at Kailua, North Kona, Island of Hawaii, on August 1, 1827. As was then the custom, there being no school in the islands that the children of the missionaries could attend, my father received instruction at home from his mother until he was old enough to be sent to the Eastern states on a sailing ship around Cape Horn to a school in Massachusetts, where he eventually graduated from Williams College. On his way home in 1849, he caught the gold fever; stopping off in San Francisco, he joined the gold rush, and became a placer miner on the American River. As usual, he came out at the small end of the horn, and returned to Honolulu with nothing in his pockets. Samuel T. Alexander, another "mission boy," also tried his luck in the gold fields, but met with indifferent success.

After my father returned to the islands, he became a chief clerk in the interior department of the government. He also was engaged in the drug business, and later was elected a member of the Legislature in 1853, being the speaker of the house of representatives in 1854; he became a sea captain, in command of a schooner that plied between Honolulu and the Island of Hawaii, and the

owner and operator of a small coffee plantation in the District of Kona, Island of Hawaii. A tale has come down in our family that, when my father was paying court to my mother, some of the good ladies of the American mission warned my grandmother against him, on the ground that he was a "suspicious character," the charge being based on the fact that he wore his trousers buttoned down the front instead of the side, as was then the fashion, and that he wore a mustache, the missionaries then being clean-shaven, or wearing full beards. But he overcame these obstacles, and on October 23, 1853, married Sarah Andrews, daughter of Lorrin Andrews and Mary Wilson Andrews. He died on December 17, 1859, leaving a widow and two small sons and no estate. The only inheritance I received from him was a Bible, which he inscribed and signed just before his death. My sister Helen G. was a posthumous child. She married Charles H. Alexander, younger brother of Samuel T. Alexander. After my father died, my mother and her children lived with her father, Lorrin Andrews, in Honolulu, on Nuuanu Street, opposite the Royal Mausoleum, from 1859 to 1868.

Mother Warned by Good Ladies Against Suitor

From that time, I have a recollection of King Kamehameha IV and Queen Emma arriving at the lot across the street from my grandfather's residence. The land was not used then for mausoleum purposes; and the King, in good old Hawaiian style, was superintending the laying out of a taro patch there. A large tent was erected, surmounted by the royal standard, and a number of men and women, under the direction of the King and Queen,

Kamehameha IV and His Queen at Taro Patch

laid out the taro patch, by digging up and leveling the soil and building a bank around it to hold the water turned in from the stream, which at that time ran down Nuuanu Street and was known as Paki Auwai. Horses also were used; after the patch had been formed, and the water turned in, the men, women, and horses all got into the patch and tramped in it, around and back and forth, chants being sung meanwhile. Thus the mud was softened, and the bottom was tramped down hard to make it water-tight. The music and exercises went on until the middle of the afternoon, and ended with a *luau,* or Hawaiian feast.

Tramping and Chanting End With a Feast

A reminiscence of Queen Emma, also dating from that period, relates to the Queen and her party after the death of Kamehameha IV. One of the joys of my childhood was swimming in the Kapena pool in Nuuanu Stream, back of the present mausoleum. With the Nuuanu Valley "gang" of boys, consisting of Fred (W. F.) Allen, son of Chief Justice Elisha H. Allen of the supreme court, and the three sons of the pastor of the Fort Street Church, the Reverend Eli Corwin, my brother Robert and I frequented the pool almost every afternoon of the week. After school,—taught by Mrs. Lowell Smith and her daughter Emma, who afterwards became Mrs. B. F. Dillingham—the gang would run all the way from the schoolhouse to Kapena, the pool being approached through the present Walker homestead, then occupied by Bishop Thomas N. Staley. Near the top of the hill, at the rear of the Staley residence, the gang would begin to disrobe; by the

Gang in Great Hurry to Strip and Start Swim

time the pool was reached, we would all be stark naked, and the "best man" would be the first in the water.

Queen Emma, with a party of some twenty or thirty men and women, came for a dip, the women dressed in *muumuus,* and the men in malos, or breechclouts. Some of the men, expert jumpers, amused the party by jumping from the traditional "highest place," a spot some thirty feet above the water on the east side. One man was adept in the *pahia* jump, in which the jumper struck the water at such an angle, and with his feet so extended in front, that he would shoot across the pool just under the surface, his feet emerging on the bank on the opposite side of the pool. His performance evoked much applause.

"Pahia" Adept Spurs Rival, Who Is Failure

Another man, somewhat envious, intimated that the feat did not amount to much, that he could do just as well or better himself. Being prodded to give an exhibition, he finally, and reluctantly, climbed the bluff and jumped off, but so awkwardly that he landed flat on his back, making a tremendous splash and shooting across the pool not at all. His failure caused the greatest derision, and he was so ridiculed that he said he had slipped, and that he could make the jump all right if he really wished. The assertion was received incredulously; the party, with yells and catcalls, dared him to jump again, and so continued the bantering that the braggart was provoked into jumping the second time, with the same result, the impact on the surface of the water nearly breaking his back.

Afterward I had another encounter with royalty

at the pool. Our "gang" had been diving for what we called "pearls," small pieces of coral that had become detached from coral blocks used to make a dam across Nuuanu Stream, just above Kapena Falls, to divert the water from the stream to the Honolulu waterworks. I had accumulated quite a pile of "pearls," on the *makai* bank of the stream, when twenty or thirty boys from Atkinson's School, which was situated at the mouth of Pauoa Valley, arrived to take a swim. One of the boys came over to my pile, deliberately scattered the "pearls" in all directions, and asked: "What is this?" Childlike, I set up a howl; my elder brother Robert ran up and said: "You let that kid alone!" The boy and my brother immediately had a fist fight at the edge of the water. Robert had the better of it; they clinched, and Robert got his opponent down and held him under water until he was nearly drowned.

"Pau" Is Cried by Leleiohoku; Casts a Stone

At length the boy said: *"Pau, pau,"* meaning that he had had enough. My brother released him, and the boy withdrew from the pool to the bank, dressed, and picked up a stone about half the size of his fist, which he threw with all his strength. The stone just missed crushing in my brother's skull; it did nick his scalp and cause a bloody flesh wound. The "Atkinson gang" thereupon ran down the valley. We afterward learned that the belligerent boy was Leleiohoku, the younger brother of David Kalakaua, who was later elected king, while Leleiohoku was made heir to the throne, Kalakaua being childless. That was my first contact with the Kalakaua family, but not the last. Leleiohoku was a great dilettante and very musi-

cal, and became known as a patron of music. He gathered about him a band of singing boys. After his death, they went every night for a month to the Royal Mausoleum, where his body was laid, and spent the evening singing songs that they had learned when Leleiohoku was living, as well as others composed in his memory.

Singing Boys Serenade Dead at Mausoleum

An account of the Kalakaua family would be incomplete, if it did not include a record of the development of Hawaiian music. Prior to the Kalakaua era, music in Hawaii had been negligible. In the early days, so my mother told me, church music was conspicuous by its absence, and the little the people had was even more discordant than congregational singing in an old-time Chinese church. The early Hawaiian scale was composed of only four or five notes, used in chants or *meles*. When those few notes were exhausted, the ear of the native musician was satisfied with the voice growing louder instead of higher. There was none of the rich, round fullness which has characterized the Hawaiian voice and music since that time. In my opinion, the relatively recent development of the falsetto note, which is totally foreign to anything Hawaiian, and the inordinate lengthening of the notes and dragging of the time, have detracted from, or destroyed, much of the sweetness. Earlier Hawaiian music, so called, was chiefly in quarter notes, much quicker and more spirited than the present rendition of the same airs. A tendency to drag the timing has been so exaggerated as to destroy the spirit and rhythm of the original compositions, and make them languid and wearisome.

Falsetto, Long Notes, Dragging Time Are Bad

Credit Is Due to Liliuokalani for "Aloha Oe"

To Liliuokalani, sister of Kalakaua, credit is due for the composition, both words and music, of the internationally known *Aloha Oe.* The air is an adaptation of two well-known *haole,* or foreign, melodies; but they have been so fused and Hawaiianized that the music, under its Hawaiian title, has become a separate entity. Its peculiar pathos and emotional appeal are a contribution to music and to Hawaii, which entitles Liliuokalani to the homage of the musical world. In all, she wrote the words of forty-seven songs, and composed many instrumental pieces. Another well-known composition that can be accredited to the Kalakaua family is *Hawaii Ponoi,* the Hawaiian national anthem under the Monarchy, which has since become the territorial anthem. A composition known theretofore as the "national air" was composed by Liliuokalani in 1863 under Kamehameha V; when Kalakaua became king, he and Liliuokalani collaborated in writing the words, the music of *Hawaii Ponoi* being composed by Henri Berger. If I mistake not, the most lasting and pleasing legacy of the Kalakaua family will be that anthem. From Kalakaua, in particular, one selection has survived to the present day: *Sweet Lei Lehua.* He left other compositions, both words and music.

Royal Legacy: "Hawaii Ponoi" Most Pleasing

Herr Berger, to whom reference has been made, was a German bandmaster; he was recommended to Kamehameha V, at the King's request, by Emperor William I of Germany; and Kamehameha V invited Herr Berger to come to Honolulu and be conductor of the Royal Hawaiian Band. Mr.

Berger accepted, arrived in Honolulu in 1872, and held the position for forty-three years, serving under Kamehameha V, Lunalilo, Kalakaua, Liliuokalani, the Provisional Government, the Republic of Hawaii, and the Territory of Hawaii, retiring in April, 1915, and dying on October 14, 1929. Mr. Berger came just when Hawaiian music was evolving from its earlier church phase to the secular. To him is due the transcription into recorded form of the musical wave that swept over the country with captivating power.

King's Brother Takes Lead in Hawaiian Music

Leleiohoku, Kalakaua's younger brother, who died in his youth, was the most devoted member of the family to the development of Hawaiian music. He was credited with having written the words of many songs, and with composing the music of a number of others; and he formed an aggregation of singing boys, known as the Kawaihau Club, of which Colonel Curtis P. Iaukea, afterward King Kalakaua's and Queen Liliuokalani's chamberlain, and private secretary to President Dole, was a prominent member. Queen Emma, the widow of Kamehameha IV, also was reputed to have been a lover and composer of music, but the Kalakaua family stand above all other Hawaiians as composers and producers of Hawaiian music. Hawaii owes to them a debt of gratitude for having placed its name high on the musical roster of the world. I am indebted to Colonel Iaukea and Mr. Edward C. Holstein, of Honolulu, for much information concerning the foregoing, and to Mr. Albert P. Taylor's book, *Under Hawaiian Skies,* pages 528 to 534, second edition, for the account of *Aloha Oe.*

CHAPTER II

Experiences on the Island of Maui

After my father died, my mother became a teacher in the Royal School, Honolulu. In 1868 the board of education, which owned the *ahupuaa* of Makawao on the Island of Maui, where there was a considerable herd of cattle belonging to the board, decided to use the land and the cattle to maintain an industrial school for boys. An appropriation from the Legislature was obtained, buildings were erected on the land, and the institution became known as the Haleakala Boys' Boarding School. My uncle Robert Andrews was appointed principal, and my mother was made matron. We all moved to the school in the latter part of 1868, and I attended the school for several years. The pupils with whom I became associated during that time had important influence upon my after life. Among the white boys attending the school as day pupils were: Lorrin Andrews, son of the Reverend C. B. Andrews, who afterward was sheriff of the Island of Hawaii; John Hind, now one of the leading sugar planters of the Kohala District, Island of Hawaii, and William Bailey.

Thurston Goes to Haleakala Boys' School

Robert W. Wilcox, who became a chronic revolutionist,—I say "chronic," because it seemed to make little difference to him which side he took, so long as he was heading a fight—also attended the school. Other Hawaiian pupils were: Aaron

Simerson, a half-Hawaiian, who for many years was the efficient captain of the Inter-Island steamer running to the Kona and Kau districts of the Island of Hawaii from Honolulu; John W. Kalua, who served long as a member of the Legislature from Maui, and was circuit judge of Maui for a time; and Robert Kalanipoo. When I became minister of the interior in 1887, I appointed Kalanipoo, who had been connected with the road department of Honolulu for some years, as constructing engineer of the first wagon road in South Kona, which ran from the port of Hookena several miles into the interior. There also were: Charles K. Notley, a part-Hawaiian, who for years was the candidate of the Home Rule Party for delegate to Congress; Ephraim Kaiue, a prominent resident of Maui; and Jonah Nakila, who has had a long association with me as a reporter and translator on the staff of the *Kuokoa,* a newspaper published in the Hawaiian language by the Advertiser Publishing Company.

Politics Makes No Difference in Friendship

Indicative of the friendly character of the Hawaiian race, it is noteworthy that, during all the somewhat stormy Kalakaua *regime* and the years following, when a number of my schoolmates at the Haleakala School became royalists, I at all times maintained the friendliest personal relations with them, and they with me. In all that time, I never had the slightest fear of going alone among the Hawaiian people, and I always felt perfectly free to ask any one of those boys for a personal favor—nor was I ever refused.

In 1872 I left the Haleakala School, and began attending a private school run by a Mr. and Mrs. Brewster at Wailuku, Maui. I lived with Father and Mother (the Reverend and Mrs. William P.) Alexander, retired missionaries, from Monday morning until Friday afternoon, returning on horseback for week-ends to my mother's residence at the Haleakala Boys' School. One of my schoolmates at Wailuku was John Richardson, who became a political leader on Maui and Molokai. Afterward he and I had much friendly political contact. Others of my schoolboy friends at the time were Fred. W. and Clarence W. Macfarlane, now of Honolulu, with whom I have maintained most friendly relations. [About the same time, Mr. Thurston became acquainted with Charles B. Wilson, then of Wailuku, afterward marshal of Hawaii under Liliuokalani, as related on pages 169 and 170, Mr. Thurston's *Memoirs of the Hawaiian Revolution.—Editor.*]

Other Friends Made in School Prove Lasting

My saddle, which I used in riding between Makawao and Wailuku, was stolen. I reported the theft at home, and knowledge of it came to the ears of one of our neighbors, a black Portuguese, who had come to Hawaii from the Island of Fogo, off the African coast, and was known as Bill "Fogo." He was the lessee of a small ranch and the owner of a few head of cattle, and made butter for the Honolulu market. He was so sympathetic with me that he dropped his work and accompanied me to Wailuku, where we spent the whole day in a vain search for the saddle. Failing to find it, he paid $35 for a Mexican saddle of black leather,

which he presented to me, without any expectation of reward—it was an expression of sheer kind-heartedness and generosity.

One Friday afternoon, while returning home from Wailuku, I was overtaken by the most violent Kona storm that I have ever experienced. It became dark when I was only halfway home, and the flashes of lightning and the terrific thunder grew almost continuous. One flash, more vivid than its predecessors, struck the ground at a point near by, followed instantly by a great crash of thunder. So disturbing were the flash and crash that, when another flash illuminated the landscape, I discovered that my horse, on the full gallop when the first flash struck, had whirled around and was going full tilt on the road back to Wailuku. I again headed him for the village of Makawao; arriving there, I called at the house of an acquaintance and asked to be allowed to stay overnight. My request was granted.

Steer Kept for "Luau" Killed by Thunderbolt

Tradition has it that one John Miller, who had operated a cattle ranch on the site of the Haleakala Boys' Boarding School when the property was transferred to the school, had reserved an enormous black-and-white steer, which he had named "Fourth of July." Miller said that the steer was to be used at a *luau,* to be given when his daughter Bella was married. The flash of lightning, above described, striking a tree under which "Fourth of July" stood, killed him; and the immediate conclusion drawn by the community was that this was an omen, that Bella would never marry. So far as

I know, the prophecy was fulfilled. She went to San Francisco, where she became a performer in the Belle la Union Theater, for she had a strong natural voice. I do not know what became of her, but I never heard of her marriage.

I must have a horse to ride, and my mother bought a little roan mare for $10. She wished me to understand that I had to earn the horse, that it had not been given to me, and she offered me twenty-five cents for each hole I dug in the yard in which to plant young peach trees. The holes were dug, the peach trees were planted, and at length we gathered fruit. My earliest work for wages was a job I took during long vacation with a man by the name of I. D. Hall, who had a ranch where Samuel A. Baldwin now lives. For my services, I was paid twenty-five cents a day, and I furnished my own horse. Hall took a contract to build a wire fence in the Kula District,—about six miles from our home. My job was to ride six miles to the fence site, tether my horse, and spend the day in carrying canteens of drinking water to the workmen from a water hole at the bottom of a gulch; between times, I gathered small stones, which were used to chock fence posts into the holes dug for them, and I also did other miscellaneous jobs. No wind blew in the Kula District, and the hot sun poured down all day until five o'clock in the afternoon, when we quit.

Long Ride and Hard Work in Windless Kula

One afternoon, as we all rode home, we turned into the Hall ranch. I tethered my horse, and accompanied Mr. Hall into his home. Assisting

Hall in his contract was a Mr. Jackson. Hall and Jackson both had part-Hawaiian wives, who were at the ranch. As we entered the house, weary from the day's work, Mrs. Jackson met us, and ordered me to go into the yard and collect firewood for the kitchen stove. I looked at her with a leaden eye and said: "My work for today is *pau*"—done. She took one step toward me, grasped the neck of my coat with one hand and took me by the seat of the trousers with the other; before I knew what was happening, I was being catapulted from the front door. Mrs. Jackson was dressed only in a thin *holoku,* or gown resembling a Mother Hubbard. On my way outside, I passed a small table, on which there lay a riding whip of rawhide, about three feet long. I made a grasp for the whip, seized it, and slashed over my shoulder; the whip landed across Mrs. Jackson's back, raising a welt.

Mrs. Jackson screamed that I had struck her. At that moment, Mr. Jackson entered the room, and followed me through the door with a stream of oaths and declarations that he would kill me. There was no time for me to get my horse; I ran for a steep gulch some 150 yards distant, with Mr. Jackson in swift pursuit, and the air still filled with his oaths. Reaching the gulch, I stayed not upon the order of my going, but was down one side and up the other in record time. Mr. Jackson stopped at the edge of the ravine, but his imprecations followed me as I made a wide circuit through the pasture on foot, and *mauka* to our house. A boy was sent for my horse, and my job with Hall had

Man and Oaths Pursue Fleeing Boy to Ravine

ended. I never saw either Mr. or Mrs. Jackson again.

Thurston Acts as Guide to Haleakala Pit

Haleakala School was only nine miles from the summit of Haleakala, which has an elevation of 10,032 feet. I became so familiar with the road and trails that I began acting as guide to tourists to the top of the mountain, and afterward into the crater as well. A wild and tangled mass of rocks and lava flows lay toward the top, but I knew the country so well that I could follow the trail even on a dark and rainy night. I kept count of my ascents until the number reached fifty, and the number of descents into the crater reached nine, when I quit keeping count. An item of interest concerning Haleakala Crater is that, near the highest peak, at the west end of the crater, there is a hill covered with shelters made of broad flat rocks, taken from the hill. Evidently the shelters were built for humans. As the climate is so cold that water freezes almost every night in the year, it is singular that the shelters were built. Tradition has it that the natives of Eastern and Western Haleakala frequently were at war with each other, and that the dividing line between the two factions was at the western point of Haleakala Crater, and the hill was occupied by the defending force of one side or the other.

Shelters Built for Warriors of Old Times?

We frequently hear of deficiencies in Hawaiian transportation. To realize the advance that has been made, one must revert to the transportation when the first missionaries arrived in 1820, and even down to my day—the latter part of the nine-

teenth century. There was no regular communication between the United States and the islands when the missionaries came; the only communication was by irregular trading vessels and whaling ships, and the only transportation between the islands was by canoes or sloops or schooners. My mother has told me of trips that the Andrews family made from Lahaina to Molokai in a canoe so large that it was paddled by fifteen or twenty persons. When my mother was twelve years old, she could just see over the gunwale as she stood upright in the canoe. At my father's death in 1859, my mother went from Kailua to Honolulu, with two small children, in a sloop that had no cabin; and she slept on a settee strapped to the deck.

Passage Made Across Channel in Big Canoe

During the '70's, the regular communication between Maui and Honolulu was by schooner from Kahului or Lahaina, and the usual time taken in the passage from Honolulu to Kahului was two nights and a day. I well remember a trip that my mother, my sister, and I made to Kahului about 1871, a week or so before Christmas. We left Honolulu at eight o'clock in the morning, in such a profound calm that the schooner *Moi,* on which we were passengers, had to be towed from the harbor by two whaleboats. At twelve o'clock noon, we were near the bell buoy, about a mile off the harbor entrance. The water, which is about seventy feet deep at that place, was so clear that we could see starfish on the bottom and colored fishes swimming about. At one o'clock in the afternoon, a gentle breeze from the north began to blow, and by eleven o'clock that night we were off the Leper

Settlement to the windward of Molokai, with a northerly gale blowing.

If we could have held our course, we should have been in Kahului the next morning; but at midnight a jib carried away. Afraid to continue, the captain turned back, running to leeward of Molokai; by eight o'clock the next morning, the schooner was well across the channel, nearing the Island of Lanai, and bucking a heavy northerly gale. For two days and nights, she had all she could do to keep afloat. Although the cabin passengers usually slept on top of the deck house, they and the deck passengers were bundled into the stuffy cabin. I was lying on a transom at the forward end when a great sea struck the schooner and came roaring down the companionway, flooding the cabin with a foot of water.

Steward Urges Woman to Die in Warm Cabin

A fat Hawaiian woman, lying next to me, shrieked and made a lunge for the entrance. The Chinese steward met her there, and demanded to know where she was going. She replied: "The ship is sinking, and I am going on deck." "Oh, stay down here where it is warm," the steward urged. "It is better to die warm than go up there and get all cold!" On the morning of the second day, the schooner appeared off Honolulu harbor again, once more in a dead calm. We were towed into the harbor and tied up to the wharf, a bedraggled company. The schooner had to be laid up for repairs before we could sail again for Kahului. We were told that spots in her sides were so rotten that the wood could be picked away with the thumb and finger.

I well remember the early steamers in the inter-island trade. About 1863, I sailed from Kauai with my mother on a small steamer,—I think it was the *Akamai*—which used firewood for fuel. We left Nawiliwili, Kauai, at five o'clock in the afternoon; at eleven o'clock in the evening of the next day, we passed the lighthouse at the Honolulu harbor entrance. The captain tried three times to blow the steam whistle, but got only a hoarse wheezing, because the steam pressure was so low. Finally he decided that it would be a pity to awaken the people of Honolulu, and desisted from his attempt. The first steamer to make regular inter-island trips was the old *Kilauea,* which was owned by the government. Not enough passengers and freight offered to pay her operating expenses, and the Legislature made appropriations to meet the deficits. When finally there was enough business to pay the operating expenses of a steamer, and the *Kilauea* had become obsolete, the wooden steamer *Likelike* was built by the government and chartered to Wilder's Steamship Co., organized by Samuel G. Wilder. His company later amalgamated with the Inter-Island Steam Navigation Co., Ltd.

Hoarse Wheeze Only Response of the Boilers

About the time the *Likelike* was built, Captain Thomas H. Hobron, who had owned the schooner *Moi,* plying to Kahului, built the steamer *Kilauea Hou,* of approximately the size as the present *Likelike.* As a youngster, I was much interested in the building of the *Kilauea Hou,* and watched the work. Once Captain Hobron said to me, "Lorrin, that is as big a steamer as the traffic here will bear.

Hobron Thinks Samuel Wilder Makes Blunder

I bet that, before he gets through with it, Sam Wilder will wish he had two steamers the size of the *Kilauea Hou* instead of the *Likelike,* because the latter is so big she never can pay." I do not know what the future may bring forth, but it is my belief that the *Haleakala, Waialeale,* and *Hualalai,* now in operation between the islands, are fully fit for any service required of them. If my prediction goes as far wide of the mark as Hobron's, we may yet see electrically driven *Malolos* plying between Honolulu and Kahoolawe.

In one of my spring vacations, I returned to Maui on the government steamer *Kilauea,* which landed at Maalaea Bay at daylight in the morning after sailing. There were only two passengers for that port, a Chinese and I. When we landed, no one appeared on the wharf. I had expected to find an express wagon, on which I could take passage to Wailuku. In the absence of that vehicle, the problem was whether to walk seven miles to Wailuku, and there take a chance of getting wagon transportation home, a distance of fifteen miles, or whether to walk seventeen miles across country to the Haleakala School. The Chinese started to walk to Wailuku. I decided, however, to take the other course, and started across the plain toward Makawao.

History records that, in the eighteenth century, the King of Hawaii, and one of his subordinate chiefs, Kamehameha, invaded Maui, landing on the east side of Haleakala. The headquarters of the King of Maui, Kahekili (Thunder), were

Eight Hundred Feather Capes Signify Status

at Wailuku. A council of war was held by the King of Hawaii. His bodyguard consisted of eight hundred chiefs of sufficient rank that each was entitled to wear a feather cape. The King of Hawaii favored sending the bodyguard to attack the King of Maui in his stronghold. Kamehameha argued against that plan, saying, "Do not divide your forces." But the king persisted, and dispatched the bodyguard to attack. Kamehameha was so concerned, however, that he called his own warriors together after nightfall, and went to his canoe, telling the men that he intended to fish. After getting away from the shore, he informed his men where they were really going; and they paddled around the south end of East Maui, and across the Maalaea Bay, to the south end of West Maui, where they landed. They were resisted by a guard of Maui natives, but so heavy was Kamehameha's onslaught that the Maui people were routed with much slaughter. Tradition has it that Kamehameha and his men walked ashore dry-footed over the dead bodies of their foes.

He Is My Son; No Other Man Fights Like He

It is said that the King of Maui, Kahekili, hearing of the incident, said: *"O kuu keiki ia; aole kanaka e ae e hakaka e like me ia!"*—That is my child; no other one fights like he. This relates to the tradition that Kamehameha was a natural son of Kahekili. Before the birth of Kamehameha at Kohala, Hawaii, a prophecy had been made that a child was about to be born who would become the conqueror of all Hawaii. In order to forestall that contingency, the king, like Herod of old, issued an edict that all male children born at that time should

King Is Reared in the Remote Hawaii Gorges

be killed immediately. When Kamehameha was born, his mother at once sent him, by a trusted messenger, to the almost inaccessible regions between Kohala and Hamakua, where he was placed in charge of a chief, Kekuhaupio, who reared the boy and educated him in the arts of war. Kekuhaupio continued as the companion and mentor of Kamehameha, even after the latter became one of the principal warrior chieftains of the Island of Hawaii.

