

# THE HAWAIIAN ANNUAL

THE  
RECOGNIZED  
BOOK  
OF  
INFORMATION  
ABOUT  
HAWAII

1912



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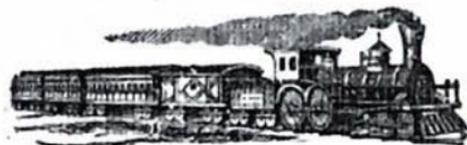
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Honolulu, T. H.

THIRTY-EIGHTH YEAR

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**H**ALEIWA HOTEL. At Waialua is a beautiful new Hotel of the most modern construction and equipment under the management of **Clifford Kimball**, in which guests will find all possible comfort and entertainment, combined with elegance of furnishing, tropical surroundings and healthful atmosphere. The view from the Hotel embraces Sea, Mountain and Valley in a combination not to be enjoyed elsewhere.

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HAWAIIAN  
Almanac and Annual

FOR

1912



THE REFERENCE BOOK OF INFORMATION AND STATISTICS

RELATING TO THE TERRITORY OF HAWAII, OF VALUE TO  
MERCHANTS, TOURISTS AND OTHERS



THOS. G. THRUM,  
Compiler and Publisher.



Thirty-Eighth Year of Publication



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HONOLULU:

1911

# Counting House 1912 Calendar 1912

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	...	1	2	3	4	5	6		...	1	2	3	4	5	6
	7	8	9	10	11	12	13		7	8	9	10	11	12	13
<b>JAN.</b>	14	15	16	17	18	19	20	<b>JULY</b>	14	15	16	17	18	19	20
	21	22	23	24	25	26	27		21	22	23	24	25	26	27
	28	29	30	31	...	1	2		28	29	30	31	...	1	2
	4	5	6	7	8	9	10		4	5	6	7	8	9	10
<b>FEB.</b>	11	12	13	14	15	16	17	<b>AUG.</b>	11	12	13	14	15	16	17
	18	19	20	21	22	23	24		18	19	20	21	22	23	24
	25	26	27	28	29	...	1		25	26	27	28	29	30	31
	3	4	5	6	7	8	9		1	2	3	4	5	6	7
	10	11	12	13	14	15	16		8	9	10	11	12	13	14
<b>MAR.</b>	17	18	19	20	21	22	23	<b>SEPT.</b>	15	16	17	18	19	20	21
	24	25	26	27	28	29	30		22	23	24	25	26	27	28
	31	...	...	...	...	...	...		29	30	...	...	...	...	...
	7	8	9	10	11	12	13		6	7	8	9	10	11	12
<b>APR.</b>	14	15	16	17	18	19	20	<b>OCT.</b>	13	14	15	16	17	18	19
	21	22	23	24	25	26	27		20	21	22	23	24	25	26
	28	29	30	...	1	2	3		27	28	29	30	31	...	1
	5	6	7	8	9	10	11		3	4	5	6	7	8	9
<b>MAY</b>	12	13	14	15	16	17	18	<b>NOV.</b>	10	11	12	13	14	15	16
	19	20	21	22	23	24	25		17	18	19	20	21	22	23
	26	27	28	29	30	31	...		24	25	26	27	28	29	30
	2	3	4	5	6	7	8		1	2	3	4	5	6	7
	9	10	11	12	13	14	15		8	9	10	11	12	13	14
<b>JUNE</b>	16	17	18	19	20	21	22	<b>DEC.</b>	15	16	17	18	19	20	21
	23	24	25	26	27	28	29		22	23	24	25	26	27	28
	30	...	...	...	...	...	...		29	30	31	...	...	...	...

**Thos. G. Thrum's**  
**Stationery and Book-Store**

1063 FORT ST. HONOLULU, T. H.

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## HAWAIIAN ANNUAL CALENDAR FOR 1912.

Second half of the fourteenth year and first half of the fifteenth year since annexation of Hawaii with the United States.

Nineteenth year since the downfall of the Monarchy.

The 134th year since the discovery of the Hawaiian Islands by Captain Cook.

### Holidays Observed at the Hawaiian Islands.

<p>*New Year .....Jan. 1          Chinese New Year.....Feb. 17          *Washington's Birthday...Feb. 22          Good Friday.....April 5          *Decoration Day.....May 30          *Kamehameha Day.....June 11          *Birthday Havn. Republic..July 4</p>	}	<p>*American Anniversary.....July 4          *Labor Day (First Monday)..          .....Sept. 2          *Regatta Day (Third Satur-          day).....Sept. 21          Thanksgiving Day.....Nov. 28          *Christmas Day.....Dec. 25</p>
--	---	---

Those distinguished by an Asterisk have been established by law.

### Chronological Cycles.

<p>Dominical Letters .....G. F.          Epact .....11          Golden Number .....13</p>	}	<p>Solor Cycle ..... 17          Roman Indiction .....10          Julian Period .....6625</p>
---	---	---

### Church Days.

<p>Epiphany .....Jan. 6          Ash Wednesday .....Feb. 21          First Sunday in Lent.....Feb. 25          Good Friday .....April 5          Easter Sunday .....April 7          Ascension Day .....May 16</p>	}	<p>Whit Sunday .....May 26          Trinity Sunday .....June 2          Corpus Christi .....June 6          Advent Sunday .....Dec. 1          Christmas .....Dec. 25</p>
--	---	---

### Eclipses in 1912.

In the year 1912 there will be two eclipses of the sun and two of the moon.

I—Partial eclipse of the moon April 1st, not visible in these islands.

II—Central eclipse of the sun April 16th, invisible here.

III—Partial eclipse of the moon Sept. 26th, beginning at 0.33.1 a. m. and ending at 1.56.3 a. m. Middle of eclipse at 1.14.7 a. m.

IV—Total eclipse of the sun Oct. 9-10, not visible in the Hawaiian Islands.

## FIRST QUARTER, 1912.

JANUARY.				FEBRUARY				MARCH			
D.		H.M.		D.		H.M.		D.		H.M.	
4	Full Moon....	2 59	a.m.	2	Full Moon....	1.28	p.m.	2	Full Moon....	11.12	p.m.
10	Last Quar....	9.13	p.m.	9	Last Quar....	2.21	p.m.	10	Last Quar....	9.25	a.m.
19	New Moon....	0.40	a.m.	17	New Moon....	7.14	p.m.	18	New Moon....	11.39	a.m.
26	First Quar....	10.21	p.m.	25	First Quar....	7.59	a.m.	25	First Quar....	4.32	p.m.

Day of Mo.	Day of Wk.	Sun Rises...		Sun Sets...	
		H.M.	H.M.	H.M.	H.M.
1	Mon...	6 38	0 5	29	8
2	Tues...	6 38	2 5	30	4
3	Wed...	6 38	5 5	31	1
4	Thurs...	6 38	7 5	31	7
5	Fri....	6 38	9 5	32	4
6	Sat....	6 39	1 5	33	1
7	SUN...	6 39	3 5	33	7
8	Mon...	6 39	5 5	34	4
9	Tues...	6 39	7 5	35	1
10	Wed...	6 39	9 5	35	8
11	Thurs...	6 40	0 5	36	5
12	Fri....	6 40	1 5	37	1
13	Sat....	6 40	2 5	37	8
14	SUN...	6 40	3 5	38	5
15	Mon...	6 40	4 5	39	2
16	Tues...	6 40	4 5	39	9
17	Wed...	6 40	4 5	40	6
18	Thurs...	6 40	4 5	41	2
19	Fri....	6 40	3 5	41	9
20	Sat....	6 40	2 5	42	6
21	SUN...	6 40	1 5	43	2
22	Mon...	6 40	0 5	43	9
23	Tues...	6 39	9 5	44	6
24	Wed...	6 39	7 5	45	2
25	Thurs...	6 39	5 5	45	9
26	Fri....	6 39	3 5	46	5
27	Sat....	6 39	2 5	47	2
28	SUN...	6 39	0 5	47	8
29	Mon...	6 38	7 5	48	4
30	Tues...	6 38	3 5	49	0
31	Wed...	6 37	9 5	49	7

Day of Mo.	Day of Wk.	Sun Rises...		Sun Sets...	
		H.M.	H.M.	H.M.	H.M.
1	Thurs.	6 37	6 5	50	3
2	Fri....	6 37	2 5	50	9
3	Sat....	6 36	8 5	51	5
4	SUN...	6 36	5 5	52	2
5	Mon...	6 36	1 5	52	8
6	Tues...	6 35	6 5	53	4
7	Wed...	6 35	1 5	53	9
8	Thurs.	6 34	6 5	54	5
9	Fri....	6 34	1 5	55	0
10	Sat....	6 33	6 5	55	5
11	SUN...	6 33	1 5	56	0
12	Mon...	6 32	5 5	56	6
13	Tues...	6 31	9 5	57	1
14	Wed...	6 31	3 5	57	6
15	Thurs.	6 30	7 5	58	1
16	Fri....	6 30	1 5	58	6
17	Sat....	6 29	5 5	59	1
18	SUN...	6 28	8 5	59	6
19	Mon...	6 28	2 6	0	1
20	Tues...	6 27	5 6	0	6
21	Wed...	6 26	8 6	1	0
22	Thurs.	6 26	2 6	1	5
23	Fri....	6 25	5 6	2	0
24	Sat....	6 24	7 6	2	4
25	SUN...	6 23	9 6	2	8
26	Mon...	6 23	1 6	3	2
27	Tues...	6 22	3 6	3	6
28	Wed...	6 21	6 6	4	0
29	Thurs.	6 20	8 6	4	4

Day of Mo.	Day of Wk.	Sun Rises...		Sun Sets...	
		H.M.	H.M.	H.M.	H.M.
1	Fri....	6 20	0 6	4	8
2	Sat....	6 19	1 6	5	2
3	SUN...	6 18	3 6	5	6
4	Mon...	6 17	5 6	6	0
5	Tues...	6 16	7 6	6	4
6	Wed...	6 15	8 6	6	7
7	Thurs.	6 15	0 6	7	1
8	Fri....	6 14	2 6	7	5
9	Sat....	6 13	3 6	7	8
10	SUN...	6 12	4 6	8	2
11	Mon...	6 11	5 6	8	5
12	Tues...	6 10	7 6	8	8
13	Wed...	6 9	8 6	9	2
14	Thurs.	6 8	9 6	9	5
15	Fri....	6 8	0 6	9	8
16	Sat....	6 7	1 6	10	1
17	SUN...	6 6	2 6	10	4
18	Mon...	6 5	2 6	10	7
19	Tues...	6 4	3 6	11	1
20	Wed...	6 3	4 6	11	4
21	Thur...	6 2	4 6	11	7
22	Fri....	6 1	5 6	12	0
23	Sat....	6 0	6 6	12	3
24	SUN...	6 59	7 6	12	7
25	Mon...	6 58	8 6	13	0
26	Tues...	5 57	9 6	13	3
27	Wed...	5 56	9 6	13	6
28	Thurs.	5 56	0 6	13	9
29	Fri....	5 55	1 6	14	2
30	Sat....	5 54	2 6	14	5
31	SUN...	5 53	3 6	14	8

A VISITOR'S TRIBUTE.—"For hundreds of years Constantinople gathered tribute from all the cities of the East, and now Honolulu, the Empress of the Seas, seated on her coral throne, gathers willing tribute from all the nations of the whole world, and as they depart she decorates them with the leis of everlasting friendship and lures them back to this Paradise of the Ocean with the sweet strains of Aloha Oe."—Dr. J. T. McCormack.

## SECOND QUARTER, 1912.

APRIL				MAY				JUNE			
D.	H.	M.		D.	H.	M.		D.	H.	M.	
1	Full Moon.....	11.35	a.m.	8	Last Quar.....	11.26	p.m.	7	Last Quar.....	4.6	p.m.
9	Last Quar.....	4.54	a.m.	16	New Moon.....	11.44	p.m.	14	New Moon.....	7.54	p.m.
17	New Moon.....	1.10	a.m.	23	First Quar.....	3.41	a.m.	21	First Quar.....	10.9	a.m.
23	First Quar.....	10.17	p.m.	30	Full Moon.....	1.00	p.m.	29	Full Moon.....	3.4	a.m.
30	Full Moon.....	11.49	p.m.								
Day of Mo.	Day of Wk.	Sun Rises...	Sun Sets...	Day of Mo.	Day of Wk.	Sun Rises...	Sun Sets...	Day of Mo.	Day of Wk.	Sun Rises...	Sun Sets...
		H.M.	H.M.			H.M.	H.M.			H.M.	H.M.
1	Mon...	5 52 4 6	15 1	1	Wed...	5 28 6 6	25 4	1	Sat...	5 17 2 6	38 4
2	Tues...	5 51 5 6	15 4	2	Thurs...	5 27 9 6	25 8	2	SUN...	5 17 1 6	38 8
3	Wed...	5 50 6 6	15 8	3	Fri...	5 27 3 6	26 2	3	Mon...	5 17 1 6	39 2
4	Thurs...	5 49 7 6	16 1	4	Sat...	5 26 7 6	26 6	4	Tues...	5 17 0 6	39 5
5	Fri...	5 48 8 6	16 4	5	SUN...	5 26 1 6	27 0	5	Wed...	5 17 0 6	39 9
6	Sat...	5 47 9 6	16 7	6	Mon...	5 25 6 6	27 4	6	Thurs...	5 17 0 6	40 3
7	SUN...	5 47 0 6	17 0	7	Tues...	5 25 0 6	27 8	7	Fri...	5 17 0 6	40 7
8	Mon...	5 46 2 6	17 3	8	Wed...	5 24 5 6	28 2	8	Sat...	5 17 0 6	41 0
9	Tues...	5 45 3 6	17 6	9	Thurs...	5 24 0 6	28 6	9	SUN...	5 17 0 6	41 4
10	Wed...	5 44 4 6	17 9	10	Fri...	5 23 6 6	29 1	10	Mon...	5 17 1 6	41 7
11	Thurs...	5 43 6 6	18 3	11	Sat...	5 23 1 6	29 5	11	Tues...	5 17 1 6	42 0
12	Fri...	5 42 7 6	18 6	12	SUN...	5 22 7 6	29 9	12	Wed...	5 17 2 6	42 3
13	Sat...	5 41 9 6	18 9	13	Mon...	5 22 3 6	30 4	13	Thurs...	5 17 3 6	42 6
14	SUN...	5 41 1 6	19 2	14	Tues...	5 21 8 6	30 8	14	Fri...	5 17 4 6	42 9
15	Mon...	5 40 3 6	19 5	15	Wed...	5 21 4 6	31 2	15	Sat...	5 17 6 6	43 2
16	Tues...	5 39 5 6	19 9	16	Thurs...	5 21 1 6	31 6	16	SUN...	5 17 8 6	43 5
17	Wed...	5 38 7 6	20 2	17	Fri...	5 20 7 6	32 0	17	Mon...	5 18 0 6	43 7
18	Thurs...	5 37 9 6	20 6	18	Sat...	5 20 3 6	32 5	18	Tues...	5 18 1 6	44 0
19	Fri...	5 37 1 6	20 9	19	SUN...	5 20 0 6	32 9	19	Wed...	5 18 3 6	44 2
20	Sat...	5 36 3 6	21 3	20	Mon...	5 19 7 6	33 3	20	Thurs...	5 18 5 6	44 5
21	SUN...	5 35 5 6	21 7	21	Tues...	5 19 4 6	33 7	21	Fri...	5 18 7 6	44 7
22	Mon...	5 34 7 6	22 0	22	Wed...	5 19 1 6	34 2	22	Sat...	5 18 9 6	44 9
23	Tues...	5 34 0 6	22 4	23	Thurs...	5 18 8 6	34 6	23	SUN...	5 19 1 6	45 0
24	Wed...	5 33 2 6	22 8	24	Fri...	5 18 5 6	35 1	24	Mon...	5 19 4 6	45 2
25	Thurs...	5 32 5 6	23 1	25	Sat...	5 18 2 6	35 5	25	Tues...	5 19 7 6	45 3
26	Fri...	5 31 9 6	23 5	26	SUN...	5 18 0 6	36 0	26	Wed...	5 20 0 6	45 4
27	Sat...	5 31 2 6	23 9	27	Mon...	5 17 8 6	36 4	27	Thurs...	5 20 3 6	45 5
28	SUN...	5 30 5 6	24 2	28	Tues...	5 17 7 6	36 8	28	Fri...	5 20 6 6	45 6
29	Mon...	5 29 8 6	24 6	29	Wed...	5 17 5 6	37 2	29	Sat...	5 20 9 6	45 7
30	Tues...	5 29 2 6	25 0	30	Thurs...	5 17 4 6	37 6	30	SUN...	5 21 2 6	45 8
				31	Fri...	5 17 3 6	38 0				

THE VALLEY OF IAO, Maui, contains a cave named Kapela, wherein were deposited the bones of ancient chiefs, and near which there used to be a kapu or sacred enclosure. The famous "needle," so-called, or isolated peak in this same valley used to be known by the native name of Kukaumoka, near which was fought the decisive battle, in 1790, called Kapaniwai (the damming of the waters), that secured to Kamehameha the islands of Maui, Lanai and Molokai.

## THIRD QUARTER, 1912.

JULY				AUGUST				SEPTEMBER			
D.	H.M.	H.M.	H.M.	D.	H.M.	H.M.	H.M.	D.	H.M.	H.M.	H.M.
7	Last Quar....	6.17	a.m.	5	Last Quar....	5.48	p.m.	4	Last Quar....	2.53	a.m.
14	New Moon....	2.43	a.m.	12	New Moon....	9.25	a.m.	10	New Moon....	5.18	p.m.
20	First Quar....	6.48	p.m.	19	First Quar....	6.27	a.m.	17	First Quar....	9.25	p.m.
28	Full Moon....	5.58	p.m.	27	Full Moon....	9.29	a.m.	26	Full Moon....	0.4	a.m.
Day of Mo..	Day of Wk..	Sun Rises..	Sun Sets..	Day of Mo..	Day of Wk..	Sun Rises..	Sun Sets..	Day of Mo..	Day of Wk..	Sun Rises..	Sun Sets..
		H.M.	H.M.			H.M.	H.M.			H.M.	H.M.
1	Mon...	5 21 5 6	45 9	1	Thurs.	5 33 5 6	38 3	1	SUN...	5 43 6 6	15 3
2	Tues...	5 21 9 6	45 9	2	Fri...	5 33 8 6	37 7	2	Mon...	5 43 8 6	14 4
3	Wed...	5 22 2 6	45 9	3	Sat...	5 34 2 6	37 2	3	Tues...	5 44 1 6	13 5
4	Thurs.	5 22 6 6	45 9	4	SUN...	5 34 6 6	36 6	4	Wed...	5 44 3 6	12 6
5	Fri...	5 22 9 6	45 8	5	Mon...	5 35 0 6	36 0	5	Thurs.	5 44 6 6	11 7
6	Sat...	5 23 3 6	45 8	6	Tues...	5 35 4 6	35 4	6	Fri...	5 44 8 6	10 8
7	SUN...	5 23 6 6	45 7	7	Wed...	5 35 7 6	34 8	7	Sat...	5 45 1 6	9 8
8	Mon...	5 24 0 6	45 7	8	Thurs.	5 36 1 6	34 2	8	SUN...	5 45 4 6	8 9
9	Tues...	5 24 4 6	45 6	9	Fri...	5 36 4 6	33 5	9	Mon...	5 45 6 6	7 9
10	Wed...	5 24 7 6	45 5	10	Sat...	5 36 8 6	32 9	10	Tues...	5 45 9 6	6 9
11	Thurs.	5 25 1 6	45 4	11	SUN...	5 37 2 6	32 2	11	Wed...	5 46 2 6	5 9
12	Fri...	5 25 5 6	45 3	12	Mon...	5 37 5 6	31 5	12	Thurs.	5 46 4 6	5 0
13	Sat...	5 25 9 6	45 1	13	Tues...	5 37 8 6	30 8	13	Fri...	5 46 7 6	4 0
14	SUN...	5 26 3 6	44 9	14	Wed...	5 38 2 6	30 1	14	Sat...	5 46 9 6	3 0
15	Mon...	5 26 7 6	44 7	15	Thurs.	5 38 5 6	29 4	15	SUN...	5 47 1 6	2 1
16	Tues...	5 27 1 6	44 4	16	Fri...	5 38 8 6	28 7	16	Mon...	5 47 4 6	1 1
17	Wed...	5 27 5 6	44 2	17	Sat...	5 39 1 6	27 9	17	Tues...	5 47 6 6	0 2
18	Thurs.	5 27 9 6	43 9	18	SUN...	5 39 5 6	27 1	18	Wed...	5 47 9 5	59 2
19	Fri...	5 28 3 6	43 7	19	Mon...	5 39 8 6	26 4	19	Thurs.	5 48 1 5	58 3
20	Sat...	5 28 7 6	43 4	20	Tues...	5 40 1 6	25 5	20	Fri...	5 48 4 5	57 4
21	SUN...	5 29 1 6	43 1	21	Wed...	5 40 4 6	24 8	21	Sat...	5 48 6 5	56 4
22	Mon...	5 29 5 6	42 7	22	Thurs.	5 40 7 6	23 9	22	SUN...	5 48 9 5	55 4
23	Tues...	5 29 9 6	42 4	23	Fri...	5 41 0 6	23 1	23	Mon...	5 49 2 5	54 5
24	Wed...	5 30 3 6	42 0	24	Sat...	5 41 3 6	22 3	24	Tues...	5 49 4 5	53 5
25	Thurs.	5 30 7 6	41 6	25	SUN...	5 41 6 6	21 4	25	Wed...	5 49 7 5	52 6
26	Fri...	5 31 1 6	41 2	26	Mon...	5 41 9 6	20 6	26	Thurs.	5 50 0 5	51 6
27	Sat...	5 31 5 6	40 7	27	Tues...	5 42 2 6	19 7	27	Fri...	5 50 2 5	50 7
28	SUN...	5 31 9 6	40 3	28	Wed...	5 42 4 6	18 8	28	Sat...	5 50 5 5	49 8
29	Mon...	5 32 3 6	39 8	29	Thurs.	5 42 7 6	18 0	29	SUN...	5 50 8 5	48 8
30	Tues...	5 32 7 6	39 3	30	Fri...	5 43 0 6	17 1	30	Mon...	5 51 1 5	47 9
31	Wed...	5 33 1 6	38 8	31	Sat...	5 43 3 6	16 2				

UNIVERSAL PEACE and law abiding times did not prevail under Kamehameha. According to native authority certain chiefs were known as murderers of men, women and children wherever they went. One Kekuani and his brother was sacrificed at the heiau of Hikiau, for girding themselves with the malo (loin cloth) of Kalanimoku. A certain woman of Keaweluaole's mother, and another named Kahinu were burned at Lahaina for the mistaken idea of having smoked Kekuaoalani's pipe.

## FOURTH QUARTER, 1912.

OCTOBER				NOVEMBER				DECEMBER			
D.		H.M.		D.		H.M.		D.		H.M.	
3	Last Quar.....	10.18	a.m.	1	Last Quar.....	5.8	p.m.	1	Last Quar.....	0.35	a.m.
10	New Moon.....	3.11	a.m.	8	New Moon.....	3.35	p.m.	8	New Moon.....	6.37	a.m.
19	First Quar.....	3.36	p.m.	16	First Quar.....	0.13	p.m.	16	First Quar.....	9.36	a.m.
25	Full Moon.....	4.0	p.m.	24	Full Moon.....	5.42	a.m.	23	Full Moon.....	6.0	p.m.
								30	Last Quar.....	9.42	a.m.

Day of Mo.	Day of Wk.	Sun Rises.		Sun Sets.		Day of Mo.	Day of Wk.	Sun Rises.		Sun Sets.	
		H.M.	H.M.	H.M.	H.M.			H.M.	H.M.		
1	Tues...	5 51 4.5	47 0	1	Fri ...	6 3 5.5	23 6	1	SUN...	6 21 8.5	17 3
2	Wed...	5 51 7.5	46 1	2	Sat ...	6 4 1.5	23 1	2	Mon...	6 22 5.5	17 4
3	Thurs...	5 52 0.5	45 2	3	SUN...	6 4 6.5	22 6	3	Tues...	6 23 1.5	17 6
4	Fri...	5 52 3.5	44 3	4	Mon...	6 5 1.5	22 1	4	Wed...	6 23 8.5	17 8
5	Sat...	5 52 6.5	43 4	5	Tues...	6 5 6.5	21 7	5	Thurs...	6 24 4.5	18 0
6	SUN...	5 52 9.5	42 5	6	Wed...	6 6 2.5	21 2	6	Fri...	6 25 1.5	18 2
7	Mon...	5 53 2.5	41 6	7	Thurs...	6 6 8.5	20 8	7	Sat...	6 25 7.5	18 4
8	Tues...	5 53 5.5	40 7	8	Fri...	6 7 3.5	20 4	8	SUN...	6 26 3.5	18 7
9	Wed...	5 53 8.5	39 9	9	Sat...	6 7 9.5	20 0	9	Mon...	6 26 9.5	19 0
10	Thurs...	5 54 3.5	39 0	10	SUN...	6 8 5.5	19 7	10	Tues...	6 27 6.5	19 4
11	Fri...	5 54 6.5	38 2	11	Mon...	6 9 1.5	19 3	11	Wed...	6 28 2.5	19 7
12	Sat...	5 55 0.5	37 3	12	Tues...	6 9 7.5	19 0	12	Thurs...	6 28 8.5	20 0
13	SUN...	5 55 3.5	36 5	13	Wed...	6 10 3.5	18 7	13	Fri...	6 29 4.5	20 4
14	Mon...	5 55 7.5	35 7	14	Thurs...	6 11 0.5	18 4	14	Sat...	6 30 0.5	20 8
15	Tues...	5 56 0.5	34 9	15	Fri...	6 11 6.5	18 2	15	SUN...	6 30 5.5	21 2
16	Wed...	5 56 4.5	34 2	16	Sat...	6 12 2.5	17 9	16	Mon...	6 31 1.5	21 6
17	Thurs...	5 56 8.5	33 4	17	SUN...	6 12 8.5	17 7	17	Tues...	6 31 6.5	22 1
18	Fri...	5 57 1.5	32 6	18	Mon...	6 13 4.5	17 5	18	Wed...	6 32 1.5	22 5
19	Sat...	5 57 5.5	31 9	19	Tues...	6 14 0.5	17 3	19	Thurs...	6 32 7.5	23 0
20	SUN...	5 57 9.5	31 1	20	Wed...	6 14 7.5	17 2	20	Fri...	6 33 2.5	23 5
21	Mon...	5 58 3.5	30 3	21	Thurs...	6 15 3.5	17 1	21	Sat...	6 33 7.5	24 0
22	Tues...	5 58 8.5	29 7	22	Fri...	6 16 0.5	17 0	22	SUN...	6 34 2.5	24 5
23	Wed...	5 59 2.5	29 0	23	Sat...	6 16 6.5	17 0	23	Mon...	6 34 7.5	25 0
24	Thurs...	5 59 7.5	28 3	24	SUN...	6 17 3.5	17 0	24	Tues...	6 35 2.5	25 5
25	Fri...	6 0 1.5	27 7	25	Mon...	6 17 9.5	16 9	25	Wed...	6 35 7.5	26 1
26	Sat...	6 0 6.5	27 0	26	Tues...	6 18 6.5	16 9	26	Thurs...	6 36 1.5	26 7
27	SUN...	6 1 1.5	26 4	27	Wed...	6 19 2.5	17 0	27	Fri...	6 36 5.5	27 3
28	Mon...	6 1 6.5	25 9	28	Thurs...	6 19 9.5	17 0	28	Sat...	6 36 9.5	27 9
29	Tues...	6 2 1.5	25 2	29	Fri...	6 20 5.5	17 1	29	SUN...	6 37 2.5	28 5
30	Wed...	6 2 6.5	24 6	30	Sat...	6 21 2.5	17 2	30	Mon...	6 37 5.5	29 1
31	Thurs...	6 3 0.5	24 1					31	Tues...	6 37 8.5	29 7

COCHINEIL EXPERIMENT.—Following a period of search and inquiry an attempt was made in 1865 to introduce the Cochineil bug into these islands from Mexico by Dr. Wm. Hillebrand, who received a trial consignment, but after a few months effort to acclimatize and propagate them they died out, since which time no further effort has been made in this direction.

