Points of Interest

Barking Sands.—On Oahu Railway, 38 miles from Honolulu, near Makaha station. Interesting and curious natural phenomena.

Fort Ruger.—New fortification back of Diamond Head. Eight 12-inch mortars.

Haleiwa.—A strictly first-class, modern hotel, located 56 miles from Honolulu on the Oahu Railway. One of the most picturesque and pleasantly situated places on the island. Rates $3.00 and $4.00 per day; by the week, $17.50 and $21.00.

Hawili.—A station on the Koolau Railway on the north side of the Island, 21 miles from Honolulu via Pali. Has small but comfortable hotel. Board and room $1.75 per day; by week, $10.00; by month, $35. Popular rest house with round-the-island trumpeting parties.

Kahuku.—Terminal of Oahu Railway, 71.5 miles from Honolulu. Most northern point of Island, and site of long distance wireless station.

Kaneohe Bay.—A beautiful and deep lagoon on windward side of Island, 15 miles from Honolulu. Good fishing and interesting sailing life.

Koko Head and Makapuu Point.—Distance 12 and 15 miles, respectively, from Honolulu. Interesting volcanic formation, but a dry trip. Take your cameras. New first order government lighthouse at Makapuu.

Moanalua.—Magnificent estate of Hon. H. M. Damm. Situated 2½ miles from Honolulu. Open to visitors Saturday afternoons.

Nuuanu Pali.—Historic battle ground of Oahu, and one of the grandest views points of mountains, sea and sky in the whole Territory. Six miles from Honolulu postoffice by perfect macadam road. No visitor should miss this trip.

Schofield Barracks.—New cavalry instruction at Keawaula, near Wahiawa. Take Wahiaua train.

Sail.—Station on Oahu Railway, 50 miles from Honolulu. Center of principal sisal fibre industry. Also site of U. S. Coast and Geodetic Survey Magnetic Station.

Tantalus.—Mountains back of Honolulu, and site of number of summer residences. Delightful 2½ miles drive. 2½ miles by foot trail. Elevation 3,012 feet.

Wahiawa.—Center of the pineapple district. Twenty-five miles from Honolulu by rail. A delightful one day’s outing. Pleasant, comfortable hotel; $1.75 per day; $10.00 per week.

Waimale.—Seal of Territorial Industrial School. An interesting and most successful reformatory institution for boys. On Oahu Railway, 65 miles from Honolulu.

Waimale.—Station on Oahu Railway, 6½ miles from Honolulu. Near here are ruins of one of the largest heiaus, or ancient native temples on the island.


Halley’s Comet
Expedition to
Hawaii, I. H.

1910

$190

Watch companions

$180

$100

$20

$4.6

$6

$30° ± 10°
$10° ± 10°

Record of plates 6" Par Lens. 6.4

Diary of the expedition
ISLAND OF OAHU

The Island of Oahu is third in point of size, but first in importance among the islands of the Hawaiian group. The City of Honolulu is situated on its southern coast and in the commercial center of the Pacific. Great steamships where all the principal steamships and sailing routes of the great ocean meet.

Oahu is also the strategic center of the United States' Interests in the Pacific. Here is located the magnificent land-locked arm of the sea, Pearl Harbor, in which the Navy Department has begun the construction of what is to be the greatest naval base in the world. Millions will be spent on this project, and twelve years are estimated for the completion of the work. Plans contemplating the adequate fortification of the entire island are being worked out which in the realization will make the island impregnable—a second Malta.

Honolulu, the Capital of the Territory, is a modern city along American lines, of 40,000 inhabitants. It has a splendid land-locked harbor which handles practically all of the trans-Pacific shipping. The climate is dry and never oppressively warm, and few cities of equal size anywhere in the world equal it in neatfulness.

CHARACTER OF COUNTRY.

The Island of Oahu, in common with all the other islands of the group, is of volcanic origin, and generally rugged in character. Made up of many great eruptions in past ages, the volcanic cones have for the most part been worn down by action of the elements into fantastic pinnacles, sharp ridges, and deep ravines. There has been no volcanic activity within the history of man, and geologists tell us probably not in several millions of years. No destructive earthquake has ever been recorded, even slight earth-tremors being rare.