Going a short distance inland, in his attack on Maui, Kamehameha soon ascertained from some of the Maui natives that the bodyguard had been met on the Sand Hills, which extend from Kahului to Maalaea, by the forces of Kahekili, and that, in a desperate battle, the bodyguard had been slain almost to the last man. Only two men had escaped, and fled back around the south end of Haleakala to the camp of the King of Hawaii, with the Maui army in full pursuit. When he learned those facts, Kamehameha reembarked and paddled back, around the south end of East Maui, to the camp of the King of Hawaii, on the Maui east coast. He arrived there to find the Hawaii army in full flight, and just in time to engage the oncoming Maui forces. Seeing that defeat was inevitable, he and his crew fought their way back to the canoe and embarked, but he saw that his constant attendant Kekuhaupio was not present. He asked what had become of him, and on being told that no one knew, Kamehameha said: "Then he has been hurt on shore." Against all remonstrances, he immediately ordered the canoe back to land; in the face of the

Chief Missing; Canoe Must Go Back to Shore

victorious Maui army, he landed; by furious fighting, he forced his way uphill to the spot where he had recently been engaged. There he found Kekuhaupio lying wounded. Picking him up, Kamehameha placed him across his shoulders, and once more fought his way to the canoe and embarked.

The present point of this Kamehameha story is that, in my tramp across the Sand Hills, I came upon the scene of the battle of the feather-caped guard, indicated by a mass of skulls and skeletons scattered by the hundreds in every direction. Lone youngster that I was, that did not make me feel any too happy, but I kept on. The plain, as the isthmus between East and West Maui was known, was then open wild country, with never a fence from Haleakala to Maalaea Bay, or from Haleakala to Kahului.—Today the land is part of the Hawaiian Commercial & Sugar Plantation. With the exception of a few scattered shrubs here and there, the whole region was open and unobstructed; over it a few wild cattle roved, which were occasionally hunted for sport. I knew of their existence, but it did not occur to me when I started on my tramp.

Thurston Beset by Wild Cattle on the Plains

After leaving the field of bones, I noticed some cattle lying down at a little distance. Seeing me advancing across the plains, they got up and began to run toward me, circling around. As they came nearer and nearer, two bulls began to bellow and paw dust in the air with their forefeet, and it became evident that they were likely to overwhelm me and trample me to death. There was not a hill, hollow, tree, or any shelter within reach, and my position seemed desperate. In casting about for

some means of escape, I remembered reading of a distinguished athlete and contortionist, who was in the heart of Africa alone, when he was beset by lions and in danger of being eaten. He threw himself upon the ground, wound his legs around his neck, and so distorted his figure that he frightened the lions away; and he escaped.

"Punahou Hash" Scares Cattle Like the Devil

I could not wind my legs around my neck, but did the next best thing: I stood on my head, waved my legs in the air, and yelled at the top of my voice, "Punahou hash," a yell evolved by the Punahou boys and having to do with a certain menu provided by the matron. Righting myself, I found that the cattle were running as though the devil were after them; and they continued to run for a quarter of a mile. Meanwhile I continued my journey up the hill. When they saw me going my way, the cattle returned, running, circling about, and bellowing. Again I did the athletic act, and again the cattle fled. They came a third time, and the third time were driven off by the same expedient, after which they did not return. I escaped up the hill, arriving home late in the afternoon.

CHAPTER III

From Punahou to Columbia Law School

In 1874 I came from Maui to Honolulu and entered Punahou School as a boarder. I could give many reminiscences of Punahou days, some of which may illustrate the difference between the past and the present. Those were days of simplicity and close financing. Some incidents will show how much farther a dollar went than it goes now. I had to work for all my spending money. Among other sources of revenue, I received fifty cents a week from the president, Edward P. Church, for grooming his horse and harnessing and unharnessing it whenever he or Mrs. Church went to town. The value of a dollar is illustrated by my negotiation with the Hawaiian owner of a little buckskin plug, who lived at the mouth of Makiki Valley, about a quarter of a mile from the school. One of the functions of Punahou was an annual picnic at the end of the school year in June. Practically all the pupils went on a horseback ride to some valley in the vicinity, where a picnic was held. This resulted in a great demand for horses, and negotiations to hire animals were carried on for some time before the picnic. I began negotiations for my horse several months in advance. The owner wanted a dollar for the day's use of his animal and saddle, while I offered a quarter. After much haggling, we compromised on thirty-five cents.

Half Dollar Is Weekly Pay for Grooming Horse

Algaroba Beans Cause Dabbling in High Finance

Well do I remember my first dabbling in "high finance." On Saturdays and out-of-school hours, I was paid five cents an hour for work. That did not bring in much revenue. Those were the early days of algaroba beans being used as horse feed, and the boys were allowed twenty-five cents a barrel for any beans they picked up about the school grounds. Busses were used to take the day pupils to and from school, and to take the boarding pupils to and from down-town church on Sunday, and to Wednesday evening prayer meetings. The beans we collected were used as feed for the horses that drew the vehicles. Picking up algaroba beans was rather slow, however, three or four barrels being about the maximum of a day's work. A brilliant scheme occurred to me. The school man of all work was an *ehu,* or Kanaka blond, named Wahalama; the boys all called him "Habuck"—I have not the remotest idea why. His wife was another *ehu;* and they had a number of children, *ehus* also. The *ehus* have yellow hair and a fair complexion, while the soles of their feet and the palms of their hands are almost pure white. The origin of the *ehus* is one of the ethnological problems of Hawaii.

Wahalama was a huge, muscular man, but rather deficient in mental scope. I remember that he ran out of names for his children; toward the last, he named one Hoopii; the next had the "Hoo" cut off, and was named Pii. The third and last was deprived not only of the "Hoo" but also of the "Pi," having to be satisfied with the name of I. I approached this numerous family, who lived in a one-

room shack below Old School Hall, about where the *makai* campus ball ground is now situated, and proposed to them that they work for me picking up algaroba beans, for which I would pay them ten cents a barrel. Ten cents was wealth beyond the visions of avarice to the native children, and they accepted with alacrity. On the next Saturday, bright and early, I assembled my drove of youngsters and worked them like a slave driver for a day, at the end of which we had garnered twenty-five barrels of beans.

"Ehu" Children Slave All Day for Thurston

I did not confide my scheme to the principal of the school, but made out a bill for twenty-five barrels at twenty-five cents a barrel, aggregating $6.25, which I presented on Monday morning. The principal read the bill several times, and then asked: "Do you mean to tell me, Lorrin, that you picked up twenty-five barrels of algaroba beans last Saturday?" I evaded his inquiry and said: "They are all out in the shed. You can see them there." "But," he persisted, "how did you pick up so many in only one day?" I reluctantly admitted that I had had the help of the native children, and also, as a result of further cross-examination, that I was paying them only ten cents a barrel. The principal remained in thought for some time, and then decided: "Well, I'll allow your bill this time, but this will have to be the last transaction of the kind. I have been allowing twenty-five cents a barrel to encourage habits of industry, and not to stimulate speculation."

Scheme Fails: This Must Be the Last Time

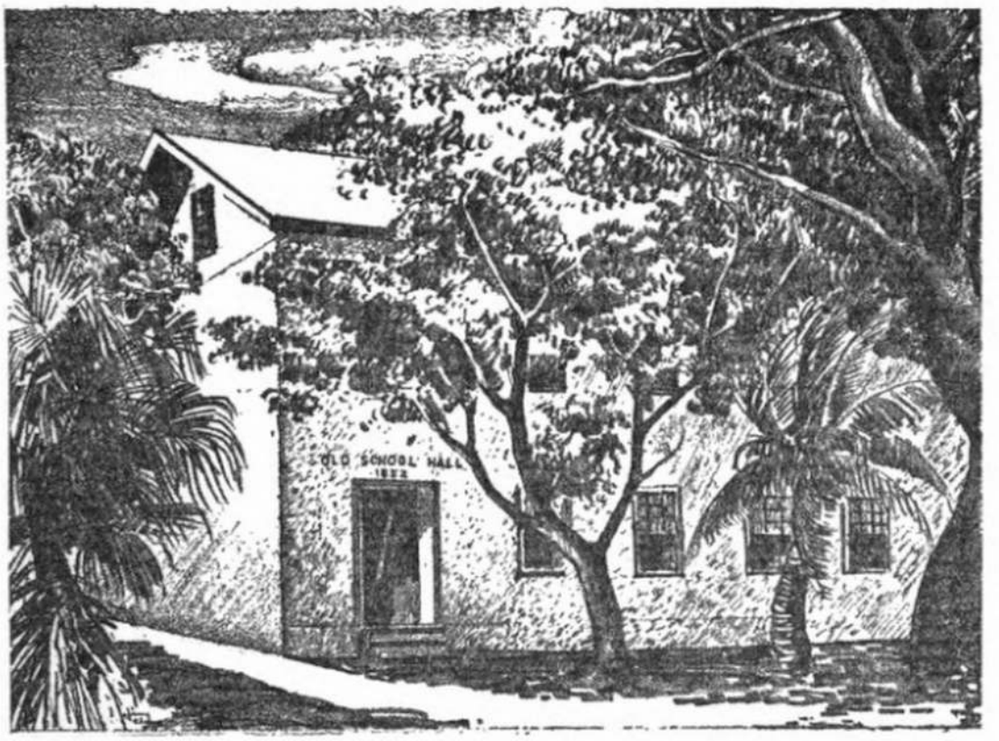
Another financial scheme that failed was con-

nected with the school flagstaff, which was about seventy-five feet high. The rope with which the flag was hoisted having broken, a discussion ensued among the school children as to how to get it back again. I suggested that a boy be sent to the top of the pole to reeve the rope through. One of the big boys said to me: "You can't shin that pole." "I can," I replied. "If you shin that pole, I'll give you a quarter," he promised. No sooner said than done—I shinned to the top. Returning to the foot, I demanded my quarter. The big boy picked up a stick, broke off a quarter of it, and handed it to me. I am not seeking a controversy with him, but I must say that he is generally known as Dr. Benjamin D. Bond, son of the Reverend Elias Bond, of Kohala, Hawaii.

Whaling Crews Likely to Go Over the Side

In the early '70's, whaling was still being pursued in the Pacific, with Honolulu as a central station. Whaling ships would call there in the spring to recruit sailors, and return in the fall to discharge their recruits and transfer whalebone and oil. Not infrequently a ship would come into port with little or no oil and bone; as the sailors were paid a lay, or share of the catch, there might be nothing due them, and they were likely to desert. Rewards were regularly offered by the whaling captains for the arrest and return of deserters. One morning, while watering a banana patch, near the present site of the swimming tank,—for the schoolboy boarders at Punahou had work hours then, mornings and evenings—several boys discovered two Portuguese men in hiding. A Portuguese, who was doing yard work around the school premises,

explained to us that the men were sailors from a whale ship that had been two years at sea without their having received a cent of pay, and that they had been mistreated besides. He begged us not to give the men away, but to help him conceal them.



Old School Hall, Punahou, Honolulu

We boys readily agreed. Knowing of a loose board in the floor of Old School Hall, we took the board up at night and hid the men under the floor, and supplied them with food from the school kitchen. On the next day, some of the day pupil boys, hearing of what had happened, announced their intention of informing the police and securing the reward for the return of the runaways, but the boarder boys removed a loose board in the floor

Reward Proves Too Tempting; Betrayal Near

of the reading room of the school that night, and transferred the sailors there, continuing to provide them with food. On the following morning, several policemen appeared on the scene; going directly to Old School Hall, they took up the floor boards, searched for the missing men, and spent the remainder of the day ransacking the school premises, even the garret above the girls' department, upstairs over the principal's room. They were unsuccessful; and the boarder boys continued to help the sailors for several days. Finally the whale ship sailed without the men, who came out and gave themselves up to the police, and afterward were released. They obtained employment with Wm. G. Irwin & Co., as laborers on the wharves, where they remained for years. As long as they lived in Honolulu, they were warm friends of the boarder boys.

Search Ends; Ship Departs Without Men

One of the outstanding memories of my Punahou days centers about "Long" [Edward] Smith. He was an Oregon boy, long, lanky, and green, who drifted into Punahou and was assigned to supervise the smaller boys, and consequently became the butt of their hostility. One of our amusements was quoits, which we played with sharp-edged steel rings instead of horseshoes. Smith threw the rings sidewise across his chest, while the rest of us threw them with a perpendicular swing of the arm. One day I was playing with Smith as an opponent, side by side with me, our partners being at the opposite goal. In spite of his awkward delivery, Smith was ahead and was gloating over the fact, and gloated so much that he aroused my ire, and I snapped out:

"Oh, you play quoits like an old fool, anyhow, Smith!" It did not occur to me that I was saying anything very much out of the way, especially as one of Smith's stock sayings was: "I don't care what you call me, as long as you don't call me too late for breakfast."

But my gibe at his playing touched him on a tender spot; with a glare, he swung his fist. If it had landed, it would have put me out of commission. I ducked, ran around him, and was off in an instant, gaining a lead of fifteen feet. We were playing quoits at the north end of Old School Hall; my course led directly to the stable, which stood in line with the spot *mauka* of the present site of Dillingham Hall, where the other goal was. Smith pursued me with fire in his eye and threats in his voice. He was just about to lay his hand upon me when I dodged sharply, turning *mauka*. The ground was slippery; as Smith reached for me, his feet flew from under him, and he landed full length in the mud.

Meanwhile I was running full tilt, and had a lead of twenty-five feet before he got into action again. He then reached for a stone the size of his fist, which he let drive at me full force, and it whistled within an inch of my ear. Had it struck its mark, there would have been no reminiscences with which to cumber these pages. I fled through the fence, around the old pond, and along the bank of the taro patch, lying beyond, with Smith in hot pursuit. Here quick wit saved me: I ran into the taro patch up to my knees in mud, while Smith,

Knee-deep Mud of Taro Patch Offers Refuge

unwilling to soil his clothes, stood, balked, on the bank. I outstayed him, and his anger had cooled by the time I was again within reach of his heavy hand.

Kalakaua Eager to Find Bones of Kamehameha

Smith afterward became deputy sheriff in the Kau District of Hawaii. Now tradition had it that the bones of Kamehameha the Great had been concealed somewhere on the west coast of Hawaii, and that the descendants of those who hid the bones had knowledge of their whereabouts. King Kalakaua, being extremely desirous of finding the bones, offered those descendants a reward for their production. Those who knew refused to divulge the information, but the offer excited Smith's cupidity, and he sent word to Kalakaua that he had an idea where the bones were concealed. Kalakaua bit avidly; Smith collected and forwarded a package of bones, with a lengthy account of their hiding place and how they had been found. In a burst of confidence, Smith told me that he thought the bones were those of a mule, but Kalakaua was so eager that he asked no questions, and bestowed a decoration on Smith, making him a member of one of the royal orders. When I was an annexation commissioner to Washington, Smith wrote to me from his home in Oregon, saying that the decoration was of no particular value to him, and asked me to try to find a buyer for the jewel. I failed to do so, and afterward heard that Smith was dead.

I was too young to have much acquaintance with the scions of the Kamehameha family, but had one contact with Princess Ruth Keelikolani. The most

Most Notable Fact of Life Is Her Weight

noteworthy fact in her life was that she weighed 400 pounds at her death. Her form suggested a huge chocolate drop; so bulky was she that she had difficulty in getting about, and used a small wagon about three feet high, with a flat, open body. It was pulled by four men, two at the tongue, and two at ropes attached to the tongue; and one attendant followed. When the princess wished to ride, she got aboard by scrambling over the back, using a set of portable steps, and seated herself cross-legged on the wagon bed. So much by way of introduction to the royal lady.

While I was attending Punahou, I stayed on at the school during long vacation to earn spending money, working for fifty cents a day. My fellow worker was a half-Chinese student from Hilo named Akono Akau. One morning, Mr. Church, the principal, said: "I would like you boys to yoke the oxen today, go to Waikiki, and get a load of sand." Akono and I yoked the oxen and drove them to Waikiki over the mud trail across the swamps, reaching the beach just west of the present site of the Moana Hotel. We had shoveled a cartload of sand, when a Hawaiian appeared and said: "The chief says you cannot take sand from here." "What chief?" I inquired. "Keelikolani," he replied. "Where is she?" I asked. "Over there," he replied, "over there," pointing over his shoulder with his thumb toward the present site of the Royal Hawaiian Hotel. "I am going to see her," said I. "All right," he assented. We two barefoot boys accordingly trudged over to see the princess.

Barefoot Boys Trudge to See Princess Ruth

Purple Dress Printed With Big Red Roses

As we approached the royal lady, she was sitting cross-legged on a mat in the shade of a coco palm and gazing dreamily at the sea. She was dressed in a bright purple *muumuu,* on which were printed enormous red roses, and the garment was fastened by one button at the throat. She did not indicate, by word or look, that she saw us or knew that we were present, but sat motionless, except for picking her teeth with the teeth of a large circular brass comb that she used to hold back her slightly gray hair, which was dressed in a single knot on the top of her head. After waiting for some sign of recognition, and failing to receive it, I began to explain in a low voice that we were Punahou pupils, that the president of the school had sent us to Waikiki to get an oxcart of sand for use at the school, that the sand was for school purposes, and not for sale. She continued to gaze dreamily at the sea, giving no intimation that she had heard my story. After waiting a moment and receiving no answer, I asked: "May we have it?" Slowly she drew her breath, and answered in the most emphatic tones: *"Aole!"*—No!

Stingy Woman: Retort Brings Lady to Life

Although her reply was somewhat disconcerting, I found courage to repeat my statement. Again my explanation was received in silence; and I asked: "May we have it?" Again she breathed heavily; without even looking our way, she repeated: *"Aole!"*—No! Evidently no human kindness could be stirred in the lady's bosom; in exasperation, I exclaimed: *"Keu no hoi oe he wahine pi!"*—What a stingy woman you are! That brought the royal lady to life. Raising her huge body to an

erect sitting position, and slowly turning her head, she fixed a glare on me and slowly looked me up and down. She then inquired in a loud voice: *"O wai anei keia keike haole mahaoi?"*—Who is this impudent white boy? A native woman, sitting by, answered: *"He moopuna keia na Analu."* —This is a grandson of Andrews.

Ruth continued to glare at me; she lifted her left hand; pointing with an imperious gesture, she ordered: *"Ku! A hele!"*—Stand and go! There evidently was nothing more to be said or done, and Akono and I began a slow retreat, the Hawaiian accompanying us from the place. As we approached the oxcart, an idea occurred to me, and I asked: "How far does the *alii's* land extend?" "Just over there," he replied, pointing to a spot some fifty feet distant. "That's all right," I observed, "then we'll get the sand over there." We dumped the sand, drove the oxen just across the line, shoveled up a new load, and departed triumphantly, while the Hawaiian stood by stolidly. That incident ended my contact with the Kamehameha family.

Queen Is Ill; Men Must Die to End Spell

The place where the princess sat is historic. It was the spot where Kamehameha camped at his invasion of Oahu, when the Battle of Nuuanu was fought and the kingdom practically consolidated. At that time, says tradition, one of his queens (of whom he had twenty-one) became ill. A kahuna informed him that someone was praying her to death, and that human sacrifices were necessary to break the spell. Kamehameha commanded: "Bring

in ten of the prisoners and sacrifice them at the heiau." That occurred on a Saturday, and the sacrifices were to take place on the following Monday at the heiau, or temple, of Papaenaena, on the slope of Diamond Head, near the site of Walter F. Dillingham's residence. In fact, while a road was being graded to the house, a number of the foundation stones of the temple were uncovered, and I am informed that they are part of the foundation of the Dillingham home. The remainder of the temple had been demolished by a governor of Oahu, the rock being sold for ballast to ships calling at Honolulu, since it was easier to take rock from the temple than to gather it from the field.

Royal Dignity Is Preserved; Two Sacrificed

On Monday morning, however, the queen was well, so that Kamehameha was in a quandary as to what to do with his ten prisoners. Their sacrifice was no longer necessary, the queen having recovered, but Kamehameha said: "I have issued my royal edict that there shall be a sacrifice; the royal word having been given, a sacrifice there must be." He finally decided that his dignity would be preserved if only two men were sacrificed. Two of the prisoners, therefore, had their skulls bashed in with a stone at the heiau, and the other men were released. It is recorded that those were the last human sacrifices in Hawaii.

It is also recorded that the last previous human sacrifice had occurred when Kamehameha, after winning the Battle of Nuuanu, heard a tradition that a famous tiger shark, or *niuhi,* lurked off Kaena, the west point of Oahu, and that whoever

captured it would become king of all the Hawaiian Islands. Now a *niuhi,* a deep-sea fish with a phosphorescent eye that shines at night, is the most dreaded denizen of the seas to the Hawaiians, for it attacks anything on sight, and fights to the death. If a Hawaiian sees one, or has an inkling that one is about, he immediately abandons everything and puts for shore as fast as he can go.

Kamehameha felt that it was just as well to consolidate his victory by a capture of the *niuhi* in question. In his big war canoe, he went to the reported grounds of the *niuhi,* taking with him a dozen or so of the prisoners recently captured. When the *niuhi* was sighted, it rushed to the attack with open jaws, whereupon a prisoner was thrown into the sea. The prisoner was swallowed immediately; as the attack was renewed, another prisoner was fed to the monster, and thus until the great fish was so gorged that it could no longer fight. Kamehameha slipped a noose over the shark's head, slid it down to his tail, and towed the fish ashore tail first. I have the jaws of a young *niuhi* not more than six feet long, which was captured recently off the Waianae coast. The teeth are entirely different from those of the ordinary shark, being from two to three inches long, and lying in five rows. When the shark's mouth is open, all of the teeth stand on end. When the mouth is closed, the teeth, being set in gristle instead of bone, lie down and point inward, so that, when a shark once gets his teeth on an object, it cannot possibly be withdrawn.

Prisoners Fed to Great Fish Till It Gorges

My brother, Robert T. Thurston, four years my

senior, had attended Punahou School before I went there, and had been in charge of the carpenter shop. A severe drought dried the spring that theretofore had filled the swimming hole near the present spring. The boys were delighted when the rainy season came on, and the pool again was filled. At length, however, the water became stagnant and foul, and the president, Mr. Church, directed Robert to drain the pool. On Monday morning, the day pupil boys arrived and went to take a swim. Finding the pool empty, they were indignant, went to the carpenter shop where my brother was working, and demanded to know whether he had let the water out. When he admitted that he had, they made a rush, intending to discipline him. The boys were led by Clarence W. Cooke, uncle of the present president of the Bank of Hawaii. As Cooke attempted to lay hold of my brother, Robert grabbed a large gouge, which was on a bench, and brought it down on Cooke's head, drawing blood.

"This Is Gouge With Which He Killed Cooke"

That defense caused the demonstration against Robert to stop, but the day boys got even by smearing the gouge with red sealing wax to simulate blood, and attaching a placard that read: "This is the gouge with which the savage killed Capt. Cooke." They placed the gouge in the cabinet of the school museum, and my brother was given the nickname of "Gouge." When I arrived at Punahou I speedily heard of the incident, as the boys began calling me by the same nickname. I informed my brother, who gave me a piece of advice that I have never forgotten: "You tell the boys that

Princess Ruth Keelikolani had varied distinctions: she was half sister of Kamehameha V, and she weighed 400 pounds

R. I. Keelikolani

the first one who calls you 'Gouge' has a fight on his hands. Regardless of whether the boy is big or small, fight him to the limit, and fight every one who thereafter calls you 'Gouge.' You will soon find that they will let you alone." I gave notice that anyone who called me "Gouge" would have to fight, no matter who he was, and squared off, ready for all comers. The result was that the boys did not call me "Gouge," and I did not have to fight anyone.

Nickname Will Cause a Fight; It Is Dropped

My brother, a strong, vigorous youngster, while on a vacation trip to the cattle ranch of my uncle, Samuel Andrews, at Makua, just beyond Waianae, Oahu, went out on the reef fishing, barefooted. Receiving a slight cut in the ball of his foot, which began to be quite painful after two or three days, he returned on horseback to Honolulu, where he was living with our grandmother, Mrs. Lorrin Andrews, in Nuuanu Valley, and sent word to me at Punahou that he was sick, and wished to see me. I went at once to my grandmother's, and remained with him for three days. His foot, now seriously inflamed, was lanced by Dr. John S. McGrew, then the leading surgeon in Honolulu. At the end of the third day, Robert died at the age of twenty years, having developed blood poisoning from a cut of the poison coral, *kaunaoa,* a small coral worm, ending in an upturned cutting surface about as large as a slate pencil. No member of my family knew anything about the poisonous qualities of the coral, or had ever heard of it. After my brother's death, we learned that the coral was well known to Hawaiians. Their treatment for a cut was to

"Kaunaoa" Cut Kills Brother in His Youth

cauterize the wound immediately by applying a hot coal or hot iron. Unless that is done, say the Hawaiians, death or deformity is certain.

Thurston Aims at Engineering as Profession

One day I met Judge Alfred S. Hartwell, the leading lawyer of Honolulu, on the sidewalk. He said to me: "What are you going to do, Lorrin, after you get through school?" I replied: "I am going to become an engineer. Why?" "Well," he explained, "I want to get an office boy who speaks Hawaiian to act as interpreter in my office. He could also study law there, and I thought perhaps you might care to take the place." I thanked him for the suggestion, but told him that I did not care to study law, and the subject was dropped.

In the next week, I received a letter from my mother, who was still living on Maui, inclosing a letter to her from the principal of Punahou, Mr. Amasa Pratt. It said, in substance, that my presence as a student at Punahou seemed no longer desirable, and suggested that my mother transfer me to other fields of usefulness. The letter enumerated three counts in an indictment against me. First, Punahou had been passing through a period of religious interest, during which the boarders were requested to repeat verses from the Scripture on Sunday evenings. Mr. Pratt went on: "Lorrin

"But I Suffer Not a Woman to Teach": Paul

presented as his scriptural verse, the words: 'But I suffer not a woman to teach, . . . For Adam was first formed, then Eve.' Such a passage, Mr. Pratt held, was inconsistent with the solemnity of the occasion, and caused undue levity among the pupils, inasmuch as most of the teachers at Punahou were women.

Second, one afternoon, in the middle of the school hour, having been excused from the main schoolroom upstairs in the Old School Hall, I had met another boy who was going up the main stairway with a bucket of water; I had kicked the bucket from the boy's hands, and it rattled down the stairway, disturbing the entire school. Third, I had used the character "&" throughout a composition; it had been corrected by the teacher, who required me to rewrite it and spell out the word "and" wherever it occurred, instead of using the character. "Lorrin, thereupon, indicated his lack of respect for the authority of the school-teacher by rewriting the composition in an almost microscopic handwriting," Mr. Pratt's letter continued, "except that, in each case where the word 'and' occurred, he had written the letters the height of the full distance between the lines."