INTER-ISLAND DISTANCES BY SEA IN SEA MILES.

AROUND OAHU FROM HONOLULU—ESPLANADE WHARF TO

	Miles.		Miles.
Bell Buoy .....	1¼	Pearl River Bar.....	6
Diamond Head .....	5	Barber's Point .....	15
Koko Head .....	12	Waianae Anchorage .....	26
Makapuu Point .....	16	Kaena Point, N. W. of Oahu....	36
Mokapu . . . . .	27	Waialua Anchorage .....	46
Kahuku North Point.....	48	Kahuku N. Pt., Oahu, via Kaena.	58

HONOLULU TO

Lae o ka Laau, S. W. Pt. Molokai	35	Kawaihae, Hawaii.....	144
Kalaupapa, Leper Settlement....	52	Kealakekua, " (direct)	157
West Point of Lanai.....	50	" " (via Kawaihae).	186
Lahaina, Maui.....	72	S. W. Pt. Hawaii " "	233
Kahului, " .....	90	Punaluu, " .....	250
Hana, " .....	128	Hilo, " (direct).....	192
Maalaea, " .....	86	" " (windward)....	206
Makena, " .....	96	" " (via Kawaihae).	230
Mahukona, Hawaii .....	134		

HONOLULU TO

Nawiliwili, Kauai .....	98	Hanalei, Kauai .....	125
Koioa, " .....	102	Niihau . . . . .	144
Waimea, " .....	120		

LAHAINA, MAUI, TO

Kaluaaha, Molokai .....	17	Maalaea, Maui .....	12
Lanai . . . . .	9	Makena, Maui .....	18

KAWAIHAE, HAWAII, TO

Mahukona, Hawaii .....	10	Hilo, Hawaii .....	85
Waipio, Hawaii .....	37	Lae o ka Mano, Hawaii.....	20
Honokaa, Hawaii .....	45	Kailua, Hawaii .....	34
Laupahoehoe, Hawaii .....	62	Kealakekua, Hawaii .....	44

HILO, HAWAII, TO

East Point of Hawaii.....	20	Punaluu, Hawaii .....	70
Keanhou, Kau, Hawaii.....	50	Kaalualu, Hawaii .....	80
North Point of Hawaii.....	62	South Point of Hawaii.....	85

WIDTH OF CHANNELS.

Oahu and Molokai.....	23	Maui and Lanai.....	7
Diamond Head to S. W. Point of		Maui and Kahoolawe.....	6
Molokai . . . . .	30	Hawaii and Maui.....	26
Molokai and Lanai.....	7	Kauai and Oahu.....	63
Molokai and Maui.....	8	Niihau and Kauai.....	15

OCEAN DISTANCES.

HONOLULU TO

San Francisco .....	2100	Auckland . . . . .	3810
San Diego .....	2260	Sydney . . . . .	4410
Portland, Or. . . . .	2360	Hongkong . . . . .	4920
Brito, Nicaragua .....	4200	Yokohama . . . . .	3400
Panama . . . . .	4720	Guam . . . . .	3300
Tahiti . . . . .	2440	Manila, via N. E. Cape.....	4890
Samoa . . . . .	2290	Victoria, B. C. . . . .	2460
Fiji . . . . .	2700	Midway Islands .....	1200

## OVERLAND DISTANCES.

Revised for the Annual in accordance with latest Government Survey measurements.  
The outer column of figures indicates the distance between points

## ISLAND OF OAHU.

## HONOLULU POST-OFFICE TO

		Miles.			Miles.	Inter.
Bishop's corner (Waikiki)	.....	3.2	Kahana	.....	26.4	4.5
Waikiki Villa	.....	3.6	Punaluu	.....	28.4	2.0
Diamond Head	.....	5.9	Hauula	.....	31.4	3.0
Kaalawai	.....	6.0	Laie	.....	34.4	3.0
			Kahuku Mill	.....	37.2	2.8
			Kahuku Ranch	.....	40.0	2.8
Thomas Square	.....	1.0				
Pawaa corners	.....	2.0	Moanalua	.....	3.4	
Kamoiliili	.....	3.3	Kalauao	.....	7.4	4.0
Telegraph Hill	.....	5.0	Ewa Church	.....	10.2	2.8
Waialae	.....	6.2	Kipapa	.....	13.6	3.4
Niu	.....	8.8	Kaukonahua	.....	20.0	6.4
Koko Head	.....	11.8	Leilehua	.....	20.0	
Makapuu	.....	14.8	Waialua	.....	28.0	8.0
Waimanalo	.....	20.8	Waimea	.....	32.4	4.4
Waimanalo, via Pali	.....	12.0	Kahuku Ranch	.....	39.4	7.0
			Ewa Church	.....	10.2	
Nuuanu Bridge	.....	1.1	Waipio (Brown's)	.....	11.2	1.0
Mausoleum	.....	1.5	Hoaeae (Robinson's)	.....	13.5	2.3
Electric Reservoir	.....	2.7	Barber's Point, L. H.	.....	21.5	8.0
Luakaha	.....	4.3	Nanakuli	.....	23.5	2.0
Nuuanu Dam	.....	5.0	Waianae Plantation	.....	29.9	6.4
Pali	.....	6.6	Kahanahaiki	.....	36.9	7.0
Kaneohe	.....	11.9	Kaena Point	.....	42.0	5.1
Waiahole	.....	18.9	Waialua to Kaena Pt.	.....	12.0	
Kualoa	.....	21.9				

## OAHU RAILWAY: DISTANCES FROM HONOLULU DEPOT TO

		Miles.			Miles.
Moanalua	.....	2.76	Waipio	.....	13.5 <sup>8</sup>
Punloa	.....	6.23	Waikele	.....	14.57
Halawa	.....	8.14	Hoaeae	.....	15.23
Aiea	.....	9.37	Ewa Plantation Mill	.....	18.25
Kalauao	.....	10.20	Waianae Station	.....	33.30
Waiau	.....	10.93	Kaena Point	.....	44.50
Pearl City	.....	11.76	Waialua Station	.....	55.80
Waiawa	.....	12.52	Kahuku Plantation	.....	69.50
Wahiawa Station	.....	25.20	Punaluu	.....	80.50

## ISLAND OF KAUAI.

## NAWILIWILI TO

		Miles.	Inter.			Miles.	Inter.
Koloa	.....	11.0		Wailua River	.....	7.7	4.4
Lawai	.....	13.8	2.8	Kealia	.....	11.9	4.2
Hanapepe	.....	20.0	6.2	Anahola	.....	15.7	3.8
Waimea	.....	27.1	7.1	Kilauea	.....	23.6	7.9
Waiawa	.....	31.5	4.4	Kalihiwai	.....	26.6	3.0
Nuololo	.....	44.8	13.3	Hanalei	.....	31.8	5.2
				Wainiha	.....	34.8	3.0
Hanamattlu	.....	3.3		Nuololo (no road)	.....	47.0	12.2

## ISLAND OF MAUI.

Shortest Distances by Main Road, Corrected by Hugh Howell, County Engineer.

## KAHULUI TO

	Miles.	Inter.		Miles.	Inter.
Spreckelsville . . . . .	4.0	..	Paia P. O. . . . .	7.2	..
Paia P. O. . . . .	7.2	3.2	Makawao Court House. . . . .	11.6	4.4
Hamakuapoko Mill . . . . .	9.2	2.0	Olinda . . . . .	18.5	6.9
Haiku P. O. . . . .	11.0	1.8	Haleakala, edge Crater. . . . .	26.6	8.1
Halehaku . . . . .	17.2	6.2	Haleakala Summit . . . . .	28.6	2.0
Huelo School . . . . .	20.2	3.0			
Keanae P. O. . . . .	35.5	15.3	Maalaea . . . . .	10.3	..
Nahiku Landing . . . . .	49.9	14.4	End of Mountain Road. . . . .	15.8	5.5
Ulaino School . . . . .	49.2	.7	Olowalu . . . . .	19.9	4.1
Hana P. O. . . . .	55.6	6.4	Lahaina Court House. . . . .	25.5	5.6
Hamoa . . . . .	58.2	2.6			
Wailua . . . . .	62.6	4.4	Waiehu . . . . .	6.4	..
Kipahulu Mill . . . . .	66.2	3.6	Waihee . . . . .	7.3	0.9
Mokulau . . . . .	71.8	5.6	Kahakuloa . . . . .	16.3	9.0
Nuu . . . . .	77.0	5.2	Honokohau . . . . .	23.0	6.7
			Honolua . . . . .	27.0	4.0
Wailuku . . . . .	3.8	..	Napili . . . . .	29.8	2.8
Waikapu . . . . .	5.9	2.1	Honokawai . . . . .	33.5	3.7
Maalaea . . . . .	10.3	4.4	Lahaina Court House. . . . .	39.0	5.5
Kihei . . . . .	12.6	2.3			
Kalepolepo . . . . .	13.9	1.3	MAKENA TO		
Ulupalakua . . . . .	23.6	9.7	Ulupalakua . . . . .	3.5	..
Kanaio . . . . .	26.8	3.2	Kamaole . . . . .	7.3	3.8
Pico's . . . . .	33.8	7.0	Waiakoa . . . . .	13.0	5.7
Nuu . . . . .	40.6	6.8	Makawao P. O. . . . .	20.8	7.8
			Makawao Court House. . . . .	23.0	2.2

## ISLAND OF HAWAII.

NORTH KOHALA.—FOREIGN CHURCH, KOHALA, TO

	Miles.	Inter.		Miles.	Inter.
Hamakua boundary . . . . .	4.5		Hilo, via Humuula St'n. . . . .	54.0	25.0
Kukuihaele Mill . . . . .	11.0	6.5	Keamuku Sheep St'n. . . . .	14.0	
Mana . . . . .	7.7		Napuu . . . . .	22.0	8.0
Hanaipoe . . . . .	15.0	7.5	Keawewai . . . . .	8.0	
Keanakolu . . . . .	24.0	9.0	Waika . . . . .	11.0	3.0
Puakala . . . . .	34.0	10.0	Kahuwa . . . . .	13.0	2.0
Laumaia . . . . .	36.5	2.5	Puuhue . . . . .	17.0	4.0
Anwaiakewa . . . . .	12.5		Kohala Court House . . . . .	22.0	5.0
Humuulu Sheep Station. . . . .	29.0	16.5	Mahukona . . . . .	22.0	
Via Laumaia . . . . .	47.5		Puako . . . . .	12.0	

NORTH KOHALA.—FOREIGN CHURCH, KOHALA, TO

	Miles.		Miles.
Edge of Pololu Gulch. . . . .	4.09	Union Mill . . . . .	2.25
Niuli Mill . . . . .	2.80	Union Mill R. R. Station. . . . .	3.25
Halawa Mill . . . . .	1.65	Honomakau . . . . .	2.55
Hapuu Landing . . . . .	2.15	Hind's, Hawi . . . . .	3.25
Kohala Mill . . . . .	.59	Hawi R. R. Station. . . . .	4.25
Kohala Mill Landing. . . . .	1.50	Honoipu . . . . .	7.25
Native Church . . . . .	1.00	Mahukona . . . . .	10.50
		Puuhue Ranch . . . . .	7.25

## NORTH KOHALA.—ON MAIN ROAD, MAHUKONA TO

Miles. Inter.		Miles. Inter.	
Hind's Mill	7.0	Wight's Corner	11.5
Union Mill Corner	8.0	Niulii Corner	12.8
Court House	9.2	Pololu Edge of Gulch	14.5
Bond's Corner	9.7	Puu Hue	5.0
Kohala Mill Corner	10.4		0.7

## SOUTH KOHALA.—KAWAIIHAE TO

Miles. Inter.		Miles.	
Puu Ainako	4.4	Mana, Parker's	19.5
Puuiki	7.7	Keawewai	6.0
Waiaka, Catholic Church	9.5	Puuhue Ranch	10.0
Puuopelu, Parker's	10.8	Kohala Court House	15.0
Waimea Court House	11.8	Mahukona	11.0
Waimea Church	12.2	Napuu	20.0
Kukuhihaele Church	22.1	Puako	5.0

## KONA.

## KEALAKEKUA TO

Keauhou	6.0	Kawaihae	42.0	4.6
Houualoa	9.6	Honaunau	4.0	
Kailua	12.0	Hookena	7.7	3.7
Kaloko	16.0	Olelomoana	15.2	7.5
Makalawena	19.6	Hoopuloa	21.6	6.4
Kiholo	27.6	Boundary of Kau	24.8	3.2
Ke Au a Lono bound'ry	31.6	Flow of '87	32.0	7.2
Puako	37.4	Kahuku Ranch	36.5	4.5

## KAU.—VOLCANO HOUSE TO

Half-way House	13.0	Honuapo	32.6	5.0
Kapapala	18.0	Naalehu	35.6	3.0
Pahala	23.0	Waiohinu	37.1	1.5
Punaluu	27.6	Kahuku Ranch	43.1	6.0

## PUNA.—HILO COURT HOUSE TO

(By new road.)

Miles.		Miles.	
Keauu, Forks of Road	9.0	Kaimu	32.0
Pahoa	20.0	Kalapana	33.0
Pohoiki	28.0	Keauhou	50.0
Kapoho (Lyman's)	32.0	Panau	40.0
Opihikao	31.0	Volcano House via Panau	56.0
Kamaili	26.0	Sand Hills, Naawale, old road	18.5
Kamaili Beach	29.0	Kapoho, old road	22.0

## TO VOLCANO.—HILO TO

Shipman's	1.7	Mountain View	16.8
Edge of Woods	4.1	Mason's	17.5
Cocoanut Grove	8.0	Hitchcock's	23.5
Branch Road to Puna	9.0	Cattle Pen	24.7
Furieux's	13.2	Volcano House	31.0

## THROUGH HILO DISTRICT TO

Honolii Bridge	2.5	Honohina Church	17.8
Papaikou Office	4.7	Waikaumalo Bridge	18.8
Onomea Church	6.9	Pohakupuka Bridge	21.0
Kaupakuea Cross Road	10.7	Maulua Gulch	22.0
Kolekole Bridge	14.3	Kaiwilahilahi Bridge	21.0
Hakalau, east edge gulch	15.0	Lydgate's House	26.1
Umauma Bridge	16.0	Laupahoehoe Church	26.7

THROUGH HAMAKUA.—LAUPAHOEHOE CHURCH TO

	Miles.		Miles.
Bottom Kawalii Gulch.....	2.0	Kuaikalua Gulch .....	22.0
OOKALA, Manager's House.....	4.0	Kapulena Church .....	23.9
Kealakaha Gulch .....	6.0	Waipanihua . . . . .	24.3
Kukaiau Gulch .....	8.0	Stream at Kukuihaele.....	26.0
Horner's . . . . .	8.5	Edge Waipio .....	26.5
Catholic Church, Kainehe.....	9.0	Bottom Waipio .....	27.0
Notley's, Paauilo .....	10.5	Waimanu (approximate) .....	32.5
Kaumoalii Bridge .....	12.5	Kukuihaele to Waimea (approximate) . . . . .	10.5
Bottom Kalopa Gulch.....	14.0	Gov't. Road to Hamakua Mill....	1.5
Wm. Horner's, Paauhau.....	15.2	Gov't. Road to Paauhau Mill....	1.0
Paauhau Church .....	16.3	Gov't. Road to Pacific Sugar Mill,	
Holmes' Store, Honokaa.....	18.0	Kukuihaele . . . . .	0.7
Honokaia Church .....	20.5		

ISLAND OF MOLOKAI.

KAUNAKAKAI TO

Meyer's, Kalae .....	5.0	Pukoo . . . . .	15.0
Kalaupapa . . . . .	9.0	Halawa . . . . .	25.0
Kamalo . . . . .	9.0	Ka Lae o ka Laau.....	19.0
Kaluaha . . . . .	13.5		

TABLE OF ELEVATIONS OF PRINCIPAL LOCALITIES THROUGHOUT THE ISLANDS.

(From Government Survey Records; Measurements from mean Sea Level.)

OAHU PEAKS.

	Feet.		Feet.
Kaala, Waianae Range.....	4030	Kaimuki Hill .....	291
Palikea, Waianae Range.....	3111	Koko Head, higher crater.....	1205
Konahuanui Peak, S. of Pali....	3105	Koko Head, lower crater.....	644
Lanihuli Peak, N. of Pali.....	2781	Makapuu, east point of island... 665	
Tantalus or Puu Ohia.....	2013	Mokapu, crater off Kaneohe....	681
Awawaloa (Olympus), Manoa..	2447	Olomana, sharp peak, Kailua....	1645
Round Top or Ualakaa.....	1049	Maelieli, sharp peak, Heeia....	715
Punchbowl Hill or Puowaina... 498		Ohulehule, sharp peak, Hakipuu.	2263
Diamond Head or Leahi.....	761	Koolau Range, above Wahiawa.	2381

LOCALITIES NEAR HONOLULU.

Nuuanu Road, cor. School St... 40		Nuuanu Road, Queen Emma's..	358
" " second bridge.... 77		" " cor. above Electric Light Works.....	429
" " cor. Judd St.... 137		Nuuanu Road, large bridge....	735
" " Cemetery gate... 162		" " Luakaha gate....	848
" " Mau's'l'm gate... 206		" " Pali, old station.	1214
" " Schaefer's gate.. 238			

MOLOKAI, ETC.

Kamakou Peak .....	4958	Kaolewa Pali, o'v'lkng. Settlnmt.	2100
Oloku Peak .....	4600	Meyer's, Kalae .....	1485
Kaunuoehua . . . . .	4535	Mauna Loa, near Kaunakakai... 1382	
Kalapamoa . . . . .	4004	Kualapuu Hill .....	1018
Puu Kolekole .....	3951	Kahoolawe (Moaula Hill).....	1472
Kaulahuki . . . . .	3749	Molokini . . . . .	160
Kaapahu Station .....	3563	Lanai . . . . .	3400

## HAWAII.

	Feet.		Feet.
Mauna Kea .....	13,825	Hiilawe Falls .....	1700
Mauna Loa .....	13,675	Parker's, Mana .....	3505
Hualalai .....	8275	Honokaa Store .....	1100
Kohala Mountains .....	5489	Kaluamakani, Hamakua ...	7584
Kilauea Vol. House, by leveling	3971	Lower edge forest, Hamakua ..	1700
Kulani, near Kilauea.....	5574	Lower edge forest, Hilo.....	1200
Kalaiheha .....	6660	Laupahoehoe Pali .....	385
Aahuwela, near Laumaia.....	7747	Kauku Hill .....	1964
Hitchcock's, Puakala .....	6325	Puu Alala .....	762
Ahumo'a .....	7034	Halai Hill .....	347
Waimea Court House.....	2669	Puu o Nale, Kohala.....	1797
Waipio Pali, in Mountain.....	3000	B. D. Bond's, Kohala.....	521
Waipio Pali, on S (Road)....	900	Episcopal Church, Kainaliu...	1578
Waipio Pali, on N. side.....	1394	Puu Enuhe, Kau.....	2327
Waimanu, at sea.....	1600	Puu Hoomaha, Kau.....	6636
Waimanu, in mountain.....	4000	Puu ka Pele, Kau.....	5768
Waiau Lake, Mauna Kea.....	13,041	Pohaku Hanalei, Kau.....	12,310
Poliahu, Mauna Kea.....	13,646	Kapoho Hill, Puna.....	432
Kalaieha, N. Hilo.....	6738	Kaliu Hill, Puna.....	1065
Pohaku Hanalei, Humuula....	7343	Olaa Trig. Station.....	622

## MAUI.

Haleakala (Red Hill).....	10,032	Puu Kapuai, Hamakua.....	1150
Mt. Kukui, West Maui.....	5790	Puu o Umi, Haiku.....	620
Piiholo, Makawao .....	2256	Puu Pane, Kula.....	2568
Puu Olai (Miller's Hill).....	355	Lahainaluna Seminary .....	600
Puu Io, near Ulupalakua.....	2841	Kauiki, Hana .....	392
Ulupalakua, about .....	1800	"Sunnyside" Makawao .....	930
Olinda, Makawao .....	4043	Paia Foreign Church, about. ..	850
Puu Pane, Kahikinui.....	3988	Eka. crater in Waihee.....	4500
Puu Nianiau, Makawao.....	6850	Keakaamanu, Hana .....	1250

## KAUAI

Hauptu .....	2030	Mt. Waialeale, central peak...	5170
Kilohana, about .....	1100	Namolokama .....	4200

NOTE—A large number of approximate elevations of stations where rain records are kept may be found in the Rain Tables in this Annual.

## Area, Elevation and Population of the Hawaiian Islands.

(As revised by latest official Records.)

Islands.	Area in Statute Square Miles.	Acres.	Height in Feet.	Population in 1910.
Hawaii.....	4,015	2,570,000	13,825	55,382
Maui.....	728	466,000	10,032	28,623
Oahu.....	598	384,000	4,030	81,993
Kauai.....	547	348,000	5,250	23,744
Molokai.....	261	167,000	4,958	1,791
Lanai.....	139	86,000	3,400	131
Niihau.....	73	62,000	1,300	208
Kahoolawe.....	44	44,000	1,472	2
Midway.....	...	.....	43	35

Total area of Hawaiian Islands, 6,405 miles.

The outlying islets on the N. W. may amount to 6 square miles.

## KILAUEA, ISLAND OF HAWAII.

Corrected for Deflection of the Vertical.

Area, 4.14 square miles, or 2,650 acres.  
 Circumference, 41,500 feet, or 7.85 miles.  
 Extreme width, 10,300 feet, or 1.95 miles.  
 Extreme Length, 15,500 feet, or 2.93 miles.  
 Elevation, Volcano House, 4,000 feet.

## MOKUAWEOWEO.

The Summit Crater of Mauna Loa, Island of Hawaii.

Area, 3.70 square miles, or 2,370 acres.  
 Circumference, 50,000 feet, or 9.47 miles.  
 Length, 19,500 feet, or 3.7 miles.  
 Width, 9,200 feet, or 1.74 miles. Elevation of summit, 13,675 feet.

## HALEAKALA, MAUI.

The great Crater of Maui, the largest in the world.

Area, 19 square miles, or 12,160 acres.  
 Circumference, 105,600 feet, or 20 miles.  
 Extreme Length, 39,500 feet, or 7.48 miles.  
 Extreme width, 12,500 feet, or 2.37 miles.  
 Elevation to summit, 10,032 feet.  
 Elevation of principal cones in crater, 8,032 and 1,572 feet.  
 Elevation of cave in floor of crater, 7,380 feet.

## IAO VALLEY, MAUI.

Length (from Wailuku), about 5 miles.  
 Width of Valley, 2 miles.  
 Depth, near head, 4,000 feet.  
 Elevation of Puu Kukui, above head of Valley, 5,700 feet.  
 Elevation of Crater of Eke, above Waihee Valley, 4,500 feet.

## Standard and Local Time.

The Standard Time of the Hawaiian Islands is that of Longitude  $157^{\circ} 30'$  W., 10 h. 30 m. slower than Greenwich Time. The time of sunrise and sunset given in the tables is of course local time; to correct this to standard time, add or subtract a correction corresponding with the differences between  $157^{\circ} 30'$  and the longitude of the station.

The corrections would be for the following stations:

Niihau . . . . .	+ 10:8 m	Wailuku, Maui . . . . .	- 4:0 m
Mana, Kauai . . . . .	+ 9:0 m	Haiku, Maui . . . . .	- 4:8 m
Koloa, Kauai . . . . .	+ 7:9 m	Hana, Maui . . . . .	- 6:0 m
Kilauea, Kauai . . . . .	+ 7:3 m	Kailua, Hawaii . . . . .	- 6:2 m
Waialua, Oahu . . . . .	+ 2:5 m	Kohala, Hawaii . . . . .	- 7:0 m
Kahuku, Oahu . . . . .	+ 2:0 m	Kukuihaele, Hawaii . . . . .	- 8:0 m
Honolulu, Oahu . . . . .	+ 1:5 m	Punaluu, Hawaii . . . . .	- 8:0 m
Kalaë, Molokai . . . . .	- 2:0 m	Ookala, Hawaii . . . . .	- 9:0 m
Lanai . . . . .	- 2:5 m	Hilo, Hawaii . . . . .	- 9:8 m
Lahaina, Maui . . . . .	- 3:0 m		

### Total Population by Districts and Islands — Comparative, 1900 and 1910.

From Census Bulletin, Washington, D. C.

HAWAII	1900	1910	OAHU	1900	1910
Hilo.....	19,785	22,545	Honolulu.....	39,306	52,183
Puna.....	5,128	6,834	Ewa.....	9,689	14,627
Kau.....	3,854	4,078	Waianae.....	1,008	1,958
North Kona.....	3,819	3,377	Waialua.....	3,285	6,770
South Kona.....	2,372	3,191	Koolauloa.....	2,372	3,204
North Kohala.....	4,366	5,398	Koolaupoko.....	2,844	3,251
South Kohala.....	600	922			
Hamakua.....	6,919	9,037		58,504	81,993
			Midway.....		35
MAUI	47,843	55,382	KAUAI		
Lahaina.....	4,352	4,787	Waimea.....	5,714	7,987
Wailuku.....	7,953	11,742	Niihau.....	172	208
Hana.....	5,276	3,241	Koloa.....	4,564	5,769
Makawao.....	7,236	8,855	Kawaihou.....	3,220	2,580
			Hanalei.....	2,630	2,457
	24,797	28,625	Lihue.....	4,434	4,951
Molokai.....	3,123	1,791		20,734	23,952
Lanai.....		131	Total whole group	154,001	191,909

### Population in 1910 by Age, Groups, Sex and Race.

COLOR OR RACE	Under 21 yrs.		21 yrs. and over		All ages		
	Male	Female	Male	Female	Male	Female	TOTAL
Hawaiian	5,513	5,404	7,926	7,198	13,439	12,602	26,041
Caucasian-Hawn.	2,956	2,813	1,482	1,521	4,438	4,334	8,772
Asiatic-Hawn.	1,363	1,391	449	531	1,812	1,922	3,734
Portuguese	6,599	6,508	4,974	4,222	11,573	10,730	22,303
Porto Rican	1,315	1,216	1,563	796	2,878	2,012	4,890
Spanish	610	569	468	343	1,078	912	1,990
Other Caucasian	2,359	2,244	6,896	3,368	9,255	5,612	14,867
Chinese	3,453	2,930	13,695	1,596	17,148	4,526	21,674
Japanese	12,989	11,016	41,794	13,875	54,783	24,891	79,674
Korean	400	306	3,531	296	3,931	602	4,533
Black and Mulatto	191	196	224	84	415	280	695
All Other	1,355	245	994	142	2,349	387	2,736
Total	39,103	34,838	83,996	33,972	123,099	68,810	191,909

### Population of Honolulu, various census periods.

1890.....	22,907	1896.....	29,926
1900.....	39,300	1910.....	52,183

Population Hilo Township, 1910.....6,745.