The Island is about 46 miles in length by 26 in breadth, and contains an area of 538 square miles. There are two principal ranges of mountains, one of which the Ko'olau extends practically the whole length of the island along the northeastern, or windward side, while the Wai'anae range is on the southwestern side. Both of these ranges are extremely rugged and covered generally with a dense but low forest growth. In elevation they average between 2,000 and 3,000 feet. Between the two ranges is an elevated tableland.

The greater part of the 177 miles of coast line is fringed with coral reefs extending from a few rods to a mile or more seaward. The reefs are usually submerged at high tide, and partially exposed at low water.

FISHING.

Fishing as a sport, has not been developed here as it might and should be. There are numerous kinds of fish in Hawaiian waters of splendid game qualities. Shark fishing, however, is practiced to a considerable extent, and furnishes an exciting sport. These great fishes are generally lured by means of an anchored animal carcass, and either harpooned or taken by hooks.

Tarpon (Atlas scarce) are numerous in Hawaiian waters, but this greatest of game fishes in the estimation of Florida anglers, has escaped the attention of any but the commercial fishermen as yet. The Bulletin of the United States Fish Commission, in referring to this fish, predicts that it "will doubtless prove one of the most interesting of Hawaiian fishes to sportsmen who visit these islands."

Another game fish of much promise is the Pri-
gate Mackerel (Scomber shorai) which forms an important commercial product of the Japanese fishermen. Its gamey qualities will doubtless make it a favorite with anglers.

Besides these there are numerous other fishes—several varieties of tuna or bonito, as well as basses and snappers—which will doubtless in time make Hawaii the angler's paradise. There is also splendid fishing and spearfishing of various kinds of shallow water fishes along the reefs.

AUTOMOBILING.

The Island offers many attractions to motorists. With few exceptions the roads are excellent in all seasons. Most of them are macadamized, while the earth roads are good except in very rainy weather. Automobiles may be hired for $6 per hour. Special rates for extended trips. Some tourists bring their cars with them, and half a dozen splendidly equipped automobiles make this very practical. Between 250 and 400 machines are owned in Ho-

nolulu and the Island of Oahu.

The most extensive single trip possible is about 80 miles in length extending around the north-east-and northwest sides of the island and through the valley between the two mountain ranges. This is a very popular drive, and one of great beauty, but there are numerous shorter trips equally fascinating.

NOTHING NOXIOUS.

There is not a SNAKE in all Hawaii, nor poison-ous insect more to be feared than bees or yel-

low jackets. Neither is there poison oak or ivy, nor other plant of noxious character. Although some of the forests are exceedingly dense, it is with a most delightful sense of security that one forces his way through tropic vegetation of most luxuriant and beautiful character, confident that no unseen peril lurks in his pathway.
Points of Interest

Sailing Sandy.—On Oakh Railway, 28 miles from Honolulu, near Makua station. Interesting and various natural phenomena.

Fort Kupesi.—New fortification back of Diamond Head. Eight 12-inch mortars.

Haleiwa.—A strictly first-class, modern hotel, located 26 miles from Honolulu, on the Leeward Railway. One of the most picturesque and pleasantly situated spots on the island. Rates $5.00 and $4.00 per day; by the week, $10.00 and $21.00.

Haleiwa Hotel.—Residence of the Hon. Freida Burns, on the North Shore of the island, 31 miles from Honolulu. Has small but comfortable hotel. Board and room, $1.00 per day; by week, $6.00 by month, $35.00. Popular rest house with round-the-island trumpeting party.

Kaleako.—On the Oahu Railway, 71.5 miles from Honolulu. Most northern point of island, and only one of long distance stations. Kamaka Bay.—A beautiful and large harbor on windward side of island, 17 miles from Honolulu. Good sailing and interesting manager life.

Ko'a Head and Makua Point.—Stations 15 and 13 miles, respectively, from Honolulu. Interesting volcanic formations, but a dry trip. Take yourcamera. First new order government light house at Makua Point.


Nuuanu Fall.—Historic battle ground of Oahu, and one of the grandest views points of mountain, sea and sky in the whole Territory. Six miles from Honolulu possibility by perfect macadam road. A visit to this fall is a must for every visitor. Take the trip.