Teacher Wants Written Word, Not Ampersand

As to the first count, I explained, the boys had been jointly looking up verses to say on Sunday evening; one of them came across the verse in question, and dared me to repeat it at the exercises. Since it was a verse from the Bible, I accepted the dare, with no particular intention to do mischief. I admitted the water bucket incident, but said I did not kick the bucket with intent to knock it downstairs. The other boy made a pass at me; I countered with a kick, which accidentally struck the bucket. The count concerning the composition I admitted to be true, yet maintained that the composition was good, as was proved by the fact that the only criticism offered was of the use of the character. There being no prescription as to the

size of the handwriting in composition, writing the word "and" in letters from line to line violated no rule. In spite of the logic of my defense, however, I had a feeling that, if I did not quickly depart on Saturday, I should probably be a victim of involuntary graduation on Monday. So I removed my belongings on Saturday afternoon to the residence of my Grandmother Andrews. Thus I "graduated" from Punahou.

Career in Law Is Begun Now Under Hartwell

On Monday morning, I waited upon Judge Hartwell and told him that I had had a change of heart, and wished to be his interpreter and law student. He accepted me, and I became his assistant immediately at a weekly salary of $4. Later, when he voiced dissatisfaction with his Chinese janitor, I took the job of sweeping out and dusting the office every day, for which I received an additional dollar a week. As I was paying my grandmother $3 a week for board and lodging, I was working on rather a narrow margin. Accordingly I sought and was given the job of pumping the organ at the Fort Street Church for rehearsals on Friday evenings and at two services on Sunday, for which I received $5 a month.

In my student days with Judge Hartwell, I had a yachting experience that involved the question of how to deal with a shark in deep water. Honolulu boys used to go yachting in a small sailboat about eighteen feet long, named the *Pumpkin Seed,* because of its shape. It was owned by "Old Bill" [William F.] Williams, the Honolulu lighthouse keeper. Bill was of the "salt horse" type, blue-

eyed, with a head of long, dank, red-brown hair, and a beard that reached half way to his waist. He was an inveterate tobacco chewer; and tobacco juice streamed continuously from both corners of his mouth, to the bedragglement of his beard. The lighthouse was a single-story structure, consisting of one room and a veranda about three feet wide along two sides. It was built on stilts, standing in about eight feet of water opposite the site of the present harbor light. Williams married a Hawaiian woman, by whom he had several children, all of whom were born and reared in the lighthouse. One day I said to the old man: "Bill, I should think you'd be afraid to live in that house with your family of small children." "Afraid of what?" he asked. "Why," I replied, "I should think you'd be afraid the youngsters would fall overboard and be drowned." With a shrug of the utmost contempt, Bill answered: "Afraid nothing! It don't scare me a bit. I never lost but one."

Why Be Afraid? Only One Brat Has Been Lost

All that Bill charged for the use of the *Pumpkin Seed* was twenty-five cents for the afternoon, the lessee being responsible for any damage. One day, after four o'clock, I met Bert [Robert M.] Fuller and Julius Reinhart, two of my boyhood friends, on Fort Street, and suggested that we go yachting. Both agreed, and we took a shore boat out to the *Pumpkin Seed*. The rudder, which was shipped and unshipped each time the boat went out, had two pins, which slipped into eyes at the stern. We hoisted the sail, shipped the rudder, and started out the channel before a stiff trade wind. When about halfway out the channel, I discovered that

only the top pin of the rudder had engaged, and that the pressure of the water probably would twist the rudder from the boat. At that time, the channel was only two hundred feet wide, and there was no land on either side, the land now there having been reclaimed. Consequently the surf rolled in on both sides of the channel clear to the harbor. Our problem, then, was whether to lower the sail and reship the rudder in the channel, or whether to do it outside. The danger of the first plan was that, the channel being so narrow, the boat might drift into the surf while the sail was down; and we decided on the other alternative.

Rudder Adrift; "Pumpkin Seed" Is on Her Way

Just as we got into the open sea, a swell hit us, and lifted the rudder clear of the boat, leaving us with all sail up, while a stiff trade wind blew us straight for Australia, and we lacked means of changing our course. Immediately the rudder went overboard, the thought flashed through my mind: "I've got to get that rudder." No sooner thought than done: I yelled to the other boys to lower the sail, and dropped overboard after the rudder, which I speedily recovered; but it was brass-bound and barely would float. The water just outside the harbor was a favorite fishing ground for sharks, but I did not think of sharks until I was overboard, when the thought straightway came to mind. I had always heard that the best way to fight sharks off was to raise a great splash and dive straight at them, that they, cowardly brutes, would turn tail if those tactics were pursued. I immediately kicked loose from my shoes, removed and let my shirt go, but bethought

me that I would need my trousers on getting ashore, so I removed them, wrapping them around the rudder, which I pushed ahead of me, and began swimming for the boat, which was a quarter of a mile to leeward by that time.

Every few minutes I dived and looked around for sharks; seeing none, I gained courage, although I had a creepy feeling around my backbone, and it was not exactly reassuring to look into the dark depths beneath, and to realize that the bottom was several hundred feet down. When I had been swimming for some twenty minutes, I dived and looked backward, and saw a long black object, about ten feet under water and about thirty feet away, which seemed to be coming toward me. With a thrill of horror, I realized that the time for action had come, and turned and dived for the object, expecting every minute to reach out my hand and touch the snout of a shark. On the crucial moment arriving, I discovered, instead of encountering a man-eating fish, that I had come up with my trousers, which had become separated from the rudder, and were slowly sinking. With a feeling of great relief, I gathered in the garment, again wrapped it around the rudder, finally reached the boat, climbed aboard, shipped the rudder, and hoisted sail; and we were off, reaching home safely.

Thurston Ready to Meet Shark; Finds Trousers

On the next day, Captain A. McIntyre, one of the harbor pilots, met me and asked: "Lorrin, what were you doing in the *Pumpkin Seed* off the harbor yesterday?" "I was sailing." "Yes," said the captain, "I was watching you. When I saw your sail

go down, I knew somebody was overboard. A day or so ago, right in the spot where you were, I'd seen the biggest shark I ever saw in my life, so I thought it was about time I got into action, and I called my boys together and put to sea in our whaleboat. Just before we got to you, I'll be blessed if you didn't up-sail and sail off."

During my second year with Judge Hartwell, I received $50 a month, and a thousand dollars for the third year's service. In my last year with him, he had become attorney-general. Through one of the kaleidoscopic changes of the Kalakaua *regime,* he was voted out of office; on returning to private practice, he felt that he could not continue the luxury of a thousand-dollar-a-year clerk. Thereupon I applied to the court for a license to practice law, which was granted; and I went to Wailuku, Maui, where I hung out my shingle. My first month of practice returned me $75 in fees, and I received $85 in the second month.

Practice Begun on Maui; Sugar Work Follows

The Wailuku Sugar Company, at that time, had adopted a policy of farming out all its cane fields to planters, the cane being ground by the mill on shares. One of the five planters, Edward H. Bailey, proposed that I accept a position as his head *luna* and bookkeeper at $125 a month. Since I intended to make my home in Hawaii, I recognized that experience in sugar would be of value to me; I accepted the offer, and remained with Mr. Bailey for fifteen months. At the end of that time, as a result of four years' savings, I had accumulated $1,800. With that sum, I went to New

York City and entered Columbia Law School, where I studied law under Theodore William Dwight for two years, and returned home, wiser, but poorer, my account showing $100 in red ink.

Law Students at Columbia: "T. R.", "L. A."

One of the incidental benefits that I received from Columbia was an acquaintance with Theodore Roosevelt, who was my classmate. He became a candidate for the New York Legislature while at law school, and tried out some of his campaign speeches on the students at a small debating club. Roosevelt was elected to the Legislature, and thus began his political career. My acquaintance with him stood me in good stead later in Washington, first when he was assistant secretary of the navy, and after he became President. At my return to Honolulu in the fall of 1881, I reentered the law office of Judge Hartwell as an assistant. During the next few years, after 1881, I was engaged in the careful building up of a law practice.

[From 1881 to 1898, Mr. Thurston's autobiography is largely his account of the overthrow of the Monarchy, its causes and consequences, and will be found in his *Memoirs of the Hawaiian Revolution.—Editor.*]

CHAPTER IV

Reminiscences of Hawaiian Volcanoes

First of Many Visits Is Made to the Volcano

When I was an employee of Wailuku Plantation in 1879, before going to law school on the mainland, I first visited the volcano of Kilauea, in company with Louis von Tempsky and Dr. John H. Bemiss, a Louisiana physician who was practicing at Wailuku, Maui. We hired horses in Hilo and rode to the volcano, from about eight o'clock in the morning to five o'clock in the afternoon. The pit in the crater was full of lava, the South Lake was active. I have a vivid recollection of standing at the foot of a section that sloped toward a central cliff, and of looking into a crack, some twenty feet below, where lava boiled. Suddenly, a great crunch beneath us; and the rock on which we were standing settled with a sickening sound. Springing to our feet, we discovered, at our backs, several hundred feet away, a geyser of lava, which threatened to cut off our retreat. We scrambled up the slope hastily, and came to a small lake, some thirty feet in diameter, which was throwing jets of lava to a height of thirty or forty feet.

Crunching Rock Heralds Burst of Lava Geyser

Soon the fountain subsided; and we proceeded to make lava specimens with our canes, by dipping fluid lava from the edge of the pool and placing coins in it. While we were thus engaged, the lake had another spasm, and lava fell all about us. I grabbed my coin in my hat; von Tempsky picked his up in his handkerchief. The heat of the lava

burned holes in both, but we escaped with our treasures, and visited the table-land between the main crater and Kilauea Iki. There, not long before, lava had broken through. Some had spattered upon the surrounding trees, and fragments had congealed on the branches. The same thing occurred a few years ago, near the Seven-Crater Road, not far from Makaopuhi. The crusted lava near Kilauea Iki has long since been carried away by travelers; I am told that some still remains on the trees near Makaopuhi pit.

Thurston Gets Kilauea Lease; Remodels Hotel

After my retirement from the Green-Thurston cabinet in June, 1890, I again visited Kilauea, and became so interested in it that I applied to Samuel G. Wilder, then head of Wilder's Steamship Co., who held leases of the Volcano House and site; I purchased some leases of him, and secured a new lease from the owner, the present Bishop Estate. I also purchased a hotel at Punaluu from Peter Lee, and made him the manager of both hotels. A new company was formed; I got enough capital to remodel the Volcano House and to make additions, so that it was much more commodious and attractive. Formerly it had had only six bedrooms for visitors, a living room, a small dining room, a kitchen, and a room for the manager. The lumber and other material for construction and repairs were shipped from Honolulu to Punaluu, whence they were hauled to Pahala by the plantation railroad, and thence to the volcano by the Hustace draying concern of Honolulu. H. Rexford Hitchcock, now a resident of Molokai, handled the hauling.

Dust From Pit Indicates Fall of Lava Lake

Not long after the completion of the work, I was visiting the volcano, when one of the periodical cataclysms occurred. A large lake was active in the South Lake vicinity, the surface being in full view from the hotel. When we awoke in the morning of July 11, 1894, the surface of the lake had disappeared; and dust, rising from the pit, indicated that the lava was subsiding, and that the banks were falling in. Our party went to the lake edge, immediately after breakfast, and stayed there until eight o'clock that night. During the day, the surface of the lake subsided 220 feet; and the falling walls swallowed up approximately eight acres of surrounding territory. The surface of the lake remained at that depth for some months. When it subsided, the lava settled into the pit, five hundred feet or so below the main crater floor. Inactivity of molten lava in Kilauea continued for approximately ten years. Travel to the volcano fell to a minimum; and the Volcano House, in consequence, had a hard row to hoe financially. [Here follow Mr. Thurston's impressions of the breakdown, recorded in *The Pacific Commercial Advertiser* of July 23, 1894.—*Editor.*]

The lava lake in Kilauea has been steadily rising since the last great breakdown of the floor of the crater in March, 1891, when an area 2,500 feet long by 2,000 feet wide fell in one night more than five hundred feet. The rising and overflowing of the lake filled the pit last fall. Since that time, the activity of the lake has been intense, as many as twenty-three overflows of liquid lava having occurred in a single day; and the walls surrounding

the lake have been rapidly raised by continued overflows.

Accurate measurements of the lake were made by Mr. F. S. Dodge, of the survey department, in August, 1892, and March, 1894. He has recorded in the Volcano House book the result of his observations, as follows: "In August, 1892, the outer rim of the pit surrounding the lake was 282 feet below the level of the Volcano House. The surface of the lake was 240 feet below this line. In March, 1894, the surface of the lake was 207 feet above this line, making a rise of 447 feet in nineteen months." [The profile view of the lake at the two periods is shown in Figure 1.] "The area of

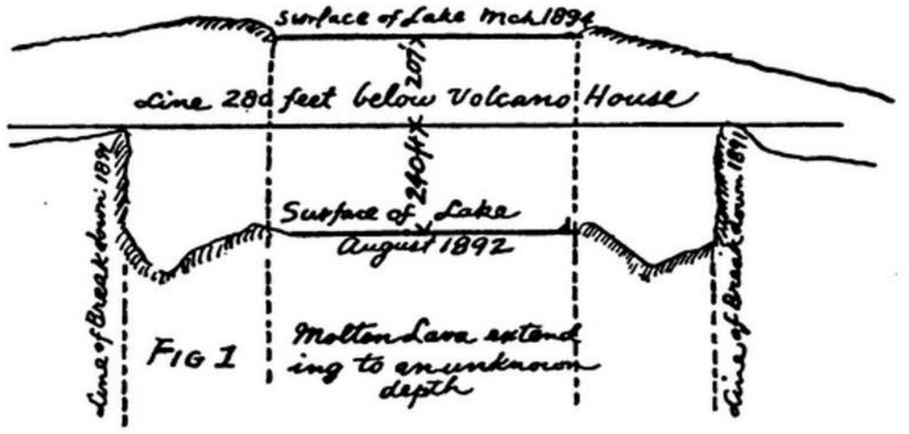


FIG 1

the lake was somewhat larger in 1894 than in 1892, being 1,200 feet long by 800 wide."

Sudden Rising of North Bank Major Change

Upon my arrival at the volcano on July 5, 1894, the principal change, since Mr. Dodge's visit, was found to be the sudden rising of the north bank of the lake, covering an area about 800 feet long by 400 wide; on the 21st of March, last, it was suddenly, and without warning, elevated to a height

of eighty feet above the other banks and the surface of the lava, the lake being then full. The raised area was much shattered; and two blowholes shortly afterward made their appearance on the outer line of fracture. On April 18 the hill thus formed began to sink; and on July 5 was only about thirty feet above the other walls of the lake. In the evening of July 6, a party of tourists found the lake in a state of moderate activity, the surface of the lava being about twelve feet below the banks.

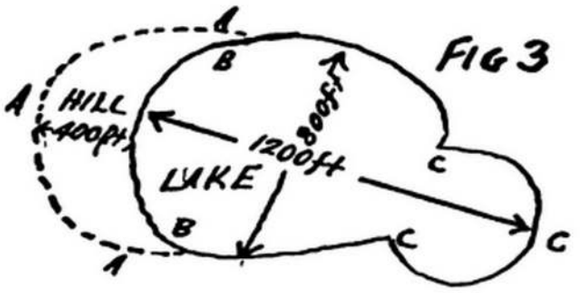
Overflow Into Kilauea Crater From the Lake

On Saturday, the 7th, the lava raised so that the entire surface was visible from the Volcano House. That night it overflowed into the main crater; and a blowhole was thrown up some two hundred yards outside and to the north of the lake, from which a flow issued. There were two other hot cones in the immediate vicinity, which had been formed about three weeks before. On Sunday, Monday, and Tuesday, July 8, 9, and 10, the surface of the lake rose and fell several times, varying from full to the brim to fifteen feet below the edge of the banks. The profile view of the lake on Tuesday night, July 10, was approximately as shown in Figure 2.

FIG 2

On the morning of the 11th, the hill was found to have sunk to the level of the other banks; and frequent columns of rising dust indicated that the banks were falling in. At 9:45 A. M., when a party reached the lake, a red-hot crack from three to six feet wide was found, surrounding the space

recently occupied by the hill; the hill was nearly level; the lake had fallen some fifty feet, and the wall of the lake formed by the hill was falling in at frequent intervals. The outline of the lake at



this time was as in Figure 3. The lava in the lake continued to fall steadily, at the rate of about twenty feet an hour from ten o'clock in the morning until eight o'clock in the evening. At 11 A. M. the area formerly occupied by the hill, marked A.A.A. in the diagram, began to sink bodily, leaving a clean line of fracture; the line of this area, marked B.B.B., was continuously leaning over and falling into the lake.

Cliffs Plunge Into the Fire of Halemaumau

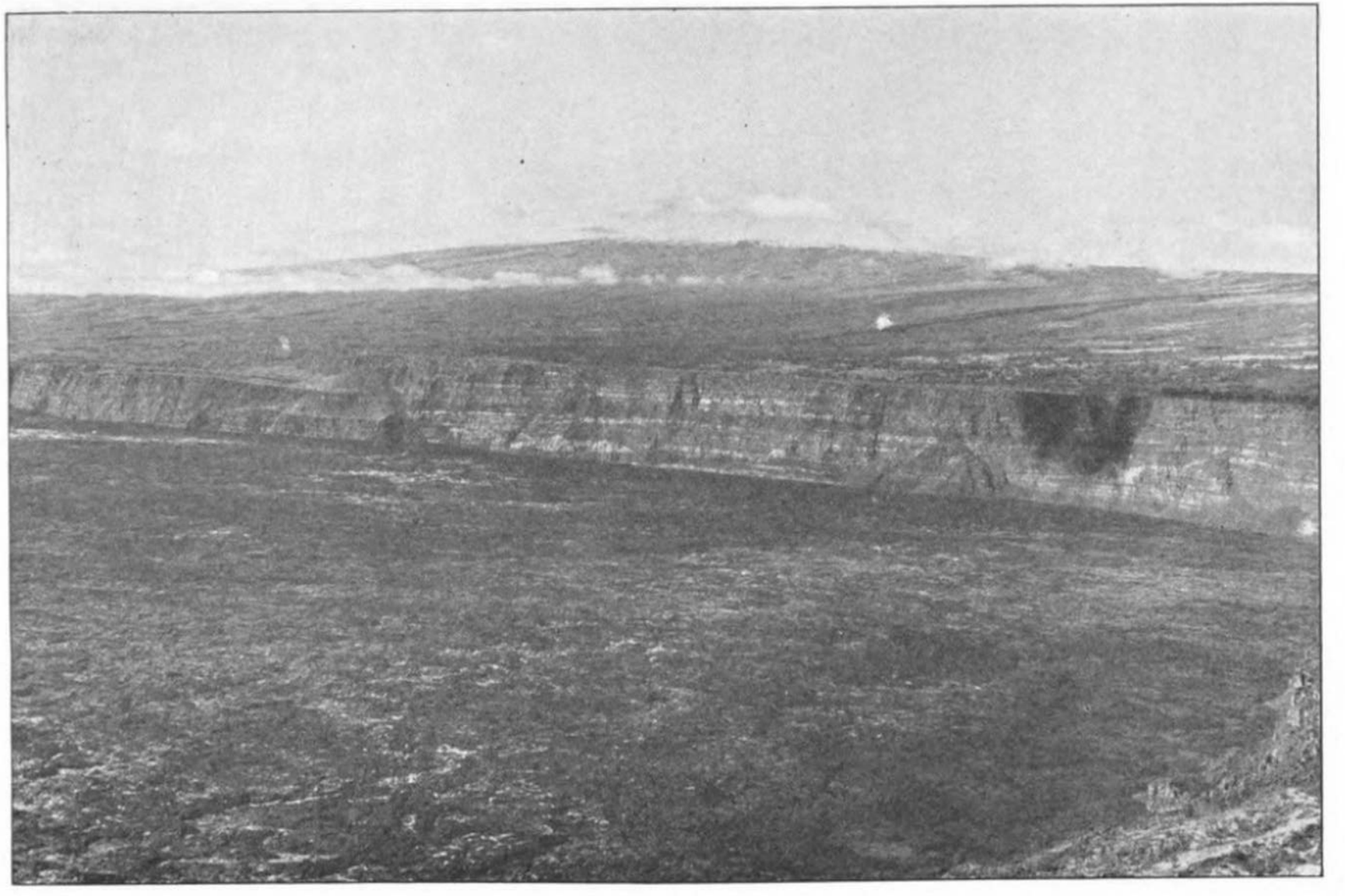
From about noon until eight o'clock in the evening, there was scarcely a moment when the banks were not crashing. While the level of the lake sank, the greater and greater height of the banks caused a constantly increasing commotion in the lake, as the banks struck the surface of the molten lava in their fall. A number of times, a section of the bank from 200 to 500 feet long, 150 to 200 feet high, and twenty to thirty feet thick, would split off from the adjoining rocks; and with a tremendous roar, amid a blinding cloud of steam, smoke, and dust, fall with an appalling plunge into the

boiling lake, causing great waves and breakers of fire to dash into the air, and mighty "ground swells" to sweep across the lake, dashing against the opposite cliffs, like storm waves upon a shore.

Stony Islands Float Across Liquid Stone

Most of the falling rocks were immediately swallowed up by the lava; when one of the great downfalls occurred, however, it would not sink immediately, but would float off across the lake, a great island of rock. About three o'clock, an island of this character was formed, estimated to be about 125 feet long, 25 feet wide, and rising 10 to 15 feet above the surface of the lake. Shortly afterward, another great fall occurred, the rock plunging out of sight beneath the fiery waves. Within a few moments, however, a portion of it, approximately thirty feet in diameter, rose up to an elevation of from five to ten feet above the surface of the lake, the molten lava streaming from its surface, quickly cooling and looking like a great rose-colored robe, changing to black. These two islands, in the course of an hour, floated out to the center and then to the opposite bank. At eight o'clock in the evening, they had changed their appearance only slightly. They had disappeared the next morning.

About noon, the falling lava disclosed the fact that the small extension at the right of the lake was only about eighty feet deep; and it was soon left high and dry, simply a great shelf in the bank, high above the surface of the lake. As the lava fell, most of the surrounding banks were seen to be slightly overhanging; when the lateral support of the molten lava was withdrawn, great slices of the



Foreground: part of Kilauea caldera. Background: Mauna Loa, greatest volcano, greatest mountain, 13,675 feet above the sea, 32,000 feet above its base on the sea floor.
Photograph by Hawaii Tourist Bureau

overhanging banks on all sides would suddenly split off and fall into the lake beneath. As these falls occurred, the exposed surface, sometimes one hundred feet across and upwards, would be left red-hot, the break evidently having been on the line of a heat crack that had extended down into the lake.

Ruddy Expanses Exposed When Walls Collapse

About six o'clock, the falling bank adjacent to the hill worked back into a territory which, below fifty feet from the surface, was all hot and semi-molten. From six to eight o'clock, the entire face of this bluff, some 800 feet in length and over 200 feet in height, was a shifting mass of color, varying from the intense light of molten lava to all the varying shades of rose and red to black, as the different portions were successively exposed by a fall of rock and then cooled by exposure to the air. During this period, the crash of the falling banks was incessant. At some times, a great mass would fall forward like a wall; at others, it would simply collapse and slide down, making red-hot fiery landslides; and again enormous boulders, as big as a house, singly and in groups, would break from their fastenings and, all aglow, chase each other down and leap far into the lake.

The awful grandeur and terrible magnificence of the scene at this stage are indescribable. As night came on, and yet hotter recesses were uncovered, the molten lava, which remained in the many caverns leading off through the banks to other portions of the crater, began to run back and fall into the lake below, making fiery cascades down the sides of the bluff. There were five such

Fire Cascades From Caverns of the Bluff

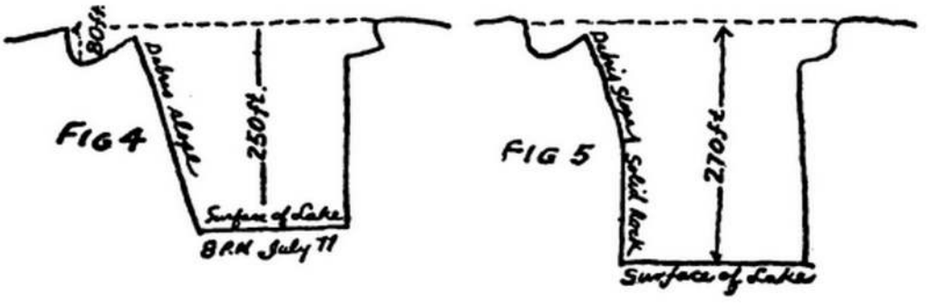
lava streams at one time. The light from the surface of the lake, the red-hot walls, and the molten streams illuminated the entire area, bringing out every detail with the utmost distinctness, and lighted up a tall column of dust and smoke that arose straight upward. During the entire period of the subsidence, the lava fountains on the surface of the lake continued in action, precisely as though nothing unusual was occurring.

Surface Plays in Indifference to Subsidence

Although the action on the face of the subsiding area was so terrific, the activity on the portion between the falling face and the outer line of fracture was so gradual that an active man could have stood on almost any portion of it without injury. Enormous cracks twenty to thirty feet deep, and from five to ten feet wide, opened in all directions upon its surface, and the subsidence was more rapid in some spots than in others, but the progress of the action was gradual, in almost all cases, although the shattered and chaotic appearance of the rocks made it look as though that nothing but a tremendous convulsion could have brought the condition about. Another noticeable fact was the almost entire absence of sulphurous vapors, no difficulty in breathing being experienced directly to leeward of the lake. At 8 P. M., when the party departed, the profile of the lake was approximately as shown in Figure 4.

Level of Lava Falls Twenty Feet in Night

At nine o'clock the next morning, the lake was found to have sunk some twenty feet more; the banks at the right and left of the subsiding area, which had been the chief points of observation the day before, had disappeared into the lake for dis-



tances varying from twenty-five to one hundred feet back from the former edge; and the lower half of the *debris* slope had been swallowed up, disclosing the original smooth black wall of the lake beneath at a considerable overhanging angle, making the profile of the lake approximately as in Figure 5. At the level of the lava, and half-filled by it, there was a cavern, extending in a southeasterly direction. The dimensions were apparently seventy-five feet across and fifteen feet from the surface of the lava to the roof of the cave. It could be seen into, from the opposite bank, for about fifty feet. This may have been the duct through which the lava had been drained, although it manifestly was not at the bottom of the lake, for the lava, up to July 16, had continued to rise and fall from five to ten feet a day, and constantly threw up fountains, somewhat more actively than before its subsidence. The entire area of subsidence is estimated to be a little less than eight acres, about one-half of which fell into the lake.

Fountains More Vigorous Than They Had Been

While the breakdown was occurring, there were many slight tremors of the banks, which generally resulted in the precipitate retreat of the observers from the edge; although the danger was great, the spectacle was so grand and fascinating that the

party returned again and again to watch. At the Volcano House, two slight earthquakes were felt on the afternoon of the 11th, and a vigorous shock was felt at 2 A. M. on the 12th. During the week, several slight shocks were felt in the town of Hilo, thirty miles away; none were felt at Olaa, halfway between, or at Kapapala, fifteen miles in the opposite direction, although the latter is a place peculiarly susceptible to earthquakes.