## POPULATION OF HAWAII, CENSUS OF 1910.

## Preliminary Statement of Details Issued by Census Bureau.

WASHINGTON, D. C., August 17, 1911.—Director Durand of the Census Bureau issues a preliminary statement today showing the distribution of the native born population of Hawaii by color or race and of the foreign born population of that territory by country of birth. These figures have been obtained from the earlier tabulations of the returns of the Thirteenth Census and are, therefore, subject to possible revision by reason of later tabulations, but it is hardly probable that such revision will materially affect the figures as given.

The native born population numbers 98,157, distributed by color or race as follows: Hawaiian, 26,041; Caucasian Hawaiian, 8,772; Asiatic Hawaiian 3,734; Portuguese, 13,766; Porto Rican, 4,830; Spanish, 357; other Caucasian, 9,917; Chinese, 7,195; Japanese, 19,889; Korean, 362; Black, 98; Mulatto, 504; and all other, 2,632.

Of the total native born population, the Hawaiian, Caucasian Hawaiian, and the Asiatic Hawaiian, together, formed 39.3 per cent.; the Chinese, 7.3 per cent.; the Japanese, 20.3 per cent.; the Portuguese, 14 per cent.; and the Porto Rican, 5 per cent.

The foreign born population totals 93,752, distributed by country of birth, as follows:

Australia, 150; Austria, 170; Azores, 444; Belgium, 24; Bulgaria, 2; Canada, 349; Canada, French, 5; Cape Verde Islands, 19; Central America, 6; China, 14,486; Cuba, 9; Denmark, 57; England, 629; Finland, 22; France, 76; Germany, 905; Greece, 31; Holland, 27; Hungary, 6; Ireland, 234; Italy, 36; Japan, 59,800; Luxemburg, 1; Mexico, 20; Newfoundland, 3; Norway, 200; Poland, 4; Portugal, 7,585; Roumania, 4; Russia, 1,073; Scotland, 532; South America, 47; Spain, 1,622; Sweden, 103; Switzerland, 28; Turkey in Asia, 1; Turkey in Europe, 5; Wales, 22; At Sea, 83; other countries, 4,932; including Africa, 13; Asia, N. S., 10; Atlantic Islands, 450; Europe, N. S., 1; Great Britain, N. S., 2; India, 34; Korea, 4,172; Pacific Islands, 216; Turkey, N. S., 4; and West Indies, 30.

Of the total foreign born population, the Chinese formed 15.5 per cent.; the Japanese, 63.8 per cent.; the Portuguese, 8.1 per cent.; and the Korean, 4.5.

The foreign born population of the Island of Hawaii numbers, 28,151; of Kahoolawe, 1; of Kauai, 13,415; of Lanai, 19; of Maui, 14,196; of Midway, 29; of Molokai, 254; of Niihau, 26; and of Oahu, 37,661.

Of the 14,486 Chinese, there are 8,492 on Oahu; 2,246 on Hawaii; 1,919 on Maui; 1,743 on Kauai; 1 on Lanai; 4 on Midway; and 81 on Molokai.

Of the 59,800 Japanese, Oahu shelters 20,563; Hawaii, 20,341; Maui, 9,724; Kauai, 9,018; Kahoolawe, 1; Lanai, 10; Midway, 13; Molokai, 105; and Niihau, 25.

There are 3,394 Portuguese on Oahu; 1,777 on Hawaii; 1,337 on Maui; 1,071 on Kauai; and 6 on Molokai.

The Koreans number 1,525 on Hawaii; 1,024 on Oahu; 873 on Kauai; 728 on Maui; 7 on Lanai; and 15 on Molokai.

Of the 254 foreign born persons living on the Island of Molokai there are 81 Chinese, or 31.9 per cent.; 105 Japanese, or 41.3 per cent.; 15 Koreans, or 5.9 per cent.; 14 Germans, or 5.5 per cent.; 3 Belgians, 4 Canadians, 1 Dane, 4 Englishmen, 1 Frenchman, 2 Hollanders, 3 Irish, 2 Norwegians, 6 Portuguese, 1 Russian, 1 Scotchman, 2 Spaniards, 3 Swedes, 1 Swiss, 2 born at sea, 2 Pacific Islanders, and 1 West Indian.

### Comparative Table of Population, Hawaiian Islands— Census Periods 1860-1910.

Islands	1860	1866	1872	1878	1884	1890	1896	1900	1910
Hawaii ..	21,481	19,808	16,001	17,034	24,994	26,754	33,285	46,843	55,382
Maui ....	16,400	14,035	12,334	12,109	15,970	17,357	17,726	24,797	28,623
Oahu ....	21,275	19,799	20,671	20,236	28,068	31,194	40,205	58,504	81,993
Kauai ...	6,487	6,299	4,961	5,634	*8,935	11,643	15,228	20,562	23,744
Molokai	2,864	2,299	2,349	2,581	} 2614	2,652	2,307	2,504	1,791
Lanai....	646	394	348	214		174	105	619	131
Niihau....	647	325	233	177	.....	216	164	172	208
Kahoolawe	.....	.....	.....	.....	.....	.....	.....	.....	2
Midway ..	.....	.....	.....	.....	.....	.....	.....	.....	35
<b>Total ..</b>	<b>69,800</b>	<b>62,959</b>	<b>56,897</b>	<b>57,985</b>	<b>80,578</b>	<b>89,900</b>	<b>109,020</b>	<b>154,001</b>	<b>191,909</b>
All Foreigners	2,716	4,194	5,366	10,477	36,346	49,368	69,516	116,366	153,362
Hawaiians ...	67,084	58,765	51,531	47,508	44,228	40,622	39,504	37,635	38,547

\* Including Niihau.

### Vital Statistics. Territory of Hawaii, 1911.

For Fiscal Year ending June, compiled from Board of Health Report.  
Table of Births, Marriages and Deaths by Counties.

ISLANDS, ETC.	Births	Marriages	Deaths
Honolulu .....	1,151	1,566	1,251
Other Districts of Oahu County .....	656	54	370
Hawaii County .....	1,258	280	858
Maui County .....	826	247	470
Kalawao County .....	14	19	66
Kauai County .....	589	100	282
<b>Total, 1910-11 .....</b>	<b>4,494</b>	<b>2,266</b>	<b>3,297</b>
“ 1909-10 .....	4,302	1,959	2,941
“ 1908-09 .....	4,941	1,648	2,851

### Table of Births and Deaths by Nationalities and Counties.

NATIONALITY	Honolulu		Other dist. Oahu		Hawaii		Maui		Kalawao		Kauai		TOTAL	
	Births	Deaths	Births	Deaths	Births	Deaths	Births	Deaths	Births	Deaths	Births	Deaths	Births	Deaths
American...	87	77	8	5	9	6	13	6	2	8	5	125	101	
British.....	18	17	2	3	8	4	7	1	.....	3	1	38	26	
Chinese.....	237	151	52	17	48	31	51	23	1	35	30	423	253	
German.....	15	9	1	1	1	6	2	1	.....	1	10	5	29	
Hawaiian...	176	457	50	61	160	233	142	144	13	56	51	59	592	
Part Haw'n	205	96	34	8	83	13	119	40	1	5	25	10	467	
Japanese....	314	235	377	195	489	343	268	150	.....	278	107	1,726	1,000	
Portuguese	63	133	82	43	276	102	165	71	.....	114	35	700	584	
Porto Rican	13	17	27	12	120	51	30	14	.....	1	42	6	232	
Spanish.....	5	12	9	11	36	10	12	4	.....	.....	11	3	73	
Others.....	18	47	14	14	28	59	17	16	.....	.....	12	21	89	
<b>Total.....</b>	<b>1,151</b>	<b>1,251</b>	<b>656</b>	<b>370</b>	<b>1,258</b>	<b>858</b>	<b>826</b>	<b>470</b>	<b>14</b>	<b>66</b>	<b>589</b>	<b>282</b>	<b>4,494</b>	<b>3,297</b>

## School Statistics, Territory of Hawaii.

From Report of the Superintendent of Public Instruction.

## NUMBER OF SCHOOLS, CLASS, ETC.

ISLANDS	PUBLIC SCHOOLS June 30, 1911.					PRIVATE SCHOOLS Dec. 31, 1910.		
	No. of Schools	No. of Teachers	No. of Pupils			No. of Schools	No. of Teachers	No. of Pupils
			Boys	Girls	Total			
Hawaii .....	60	162	3,640	2,972	6,612	8	32	752
Oahu .....	36	201	4,321	3,388	7,709	28	198	3,538
Maui, Molokai....	42	99	1,922	1,563	3,485	12	39	1,105
Kauai .....	17	61	1,514	1,277	2,791	3	7	130
Totals .....	155	523	11,397	9,200	20,597	51	276	5,525

## NUMBER OF SCHOOLS, TEACHERS AND PUPILS.

CLASS	Schools	TEACHERS			PUPILS		
		M.	F.	Total	M.	F.	Total
Public Schools .....	155	122	401	523	11,397	9,200	20,597
Private " .....	51	80	196	276	2,897	2,628	5,525
Totals .....	206	202	597	799	14,294	11,828	26,122

## AGES OF PUPILS IN PUBLIC AND PRIVATE SCHOOLS.

SCHOOLS	Under 6	6-15	Over 15	Total
	Public Schools .....	117	19,722	758
Private " .....	768	3,918	839	5,525
Total .....	885	23,640	1,597	26,122

## NATIONALITY OF PUPILS.

	Public	Private		Public	Private
	Hawaiians .....	3,369		827	Chinese .....
Part Hawaiians....	2,604	1,134	Japanese .....	6,902	705
Americans .....	436	598	Porto Ricans .....	442	42
English .....	91	64	Korean .....	177	106
Germans .....	159	105	Other Foreigners..	558	99
Portuguese .....	3,542	1,157	Total .....	20,597	5,525

The nationality of teachers in all schools of the Islands, 1910-11, was as follows: Hawaiian, 83; Part Hawaiian, 175; American, 374; English, 37; Germans, 13; Portuguese, 55; Chinese, 25; Japanese, 6; Korean, 4; other Foreigners, 27; Total, 799.

**Value Domestic Mdse. shipments to the United States from  
Hawaii for fiscal years ending June 30, 1910 and 1911.**

Compiled from Monthly Summary of Commerce and Finance, Bureau of Statistics.

Articles.	1910*	1911
Animals.....	\$ 1,465	261
Art Works, Paintings, etc.....	3,307	2,450
Books and printed matter.....	6,438	10,392
Beeswax.....	8,585	11,539
Breadstuffs.....	4,266	7,787
Chemicals, drugs, etc.....	3,679	14,530
Coffee.....	288,507	346,507
Cotton and manufactures of.....		2,753
Fertilizers.....	120	6,105
Fibers and textiles.....	19,000	15,161
Fish.....	156	317
Fruits and nuts.....	1,774,385	2,173,218
Hides and skins.....	139,105	121,037
Honey.....	32,703	52,004
India Rubber, crude.....		60
Jewelry.....	1,199	
Leather and manufactures of.....	3,343	
Machinery and parts of.....	165	1,717
Marble and stone.....	24	69
Meat products, tallow.....	2,147	4,166
Molasses and syrup.....	7	89,708
Musical instruments.....	873	2,020
Oils.....	150	272
Paper and manufactures of.....	425	500
Photographic goods.....	898	367
Pineapple juice.....	10,627	224,131
Rice.....	269,157	290,078
Spirits, Wines, etc.....	130	2,622
Straw and palm leaf, manufactures of.....	684	1,096
Sugar, brown.....	40,579,141	35,612,887
Sugar, refined.....	2,045,921	1,091,769
Tobacco leaf and manufactures of.....		40
Unmanufactured.....	15,644	4,114
Vegetables.....	8,850	11,586
Wood and manufactures of.....	155,603	146,878
Wool, raw.....	56,425	53,140
Wool, manufactures of.....	172	6,432
All other articles.....	7,345	4,724
Total shipments Hawaiian products.....	\$45,440,706	\$40,312,437
Returned shipments merchandise.....	720,582	867,758
Shipments foreign merchandise.....	21,977	27,456
<b>Total to United States.....</b>	<b>\$46,183,265</b>	<b>\$41,207,651</b>

\* Revised from figures given in 1911.

Import Values from United States for fiscal year ending  
June, 1911.

Compiled from Monthly Summary of Commerce and Finance, Bureau of Statistics.

Articles.	Domestic Mdse.	Foreign Mdse.	
		Dutiable	Free
Agricultural Implements.....	\$ 32,010		
Aluminum.....	2,022		
Animals.....	225,769		
Art Works.....	13,421	\$ 360	
Automobiles, and parts of.....	791,084		
Books, Maps, Engravings, etc.....	136,977		
Brass, and manufactures of.....	72,257	703	\$ 63
Breadstuffs.....	1,944,735		
Brooms and Brushes.....	42,444		
Candles.....	16,016		
Carriages, Cars, etc., and parts of...	197,313		
Cement.....	22,736	1,860	
Chemicals, Drugs, Dyes, etc.....	417,807	240	56,766
Clocks, Watches, and parts of.....	23,871	130	
Coal and Coke.....	131,664	604	
Cocoa and Chocolate.....	21,981		
Coffee, prepared.....	15,295		350
Copper, and manufactures of.....	60,734		
Cork, manufactures of.....		210	
Cotton, manufacture of, and clothing	2,989,722	22,734	
Earthen, Stone and Chinaware.....	81,911	2,000	
Eggs.....	28,040		
Explosives.....	199,722	564	
Fertilizers.....	1,022,789		35,317
Fibers, Textile Grasses, man. of....	101,913	165	100
Fish.....	389,563	1,418	20,187
Fruits and Nuts.....	269,342	405	
Furniture of Metal.....	19,615		
Glass and Glassware.....	225,350	3,565	
Grease and Soap Stock.....	17,608		
Hair and manufactures of.....	4,270		
Hay.....	250,745		
India Rubber, manufactures of.....	337,973		
Instruments for scientific purposes, telephones, etc.....	183,376		
Iron and Steel and manufactures of.	140,275	1,306	
Sheets and Plates, etc.....	647,062		
Builders' Hardware, etc.....	349,858		
Machinery, Machines, parts of...	961,472		
Nails, Spikes, Pipes, etc.....	1,426,717		
Jewelry & man'ftrs., Gold and Silver.	66,022		
Lamps, Chandeliers, etc.....	32,056		
Lead and manufactures of.....	37,446		
Leather and manufactures of.....	590,704		
Marble, Stone and manufactures of.	17,859		

## Import Values from United States for 1911—Continued.

Articles.	Domestic Mdse.	Foreign Mdse.	
		Dutiable	Free
Motor Boats.....	\$ 12,458		
Musical Instruments.....	59,651	\$ 21	
Naval Stores.....	18,578		
Nursery Stock.....	3,135		
Oil Cloth.....	13,756		
Oils; Animal, etc.....	1,345		
Mineral, Crude.....	982,510		
Refined, etc.....	569,761		
Vegetable.....	70,638	1,519	\$ 13,640
Paints, Pigments and Colors.....	241,181		
Paper and manufactures of.....	313,075	792	
Perfumery, etc.....	22,137		
Phonographs, etc.....	44,172		
Photographic Goods.....	104,914		
Plated Ware.....	17,731		
Provisions, etc., Beef Products.....	93,328		
Hog and other Meat Products.....	378,289	3,254	
Dairy Products.....	426,012	545	
Rice.....	6,581		
Seeds.....	9,078		50
Silk and manufactures of.....	76,445	555	
Soap; Toilet and other.....	158,448		
Spices.....			65
Spirits, etc., Malt Liquors.....	121,905	5,980	
Spirits, distilled.....	145,440	19,765	
Wines.....	371,596	16,331	
Starch.....	12,345		
Straw and Palm Leaf, man. of.....	45,856	45	
Sugar, Molasses and Syrup.....	75,880	2,608	
Confectionery.....	68,361		
Tea.....			21,915
Tin and manufactures of.....	62,155		468
Tobacco, manufactures of.....	562,044	2,183	336
Toys.....	24,111	286	
Varnish.....			
Vegetables.....	301,387	937	
Wood and manufactures of.....		430	
Logs and round timber.....	11,567		
Lumber, Shingles, etc.....	976,726		
Doors, Sash, Blinds and all other.....	304,391		
Furniture, n. e. s.....	212,216		
Wool and manufactures of.....	236,964	400	
Zinc, manufacturers of.....	6,902		
All other articles.....	509,711	6,792	
Total.....	\$21,677,213	\$ 98,680	\$ 149,284

### Hawaii's Commerce with U. S. and Foreign Countries.

Total Import with Export Values for 1910 and 1911.

Compiled from Monthly Summary of Commerce and Finance, Bureau of Statistics.

Countries.	Imports.		Exports.	
	1910	1910	1910	1911
Austria-Hungary.....	\$ 14	\$ 2,380	.....	\$ 174
Belgium.....	22,588	33,494	.....	400
Canada.....	18,675	32,829	\$ 19,136	29,171
Great Britain.....	455,730	566,198	1,355	45,955
Germany.....	312,740	591,349	19,093	41,345
France.....	23,029	16,530	80	2,126
Italy.....	2,907	10,211	.....	.....
Netherlands.....	36,364	15,020	.....	.....
Norway.....	386	680	.....	.....
Portugal.....	1,229	790	.....	.....
Switzerland.....	464	261	.....	.....
Sweden.....	2,903	4,317	.....	.....
Peru.....	.....	.....	2,001	.....
Chile.....	569,139	532,376	.....	.....
China.....	17,315	22,463	59	6,329
East Indies.....	525,026	557,944	48	955
Hong Kong.....	281,231	305,176	4,769	20,081
Japan.....	1,856,376	2,022,698	220,119	274,744
Australasia.....	279,129	295,435	16,434	7,774
Oceania.....	110,627	75,614	4,996	1,920
Korea.....	631	1,038	.....	.....
Philippines.....	89,238	102,977	18,648	297,958
United States*.....	20,560,101	21,925,177	46,183,265	41,207,651
All other.....	593	669	5	1,600
<b>Total.....</b>	<b>\$25,166,435</b>	<b>\$27,115,626</b>	<b>\$46,490,028</b>	<b>\$41,938,293</b>

\* Not including coin shipments.

### Exports and Imports for fiscal year ending June 30, 1911.

Exports—Domestic produce to United States.....	\$41,180,195
Foreign produce to United States.....	27,456
Coin shipments to United States.....	727,904
Domestic produce to Foreign Countries.....	725,624
Foreign produce to Foreign Countries.....	5,018
<b>Total export value.....</b>	<b>\$42,666,197</b>

Imports—Domestic produce from United States.....	\$21,677,213
Foreign produce from United States.....	247,964
Coin shipments from United States.....	950,000
Produce from Foreign Countries.....	5,190,449
<b>Total import value.....</b>	<b>\$28,065,626</b>

## Quantity and Value of Principal Articles of Domestic Produce Shipped to U. S. for the fiscal year ending June 30, 1911.

Compiled from Monthly Summary of Commerce and Finance, Bureau of Statistics.

Articles	Quantity	Value
Sugar, raw .....	pounds..... 988,607,458	\$ 35,612,887
Sugar, refined .....	"..... 22,608,400	1,091,769
Coffee, raw .....	"..... 2,705,144	346,041
Rice .....	"..... 6,665,330	290,078
Fibers, sisal.....	tons..... 151	15,096
Fruits: Fresh Bananas.....	bunches..... 170,645	99,917
Fresh Pineapples.....	.....	40,411
All other.....	.....	6,148
Canned Pineapples.....	.....	2,020,800
All other.....	.....	83
Preserved Pineapples.....	.....	1,061
All other.....	.....	3,897
Pineapple Juice.....	.....	224,131
Tobacco, unmnftrd, leaf.....	pounds..... 5,685	4,114
Hides and skins.....	"..... 1,434,103	121,037
Wool, raw .....	"..... 287,975	53,140
Timber, lumber & unmnftrd wood.....	.....	146,878

## United States Points of Hawaiian Supplies and Value.

Fiscal Years 1910-1011 Compared.

Customs Districts.	1910	1911
Baltimore.....	24,583	\$ 44,002
Newport News.....	88,098	44,598
New York.....	3,523,720	4,044,636
Norfolk and Portsmouth.....	46,712	26,590
Humboldt.....	67,798	52,797
Los Angeles.....	309,166	190,313
Philadelphia.....	.....	35,457
Portland.....	.....	9,620
Puget Sound.....	2,494,834	2,509,956
San Diego.....	1,552	.....
San Francisco.....	13,708,998	14,648,674
Willamette.....	23,545	.....
Astoria.....	11	10,570

### Number and Tonnage of Vessels Entering and Clearing at all Ports, District of Hawaii, 1911.

Ports.	Entered.		Cleared.	
	Vessels	Tons	Vessels	Tons.
Honolulu — Coastwise.....	247	809,967	224	668,900
Foreign.....	107	454,534	129	598,934
Hilo — Coastwise.....	39	36,781	41	35,996
Kahului — Coastwise.....	11	23,929	14	22,846
Foreign.....	2	3,557	..	.....
Mahukona—Coastwise.....	14	8,122	16	9,245
Foreign.....	3	2,298	..	.....
Koloa — Coastwise.....	3	1,504	5	5,851
Foreign.....	1	3,184	2	5,599
Total.....	427	1,343,876	431	1,347,371

### Value Carrying Trade to and from District of Hawaii, 1911.

Nationality.	Imports.	Exports.
American.....	\$24,494,011	\$41,378,214
British.....	1,027,462	288,172
Belgian.....	1,063	.....
French.....	16,051	.....
German.....	615,138	.....
Japanese.....	1,106,443	272,197
Norwegian.....	53,232	.....
All Other.....	99,180	.....
Total.....	\$27,512,580	\$41,938,583

### Importers of Rice from Japan, 1911.

Importers.	Quantity.	Value.
Japanese Rice Mill Co., Ltd.....Lbs...	1,284,000	\$37,151
M. Sayagusa Shoten....."	105,000	3,254
H. Hamano....."	722,142	22,543
K. Yamamoto....."	208,670	6,258
Alexander & Baldwin, Ltd....."	351,600	10,078
Y. Takakuwa....."	382,140	11,545
F. G. E. Walker....."	50,000	1,444
S. Ozaki....."	31,500	921
Odo Shoten....."	33,000	994
Hon. Japanese Sake Brewing Co....."	52,500	1,594
Theo. H. Davies & Co., Ltd....."	82,500	2,456
Total.....	3,303,052	\$98,238

### Passengers from and to Hawaii, fiscal year 1911.

Compiled from Custom House and Bureau of Immigration.

Ports	Arrivals from			Departures to		
	Cabin	Steerage	Total	Cabin	Steerage	Total
Auckland				14	3	17
Brisbane	21	6	27	14	26	40
Gibraltar		388	388	*13	4	17
Hongkong	159	2,895	3,054	119	946	1,065
Kobe	39	1,360	1,399	11	788	799
Lisbon		256	256			
Manila	1	69	70	22	187	209
Nagasaki	7	357	382	6	7	13
Oporto		734	734			
Ocean Islands	2		2			
San Francisco	†6,050	1,552	7,602	5,215	2,234	7,449
Shanghai	36	26	62	16	7	23
Suva	68	35	103	45	10	55
Sydney	211	33	244	134	31	165
Victoria	62	20	82	75	37	112
Vancouver	424	98	522	333	51	384
Valparaiso	6		6			
Yokohama	385	558	943	258	2,696	2,954
Total	7,471	8,405	15,876	6,276	7,036	13,302

\* To Fanning Island.

† Cabin Arrivals Estimated.

### Arrivals and Departures of Aliens, Honolulu and Foreign Ports, for fiscal year ending June 30, 1911.

Nationality.	Arrivals.	Departures.
Japanese	2,335	2,549
Chinese	405	737
Korean	8	48
Spanish	890	3
Portuguese	547	7
English	253	187
East Indian	74	4
Irish	37	3
Scotch	108	31
German	34	23
Greek	2	25
Russian	29	45
French	10	11
All other	36	15
Total	4,768	3,688

## Hawaiian Sugar Plantation Statistics.

Year	Sugar.		Molasses.		Total export Value.
	Pounds	Value.	Gallons.	Value.	
1875.....	25,080,182	\$ 1,216,388.82	93,722	\$ 12,183.85	\$ 1,228,572.68
1876.....	26,072,429	1,272,334.53	130,073	19,510.95	1,291,845.48
1877.....	25,575,965	1,777,529.57	151,462	22,719.30	1,800,248.87
1878.....	38,431,458	2,701,731.50	93,136	12,107.68	2,713,839.18
1879.....	49,020,972	3,109,566.65	87,475	9,622.52	3,119,185.91
1880.....	63,584,871	4,322,711.48	198,355	29,753.52	4,352,464.73
1881.....	93,789,483	5,395,399.54	263,587	31,630.44	5,427,020.98
1882.....	114,177,938	6,320,890.55	221,293	33,193.95	6,354,084.60
1883.....	114,107,155	7,112,981.12	193,997	34,819.46	7,147,800.58
1884.....	142,654,923	7,328,896.67	110,530	16,579.51	7,345,476.17
1885.....	171,350,314	8,356,061.94	57,941	7,050.00	8,363,111.94
1886.....	216,223,615	9,775,132.12	113,137	14,501.76	9,789,633.88
1887.....	212,763,647	8,694,964.07	71,222	10,522.76	8,705,486.83
1888.....	235,888,346	10,818,883.09	47,965	5,900.40	10,824,783.49
1889.....	242,165,835	13,089,302.10	54,612	6,185.10	13,095,487.20
1890.....	259,789,462	12,159,585.01	74,926	7,603.29	12,167,188.30
1891.....	274,983,580	9,559,537.80	55,845	4,721.40	9,564,259.20
1892.....	263,636,715	7,276,549.24	47,988	5,061.07	7,281,610.34
1893.....	339,822,879	10,200,958.37	67,282	5,928.96	10,206,887.37
1894.....	306,684,993	8,473,009.19	72,979	6,050.11	8,479,059.21
1895.....	294,784,819	7,975,590.41	44,970	3,037.83	7,978,628.24
1896.....	443,560,282	14,932,172.82	15,885	1,209.72	14,933,382.54
1897.....	520,158,232	15,390,422.13	33,770	2,892.72	15,393,314.85
1898.....	444,963,936	16,614,622.53	14,537	919.18	16,615,541.71
1899.....	545,370,537	21,898,190.97	11,455	358.55	21,898,549.52
1900*.....	344,531,173	13,919,400.21	120	10.00	13,919,410.21
1901.....	690,882,132	27,094,155.00	93,820	4,615.00	27,098,770.00
1902.....	720,553,357	23,920,113.00	48,036	2,187.00	23,922,300.00
1903.....	774,825,420	25,310,684.00	10	1.00	25,310,685.00
1904.....	736,491,992	24,359,385.00	11,187	712.00	24,360,097.00
1905.....	832,721,637	35,112,148.00	26,777	1,282.00	35,113,430.00
1906.....	746,602,637	24,495,427.00	3,180	177.00	24,495,604.00
1907.....	822,014,811	27,692,997.00	6,917	355.00	27,693,352.00
1908.....	1,077,570,637	39,816,062.00	23	20.00	39,816,082.00
1909.....	1,022,863,927	37,632,742.00	728	79.00	37,632,821.00
1910.....	1,111,594,466	42,625,062.00	100	7.00	42,625,069.00
1911.....	1,011,215,858	36,704,656.00	1,801,796	89,708.00	36,794,364.00

\* Five and one-half months to June 14. Fiscal year thereafter ending June 30.

## Nationality of Plantation Labor, December 31, 1909 and 1910.

[Courtesy Bureau of Labor and Statistics, Hawaiian Sugar Planters' Ass'n.]