Nuuanu Falls are located near Leilehua, near Waialua. Take Waialua train.


Tantalus.—Mountain peak of Honolulu, and site of one of several million real estate developments. 15 miles drive. 15 miles by feet track. Elevation 2,613 feet.

Waipahu.—Center of pineapple district. Twenty-five miles from Honolulu by rail. A delightful one day's outing. Pleasant, comfortable hotel. $1.00 per day. $10.00 per week.

Waialua—Best of Territorial Industrial School. An interesting and most successful reformatory institution for boys. On Oahu Railway, 45 miles from Honolulu.

Wahiawa—Station on Oahu Railway, 41.5 miles from Honolulu. Here are stories of one of the largest leprous, or ancient native temples on the island.

SPORTS IN OAHU

Hawaii is a land of outlets. Houses are only necessary for shelter from rains, which are infrequent in most spots. It is rare for any one to be outdoors when it rains. Fishing, boating, tennis, golf, polo, etc., being played the year around under most favorable conditions. Most of the hotels own piers and have loads of boats for fishing, sail- ing and surfing. Horseback riding, skating, have their spates every few in the winter, while mountain climbing and tramping are becoming more popular. For those who like the quiet life, there are shady groves and deer and deer are in forests in the mountains. Sites for tenting with the most selectives of wild birds, and somet ime wild pigs within a few hours drive of Honolulu.

RAILROADS

The Oahu Railroad, a schedule-fermed narrow gauge line, is the shortest way from Honolulu to Waikiki for a distance of 72 miles. A branch from Wai'anae extends to the airport to Honolulu, the center of the airline district. Meeting Schedof Barabas, the new country can continue to Waikiki, the capital of Hawaii.

Schedof Barabas, the Format of the Oahu Railroad, is the northern terminus of the island. Physical distance from Honolulu is 11 miles and distance of 11 miles to Kahului, Hilo, will be confirmed to Honolulu, via Schedof Barabas.

The scenery along these railroad is very beautiful, combining ever changing views of ocean and mountain. A number of trains each way afford a very comfortable and speedy way of seeing some scenes of Hawaiian scenery.

Frequent to Waikiki, Wai'anae, and Waialua stations.

On Mondays, Wednesdays, and Fridays:

- 7:00 a.m. to 4:30 p.m.

On Saturdays:

- 7:00 a.m. to 4:30 p.m.

WALKING TRIPS AND MOUNTAIN CLIMBING

No more delightful manner of seeing the island is possible than on foot. The paths all through the island have a quaint native hospitality which always adds to the pleasure of the visitor, while there are biding houses and small hotels at frequent intervals on the main traveled thorough fares, whose food of good quality and comfortably, stopping quarters may be assured at very moderate rates. A pleasant feature of the island trip is the fact that only 25 miles by rail, or 33 miles by foot, will take you back to Honolulu in order if for any reasons no be returned. A daily stage covers the remaining portion of the circuit so that one need not wait until all stages be seen $5.

There are scores of shorter trips of varying lengths through forested mountains, or along sparkling sea beaches which may be made to suit the time at the terminal of the hour your desire. Plantations and large mills may be visited by carriage or on foot, or other natural attractions may be found. Pictures of mountains, sea and sky are remembered after the trip. In no country in the world does the man on foot have a greater advantage in his leisure and mountain and farther disadvantages than in Hawaii.

The mountains of Oahu are a constant temptation to a healthy man or woman. Although climbing has been over 6,000 feet at the highest, they are so steep and rugged in the extreme, and some of the plains have been ended by foot or climbing. While some of the peaks are clothed in almost solid verdure, while resembling a moisturous jungle, there are others long exposed to the winds and sun, with different heights, other mountains, particularly in the Luana, ranges are particularly devoured by winds. One can know the summit, and on the roadside creek one's head may be clear, and foot sure in order to make a safe ascent.

LIVELY

Honolulu is well supplied with good lively entertainment.

Two home teams and double-seated car, 60 miles with driver, $10.00.

All day or longer, special rates are arranged. $7.00 per day. $3.00 per day. Special rates for longer time.