This is believed to be the first breakdown in Kilauea in the presence of observers, those prior to 1868 being before the establishment of the Volcano House, and those of 1868, 1886, and 1891, and several minor ones, all having occurred at night, when no one was present. [Here ends the quotation from *The Advertiser* of July 23, 1894.—*Editor.*]

Lava Resurges Within a Day, Filling Depth

The alternate filling of the pit of the South Lake, and subsidence for some years, is the life history of the volcano. Within my memory, the bottom has fallen from the pit, and the cavity has been refilled, and lava has run upon the main floor of the crater, about six times. On one occasion, the bottom dropped six hundred or seven hundred feet, and came back within a week. The resurgence of the lava occupied less than a day; it appeared in the main pit and filled the hole with such astounding force and speed as to suggest that the pit would overflow into the main crater. However, the lava arose only to its original height; and again stood there. A rising and falling of the molten column of lava in the crater pit is the only spectacular manifestation of activity since 1790, with the one exception of 1924, when no molten lava appeared, but violent

explosions of gas, at great depth, blew enormous clouds of dust high into the air, and threw hot rocks and boulders from the pit to great distances—the first and only time that serious gas explosions have been seen at Kilauea since 1790, when a similar eruption threw rocks and ash to a distance of some miles about the pit, suffocating an army of natives marching from Puna into Kau.

The violence of gas explosions, flinging such quantities of rock into the air, causes an electric storm, the electricity being produced by friction of the rock ejected. Electricity creates a thunderstorm over the volcano, which extends for miles. Such a storm, in turn, produces a shower of rain; falling through the dust thrown into the air by the explosions, the water carries the dust earthward as mud. In the explosion of 1790, the mud spread so thickly over the seaward side, for miles, that it took the impressions of the feet of the army destroyed. Subsequent dust, from later explosions, saved the impressions from erosion. Of late years, the superincumbent dust has weathered away, bringing to light the foot impressions, made nearly 140 years ago, of men, women, and children—even of pigs. Plaster casts of some impressions should be made.

Cloud of Dust, Thunderstorm: Sky Rains Mud

I witnessed several gas explosions in 1924, when the pit was blown out to a depth of some 1,300 feet, and a large area of the main crater, surrounding the pit, was engulfed. At one explosion, I was with a party on the main floor of Kilauea, about a half mile from Halemaumau, when a rock, afterward estimated to weigh more than seven tons, was

hurled several hundred feet above our heads. It landed beyond us,—and is still pointed out to tourists—as did smaller rocks. One fell upon a sight-seer, pinning him to the ground. He was rescued by members of our party, and was taken to a hospital in Hilo by an army truck, but he died the next morning. That is the only fatal accident at the volcano since it was first visited by white men in 1823. [Now there follows Mr. Thurston's summary of the 1924 explosion, published in *The Honolulu Advertiser* of May 24, 1924.—*Editor.*]

Man Is Killed: Only Fatality in the Century

I returned yesterday from a visit of six days to the Island of Hawaii. During that time, I spent two whole days and parts of two other days at Kilauea; I also visited the districts of Puna, Kau, and North and South Kona. I spent most of the time in seeing what there was to be seen, making as accurate a record thereof as possible, and forwarding a daily wireless to *The Advertiser.* I now summarize the result of the observations of the last week. In the first place, I have not exaggerated one single item, nor have I seen or heard any exaggeration, either in or out of the press, although many incorrect rumors are being set afloat in Hilo.

The photographs of the masses of inky black smoke, dust, and ash, which pour from Halemaumau when the explosions occur, are awesome; but they give little conception of the literally awful and hellish appearance of the great billows of material that rush from the pit and shoot to tremendous heights, rolling, twisting, and turning, in inconceivably short time. They are not all equally

Awful Billows Are Cast High by Explosions

thrilling or awesome; but the major ones, vomiting red-hot rocks, gravel, dust, and ash thousands of feet into the air, with a rush and roar like a mighty storm upon a seacoast, are terrifying in their intensity. More particularly is that true at night, or when one is close at hand.

The two most violent explosions to date occurred shortly after eleven o'clock last Sunday morning and about seven-thirty o'clock the same evening. In the morning, with others, I was on the flying field, some 3,000 feet from the pit, about the limit of any rocks that had fallen. A light brown vapor, so thin that through it we could see the bluff on the opposite side of the outer crater, was rising gently; and several minor earthquakes were felt, followed immediately afterward by the roar of avalanching sides in the pit, accompanied by rising clouds of reddish dust. About three minutes later, with a sudden dull roar, a column of inky black eruption cloud shot upward from Halemaumau; and masses of gray ash rolled from the edge of the pit and over the adjacent crater floor. A few seconds afterward, multitudes of rocks shot from the clouds; smoke and ash began falling all over the floor of the crater, and bounded, sometimes for several hundred feet, giving a sharp sound of concussion every time one struck the lava, with a continuous rattling and booming sound like cannonade.

Black Eruption Cloud Ejected With Dull Roar

A number of rocks struck in our immediate vicinity, within a few seconds after the explosion began. One, approximately six feet long, six feet wide, and three feet thick, fell at the far end of the

flying field. It was measured that afternoon by Captain Charles H. Perkins, Kilauea Military Camp, and Oliver H. Emerson, Volcano Observatory, who estimated that it weighed between eight and ten tons. Mind you, this rock had been thrown from the bottom of a pit 1,200 feet deep; and it had fallen approximately 3,000 feet outside the pit. Needless to say, all present, who could do so, ran away as fast as they could. Theodore A. Dranga, of Hilo, Truman A. Taylor, bookkeeper of Pahala, John Tait, gardener, and John A. Hogg, engineer, of the Volcano House, were at the margin of the pit shortly before the explosion. Tait and Hogg had returned to their automobile, which was at the end of the automobile road, about 2,000 feet from Halemaumau.

Eight-ton Rock Is Cast More Than Half Mile

Taylor had started back from the pit, and was distant about 1,500 feet from it when the explosion occurred. Dranga, who had parted from Taylor some ten minutes before, was standing directly at the pit margin, on the Volcano House side. Fortunately for him, few rocks were thrown out on that side at this explosion. He ran back from the edge, suffering no inconvenience, except from the heat of the ash that was thrown out after him. He escaped uninjured across the floor of the crater to Keanakakoi, the first pit crater east of the volcano. Taylor was stricken down by a rock some 1,500 feet from the pit, as he was running away; his legs were crushed, and he was partially covered by hot ash, being severely burned. A rock smashed in the rear part of the automobile before it got under way.

Upper Current Carries Cloud to the East

The upper current of wind, toward the east, speedily carried a great black cloud of ash and dust far eastward of the crater; a heavy rain, which invariably succeeds a major explosion, falling through the dust and ash, accumulated it into pellets of mud as it fell, to the accompaniment of a rushing, roaring sound like that of a great freshet. So much mud fell, by the time I reached the automobile parked near Keanakakoi pit crater, that my Panama hat was a plaster of mud. Another accompaniment of each major explosion is an intense display of lightning, both in the smoke column and in the distance. These flashes are incessant; and the crash of the thunder adds to the awesomeness. On the Sunday under review, twenty-one telephone poles were struck by lightning along the volcano road below Twenty-nine Miles, a number being splintered to matchwood; and the telephone at the Volcano House was repeatedly put out of order.

Umbrella Made a Mud Fender; Man Is Missing

Upon gathering at the point where the automobiles were parked, and counting noses, we discovered that two members of the party were missing: Dranga, Senior, and Taylor. Dranga, however, was observed approaching the crater with his umbrella up, to keep the falling mud off. After we learned that he had not seen Taylor, a search party of four, consisting of R. H. Finch, the Volcano Observatory man, William O. Clark, Pahala geologist, T. A. Dranga, and Ted Dranga, returned in Dranga's car to search for Taylor. When the car stopped, as far as it could go, about 2,000 feet from the pit, where it was blocked by newly-

Taylor Found: Burned by Ash, Legs Crushed

fallen rock in the road, Taylor was heard calling. He was found under a coating of ash, which had burned him seriously, with both legs crushed.

A tourniquet was immediately applied to stop the bleeding; and he was carried to the automobile on a raincoat as a stretcher, while a second fusillade of rocks showered about the party, fortunately striking no one. Taylor was conveyed immediately

to the Volcano House, where he received aid from the Military Camp physician, Captain Patrick J. McKenzie, and two trained nurses, Miss Mollie Thomas and Miss Antoinette Peck. On the advice of Dr. McKenzie, Taylor was transferred to the Hilo Hospital on an army truck. In spite of all that four doctors could do there, he succumbed to loss of blood and shock at eleven o'clock that night.

He Succumbs: Loss of Blood and Shock Kill

The most terrific explosion came at seven-thirty o'clock that Sunday evening. It gave us an idea of what might happen at any time on a much larger scale. Without warning, a gigantic black cloud arose to a height estimated by Mr. Boles at twelve miles. As it rose, it scintillated throughout its length and breadth with a multitude of lightning flashes. Showers of hot rocks, some of immense size, flew in all directions, with such rapidity and in such quantity that in moments the entire floor of the crater, for a distance of several thousand feet from the pit, was so afire with hot rocks that it gave the appearance of a live lava flow. Many hot boulders struck the face of the Uwekahuna Bluff, on the Mauna Loa side of the crater, more than a mile from the pit, shattering and crashing to the crater floor below in a glowing shower, while great quantities were thrown upon the lower bank of the crater to the south of Uwekahuna, the glow being visible from the Volcano House for some minutes after they fell. Once, there was a serious question whether the hot rocks from the pit would be thrown as far as the Volcano House. As Mr. Finch said, they came forward in jumps of five hundred feet at a time.

Glowing Shower at Uwekahuna Suggests Flow

All of the Volcano House guests, except four, had departed. Channing J. Lovejoy, manager, was game. He said, so long as a guest remained, that he would keep the hotel open, but that, if the remaining guests left, he would close the hotel immediately for the night. In a few minutes, the remaining guests had departed, with a number of Hilo people who had been watching the crater. For the first time, the Volcano House closed its doors, although two watchmen and several cooks and waiters remained on the premises. Manager Lovejoy joined the others in the retreat to Hilo. He returned on the next morning; and the hotel has been open since, subject to the notice that it may close at any time in the judgment of the manager, based on the advice of Thomas Boles, park superintendent, and Roy H. Finch, observatory attendant. Mrs. Finch and A. L. Burdick, a county engineer, remained on watch Saturday and Sunday nights; and Mrs. Finch has spelled her husband and Mr. Emerson in a continuous day-and-night watch since the beginning of the explosions on Saturday, May 10. So much for some details of the most spectacular activities of Kilauea within the memory of living men. . . .

Whole Crater Blown Out in 1790 Explosion

In 1790, 134 years ago, explosive eruptions were last known in Hawaii. Then the whole great crater of Kilauea was blown out. Pumice, rocks, and enormous amounts of sand and ash were thrown from the crater to a distance of two miles back of the present Volcano House and ten miles across the Kau Desert; and one section of a passing Hawaiian army was killed. Quantities of pumice

and sand and many large rocks from Kilauea are still found at the Twenty-nine Mile village on the volcano road, and in the entire country within several miles of the volcano. All that has yet happened is the most minor activity compared with what is known to have happened in the past.

Temblors Felt by Scores at Volcano House

Earthquakes have been heretofore almost unknown at the Volcano House. In forty odd years, during which I have been going there frequently, I have felt only two, and those inconsiderable. Perceptible earthquakes—some of them quite severe, although none have yet done any injury—are being felt every day by dozens and scores; and they appear to be increasing in intensity. This can mean but one of two things: first, that the surplus energy of the volcano is being worked off through these minor explosions; or, second, that the explosive energy is accumulating and racking the framework of the earth, as evidenced by the multiplying earthquakes, which may ultimately cause a recurrence of the phenomena of 1790, with perhaps still greater energy. . . . There is no activity at present in Hilo, other than a few scattered and inconsiderable earthquakes. For the past three weeks, there have been no earthquakes or activity in Kapoho, Puna, where the earthquakes and subsidences were so strong a short time ago.

Hilea, in Kau, known as the "home of earthquakes," which normally has more than any other spot on Hawaii, is recording an almost continuous tremble on the seismograph, but is having no perceptible earthquakes. Conditions elsewhere in Kau and Kona are normal. On the other hand,

the Volcano House, which has no earthquakes normally, is experiencing a daily and nightly "flock of earthquakes," as Dr. Thomas A. Jaggar calls them, of increasing intensity, accompanied by explosive eruptions. While small in comparison with those of 1790, these explosions are violent. Dr. Jaggar, who is making a life study of the volcano, is not at hand, but he has repeatedly placed himself on record as believing that another explosive period might be expected. [Here ends the quotation from *The Advertiser* of May 24, 1924. —*Editor.*]

Party Ascends to the Summit of Mauna Loa

On July 29, 1890, I visited the summit crater of Mokuaweoweo, atop Mauna Loa, with Julian Monsarrat, manager of the Pahala cattle ranch; his head *luna,* or overseer, a *haole* (white man) from the Kona district; a visitor named Clark, from Boston; and a Hawaiian guide. We spent the night at the upper edge of vegetation, continuing to the crater next morning, and arriving there about nine o'clock. Monsarrat was soon put out of commission by mountain sickness. I wished to go to the floor of the crater, which then lay some eight hundred feet below the summit. The native guide told us that the floor could be approached through a crack that led to a *debris* slope of tumbled rock a hundred feet or so below the outer rim. From our place of arrival, the fissure was two miles distant, along the crater edge on the Hilo side. When we reached the crack, the Hawaiian guide also succumbed to mountain sickness. The remaining three of us climbed down the *debris* slope to the floor of Mokuaweoweo. There the head *luna*

fell ill; and Clark and I began our walk across the crater. We intended to look at a sulphur formation on the west bank, which was formed in the flow from the summit in 1887.

Sulphur Fumes Build Column a Foot Across

The exit of the flow had left an opening through the west wall, whence sulphur fumes had issued, with such a heavy deposit that the sulphur had formed upward in a column a foot thick, and so brilliantly yellow that it showed clear across the crater in the dark. I was the next victim of mountain sickness, when about halfway across; and I suggested that Mr. Clark go on, and that I meet him on his return, at the foot of the pali, or cliff, where we had entered. Then I became unconscious; and remained so for about half an hour. After reviving, I worked my way slowly back to the foot of the cliff. Mr. Clark and I arrived there at the same time. He had a block of pure sulphur, about a foot thick, which he had taken from the deposit on the west wall. We required about three hours to climb the *debris* slope, gaining the top about four o'clock in the afternoon. Clark, apparently as fresh as ever, went jauntily ahead, while the native guide, who had remained waiting for us, and I began our laborious walk to camp along the edge of Mokuaweoweo.

Whisky Revives After Sickness of the Heights

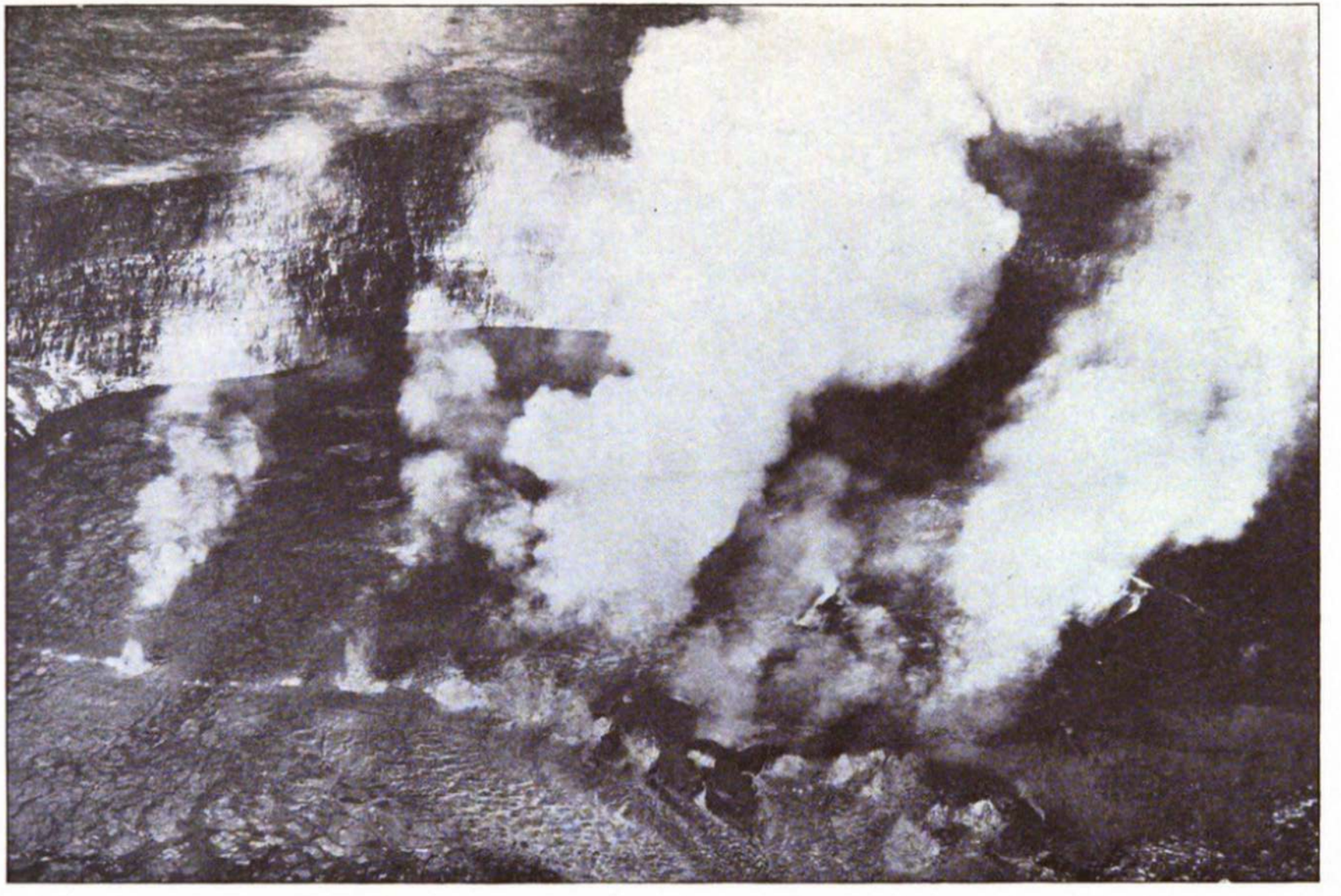
After a while, we met Monsarrat, who was riding one mule and leading another, which he placed at my disposal. He also produced a flask of whisky; and insisted that I take a drink. It was the first whisky I had ever tasted. I took two swallows of the raw stuff; it gave me new life. Then I rode to camp on the mule; and we spent the night

on the summit. The five of us slept in a little tent meant for four, so cramped that, whenever one of the party wished to turn over, all five of us had to turn together. Although the time was the 1st of August, the thermometer went to eighteen degrees above zero. In the morning, we cut ice a foot thick from cracks alongside the tent and within a hundred feet of the crater. We wrapped it in blankets, and took it on mules to Pahala Ranch, where it was used to freeze ice cream for our dinner that night. This was the only trip I have made to the summit of Mauna Loa.

Eighteen Above Zero Recorded in the Summer

In 1909, Dr. Thomas A. Jaggar, professor of geology in the Massachusetts Institute of Technology, visited Hawaii on his way to Japan, where he intended to study volcanoes. I called upon him; at his suggestion, I took up, with the people of Honolulu, the organization of a volcano research association, and I secured several thousand dollars in subscriptions, to establish a research laboratory at Kilauea. Since that time, the Hawaiian Volcano Research Association has continued and expanded. I was elected its president in 1912, and am still filling that post at the present time. [Mr. Thurston was president at his death in 1931.—*Editor.*] Dr. Jaggar became scientific director of the Hawaiian organization. It obtained a lease of land at Kilauea, and built and equipped an observatory. Three volcanoes—Kilauea and Mokuaweoweo, the summit crater of Mauna Loa, both on Hawaii, and Haleakala, on Maui—have been formed into a national park. A trail has been made from Kilauea, by way of Red Hill, on the

Thurston and Jaggar Direct Volcano Study



Mokuaweoweo, the summit crater of Mauna Loa, where Mr. Thurston was overcome by mountain sickness, boiled and flamed with incandescent lava, December, 1933.
Photograph by Fleet Air Base, Pearl Harbor

northeast slope of Mauna Loa, to the summit. An old trail, from Pahala, is along a nonactive and relatively uninteresting portion of the mountain, while the Red Hill trail lies in a section that, of late, has been intensely active, several flows having broken from ground in the vicinity. Mauna Loa is more active than any other known volcano. In the last hundred years, there have been numerous flows, nearly all on the northeast side toward Hilo, or on the southwest, in Kona.

B. F. Dillingham, of the Oahu Railway & Land Co., Ltd., showed me a letter that he had received from Mr. W. F. Sesser, a railroad advertising agent of St. Joseph, Michigan, in which Mr. Sesser proposed to come to Hawaii, take photographs and print copies, with descriptive literature. On the recommendation of Mr. Dillingham and myself, the Oahu Railway & Land Co. and the Kilauea Volcano House Co. each agreed to supply $5,000 and to accept the offer. Shortly thereafter, Mr. Sesser arrived in Honolulu, took photographs there, and went to Kilauea and photographed that locality. Approximately a thousand enlarged photographs were made, framed, and distributed throughout the United States. Ten thousand copies of a pamphlet, entitled *Paradise of the Pacific and Inferno of the World,* were printed in *de luxe* style, and 50,000 smaller pamphlets of a similar sort were printed and distributed broadcast over the country.

Tourist Travel Is the Object of Advertising

Jules Tavernier, a French artist of San Francisco, came to Hawaii about that time, and made a model some twenty feet in diameter, entitled

"Cyclorama of Kilauea." It was exhibited in Honolulu and on the mainland; and it gave me an idea that a large-sized cyclorama of the type could be used advantageously to advertise Hawaii. Accordingly, in the latter part of 1891, I went to Chicago and secured a concession for a cyclorama of Kilauea to be placed on the Midway Plaisance in the Chicago Fair of 1893. Mr. M. H. De Young, owner of the *San Francisco Chronicle* and California commissioner of the Chicago Fair, was of great assistance to me in gaining the concession. I returned to Honolulu; organized a corporation known as "The Cyclorama Company"; got subscriptions to the capital; and arranged for Walter Burridge, a landscape artist of Chicago, to go to Hawaii and sketch Kilauea in action. [Mr. Burridge was in Hawaii from October 13 to November 11, 1891.—*Editor.*] From his sketches, he produced a cyclorama sixty feet high and 420 feet long, arranged around a central platform, with construction in the foreground representing the crater floor. At one side, there was a representation of the molten lake; on the other side, the floor of the crater appeared, with cracks from which steam was rising; at the bottom of the cracks, molten lava was simulated; and the walls of the main crater surrounded the whole. In the background, the Volcano House appeared on one hand, and the Pacific Ocean on the other. Lighted by electricity, the cyclorama was a wonderfully realistic spectacle.

Concession for Cyclorama at Columbian Fair

I also took the first Hawaiian singers to the mainland—four of them; and their number was

Eight Hawaiian Singers Taken to Windy City

increased to eight in the course of the fair. One of the original four was Ben Jones, son of an American lawyer, married to a Hawaiian woman. He had the best bass voice ever developed in the islands. Afterward he joined the chorus of the play *The Bird of Paradise,* with which he continued for several years. A member of the second quartet that joined the cyclorama company was Duke K. Kahanamoku, the father of the boy of the same name who became the leading swimmer of Hawaii.

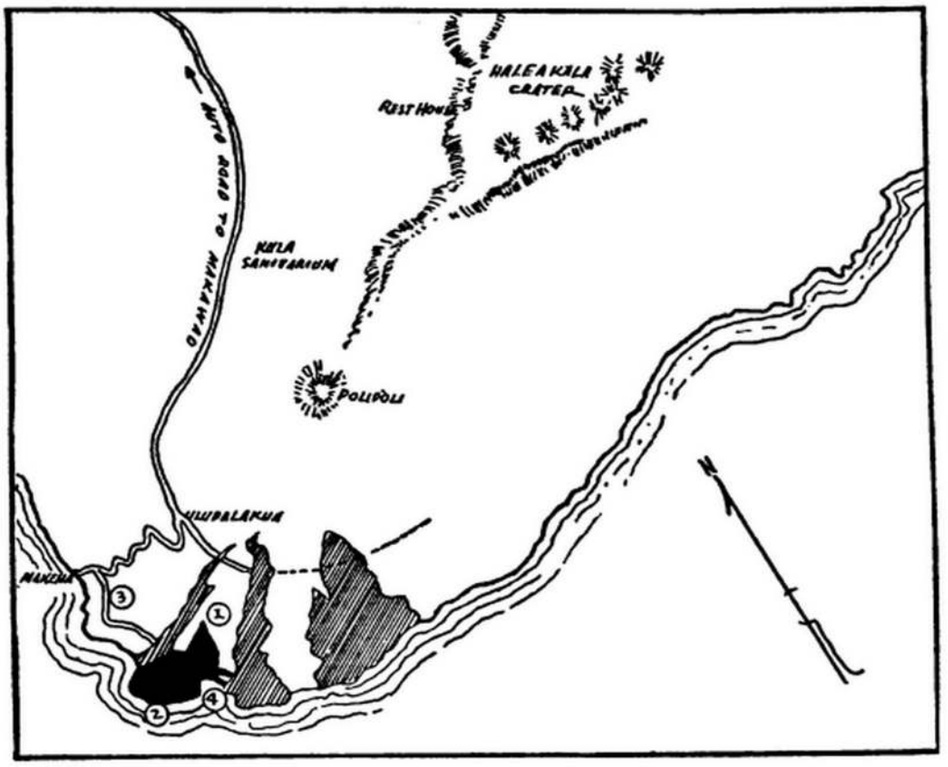
Artistically the cyclorama was a complete success, but the panic of 1893, which swept the United States during the Chicago Fair, caused our company to lose money. The canvas was taken to the San Francisco Midwinter Fair of 1894-1895, and scored a success financially. From San Francisco, it was transferred to Boston, where it was installed in better shape than ever, but cycloramas had had their day; and the canvas finally was sold to a company that exhibited it at the Buffalo Exposition in 1901.