	1909	1910		1909	1910
Americans . . . . .	604	652	Japanese . . . . .	27,989	27,258
Spanish . . . . .	535	502	Chinese . . . . .	2,848	2,591
Portuguese . . . . .	3,663	3,577	Koreans . . . . .	1,705	1,549
Russians . . . . .	.....	245	Filipinos . . . . .	644	3,288
Other Europeans . . . . .	380	273	Others . . . . .	204	.....
Hawaiians . . . . .	1,153	1,091			
Porto Ricans . . . . .	1,953	1,820	Total . . . . .	41,748	42,846

## Hawaii's Annual Trade Balance, etc., from 1880.

Year.	Imports.	Exports.	Excess export Values.	Custom house Receipts.
1880.....	\$ 3,673,268.41	\$ 4,068,444.87	\$ 1,295,176.46	\$ 402,181.63
1881.....	4,547,978.64	6,885,436.56	2,337,457.92	523,192.01
1882.....	4,974,510.01	8,299,019.70	3,324,506.69	505,390.98
1883.....	5,624,240.09	8,133,343.88	2,509,103.79	577,332.87
1884.....	4,637,514.22	8,856,610.30	4,219,096.08	551,736.59
1885.....	3,830,544.58	9,158,818.01	5,328,273.43	502,337.38
1886.....	4,877,738.73	10,565,885.58	5,688,146.85	580,444.04
1887.....	4,943,840.72	9,707,047.33	4,763,206.61	595,002.64
1888.....	4,540,887.46	17,707,598.76	7,166,711.30	546,142.63
1889.....	5,438,790.63	13,874,341.40	8,435,560.77	550,010.16
1890.....	6,962,201.13	13,142,829.48	6,180,628.35	695,956.91
1891.....	7,439,482.65	10,258,788.27	2,819,305.62	732,594.93
1892.....	4,028,295.31	8,060,087.21	4,031,791.90	494,385.10
1893.....	4,363,177.58	10,818,158.09	6,454,980.51	545,754.16
1894.....	5,104,481.43	9,140,794.56	4,036,313.13	522,855.41
1895.....	5,339,785.04	8,474,138.15	3,134,353.11	547,149.04
1896.....	6,063,652.41	15,515,230.13	9,451,577.72	656,895.82
1897.....	7,682,628.09	16,021,775.19	8,339,147.10	708,493.05
1898.....	10,368,815.09	17,346,744.79	6,977,929.70	896,675.70
1899.....	16,069,576.96	22,628,741.82	6,559,164.86	1,295,628.95
1900 (5½ mos.)	10,231,197.58	14,404,496.16	4,173,298.58	597,897.14
1901.....	24,964,693.43	29,342,697.00	4,378,003.57	1,264,862.78
1902.....	22,036,583.00	24,793,735.00	2,757,152.00	1,327,518.23
1903.....	13,982,485.00	26,275,438.00	12,292,953.00	1,193,677.83
1904.....	15,784,691.00	25,204,875.00	9,420,184.00	1,229,338.15
1905.....	14,718,483.00	36,174,526.00	21,456,043.00	1,043,340.38
1906.....	15,639,874.00	26,994,824.00	11,354,950.00	1,218,764.13
1907.....	18,662,434.00	29,303,695.00	10,641,261.00	1,458,843.48
1908.....	19,757,270.00	42,241,921.00	22,484,651.00	1,550,157.32
1909.....	22,241,041.00	42,281,777.00	20,040,736.00	1,396,379.01
1910.....	26,152,435.00	47,029,631.00	20,877,196.00	1,450,324.63
1911.....	28,065,626.00	42,666,197.00	14,600,571.00	1,654,761.34

## Summary of Insurance Business, Territory of Hawaii, for the Year 1910.

From Report of Insurance Commissioner,

Class.	Amount Written	Amount Premiums	Losses and Claims paid
Fire.....	\$24,343,593.77	\$ 508,262.80	\$ 69,778.62
Marine.....	60,403,226.97	288,063.77	15,318.20
Life.....	1,883,930.00	* 527,688.67	367,814.23
Accident and Health.....	.....	21,416.32	3,904.05
Automobile.....	.....	10,545.54	2,334.40
Surety and Fidelity.....	.....	21,009.61	.....
Employers' Liability.....	.....	11,924.75	636.77
Plate Glass.....	.....	1,873.35	533.51
Burglary.....	.....	151.26	.....
Total.....	\$86,630,660.74	\$ 1,390,936.07	\$ 460,319.87

\* Of this amount \$66,719.16 is new business and \$460,969.51 renewals.

Table of Receipts, Expenditures, and Public Debt of Hawaii,  
for Biennial Periods up to 1894, then Annually.

(From Official Reports.)

Years.	Revenue.	Expenditures.	Cash Balance in Treasury.	Public Debt.
1856.	\$ 419,288.16	\$ 424,778.25	\$ 28,096.84	\$ 22,000.00
1858.	537,223.86	599,879.61	349.24	60,679.15
1860.	571,041.71	612,410.55	13,127.52	128,777.32
1862.	528,039.92	606,893.33	507.40	188,671.86
1864.	538,445.34	511,511.10	22,583.29	166,649.09
1866.	721,104.30	566,241.02	169,059.34	182,974.60
1868.	825,498.98	786,617.55	163,576.84	120,815.23
1870.	834,112.65	930,550.29	61,580.20	126,568.68
1872.	912,130.74	969,784.14	56,752.41	177,971.29
1874.	1,136,523.95	1,192,511.79	746.57	355,050.76
1876.	1,008,956.42	919,356.93	89,599.49	459,187.59
1878.	1,151,713.45	1,110,471.90	130,841.04	444,800.00
1880.	1,703,736.88	1,495,697.48	338,880.44	388,900.00
1882.	2,070,259.94	2,282,590.33	126,541.05	299,200.00
1884.	3,092,085.42	3,216,406.05	2,220.42	898,800.00
1886.	3,010,654.61	3,003,700.18	9,174.85	1,065,600.00
1888.	4,812,575.96	4,712,285.20	109,465.60	1,936,500.00
1890.	3,632,196.85	3,250,510.35	491,152.10	2,599,502.94
1892.	3,916,880.72	4,095,891.44	312,141.38	3,217,161.13
1894.	3,587,204.98	3,715,232.83	184,113.53	3,417,459.87
1894.	1,972,135.43	1,854,053.08	69,225.76	3,574,030.16
1895.	2,050,729.41	2,284,179.92	302,676.27	3,764,335.03
1896.	2,383,070.78	2,137,103.38	315,193.16	3,914,608.35
1897.	2,659,434.16	2,617,822.89	456,804.43	4,390,146.65
1898.	2,709,489.12	2,299,937.57	740,280.21	4,457,605.85
1899.	3,854,231.50	3,038,638.38	1,531,784.29	4,890,351.49
1900.	2,772,871.87	3,727,926.28	624,471.25	4,226,374.61
1901.	2,140,297.36	2,576,685.53	287,131.30	939,970.31
1902.	2,473,172.81	2,382,968.90	77,914.36	1,093,970.31
1903.	2,387,715.88	2,603,194.20	56,613.29	2,185,000.00
1904.	2,415,356.33	2,844,054.81	68,592.03	3,317,000.00
1905.	2,354,783.37	2,240,731.55	59,408.49	3,861,000.00
1906.	3,320,998.90	2,512,675.89	335,331.37	3,818,000.00
1907.	2,716,624.00	2,665,845.74	348,216.51	3,718,000.00
1908.	2,551,522.21	2,508,001.51	391,737.19	3,979,000.00
1909.	3,051,526.81	2,508,001.51	453,106.76	3,959,000.00
1910.	3,494,412.57	3,077,820.70	845,218.51	4,079,000.00
1911.	3,823,618.53	3,600,936.68	1,301,968.43	4,004,000.00

Hawaii's Bonded Debt, June 30, 1911.

Fire Claims Bonds issued.....	\$ 160,000
Public Improvement 4½% Bonds, 1903-04.....	1,000,000
Public Improvement 4¼% Bonds, 1904-05.....	1,000,000
Refund Bonds, 1905, 4%.....	600,000
Public Improvement 3½% Bonds.....	1,244,000
Total Bonds Outstanding .....	\$4,004,000

## Taxes by Divisions and Counties for the Fiscal Year Ended June 30, 1911.

Courtesy of J. H. Fisher, from Auditing Department Report.

Division of Taxes.	Oahu	Maui	Hawaii	Kauai	Total.
Real Estate.....	\$ 354,538.30	\$ 178,249.01	\$ 163,730.09	\$ 69,912.28	\$ 766,429.68
Personal Property.....	395,527.75	107,787.74	138,850.95	91,638.01	733,806.45
Bicycles and Tags.....	1,244.80	78.10	404.80	130.90	1,858.60
Automobiles.....	7,694.35	1,795.20	1,987.30	1,773.50	13,250.25
Carriages, Carts, Etc.....	11,636.00	5,087.00	8,677.00	4,154.00	29,554.00
Dogs and Dog Tags.....	2,292.30	707.30	1,598.30	474.10	5,072.00
Poll.....	16,439.00	9,279.00	14,586.00	8,079.00	48,383.00
Road.....	32,787.00	18,558.00	29,172.00	16,158.00	96,766.00
School.....	32,787.00	18,558.00	29,172.00	16,158.00	96,766.00
Costs and Penalty.....	8,081.15	2,761.23	2,448.90	439.72	13,731.00
Income.....	347,359.59	47,461.10	18,256.05	9,175.05	422,251.79
Special Income.....	315,193.07	44,940.58	12,752.50	6,863.53	379,749.68
Totals.....	\$1,525,762.31	\$ 435,264.26	\$ 421,635.89	\$ 224,956.09	2,607,618.55
Less Road Tax.....	53,339.35	25,511.20	40,204.30	22,204.50	141,259.35
Less Special Income.....	\$1,472,422.96	\$ 409,753.06	\$ 381,431.59	\$ 202,751.59	\$2,466,359.20
	315,193.07	44,940.58	12,752.50	6,863.53	379,749.68
Income Tax collected by Oahu for other Counties.	\$1,157,229.89	\$ 364,812.48	\$ 368,679.09	\$ 195,888.06	\$2,086,609.52
	135,336.10	51,545.00	46,014.90	37,776.20	.....
Net Amount Divided.....	\$1,021,893.79	\$ 416,357.48	\$ 414,693.99	\$ 233,664.26	\$2,086,609.52
Share for Counties.....	\$ 510,946.91	\$ 208,178.74	\$ 207,346.09	\$ 116,832.12	\$1,043,304.76

## Comparative Table Collected Taxes for Calendar Years.

From Auditing Department Reports.

Division.	1907	1908	1909	1910
Real Estate.....	\$ 639,346.05	\$ 655,861.42	\$ 673,302.36	\$ 749,113.45
Personal Property....	628,903.97	640,162.05	714,417.54	728,029.56
Bicycles and Tags....	1,961.20	1,875.20	1,984.50	2,023.50
Automobiles.....	2,220.00	3,720.00	4,920.00	8,186.10
Carriages, Carts, Etc.*	28,867.00	29,714.00	29,780.00	28,909.00
Dog and Dog Tags....	6,245.40	6,370.30	5,920.70	5,531.80
Poll.....	46,818.00	47,733.00	47,882.00	48,560.00
Road.....	93,646.00	95,020.00	96,177.00	97,120.00
School.....	93,636.00	95,024.00	95,764.00	97,120.00
10% Penalty.....	9,266.87	7,102.00	7,886.86	7,134.62
Costs † and Interest..	7,618.03	7,483.45	7,758.63	8,238.81
Income.....	227,727.02	307,620.20	474,415.26	402,099.63
Special Income Tax..	.....	.....	196,277.24	357,232.92
Total.....	\$1,786,256.54	\$1,897,685.64	\$2,356,486.09	\$2,539,299.79

\* Including Brakes and Sulkies. † Advertising and Court Costs.

## Registered Voters, by Races, at General Elections, 1904-10.

(Revised for this issue.)

Race.	1904.	1906.	1908.	1910.
Hawaiian.....	9,260	9,635	8,967	9,619
American.....	1,872	1,674	1,715	1,763
Portuguese.....	728	939	1,230	1,530
British.....	542	563	567	554
German.....	301	301	322	333
Other whites.....	373	246	195	234
Chinese.....	175	220	272	396
Japanese.....	2	....	6	13
Total.....	13,253	13,578	13,274	14,442

## Votes Cast for Delegate to Congress at Above General Elections.

Party.	1904.	1906.	1908.	1910.
Republican.....	6,833	7,364	5,698	8,049
Democratic.....	2,868	2,884	3,824	4,503
Home Rule.....	2,289	2,182	2,794	989
Total.....	11,990	12,430	12,316	13,541

### Assessed Values Real and Personal Property for 1911, by races of tax-payers.

Courtesy Treasury Department.

Taxpayers.	Real Estate.		Personal Property.	
	No. Tax-payers.	Assessed Value.	No. Tax-payers.	Assessed Value.
Corporations, firms, etc.	486	\$47,495,036	638	\$67,904,836
Anglo-Saxons.....	2,378	15,653,362	2,062	3,076,370
Hawaiians.....	5,853	11,188,184	1,957	1,320,140
Chinese.....	507	895,450	1,857	2,150,513
Japanese.....	467	219,994	2,291	1,750,785
Portuguese.....	1,648	2,432,367	1,131	403,093
All Others.....	5	3,433	1	469
Total.....	11,344	\$77,887,826	9,937	\$76,696,206

### Hawaiian Corporations, 1911.

Class.	Total No.	Number and Capital				Total.
		Incorporated before and after Aug. 12, 1898.				
		No.	Before.	No.	After.	
Agricultural...	162	64	\$40,625,750	98	\$36,417,850	\$ 77,043,600
Mercantile.....	463	89	20,663,625	374	57,804,428	57,804,428
Railroad.....	12	5	7,370,000	7	7,575,000	14,945,000
Street Car.....	1	..	.....	1	1,000,000	1,000,000
Steamship.....	1	1	2,250,000	..	.....	2,250,000
Bank.....	4	1	600,000	3	1,100,000	1,700,000
Savings & Loan	8	1	300,000	7	430,000	730,000
Trust.....	6	1	100,000	5	600,000	700,000
Insurance.....	2	..	.....	2	700,000	700,000
Eleemosynary..	116	55	.....	61	.....	.....
Total.....	775	217	\$71,909,375	558	\$84,063,653	\$156,873,028

### Seating capacity of principal Churches, Halls and Places of Amusement—Honolulu.

Roman Catholic Cathedral, Fort street.....	1,500
Hawaiian Opera House, King street.....	1,000
Kawaiahao Church (Native), King street.....	1,000
The New Orpheum, Hotel street.....	850
Empire Theatre (moving pictures).....	930
Central Union Church, Beretania street.....	850
St. Andrew's Cathedral (Episcopal), Emma street.....	800
Chas. R. Bishop Hall, Punahou Preparatory Building.....	600
The Bijou (vaudeville).....	1,600
Y. M. C. A. game hall.....	850

TABLE OF ANNUAL LICENSE FEES.

Territory of Hawaii.

<i>Alcohol</i> .....	\$ 50.00	<i>Lodging and Tenement House</i> .....	2.00
<i>Awa Honolulu</i> .....	300.00	<i>Laundry</i> .....	25.00
Hilo, Wailuku or Lahaina .....	50.00	<i>Livery Stable—Honolulu</i> ....	50.00
All other .....	25.00	All other .....	25.00
<i>Auction—Honolulu</i> .....	600.00	<i>Liquor—1st class, wholesale..</i>	1000.00
All other .....	15.00	2nd class, retail saloon or hotel .....	750.00
<i>Banking—Honolulu</i> .....	750.00	Restaurant .....	500.00
Hilo .....	500.00	For premises outside 5 mile radius from 1st to 3d class postoffice..	250.00
All other .....	250.00	3rd class, not over 3 days, per day .....	15.00
<i>Billboard and Outdoor Advertising:</i>		4th class—wine .....	5.00
City and County Honolulu .....	250.00	5th class—manufacturing..	5.00
Other counties, each....	100.00	<i>Manufacture Food Products.</i>	10.00
<i>Billiard—each table</i> .....	25.00	<i>Milk</i> .....	2.50
<i>Bowling Alley—each alley</i> ...	25.00	<i>Merchandise—Fee on gross receipts—</i>	
<i>Beef Butcher—“Slaughter and Sell,” Honolulu</i> .....	100.00	On gross receipts less than \$25,000.....	25.00
All other .....	20.00	On gross receipts more than \$25,000 and less than \$50,000.....	50.00
<i>Beef Butcher—“Sell”</i> .....	10.00	On gross receipts more than \$50,000.....	100.00
<i>Boat—With 4 or more oars..</i>	8.00	Business not conducted one full year.....	25.00
With less than 4 oars....	4.00	— Broker .....	100.00
<i>Boatman</i> .....	1.00	— Peddler .....	50.00
<i>Barber</i> .....	10.00	<i>Notary Public—Honolulu</i> ...	10.00
<i>Brewery</i> .....	250.00	All other .....	5.00
<i>Certificate of Authority</i> ....	10.00	<i>Pork Butcher—“Sell”</i> .....	10.00
<i>Car License Tax—per car</i> ....	10.00	— “Slaughter and Sell,” Honolulu .....	40.00
<i>Custom House Broker</i> .....	50.00	All other .....	20.00
<i>Collection Agency</i> .....	25.00	<i>Peddling Cake</i> .....	25.00
<i>Dray, Wagon, etc.</i> .....	2.50	<i>Pawnbroker</i> .....	50.00
<i>Driver</i> .....	1.00	<i>Public Show—per show</i> .....	1.00
<i>Dyeing or Cleaning, etc.</i> ....	25.00	<i>Poisonous Drug</i> .....	50.00
<i>Emigrant Agent</i> .....	500.00	<i>Second Hand Dealer, etc.</i> ....	25.00
<i>Employment Agency</i> .....	25.00	<i>Stock and Share</i> .....	100.00
<i>Foreign Corporation</i> .....	100.00	<i>Steam Laundry</i> .....	50.00
<i>Farrier and Horse-shoer</i> ....	5.00	<i>Social Club Tax</i> .....	200.00
<i>Fishing Boat</i> .....	5.00	<i>Tobacco, Cigars, &amp;c.</i> .....	10.00
<i>Garage—Honolulu</i> .....	50.00	<i>Trust Company</i> .....	250.00
All other .....	25.00		
<i>Hack and Passenger Vehicle—per passenger</i> .....	1.00		
<i>Hotel and Restaurant</i> .....	50.00		
Honolulu or Hilo.....	50.00		
All other .....	25.00		
<i>Insurance Agent</i> .....	2.00		

## TABLE OF RAINFALL, Principal Stations.

Compiled from Weather Bureau Reports.

Stations	Observer	1910					
		July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>HAWAII</b>							
Waiakea	C. C. Kennedy	10.43	16.11	5.25	7.96	10.87	14.12
Hilo (Town)	L. C. Lyman	10.44	18.18	3.96	2.64	9.94	15.36
Ponahawai	J. E. Gamalielson	12.69	22.18	7.22	8.66	14.41	19.58
Pepeekeo	Pepeekeo Sugar Co.	7.67	13.59	4.45	7.83	10.46	17.01
Hakalau	J. M. Ross	10.99	14.83	7.68	5.34	9.41	19.75
Laupahoe	E. W. Barnard	9.84	7.34	4.31	9.84	9.92	22.54
Ookala	W. G. Lawson	8.55	12.95	2.07	9.32	12.48	25.30
Kukaiiau	E. Madden	4.45	7.76	1.50	4.80	9.67	17.98
Pauhau	L. Wilson	4.85	9.38	1.90	5.91	10.86	7.14
Honokaa	K. L. Andrews	4.34	5.66	0.98	5.87	7.84	16.01
Waimea	F. Pinho	2.90	1.95	2.17	4.70	2.52	3.48
Kohala	Dr. B. D. Bond	6.53	5.13	2.06	4.16	5.11	9.93
Holualoa	L. S. Aungst	8.45	5.91	15.65	6.45	0.51	.72
Kealakekua	Rev. S. H. Davis	6.83	4.30	13.59	6.68	0.51	0.47
Naalehu	C. Wolters	1.21	7.64	3.46	1.84	3.32	1.69
Pahala	Haw. Agr. Co.	0.56	5.86	2.92	0.94	2.74	2.19
Volcano House	Geo. Lycurgus	3.45	9.40	2.67	3.69	6.17	6.29
Olaa (17 miles)	Olaa Sugar Co.	17.73	24.86	8.03	15.09	18.14	16.62
Kapoho	H. J. Lyman	6.76	6.24	6.99	6.34	6.31	15.46
<b>MAUI</b>							
Haleakala Ranch	L. von Tempsky	2.07	2.50	2.02	0.66	2.17	9.75
Puuomalei	A. McKibbin	5.28	5.90	4.04	5.36	5.43	16.53
Makawao	F. W. Hardy	3.66	3.54	2.56	2.93	4.22	10.61
Kula	Mrs. D. von Tempsky	4.10	2.22	4.61	2.36	0.50	3.84
Haiku	D. D. Baldwin	4.83	9.11	2.32	4.85	7.61	16.08
Keanae Valley	W. F. Pogue	21.64	30.17	13.05	13.48	20.30	59.59
Nahiku	C. O. Jacobs	9.70	21.06	7.14	8.37	10.48	43.35
Wailuku	Bro. Frank	0.20	1.56	0.28	0.62	1.25	16.01
Hana	Geo. O. Cooper	3.36	14.35	3.89	3.80	3.21	31.82
<b>OAHU</b>							
Honolulu	U. S. Weather Bureau	0.95	2.04	6.40	0.63	3.05	2.64
Kinaiu Street	W. R. Castle	0.83	2.21	6.39	0.84	3.30	2.66
Manoa	C. S. Desky	5.01	8.25	9.88	4.02	6.09	7.31
Nuuanu Ave.	Miss C. Hall	2.74	3.61	8.21	1.28	3.63	3.85
Electric Lt. St.	A. Walker	5.21	6.92	11.87	4.72	8.87	11.78
Luakaha	L. A. Moore	9.15	18.53	16.04	10.47	16.64	17.52
Waimanalo	A. Irvine	1.14	4.49	7.34	2.83	2.46	5.63
Maunawili	Jno. Herd	2.73	10.24	10.22	4.45	5.80	10.79
Ahuimanu	M. A. Robinson	3.41	7.66	11.62	3.40	7.24	.....
Kahuku	R. T. Christophersen	1.44	2.94	1.31	2.28	4.27	3.46
Ewa Plantation	R. Muller	0.63	1.25	3.28	0.35	3.21	3.24
Wahiawa	H. C. Brown	1.67	5.88	9.05	1.16	5.76	8.91
Waiawa	A. Lister	2.85	5.37	9.89	3.24	3.70	4.95
Wajmalu	Hon. Plan. Co.	1.03	2.86	8.35	0.92	2.94	3.40
<b>KAUAI</b>							
Grove Farm	G. N. Wilcox	1.77	2.13	2.51	5.26	12.19	4.79
Kealia	Makee Sugar Co.	1.20	1.11	4.59	9.28	11.07	3.00
Kilauea	L. B. Boreiko	4.51	2.75	3.18	6.86	11.35	4.83
Eleele	McBryde Sugar Co.	1.12	0.63	1.62	1.97	7.21	3.86
Kukuiaua	F. L. Zoller	2.22	1.33	3.75	2.44	11.92	3.68
Waiawa	A. F. Knudsen	0.23	0.00	4.19	1.26	5.10	3.61

## Throughout the Hawaiian Islands, 1910-1911.

By Wm. B. Stockman, Section Director. Continued from last Annual.

Locality	Feet Elev.	1911						
		Jan.	Feb.	Mar.	April	May	June	Year
HAWAII								
Waiakea.....	50	15.76	15.61	12.13	15.23	15.04	10.46	148.97
Hilo.....	100	15.79	18.73	13.86	18.20	15.56	11.29	153.95
Ponahawai.....	500	14.79	26.84	11.98	21.57	18.76	16.27	194.95
Peepeekeo.....	100	15.34	12.52	11.81	12.06	16.35	10.71	139.80
Hakalau.....	200	18.94	23.13	11.09	16.84	15.24	15.12	168.36
Laupahoehoe.....	100	15.60	21.99	6.74	20.85	14.83	19.70	163.50
Ookala.....	400	13.24	23.50	9.36	16.88	11.07	11.20	155.92
Kukaiaiu.....	250	12.15	22.72	8.48	13.00	8.64	8.14	119.29
Paauhau Mill.....	300	10.58	18.53	7.49	8.48	7.67	6.45	99.24
Honokaa.....	470	9.44	20.11	6.77	7.94	7.74	7.29	99.99
Waimea.....	2720	8.74	15.15	5.03	4.45	4.20	5.23	60.52
Kohala Mission.....	521	7.92	8.18	6.42	7.90	2.93	6.94	73.21
Holualoa.....	1350	6.73	0.96	6.91	2.29	5.44	7.01	67.03
Kealakekua.....	1580	7.03	1.55	7.07	2.58	5.81	9.75	66.17
Naalehu.....	650	4.98	8.85	11.85	4.53	2.22	1.44	53.03
Pahala.....	850	2.64	9.11	11.83	5.34	2.71	0.10	46.94
Kilauea Crater.....	4000	8.50	24.58	10.01	10.44	1.39	4.52	91.11
Olaa, Puna.....	1530	17.56	45.10	15.71	28.39	26.31	21.00	254.54
Kapoho.....	110	9.39	15.39	13.18	12.10	11.44	8.28	117.88
MAUI								
Haleakala Ranch.....	2000	5.49	10.69	5.21	1.98	2.03	0.37	44.94
Puuomalei.....	1400	7.14	18.42	4.00	6.39	5.00	5.62	89.11
Makawao.....	1700	5.34	15.09	5.02	3.48	4.14	1.65	62.24
Erehwon.....	4000	6.02	3.35	7.92	3.72	5.28	0.00	43.92
Haiku.....	700	8.84	11.84	4.41	5.16	4.92	7.45	87.42
Keanae.....	1000	27.40	37.48	4.67	21.45	24.53	26.75	300.51
Nahiku.....	700	16.44	18.16	6.59	10.04	19.49	12.87	183.69
Wailuku.....	250	4.67	5.26	3.40	1.01	3.09	0.43	37.78
Hana.....	145	9.84	9.66	6.05	5.50	6.50	4.18	102.16
OAHU								
U. S. W'th'r B're'u.....	108	4.04	7.98	2.13	1.70	2.62	0.37	34.55
Kinau Street.....	50	3.99	9.54	3.35	1.44	3.09	0.41	38.05
Woodlawn.....	300	9.57	16.94	4.66	3.22	7.36	5.92	88.23
Nuuanu Avenue.....	50	6.02	11.24	3.42	2.49	3.70	1.93	52.12
Nuuanu Elec. St'n.....	405	14.56	19.27	5.29	6.31	8.70	7.67	111.17
Nuuanu Wat'r Wk's.....	850	23.14	26.38	7.37	14.66	23.31	13.91	197.12
Waimanalo.....	25	3.59	13.84	5.05	1.09	7.44	0.71	55.61
Maunawili.....	250	7.23	17.91	7.95	3.11	11.64	4.27	96.34
Ahuimanu.....	350	6.69	11.18	5.11	4.41	11.73	2.22	.....
Kahuku.....	25	4.73	5.43	6.35	0.40	4.52	1.23	38.36
Ewa.....	50	3.11	6.50	1.44	0.39	0.43	0.32	24.15
Wahiawa.....	870	.....	.....	.....	.....	.....	.....	.....
Waiawa.....	675	4.49	10.88	3.24	2.40	1.76	3.02	54.79
Ewa.....	200	3.25	7.72	2.21	1.65	0.26	0.42	35.01
KAUAI								
Lihue.....	200	12.75	6.57	6.17	0.87	2.19	2.47	59.67
Kealia.....	15	10.83	4.63	6.21	0.64	1.95	2.10	56.61
Kilauea.....	342	11.17	7.61	8.70	1.93	3.82	4.16	69.87
Eleele.....	150	8.96	3.41	4.55	0.49	0.33	0.53	34.68
Koloa.....	100	11.23	7.04	3.70	0.60	1.97	1.83	51.71
Waimea.....	30	5.42	2.78	4.22	0.28	1.79	0.16	29.04

## SUMMARY OF METEOROLOGICAL OBSERVATIONS, 1910-1911.

Compiled from U. S. Weather Bureau Records, by Wm. B. Stockman, Section Director.