Hosie sports are for week days, all holidays, and special rates are charged.

MAIL STAGE

A mail stage leaves Honolulu at 7 o'clock each week-day morning, running to Waikiki, on the windward side of the island, 21 miles distant, and returning in the evening. The first mail stage for passing on the mainland starts the same day, covering the same course, but continuing on to Hawaii, ten miles further.

Photograph of Honolulu's Count made by Ferdinand Ellermann. — Expedition for the American Astronomical Society.
Instrumental Equipment

6.4 Clark Objective
Harvey & Harvey Mounting complete, except calcium column. Without eyepieces.

Loaned by the Lick Observatory.

6. Brianchon Portrait Lens, loaned by the John A. Brianchon Co. Ltd.

Metal Camera for above lens made for and owned by the Comet Committee.

4 - 8 x 10 Aluminum plate holders loaned by Dr. Frank Allis of Allegheny to fit above camera.

1 - 17 Sekar 10 (10 focus 3/6.8) loaned by the Baush & Lomb Optical Co.

1 - 60' prism 5 x 3' foces. Loaned by the
1 - 60' eyepiece
1 - Equipped illuminated hairs

1 - Turner Achten 100' focus found in connection with 60' prism. Not used on account of catching too much wind and shaking telescope and thereby jeopardizing the other work.
Diamond Head
Taken from S.S. Kona
on morning of arrival at Honolulu
Mar. 28, 1910

Diamond Head
Taken from S.S. Maua Tia
June 18, 1910
Arrow points to site of observing station

Observing station on south slope of Diamond Head

Nearest view of Diamond Head. 4/11/10. Showing light house and observing station.
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- **Rainfall** in millimeters.
- **Wind** in kilometers per hour.
- **Temperature** in degrees Celsius.
- **Clouds** indicate the type of clouds observed.
- **Sky Notes** comment on sky conditions.
- **Total** refers to the total rainfall for the day.
- **Specific Notes** provide additional details about the weather conditions.
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*Note: The notations indicate the weather conditions and cloud movements.*

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*Note: The notations indicate cloudy conditions and cloud movements.*
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see page 20 for records of plates, with etc.
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1910  Diary of Expedition, Pasadena - Honolulu

Feb 24  Shipped case containing lenses by Wells Fargo to Honolulu.
   Shipped 11 Cases Instruments Plates
   1 Crate Motorcycle by S. P. RR to Honolulu.
   1 Case containing tracks & 4 bolts, and iron
   Column of Telescope mounting returned to
   U.S. Observatory by S. P. RR.

Mar 17  Left Pasadena and arrived at San Francisco.
   Mar 18  Obtained equal motion passing over
   San Francisco, approx 6:30 P.M. at 9:49 P.M.
   time of visibility, about 35 Sec. Color yellow-
   about 10 times as bright as Venus at greatest brilli-

Mar 22  Left San Francisco for Pacific Mail S.S.
   Kona, 1 P.M.

Mar 28  Arrived at Honolulu, 9 A.M.
   Interviewed Mr. W. P. Stockman, Acting Director
   U.S. Weather Bureau, and others regarding
   local cloud conditions.
   Made warm humid - showers.

Mar 29  Talked with Mr. Cooper of Hawaii Promotion Committee.
   Got in touch with Prof. John Finagles of College
   of Hawaii; went with him to the bay at Kaimuki
   and around Diamond Head. Investigated
   possible site 1 4 mile east of 400 ft. light

Mar 30  Saw Mr. F. A. Draper in charge of U.S. Magnetic
   Station near Pearl. Sky Conditions good
   (continually) there was four clouds one minute
   northwest of Kauai off sky. Warm humid, house,

Mar 31  After investigating sites conditions, decided
   on Diamond Head location - see maps plates
   obtained permit from Capt. E. F. Timberlake,
   Commandant P. P. Tucson to erect shelter
   for instruments at Diamond Head. Weather Fair.

Apr 1  Left hotel to permanent place to live. Very
   rain last night, strong wind. Rain all day.
   Called on Prof. Finagles, worked up shelter to
   use shelter. Rain most of day, rain storm.