Fullest Story of Last Flow on Valley Isle

[The following article, on the last lava flow on Maui, by Mr. Thurston, was published in *The Honolulu Advertiser* of February 24, 1924. It is the fullest record of the eruption; no other, approaching it, can now be written; and it may be described as the original of different accounts, since Thomas G. Thrum drew from Mr. Thurston, as related at the close, and seemingly Professor Dana did likewise.—*Editor.*]

Popular impression and report are to the effect that no record exists, or even tradition, of volcanic

activity on the Island of Maui, although the mute evidences, both in the crater of Haleakala and on its outer southern slopes, in the form of comparatively recent lavas, are many and plain. Among the more recent flows, one especially is quite as



Southern Haleakala. 1. Last flow. 2. Where the man and his son were turned to stone. 3. Road from Makena to Keoneoio. 4. Keoneoio, or La Perouse, Bay. The last eruption is shown in black; adjacent flows are shaded

Haleakala Lava Fresh as That From Hualalai

fresh in appearance as the 1801 flow from the western slope of Hualalai, in Kona, Hawaii, which was seen, and the date recorded, by a white resident.

About 1879, sharing the popular opinion, I remarked on the supposed fact concerning Haleakala to Edward Bailey, the venerable American missionary who came to Hawaii in 1837. He was

stationed on Maui in 1839, and lived there for many years. In his usual deliberate drawl, Father Bailey replied: "That is not so." "What do you know?" I asked. He thereupon made substantially the following statement—for twenty-six years, I heard nothing more, in knowledge or tradition, of volcanic activity on Maui. "I was first stationed on Maui in 1841," said Father Bailey. "In my trips about the island, I noticed a lava flow at Honuaula, at the south end of East Maui, which appeared much fresher than the other flows—much newer than it appears now." [1879.] "I asked the natives whether they knew when that flow occurred; they told me that their grandparents saw it. They also said that a woman and a child were surrounded by the lava, but had escaped after it cooled."

Father Bailey Notices Change in Appearance

I have since visited the locality indicated by Father Bailey, and have examined several other recent-appearing flows nearby. The government map of Maui shows three other such flows, all in Honuaula, and originating below the upper road around the island. The flow in question, manifestly the latest, begins about halfway down, between the upper road and the sea. It spreads to the width of a mile or so at the coast, having built quite a promontory into the ocean. Its source is at a small hillock or crater, two rocky projections with perpendicular interior sides, a few feet apart, marking the spot from which the torrent of lava poured. Rapidly widening, the lava stream ran to the sea, a distance of two miles or so. The lava is rough a-a, entirely devoid of vegetation, and

looks as though it might have first seen daylight in the twentieth century, instead of the eighteenth.

Hawaiians Make a Fishpond of the Lava Walls

The flow forms the western side of Keoneoio, or La Perouse Bay, named after the French explorer who landed there in 1786. A government lighthouse, known as Kinau Light, is at the eastern point. The flow partially surrounds and forms an almost completely protected section, some ten feet deep, at the head of the bay, which had been converted into a fishpond by the old natives. A storm opened a passage through the wall; and the interior forms a perfectly landlocked little harbor, safe in all weather, for sampans and boats of fitting size. Dr. J. H. Raymond built a wharf there, which is still in good condition. A small settlement stands on the beach, amid a splendid grove of algaroba trees. The flow is manifestly of later formation than the adjacent one to the north and the other more recent flows to the east. That one immediately eastward has a considerable growth of the old dry-country type. Among others there are *wiliwili* trees, with trunks up to four feet in diameter. The wood of these trees is so light that the Hawaiians use it as the *ama,* or float, of an outrigger canoe.

About 1906 I was camping on the outer Hana slope of Haleakala, near the summit, with Louis von Tempsky. We pitched tent and went into camp late in the afternoon, just as rain began. The rain did not stop for two days and nights, so that four of us, with three Hawaiian cowboys, were storm-bound for that time. I mentioned the conversation with Father Bailey; one of the cowboys,

a half-Chinese named Charles Ako, said: "I know about that." "What do you know?" I inquired. "I married a woman from Honuaula," said Ako. "My father-in-law, of Honuaula, who died last year, at the age of ninety-two years, told me that, when the flow at Keoneoio ran out, his grandfather saw it. At that time, he" [the grandfather] "said that he was old enough to carry two coconuts from the sea to the upper road." That is a distance of four or five miles. The trail is rough, and the upper road is at an elevation of approximately 2,000 feet. I obtained no further information from Ako.

Grandfather of Father-in-law Sees Eruption

I told several others what I had heard, but I did not myself visit Keoneoio until 1922, when I made a close inspection of the flow and sought information concerning it from the *kamaainas* (old-timers) living along the beach between Makena and Keoneoio. There I met three old Hawaiian men, all of whom had known Ako's father-in-law. Each of the three, separate from the others, told me a legend concerning the flow in question. They differed only in minor details. "A man and a woman, with two children, a boy and a girl, lived at the point in Honuaula, where the lava flow which forms the west side of Keoneoio Bay originated. They owned a flock of chickens; and had made a vow that no one should have one of the chickens until some had been sacrificed to Pele, the goddess of the volcano. One day an old woman appeared, said she was hungry, and asked for a chicken to eat. The couple replied that they could not give her one because of their vow. The old woman, thereupon becoming enraged, disclosed herself as

Elderly Woman Wants Chicken; She Is Denied

Pele Produces Lava Flow Now as Punishment

Pele. With the typically cruel and vengeful spirit of the Hawaiian gods, instead of being grateful to the couple for their faithfulness in their vow to herself, she cast a spell upon the earth, and produced a lava flow on the spot, to destroy the offenders.

"The mother took her little girl, and started to escape up the mountain. Pele, seizing the woman, split her in two; turned her and her child into stone, and fixed the halves, one on each side of the spot where the lava was pouring from the ground. There they may be seen to this day, conclusive evidence of the truth of this legend. In the meantime, the father had grabbed his little son, and started to run with him toward the coast, intending to swim across the channel for safety to the Island of Kahoolawe, some eight miles away. While Pele was destroying the woman, the man made some distance downhill, before Pele could attend to him. Having disposed of the wife, Pele, at the head of her lava, then chased the husband. Arriving first at the beach, he plunged into the sea. With his son, he had reached several hundred feet from shore when Pele arrived on the shore. She threw rocks at him, finally hitting and killing both father and son; and turned both to stone. They may be seen to this day, a big rock and a little, rising from the sea, several hundred feet from land, undisputed proof of the truth of this story, as anyone may see who chooses to go and look."

None of the three *kamaainas* could give me any information bearing on the date of the activity,

and the foregoing is all the information I have been able to gather on the eruption, except that I checked the story by seeing the "remains of the woman," frozen into stone at the source, and I saw the father and son in the sea, where they had been turned into rocks, off the ocean end of the flow, exactly as the *kamaainas* said. In checking the statements made by Father Bailey, I have arrived at a rough estimate of the date. He stated that people told him about 1841 that their grandfathers had witnessed the eruption. Allow thirty-three years as the number usual to a generation; then the fathers and grandfathers of those people of 1841 would take us back sixty-six years. To that, we add thirty-three years, say, as the age of Father Bailey's informants, thus carrying the date back approximately ninety-nine years from 1841, or to 1742.

There Is Proof in the Remains of the Victims

Checking the date of the flow by Charley Ako's story, we get the following. The father-in-law, if ninety-two in 1905, was born in 1813; at that time his father was thirty-three, say, or had been born in 1780; and the grandfather was a boy, able to "carry two coconuts from the sea to the upper road," when the eruption occurred. A boy who could do that must have been at least ten years old. A deduction of ten years from those of a generation leaves twenty-three. Deduct that figure from 1780, and we have 1757 as the year of eruption. Such methods of calculation are rough, but they come out within fifteen years of each other. Take the mean between the dates; we have 1750 as the approximate date of the last flow on Maui. If any-

Date of Last Maui Eruption Is About 1750

one has a different method of calculation, a different theory, or other information, the field is open for speculation, conclusion, and publicity.

Search Reveals Two References to the Volcano

I have searched the histories and early accounts of Hawaii for any record or tradition of the last volcanic activity on Maui, but have found only two references: one in a comparatively recent issue of the *Hawaiian Annual;* the other in Professor James Dwight Dana's *Characteristics of Volcanoes,* published in 1890. Both refer to Father Bailey as authority for saying that there had been a relatively recent lava flow. But the editor of the *Annual,* Thomas G. Thrum, tells me that he got the story concerning Father Bailey's statement from me, so that is no corroborating evidence. It is probable, also, that Professor Dana's statement emanated from the same source, as he was in the islands shortly before his book was published, and he simply credits Father Bailey with the statement that the eruption was "about 150 years ago," or about 1740.

[Here ends the quotation from *The Advertiser* of February 24, 1924. An incompleteness will be noted in the first estimate, that based on Father Bailey's recollection. It makes the year of the eruption coincide with the approximate birth year of the grandparents. If ten years are added, so that the grandparents could have been old enough to gain a lasting impression of the activity, the year of the flow, instead of being 1742, becomes 1752, remarkably close to the 1757 of the second estimate, and a strong confirmation of Mr. Thurston's mean: 1750.—*Editor.*]

Thurston Plan: Use Explosive Against Flows

[When many earthquakes shook the Island of Hawaii in 1929, and a lava flow from Mauna Loa or Hualalai seemed imminent, Mr. Thurston suggested that trinitrotoluene bombs be used to shatter the characteristic conduits of a Hawaiian eruption, thus releasing the lava of the conduits, permitting it to spread over territory already inundated, and saving lower lands. In December, 1935, a flow of Mauna Loa became ominous, threatening Hilo, and his plan was put into effect, although the bombs were dropped from airplanes of the United States Army, and were not suspended from tripods, as he had proposed. Here follow Mr. Thurston's suggestion, made in a letter to Lawrence M. Judd, then governor of Hawaii, and a report of the bombings, taken from *The Volcano Letter* of Hawaii National Park, Edward G. Wingate, superintendent, and the Hawaiian Volcano Observatory, Dr. T. A. Jaggar, volcanologist.—*Editor.*]

Honolulu, T. H.,
September 26, 1929.

His Excellency Lawrence M. Judd
Governor of Hawaii
Honolulu, T. H.

Dear Sir:

In Re Volcanic Activity in the District of Kona, Island of Hawaii

As you are doubtless aware, there has been during the past several days, a "flock of earthquakes" recorded by the seismographs of the Volcano Re-

search Association, in the District of Kona, Island of Hawaii—said to be several hundred.

Such manifestations of volcanic activity have in the past indicated a certainty of an early eruption of lava—as a rule covering many thousands of acres of land.

In most of the instances of the past, the land which has been overflowed by lava has been of slight value.

The District of Kona, however, is one of the most fertile and best cultivated in the Territory, and the community can ill spare any of it.

I am the President of the Hawaiian Volcano Research Association and as such have given much time and study to the question of trying, by some feasible means, to allay the damage accruing to the community from lava flows.

The plan which I have had in mind can, if conditions are favorable, be put into operation at but comparatively small expense.

If successful it would save a large area of valuable land.

If unsuccessful, under the conditions which I hereinafter set forth, it would cost comparatively little.

The plan, in brief, is as follows:

The normal procedure of a lava flow breaks forth at a point sometimes thousands of feet up the side of a mountain, covering a large area at first.

Lava Conduits Quickly Formed in an Eruption

This large area quickly congeals, the front of the flow being fed through a conduit which speedily builds its own banks until it becomes a tube varying from 10 to 50 feet in diameter.

The ceiling of these tubes is perforated from point to point by "blow-holes," through which the gas escapes.

Stop Feeding of the Fluid to the Front

I suggest that if the feeding of the lava to the front of the flow, through such tube, can be obstructed and interrupted, the front of the flow will cease to cover new land and if the current of lava can be caused to cease flowing through the tube and forced out on to the area already covered by lava, so that the lava will be flowing over the area already covered by first lava, the territory in front of what would otherwise be covered by first lava will be saved from the destruction which inevitably results from a lava flow running over cultivable land.

The plan which I suggest is, when a lava flow appears, to locate, at a favorable place, a blow-hole opening into a lava tube through which molten lava is running to the front.

Suspend over this blow-hole a charge of TNT —a high explosive—suspended by a block and tackle attached to a tripod.

Arrange a device to be tripped by a rope several hundred feet long, which will drop the charge of high explosive into the tube.

Attach a fuse to the high explosive so that within a few seconds after it is dropped it will explode with violence, such to disrupt and destroy the tube, forcing the flow of lava to the surface to again cover the territory already covered by first lava.

If this is successfully accomplished it will cause the front of the flow to cease action and cause the molten lava to run out at the point where the ex-

plosion has taken place, again covering the same territory already covered by lava.

I admit that the conditions for putting this plan into operation must be favorable or it will be ineffectual.

For example if a flow comes out of a mountain at a point where the declivity is steep it will flow to the sea so quickly that there will be little or no opportunity to put the proposed plan of the operation before all of the land which can possibly be covered by the lava will have been covered.

If, however, the flow comes out at a point where there are benches, or flats, to be occupied by the lava, there will be opportunity to put the proposed plan into operation, so that land in advance of the flow will be saved from destruction.

Steep Hualalai Not Promising for Operations

In the case in point, in Kona, if the expected flow comes to the surface from Hualalai, the mountain is so steep that, in all probability, it will be impossible to put the plan into operation.

If, however, the flow comes out on the west side of Mauna Loa, there are benches, or flats, where the progress of the flow will be delayed for so long a time that the probability is that action looking to the checking of the flow can be put into successful operation.

I would say that the plan, which I have above outlined has been submitted to Dr. Jaggar—Chief of the Volcano Research Association and of the Volcano Observatory, and, in his opinion, it has merit.

I would say that I have submitted the above plan to General Fox Conner, Chief of the War Depart-

Army Is Ready to Help, Says General Conner

ment in Hawaii, at Fort Shafter, and that he states that, if so requested by yourself, he will place an Army engineer, an expert in the use of powder, and detail men to put the same into operation if the opportunity presents itself.

General Conner suggests that the amount of high explosive required for the experiment in question be left to the engineer suggested.

Also that the locality where the same be utilized be also left to the discretion of such engineer officer.

Under the circumstances, on behalf of the Volcano Research Association, I respectfully request that Your Excellency will make a request to General Fox Conner to assign such engineer and squad to the work suggested.

I would further say that a large part of the District of Kona, subject to destruction by the expected lava flow is the property of the Bishop Estate. I have submitted the question to the Trustees of that Estate as to whether they would be responsible for the expense involved in furnishing the material to be used in the experiment.

I am expecting an early answer from the Trustees named and do not ask that the Territorial Government be responsible for any expense in this matter. I simply ask, that in response to General Conner's statement that he will act upon the request of civil authorities, you may make of him the request suggested.

I would further state that the services of Dr. T. A. Jaggar, Chief of the Volcano Research Association; of Mr. De vis Norton, secretary of the

organization and of myself as President are all available without charge to anyone. All that I am interested in, in connection with the subject matter of this letter is, to test the feasibility of the plan suggested by me as a practicable measure in the public interest.

As to the time when preparation should be made for the proposed experiment, I suggest that the preparation be made before the flow appears on the surface, as it will take time to explore the region where the flow comes out of the ground and to get the material on the ground with which to operate and to find a spot appropriate for demonstration.

There are steamers going to both Hilo and Kona several times a week, but no time should be lost in getting men and material with which to put the experiment in operation, on the ground.

Under the foregoing circumstances, I respectfully ask that action on your part may be as prompt as reasonably practical in order that men and material may be available as soon as possible.

I remain,

Yours very truly,

LORRIN A. THURSTON,

President Hawaiian Volcano Research Association.

—*The Honolulu Advertiser,* September 27, 1929.

Jaggar Writes of the Bombing of Mauna Loa

As was anticipated, the operations carried out during the last week of December, 1935, by the bombing of certain selected localities upon the

mountain-flank, thus venting the heavily gas-charged lava flowing within roofed tunnels, hastened the conclusion of the Mauna Loa eruption. While the actual bombing took place on December 27 with immediately recognizable results in the form of gushing of aa lava from the channel in the lower flow December 30 to January 2—the forward movement entirely ceased upon the latter date. The most marked features of the period subsequent to the bombing—in addition to the gushing referred to—comprised lateral overflow to northward of the main stream at an elevation of 5,750 feet: and sudden spillings from the medial channel at the front itself. These ranged in width from 50 to 200 feet—and pushed forward at speeds varying between 75 and 1400 feet per hour. The last forward movement ceased during the early morning of January 2 at Long. 155° 21′ west: Lat. 19° 42′ north, at a point 600 feet inside the Forest Reservation Fence. At this spot, a finger of pahoehoe, 50 feet wide, pushed slowly forward and then ceased to move. The great Mauna Loa lava flow had definitely ended.

Long Mountain Is Checkmated; Activity Stops

It cannot be claimed, however, that the eruption has come to a close. During the entire month there has been continued emission of smoke and fume at the rift cone northeast of the summit crater at the 12,000 foot level. As long as this continues there is, undoubtedly, moving lava within deep cracks and the mountain is still in actual eruption. * * *

A brief account of the actual bombing operation —an event that has aroused widespread interest in many parts of the world, will be of interest here.

As was stated in the December issue of the Volcano Letter, there was nothing in the earlier phases of the flowing of Mauna Loa lavas to cause apprehension of damage other than to certain sections of pasture lands belonging to ranches situated at relatively high altitudes. Much of the elevated terrain at the junction of the slopes of Mauna Loa and Mauna Kea consists of lava covered land, rocky and sterile, intermingled with grassy pasture areas, not of particularly great agricultural value. As long as the flows were confined—in the main—to this area, they would spread slowly across it and would be harmless. This condition was maintained until the solstice on December 21 when a sudden change took place with the commencement of the draining of a large lake which had accumulated in the saddle between the two mountains.

Pahoehoe Runs Eastward; Hilo City in Danger

Upon the following day, the pahoehoe lava passed Puu Huluhulu and flowed eastward for more than a mile with a front 200 feet wide, tending to change to aa. The front of this flow almost immediately commenced to pour into a pronounced valley leading directly towards Hilo on the sea coast—and it was speedily apparent that a serious crisis might be developing.

It is of value at this point to recall the three distinct centers of activity: (1) the smoking rift crack at elevation 11,500 feet, beneath which the internal lava was boiling in a pit; (2) the source vent on the north flank of the mountain (some 6 miles north of the upper rift crack) from which the Humuula flow was being fed, and (3) the new activity caused by the draining of the Huluhulu lake. This pre-

Clinkery Paste Carries Great Boulders Down

sented an onward moving mass of clinkery paste carrying huge bowlders upon its surface—consistently fed by glowing torrents that tended to crust over and form roofs—thus creating tunnels from the source downwards and forming a pipe leading down the side of the mountain. Through this tunnel, the slaggy melt was moving—impelled both by gravity and by hot gases expanding within it. Even though there might be breaks, or windows in the roofs of such tunnel systems—these would merely act as flues through which oxygen would be sucked—to unite with the gases and maintain the temperature of the flowing mass. It was through such a tunnel as this that the main stream was now advancing at the rate of more than a mile a day travelling upon a down grade of 157 feet to the mile.

It was abundantly obvious that a continuance of this flow would constitute a danger, not only to the sources of Hilo's water supply—but also the city itself. Even discounting the probability of an acceleration of the rate of travel as the flow reached a steeper grade to the eastward, the front would be in the Kaumana road of Hilo by January 9th, and would have an almost unobstructed path down towards the city upon the seashore. When it is remembered that the flow was spreading out upon flat places to a breadth of 2000 feet it will be seen that the situation had become serious and presented a marked change from the conditions prevailing prior to December 21. It must be remembered also that there were other indications of danger other than those more apparent upon the surface.

The structure of the mountain itself beneath the upper layer of surface rock, particularly under the lower levels, is honeycombed with tunnels and tubes of earlier lava flows. That the lava was making its way under the ground through such passages, was evident from the cannon-like detonations that were constantly occurring—hundreds of feet in advance of the main flow. These were due to the penetration of live lava into such tunnels, igniting mixtures of gas and air and shattering the old rock surface.

Gas Explosions Precede Flow, Break Surface

Under such conditions therefore, it had become imperative to take action, and the volcanologist sought assistance from the United States Army with a view to bombing the source at the 8500 foot level, and by thus breaking up the stability of the flow tunnels to spread and divert the flowing throughout this region.

On December 23, the matter was taken up through Major Hugh Gilchrist, Commander of the Kilauea Military Camp—and an urgent appeal was forwarded by airplane to Colonel Daniel Van Voorhis, Department Chief of Staff at Fort Shafter in Honolulu. The response was immediate. Upon the same day, an army amphibian, carrying a pilot, an engineering officer and a bombing officer was dispatched from headquarters under orders to fly over the area and to report upon return to Colonel Delos C. Emmons, Department Air Officer, upon December 24. Colonel Emmons accompanied by Lieut. Col. Virgil L. Peterson, Commander of the 3rd Engineers flew over the lava flows—and the U.S.A.T. Royal T. Frank was or-

Army Responds to Appeal for Help in Crisis

dered to proceed immediately to Hilo with a supply of 600 lb. TNT high-explosive bombs. It had been decided that the occasion was of considerable urgency and that all possible cooperation should be accorded by the Army. Several reconnaissance flights were made upon this day—accompanied by the volcanologist—the course of the various flows was carefully mapped and a large number of vertical photographs taken in order that the targets might be indicated in the precise localities where bombing would be likely to be of the greatest value. The general situation at this time was that the main easterly flow was twenty miles in length with its front within five miles of the Hilo water supply—and only fifteen miles from the city itself. If it followed the natural contour of the ground it would undoubtedly reach Hilo.

Stream Front Now Near Hilo Water Supply

Fourteen army planes arrived from Honolulu during the day and all arrangements were made for the operation, twenty officers and twenty-seven enlisted men being detailed to carry out the details involved. The ships were ten bombardment aircraft, two amphibians and two observation planes. Officer personnel comprised Lt. Col. Asa N. Duncan, Major Lucas V. Beau, Major Roscoe C. Wriston; Captains Clarence P. Kane, Ford J. Lauer, Charles F. Born, Lewis R. Parker, Maurice C. Bisson, Joseph J. Ladd, Walter A. Fenander; 1st Lieuts. Byram A. Bunch, William G. Beard, Christian H. Clarke; 2nd Lieuts. David N. Crickette, Travis N. Hetherington, John G. Armstrong, Dale E. Altman, William C. Capp, Nathan H. Coddington and Charles E. Fisher. To these gen-

tlemen fell the honor of being participants in the first experiment of its kind in the history of science.

It was decided by Col. Emmons that, owing to their dangerous cargo, the planes would not fly over Hilo, but would head out to sea until the proper altitude had been reached—and then circle in towards the mountain, passing over the sparsely populated Puna section on their way to the saddle land. Arrived over their targets and from a position at least three thousand feet above them—the bombs would be dropped. Arrangements were made for the posting of guards to divert traffic and spectators were warned to keep away from the vicinity. All was now in readiness and, favored by magnificently clear weather, the planes took off early on the morning of December 27. Taking off from the Hilo airport at intervals of ten minutes, seven Keystone bombers were employed, each carrying a pair of 600 lb. TNT bombs and two 300 lb. sighting bombs. The volcanologist, from his chosen post of observation upon Puu Oo Hill, had an uninterrupted view of the entire operation which was spectacular and impressive. Amid the thunder of shattering explosions, masses of rock and sheets of glowing lava were hurled in all directions, many of the great bombs, dropped from planes travelling at high speed, plunging directly into open channels through which molten lava was flowing, while others crashed upon the roofs of tunnels, blowing them open and releasing the melt imprisoned within, causing it to gush upwards and commence spreading immediately.

Gushes of Lava Follow Bombs; Melt Released

From the airport, at which interested crowds

had gathered, the roar of the explosions could not be heard, but gigantic columns of black smoke, rising one after the other, were clearly seen, the great plumes drifting steadily off upon the prevailing trade-wind. The undertaking was continued until six tons of bombs had been dropped—and was entirely successful, the violent release of gas, of lava, and of hydrostatic pressure at the source, robbing the lower flow of its substance and heat. During the following night, there was greatly increased glare as seen from Hilo—this being occasioned by the draining of the tunnels and overflowing of clogged canals.

Plan Succeeds; Explosions Rob Flow of Power

On December 28, fresh incandescent streaming was observed about the vent and channel. Thirty-three hours after the conclusion of the bombing, the front of the flow, fifteen miles away down the lava stream in Puu Oo ranch, stopped moving entirely for a half-day. At the lower front there was only side and frontal spilling of viscous channel lava and the total forward motion was approximately 1000 feet, dwindling to 500 feet on December 29. In the pooled pahoehoe lava of the divide at Humuula—fresh puddles of glistening slag were observed welling up through cracks. During the next two days there was slight gushing of aa lava from the channel in the lower flow, but by early morning of January 2 all motion at the front had definitely come to an end and the former crisis had ceased to exist.

Motion Ended at the Front in Five Days

Thus, terminated the first experiment of its kind in attempting to curb one of the most destructive forces of nature—and thus also was afforded a

happy exemplification of the results that may be obtained by the cooperation of one branch of science with another. It is entirely permissible through the medium of this publication, publicly to acknowledge the high appreciation of the extremely courteous and valuable help rendered by the Army Air Service upon this occasion and to express profound admiration of the almost miraculous accuracy with which the task was performed. That it has aroused world-wide interest is gratifying, for it is obvious that further research along similar lines may prove of incalculable value to those who live in active volcano lands and are at all times under the shadow of possible menace.—*The Volcano Letter,* Hawaii National Park and Hawaiian Volcano Observatory, January, 1936.