(Continued from preceding Annals.)

MONTH	BAROMETER		RAIN-FALL	REL. HUM.		MEAN TEMPERATURE						ABSO. HUM.	Gr. to Cu. ft.	Cloud Amt.	Wind Force
	8 a.m.	8 p.m.		8 a.m.	8 p.m.	Min.	Max.	6 a.m.	2 p.m.	9 p.m.	Mean of Max. and Min.				
July	30.04	30.02	0.95	64	70	81.6	71.2	73	80	74	76.4	6.468	4.7	8.3	
August	30.04	30.04	2.04	66	71	81.7	71.9	74	81	75	76.8	6.774	4.6	8.5	
September	29.99	29.98	6.40	70	79	82.2	71.8	73	80	75	77.0	6.981	5.6	5.6	
October	30.04	30.03	0.63	66	72	80.5	70.2	72	79	74	75.4	6.456	4.8	7.2	
November	30.03	30.01	3.05	71	75	79.7	69.6	71	78	73	74.6	6.587	5.2	8.1	
December	30.01	29.99	2.64	70	75	76.5	66.0	68	75	69	71.2	5.933	5.1	8.2	
January	29.95	29.94	4.04	71	74	74.7	65.2	68	73	70	70.0	5.746	7.3	10.1	
February	30.02	30.01	7.98	73	80	74.9	64.7	67	73	68	69.7	6.065	5.6	9.5	
March	29.98	29.96	2.13	74	77	76.5	66.2	68	76	70	71.4	6.262	6.1	6.4	
April	30.02	30.01	1.70	68	74	78.1	68.5	70	76	72	73.3	6.235	6.3	8.3	
May	30.05	30.04	2.62	66	72	79.4	69.2	70	78	73	74.3	6.255	5.0	8.0	
June	30.06	30.05	0.37	67	70	79.9	70.7	72	79	74	75.3	6.362	5.5	8.9	
Year	30.02	30.01	34.55	69	74	78.8	68.8	70	77	72	73.8	6.344	5.5	8.1	

## SOME LESSONS FROM OUR CUSTOMS TABLES FOR 1911.

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**H**AWAII has rounded out another year of commercial activity with a healthy balance to her credit, the total imports of the Territory for the fiscal year ending June 30, 1911, being \$28,065,626, while the total exports for the same period of \$42,646,101 shows the difference in our favor to be \$14,580,475. This is less by \$6,296,721 than the excess in our favor the year previous, due in part to increased importations and part to the delay (through labor conditions) in harvesting our sugar crop in certain sections, which at the close of the fiscal period was 40,689 tons behind that of 1910. This, however, and more, will inure to the benefit of next year's figures, since the 1911 crop recently completed shows it to be the largest so far, and what is equally satisfactory is the higher prices obtained on all the later cargoes reaching market. But this does not belong to the tables under review.

An examination of the customs tables, pages 23 to 26, furnishes "food for thought," and while it is not proposed to analyze them to the extent devoted to the subject the past few years, for the convenience of those disposed to pass over such tables as "dry statistics," there are nevertheless a few points of interest well worthy of observation, to know how we are developing.

The aggregate value of inward and outward merchandise at all ports of the district of Hawaii was \$70,711,727, a decline of \$1,920,736 from the preceding year.

The sum total of all importations shows 1911 to be the banner year, so far, leading by \$1,913,191 the highest previous record of imports, which was for 1910. This may or may not prove beneficial. If the list was classified as to the principal articles of such increase, those for development benefits would be noted as but a little over one-third of the amount that can safely be assigned to the luxury class, which is some \$340,000 over similar imports of the preceding year. A like sum also shows the increase in our requirements of farm products. The sum total of this last class for 1911 was \$1,192,779, much of which is for

supplies that we are or should be producing. In a land famed as this is for its sugar, coffee, rice and fruits, there is little excuse for our sending abroad for either one of these products; but we do, and do it liberally. Oranges were imported to the value of \$80,952, a gain over the year previous of \$10,666. Surely with such an annual demand there should be a revival of this once famous product of Kona and other favorable localities. The same is to be said of Irish potatoes, our bill for which last year amounted to \$118,758. And this to a community that once supplied the coast and later the Pacific whaling fleet, annually, with its surplus of this commodity. Favorable reports of corn fields come to hand from Maui and Hawaii, and yet we have to import over \$50,000 worth in addition for the market's annual needs. The Kula section of Maui, as also certain sections of Kau, on Hawaii, were once famous for their wheat fields. To pay out \$68,388 for this commodity, as was done last year, shows there is a local market sufficient for a revival of the industry. Hay still runs up into big money for our annual supply, last year's imports exceeding a quarter million of dollars, and apparently not likely to decline readily. Our butter bill is seen to be \$180,886; our milk bill \$209,656, and for eggs we have expended \$28,040 to serve our needs for the year. Other items of greater variety, though in lesser amounts, may be gleaned from the tables, but on our main necessities the above figures indicate an opening for profitable farming for some persons of enterprise to enter the field.

In the consideration of our exports there is much for encouragement. While the sum total of \$42,646,101 is \$4,383,530 behind that of 1910, it is more apparent than real, as already indicated. The later marketing of the season's sugar crop is going to show not only the largest yield since the establishment of the industry, but at higher market rates, especially for the latter half of the crop, than has ruled for many years.

Molasses, after dwindling to insignificance, leaps to first place in its history last year, its export value being \$89,708. Coffee shows a gain over the previous year of \$58,000, due alike to increased quantity shipped and better price obtained. Rice has improved to the amount of \$20,921, which partially offsets the large supply seen to be brought in from Japan. Pineapple and

its products easily takes second place in our list of exports, and at last is segregated in the "Fruit and Nut" class it is assigned to, so that hereafter we can know what is being done in its several lines. For 1911, \$40,411 represents the value of fresh pineapples exported; \$2,020,800 the canned, and \$1,061 the preserved product, while pineapple juice has already reached \$224,131, a total for the industry of \$2,286,403. Bananas are also shown by themselves for the first time since 1900, at 170,645 bunches, valued at \$99,917. Beeswax and honey still grow in importance, reaching last year a value of \$54,454. Sisal and wool both show a decline in value of exports, reasons for which are not apparent. Tobacco has also dropped to \$4,114, but in the adjustment for securing better market recognition the principal corporations look forward with high hopes in the near future.

Cotton comes again into our list of domestic products as in early days, and this time we hope to stay. Rubber appears to be slow in reaching the marketing stage, but having made its initial export entry this last year, it promises to be followed by successful tapping results hereafter.

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## ANOTHER HEIAU DISCOVERY.

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**A**NOTHER ancient heiau discovery is reported this last year from Kauai, by courtesy of Manager J. R. Myers of the Kilauea Sugar Company. It is situated on the crest of a hill or bluff overlooking the ocean, at about 1000 feet elevation, known as Waiakalua, a little to the eastward of the plantation landing. Whether this same name applies also to the temple is not quite clear. In size it covers an area about 105 by 200 feet, but of irregular lines and angles unlike any other so far met with, due, it is thought, to the natural contour of the land. It is a walled structure of two divisions, standing practically north and south, the larger section, approximately 100 by 132 feet, being seaward, while the inner or south section measures 66 by 75 feet, minus a square of 12 by 12 feet at its southwest

corner. This smaller division is about two feet higher than the adjoining one, as is generally the case. The outer stone walls range eight feet in height, and while naturally broken down are yet well defined. The eastern side wall of the main section widens from the smaller one at an angle for a distance of twenty-eight feet, thence parallel with its western wall for a distance of eighty-two feet, when it narrows twenty-four feet, then continues its northerly line to the northeast corner. Outside of this northeast corner is another walled enclosure 55 feet long by 30 feet wide at its west end and but 16 feet at the other, the walls of which are but three feet high. As has sometimes been found, this outer section may have been of more recent construction, not belonging to the temple proper.

Along the farther or seaward end of the larger enclosure, in two rows, are a number of plats, about four by nine feet in size, apparently graves, eleven in all, while a little to the west of the center of the section is one eight feet square. The regularity of their arrangement points rather to a modern use of the heiau as a cemetery, although that purpose is said to have been a noticeable feature in the first described heiau at Waimea, Kauai, in Cook's Voyage, as also another early voyager's account of one at Kealakekua, possibly Hikiau. This unusual purpose here Cook looked upon as of common practice as in islands of the South Seas with which he had become familiar, hence his misapplication of the term Morai to Hawaii's heiaus, a word unknown to the Hawaiian tongue.

Little can now be learned from the older natives of Kilauea relative to the above described heiau; even its distinctive name is lost, and as to its character some refer to it as of the Puuhonua, or place of refuge class, but in a vague way; nothing definite.

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BISHOP MUSEUM ANNEX.—A three-story concrete building to embrace the various scientific laboratories of the Bishop Museum, and connected therewith in the rear, was completed in June last, adding much needed facilities to that valuable institution both for the preparation and preservation of its rare treasures.

# HISTORY OF HUDSON'S BAY COMPANY'S AGENCY IN HONOLULU.

BY THOS. G. THURM.

Extended from a paper read before the Hawaiian Historical Society, May 25, 1911.

**A**MONG the various business concerns of the early days of Honolulu were several that took high rank, and from the echoes that have come down to us were well worthy of the esteem and confidence of the community, the histories of which would furnish an interesting and profitable series, not only from their influence in the development of the Islands, commercially and otherwise, but also in the side-lights they would throw upon the political canvass of their time in passing. The early history of the house of C. Brewer & Co., which established here in 1826, was given in the Hawaiian Annual for 1896, and that of H. Hackfeld & Co., dating from 1849, was published in the issue of 1902; both houses are still in existence.

Between the dates of origin of these two firms in Honolulu there was established here a branch house, or agency, of the Hudson's Bay Company, which, for its honorable business dealings and moral and financial aid to the Hawaiian government at its formative period entitles it to more than passing notice.

It is difficult at this late day to gather accurate data from the fragmentary material available to formulate a consecutive record during the period of its existence here, yet sufficient is found to warrant attention and repay the effort of search and inquiry.

An impression prevailed, and the statement is in cold print, that the origin of the Hudson's Bay Co.'s business at these islands was in occasional shipments of goods consigned to Richard Charlton, the British consul, for disposal, which dated back to 1829. In a trial against Charlton in 1844 certain testimony was given as to his having been the early representative of the Company here, but giving no date. No record of transactions are discovered to substantiate this early claim, and in conflict therewith Alexander Simpson, an early official of the Company, and intriguer, as acting British consul with Lord George

Paulet for the overthrow of the Hawaiian Government in 1843, in his book<sup>1</sup> makes the statement that the agency of the Company was established here in 1834 in the arrival of "an agent from London, appointed by the Hudson's Bay Company, for the purpose of selling the productions of its possessions on the northwest coast of America." The agent referred to was Mr. George Pelly,<sup>2</sup> of whom Sir George Simpson, the Governor in chief of the Company's Territories in North America, in the account<sup>3</sup> of his visit to these islands in 1842 makes mention, and as shown by the archives and early newspapers of the time here.

It is difficult to reconcile the foregoing evidence of the establishment of the Honolulu agency with the assertion of Mr. Alexander Simpson regarding his connection therewith, wherein he states: "I had been for many years an officer of the Company and in the spring of 1839 was summoned to proceed to the Sandwich Islands, to superintend mercantile operations which the Company proposed to carry on there. My first visit was one merely of observation and enquiry. After spending two months at Honolulu I returned to the Columbia River to confer with the manager of the Company's affairs there; the result of my recommendations being the shipment from England of goods to the value of upwards of ten thousand pounds—a shipment which I calculated could be repeated and increased each year. I touched again at that port in the summer of 1840 en route to California, and in 1841 I arrived at same place from the Columbia River,<sup>4</sup> fully empowered to assume the active management and control of the business which I had planned out, but through the loss of a near relative I embarked at once for England. After spending but three months there I was prevailed upon by the Governor of the Company to return to the islands on my former mission, but on my arrival there the arrangements I had made

<sup>1</sup> The Sandwich Islands, Alexr. Simpson, Esq., London, 1843.

<sup>2</sup> A close relative of Sir J. Henry Pelly, Bart., Governor of the Company.

<sup>3</sup> Journey Round the World, Sir George Simpson, 2 vols., London, 1847.

<sup>4</sup> NOTE.—Confirming the above dates of Mr. Simpson's movements our files show the arrival, June 24, 1840, of H. B. Co.'s bark *Columbia* from the Columbia River, having as passengers Messrs. E. O. Hall, Alexr. Simpson, and Jas. Steel. These two latter were outward passengers again by the same vessel, July 15th, on her clearance for California. Mr. Simpson was a returning passenger again to this port by the same bark *Columbia*, January 2, 1841.

and plans of business I had formed were overset by Sir George Simpson, the local Governor of the Company's Territories, and I immediately threw up the commission which I held as a chief trader in the service."<sup>5</sup> Probably this had reference to an expansion of the Company's business here beyond merely the "disposal of the products of their Northwest possessions," which new policy—if such it was—Mr. Simpson wished credit for. But we find evidence of this increasing business in the direct importation of English goods previous to his advent.

With Mr. Pelly was subsequently associated a Mr. George T. Allan in the agency of the Company. This change probably took place about 1840, as Pelly's name as agent appears alone up to that time, while shortly after, but before the arrival of Sir George, various documents and advertisements couple their names as agents, and customs entries and manifests are signed by one or the other as, "one of the agents of the Hudson's Bay Co." Alexander Simpson makes no mention of Mr. Allan, while Sir George simply refers to him as "an officer in our regular service." Mr. Allan is remembered as a person of affable, agreeable manners, and an ideal salesman, which position doubtless was his end of the business management. Mr. Pelly had a far different personality both in appearance and temperament; a veritable "John Bull." A writer of his time termed him "an Englishman of the Englishmen, associating very little with the people of the town." Mr. Alex. Simpson describes him as "a man of harsh and repulsive manners," but in a suit against Charlton for defamation of character quite another trait was shown toward his vilifier.

Mr. Pelly was also the agent for Lloyd's at this port. Land Office records show him to have early become a landowner in the purchase, February 6, 1835, from Richard Ridley, for the sum of \$700, of the premises on Hotel street from Adams' Lane to the corner lot of George Bush, at Alakea, and confirmed later on the establishment of the Land Commission by Royal Patent No. 4. Both of these properties are now occupied as the site of the new Y. M. C. A. building. He also had as a summer retreat the Luakaha property in Nuuanu valley, previously held by a

<sup>5</sup> The Sandwich Islands, Alexr. Simpson, Esq., London, 1843, pp. 50-51.

Capt. Hinkley; now and for some years past in the Cooke-Atherton estates.

Our earliest records show a number of vessels of the Hudson's Bay Co. connected with the commerce of this port from the Columbia River and from London, among which were the barks *Columbia*, *Vancouver*, and *Cowlitz*, as regular packets with the Northwest coast, and occasionally others, more particularly, perhaps, in the import trade from London, en route to their Pacific Coast and Sitka stations. Thus the first paper published in English here, the "Sandwich Island Gazette," in its initial number, July 30, 1836, has among its marine intelligence the arrival on the 14th of the Br. bark *Columbia*, Darby (Hudson Bay Co. ship), 13 days from Columbia River, and the following day the Br. ship *Nereide*, Royal (Hudson Bay Co. ship), 153 days from London, en route for the Columbia River, for which she sailed July 21st. Among the passengers per *Nereide* was noted that of Rev. Herbert Beaver, a clergyman of the Church of England, chaplain to the Hudson Bay Co., accompanied by his lady, to join the colony of the Company at Fort Vancouver.

The earliest location of the Hudson's Bay Company's store here appears to have been on the Ewa, or north, side of Nuuanu street adjoining the "Blonde" lot, cornering on King, premises that became well known as "Aienui"—great debt. Whether this term applied through a liberal credit policy of the agency during its occupancy, or was inherited from the earlier days of sandalwood trade is not clear, but the name held for many years. The store is remembered as a two-story shingle-sided building that stood end-on to the street. An agreement of lease dated January 1, 1840, between George Pelly and Halelio (Haalilio), secretary of the king, of these premises is on file in the archives, "for the period of two years certain at \$700 per annum, with option of one, two, or five years additional on six months notice at same rate." There is nothing found to the contrary and the general belief is, that this lease was but a continuing occupancy of the same premises. Very few of the early mercantile houses ever gave their location in their business cards, or advertisements, and the Hudson's Bay Co.'s agent or agents during all its years of existence here never broke the record in this respect. Little is gathered from the papers of their time on account of this ap-

parent non-advertising policy of the agency. The Gazette, already referred to, was in its second year before the Company's first advertisement appeared (August 5, 1837), of "lumber just received per H. B. Co. brig *Lama*, consisting of 30,000 ft. inch boards, 70 beams 18 ft. 12 x 4 and 500 rafters 12 @ 18 ft. (Signed) George Pelly, Agent H. H. B. Co." This ad. was changed March 31, 1838, to note further lumber supplies, as also salmon, butter, flour, etc., per H. H. B. Co.'s ship *Nercide*, followed by one in December of like supplies per H. B. Co.'s bark *Columbia*, and again in February, 1839, per *Nercide*.

The ships of the Company engaged in the Northwest trade appear to have made Honolulu a port of call en route from London early in its career here,<sup>6</sup> leaving such freight and miscellaneous merchandise as found a ready market, and occasionally so on the homeward voyage. On this subject Rev. Samuel Parker, after describing the station of Fort Vancouver, makes the following mention:<sup>7</sup>

"Besides what lumber is used in the common business about this station one, and sometimes two ship loads are sent annually to Oahu, Sandwich Islands, and sells for about fifty dollars the thousand feet. Spars and timber for shipping are also sent to that market. \* \* \* Not less than a ship load of goods is brought from England annually, and always at least one in advance of their present use, so that if any disaster should befall their ship on her passage, the business of the Company would not have to be suspended. Thus there is rarely less than two ship loads of goods on hand. The annual ship arrives in the spring, takes a trip to Oahu during the summer freighted with lumber to the island and bringing back to Vancouver salt and other commodities, but generally not enough for ballast; and at the end of September, or in October, she sails for England with the peltries obtained during the preceding year."

Vessels from the Columbia River for Honolulu during the

<sup>6</sup> NOTE.—Vessels of the Hudson's Bay Co. leaving London, from 1835 to 1844, and may be later, brought out selections of toys, clothes, and fancy articles from a Mrs. Saunders, of Dover St., Southwark, London, for disposal here by auction or otherwise for the benefit of the Oahu Charity School. The sum realized for this object at the latter year above given had reached upwards of \$2,500—Wyllie's Notes.

<sup>7</sup> Journal of an Exploring Tour, Rev. Samuel Parker, 3rd Edn. Ithaca, 1842.

existence of the Company's agency at San Francisco occasionally touched at that port en route. That station was discontinued in 1846, the Hudson's Bay Company selling out their establishment at Yerba Buena and embarking their people and effects on the *Vanconver* for Columbia River; Howard & Mellish, of Boston, being the purchasers of the business and premises.

Among the documents on file in the Archives is the draft of an agreement dated February 11, 1840, between Governor Kekuanaoa and George Pelly, permitting the latter to take sixty Hawaiians for the Company's service in the Columbia River for a period of three years, to be returned at the end of said term on penalty of \$20 each, excepting only in the event of their death. Like permission must have been secured earlier, for Sandwich Islanders were desirable members of the Colony, as Sir George Simpson makes mention in his work of the valuable assistance rendered the settlement in 1829 by half a dozen Hawaiians during a threatened attack from the Indians on the Umpqua river.

Mr. Pelly is found among Honolulu's philanthropic citizens in supporting the movement for the maintenance of the Oahu Charity School. In 1839 he succeeded Chas. Brewer as "honorary secretary of its committee," and toward the close of 1840 signs the call for the annual meeting of subscribers for January 6, 1841, to take place at the house of Messrs. Hungtai. This was the Pagoda building.

A matter not so much to his credit was his attitude in regard to public road improvement, for there is on file in the Archives a protest by Pelly and others against being taxed for work on public roads, though they would be the most benefited. As a consequence Governor Kekuanaoa discontinued the proposed improvements. There is another protest filed by him about the same time, with Skinner and Greenway joining, against domestic servants being taxed (in accordance with the law) in lieu of their working on the public roads. While on the subject of protests it may not be amiss to mention one of September 30, 1842, wherein George Pelly and Geo. T. Allan protest to the King and Governor Kekuanaoa against Alexr. Simpson being recognized as Acting British Consul. How much this may have been in-

duced by personal motives, or from a knowledge of the intriguing character and ulterior motives of the man, proving him too prejudiced for so important an official position we know not, but subsequent events so proved these facts that they but did rightful public service, whatever the motive. Mr. Simpson showed himself a willing accomplice of British Consul Charlton in fomenting trouble with the Hawaiian government and magnifying grounds of complaint for alleged injuries to British residents, hence his selection to succeed him during his absence.

At this crisis in the state of affairs Sir George Simpson, Governor of the Hudson's Bay Co.'s provinces (and uncle of Alexr.), arrives on the scene, much to the nephew's discomfiture.

Sir George, with his secretary, Mr. Hopkins, arrived at Honolulu February 12, 1842, on the *Cowalitz*, from Vancouver, via San Francisco and Santa Barbara, accompanied into port by the Am. brig *Joseph Peabody*, Capt. Dominis, from Mazatlan. He was visited on the vessel while waiting to enter by Mr. Pelly, agent of the H. B. Co. for these islands, and Mr. G. T. Allan.

The next day the *Vancouver* touched here en route to the Columbia, resuming her voyage March 14th, and taking Mr. Hopkins, for England. Following her departure attention was devoted to local conditions, etc., which Sir George found very much divided; merchants being pitted against each other by nationalities, politics and religion; used in many cases, he says, "as a cloak over more sordid motives, rivalry in trade often lurking at the root of the evil. \* \* \* This belligerent spirit often leads to serious litigation, forcing into court cases which, in a different state of feeling would be settled amicably by the parties themselves. During my short stay I was, I believe, useful in adjusting some of these differences."

At Honolulu Sir George held conferences with Kekuanaoa and Dr. Judd on affairs of state, more particularly on the subject of taxation and finance matters, and in discussing trials by jury is credited with suggesting the advisability of the government having an attorney-general. These matters concluded, he then left on the *Cowalitz*, March 17th, accompanied by Mr. Charlton and Mr. Pelly, for a visit of several days to the Court at Lahaina. At Mr. Richards' solicitation Sir George consented to

be bearer of dispatches to England. Several conferences with the king and premier on affairs political were held, at which, on Sir George's suggestion, it was decided that Mr. Richards should proceed to England as envoy, toward the expenses of which George Pelly was directed to grant the king an order on the Hudson's Bay Co., of London, for ten thousand pounds sterling should he require it. Later it was decided that Haalilio, the king's secretary, accompany Mr. Richards on this mission for the recognition of Hawaiian Independence. Papers being in readiness and signed, Sir George left March 24th for London, via Sitka and across Siberia.

The following early movements of the Hudson's Bay Company's vessels at Honolulu presents some points of interest:

Bark *Columbia* arrived here July 14, 1836, 13 days from the Columbia River; a very smart passage. She returned to same port August 1st, and was back here the latter part of December, en route for London, for which port she sailed January 5, 1837.

The arrival of the *Nereide* from London, and later from the Columbia River is already mentioned. She was also a returning ship from that station in February, 1839.

March 28, 1839, the *Vancouver* touched here from London, leaving a week later for the station of her name. July 24th she returned here with a cargo of lumber, spars and salmon.

After 1840 the following additional vessels appear in the Company's service, viz.: Bark *Brothers* from London, with staple goods and naval stores, and later engaged in the Columbia River trade. Ship *Ncpaul* from London, via Valparaiso. Bark *Cowlitz* from Columbia River, June, 1841, bringing lumber for the new stone church, and from London in 1842, as already shown, apparently becoming a regular packet with the *Columbia* and *Vancouver*. Ship *Admiral Moorson* from London, April 10, 1845, by which vessel came as passengers for this place Mr. and Mrs. Thos. Brown and four children, Mr. and Mrs. R. Covington, Miss Rhodes, H. J. Rhodes, and Jas. Robinson, all of whom became creditably identified with these islands. The brig *Mary Dare* also has frequent mention following her first noticed arrival from London, April 14, 1847. Several other names are met with, but apparently were transient vessels only.

Following the formation of constitutional government in Ha-

waii, and the application of the first tariff act, approved May 11, 1842, to take effect January 1, 1843, the first vessel to make customs entry and pay the *ad valorem* duty of 3% provided therein was the Hudson's Bay Co.'s bark *Vancouver* from the Columbia River, January 6, 1843, consigned to G. T. Allan, agent for the Company. The cargo consisted of 695 bbls. Columbia River salmon valued at \$4,170, and 160 12 ft. 4 in. plank valued at \$307.20, on which the amount of duty \$134.32 was collected. The clearance and entry of vessels of the Hudson's Bay Co. during the preceding year indicates considerable commercial activity in 1842. In this we obtain our first official record of imports and domestic exports.

"Inward entry of bark *Columbia*, from Columbia River, January 27, consignment of Peirce & Brewer: 130 bbls. salmon, 5 qr. casks Sicily Madeira wine, 3 bbls. Burgundy Port wine, 1 bx. codfish, 2 hlf. bbls. mackerel, 3 bxs. wood and tinware, 3 bxs. Stoughton's bitters, 1 doz. manure forks, 1 doz. long spades, 5 bsks. champagne, 3 willow chairs, 10 demijohns, 1 cs. 270 Manila cigar cases.

"To Geo. Pelly, Esq., for sale at the Sandwich Is.: 27 plank of sizes 2 in., 57 rafters of 3x4, 1700 bullock hides for salting and reshipment, 62 bales and packs furs 1/62, 14 bales and packs furs without mrks. or nos. to be reshipped, 19 hhds. and 23 bbls. salmon and sundry baggage to Capt. Varney, 3 pkgs. snds. to var. persons."

Same vessel on clearing for England, February 7th, takes 1719 hides reshipped by Geo. Pelly.

"Inward entry bark *Cowlitz*, February 11: 28 hhds., 50 trcs. and 124 bbls. salmon, 2359 planks and boards and 401 rafters.

"Outward manifest bark *Vancouver*, March 14, for Columbia River: 13 csks. molasses, 1176 gals., 500 bbls. salt, 60 bags sugar, 3740 lbs., 14 bags coffee, 1846 lbs.

"Outward manifest bark *Cowlitz*, March 17, for N. W. Coast: 9 csks. Molasses, 1224 gals., 762 bbls. salt, 40 bgs. sugar, 2003 lbs., 76 bales furs, 1/4 cask wine, 20 bxs. cigars.

"Inward entry bark *Cowlitz*, August 3, from Fort Vancouver: 155 M. ft. 1 inch boards, 63 bbls. flour, 93 bbls. salmon, 2 masts, 65 ft. 18 in. top.

“Outward manifest same vessel, August 17 (destination not given): 1032 bbls. salt, 12 csks. and 102 bgs. sugar, 8 coils rope, 29 chairs, 1 table, 20 csks. molasses, 2 kegs grease,  $7\frac{1}{2}$  fthms. coral, 27 csks. salmon.