Apr 4  Made to Diamond Head with contractor Mr.
   W. M. Matthews of Hawaii. Collecting G. T. Smith
   material and arranged for work. Partly cloudy, windy.

Apr 5  Begun erecting shelter. Very windy, cloudy,
   showers.

Apr 6  Made on shelter - cloudy, wintry - instruments
   taken to shelter.

Apr 7  Finished making canvas. Unpacking cases.
   Partly cloudy, wintry.

Apr 8  Unpacking and setting up mounting.
   Partly cloudy, wintry.
Apr. 9. Finished setting up mounting on camera. Everything ready for exposure. Threw cloudy; rainy. Up to this date it has been cloudy, rainy. No chance to see comet.

10. Sunday. Raining at 3 a.m. - No show at comet. Cloudy all day. Strong wind.


12. Some rain at 10 a.m.


6 min. - Partly cloudy. Wind moderate wind.


17. Rain all night and early part of morning. Cloudy all day. High wind + rebel.


19. Rain most of night. Dense cloud in east. No view of comet though it was seen by crew of schooner out in the ocean. Cloudy in day. Some afternoon shower.


24. Heavy rain all night. Morning and most of day.

25. Rain all night. Showers during early morning. Through hole in clouds, got exposure on comet from 9:00 to 10:00. Began raining after exposure and got proof to the thin coming in. Very cloudy. Almost sky.


29. Clear of 3 a.m. Low cloud in east. Sighted comet till 3:30. 21: 00. 00. 5:30. 5:45. 70 min. Sky fairly clear. 8. 2 0 0. 4 2 3. 2 0. Weather in evening. 9: 30 0: 0 0. 5 4 3. 11:00. Very clear and fair.
Apr 28. Clouds in eastern sky. Some rain out of clouds.

10. 10°C. H_13^2 = H_30^0

Sky fairly clear. Windy.

11. 2. H_11^0 = H_30^0

Shaking telescope.

Apr 29. Clear in east at ascent except low bank of clouds.

rest of sky clear. Rain during night.

1r 10°C. H_13^2 = H_30^0

Stirred by clouds.

1p 2. H_13^2 = H_30^0

Overclouded. - 17.5 Min. Neb.

1w 3. H_13^2 = H_30^0

Moderate wind.

Shower at 7.30.

Apr 30. Sky clear. Occasionally thin 2 miles from ascent.

25 & 30 min. delay.

Moderate wind.

15. 10°C. H_13^2 = H_30^0

Looking very poor and cloudy.

1b. 2. H_13^4 = H_30^0

Shower at 11.30.


Shower towards north.

17. 10°C. H_30^0 = H_30^0


18. 10°C. H_13^2 = H_30^0

Many interruptions.

19. 2. H_13^2 = H_30^0

Light rain.

Mostly cloudy during day.


20. 10°C. H_13^2 = H_30^0


21. 10°C. H_13^2 = H_30^0

9 Min. Neb. passing clouds.

Shower during day.


23. 10°C. H_13^2 = H_30^0

Passed 50 Min. Neb. Fair.

24. 10°C. H_13^2 = H_30^0

Windy and rainy.

Many fleshy clouds passed but none had visible through. Windy.


but showers came at 5.00. Running end at 3.30. Cloudb right and

clearly skied at 1.30. Neb. 3.30.

10. Windy in all day. Showery.


Cleared sky by 3.30. Ball clouded about 5.00. Windy.

Apr 30. 10°C. H_13^2 = H_30^0

Stirred by blowing over.

3.30 - 4.

Fair day, but windy.


2. Very good at 2.20. Clouds were absurd.

Fewer at 2.30. Neb. 4.20.


21. 10°C. H_13^2 = H_30^0

Windy and rainy.

Covers # 4. H_13^2 = H_30^0

Windy, passing telescope.

Shower in Am. Fair in evening.
May 9. Rain during night and when leaving house. Saw birds of prey; few minutes about 3° through break in clouds. In each. Cloudy till 4° 5′. 33 Exp. 30° 7′ & 11° 3′. Net 24 min.

Temperature: 4° 5′. 33 Exp. 30° 7′ & 11° 3′.

Windy. Some visible bars. Stormy all day.