More Research May Prove of Greatest Value

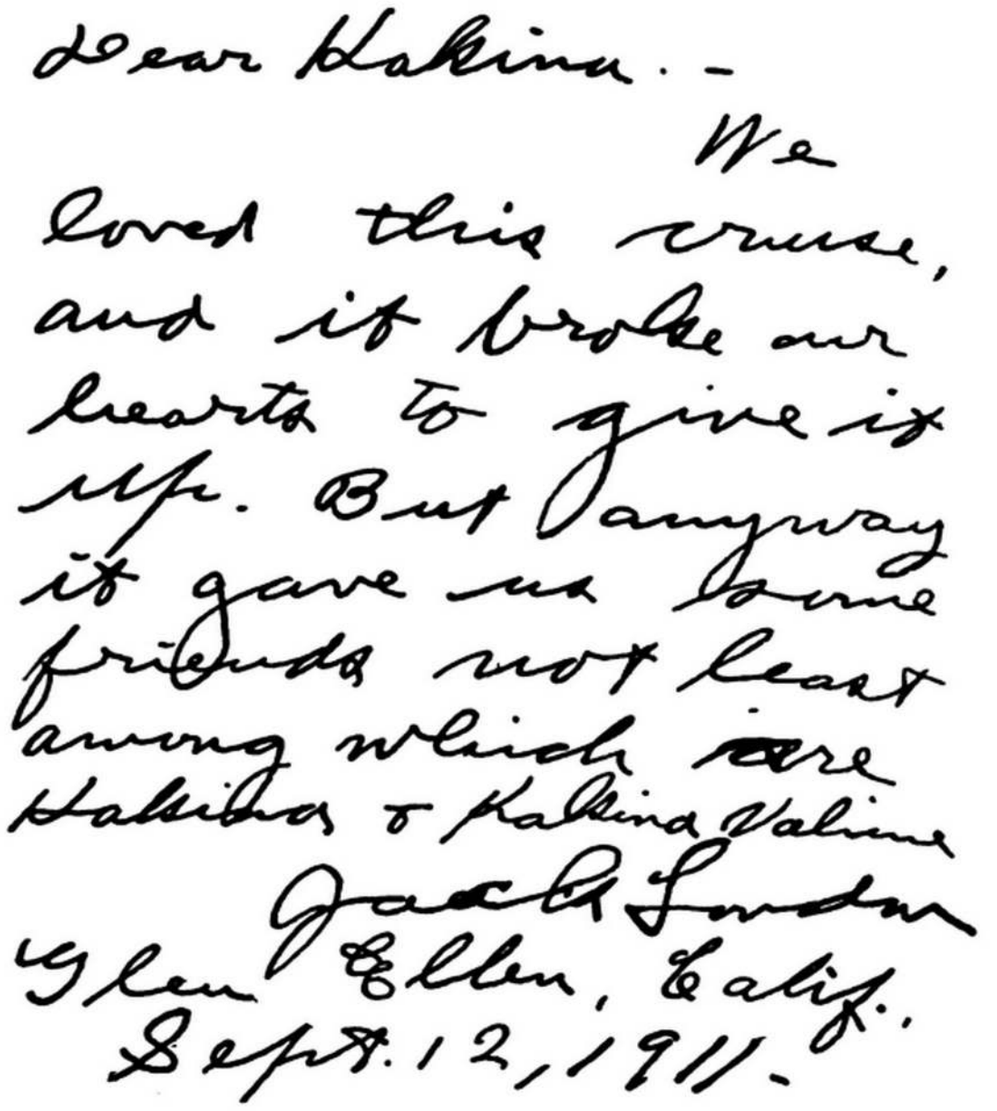
CHAPTER V

THURSTON'S ACQUAINTANCE WITH LONDON

Of course I knew of Jack London through his writings. When he came to Honolulu on his yacht *Snark* on May 20, 1907, intending to sail around the world, Thomas W. Hobron, a local yachtsman, tendered him the use of the Hobron cottage at Pearl Harbor. London accepted, while the *Snark* was left at Honolulu for repairs to her auxiliary engine. I called on London, and invited him and his wife Charmian to visit my family in Honolulu. The Londons accepted the invitation, and spent several weeks with us, both in town and at our cottage on Tantalus.

Thousand Words Is London Task in the Morning

London told me that his daily "stunt" was to write a thousand words, after which he had "the rest of the time in which to play." He had a most amazing power of concentration. For example, after breakfast at Tantalus, he would get a small wire basket, in which he had numerous small writing pads covered with scribbled notes. These he would arrange in a circle before him on the dining room table, and compile them and write them up in longhand. The rest of us would be laughing and talking in the room, but London was absolutely oblivious of everybody and everything except his notes and writing. He studiously and laboriously concentrated on his work until eleven or twelve o'clock, when he suddenly would throw down his


Dear Hakina.—
We
loved this cruise,
and it broke our
hearts to give it
up. But anyway
it gave us some
friends not least
among which are
Hakiha & Hakina Valime
Jack London
Glen Ellen, Calif.
Sept. 12, 1911.

An inscription: from Jack London to Lorrin A. Thurston, in a copy of "The Cruise of the Snark"

Stint Is Done; Author Refuses to Write More

pencil, and say, with a sigh: "Well, my job's done for today!" After he had written a thousand words, nothing could induce him to write another word until the morrow.

Once I said to him: "Jack, I should think you would run out of subjects for stories." "Run out of

His Head Holds Themes Enough for a Century

subjects!" he exclaimed. "Why, Thurston, I have so many subjects in the back of my head that, if I continued writing a thousand words a day for the next hundred years, I couldn't begin to cover them all." He explained his method of assembling material. In his home, at Glen Ellen, California, he had a writing room, in which he had strung a number of cords, each cord having a label for a certain story. He kept a number of small writing pads on his desk. Whenever an incident occurred to him, either by day or night, which he thought would work into one of the stories, he would scribble it down immediately on a pad and hang the pad on the line devoted to that particular story, fixing it there with a clothes pin. When the time came to write the fiction, he gathered all the notes pertaining to it, put them into his wire basket, and sorted and fitted them together. Thus he always had an accumulation of incidents for each tale—many of them, he said, thought of while abed at night.

"Call of Wild" Is Introduction to von Tempsky

Jack having expressed a desire to see Haleakala, I wrote to my friend Louis von Tempsky, manager of the Haleakala Ranch, on Maui, telling him of Jack's desire and asking whether I might take Jack to the ranch. von Tempsky immediately answered that "any man who could write *The Call of the Wild* was welcome to the ranch and everything that it afforded," and invited me to come with Mrs. Thurston and bring Jack and Mrs. London. The next week we started for Maui on the steamer *Claudine,* a small inter-island vessel. [Mr. Thurston knew her of old: she took him and the other

annexation commissioners to San Francisco immediately after the overthrow in 1893.—*Editor.*] We were bound for the port of Kahului, but the trip was so desperately rough and I was so seasick—the last time, by the way, that I have been so afflicted—when we reached Lahaina, that I went to Jack's room and suggested that we quit the vessel and spend the remainder of the night there, going to Wailuku, some twenty-five miles distant, by carriage in the morning.

Jack immediately agreed; and we landed at Lahaina, going to the hotel about eleven o'clock at night. About six o'clock next morning, I went to Jack's room, but found Jack gone. Upon asking Mrs. London what had become of him, I received this reply: "I don't know. The mosquitoes were so bad during the night that he got up and went away somewhere." I went exploring, and found Jack lying on the floor of the upstairs front veranda, without any pillow, wrapped in the bedspread, sound asleep.

Mosquitoes of Lahaina Drive Him From Room

After breakfast, I hired a rig and span of horses to drive to Wailuku, where we were to meet the von Tempskys. The morning was fresh and beautiful, and everything went well until we reached Waikapu, the southern section of the Wailuku Plantation. There we met a plantation wagon with two men seated on the front dashboard, and a load of furniture piled some twelve feet high on the wagon—the uppermost article being a mosquito net, the flap of which was waving in the wind. As we met the apparition, the two horses of our rig

Horses Plunge Into a Ditch; Passengers Out

gave a snort of terror, and plunged into a dry ditch at the side of the road, capsizing the vehicle, rolling Mrs. London and Mrs. Thurston, who were in the back seat, into a conglomerate mess, and throwing Jack upon his head into the dirt. The two horses jerked loose from the traces; and I, clinging to the reins, was dragged headfirst over the dashboard, landing upon my stomach with the two horses facing me, their ears projecting in wonder. We slowly gathered together the scattered remains, rescued the two ladies, and discovered that nobody had been killed. The crew of the plantation wagon were paralyzed. But they recovered themselves and helped us; we speedily had the horses hitched again, and were on our way once more, with no damage done except a slight tear in the back curtain of the carriage.

Who Must Pay? Thurston Asks the Liveryman

The aftermath: a week or so later, I received from the Lahaina Stable a bill for $10 for damage done the rig. I immediately replied, stating that I had hired a carriage with a span of horses, supposed to be accustomed to the traffic between Lahaina and Wailuku; that, on a plain, open section of the road, the horses had sighted a plantation wagon, an ordinary sight, and forthwith capsized the carriage, dragging me overboard, and endangering the lives of the four occupants. Thereupon I put to the owner of the stable, the problem of whether I owed him $10 or whether he owed me much more for having chartered to me a pair of unfit animals, which had wrecked our nerves and endangered our lives; and I informed him that I

Jack Considers Thurston Note Hit of Genius

awaited his answer before replying further. I showed the correspondence to Jack, who said that he considered my letter a stroke of genius. I never received a reply from the owner of the stable, nor heard another word on the subject.

On arrival at the Haleakala Ranch, we were received enthusiastically by the von Tempskys. Louis had outlined a trip: to camp in the crater, go through the Kaupo Gap, through Hana, and return by the "Ditch Country." In the following week, the party started, consisting of Louis von Tempsky, his two daughters, Armine and Gwen, girls of fourteen to fifteen years of age, the Londons, Mrs. Thurston and I, accompanied by two cowboys. We spent the first night at Ukulele ("flying louse"), a ranch station six miles up the mountain, at an elevation of about 6,500 feet. There, at a little spring near the house, *akala* bushes were in full fruit. The *akala* is a wild raspberry; the berries, when ripe, are about an inch in diameter, almost black, as juicy as can be, and delicious.

Girl Has Good Throw to Ear; London Retorts

Jack immediately began picking and eating berries. One of the von Tempsky girls, who had been serious and demure up to that time, picked an *akala* and threw it, hitting Jack on the ear. Immediately he filled his hands with ripe berries, and began throwing them at the two girls, who responded with alacrity; and before one could say "Jack Robinson," all three were plastered and dripping with squashed berries and *akala* juice. With that introduction, the party had a merry night; and continued, next morning, to the top of the mountain,

around the western rim of the crater, down the 2,500-foot drop over the Sliding Sands slope of the west end, across the seven-mile crater stretch, and into a camp in a beautiful grove of trees at Pali-ku, at the east end of the crater, where we camped for two days.

Sliding Sands, the Great Pit, So Into Camp

I had an adventure with a young bull, which added somewhat to our gayety. Through the grove of trees, a waterway wandered, worn by floods of winter, some ten feet deep and eight feet wide, with steep banks. Along the edges of the watercourse, *akala* bushes hung, full of ripe fruit. I entered the place, wandering along and picking *akalas* as I went; when I turned a sharp bend, I came upon a young bull lying at the bottom of the channel, facing me, and not ten feet away. It is questionable which was more frightened, the bull or I. He jumped to his feet. With a spring that could not be duplicated, I scuttled sidewise up the bank of the runway, like a crab, while the bull tore past me. Examination revealed that the upper end of the runway ended in a perpendicular bank; 200 feet downstream, a tree had fallen across, blocking the exit of the bull, which had slipped into the runway while reaching for *akalas*. Thus he was effectively imprisoned in the stream bed. Removal of the tree released him; otherwise he must have starved to death in his accidental corral.

We rode up a precipitate trail from the crater the next morning, at the eastern end, toward Hana, a section of the mountain rarely visited, where the rim of the pit is about 1,500 feet high. A little grove of trees and an alluvial flat, green with grass

at the foot, lie on the crater side of the rim: and thence, across the crater for two miles, a tangle of rough a-a lava stretches. The wall rises from the pit almost precipitously; on the Hana side, outward, it is equally sharp and high. A valley, a mile or two across, abuts against the outer wall there, and extends seaward in the direction of Hana. We saw that it was filled with the most luxuriant tropical vegetation, which made a spectacular contrast with the barrenness and desolation of Haleakala.

Tropic Growth Contrast With the Desolation

After our camping, we left Haleakala through the Kaupo Gap, and went along the rugged eastern coast to Hana, where we spent the night at a primitive hotel. Hana is most picturesque and beautiful. A hill called Kauiki, adjoining the harbor, is one of the storied spots of Hawaii. Tales cluster about it, of beautiful princesses abducted from the Island of Hawaii and detained for years, defended by desperate fighting men against numerous attacks from their home island. From end to end, the hill had fortifications.—But I lack the space in which to recount the many tales of valor that cling to the vicinity.

On the next day, we rode through the "Ditch Country," the wildest, most rugged, and most precipitous section of the islands. Jack subsequently wrote two of his most fascinating articles, as a consequence of this excursion: one on the summit of the mountain, the other on the "Ditch Country." With one exception, that is the rainiest place in Hawaii. The weather records show an annual average precipitation of well over four hundred

A cavalcade, similar to that of the London-Thurston-von Tempsky excursion, in the pit of Haleakala, the House of the Sun. In the background, cones and the crater wall. Photograph by Hawaii Tourist Bureau

inches. We rode all day through the rain, which descended in floods, until every rill presented a waterfall, many times crossing the trail, so that we had to ride through the falling water. As far up the mountain as the eye could reach, there was a series of white cascades, pouring through the mass of green vegetation. We spent the night at the house of the ditch-tender at Keanae Valley, the outer manifestation of the great Keanae Gap, the northern exit of Haleakala pit, which lies thousands of feet up the mountain side.

Cascades Pour Through Green of Plant Life

Continuing our journey in the morning, we followed a trail that crossed numerous ravines, in which the flood streams covered the entire bottoms of the gulches. More than once, the bridges across the streams consisted of three logs placed parallel and covered with dirt. One bridge, in particular, was of logs some forty feet long—and without rails. The flood, rushing underneath, fell over a precipice approximately 1,000 feet high; and the spray from the falls billowed back over the logs, for the distance from the bridge to the falls was only fifty feet. A veteran Hawaiian cowboy, alighting from his horse, watched the entire party pass over. Then he walked across, leading his mount. One of the party jeered at him for his precaution, whereupon he replied: "That's all right. You folks can ride across that bridge if you want to, but I have a wife and two children at home."

Cowboy Walks Across Bridge: He Has Family

As we went toward Makawao, we approached a section where there was a wire fence on each side of the road, which was covered with a pool of muddy water, about a foot deep and 150 feet or

After You, Sir: Then the Girls Drench Author

more long. The two von Tempsky girls drew back, permitting London to lead the way through the puddle. When he was about midway, the two girls dashed forward, one on each side, at breakneck pace, and splashing muddy water in every direction. Before Jack could realize what was happening, the girls had crossed, leaving him a bedraggled, dripping object, a greatly surprised man. He never forgot the incident, and often mentioned it to me, when I met him years afterward.

Something else of interest in connection with my Haleakala experiences: Armine von Tempski, author of *Hula, Dust, Fire,* and *Lava,* told me some years ago that she had discovered burial places in the crater. Her father, Louis von Tempsky, was manager of the Haleakala Ranch, and his family were as familiar with the crater as with their own back yard. Later I visited the crater with Kenneth P. Emory and Robert T. Aitken, representing the Bishop Museum, and Armine von Tempski and her sister Lorna, to follow up the evidence of human activities in the crater. The museum representatives not only found a number of burial places, but also found hundreds of sling stones, brought from the brooks near the beach and used in warfare in the pit. Slings were among the weapons employed most skillfully by the primitive Hawaiians.

Stones Carried From Beach for Mountain Wars

On the last day of our museum expedition, we were about to be driven from the crater by drought and a consequent lack of drinking water, but a downpour of rain fell on the last night, so heavy that the water, rushing down the sides of the crater, flooded our tents; and in the morning every rill

and hollow on the inner side of the crater for about thirteen miles, the circumference of the pit, was a roaring waterfall. The peak of the eastern end, rising from the floor to approximately 1,500 feet, was a series of waterfalls from top to bottom, the falls feeding a lake several hundred feet in diameter, which had formed on the floor. I rode out of the crater through the eastern gap, or Kaupo, to the boom of waterfalls, all the way down the eastern slope of the mountain to the seashore, where I took a steamer that night. That is the only time I have ever seen waterfalls in Haleakala Crater. It was a grand sight.

Thurston and London Debate in "Advertiser"

[This exchange, between Mr. London and Mr. Thurston, was published in *The Pacific Commercial Advertiser* of May 22, 1910. Other articles, of one sort and another, preceded this, but it is self-explanatory.—*Editor.*]

MR. LORRIN A. THURSTON.

Dear Friend:

I have just finished reading your reply to my letter, published in *The Sunday Advertiser.* And first of all, let me say that I have only kind appreciation for the kindliness of the tone of your letter. On the other hand, I can not but deprecate the logic of your reply.

There were two ways in which you could have replied to me. (1) You could have replied to me and the points I made, or (2) you could have replied holding in mind the effect of what you said on the reading public.

In this latter respect, the newspaper man is incorrigible. So it was in this latter way that you replied—that is to say, you replied neither to me nor to the points I made, but you had your eyes on your reading public all the time you were replying. In this reply of yours, my resentment of *Bystander's* abuse was handled facetiously; while Hawaii's resentment of my short stories was handled seriously. Now, from a standpoint of logic and of fair play, you can not mix oil and water this way. This facetious reply to my resentment was just the trick of debate of which any newspaper man would be expected to be guilty. It is purely a trick of debate, you know, and I think you also know that I scarcely need to point it out to you.

Chance Visitor Elevated, Only to Be Assailed

Now, to some more of your illogic. In my original letter, I said that Hawaii was provincial because of the habit she had of elevating every chance visitor to her shores on a pedestal seemingly for the purpose of casting potsherds at him, of receiving a guest with open arms, and of abusing him roundly as soon as he had departed. In my particular case, I was called a "sneak of the first water," "a thoroughly untrustworthy man," and "an ungrateful and untruthful bounder." Also I was called "a dirty little sneak." I pointed out clearly that it was this behavior on the part of Hawaii that incurred the charge of her being provincial. Nevertheless, by a clever shift on your part in your reply, you gave your readers to understand that I based the charge of provincialism upon the fact that I had been robbed by some several of the citizens of Hawaii. Now, Mr. Thurston, this will do for the

Does Thurston Think Illogic Will Do Here?

reading public, but I leave it to you if you think it will do for me. Mind you, I am only asking you if you think such illogic will do for me.

In my original letter, in reply to the charge of being ungrateful, I pointed out that Hawaii owed me nothing; that Hawaii had subsidized me not one cent, and that if it came to a showdown, when it came to a matter of dollars and cents, Hawaii had got the best of me. This was particularly apt modern business rottenness at the hands of some several of Hawaii's citizens. It certainly was not provincial. My point in making it was that I was not indebted to Hawaii, and therefore could not have incurred the charge of ingratitude. I was not squealing about my experiences in Hawaii; I was merely pointing out that I was not the various vile things that *Bystander* had asserted I was. It strikes me that Hawaii began to squeal first of all, through the mouth of *Bystander,* and turned then to deliberate lying abuse. Nor am I squealing now about this abuse. I am merely trying to point out to Hawaiian newspaper men the way of their feet through the fields of logic.

London Quotes Some Epithets Applied to Him

In another place in your letter, you regret the harshness of *Bystander's* remarks. *Bystander* called me "a dirty little sneak," "a sneak of the first water," "a thoroughly untrustworthy man," and "an ungrateful and untruthful bounder." Now, Mr. Thurston, you do not in your letter say that these epithets of *Bystander's* are untrue. I am driven to conclude that, while you judge them unduly harsh, they are nevertheless true, and that I am a dirty little sneak, bounder, etc. Maybe you were letting

Bystander down easily. If so, you did not let me down easily. Either I am or I am not these various things. I want to know where I stand in your estimation. It's up to you. This, on your part, is merely another favorable trick of debate, namely, the sliding out of a difficult position under the seeming of fair speech while granting or recanting nothing.

One other thing: suppose the Irish should object to the telling of funny Irish stories, and the Jews should object to the telling of funny Jewish stories, and the Dutch, and the Swedes, and the English, and the Scotch, and all the rest of the nationalities; immediately would result a paucity of funny racial stories. By the same token, if Hawaii should hold that her most salient characteristics should not be exploited in fiction, and if Ireland and England and South America, and Africa and Asia, should take a similar stand—well, fiction would go glimmering, that's all. Because, by the same token, every man and woman in every walk of life, trade, or profession, could make a similar objection to having his walk of life, trade, or profession exploited in fiction.

Fiction Would Go Glimmering in That Event

I think Hawaii is too touchy on matters of truth; and while she complacently in her newspapers exploits the weaknesses and afflictions of other lands, gets unduly excited when her own are exploited. Furthermore, the several purely fictional stories on leprosy written by me have not shaken the world at all, Hawaii's fevered imagination to the contrary. My several stories have not stopped one person from going to Hawaii, nor one dollar from being

Father Damien Letter Is Far More Powerful

invested in Hawaii. Believe me, Stevenson's Father Damien letter has had more effect in a minute, and will go on having more effect in a minute, than all the stories I have written or shall ever write.

And, finally, while I can sympathize with the excessive irritability and excitability of Hawaii on the matter of its leprosy, I do object to Hawaii's unfairness in slinging billingsgate. Argument is argument, but abuse is ever dastardly. And whenever you get your opponent abusing you, believe me, it is a sign you've got him going. I love Hawaii, I'm not afraid of Hawaii, its citizens, or its afflictions. But I should like to see the newspaper end of Hawaii buck up a bit, cease its provincialism, and strive to be at least as logical as the newspapers on the mainland.

Sincerely yours,

JACK LONDON.

Glen Ellen, California.

P. S.—Dear Kakina: Really, you've laid yourself open to the above, because your reply was hopelessly illogical, and you brazenly shifted the bases of the points of argument. But, anyway, if I get twenty-five cents a word, think of all the words *The Advertiser* is getting for nothing. And by the way, don't fail to mail me a copy of *The Advertiser* in which the foregoing is printed. I was indebted to a chance letter from a person in Honolulu for a copy of your reply. None was mailed me by your office.

J. L.

My Dear Mr. London:

Thurston Reply to Mr. London Is Begun Here

I hereby acknowledge the receipt of your letter, further discussing the subject of whether or not Hawaiian newspapers and newspaper men are "provincial," as illustrated by an anonymous writer in the Honolulu *Advertiser* having called you a "sneak," and attributed to you a fairly comprehensive list of other "undesirable" qualities.

In the first place, I apologize for not having earlier printed your letter and reply thereto, as requested by you. The seeming neglect arose from the letter having been received just as I was taking a steamer away from Honolulu. It was held for reply upon my return, but was mislaid, and has only just come to light from among some papers which had been put away. Its aroma is undiminished by time, however.

I note that you call upon me to say, in open meeting, whether I think you fit *The Bystander's* description, and that you carry the war into Africa by characterizing me as an "incorrigible newspaper man," guilty of a "trick of debate," with keeping my "eyes on the reading public," devoid of "logic and fair play," "illogical," "sliding out of a difficult position under the seeming of fair speech while granting or recanting nothing," "hopelessly illogical," "brazenly shifting base," etc., etc.

It would appear that if "when you get your opponent abusing you, it is a sign you've 'got him going,' " there are others on the move besides *The Bystander.*

Jack and Charmian London, photographed in Hawaii, probably about the time of their first arrival in the islands aboard their yacht "Snark," in May, 1907. They visited the islands at different times afterward

Your expressed opinion of me does not worry me, for the reason that I know that it is not founded on fact, and further that I do not believe that you believe it yourself. I think that I rather "got under your skin," in my reply to you, and that with somewhat of a smart to your conscience, you have assumed the "offensive defensive," rather than admit that your treatment of Hawaii has been ungenerous.

My personal opinion of you was in no way involved in the hitherto published articles, and I doubt whether the public is interested therein; but as you ask for it, I give it to you. I do not think that you are a sneak nor that you possess the other undesirable qualities attributed to you by *The Bystander*. That is probably because, through a closer personal acquaintance, I got beneath the rough exterior of your mannerisms, and had some opportunity to become acquainted with your kindlier and more genial side than has been exhibited to *The Bystander* and the world at large.

Rough Exterior Hides Writer's Kindlier Phase

The gist of this whole matter is not whether you are a sneak or I a trickster; whether Honolulu and the rest of the world is a nest of "robbers," illegitimately seeking your coin, or whether Hawaiian journalists are of the backwoods type. It harks right back to the original theme which aroused *The Bystander,* viz.:

You came to Hawaii and absorbed local color enough to give realism to your tales. You then began a series of gruesome stories in which leprosy was the theme and Hawaii the setting. None of them were true. They were pure fiction; but like

the historical novel, worked in so much fact with the fiction, that they give the impression to the uninitiated that they are more fact than fiction, the net result of which is to create an untrue impression, injurious to Hawaii, that this is an unsafe and undesirable place to live in.

You attempt to justify your action by claiming that Hawaii should not object to "her most salient characteristics being exploited in fiction," and comparing our objection to being played up as the "leper islands," to a possible objection of the Irish, the Jew and the Dutch to the telling of "funny stories" about them. You also say that you "love Hawaii."

If I really thought that you were so mentally deficient as to be unable to distinguish between a "funny story" and a series of publications harping upon the fact that some of your "loved" neighbors are afflicted with a loathsome disease, I should no more think of appealing to you to stop it, than I would try to stop a sewer from discharging its contents.

Disease Is Not Characteristic of the Islands

In the first place, leprosy is not a "salient characteristic" of Hawaii. It is not indigenous. It was imported from China, and the very first case ever seen in Hawaii was during the lifetime of men now in the prime of life. It is being intelligently handled, and is in process of being stamped out. It is a temporary affliction, and no more a "salient characteristic" of Hawaii than is bubonic plague a "salient characteristic" of San Francisco, because that disease, also imported from China, fastened

its fangs on that city for several years, requiring the strenuous efforts of the Federal, State and City governments and the expenditure of a fabulous sum to stamp it out.

Does He Think Leprosy Tales Are Innocent?

You suggest that Hawaii has a "feverish imagination," and is getting "unduly excited," at your leprosy stories, which you think are as innocent as an Irish dialect funny story.

I can imagine some forms of disease being compared with funny stories—for example, the man with a boil on his nose who delayed proposing until it was healed, with the result that a rival stepped in and married the girl before he recovered, excited more mirth than sympathy when he published his woe; but what would you think if one of your friends, one whom you had entertained; one whose goodness of heart you had believed in; one who signed himself "comrade," and who publicly devoted himself to the cause of humanity, should publish on the front page of the *San Francisco Chronicle,* with scare headlines, that Jack London had the leprosy, or something less startling—say simply a little joke, such as that he had a malignant cancer of a contagious type, would you see the "funny" point?

More Monthly Articles State the Allegation

Suppose that your "feverish imagination" failed to rise to the occasion, and that you remonstrated with the one who "loved" you, and he should come back at you by publishing four more articles, one each month, reasserting the first allegation and playing up with disgusting details that your nearest and dearest relatives also were afflicted with the

disease; and should then point out that it was only fiction, after all; that the public must not be deprived of its Dutch, Irish and leprosy stories, and that really so many of you had become inoculated with germs that leprosy had become a "salient characteristic" of the London family, and therefore fair game for news write-ups. Just imagine such a case. Would it strike your funny bone, or would it choke you with resentment? When you have decided what you would do, you will understand Hawaii's viewpoint.

Take Situation Home to Self, Thurston Asks

Yours very truly,

LORRIN A. THURSTON.

Honolulu, Territory of Hawaii.