“Inward entry bark *Valleyfield*, November 19: 66 gals. brandy, 586 gals. rum, 54 gals. Malaga wine, 72 cwt. S. fine flour; also 6 cs. and 1 bndl. private prop. Sir Geo. Simpson.

“Inward entry bark *Cowlitz*, December 7: 97 bbls. and  $6\frac{1}{2}$  bbls. flour, 162 12x4 pine plank.

Not connected with the foregoing but an important export list of the time is found in the outward manifest of the cargo of Am. ship *Gloucester*, Easterbrook master, for Valparaiso, January 19, of same year, consigned by Ladd & Co. of Honolulu:

“2688 bgs. sugar, 153,692 lbs., 91 csks. molasses, 12,827 gals., 9 csks. kukui oil, 900 gals., 15 csks. sperm oil, 534 gals., 3117 goat skins, 7823 lbs. pulu, 425 bxs. tea, 542 pcs. yellow nankin, 4 cs. matches, 16,521 lbs. arrowroot, 4 cs. casonettes, 10 cs. blue cottons, 32 cs. nankin, 4 cs. prints, 4 cs. kiheis, 2 cs. silk hdkfs., 9 pkgs. hrdwre., combs, etc., 51 bbls. salmon, 2 cs. hats and clothing, 122 rms. wrapping paper, 4 cs. cotton hdkfs., 300 bbls. salt.”

The prominence of the commercial interests of the Hudson's Bay Company in Hawaii, judging by the foregoing list for 1842, doubtless led the historian Jarves in his first History of the Hawaiian Islands, to express the fear of its ultimate destiny of “swallowing up all individual enterprises, whether English, French or American,” and quoting Greenhow as authority for this result in their trade on the Northwest Coast of America, wherein he states:

“The Hudson's Bay Company have already driven American shipping from its former branches of lucrative trade, \* \* \* and within a year have made a bold attempt to monopolize that of the Hawaiian Islands. In this, if a judgment can be formed from their past successes, their wealth, sufficient to exhaust the puny competition of individual traders, and the determination exhibited, which boldly avows for its object the extinction of American commerce in that region, they may be successful.

“Allied with this design, is the object of either securing the

action of the Hawaiian government in their favor, or of having it pass into the power of its own."<sup>8</sup>

These jealous fears, so far as the Company's designs of trade and political monopoly in these islands were concerned, were so unwarranted that the unjust aspersions were withdrawn in subsequent editions of his history, and in place thereof the beneficent influence of its officers in sustaining the government in its course and policy is acknowledged.

During the political excitement attending the seizure of the islands by Lord George Paulet, February 25, 1843, little is learned but much may be inferred as to the effect on the business of the Hudson's Bay Co., or its representatives, against which the dominant party was at enmity, personally and politically, and a successful suit by Mr. Pelly, agent of the Company, against Charlton for some £3,000 on behalf of parties in Valparaiso, for debt, about this time, did not lessen the breach. The next year, Mr. Pelly in self-defense brought a suit against Charlton for slander, which, on a jury trial like the other, obtained a verdict and the award of damages of \$3,450 and costs, which claim Pelly the next day offered to waive on payment of the lawyer's fee in the case.<sup>9</sup>

From this period for several years a more liberal use of advertisement space in the papers is noted, and the business card of the concern reads:

GEORGE PELLY & GEORGE T. ALLAN,  
Agents for the  
HUDSON'S BAY COMPANY,  
Honolulu, Oahu, H. I.

In the licenses taken out for wholesale and retail merchandise and wholesale spirits, and their renewals, they are found in nearly all cases in the name of the agents, not of the Company except in a few instances for the spirit license.

By the ship *Nepaul* from London, via Valparaiso, February 25, 1845, arrived Mr. Chas. Gordon Hopkins, who had been

<sup>8</sup> History of Sandwich Islands, Jas. Jackson Jarves, Boston, 1843.

<sup>9</sup> Polynesian, Jan. 29, 1844.

strongly recommended to the service of the government by Sir Geo. Simpson, and during his years of residence here filled successively a number of responsible official positions. The advertisements of goods by this vessel by the agents of the Company occupies three-fourths of a column in nonpariel type, and shows the varied assortment of goods selected for this market. This was succeeded by a half column one of miscellaneous goods ex *Cowelitz*, and renewed from time to time thereafter as new supplies came to hand, occasionally including Chinese goods.

Regarding the character of products and dealings of the Hudson's Bay Co. the following extract from an English paper, relating to the Vancouver station bears out well the Company's policy during its existence here, for it was well known as "a one-price store"; of good quality goods; the rate was the same whether singly, or by the dozen.

"A regular price is set upon everything. Their goods are all of the most superior kind, and it is no less a rule to sell them reasonable than it is to have them good."<sup>10</sup>

In the steps taken by the government toward the construction of water works and laying of mains for supplying the town and shipping, among others, Mr. Pelly was asked if the Hudson's Bay Co. could furnish an estimate of cost for cast iron and lead pipe, etc., necessary to connect with a Nuuanu reservoir planned near the second bridge. He replied January 7, 1845, that he would transmit same to the Company in London, the reply to which is found dated September, 1847. Filed with it is another estimate, without date, signed by P. & J. Russell, Engineers, Sydney, placing the cost of pipes, lead for joints, freight and cost of laying at \$9,722.30. Neither parties, however, got the bid, for the initial material for the establishment of Honolulu's water system came from Boston, in 1850.

Mention has been made of a loan from the Hudson's Bay Co. for the expenses of Hawaii's envoys abroad. The government was again a borrower from them in 1843 to the amount of \$13,800 for loans to Ladd & Co., obtained in London through Mr. Richards by P. A. Brinsmade to meet his Belgian scheme expense.<sup>11</sup>

<sup>10</sup> London Mail, Sept. 8, 1848.

<sup>11</sup> Arbitration Report Hawaiian Govt. vs. Ladd & Co.

R. C. Wylie, Minister of Foreign Affairs, in a letter to Sir George Simpson of May 1, 1845, (among other things) thanks him and the Hudson's Bay Co. for important services on many occasions, and requests that the Company's ships may be permitted to bring needed government supplies when there was room.<sup>12</sup> Another Foreign Office document of July 5, 1847, addressed to George Pelly is on file which states: "Great as have been the obligations of this government to the Hudson's Bay Co. for pecuniary aid in times of difficulty, they are not greater than those arising from the moral aids by the orderly and friendly example of yourself and other agents of that powerful British commercial association during periods of political excitement."

In February, 1846, a selection of Hawaiian fancy wood was sent by the Hawaiian government to A. Barclay, Esq., London, to be made into a table each for Sir George Simpson and Sir J. Henry Pelly, "in esteem and gratitude for important services"; doubtless referring to their labors for the recognition of Hawaiian Independence.

Preparation was made this year (1846) for the moving of the Hudson's Bay Co.'s store from its Nuuanu street quarters to the corner of Queen and Fort streets, now occupied by the Beaver block. A lease is on record, in Hawaiian, from Chas. Kanaina to George Pelly for said premises for the term of twenty-five years from February 1, 1846, at an annual rental of \$500, all buildings and improvements to be erected thereon to revert to the lessor at end of said term. The lease contains the covenant that the lessor shall not distill nor sell liquor on the premises, but consents that new buildings may be erected of wood, and shingled, as he may wish, during the years of said lease. This permission for the erection of wooden and shingled structures had reference, probably, to the style of house the agency was occupying at the time. As a matter of fact the best part of the year was occupied in the erection of a two-story coral building with a slate roof, fronting on Queen street, and adjoining Charlton's property, while one-story storage buildings ran along its Fort street length and back along the French & Greenway premises. The store stood end-on to the street but some little

<sup>12</sup> A high tribute to Sir Geo. Simpson by Minister Wylie may be found in his report to the Legislature of 1855.

distance off the road, having a front veranda partly enclosed; the stairs were in front at the right side of the doorway, leading to the upper veranda. The exact time of removal to these new quarters was not deemed worthy of paper mention, or noticed by advertisement of the agents themselves, but it is learned approximately by the removal notice of Everett & Co., under date of January 16, 1847, of "having taken the store and premises lately occupied by the agents of the Hudson's Bay Co."

David McLaughlin, a prominent officer of the Company's Northwest stations, made a visit to Honolulu in 1846, arriving here from the Columbia River September 22nd, per bark *Toulon*. The object of his mission was doubtless one of business supervision and enquiry, though the length of his stay eludes our search. Following the political disturbances of 1843, already referred to, came the disastrous failure of Ladd & Co., that disrupted business in the islands to its very center. Likely their credit at the Hudson's Bay Agency had been strained to the limit, for among the victims calling for an exhibit of its affairs Pelly and Allan appear second on the list. One sheriff's sale on execution issued by the court against Ladd & Co. in their favor was for \$2,010.48. Mr. Pelly's name occurs frequently as an assignee in various bankruptcy cases, which may mean a pecuniary interest therein in behalf of the Company.

Mr. McLaughlin's report on agency conditions here evidently could not have been of a quieting nature, for as early as March 4, 1847, Mr. Dugald MacTavish arrives from the headquarters of the Company, Vancouver, by way of San Francisco, per brig *Currency Lass*, and enters upon an investigation of business affairs which, in due course, reveals Mr. George Pelly to be indebted to the Company in a large amount. Of this we will deal later.

No change in the advertisements or business card of the agency takes place till July 3rd, which was the last appearance of the half column ad by Pelly & Allan, agents H. B. Co., of "goods ex *Mary Darc*," and the issue following (July 10th) was the last insertion of their business card. It is not shown at once that Mr. MacTavish succeeded to the agency of the Company in these islands, though the renewing licenses from July 1, 1847, are in his name. Publicity by advertising any change is carefully

avoided. Advertisements thereafter are simply by "Agents of H. B. Co.," no names being given; or in the arrival of their vessels with goods, it is to "H. B. Co.'s Agents," as in the case of brig *Mary Darc*, in July 1848. In the arrival of that vessel, July 3rd, from Vancouver, came James Douglass, Esq., Chief Factor of the Hudson's Bay Co., and Chas. Stuart, Esq., his secretary; the object and length of whose stay is not mentioned, but very likely it had to do with the investigations in progress, for Mr. Pelly was still in the field, his name and MacTavish's appearing together in a case at court July 15th, as though alike agents of the Company. Of Mr. Allan, and the date of severing his connection with the Company here, the press is silent, but from this station he went to San Francisco during the gold fever exodus; the Custom House records say per bk. *Wm. H. Shailer*, June 14, 1850. Mr. Pelly left for England much later.

At the called meeting of merchants for the organization of the Honolulu Chamber of Commerce, October 15, 1850, at the store of Starkey, Janion & Co., Mr. Dugald MacTavish was among the first signers,<sup>13</sup> thus showing he was alive to the promotion of Hawaii's commercial interests.

The records show an assignment October 28, 1850, by George Pelly to Asher B. Bates, trustee, "of all his real estate and personal property and effects of every description—saving and excepting only his personal wardrobe and small stores for a voyage from Honolulu to London, England," for the following stated object:

"Being justly indebted to the Hudson's Bay Co. in the sum of \$36,514.38, for which he has this day given his promissory note and is unable at present to pay the amount of same and deems it just and reasonable to secure and pay the amount of said note and all other just liabilities for which he is personally responsible \* \* \* doth assign all his real estate (described) and personal property, etc., (as above stated) for disposal with all reasonable speed to the best interests of all parties to be benefited, and after the lapse of ten months from date hereof, should said note be then unpaid and other liabilities unliquidated, to sell and dispose of all of said real estate, etc., hereby conveyed at

<sup>13</sup> Sheldon's Reminiscences, Sat. Press, March 25, 1882.

auction or otherwise, and from the proceeds \* \* \* shall \* \* \* pay over to and among all the creditors who shall have filed their claims, etc., in proportion to the amounts due each, without prejudice."

In September, 1851, Mr. Bates conveyed Pelly's Hotel street property to D. MacTavish in trust for H. B. Co., for the sum of \$4,350, and in May, 1854, the lease of the Queen street store premises was transferred to Robert Clouston, agent H. B. Co., for the nominal consideration of one dollar.

Little is gleaned of the doings of the agency or agents in the early fifties. Ads are scarce and small in this period. After long silence Oregon lumber is advertised June 26, 1852, "by the Agents of the Hudson's Bay Co." by a three-line notice, while another of four lines offers for freight or charter the Br. bk. *Reliance*.

The same month Dugald MacTavish advertised for claims against him as Agent of the Hudson's Bay Co., being about to leave the islands. No passenger lists being given in the local papers the greater part of this year, we do not find when Mr. MacTavish took his departure, though his successor, Mr. Robert Clouston, arrived in the islands October 7th of the previous year per *Mary Dare* from Victoria.

August 28, 1852, appears a new third column ad of sundry goods "On sale at the stores of the H. B. Co., recently from China and London," and in November an auction is announced for the 17th at the H. B. Co.'s store—something very unusual for that concern—indicating a new policy, or closing up consignments. The change is further noticed in more liberal advertisements thereafter, but in no case is the name of the agent connected therewith given, as in the days of Pelly & Allan. Mr. Clouston was a Scotchman by birth, a quiet, shrewd business man and much liked in the community.

In August of 1858 Mr. Clouston left Honolulu per bark *Fanny Major* for San Francisco, for a rest and change, but he had stuck to his post too closely and too long, for after a short illness of but four days he expired and was buried at sea. He was but about thirty-six years of age, and in his residence here he had endeared himself through those sterling qualities which charac-

terize the upright mind, the kind heart and gentlemanly deportment.<sup>14</sup>

The agency at these islands waited the arrival of his successor until the coming of Mr. James Bissett, January 28, 1859, by way of San Francisco, per *Black Hawk*. We find him welcomed in one of our local papers as follows:

"We notice the arrival of a new agent to the Honolulu station of the H. B. Co. in the person of J. Bissett, Esq., who takes the place of Robert Clouston, Esq., deceased. As the Hudson's Bay Co. is one of the oldest commercial fixtures in Honolulu, dating back to 18—, it is but just that we should welcome hither the new comer, hoping that he may secure in an equal degree the same respect, good will and warm friendships which were the due and the guerdon of his predecessor."<sup>15</sup>

November 26, 1859, appeared a notice of withdrawal of the Hudson's Bay Company, with commercial mention thereon in the *Polynesian*, also an ad in the papers signed by "Jas. Bissett, agent," for applications to purchase the stock, right and interest in the premises and good will of the business, possession of which could be given immediate. The announcement was something of a surprise to the community, nor was there a disposition to take advantage of the offer, for it took several months to wind up their affairs.

Mr. Bissett, wife and child, left the islands for Victoria per bktn. *Jenny Ford*, August 25th, 1860, regretted by a wide circle of friends his business and their social qualities had won them in their brief stay. On the agency's closing the *Polynesian* pays the following tribute:

"As a mercantile house, in all that constitutes the credit and glory of a merchant, the Hudson's Bay Company's Agency in Honolulu stood in the foremost rank. It was for years a sort of commercial moderator, a mercantile balance-wheel when fluctuations seized on others. Their withdrawal from Honolulu was understood to be owing to the fact that the discovery of gold mines on Fraser River and consequent settlement gave new employment for the capital of the Company nearer home."

<sup>14</sup> *Polynesian*, Sept. 20, 1858.

<sup>15</sup> *Polynesian*, Feb. 5, 1859.

## COOK'S MONUMENT AT KEALAKEKUA

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THERE are few spots in these islands that have the right to a deeper hold or wider range of abiding interest to the general public than that felt in the little tongue of land at Kaawaloa, Kealakekua Bay, Hawaii, where Captain James Cook, the celebrated English circumnavigator, was killed. Scientists for volcanic study, and the majority of tourists seeking spectacular display find unequalled attraction in Hawaii's volcanic activities; others bemoan the poverty of language to adequately present the matchless climate of these islands. And beside these special favors of nature that gives Hawaii fame abroad is the enviable reputation of the productiveness of the soil in those products proven adaptable to our tropical conditions, the result of large expenditures wisely administered. Still other features might be named that are spoken of commendably, all of which have become possible through Cook's discovery of the group, hence the debt of gratitude the world owes to him.

England is slow to recognize or acknowledge its obligation to his memory. Monument, lighthouse, tablet or other memorial mark his birth place and various historic points of his Australasian discoveries, as also here, but these are the result, largely, of private effort of his countrymen and others in appreciation of his labors, for, as yet, his nation has reared no tribute in recognition of his valuable services to her glory and honor.

The scene of his unfortunate death at Kealakekua Bay has had unusual attraction to a large class of visitors, and especially so to English national vessels. Vancouver and other noted English voyagers touching at Hawaii visited the fatal spot, but it was nearly fifty years before the event was commemorated in any tangible form. This first effort is to the credit of Lord Byron, commanding H.B.M.'s ship *Blonde* (that brought from England the remains of Kamehameha II and his consort), during his visit at Kealekekua in July 1825, on which occasion he erected a cross monument composed of a pillar of oak ten feet high on the spot where the body of Cook was said to have been

burnt.<sup>1</sup> In the monument was set a copper plate which bore the following inscription:

Sacred  
to the memory of  
CAPT. JAMES COOK, R. N.,  
who discovered these Islands  
in the year of our Lord 1778.  
This humble monument is erected  
by his countrymen  
in the year of our Lord 1825.

It would seem that the commemorative cross mentioned served for but a few years, or else, being located on the top of the bluff about a mile away from the landing where Cook was struck down, was deemed insufficient for the purpose, for public attention was called in the paper<sup>2</sup> of that time to the need of a memorial to mark the spot, to the following effect:

“We have heard several gentlemen ask why a monument to the memory of that illustrious navigator Captain Cook has never been erected at Hawaii. It was there that he finished his career of useful adventure, and bathed the shore of the stranger with his blood, and now, that the stain of that blood has been washed away by the surf of the ocean which floated his gallant ship towards the scene of his discoveries, not a trace remains, save perhaps a heap of stones, or some rude cross to stop the foot of the traveler and draw the eye to the spot where a great man perished. \* \* \*

“With facility, and without much expense, the foreigners at the Sandwich Islands, in coöperation with others at home, might procure a plain, substantial monument of durable materials, and suitable size and design, to be placed at Hawaii on the spot where Cook was killed, and when we say that we heartily hope the subject will be taken into consideration and that measures

<sup>1</sup> Voyage of H. M. S. Blonde to the Sandwich Is., London, 1826, p. 202.

<sup>2</sup> Sandwich Island Gazette, February 18, 1837.

may be set on foot for accomplishing the erection of a monument, we are sure that we express the desires of many others." This was in 1837.

Several months later a communication in the same paper<sup>3</sup> touching upon the interest manifest in the Cook memorial during the visit of H.B.M. ship *Imogene*, favored a lighthouse proposition, which it said would receive the assistance of Captain Bruce, as "he pledged himself to do all in his power to forward the accomplishment of whatever plans might be determined upon to honor the memory of Cook." A notice of meeting on the subject was given for "Shipmasters, residents and strangers who felt an interest in the erection of a lighthouse at Oahu, as above suggested, to meet at the Pagoda Rooms, Monday, October 23rd, at 7:30 p. m." The public meeting held as above was called to order by S. D. Macintosh, with H. A. Peirce called to the chair, and Rev. J. Deill appointed secretary.

Dr. T. C. B. Rooke moved "that some appropriate measure be taken to honor the memory of the distinguished navigator."

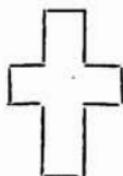
R. Charlton moved "that a subscription fund be opened for the erection of a lighthouse on Diamond Head or such other point on the Island of Oahu as may be deemed most eligible to the name of the illustrious Cook."

Also, a soliciting committee was appointed to secure aid in its behalf in England, France and the United States, comprising R. Charlton, P. A. Brinsmade and T. C. B. Rooke. A subscription paper was then circulated and a handsome amount contributed to the object."

During this visit of the *Imogene* a call was made at Keala-kekua and the place where Cook fell was marked by setting up a cocoanut tree stump in the rocks near the spot, on which was affixed a copper plate with the following inscription, formed by perforations:

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<sup>3</sup> Sandwich Island Gazette, October 21, 1837.



Near this spot  
fell

CAPTAIN JAMES COOK, R. N.,  
the  
Renowned Circumnavigator  
who  
Discovered these Islands  
A. D. 1778.

His Majesty's ship *Imogene*, Oct. 17, 1837.

From the date here shown this action had been accomplished at the time of the public meeting, though no mention is made thereof nor in any subsequent issue of the Gazette. Further action by Captain Bruce is shown by later writers.

Wilkes, in the account of his visit in 1842,<sup>4</sup> gives a sketch of this rude monument with mention of further action by a subsequent vessel which, with more detailed historic information, is given some years later in the *Friend*,<sup>5</sup> by the Reverend Editor, as follows:

"It has been our privilege to twice visit the spot where Cook fell, the first time on July 4th, 1844, and again February 20th, 1859, the anniversary of his burial. By referring to the *Friend* of August, 1844, we find this record of our first visit:

The stump of a cocoanut tree has been set up in the fissure of the rocks to mark the spot where Cook fell, only a few feet from the water's edge. It is five feet high, one foot diameter at the top and two at the base. This simple monument bears three inscriptions on copper plate:

No. 1. (Plate as already shown).

No. 2. This sheet and coppering put on by the *Sparrowhawk*, September 16, 1839, in order to preserve the monument to the memory of Cook.

<sup>4</sup> U. S. Exploring Expedition, Vol. IV, p. 93.

<sup>5</sup> The *Friend*, April, 1863.

No. 3. This bay was visited July 4th, 1843, by H.B.M. ship *Carysfort*, the Rt. Hon. Lord Geo. Paulet, Captain, who was the representative of Her Britannic Majesty Queen Victoria. These islands were ceded February 25th, 1843."

A fourth plate is mentioned by one writer<sup>6</sup>—but without date of his visit—as follows:

"This tree having fallen, was replaced on this spot by Her Majesty's steam vessel *Cormorant*, G. T. Gordon, Esq., Captain, which visited this spot May 18th, 1846."

The same writer refers also to the *Blonde* copper plate "on a post about ten feet high set in loose blocks of lava within a wall of same material up an inclined way about a mile from the bay, some 500 feet above the water," which is the latest mention we find of it.

Quoting further from the *Friend*:<sup>7</sup> "Tradition reported that the identical cocoanut tree, bearing the above inscriptions, was partially cut off by a ball from Cook's ship at the time he was killed. The top of the tree was taken to England by Captain Bruce, of H.B.M. ship *Imogene*.<sup>8</sup> All that now remains, we believe, is simply inscription No. 1.

"The topic of a monument to Cook has often been widely discussed and warmly advocated, especially by all English navigators, seamen and visitors. A subscription was commenced for the purpose in March, 1859, by the late acting commissioner, B. Toup Nicholas, who took a deep interest in the matter. In consequence of his death the affair was allowed to slumber a while longer, partially upon the ground that Gen. Miller was expected to return to the islands, and it was confidently hoped he would revive the subject. Mr. W. L. Green, while acting commissioner, received subscriptions amounting to \$889, and about \$200 additional was pledged.

"On March 27, 1863, Mr. Synge, H.B.M. Commissioner, called a meeting at which initiatory steps were taken to effectually carry out some plan which should meet the public expectations and becomingly commemorate Cook's memory. At this meet-

<sup>6</sup> *Travels in the Sandwich and Society Is.*, S. S. Hill, London, 1856.

<sup>7</sup> *The Friend*, April, 1863.

<sup>8</sup> "And placed in the Greenwich Hospital Museum," according to Wilkes' account.

ing Captain Richards, of H.B.M. ship *Hecate*, suggested that a lighthouse near the entrance of Honolulu harbor, would be an appropriate monument to Cook's memory, and resolutions were adopted to that effect, and committees appointed," etc., etc.

This follows the idea suggested during the visit of the *Imogene* in 1837, in support of which is found the following:

"Notice to the Subscribers to the Cook Light House."

"In accordance with the resolutions adopted at the meetings of the subscribers recently held at the British Legation and at the Court House, the Committee of Five then appointed to solicit subscriptions here and abroad, held a meeting on the 23rd inst., at which it was moved and seconded that the secretary be instructed to notify (through the public papers) all known subscribers to the 'Cook Monument at Kealakekua Bay,' that their subscriptions will be transferred to the fund for the building of the 'Cook Light House,' and that any subscribers who may object to this transfer may receive the amount of their subscriptions by application to the Treasurer, Mr. J. C. Pfluger.

H. W. SEVERENCE, Secretary."

April 24, 1863.

The press of Honolulu is silent as to subsequent action for some years, nor when the subject is again brought before the public is any mention made, or explanation given, for the change from the lighthouse form of memorial at Honolulu with its special fund, as shown above, to a monument plan to mark the spot where he was killed. The following extract from the *Hawaiian Gazette* (June 26, 1867) is the next mention found, and while self-explanatory in a sense, it is provokingly lacking in important features and connecting links with the several preceding efforts, or whether it is the result of a fresh movement by the newly arrived commissioner, James Hay Wodehouse.

<sup>10</sup> "Capt. Cook's Monument—The long-talked-of monument to the famous navigator who perished at Kealakekua Bay, is about being erected. The plan has been drawn, the contract signed, and by steamer *Kilauea*, June 24th, Mr. Holland went up to Hawaii to do the work. The design is of an oblong struc-

<sup>9</sup> *Polynesian*, April 25, 1863.

<sup>10</sup> *Hawaiian Gazette*, June 26, 1867.

ture, plain, massive and substantial. The base is 26x18 feet; the body of the monument 16x8 feet, bearing upon one side the sandstone table, with an appropriate inscription; the height of the whole is 16 feet. It is to be built of lava stone found on the spot. The structure will be surrounded by an ornamental iron fence. This monument will be one which will last for many years without being defaced by the tooth of time, and will not need attention to keep it in repairs. The funds have been in hand for some time past. H.B.M.'s Comnr. and Consul-General has been very active in forwarding this business, which will now soon be finished to the satisfaction of the donors of the fund."

From the *Friend* we learn the monument was erected "as near as possible on the spot where the great navigator met his death, and is built of the lava which abounds in the neighborhood, laid up in cement. It is sixteen feet high, and at the base measures eighteen by thirty-six inches, running up to a peak in the form known as the gambrel or Mansard roof. We understand that plates with suitable inscriptions for the four sides of the monument have been ordered from abroad, and when these arrive and are placed in position, we shall probably be enabled to give a more particular description of the structure."<sup>11</sup>

This expectation was never realized. Evidently the project was a disappointment to all parties concerned, the shame of which, after so many years delay and effort, struck our weekly journals dumb on the subject, for no mention, "good, bad, or indifferent," is met with till the following summer when the Editor of the *Friend*, on visiting it (August, 1868), remarks: "Having heard much said respecting the recent attempt at erecting such a monument, we felt exceedingly anxious to see what had been accomplished. When once seen we think any beholder would exclaim, "What, *that* Cook's monument!" Report says those who built it have never been paid, as it was not completed according to contract. Already has it commenced to crumble. Most sincerely do we hope the enterprise will not be abandoned until a suitable and becoming monument shall be erected on the spot."<sup>12</sup>

Silence reigned supreme for the next six years, though ap-

<sup>11</sup> The *Friend*, August, 1867.