May 10. Sky clear at 2° 25′. 3° clouds began to form over, but broke away about 3° 5′. 33 Exp. 30° 7′ & 11° 3′. Feeling mild. Moderate wind.

Cloudless at 4° 25′. Clouds forming. Increasing during day.

May 11. Sky cloudy. Caps in lower clouds should have appeared. Sun had 40 min. contact through break in lower clouds for about 17 min. & 1° 10′. Right colors in arc. Face in P.M. Moderate wind.


During latter part of exposure, thin cirrus clouds came up. Cirrus clouds forming during day. Evening.


May 16. Windy. Clouds in east. Clear above, but sailing to attain very low. But glimpse of head but just as it was on case, he has clouds came on (4° 25′) which just obscured head, and remained this. 1° of it was shone given chance for 15 min. exposure. Head finally visible & # 40 displaced 4° 25′ & 9° 25′. Sky then bright but photo show good detail in head.


May 18. Very windy. Sky almost solid with both high and low clouds in morning, but began to break in earlier part of afternoon, when seen could be
May 18. Cont. - Observed occasionally. By 2:30 cloudburst clear away from western sky. Sun was observed continually till it set behind the ridge of Diamond Head, just before 6. (4:17 14h 46m 30s). Transit time called by Mr. Hall was "Middle transit, fifteen eight to the hour Greenwich. Transit Central", which would have made 5:58 14h 17m. Local (16°30' Meridian) standard time. While the definition on the sun was not the best, ranging from 6 to 2 on a scale of 10, yet at times very small spots could be distinctly seen, and the granulation of the photosphere stood, but nothing about which was half as large or showed half as the small spot, 5 preceding the small spot, preceding the group, shown on the diagram. with a circle around it, which was not part of the detail of the sun itself. There was then no trace of the comet or its nucleus seen. The observations of Professor Donahue, at the St. John's Observatory, of the College of Hawaii, and Professor McNeil of the Oahu College, both using 6-inch telescopes, confirm the observations taken at Diamond Head. The sun clouded over in evening about dark and heavy rains in the city near the mountains.


May 20. Moderate south breeze. Sky heaving overcast all day, and towards evening low clouds become higher. Break in clouds permitted "4" Exp 4° 15s 57s to be made through hazy upper sky, but shows head quite well. Moon bright but no injury to plate.

May 21. Moderate south breeze. Sky overcast in AM, but clearing by early afternoon. Evening good. Moon 2 days from full. #4 2 Exp 4° 15s 57s. Moonlight badly obscured. #4 10 Exp 1° 3 57s, the plate, had slow dot, well.

May 22. Moderate S. breeze. Clear sky in AM, but clouds forming by noon and in afternoon and evening heavy. Clouds over sky, giving no view of comet except a short glimpse of head through clouds but not long enough to get fairly printed with telescope.

May 23. Moderate wind. Cloudly during day, getting better towards evening. Hazy. Very hazy. Nearly total eclipse of Moon. #4 2 Exp 4° 15s. 57s. #4 10 Exp 1° 3 57s. Reflects full Moon badly injured plate.

May 24. Warm and little wind. Sky partly cloudy during day, growing more towards evening. This break in clouds got short Exp. #4 7 Exp 4° 15s 57s. Exp 9° or poor sky.

25. Sky partly cloudy. WARM. Clouds till after 8 P.M. Comet visible all day. 0° 30' N. 16° 35' W. 8' 48. [51° 57' 53.6' 32'.] 20.5 min. set.


3. Windy. Clearest day and evening.

4. Very cloudy. Clear most of day. Good in evening. 5' 54. 9' 45' S. 8' 45' N. Wind gusty. Getting telecscope tally.

5. Windy. Clear most of day. Some clouds in evening.


7. Windy. Clouds increasing during day. Showers in late evening.

8. Windy. Partly all day and earlier evening.

9. Windy. Partly cloudy during day, increasing towards evening until slight showers. No comet.

10. Windy. Partly cloudy during day, increasing cloudy evening until slight showers. No comet.


12. Windy. Comet at 8:50. 5' 60. 9' 45' to 10' 10' less 10 min. for clouds. Stopped by cloud.

13. Windy. Clouds persistent all day evening.

No chance of comet.