P. S.—My Dear Lakana: "Really, you've laid yourself open to the above," because in endeavoring to score a point on me to cover up your own offense, you have ignored the main issue, which is that it is ungenerous to exploit the troubles and afflictions of your friends, unless for the purpose of helping them, especially when you know that it hurts.

Believing that under your rough words, and, in spite of your apparently wanton pen, you have a generous heart and a kindly feeling for Hawaii and her people, and that your publications have been made through thoughtlessness and not malice, I ask that you hereafter specialize upon some of the bright and beautiful "salient characteristics" of Hawaii, of which I am sure you saw and remember many.

L. A. T.

CHAPTER VI

On the Outlying Islands of Hawaii

[Here are articles by Mr. Thurston, or excerpts from his articles, on the outlying islands, frequently atolls, in the vicinity of the high Hawaiian archipelago.—*Editor.*]

Breakers Toss; Sharks Appear in the Pacific

After the fishing sampan *Palmyra* had sailed for five and one-half days straight away south from Waikiki beach early last May, without sighting a single fish, or anything else but soaring sea birds, in the 900 odd miles of deep, blue water of the Pacific, a great patch of white breakers, tossing their foaming heads high in the air, appeared on the horizon, and a few moments later the deep blue of the ocean turned first to a peacock blue, then to a dark and finally to a pale green, while a ragged growth of coral became visible on the bottom.

Suddenly a transformation occurred. To say that a school of fish surrounded the sampan gives no adequate comprehension of the scene. A faint idea of it may be conveyed by the statement that the ocean seemed to be alive with writhing and undulating forms, reaching from the very gunwale of the boat as far as the eye could distinguish. It did not take more than a glance to segregate the nearby forms into individual sharks. I stood on the heaving stern of the sampan as she soused up and down on the great seas, and counted fifteen

green-gray monsters, ranging from eight to fifteen feet in length, within a radius not to exceed fifty feet, following close behind, or like outriders on each side of the sampan. That number does not include the small fry, which were weaving in and out, here, there, and everywhere, too rapidly to be counted.

We had arrived at that no man's land, Kingman's Reef, one of the few practically unknown spots on the earth's surface—unknown because it consists of a great expanse of uncharted and dangerous reefs, which come just to or under the surface of the ocean, so that mariners know it only as a place to stay away from; a spot which, so far as available records show, had not been visited by man since 1896, and yet that swarm of sharks seemed to know instinctively that the sampan was a tentative source of food. We tried them out by throwing overboard some papers and *debris* from around the deck, winding up with an empty packing box. Each and every item instantly disappeared down a yawning maw. Overhead were Padgett and Dranga, each at a masthead, watching out for uncharted coral heads. When the boat rolled, they swung outboard for ten feet or so beyond the side of the vessel. As they looked straight down into the writhing mass of sharks, they afterward admitted, the mastheads were indented by their finger nails while they clung, with visions of themselves serving as shark bait if they lost their holds.

Lookouts Aloft Dent Mastheads in Death Grips

Meanwhile the time for action aboard the sampan had arrived. The shoal water along the outer edge of the South Pacific coral-encircled atolls af-

fords trolling ground for big game fish in such numbers as are probably found nowhere else in the world. Trolling hooks and lines had been prepared, and were quickly thrown overboard, each with a slack line about 100 feet long. The bait on each hook was a bunch of green-black rooster tail feathers, tied firmly around the shank of the hook, concealing it from view. No sooner were the hooks overboard than strikes began in rapid succession, sometimes two fish being hooked at the same time.

Roosters' Tails Serve as Bait for Game Fish

There is no "sporting blood" on a sampan. The main object in life of the fishers is to get fish—the maximum of quantity in the minimum of time. No impulse to give the fish a sporting chance for life enters the soul of a sampan fisherman. The instant a strike is made, a fisherman grabs the line barehanded, with the exception of a glove-like tip on the forefinger, over which the line is allowed to play, and snubs the fish in a succession of jerks. As the sampan is traveling at the rate of nine knots an hour, this procedure speedily forces water down the throat and takes the fight out of the fish. The sampan is then slowed down, and two men on the line yank the fish in as fast as they can pull. When he gets alongside, a great steel gaff on the end of a six-foot pole is driven into his gills, and he is almost instantly hoisted aboard. During the next thirty minutes, I passed through one of the most intense experiences of my life. Great *ahi* (yellowfin tuna), *ulua, ono,* "Hawaiian salmon," and other game fish of the tropics were hauled aboard in quick succession. None of them were under two feet in length or weighed less than twenty-five

Fight Is Over: Gaff Is Driven Into the Gills

pounds, while numbers were from four to six feet long, and weighed up to and over 100 pounds each, with now and then one so big that it even drew exclamations from the normally stolid fisherman.

Tuna So Swift That He Looks Like a Shadow

The third fish hooked was a yellow-fin tuna. The hook was only 100 feet astern and just under the surface of the water, so that the action of the fish was plainly visible. He came up from behind like a streak, inspected the bait, and then shied off some twenty feet to the right, evidently to think it over; concluding that the strange-looking fish was all right, he made a dash at it with a motion so swift that he looked like a mere fleeting shadow. The instant the hook took hold, he sprang straight up, clearing the water some six or eight feet, where, for an instant, he was silhouetted full length against the sky. Had he been attached to an eight-ounce line with a sport fisherman at the other end, off Waikiki or Catalina, he would have been good for a two-hour battle, been turned into a stuffed trophy, and been the subject of numerous tales recounted to successive circles of admiring friends. As it was, however, he became a mere item in a shark's bill of fare.

Straight Ahead and Right Side Up, This Fellow

The prosaic snubbers on the deck of the sampan, giving no attention to the magnificent opportunity for a battle royal, dragged the tuna remorselessly to the gunwale. Just as the gaff was about to be thrust into his gills, a giant shark rushed from the depths straight at the tuna. Talk about "turning on his side" or back before he could bite!—they do not raise that kind of shark at Kingman's. Right side up and straight ahead, without a moment's

Big Yellow-fin Is Snapped Off Abaft the Head

hesitation, the shark came on, and at one gulp snapped off the entire body of that tuna, cutting it off just back of the gills, as cleanly as though amputed by a cleaver, leaving the head, fifteen inches in diameter, as the sole evidence that a 100-odd-pound fish had hung there an instant before. This occurred so close to the side of the boat that I could have reached down and touched the shark on the nose with my hands.—*The Honolulu Advertiser,* August 4, 1922.

This experience is nothing unusual. In fact, the greatest obstacle to commercial fishing about the equatorial atolls is the multitude of sharks, which seize either the bait or the fish after it is hooked. As soon as a fish, big or little, is hooked, there is a race between the fisherman and the sharks as to whether it lands on the boat or in a shark's maw.

After some thirty minutes of the intense trolling type of fishing, described in the last article of the series, we dropped anchor in about thirty feet of water, and proceeded to fish for red snappers, bright red fish with great, lustrous, golden-brown eyes, up to two and a half feet in length, and weighing up to twenty-five pounds. They were so numerous that, with eight men dropping hooks and lines overboard, baited with hunks of raw fish, the bait never had time to reach the bottom before it was grabbed. To visualize what fishing for red snapper at Kingman's means, for the benefit of the sportsmen who struggle around the rock-bound shores of Oahu fishing all day in the hot sun and come home at night with a vicious sunburn and two or three little wigglers, feeling well rewarded,

I shall say that the *Palmyra* crew landed over a ton of fish in a little over two hours.

It must not be thought that this ton of fish was secured without interference by the sharks, for there is an ever continuous fight between shark and fishermen. A good part of the fisherman's time is taken up in jerking his bait away from the sharks that swarm up to the very side of the boat. In spite of this precaution, however, numerous sharks succeed in seizing the bait, which is swallowed at a gulp. As a rule, the line is severed when the shark shuts his mouth, and it is only when the hook catches in the side of the mouth, out of reach of his razor-like teeth, that the shark is hauled up alongside the boat and the hook saved. In defensive warfare against the sharks, one fisherman continuously patrolled around the deck of the sampan with a harpoon, an eight-foot barbed bar of steel an inch in diameter, with which he harpooned every shark that he could reach. Its weight drove the harpoon clear through the body of every shark that it struck. Every shark harpooned was immediately executed, and turned adrift.

Men of Sampan Execute Sharks Cold-bloodedly

The method of executing is unique, ingenious, cold-bloodedly methodical, and effective. As soon as a shark is harpooned, either direct or after being hooked, he is dragged close alongside the sampan. With the rail of the sampan as a fulcrum, the long inboard portion of the harpoon is borne to the deck by the weight of a man. This mechanically lifts the short outboard part of the harpoon, on which the shark is spitted, out of the water. He struggles desperately, his powerful tail alternately flailing

the air, dashing against the side of the boat, or churning the water into foam, while his gnashing teeth snap viciously, though vainly. The deft and experienced executioner gives no quarter and takes no chances, however, and wastes no time. He spikes the shark in the nose with a steel ice pick, forces the head firmly down on the rail, mouth down, usually following this up by putting his foot on the shark's head and adding the weight of his body to hold the head steady.

The little, cold, unblinking, straw-colored eyes of the shark glare malevolently, but he is helpless, as a second fisherman saws on the back of the great fish's straining neck with a heavy three-cornered cleaver-like knife, until the backbone is reached and severed. The harpoon is then upended; and the shark slips off with a splash, and sinks, writhing, belly up, into the depths. The whole is over in two or three minutes. It was intensely thrilling to me, who had never before seen anything of the kind, and doubly impressive in that the tragedy was enacted so speedily and methodically, and in perfect silence, except for the continuous thrashing of the shark's tail against the side of the sampan. During the two hours that we were fishing for red snapper, no less than twenty-five sharks were thus discouraged from interfering with the work.—*The Honolulu Advertiser,* August 6, 1922.

So the Close: Sea Swallows Writhing Fish

Only about twenty years ago, Laysan was officially described as an island well covered with vegetation, where a number of unique land birds of rare plumage and sweet song, found nowhere else, flourished and multiplied; besides which,

Remote Island: Laysan Tragedy Narrated Here

thousands upon thousands of sea birds, a number of them, also, found nowhere else, made their nests in the branches of the trees and shrubs, and raised their young in the grateful shade, or burrowed at the roots. Today Laysan is a desolate, wind-swept, sandy waste; three of the most attractive land birds have disappeared; and drifting sand storms bury alive thousands of the burrowing birds. Rabbits did it. They ate not only the weeds and grasses, but the shrubs; and finally the very trees were girdled, died, and disappeared.

Rabbits Devour All Vegetation, Making Desert

The expedition [of the U.S.S. *Tanager.—Editor.*], through the bureau of biological survey of the United States Department of Agriculture, has exterminated the rabbits. Gerrit P. Wilder, on behalf of the Hawaiian board of agriculture, has planted seeds and slips galore; and the rehabilitation of Laysan has begun, both by artificial planting and by the springing up, all over the island, of seedlings and shoots from the almost defunct roots of the former shrubs and trees, within the month after the rabbits were put out of commission.

And yet another "horrible example" of destructive rabbit power. Lisianski, the island next west of Laysan, is described in a comparatively recent edition of the *United States Coast Pilot* as a mile long, half a mile wide and covered with bushes. Likewise it was the happy home of sea birds, as far as the eye could reach. The expedition of 1923 found it advanced one state beyond Laysan in barrenness and desolation. Not a rabbit in sight. But bleaching skeletons in all directions, with a total absence of vegetation, save only a little patch of

Bleaching Bones Tell the Story of Other Islet

scrubby grass struggling back into a scraggly existence, tell the tale as plainly as though carved on tablets of stone. Rabbits. The one word describes the work of destruction and a tale of suffering and woe, as fully as a mouthful of eloquence and a printed volume of description.

The humanitarian may shudder at the inhumanity of man in clubbing, shooting, and poisoning the helpless, innocent little animals; but the facts show that, from the humanitarian standpoint alone, the prompt extermination of the rabbits is justifiable, not only from a material standpoint, to save vegetation and both land and sea birds from destruction, but also as an act of mercy to the rabbits themselves, in that, if death is inevitable, a quick exit is preferable to a lingering, long-drawn-out, and excruciating agony. The following is a moving picture of what happened at Lisianski, was in process of happening at Laysan, and inevitably will happen in every island of the Northwest Pacific where rabbits are turned loose.

At first they thrive and multiply, in geometric progression, on a virgin food supply in unlimited quantity. A colony of plump, frisky, furry little beauties delight the eye with their innocent frolic. The islands are small, however, and soon the increasing numbers and the decreasing food supply check the growth and prosperity of the colony; breeding decreases, the succulent vegetation disappears; a frantic scramble for every growing thing, including the gnarled bark of mature trees and shrubs, begins. The buck rabbits, driven desperate by the pangs of hunger, become cannibals,

Buck Rodents, Now Desperate, Are Cannibals

and devour the young rabbits as soon as they are born, beating down the feeble efforts of the mother to protect her babies.

Specters Drag Selves About; Plants Vanish

More and yet more strenuous becomes the quest for food. As seeds in the ground sprout after each succeeding shower, and shoots spring from the dying stumps of once luxuriant vegetation, the gaunt and ragged specters of rabbits drag their moth-eaten frames about, obliterating every green thing as soon as it comes into existence, until there are no more seeds in the ground to sprout, and no more sap to flow in the seared roots, when the final chapter of the tragedy is written—the last newborn, skinny baby rabbits are devoured by the last starving rabbit mother, in the recess where she has weakly crawled to escape her mate, where she then breathes her last. The male, with his greater strength, drags himself about for a few weary days longer, and joins his kin who have gone before. The prolific vegetation, which made the island beautiful and sustained the lives of the beautiful and songful birds and the insects on which they fed, which afforded life and protection to scores of thousands of sea birds, is gone forever; and the last destroyer passes from a miserable existence to a yet more miserable end.

Miserable Life Is Terminated by Worse End

Such was the history of Lisianski. Such was the rapidly closing story on Laysan, and such was the beginning on the principal island of the Pearl and Hermes atoll, where a colony of rabbits had recently been established. The complete extermination of this last colony is not yet assured, owing to the limited time available to the expedition. The

last of three trips made there, during the past two months, left but one known living rabbit on the island. Another trip should be made to the island at an early date, or the work already done may be all in vain. I have written thus extensively, on a harrowing subject, in hope that the lesson may be carried home to all who read, that rabbits, uncontrolled, are more dangerous than a pestilence and more destructive than a tornado. The first rabbits were introduced on Laysan by a white man, and probably have been carried thence to the other islands, with equal innocence, by Japanese fishermen or bird collectors.—*The Honolulu Advertiser,* June 1, 1923.

Thurston and Bill Anderson Revisit a Reef

Several weeks ago, Bill Anderson and I were guests of the United States Navy on a survey expedition to Kingman's Reef, some 950 miles south of Honolulu. Ostensibly Bill and I were along as pilots, we being the only two available persons who had ever visited and entered Kingman's. Each of us had been there but once—I some four years ago, and Bill a year ago last November. The extent of our pilot knowledge was that we had been into and out of the atoll lagoon, and knew the approximate location of the channels. With the entry of the U.S.S. *Whippoorwill* into the lagoon, our pilot knowledge practically ended, and thereafter we were free to hunt sea shells on the reef surrounding the lagoon, which freedom we availed ourselves of liberally.

Bill is William Greig Anderson. He is a grandson of old William Greig, former owner of Fanning Island, where Bill was born and brought up.

Elasmobranchii and Gastropods and Great Eels

He can dive like a South Sea islander, and has no fear of the shark-infested waters of Kingman's—and the sharks are as thick there as blackberries in a blackberry patch in July. Bill was hungry to hunt tritons, the big trumpet-shaped shells, from which the Hawaiians used to cut the tips and use the shells for horns to blow when going into battle. I had a flat-bottomed boat and an outboard motor to drive it, and between the two of us we made a systematic hunt of the reef for tritons.

Kingman's consists of a continuous semicircular coral reef, extending some miles and coming just to the surface of the water in coral heads, with holes and spaces, some twelve to fifteen feet in depth, between. During our hunt for tritons, Bill discovered a growth of delicate pink coral under the overhanging edge of one of the coral heads, which he proceeded to dive for and pick off, piecemeal, handing it to me in the boat. After he had collected about half of the deposit, he came up and said: "There is a big brown eel down in this hole, watching me, and I don't like his looks—he is altogether too interested. I am going to get after him before he takes a bite out of me."

The big eels of the South Pacific are ferocious creatures. They are more dangerous than sharks. A shark is a logy creature, and can be fought off, but an eel, despite its size, is as quick as lightning. It can dash from its rocky lair, seize its prey, and retreat into its rocky fastness with the quickness of thought. Moreover, it is armed with rows of long, sharp teeth, pointing inward; when once they have seized their prey, they lock together with the tenac-

Some of Mr. Thurston's collection of 25,000 land shells, which was given to the Bishop Museum, Honolulu, after his death

ity of a bulldog, and can be freed only by tearing their way out. Bill accordingly baited a big hook with the meat of a Tridacna shell—the big, clam-like shell of the South Pacific, with fluted edges, the meat weighing about a pound or so. He stuck the hook on the end of a six-foot stick, and poked it under the nose of the eel, which immediately seized the meat and stripped it from the hook. We could see the head of the eel projecting from beneath the rock, with its mouth full of Tridacna meat.

Shellfish Meat Used to Stuff Brown Monster

Bill took one look at the eel, and said: "You don't get away from me like that. Give me the hook," he directed a big Swede sailor in the boat. The hook was handed to Bill, with a strong cord attached to it. He took it, dived to the eel's lair, and inserted the point of the hook under the eel's lower jaw. The eel had its mouth so full of Tridacna meat that it could not bite Bill before he got away again. Coming to the surface, Bill yelled: "Put a strain on that line and hang on." The big sailor put his whole 235 pounds on the line, and lay back with his full weight for at least ten minutes, without budging the eel. Bill dived again, took one look, and came to the surface once more, shouting: "Hang on, and you'll tire him out yet."

In a few moments, sure enough, the strain on the eel began to tell, and it slowly yielded, coming forth from its lair by jerks, until an extra jerk brought it to the surface, writhing and thrashing the water into foam. While its head lay on the gunwale of the boat, Bill beat it with a crowbar and stabbed it with his sheath knife until it lay limp. It measured five and a half feet long, was approxi-

Capitulation: Eel Submits; Water Is Foam

mately five inches in diameter, had a great roll of skin hanging down over its eyes, giving it a scowling and ferocious expression; and it weighed some thirty-five or forty pounds.—*The Honolulu Advertiser,* July 25, 1926.

Anderson Has Another Brush With Big Chap

Last week I told how Bill Anderson stuffed a giant eel's mouth with Tridacna meat and then inserted a hook under its jaw. That was while we were hunting the big trumpet shells known as tritons. On another occasion, while hunting tritons, Bill came up from a dive, and said: "There is another one of those big brown eels down there, who is showing too much interest in me, and I am going to make him suffer before he does me—give me that crowbar." The crowbar, which was about five feet long and weighed about twenty pounds, was handed to Bill, who dived with it and slowly approached the eel, whose head projected from the cavern in which he was ensconced. Bill pointed the crowbar at the eel's head and slowly approached.

The effect was like that of a snake charming a bird, for the eel fixed its eyes on the crowbar, apparently fascinated. When the end of the crowbar was about six inches from the nose of the eel, it slowly opened its mouth, apparently thinking that the crowbar was something to eat. When the mouth was extended to a diameter of about four inches, and the end of the crowbar was only about three inches therefrom, Bill suddenly jabbed the crowbar down some eighteen inches of the eel's throat. The next instant, Bill came to the surface and exclaimed: "That eel is no longer interested in me—he has something else to think about—you

Bill Dispenses Crowbar Physic to His Friend

can't see him for the dust—all there is to show that an eel was there is a series of jets of sand spouting up from the bottom, where he struck while getting away from the crowbar." This was the eel's introduction to a man and a crowbar, and its surprise was so great at the crowbar physic that we neither saw nor heard any more of it.—*The Honolulu Advertiser,* August 1, 1926.

Gonies Noble; Fledglings Are Prey of Sharks

One of the features of Pearl and Hermes is an immense number of sea birds known as the "Laysan albatross." One species is brown, and the other pure white, with some brown on the wings. They are noble birds, standing as high as a turkey cock, and utterly unafraid of man. As a rule, they will not get out one's way, unless pushed aside. During my recent trip, the mortality among the young albatross was phenomenal. The young birds were practically fully feathered, but with patches of down still clinging to their heads and necks. They were practicing flying and swimming by the hundreds, but were not yet able to handle themselves completely. Many of them, which got into the water along the beaches in endeavoring to learn to swim, were overwhelmed and drowned by small wind waves falling on the beaches. Every day, scores of them were swept away from shore by the wind, and either driven out to sea to their destruction, or gobbled by deep-sea sharks, which come up from the beneath to gobble the birds at one gulp. This source of food supply is apparently well known to the large deep-sea sharks, which come into the shoal waters of the lagoon to feed upon the young birds.

Dark Fish Are Clear Against White Bottom

At the easterly end of the lagoon, around North Island, there is a white sand flat several miles in diameter, which has a depth of only about eight feet of water. The sand bottom is so white that the dark body of a large shark can be seen against the white background from the deck of a sampan, for a distance of a quarter of a mile or more. One day, when we were returning from North Island on the company's sampan, one of the crew said: "There is a big shark over there." Captain Bill Anderson said: "Let's go after it!" No sooner said than done. The bow of the sampan was turned in the direction of the dark shadow showing beneath the water, and we chugged along after it at about six miles an hour. Captain Bill had a small spear fastened to the end of a pole some eight feet long.

Tying a rope to the end of the pole, he posted himself on the bow of the sampan; on approaching the shark, he threw the spear, like a harpoon, at the shark's head. The spear just missed; and the alarmed shark shot off with a tremendous spurt of speed to a distance of a quarter of a mile or so. The sampan, turning, slowly, but steadily, followed the shark. Coming up to it, Captain Bill again threw his spear, and again missed, and the shark again shot away. This happened twice more; on the next throw, the spear hit the shark in the back of the head. The shark immediately swam under the sampan, and broke the pole off just clear of the spearhead. His fighting blood now up, Bill called for a hook. A large one was handed him, which he bound to the end of the pole; and the sampan

once more started after the shark, which was somewhat groggily swimming away.

A deep-sea shark is a powerful swimmer, but not used to sustained effort; and the shark was so tired that it could not keep out of the way of the sampan. Coming up to it, Captain Bill reached down and inserted the hook in the gills of the shark, the hook then becoming disengaged from the pole, while the hook, attached to a cord, remained in the gills. The shark simply rolled over on its side; with one snap of its jaws, it severed the cord, and once more it was free. I thought this was the end. Not so. Captain Bill's fighting blood was now at boiling point. With several sulphurous ejaculations, Bill demanded another hook. It was furnished, bound to the end of the pole, and the sampan took up the trail of the shark, which was slowly laboring away. Again the hook was inserted in the shark's gills, the pole was withdrawn, and the shark was at the end of the line. The fish sagged back under the sampan, and almost instantly the line was cut off by the propeller of the boat; and the shark was loose.

Capture Snaps Line, and Again It Swims Away

Once more Captain Bill went into action; a hook was lashed to the end of a pole, and the sampan lunged after the shark. As the sampan once more loomed up over the doomed fish, Captain Bill felt his heart go out in pity to the shark that had made such a plucky struggle for life and was being hounded by so relentless an enemy; the fish rolled up such a mournful eye, said Bill afterward, that his heart nearly failed him. "But," said Bill, "he ought to have thought of this before he was a

Harried Beast Rolls Mournful Eye at Enemy

shark"; and again he jabbed the hook into the shark's gills, this time to stay. A noose was slipped over the tail of the fish, and another over its head; it was hoisted clear of the water and strapped head-first to the gunwale of the sampan. By this time, the shark was so exhausted that its lower jaw sagged down, and its mouth, as big around as a barrel, received the oncoming waves as the sampan headed for the *Lanikai,* until it was drowned before we reached the ship.

Its Mouth, as Big as Barrel, Receives Waves

It measured over thirteen feet in length, and weighed approximately a thousand pounds. The liver was tried out in the sun in an iron pot, and yielded approximately thirty gallons of good commercial shark oil, worth seventy-five cents a gallon. Its fins also were cut off, with which to make shark-fin soup, which is esteemed by the Chinese as a stimulant to the energies of aged men. Its hide was removed and salted to be sold to makers of shark-skin leather. The adventure was not, therefore, without commercial profit.—*The Honolulu Advertiser,* August 12, 1928.

Schooner Near Destruction at Northern Reef

The following is a description of a storm, the most vivid and terrific that has ever come to my attention, as detailed to me by Captain William G. Anderson, of the fishing schooner *Lanikai.* It appears to be worthy of recording, a phase of nature that seldom happens and scarce ever has a recording witness. I have visited Pearl and Hermes Reef, the scene of this tale, three times within the past two years, spending two days, ten days, and one month there, so that it is as familiar to me as the back yard of my residence in Honolulu.

Reef Is Named From Whalers Wrecked There

For the better understanding of the story, I give a brief description of the atoll. Pearl and Hermes, so named from two American whale ships wrecked there about a hundred years ago, consists of a shoal, some twenty miles long and twelve miles wide, encircled on three sides, east, west, and south, by a coral reef, which rises from a great depth to the surface of the sea, and is broken only by a few narrow channels. On the fourth, or northerly, side, and partly on the western side of the atoll, the encircling reef disappears, and its place is taken by a series of coral heads, which rise precipitously from a great depth to the surface. The deep sea extends between the coral heads, well into the center of the atoll. The interior of the atoll consists alternately of deep water and reefs, which extend for several miles. On the reefs and coral heads, there is a pearl shell colony, recently discovered by Captain Anderson, which the *Lanikai* and its crew have been developing.

Isles Are Only Five to Eight Feet Above Sea

Five islands lie within the interior lagoon, along the eastern and southern sides, just within the encircling reef, and distant from a hundred to a thousand feet therefrom, the intervening water being from one to five or six feet in depth. Those islands are of sand and sandstone, and rise from five to eight feet above sea level. On the lagoon side of Southeast Island, there is a large area of open water, some forty to fifty feet in depth, connected with the deep sea by a long, narrow channel, which extends inside and parallel to the encircling reef for several miles, where it makes its exit to deep water. The *Lanikai* enters the lagoon through

Craft Anchors in Deep Water of the Lagoon

this channel, and anchors in the deep water on the lagoon side of Southeast Island, at a point some four or five hundred feet from the island. The Lanikai Company has erected a number of buildings on Southeast Island, on the side next the interior lagoon, at an elevation of from five to seven feet and at a distance from the lagoon margin of from one hundred to two hundred and fifty feet.