<sup>12</sup> The *Friend*, August, 1868.

parently remedial measures were quietly at work here and abroad, for the next move made public is in October, 1874, when Mr. Robert Lishman, the then superintendent of public works, was reported engaged in preparing plans and material for a new concrete monument to the memory of Captain Cook. In connection with this statement was the mention that "some years ago a monument was erected to mark the spot where Captain Cook fell, but having been built of lava stones, poorly put together with lime and sand, it has nearly if not quite crumbled to ruins, and has been an eyesore to residents and travelers."<sup>13</sup>

The following account from the Gazette of November 25th, 1874, gives a full account of its construction and ceremony at its unveiling:

"The erection of a suitable and durable monument to the memory of Captain James Cook has been often proposed and more than once attempted, but has now been happily accomplished under the direction of Mr. Wodehouse, the British Commissioner, with the coöperation of Captain Cator of H.M.B. ship *Scout*, who kindly conveyed the architect and his men and materials to the spot in Kealakekua Bay, where the circumnavigator fell, and where now, nearly a century later, a fitting monument is at last dedicated to his memory. It is a plain obelisk, standing on a square base, the whole being twenty-seven feet in height, and constructed throughout of a concrete composed of carefully screened pebbles and cement, similar to the material of which the fine public buildings in this city are built. It stands on an artificially leveled platform of lava only a few feet distant from and above the highwater mark, and fifteen or twenty yards from the stone or lava slab on which the great seaman stood when struck down. The site is thus the most suitable that could have been chosen, and is the gift of Princess Likelike, wife of Hon. A. S. Cleghorn. The expense of the erection is partly borne by subscribers in England, among whose names are to be found those of Lady Franklin, Admiral Richards, late hydrographer to the Royal Navy and formerly Captain of H.B.M. ship *Hecate* in these islands, and several of his officers, as well as those of W. W. Follett Syngé, Esq., late H.B.M.'s Commissioner, and

<sup>13</sup> Hawaiian Gazette, October 28, 1874.

other ladies and gentlemen who take an interest in these islands and in the fame of their discoverer.

“The seaward base of the obelisk bears the following inscription by Mr. Wodehouse:

In Memory of  
the great circumnavigator  
CAPTAIN JAMES COOK, R. N.,  
who discovered these islands on the 18th of  
January, 1778, and fell near this spot on  
the 14th of February, 1779.

This monument was erected in November,  
A. D. 1874,  
by some of his fellow countrymen.

“This is deeply cut into the material, and except by reason of willful violence will be legible for ages.

“On the morning of the 14th instant, the *Scout* returned to Kealakekua Bay and, immediately on anchoring, Captain Cator, his guests, and many of his officers landed and were met on the beach by the British Commissioner, who had remained behind to superintend the erection, and by Mr. Lishman, under whose direction the fabric was constructed. On proceeding to the spot, the obelisk, which had been distinctly seen from the moment of rounding the point, was now hidden by a screen of canvas suspended from the scaffolding. As soon as everything was pronounced to be ready, the screen was dropped and a monument to the great English circumnavigator stood unveiled to record to future ages his great fame and sad fate.

“There were present at the ceremony besides Mr. Wodehouse and Mr. Lishman, Captain Cator and many officers of H.B.M. *Scout*, the Rev. Mr. Davis and Mrs. Davis of Kona, Captain Mist, R.N., and Mrs. Mist, Mr. and the Misses Luce, Dr. and Mrs. McGrew of this city, and many visitors, native and foreign, from the country round about. There yet remains to be erected a fence or railing round the monument which will enclose an area of about six yards square to protect it from accidental injury. It should be noted that the architect and his men have produced a very creditable piece of work. Near the *present*, or

one may say *permanent*, monument is the debris of a former attempt, and a few yards farther still stands a cocoanut tree, on the trunk of which are nailed four sheets of copper bearing inscriptions to the effect that they were placed there in memory of Captain Cook, by the Captain and officers of H.B.M.'s ships *Imogene*,<sup>14</sup> *Cormorant*, *Vixen* and *Calypso*, respectively. The Hawaiian Government deserves thanks for entrusting the architectural work to one of its officers, Mr. Lishman, and in assisting the efforts of Mr. Wodehouse in other ways."

The gift deed of Hon. A. S. Cleghorn and wife above mentioned was put in tangible form some time later and appears of record in Liber 50, on page 26, as follows:

"An Indenture made this twenty-sixth day of January, A. D. 1877, between Archibald S. Clerghorn, of the city of Honolulu, Island of Oahu, in the Kingdom of the Hawaiian Islands and Her Royal Highness Princess Miriam Likelike, his wife, in her own right (hereinafter designated Grantors) of the first part, and Major James Hay Wodehouse, Her Britannic Majesty's Commissioner and Consul General for the said Kingdom of the Hawaiian Islands (hereinafter designated Trustee), of the second part, Witnesseth: that in consideration of One Dollar paid to the Grantors by the said Trustee the receipt whereof is hereby acknowledged, the Grantors do and each of them by these presents doth hereby give, grant, bargain, sell and convey unto the said Trustee all that lot of land situate in Kaawaloa, District of Kona, Island of Hawaii in said kingdom and bounded and described as follows: Beginning at a point which bears North 18° 32' W. (true) distant 38¼ feet from the centre of Cook's Monument and running S. 26° 28' W. true 54 12/100 this side being parallel with the sea face of the monument,

S. 63° 32' E. true 105 feet to the sea.

N. 26° 28' E. " 54 12/100 feet along the sea

N. 63° 32' W. " 105 feet to initial point. Containing an area of 5682 6/10 square feet. To have and to hold the above granted premises to the said Major James Hay Wodehouse, Commissioner and Consul General as aforesaid and his heirs and assigns. In Trust however for the following uses and purposes and for none other, that is to say in trust to keep and maintain on the granted premises a monument in memory of Captain Cook. In witness whereof the Grantors have hereto set their hands and seals the day and year first above named.

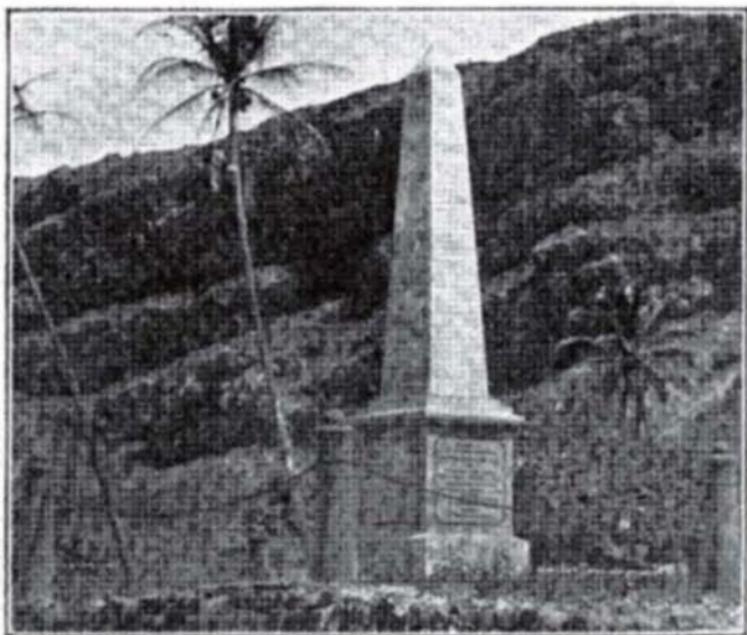
ARCHIBALD SCOTT CLEGHORN.

LIKELIKE M. CLEGHORN.

Signed, sealed and delivered in presence of John H. Paty.

<sup>14</sup> NOTE.—This "Imogene" plate, after serving for some time past as a repair patch on an old canoe, is now in the custody of the Bishop Museum.

The next step toward its completion and governmental care was in the arrival in 1876 of H.B.M.'s ship *Fantome*, from Victoria, with a number of guns, etc., to enclose the grounds above conveyed, a comprehensive account of which is found some months later in the *Friend*, from which is made the following extract:<sup>15</sup>



“The monument is made of concrete stone and stands about fifty feet from the water's edge, and is enclosed by twelve old postern guns (1797). They are placed with their breech in the rock and the muzzle five feet out of ground. They form a square of fifty feet with a chain suspended from one to another. There are four small flower beds, one in each corner of the enclosure. The remainder of the ground is planted with grass. On a slab at the left-hand corner is the following inscription: ‘H.M.S. *Fantome* placed these guns on ground presented to H.B.M. Government by the Hon. Mr. and Mrs. Cleghorn, November, 1876. Limits of ground from the sea round the arrows. S. Long, Commander; C. N. Robinson, Senior Lieutenant.’ The guns were brought from Esquimault, V. I., B. C., by H.M.S.

<sup>15</sup> The *Friend*, April, 1877.

*Fantome*, and were landed near the monument October 23, 24 and 25. The work commenced on the 23rd of October, and was finished on the 28th of November."

The supervision of the premises devolves upon the British government, for which purpose a war vessel, on their annual cruise to these waters, usually makes a call at Kealakekua Bay to furbish the monument and its enclosure, and bring back the wild growth of shrubbery to a semblance of care.

The garden plots mentioned at the four corners of the grounds have therefore become a thing of the past, and if the tablet erected in recognition of the completing work by the *Fantome* is still in existence a recent visitor failed to discover it.

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In connection with the foregoing it is of interest to find that a Mr. Benjamin Boyd, owner of the yacht *Wanderer*, prominent in English banking circles, during his cruise to these islands in the spring of 1851, after visiting the spot where Cook was killed, applied to the king for the fee simple thereof, declaring his intention to erect on that spot a marble monument to the memory of that illustrious English navigator, the neglect of whose tomb he felt as a kind of reproach on his country.<sup>16</sup>

Mr. Boyd, with an attendant native, were wantonly murdered at the Solomon group, October 15th, 1851, so the desire expressed in the above paragraph had no action.

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## THE MID-PACIFIC INSTITUTE.

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*Consolidation of Kawaiahaio Seminary and Mills School.*

**B**EAUTIFULLY situated at the mouth of Manoa valley, Honolulu, is the Mid-Pacific Institute, the completion of which dates from September 12, 1910, with the opening of Mills School as its Boys' Department. Its ally, the Kawaiahaio Seminary, forming the girls' branch, with Miss M. E.

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<sup>16</sup> Polynesian, 1852.

Bosher as its new principal, moved thither and took possession of Atherton Hall at the opening of 1909, which event was celebrated by an old-time customary Hawaiian "hookupu"—a veritable gift day.

These combined institutions of educational training for both sexes is the fruition of years of patient yet strenuous effort of trustees and friends of both schools who thus show the deep interest felt at heart for the right development of christian character in youth, and while a number of these philanthropic laborers and visioners have been called to their reward, their mantles have fallen on shoulders proving equal to the occasion.

The older of these two departments of learning, Kawaiahao Seminary, had its origin in 1865 in Dr. and Mrs. L. H. Gulick's family school for girls, primarily children of Hawaiian missionaries, succeeded by Miss Lydia Bingham (now Mrs. L. B. Coan) in 1867. Its steady progress called for enlarged quarters within a few years, and eventually new and specially equipped buildings on its original home grounds. By the time the capacity of Kawaiahao's modern equipments had reached their limit the changed conditions of Honolulu suggested the advisability of a new and more retired location as more conducive to its highest welfare. A similar condition was facing Mills Institute, in the heart of the city, hence the movement for their consolidation and incorporation under the name of Mid-Pacific Institute.

Of several advantageous suburban sites considered for its location and the erection of permanent stone buildings adequate for the larger work of each that was opening up with the spirit of Hawaii's new era, the trustees finally decided upon this Manoa location, which had also in its favor both climate and accessibility, embracing some forty acres, subsequently increased to over fifty. Ground was broken May 31, 1907, for the erection of Atherton Hall as the Kawaiahao Seminary, or girls' department of the Institute, largely the gift of Mrs. J. B. Atherton in memory of the late Hon. J. B. Atherton, for many years an ardent supporter and faithful trustee of the Seminary.



This noble structure is situated convenient to the car line of the College Hills system and is reached most readily from Armstrong street. The building stands most picturesquely on terraced ground, facing Diamond Head. It is three stories and basement in height, built of the lichen-covered lava stone of the vicinity. Three wings enclose two courts at the rear. The well-lighted basement affords ample provision for the various work rooms, store rooms and laundry of the institution. On the main or first floor are located the reception rooms, offices, class and music rooms and sewing department, as also the dining hall with its striking open fire-place, because unusual in the tropics. The finely appointed assembly hall occupies most of the central wing. The main stairway rises to this first floor in the middle of the building from the broad and airy cloister with its massive stone arches which runs along the front of the building. On the floor above are the commodious dormitories for the younger girls, attractively furnished.

Kawaiahae Seminary, while established mainly for Hawaiian girls, has broadened out as its advancing years and enlarging opportunities have permitted till now the nationality of its pupils include full and part Hawaiians, Chinese, Japanese, Portuguese, Korean and others; the student enrollment at its recent fall opening being one hundred and twenty. At the opening in its new location this inclusive character was remarked upon as "one of the reasons for the sudden access of deep interest in Kawaiahae. It exists not for people of one blood nor for students of a social class. The real spirit of Hawaii breathes throughout the entire institution of which Kawaiahae is the feminine expression," and its influence goes out not only to homes of these different nationalities throughout this territory, but is being felt in the Far East since it is attracting students hither for the christian training for home life which it mainly inculcates. In addition to its English courses in grade teaching, instruction in three Oriental languages are now given.

And what is shown in the foregoing as the growth and far-reaching beneficent influence of Kawaiahae Seminary from the "tiny acorn"—so to speak—planted in 1865, no less may be said and shown of the remarkable progress made by Mills Institute. This school was founded in 1892, primarily for the benefit of Chinese boys, by Mr. F. W. Damon, on his premises, Chaplain Lane, to whose untiring personal effort its development and successful establishment in its new home is largely due. Gradually the deep-rooted Chinese prejudice against a christian education met with in early days wore away through the devoted labors of its promoters and co-workers, so that in due time the school outgrew its place of origin and moved into adjoining premises, the buildings being enlarged and specially designed for the broadening sphere and influence of Mills Institute as a christian boarding school for boys of Oriental parentage.

That the pupils of Mills have appreciated their opportunity and are meeting the high hopes of its founders may be judged by the long list of its graduates that have gone out to positions of trust and honor, not only in these islands but notably in China and in the States, a number having been called to positions of influence under the new spirit of reform that is permeating the

land of Confucius; some teachers of English in government schools in various parts of that great Empire; some winning renown as merchants and in various professions, while not a few are seeking higher educational benefits in several of the mainland colleges and universities. A like record is reported abroad of Chinese graduates of the Episcopal schools of this city, thus showing the enlightening advantages to the Far East of christian educational institutions of Honolulu.

Mills Institute, like Kawaiahao, broadened out in the nationality of its pupils, and for some years past have welcomed other than Chinese students to the advantages offered; the Japanese Christian Boarding School, which began here in 1896, and the Korean Methodist Mission, which opened ten years later, both send their more advanced pupils to join the ranks of this department of Mid-Pacifics. In 1908 mention was made as "an interesting feature of the work at Mills, that nine students had been received from China in the preceding two years, representatives of the great student body of the new and awakening China, specially accredited to this Institute for the purposes of study only."

At the opening of Kawaiahao department, January, 1909, as already stated, work on the Mills school was already in progress. On June 5th—by which time its walls were well into the second story—was placed with appropriate ceremonies its "memorial stone" whereon was cut the year of erection, 1909. This capped another which held the box of usual corner-stone literature and fitted in one of the arches forming the main entrance to the building. The completed edifice was dedicated with impressive exercises November 26, 1910, the gift, with the site on which it stands, of Mr. G. N. Wilcox, of Kauai. It has a frontage of over two hundred feet and, like its sister department, is constructed of the lichen-covered lava rocks of the valley. The two buildings harmonize well in character and design. This boys' department is credited with being one of the largest school buildings so far erected in the territory; is admirably planned for the varied and special work designed, and in its new location broadens out into manual lines, including farming. The basement gives room for the workshops, laundry and baths. The first floor is devoted to reception and recitation rooms, library,

reading room and dining room. On the second floor is the spacious assembly hall, the sleeping rooms for the teachers and the older scholars, each one separate, while large dormitories for the smaller boys, under the special care of the matron, takes up the third floor.

With much grading work still to be done on the extensive campus, the athletic field and land adjacent to the building, and the school farm also but in the initiative, Mills school opened on its fall term date, September 12, 1910, with an enrollment of two hundred and two students, comprising 81 Chinese, 86 Japanese, 25 Koreans, 4 Hawaiians, 3 Filipinos, 2 Marshal Islanders, and 1 Spaniard. Of this number there were 175 in the boarding department, the remaining 27 being day scholars.

Mills Institute, as it was known, has for several years past been under the principalship of Arthur M. Merrill, B.A., who, with an enlarged corps of co-workers, entered upon their work in the new premises with fresh zeal.

The same month that the Mid-Pacific Institute opened, completed, the institution rejoiced to welcome a body of sixty-eight government students from China, en route to the mainland, accompanied by three commissioners of education. The party were entertained at the Kawaiahaeo Seminary by a luncheon, followed by addresses and music that was inspiring alike to the entertainers as to the entertained. It was an unlooked for uplift to the pupils of Mills that will be of lasting benefit.

A still further broadening of the work of the Institute planned is the securing of endowments for the founding of "Peace Scholarships" for five students from Japan, a movement that has met with considerable support in that country and leads to the hope that like benefits will follow for other nationalities as the spirit of peace broadens.

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PHILATELIC interest has been materially strengthened in these islands by the organization in the early part of the year of a society, composed mostly of expert stamp collectors, for the promotion of all matters relating thereto and suppression of the sale of forgeries. This was followed a few months later by the formation of a junior society.

## KA HANA KAPA—THE KAPA WORK.\*

*Brief Review of a Recent Notable Book.*

HAWAII is fortunate in having among those attracted to her shores from time to time a number who are disposed to go beneath the surface of things and, from the charm of the islands which seems to enthrall the great majority, have delved and are delving, among other things, into those questions of antiquity in which the ancient Hawaiians made their mark and left their impress of superiority over like races under similar primitive conditions in other Polynesian lands.

Among these researchers in Hawaiian antiquities that are rendering signal service by scholarly investigation is Dr. William T. Brigham, the indefatigable director of the Bishop Museum, as the various memoirs of that institution can attest, of which this latest is the largest and most costly.

A late reviewer writes: "It is a genuine pleasure to be able to say of a new story that it is equal to the very best thing the author has previously done." One can readily say more than this of Dr. Brigham's new work, "Ka Hana Kapa," in terming it his best, without disparagement to his former successes on "Hawaiian Feather Work," "Mat and Basket Weaving," the "Ancient Hawaiian House," etc., or that on the "Hawaiian Volcanoes."

The amount of comparative work involved in the study of the subject has carried it far beyond the sphere indicated by its subtitle, "The Making of Bark-cloth in Hawaii," yet it has been necessary in order to arrive at a clear understanding of many of the questions involved through the lack of important data by early observers and not otherwise available, for very obvious reasons. In the progress of this study the author acknowledges the valuable aid thereto by the possession of the Cook kapa collections, other early voyagers, as also contributions by a number

\* *Ka Hana Kapa* by William T. Brigham, A.M., Sc.D., *Memoirs of the Bernice Pauahi Bishop Museum of Polynesian Ethnology*, Vol. III, qto., pp. 273, finely ill., plates 1-48, and portfolio of 29 color plates. Museum Press, Honolulu, H. I., 1911.

of the world's older museums to supplement the already extensive kapa treasures of the Bishop Museum, recognized as the best extant. To this must be added the author's own collection in the comparative work.

The fact is bemoaned that scientific enquiry into the various interesting features of this ancient industry was entered upon too late by several generations, for kapa making has become practically a lost art. Investigators in other fields of Hawaiian research realize the same. Reasons for this are given, among which are: No new workers taking the place of those who have passed on; late attempts so modernized as to afford little knowledge of ancient methods, or material; even the names of articles once used in the art being forgotten. To this is added the introduction of foreign textiles, first supplanting the choicer sorts, and eventually the coarser kinds. Hence the shortcomings felt by the author in his treatment of the subject, notwithstanding his devoted interest therein for a number of years past, whetted by the preparation of a paper thereon for this *Annual* which appeared in its issue for 1896, and stimulated to an exhaustive study thereof upon coming into possession of the kapa collections of Cook's three voyages, as mentioned, resulting in the work under review.

In this preservation in book form by description, illustrations and plates—many of them in fac simile by the noted color-printer, Lowy, of Vienna—of the kapa of Hawaii, and by way of comparison, the like products of other Polynesian islands, the originals or specimens of which are being affected by time, the trustees of the Museum acted wisely in having the learned author put on record the result of his investigations, on which subject he has long been an acknowledged authority. Readers are therefore under deep obligations not only to him for this outcome of his research, but also to the Board of Trustees of the Museum in financing this the finest volume of its series of *Memoirs*, to become available to scientific bodies and libraries.

Entering upon the work the several accounts by the different journalists of the Cook voyages are given for their accuracy not only in the detail of kapa manufacture, but also of the plants furnishing the requisite bark and dyes, mainly at Tahiti, first in 1769 and again in 1773, where the process of dyeing and stamp-

ing is witnessed and described, a photo illustration of a specimen so stamped and brought from Tahiti that voyage being given. New Zealand is shown to have once known and practiced the art for rare high chief uses, but is now known to them only by tradition. Forster on Cook's second voyage tells of Marquesas possessing but few varieties. Cook describes one piece of bark-cloth at Ulietea fifty yards long, and at Rurutu, of the Astral group, they produced both colored pattern and varnished kapa. The Tongan product is mentioned as similar to Tahitian, of less variety and fineness, but by glazing it is rendered waterproof and more durable. Tongatabu kapa making is described and, with the Samoan, have this quality in the coarser grades.

Fijian methods and variety unnoticed by early voyagers, is left to Dr. Berthold Seeman to record on his government mission in 1860, supplemented by that of Rev. Thos. Williams, who mentions measuring "a dress intended for a king on a festive day and found its length to be one hundred and eighty yards." Samoan *siapo* or kapa making is quoted from Wilkes, and his lack of improving the opportunity afforded by his visit there in 1839 by careful notings instead of superficial observations is deemed most unfortunate. Several other authorities are quoted in the above and other parts of the Pacific in the comparison of kinds and qualities of kapa produced, its uses, etc., the method of manufacture throughout differing but little.

The first description of Hawaiian kapa making is, of course, in Cook's visits here on his third voyage, in 1778 and 1779, first at Kauai and subsequently at Hawaii. His impressions of Kauai kapa, first seen, was of inferiority to those of Tahiti and Tongatabu except in the colorings and neatness of pattern work, in which, he states, the Hawaiians far excelled. He noted finding pieces sewed together, an art he had not met with in the South Seas. The method of imprinting the figured kapa was left to Captain King to describe on their second visit. Portlock and Dixon were more favorably impressed with our kapa. But it is to Rev. Wm. Ellis, in 1823, we are indebted for the first full descriptive account of the Hawaiian industry published, which is freely quoted and the observant trait of the writer commended.

David Malo, the only native authority referred to, adds but little to what is gathered from others except to mention a cer-

tain steaming process for the coloring of kapa in the underground oven: this lacks confirmation. Ellis in comparing the process of manufacture with Tahiti inclines to term the Hawaiian product inferior, but says: "No Polynesian nation surpasses the Sandwich Islands in the gaudy colors and complicated patterns they communicate to this fabric." In the Society Islands, besides the pareu, ahupu, tiputa, ahufara, and maro, all articles of clothing, they also made up bales of single pieces of kapa some two hundred yards in length by four yards wide, the number of which bales a chief possessed indicating his bank account.

Dr. Brigham next traces the art of bark-cloth making across the Pacific. Micronesia at occasional points only give evidence of manufacture as made elsewhere. An illustration on plate 28 shows a remarkably fine sample of Marshall Island kapa in the U. S. National Museum, resembling in pattern one of their finest mats. The New Hebrides, Solomon Islands, New Guinea and other groups furnish but coarse though interesting varieties: being beyond the paper-mulberry or waoke limit, the process of manufacture follows a different and more laborious method than obtains throughout Polynesia. Borneo, and the Malay Peninsula is next traced, with a glance at Japan in its kapa making of fifty years ago in passing, and across the Indian Ocean to Madagascar and certain tribes of Africa.

From this wide range of the bark-cloth makers of the world the author in summing up a comparative value shows Hawaii and Tahiti in the lead for design and quality, with a far greater variety of implements and durable colors to the former than known in any other group. This study inclines the author to "believe that Hawaii was the *fons et origo* of the Polynesian kapa-making, if not the point of distribution of the southern tribes from Samoa to New Zealand," and claims "Hawaii as not only the chief maker of bark-cloth, but the teacher of many of the other groups."

The variety of tools and their uses, with the various markings of the beaters far advanced over those of other groups are interestingly described, and a list of three hundred and forty in the Museum collection is given by dimensions, by pattern and wood. This is followed by an account of the marking process. freely

illustrated, with description of the bambu stamps of varied face for printing patterns, of which, strange to say, no mention is made by the early voyagers. Other implements used in the art as also the various dye products and methods of treatment are shown.

Among the various plants furnishing kapa-making material in Hawaii the waoke (*Broussonetia*) easily takes first place for the finer grades produced, while the mamaki (*Pipturus albidus*), followed it a close second. Hau (*Hibiscus tiliaceus*), whose fibrous bark was largely used for cordage, furnished also a good quality of kapa. Others of but occasional use here, but better known elsewhere for their bark qualities, are also given. Those furnishing the various dye stuffs and colorings, glazing or varnish, as also the perfumes used in kapa-making, shows a much more extended list, followed by a description of the trees furnishing the wood for the implements required in the industry.

The chapter devoted to the uses of kapa naturally embodies much of the ancient customs of the aliis, with narratives of historic interest in the transition period from the old to the new material of civilized dress among all classes.

Coming to the consideration of Hawaiian ornamental design it is noted that the kapas showed no pictorial records, human and animal forms being entirely absent, even vegetable forms being rare. "Kapa ornamentation is purely geometric," says the author, and for convenience the varieties of designs are classified into fourteen groups. The study of this interesting feature of the work has led to conclusions as to changes of methods, patterns of material, as also in tool designs since the days of Cook.

Of value to the student is the vocabulary of kapa terms of Hawaii, Samoa, Tonga, Easter Island, Fiji and Tahiti, the chapter closing with a full page table of comparative terms, following which is the catalogue of the kapas studied, which may give the reader some conception of the self-imposed task, embracing as it does the two sample books or albums of the Cook collection of one hundred and forty-nine varieties, Hawaiian and Tahitian mostly, but including samples of Tongan and Samoan; the author's collection of one hundred and forty-four varieties from various kapa-making sources, and the Museum collection

comprising four hundred and seventy Hawaiian, fifty-five Samoan, and forty-five Fijian, Marquesan, Papuan and other points, a total of eight hundred and sixty-three, all of which are classed as to kind, pattern or quality and use, size also in many cases being given.

The book is well indexed, and closes with a series of full-page plates, 1 to 48, of beaters and striking patterns of many of the kapas referred to by the author in his treatment of the subject. The gem, however, is the portfolio of twenty-seven colored plates from actual specimens of kapa in fac simile, of eighty-five different varieties which accompany the volume.

We thus come to the close of the work in sympathy with the author in his thirsting after more knowledge on this interesting art that has passed beyond us.

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## A SYNOPSIS OF THE HAWAIIAN FLORA

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*By J. F. ROCK, Botanist, College of Hawaii.*

THE isolation of the Hawaiian Islands, the remoteness of the group from any continent and other islands of the Pacific, unquestionably made it possible for the plants which first arrived on the newly thrown up land, either by ocean current, wind, birds or other agencies, to not only gain foothold and remain undisturbed, but to develop and evolve into forms most peculiarly and strikingly different from their relatives or offspring.

This is not only true in comparison with their American or New Zealand affinities, but also in the group itself; for instance, species of peculiar Hawaiian genera have reached a greater development on Kauai than on Oahu or the other islands, which proves the greater antiquity of Kauai; Kauai and Niihau being the oldest islands, Oahu and Molokai, geologically younger, next Maui, which may be divided into two distinct divisions, differing greatly in age, and Hawaii the youngest, with exception of the Kohala Mountains, which may be of the same age as West Maui.

where no trace of a distinct crater is visible, and erosion has cut deep gorges into the heart of the bulky mountain.