June 1. Windy. Partly cloudy during day and in early evening. Comet about 8' 45'. 9' 45' S. 8' 45' N. Later, 8' 45' S. through thin clouds. Stopped by clouds.
June 14th Away from Honolulu on trip to Volcano
5. 16 on island of Hawaii Weather very cloudy
mud cloudiness and rain.
5. 19 Partly cloudy; increasing by night
with rain.
5. 20-21 Packing instruments & apparatus
for shipment to the States.
5. 24-25 Delivering boxes to Channel docks
and W. Kobe. Closing up business
in Honolulu.
5. 26 Leaving Honolulu to MANUELINA. 
July 2 Arrived San Francisco
6. 4 Arrived
15° small man line
64° 63° free spot
77° large spot
134° opposite line

Draw line across following edge of larger spot of graph distinctly.
Condensed statement of expenses.

69.70 Express
67.98 Freight
168.50 R. & R. Steamer tickets
143.10 Hotel, Meals & Boarding
  6.95 Baggage trans
  40.97 Photo Supplies
    53.75
#3.70 Misc
46.00 Shelter
  69.90 War Material fitting tel. Kansas
  84.85 Insurance
  10.80 Incidents

751.95

28.91 Refund Ins.

729.04 net exp
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<td>1° 5'</td>
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<td>July 25</td>
<td>1° 30' slow</td>
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**Notes:**
- Correction in figures due to correction of Meudan clock on May 27.
1909
Dec. 23. Express on C.P.R. Train for Brandon, Man. 25.95
Jan. 10. Express on C.P.R. Train for Brandon, Man.
11. D.C. to L.C. Cape Campbell.
14. 3-3½ V.V. Lamps, from Mr. Miller.
Feb. 9. Express to Toronto from Ontario; return.
11. S.P.R. for Romance on Atlantic.
26. Received, N.Y., S.F.

Mch. 1. Transfer C.P.R. B.C. to A.P.R. Dept.
3. 10 Big Blankets.
16. 10 Ladies' Suits.
18. Amount for 170.77.

1910
Jan. 10. Freight on C.P.R. J.S. from L.C. 11.43
Feb. 9. Express to Toronto from Ontario; return.
11. D.C. to L.C. Cape Campbell.
14. 3-3½ V.V. Lamps, from Mr. Miller.
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11. D.C. to L.C. Cape Campbell.
14. 3-3½ V.V. Lamps, from Mr. Miller.
1910

14 Apr 8 Amount Ford 170.77 83.87

20 Apr 8 20 yds Cambric for Station 2.15

Shirt for telescope Lumbe roads 16.00
Labor 12.00
Canvas 11.50
Rope, and so 8.80 46.00

19 May 8 Alarm Clock 12.50

28 Alcohol "hule and" Paste Paris 2.50

9 Jn 8 1 week pews load 25.00

30 Board room for April 40.00

May 1 100 Negative envelopes 75.00

6 1000Cyph paper 100g Sh. A.1. 49.55 125.00

9 1 Trow box for all supplies 17.15

18 Canvas 25 to day on plate 55 95.00

31 Board room for May 40.00

June 5 Bill for 12 for May 12.10

24 4 box for room to replace one stolen 13.50

5 Medicine 7.00

7 Marking pencil stage 20.00

22 See keep in painting 25.00

25 Express on box to Undersea (W. A.) 15.05

Lick obey 6.94 3.95

Casada, currency 26.60

25 Express west Seco. Seco. 12.50

June 25 Aren't Ford 420.77 226.97

26 Baggage trans. Board room to date 5 12.25

Shaw's chair out 100.00

July 2 Baggage trans. Return to S. A. R. 25.00

Car furnace 16.05

3 Hotel room 20.00

Mule 19.00

25 A R Ticket San Fran. to Casada 12.75

Shoe 2.50

4 Breakfast 3.00

Aug 8 Bill of Solar observatory - Oct. 12.31 45.00 56.31

2 2.00 200.00 229.91

Express on box to Backen

Previously reported

1915

Balance due

Refund for insurance

Draft to C.C. June 18, 25

Net cost of exp. 779.00 729.00