Captain William G. Anderson

Across the middle of the island, at right angles to its length, is a slough, or channel, averaging some five feet in depth. It normally is closed at each end by sand banks, rising several feet above the sea. The bank at the lagoon end normally is about one hundred and fifty feet long, thirty feet wide, some four feet high. The buildings are situated on an area about seven feet above sea level. The western end of the island, across the slough from the buildings, rises to about eight feet.

Birds Nesting by Thousands; Several Kinds

The islands are occupied by thousands of sea birds, of approximately fifteen different species, ranging from the white love birds, which are about the size of small pigeons, to the albatross, which stands something over two feet in height, and has a wing spread of about six feet, and the man-of-war hawk, the *iwa,* which also has about the same wing spread. The *iwa* probably is the most powerful flier of all sea birds, as it has a flight speed of up to 120 miles an hour, and is able to soar into wind blowing at that speed, without using a wing muscle in its flight. All of those birds nest and raise their young by thousands on the islands: some of them in holes burrowed in the sand, the larger ones nesting and raising their young on the surface, in the open, or under the protection of masses of coral or sandstone and surface *debris.*

In December, 1928, a sudden, heavy blow landed the *Lanikai* on the margin of Southeast Island, from which she was rescued by her crew after being ashore some twenty-three hours, with the loss of her false keel. That experience, however, gave warning of what might be expected in the

Vessel Secured With Two Hooks After Striking

way of weather; accordingly, in September last, the *Lanikai* was secured by two anchors, one of nearly three times the weight ordinarily required by a boat of her size, the chain from each anchor being partially wound around a coral head. The *Lanikai* was facing Southeast Island. From this point, I continue the story as detailed to me by Captain Anderson.

"The *Lanikai* arrived at Pearl and Hermes, on her last voyage from Honolulu, on August 6, and anchored in the lagoon opposite Southeast Island, some four hundred feet from the island. About eight o'clock in the evening of September 1, with a perfectly smooth sea, and succeeding a calm spell that had lasted about two weeks, the wind began rising from the south, blowing then an average strength of about twenty-five miles an hour. The barometer, which normally stands at a height of 30.20 inches, began to fall, and at 9 P. M. stood at 29.90, while the wind continued to rise. At four o'clock the next morning, the wind was blowing about forty-five miles an hour. At 8 A. M. the barometer had fallen to 29.50, and the wind had increased to about fifty miles an hour.

Glass Is Down; Wind Continues to Get Higher

"At that time, I went ashore from the ship in the large sampan, taking several men of our total crew of ten, and saw that everything was made secure on land. A large scow was hauled up on a truck and placed on shore about a hundred feet from the lagoon side, at an elevation of about five feet above sea level. A boat, some fifteen feet long, also was placed on a truck some eighty feet from the lagoon shore line and at an elevation of five feet. Heavy

timbers blocked the wheels of both trucks, under the boat and under the scow. A small wharf extended into the lagoon, some fifty feet or so from the island. To this, a small sampan, with a large outboard motor attached to the stern, was lashed by two heavy lines, and a bow line was carried ashore and attached to a hundred-pound anchor, buried in the sand about thirty feet from the shore. There was a large water tank, 20,000-gallon capacity, standing alongside one of the buildings, which was set three feet into the ground. It held about a foot of water. Opposite the shore end of the wharf, and some twenty feet from the sea margin of the lagoon, there were three fifty-gallon drums of gasoline and two empty drums.

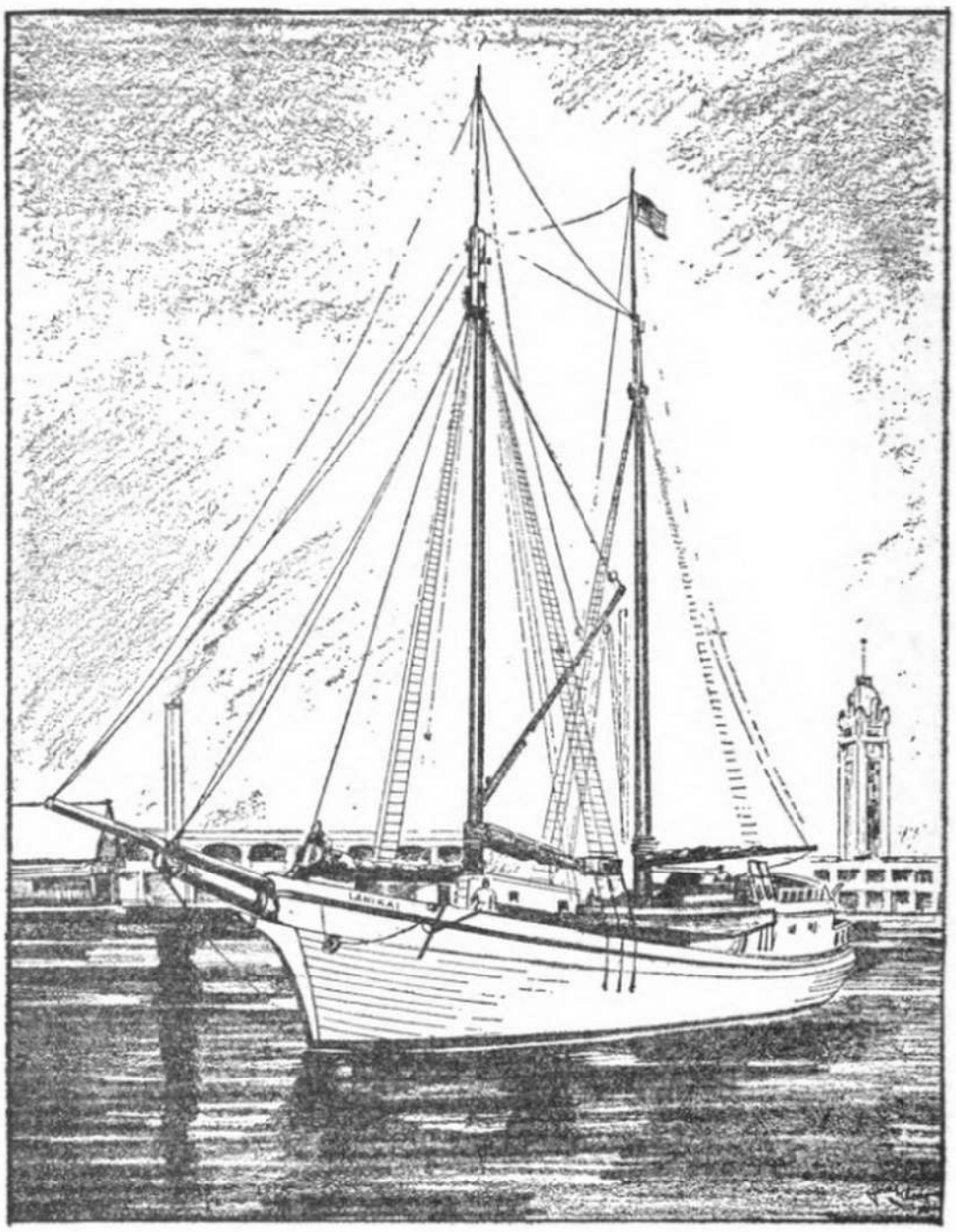
"At 9:25 A. M. September 2, everything appearing to be secure, I returned to the ship on the sampan, running broadside to the storm, making the distance to the ship in about five minutes. The force of the wind suddenly jumped to about seventy-five miles an hour, and the barometer, in the course of something over an hour, dropped to 29.40. Within half an hour after we got on to the ship, the sea began to rush through the slough in great billows, creating a perfect Niagara of a current and coming bodily over the surface of the island, sweeping everything before it, including thousands of young birds, seventy-five per cent of which were washed away and drowned. We had not been on the ship more than half an hour before the drums of gasoline were washed into the lagoon by the sea coming from beyond the island, and were

Heavy Billows Create Niagara in the Slough

scurrying past the ship, driven before the wind and sea toward the interior of the lagoon.

Men Dispatched in Big Sampan for the Drums

"I sent my brother Alec and six men in the large sampan, which has a heavy-duty engine, to secure the drums. They reached and made fast to the first



Schooner "Lanikai"

drum, and then attempted to return to the ship. The strength of the wind was still increasing. The sampan was blown from her course; and it was soon evident that the engine could not make headway against the storm. The sampan crew, therefore, cut loose the gasoline drum, and put the engine full speed ahead for the ship. They were invisible from the *Lanikai,* lost in a smother of spray, the surface of the sea being lifted bodily by the wind. By this time, they had been driven about a mile from the vessel, which it took them about an hour and a half to reach. They had the greatest difficulty in keeping the sampan from capsizing under the sheer force of the wind.

Surface of Sea Lifted Bodily by Great Wind

"At noon on September 2, the barometer had dropped to 29.30, and the wind was blowing approximately one hundred miles an hour. The sea no longer appeared to be coming over the reef in waves, but it seemed as though the whole Pacific Ocean were simply being blown *en masse* over the reef and upon the island, over which it was sweeping in an indistinguishable smother of sand, foam, and *debris.* The outline of the island and the buildings could not be distinguished. There was no demarcation between the sea and the air: there was only a confused mass of substance being driven by terrific force, which obliterated everything.

No Demarcation Exists Between Water and Air

"Just astern of the *Lanikai,* a shallow lay, covered by broken rock, only a few feet under the surface of the water. I feared she might drag her anchors and be driven upon this mass, where she simply would have crushed her bottom in and settled, a hopeless wreck. Accordingly I started

the heavy Diesel engine, and put her full speed ahead, intending to drop a third anchor, which would help hold her against the storm. With the engine running at full speed, she did not advance one inch, while her anchor chains remained rigid. Then I dropped the third anchor where we lay, hoping that it might check her from being swept upon the island, in case the wind should change.

Anchor Chains Remain Rigid Despite Engine

"During all the forenoon, I remained at the bow of the ship, flattened by the wind against the deck house, awaiting the possible snapping of the anchor chains, prepared to do whatever appeared to be necessary, which could be done in case of emergency. In all of my life at sea, which extends over some twenty-five years, I have never seen or even conceived of such a wild and confused mixture of sea, air, and shore. The roar of the waves breaking over the island, and the shriek of the wind through the rigging and across the buildings on shore, created such a din and confusion that it is simply indescribable. No member of the crew was secure from the fury of the storm. Not a swallow of any liquid was taken, or a mouthful of food. All souls on board were simply numbed and beaten by the terrific force of the wind, waves, spray, and raindrops into a state where they were unable to see, think, or do anything, and they simply waited for whatever might come and whatever might happen, while the tortured mixture of ocean, and combination of every other movable substance upon the earth's surface, swept over us.

Numbed Seamen Unable to Act; And Now What?

"This indescribable condition of affairs lasted for interminable hours; when, finally, as night

drew on and the wind subsided, we were able to breathe freely once more, we did not realize how we had come through it alive. As the night drew on, the storm decreased; by the next morning, September 3, the wind had decreased almost to a dead calm, although such currents in the sea had been generated that for days thereafter there was no possible fishing, because the hooks, even though weighted with heavy lead, could not reach bottom.

Anderson Finds Island a Place of Destruction

"I went ashore in the morning and met almost unbelievable conditions. The wharf was gone entirely, except a few pipes, which had been driven into the sandstone. Two of the buildings had been wrecked, and blown bodily some eighty feet. One large building, eighty feet long, had been blown from its foundation and moved eight feet. The 20,000-gallon water tank had been blown bodily out of the ground and tipped over. A fresh layer of sand, approximately two feet in thickness, was spread all over the island. The scow and the boat, which had been on trucks many feet from the lagoon, and the sampan, which had been lashed to the wharf and tied to an anchor buried on shore, with the outboard motor lashed to its stern, had disappeared entirely.

"Dead birds by the thousands were piled up, mixed with *debris,* and massed against the buildings. *Debris* of all kinds was mixed in an entangled mess of albatross and man-of-war hawks, hundreds of which were either dead or lay with broken legs and wings, half buried in sand, rock, and *debris.* The sand bank at the end of the slough had disappeared entirely; and where there had

been land, rising some four or five feet above sea level, there was now water ten feet deep. Members of the crew and I disentangled some of the larger birds and freed them, while we killed those disabled by broken wings and legs. Of the smaller birds, of which there had been thousands the day before, there was scarcely a vestige. The sand and coral rock, washed ashore, had buried many thousands of them in their holes, from which a few, in a demoralized and bedraggled condition, were straggling.

Men All Safe; Some Salvage: Sampan Found

"We took the sampan and went in search through the lagoon for what we might be able to find of the scow, boat, and sampan. We found nothing but the sampan, at a distance of some four miles in the lagoon, toward North Island, with the outboard motor still attached to the stern, bottom up, secured to the sea bottom by some of the cables by which it had been attached to the wharf, which had been precipitated overboard and entangled with the rocks. We righted and bailed her out and secured her, as almost the sole salvage of the wreck from the island. When we came to on the morning of September 3, after the siege of nearly two days, I found that I had lost nine pounds in weight; but the whole crew was safe and sound, while, during the preceding two days, not one of us had dared to hope that we would ever come through the experience alive."—*The Honolulu Advertiser,* October 19, 1930.

Last royal funeral in Hawaii: the body of Prince Kalanianaole lay in state in the throne room of Iolani Palace, where many notable dead have lain, among them being Queen Liliuokalani and Sanford B. Dole

CHAPTER VII

Observations on Various Subjects

Thurston Pays Last Tribute to the Prince

Jonah Kuhio Kalanianaole has joined his fathers. He was a lineal descendant of the last King of the Islands of Kauai and Niihau. He was a prince by royal proclamation under the Kalakaua *regime,* being the nephew of Queen Kapiolani. Had the Hawaiian Monarchy continued in existence, he would, in all probability, have become King of Hawaii upon the death of Liliuokalani. It would not have been strange if, after annexation, Kuhio had remained aloof from participation in the conduct of the government which had superseded the Monarchy, of which he had been a part. Not so, however. Both he and his brother, Kawananakoa, promptly entered politics, the latter having been the unsuccessful Democratic candidate for delegate to Congress at the first election after the organization of Hawaii into an American territory. At the following election, Kuhio entered the lists as the Republican candidate for delegate. He was elected, and filled the office continuously until his death yesterday morning.

He Is Elected, and He Serves Till His Death

The fates caused my life lines to cross those of Kuhio upon several occasions, my first acquaintance with him being while I was minister of the interior, about 1889, when he brought me a personal note from his aunt, Queen Kapiolani, which stated that he wished to learn something of prac-

tical business life, and asked me to give him employment. The request was complied with, and he became a clerk in the land office, making a good record for industry and efficiency. The next time our tracks crossed was in 1895 when, after the unsuccessful royalist revolt, a number of the participants, of whom Kuhio was one, were imprisoned. A test case was brought to invalidate all of the convictions, Kuhio being the petitioner in habeas corpus proceedings. I acted as counsel for the Republic of Hawaii in resisting the application. The writ was not granted.

Politics Never Forms Barrier to Friendship

It has so happened that, during Kuhio's long term in Congress, we sharply differed upon a number of questions, and neither of us ever hesitated to speak his mind on the point in issue, or concerning each other. During all this time, however, political differences in no way ever interfered with our personal friendly relations. Whether such relations are usual between political opponents in other lands, I do not know. But I am inclined to believe that the kindly atmosphere of Hawaii and the genial, friendly character of her sons and daughters have had much to do with the fact that although, unhappily, the fates have at times brought me into sharp political opposition to a number of the leading Hawaiians, there has been no—or but temporary — interference with cordial personal friendships. As an example, about 1914, among other Republicans, I opposed Kuhio's renomination to Congress, giving reasons therefor in an open letter published in *The Advertiser,* at the same time giving full credit for his personal good qualities.

It may not be amiss here to quote what I then said of him, as it expresses my opinion of him now, as it did then:

"KUHIO A MAN AMONG MEN

"I have known Kuhio from boyhood. His is an engaging presence. He is a man among men; a 'good sport.' When younger, he 'bucked the line' with the best of them at football. In the recent yacht race to Hilo, by the 'outside passage,' he was a member of the crew of the *Hawaii*. He hauled in on the main sheet; stood his trick at the wheel; lived on hard tack and coffee for fifty-eight hours; played hard, worked hard and slept hard—I know, because I shared a stateroom with him—with the rest of the boys.

"He holds his own, without asking any favors, in any social relation, at any function, as an entertainer or as a public speaker; and is a good campaigner. He is almost the last male representative of the ancient Hawaiian chiefs; and they were a remarkable class, of great personal force and impressive dignity. A chivalric recognition of his status in this respect has tinctured sentiment toward him, more even among the whites than among the natives.

Kuhio Almost the Last Male of the Chiefs

"He has had the continuous support for approximately twelve years of the Republican organization, the leading commercial men and concerns, and of most of the independent thinkers, who are bound but lightly by party ties, as a result of which he has been continuously elected to Congress since 1902. At every Hawaiian election, certain dema-

gogic lightweights try to draw the color line, and make capital out of the race issue. During the past twelve years, this issue has been almost wholly absent from the Kuhio campaigns. In fact, he has continuously received the large majority of white votes, as against his white rival for the office of delegate."

Delegate Gets Whites' Votes Over "Haole"

A day or so after the publication of this letter, while walking along King Street, I heard a hail from across the street—"Hullo, Kakina!" Looking up, I saw Kuhio advancing across the street with a smiling face. Upon reaching me he grasped my hand and gave it a hearty shake, saying: "I want to thank you for the nice things you said about me in your letter. I'm not much stuck on going back to Washington anyway, and I don't care how many of you oppose me, if they do it in the decent way you have done; but I'm still in the game." He was in the game so effectually that he was reelected, and, had he lived, would undoubtedly have continued to be reelected, for as many terms as he chose to run for the office of delegate.

The event in Kuhio's career by which he will undoubtedly be longest remembered is the "Hawaiian Homes Act," by which it is sought to get the Hawaiians "back to the land." This law would not have passed Congress but for Kuhio's strenuous and untiring efforts. Whether the law succeeds in its purpose, or not, depends upon others; but there can be no doubt of the earnestness and sincerity of Kuhio, his public spirit in its advocacy and hopes for the "rehabilitation" of the Hawaiian people through its application.

His Strenuous Efforts Avail for Homes Act

Kuhio had the genial friendly disposition of his race; much of the independence and force of character which were attributes of the old Hawaiian chiefs. He was a credit to his people and will pass into Hawaiian history as one who was true to his convictions, one who did his best, as he saw the light; a shining example in his personal life and character.—*The Honolulu Advertiser,* January 8, 1922.

Bill of Rights for Territory in Legislature

On Monday last, there was presented in the house of representatives an act entitled: "An Act to define the claims of the Territory of Hawaii concerning its status in the American Union," etc. It has well been designated by Governor Farrington as "Hawaii's Bill of Rights." No measure more vital to the welfare of the people of this territory has come before them since the annexation of Hawaii to the United States. "What's it all about? Aren't we already a 'territory of the United States' by act of Congress, and hasn't the Supreme Court decided that Hawaii is 'an integral part of the United States?' If so, what is the necessity for saying it over again?" These questions have been put to me within the past few days. They can be answered by a few proverbs: "Fact is stronger than theory." "The price of liberty is eternal vigilance." "Nothing is completed until it is finished."

Hawaii Legally Integral Part of the Nation

Theoretically—legally—we are an integral part of the United States. The treaty of annexation says so; Congress has declared so; executive departments have ruled so; the Supreme Court of the United States has decided so, and the *Century Dic-*

tionary says that the word "integral" means intrinsic, belonging as a part to the whole, and not a mere appendage to it. "Relating to a whole composed of parts . . . (as a human body of head, trunk, and limbs), . . . or of distinct units. . . ." Theoretically—legally—dictionarily—our position is impregnable. From all three standpoints, we are as much a part of the United States as the head is a part of the human body. As much a part of the Union as Maine, Louisiana, or California.

If all this is so, what more is necessary? A fair question, deserving an answer, and right here is where adage number one applies: "Fact is stronger than theory." It would seem impossible for the trunk, an integral part of the human body, to bar the head, another integral part of the same body, from participating in nourishment coming from the stomach, another integral part of the body. And yet that is exactly what Congress, an integral part of the United States, has done to Hawaii, another integral part of the same body. Although as much a part of the United States as is the head a part of the body, as definitely a part of the Union as is Maine, Louisiana, or California, Congress has barred Hawaii from participating in the nourishment flowing from the national treasury to every other part of our common country. The head helps secure the nourishment circulated by the stomach. Therefore it cannot be excluded from the benefits flowing therefrom.

Congress Bars Islands From the Treasury

Likewise, Hawaii helps with service and money to replenish the Federal treasury upon the same basis as the several states. Likewise, by law, logic,

justice, and equity, Hawaii cannot theoretically be excluded from a fair participation in the funds dispensed from the treasury to the states as a whole. In fact, however, she is excluded. "But it cannot be done. Hawaii's rights are guaranteed by treaty, assured by act of Congress, and confirmed by decision of the Supreme Court! How, then, can she be deprived of these triply assured rights?" How indeed? But that's another story! It is like the tramp basking on the grass in the park, using the "keep off the grass" sign for a pillow. "Here, you!" shouts the policeman. "You can't go there!" "But I am here!" replies the tramp. Likewise, with all the authorities declaring that we are an integral part of the Union and cannot be discriminated against, we are discriminated against.

Territory Pays All the Taxes of the States

Hawaii pays into the U. S. treasury every tax, impost, and customs duty paid by the several states. In 1921 she paid into the national treasury more internal revenue than did any one of seventeen states. In 1922 she paid more than did nineteen states. Likewise, she is subject to every obligation and burden imposed upon the states. But of the multiplying aids granted by Congress from the Federal treasury to the several states for roads, education, farm loans, etc., Hawaii is systematically excluded. When collecting taxes and imposing obligations is concerned, Hawaii is a blood brother "with a strawberry mark on his arm," welcomed to a front seat; but when it comes to disposition of favors, Hawaii is the Congressional "poor relation," told to "go way back and sit down and speak when he is spoken to." Not since 1910 has Hawaii

been able to break through the sacred circle drawn about the states by Congress, excluding Hawaii from participation in funds dispensed from the treasury to all of the states, funds running into hundreds of millions of dollars, of which Hawaii has contributed in cold cash, since annexation, approximately $100,000,000.

Exclusion Act: Islands Denied Proper Portion

This is not all. Hawaii is being persistently and continuously deprived of her *pro rata* share of financial aid extended to every other unit in the Union, from funds which she has helped to produce. But that is not the most serious or the most dangerous treatment being accorded to us by our loving brothers at Washington. Hawaii is being told—more by acts and suggestions than in words—that she is an "insular possession." In other words, that she is not "of" the Union, but is the "property"—a "possession"—"of the United States." As "an integral part of the United States," Hawaii's status as a self-governing unit of the Union is assured. She has inalienable rights which cannot be lawfully denied. As a "possession of the United States," she would be subjected to whatever form of government Congress chooses to impose—a commission government appointed from Washington; or we may be designated as a navy station and governed by a naval commander—like Samoa; or any army officer, under a military government. This is where the above cited adage number two fits in—that about the "price of liberty," etc.

Possession Is Subject to Any Congress Whim

This discrimination against Hawaii has been going on for years. We have grumbled and sub-

mitted—and submitted and grumbled—and done nothing about it. If we submit much longer, without positive action in our own behalf, we will have supinely permitted a precedent to become established against us. The time has come when we must act—when we must declare ourselves and stand by our declaration—and that is what the pending act does. It declares our position in the most solemn and authoritative manner available to our people—a formal act, passed by both branches of our elected Legislature, approved by the governor of the territory, appointed by the President of the United States.

Precedent Will Be Established by Submission

And this is where the third adage comes in: "Nothing is completed until it is finished." Having taken our stand and made our declaration, we must be prepared to stand back of it until complete acknowledgment of our status is made—not by words only—but by deeds—deeds which place Hawaii on a parity with the position of the several states, in every respect wherein the responsibilities and obligations of Hawaii are the same as those of such states. This is what the commission provided by the act is for—a picked body of men who will stay on the job of getting substantial recognition of our rights to appropriations on coequal terms made to all the states, and firm establishment of our right as a self-governing territory and an "integral part of the United States."—*The Honolulu Advertiser,* April 18, 1923.

Glossary*

a-a. See *lava.*
ahupuaa. A land division.
alii. A Hawaiian chief or chiefess.
Aliiolani Hale. House of the Celestial Chief.
aloha. Love; a salutation or farewell.
awa. Kava; an intoxicating drink.
Ewa. A district of Oahu; in its direction.
hale. House.
Hale Naua. Temple of Science.
Haleakala. House of the Sun.
Halemaumau. Lasting House (of fire).
haole. A Northern European; originally, an alien.
heiau. A temple.
holoku. A Mother Hubbard.
hula. A Hawaiian dance.
Iolani. Sky (or Celestial) Owl.
kahili. A bunch of feathers on a rod.
kahuna. A Hawaiian priest, or medicine man.
kamaaina. An old resident; a child of the land.
Kanaka. A native Hawaiian; a man.
Kona. A southerly district of the Island of Hawaii; a southerly storm.
kukui. The candlenut tree; its fruit.
kuleana. A homestead of a Hawaiian commoner.
lani. The sky; the heavens.
lava. A-a is clinker lava by reason of stirring until the slag sugars because it is crystalline. Pahoehoe is the same lava, at rest, or at least flowing so slowly that the glass separates out on top as a skin that holds in the heat and forms a crust. The first rush makes coarse pahoehoe near the source only. An adjusted flow sends the pahoehoe skin down over the river of melt until the whole river flows in pahoehoe tubes. [Definitions by Dr. Thomas A. Jaggar, volcanologist, United States geological survey.]
lehua. A species of ohia.
lei. A wreath of flowers or leaves.
luau. A Hawaiian feast.
luna. An overseer; a foreman.
mahope. Afterward, by and by.
maile. A mountain vine, sweet-smelling.
makai. Seaward.
malihini. A newcomer; opposed to *kamaaina.*
malo. A breechcloth.
mauka. Inland; mountainward.
Mauna Kea. White Mountain.
Mauna Loa. Long Mountain.
mele. A song.
moi. A sovereign.
muumuu. A woman's shift, or chemise.
nei. This.
oe. You.
okolehao. A spiritous liquor; originally distilled from the root of the ti plant, now from other mashes also.
pahoehoe. See *lava.*
pali. A cliff.
pau. Done; finished.
pa-u. A woman's dress.
Pele. Goddess of volcanoes.
poi. A starchy paste made from the taro root.
taro. An araceous plant, whose roots were the principal source of starchy food in old Polynesia. This Southern Polynesian word has displaced the Hawaiian *kalo* in English usage.
ukulele. A musical instrument; literally, a jumping flea.
wahine. A woman.
Waikiki. A district of Honolulu; in its direction.

*This glossary comprises only the commoner Hawaiian words that appear with some frequency in the Thurston and Dole volumes.

INDEX

Index

INDEX

Nancy Hanks Lincoln Public Library