The flora, which is of decidedly American affinity, is remarkable and extremely rich in endemic genera and species, not less than 83 per cent of the flora being indigenous, which is, indeed, a high percentage compared with the flora of the islands of the South Seas, as Tahiti with 35 per cent, and Fiji 53 per cent, and Samoa with 34 per cent.

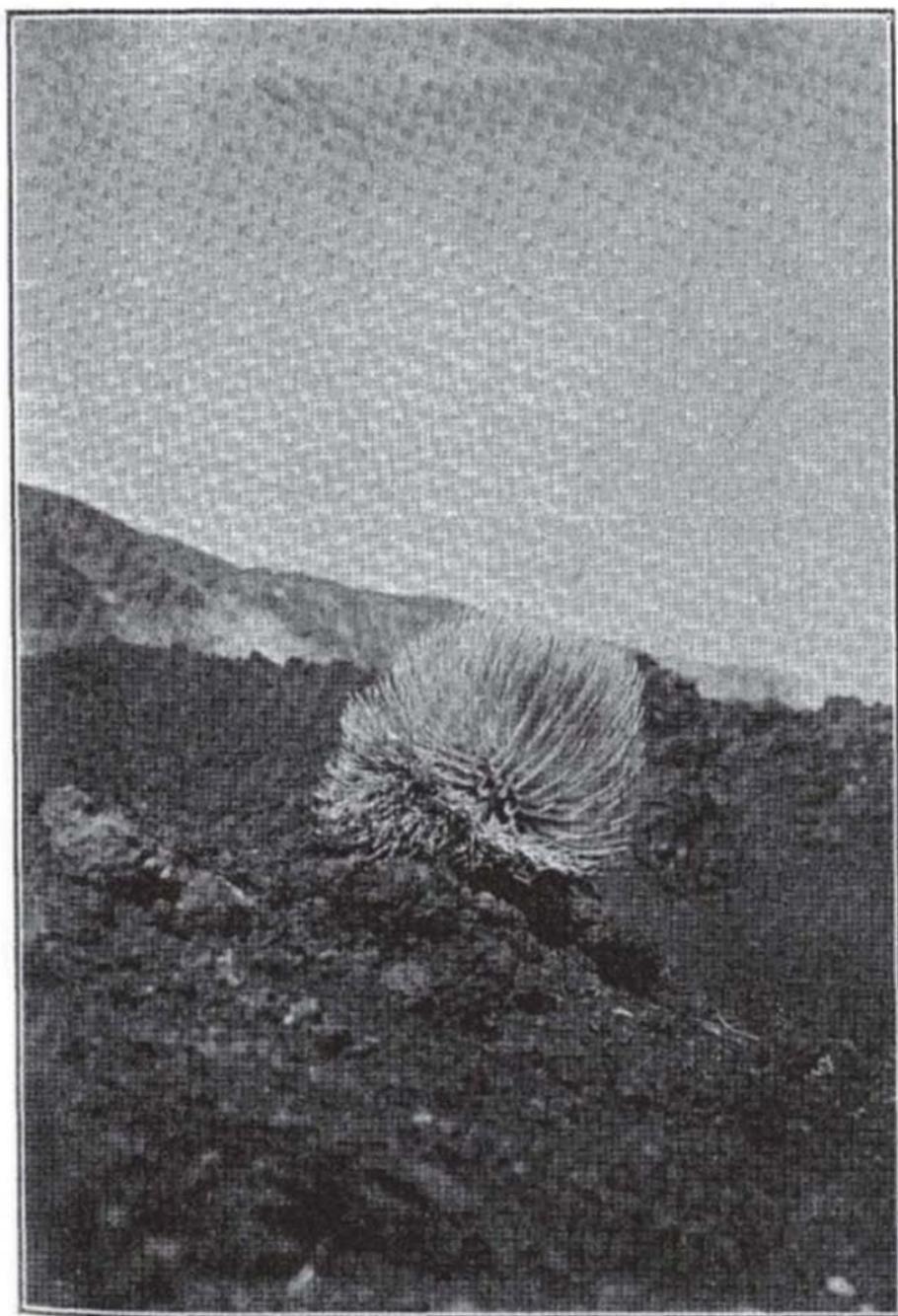
The absence in Hawaii of beach forests, which surround the islands of the South Seas and are a striking feature in Fiji and Samoa, as well as on the islands of the Straits Settlements, is easily explained. Nearly all the trees which make up a tropical beach forest and which are common to all the islands of the South Pacific are distributed by means of ocean currents, their fruits being fitted out for ocean travel. They are either covered with a corky husk like the fruits of *Barringtonia speciosa*, or *Cocos nucifera*, the cocoanut, or having a cavity in the center which keeps them buoyant as the beans of *Mucuna*, the cotyledons of which shrivel up and thus leave a cavity which enables the seeds to float for several months, being covered outside with a tight waterproof skin, which protects the seed from losing its germinating power.

The Hawaiian group lies within the domain of the north-westerly current of the Pacific, and it is this current which is responsible for our scanty beach vegetation. The North Pacific drift bring pine logs from Oregon, which can be found in great numbers on the windward shores of Lanai and Kahoolawe. This current may also be responsible for the American affinity of our flora. The little shore Heliotrope, or Hinahina, *Heliotropum curassavicum*, growing in great abundance on our shores, is distributed from Oregon down to Mexico, but as their seeds are not fitted out for ocean travel it must have come undoubtedly with the driftwood, being hidden in cracks of pine logs. *Casuarina equisetifolia*, Ironwood (now extensively planted in the islands), is common in the South Seas as well as East Indian islands, but absent in Hawaii; it belongs to that group of trees which form the biggest part of the Polynesian strand flora; their seeds are washed up on the shores in thousands by the waves, thriving best in coral sand; they germinate readily, and thus form

belts of forest around the islands. As an example may serve the Island of Krakatoa, whose vegetation was entirely destroyed by the great eruption in 1883, but several years after was covered with a belt of forest consisting mainly of *Casuarina equisetifolia*. The great range of climatic conditions in Hawaii, from tropical heat to ice and snow, from 180 inches of rain to few inches per annum, creates most interesting floral zones which will be touched upon in the following pages.

Our flora is much richer in endemic species compared with the one of New Zealand, whose territory is of so much larger extension than that of Hawaii. In Hillebrand's Flora are enumerated 997 species, many new ones have been and will constantly be added as exploration goes on; New Zealand having in all about 1400 species, three-fourths of which are indigenous.

Three families in our flora are represented by many species, first of all rank the *Campanulaceae*, of which the tribe *Lobelioidea* is represented by many forms. In Hillebrand's Flora, 58 species are enumerated, and if it is considered that none are to be found on the South Sea Islands, with the exception of two genera, one found in Tahiti and the other in Raiatea, consisting only of a single species, and only as many as can be counted on one hand in the Philippines, it sets one to think and look around for the possible place of their origin. Many are the species of *Lobelias* which linger in the forests of South America and the Dark Continent, on the snow-capped mountains of equatorial Africa, and on the highlands of Abyssinia. Hardly anywhere is this tribe of plants so developed as in the Hawaiian Islands. Research has added many new ones, and in the course of time I venture to say the number of Hawaiian *Lobelias* will reach almost one hundred species. If we remember the *Lobelias* of the States, one to two feet high, we certainly will be unable to recognize the gigantic forms which have found their best development on Kauai, like *Cyanea leptostegia*, the Hahalua of the natives, a beautiful plant of palm-like habit, reaching a height of more than forty feet. The handsomest species may be found on the summits of Waialeale, Kauai, and Puu Kukui, on West Maui, these extensive bogs always enwrapped by clouds harboring plants of striking beauty, but unfortunately only few there are who can say, "I have seen them." Next to the *Lobelias* come the Composites. Like the



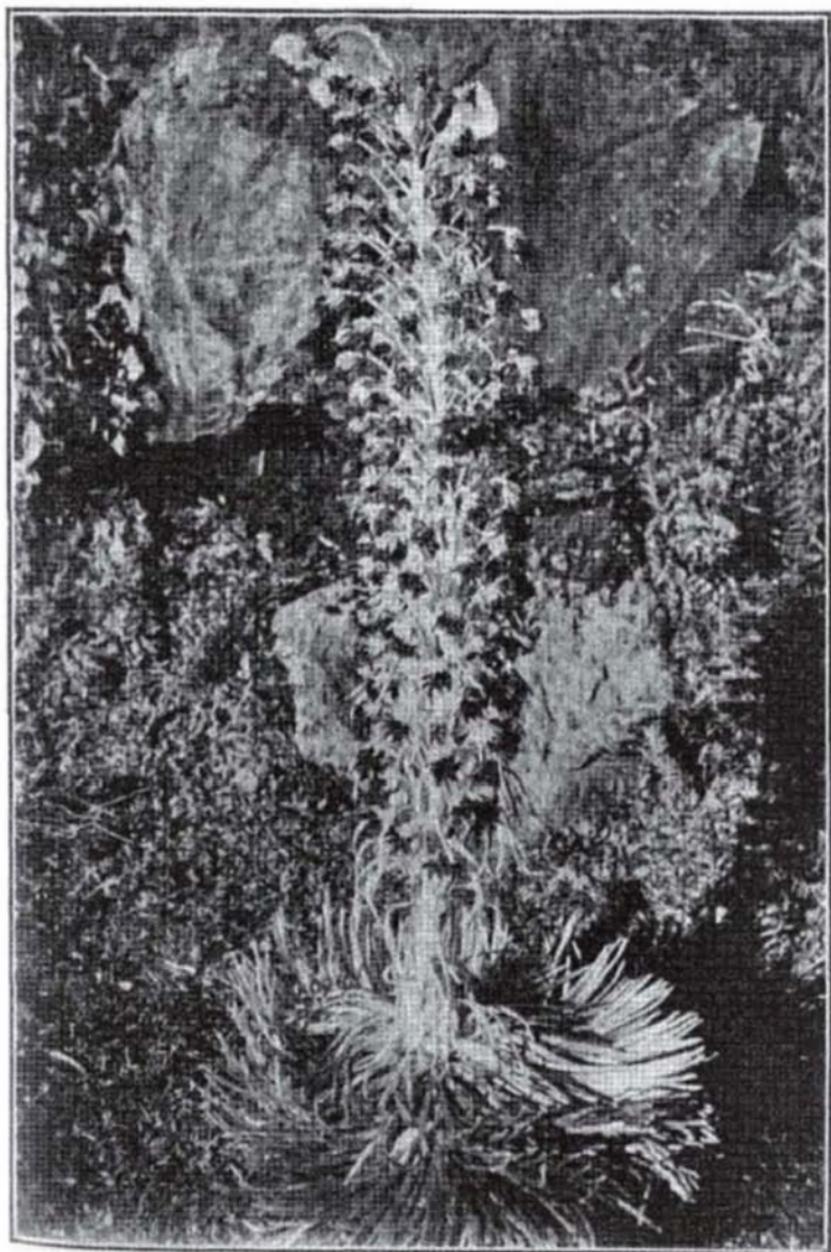
AHINAHINA-SILVERSWORD.

*Argyroxiphium sandwicense* var. *macrocephalum*. Hbd.

former, so also this family has reached a wonderful development. In the islands they comprise over 50 species, many of which are aborescent and of striking beauty, such as the Ahinahina of the natives or Silversword of the foreigner, a plant allied to a species of Composite of the high Andes of South America. The nene of the natives, or Hawaiian goose (*Bernicla sandwicensis*), who has a close relative in the Andes, is supposed to have originated from that country. May it not be possible that the presence of some of our composites, or perhaps this particular one, be attributed to this bird? Only one arborescent species of Composite (*Fitchia*) is to be found in the South Sea Islands, while in Hawaii they number more than a score. This, of course, can be explained by the low altitudes of the South Sea Islands; Tahiti, the highest, being only 7000 feet. Our tree *Raillardiae* (Composites) grow between 9,000 to 11,000 feet, on Mauna Kea and Mauna Loa, in company with temperate genera, such as Geranium, some of which reach a height of 15 feet, with trunks of one foot in diameter, as I have measured in Haleakala crater (*Geranium multiflorum*); all peculiar endemic forms. The *Rubiaceae* are the next largest having African, Australian, New Zealand, and American genera represented by endemic species. *Rutaceae* and *Araliaceae* follow, the former being represented by an old and new world genus *Zanthoxylum*, not to be found in Polynesia outside of Hawaii; eight species being endemic to the islands, with almost twice as many varieties. The genus *Pelea*, now not regarded as exclusively Hawaiian, is composed of 18 species which are endemic, while *Platydesma*, an exclusively Hawaiian genus, has no affinities.

Among the *Araliaceae* "*Tetraplasandra*," now including "*Triplaspandra*," established by Gray, has most interesting forms very difficult to separate specifically; only two are found outside of Hawaii, one in New Guinea (*T. paucidens*, Mign.), and the other in Celebes (*T. Koordersii*, Harms.), the remaining genera, *Cheirodendron* and *Pterotropia*, with the exception of *Reynoldsia*, being endemic.

How often have I heard the remark from people, even from oldtimers, about everything here being introduced; yes, indeed, everything around in Honolulu, only a few trees being indigenous, as the Kou, *Cordia subcordata*, which has followed the



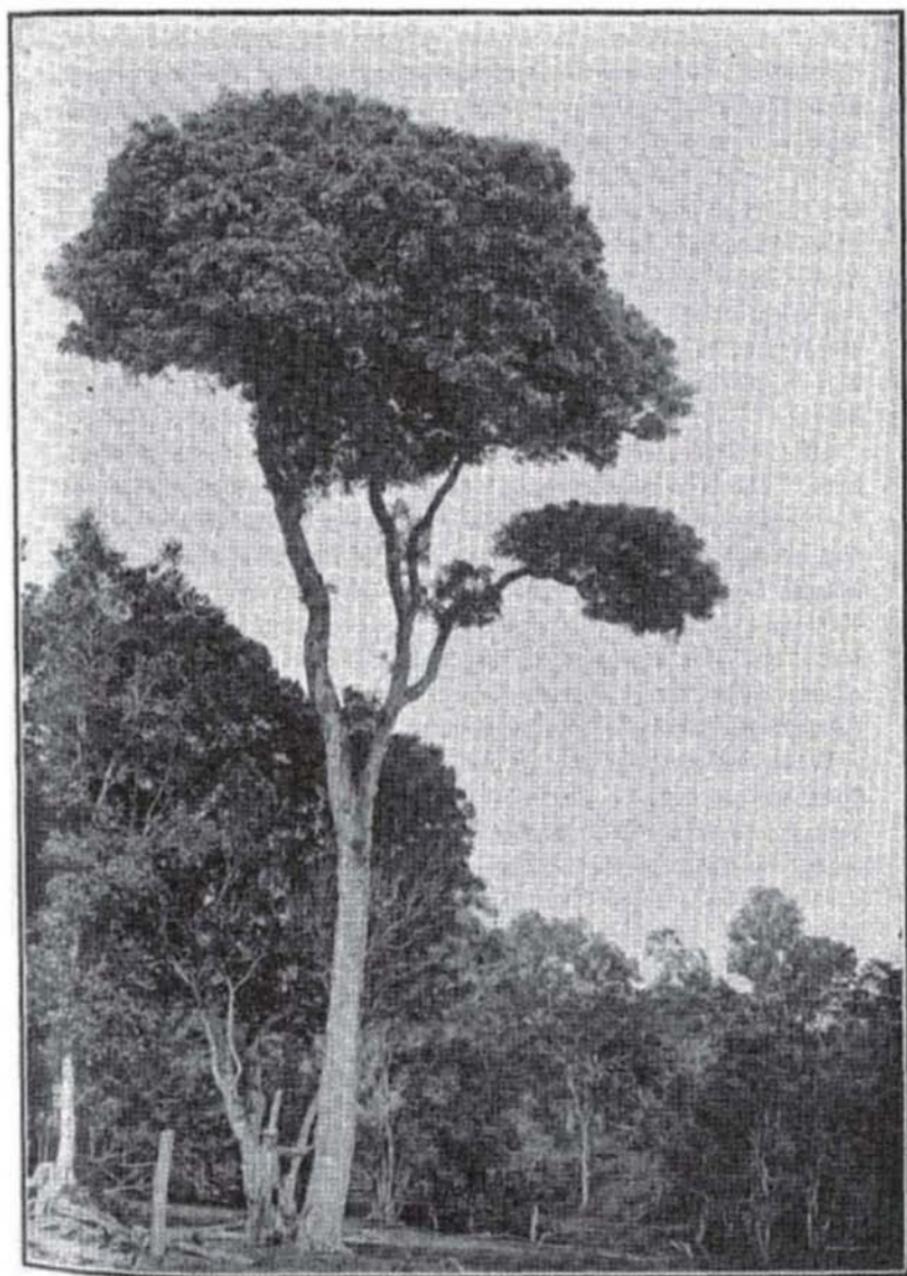
SILVERSWORD IN FLOWER.

*Argyroxiphium sandwicense* var. *macrocephalum*. Hbd.

Malayan race in its migration even to Madagascar; they are supposed to have been brought here by the aborigines, as it is said of the beautiful and now rare *Sesbania tomentosa*, which is often mentioned in old Hawaiian mele (songs) as the Ohai or Ka ohai o mapepe, to have been brought here by Namaka-o-kahai from Kahiki, where it grows in abundance. But one needs only to go into the mountains, to the tops of the ridges, and look around and he will find little, indeed, that will remind him of home, no matter from what place he may be.

Of wonderful interest are the dry districts; many have sailed by the western shore of Molokai and to windward of Lanai with the thought, what a barren waste! Yes, such it is, at first appearance, but if you go and look into the gulches and few ravines you will find a great number of species of trees, some of which are exceedingly rare. Many botanists have overlooked such districts, thinking to find nothing of great interest, and thus we can explain why such trees as the newly described *Sapindus Thurstonii*, the A'e of the natives, of Kilauea, a huge and beautiful tree, besides others, had been kept from our knowledge. That little kipuka "Puauhu," situated near Kilauea Volcano, on the slopes of Mauna Loa, may serve as an example. It only comprises 90 acres, and in it are found not less than 38 species of trees, some of which are unique; how wonderful must have been that forest before the fiery streams of lava did their work of destruction; this little place which escaped the fiery torrent by its elevation tells the story of many species which were and are no more, and which will never be known to the world. The same holds good of other places, such as Puuwaawaa on Hawaii, North Kona; Auahi on Maui, situated on the leeward slope of Haleakala, a small forest belt only 350 acres in extent, and harboring not less than 47 species of trees, some of which had never been recorded.

Trees that were of great use to the natives, as the Uhiuhi, and Kauila, which furnished the wood for their spears, tapa beaters, etc., are found mainly in the dry districts; the native cotton or Kokio, the bark of which furnished a rich brown dye; the Ka'awau, a variety of *Zanthoxylum dipetalum*, as Kapa anvil, up to now an undescribed variety, but well known to the natives of by-gone days, grows to a beautiful tree 50 to 80 feet in height on



A'E. SAPINDUS THURSTONII. Rock.

Mauna Loa and Auahi, Maui, with trunks of one and a half to two feet in diameter. A similar variety was used on Kauai (*Z. dipetalum*, var. *gamma*), and known as Kawau also on Kauai, according to Mr. Francis Gay, an old kamaaina, and, indeed, authority on native trees and plants and their uses.

Of Violets, the Hawaiian Islands have seven species, and, like the Lobelias, are giants compared to their little brothers known to all. We may find blue, white and pink violets with the flowers of the same size as the common cultivated variety or even smaller, but with woody stems three to six feet high. Some inhabit the swamps of high elevation, others grow in the dry districts, and it is in the latter place where they reach six feet or even more in height.

Of *Leguminosae*, the islands are poor compared to other countries. The Koa (*Acacia Koa*) being the only indigenous tree of the family which reaches a great size; trees of 100 feet in height and six to eight feet in diameter may be found on the slopes of Mauna Loa on Hawaii, reaching their best development between 4000 and 5000 feet. It descends, however, much lower (1000 feet), but does not grow to any size. This species of *Acacia* is closely allied to a species found on the Island of Mauritius (*Acacia heterophylla*), and can hardly be distinguished from it.

When we consider the sprinkle of Australian affinities in our flora, we can only be surprised that a genus like the above, numbering more than 200 species in Australia, shall only be represented by three species in the islands.

*Urticaceae* (Nettle family) is represented by a number of species, most of which furnished the natives the material for their clothing. The oloná, one of the most durable fibers known, is derived from the bark of *Touchardia latifolia*, an endemic genus consisting of this one species; the plant, which before was exceedingly scarce owing to the large demand for it, has now become very common, due to the fact that most of the natives nowadays have lost the art of preparing the fiber, and, secondly, use sisal and other fibers as a substitute.

In closing these lines, I will call attention to the fact that the flora of these islands is also poor in many respects, as Mr. Lydgate has pointed out in his article which appeared in the last *Annual* on the flora of the Hawaiian Islands.

Of Palms, we have only one genus represented in the islands which is also found in the other islands of the Pacific. Two were originally described, but since four have been added, the last having been discovered by the writer on Kauai in 1909, a most extraordinary plant, differing greatly from those of the other islands.

Many are the obstacles met by the plant geographer in explaining the presence of some plants whose ancestors have become extinct in their country of origin and have survived on these remote islands of the sea. How and whence came these *Lobelias* which Hillebrand calls the pride of our flora, and that justly? Who were the agents that transplanted them on the volcanic peaks of the Hawaiian group? The same question may be asked in regard to the remaining hundreds of species which are peculiar to these islands. They are a net quotient, confidently given out where the divisor and dividend are both known.

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## THE PRESENT STATUS OF COTTON IN HAWAII.

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By E. V. WILCOX.

**T**HE interest which was revived in the cotton industry in Hawaii a few years ago is not lacking, notwithstanding the fact that one or two have lost courage from attempting to grow cotton under unfavorable conditions and without any great interest in the business. The study of this industry has progressed far enough to give satisfactory answers to several of the questions which were raised by all who have engaged in cotton growing. It seems well to discuss briefly a number of these problems at this time.

In the choice of soil for cotton a great latitude may be allowed. Cotton has been grown successfully in some of the heaviest upland soils containing large quantities of iron and easily puddled clay. Cotton is also seen thriving, for example, in Kona, Hawaii, in very porous soils containing so many rocks that regular cultivation is impossible, and underlaid with highly porous lava

rocks. In the neighborhood of Waianae, Oahu, cotton is doing well on soils which have been deposited by the wash upon limestone coral rock. Near Pearl City an excellent yield and quality of cotton are obtained where the plants are standing literally in coral rock with a minimum quantity of true soil. On the windward side of Oahu and on the leeward side of Kauai there are fine fields of cotton growing at sea level in coral sand in which there is a small amount of soil particles washed from higher levels. The cotton plant therefore obviously thrives in a great variety of soils. Even in highly manganiferous soils it shows little effect from the presence of manganese. The physical properties of the soil seem to have little effect upon the growth of cotton so long as good drainage is obtained. The presence of salt in the soil may produce a lower growth in the cotton, but does not affect the yield nor, apparently, the quality. The one element of plant food which seems to be distinctly beneficial when added as a fertilizer to the cotton is phosphoric acid, and this is apparently due to the ease with which phosphoric acid becomes fixed with other elements in the soil.

It is generally known to cotton growers that cotton requires all the heat and sunshine it can possibly get. At first it was not supposed there could be any lack of heat for cotton in this subtropical climate. As a matter of fact, however, one of the most conspicuous features in the growth of cotton in Hawaii is the decidedly depressing and injurious effect of the cool weather of even moderate altitudes, especially if combined with exposure to the trade wind. The temperature of the soil and the plants growing in the soil is not determined by altitude alone, but perhaps even more by the prevalence of the winds. This is clearly illustrated by the fact that cotton grows with sufficient rapidity and vigor at all altitudes up to 1500 or even 2000 feet, provided it is thoroughly protected against the winds. Where there is exposure to the trade wind, however, the growth and yield of cotton is not satisfactory, even at an altitude of 500 feet. The effect of the trade wind upon the growth is much more pronounced than would be supposed from the general nature of these winds. A part of this effect seems to be due to the constant direction of the trades. In almost any cotton field exposed to the trade wind or on isolated plants, one of the first things to be noticed is that

the windward side of the plant may bear almost no cotton, while the leeward side may be heavily loaded with bolls. In fields thus exposed the first few rows on the windward side bear a small crop while the protected plants show the usual yield. Wherever windbreaks are established, the plants immediately in the lee of the windbreak grow most vigorously and produce the heaviest yields. A gradual diminution in the size of the yield of the plants is observed as one goes farther to the leeward from the windbreak. The best results from cotton in Hawaii have been obtained invariably in locations where protection against wind was secured and where the heat was greatest. The protection from winds is extremely important in avoiding a too great lowering of the temperature in the soil and surrounding air during the night. In all well protected localities cotton has not only grown vigorously but has shown an unusually heavy yield. It is impossible to state in general terms the limit of altitude to which cotton can be grown successfully since where wind protection can be secured it can be grown at considerable altitudes, while if there is exposure to the winds, cotton planting must be kept as near sea level as possible.

The last word is still to be said of the question of varieties of cotton. This matter can not be settled until the behavior of different varieties under our conditions has been observed for a number of years and has become uniform. Sea Island cotton has given very flattering results in a number of localities and has borne more heavily than is the case in the neighborhood of Charleston, South Carolina, which is the central point of production of this cotton. It matures its crop nearly a month sooner than Caravonica, does not grow as tall as the latter variety, and under ordinary circumstances produces a lint of greater value than the Caravonica lint. On the other hand, there are certain disadvantages connected with Sea Island cotton. The bolls, particularly under unfavorable conditions, do not open widely enough to permit easy picking. This tendency has been observed not only in Hawaii but in New Guinea, the Philippines and elsewhere. Sea Island appears to be slightly more susceptible to injuries of the Indian boll worm than is Caravonica. Moreover, the plant does not produce quite so strong branches, and when

heavily loaded these branches may be borne down to the ground, thus soiling some of the lint.

Caravonica, the variety which is grown most extensively here, gives the most favorable impression, at least for the present. The yield is very satisfactory, ranging from 400 to 700 pounds of lint per acre after excluding the lint soiled by insect attacks. The plants grow more erect and sturdy than Sea Island, and the bolls open out very wide. The two objections to Caravonica from the commercial standpoint are that the bolls open too widely, thus allowing the cotton to fall out easily and necessitating frequent pickings, and that in certain strains of this variety the plants produce too much growing wood and leaves, thus shading the fruiting branches and preventing the development of the lower ones. We are experimenting also with a considerable number of other varieties, including Egyptian and various strains of upland cotton from the mainland of the United States and from China, and all of these have their advantages and disadvantages, but Caravonica, as already stated, appears to give the most promise. This cotton will probably be used chiefly for mixing with wool for manufacturing purposes. Its suitability for this purpose is due to its strength, harshness, and drag of the fibers. Caravonica furnishes the strongest lint of all cottons which have thus far been tested, and also the highest percentage of lint to seed, ranging from 37 to 42 per cent.

The length of the lint obtained from Sea Island cotton ranges from  $1\frac{3}{4}$  to 2 inches and that from Caravonica from  $1\frac{1}{4}$  to  $1\frac{3}{4}$  inches. The strength of the Sea Island is not equal to that of the Caravonica, and for this reason and on account of its length this cotton must be separated from the seed by means of roller gins. The saw gin used for the separation of the great bulk of the cotton in the South injures Sea Island fiber, and therefore can not be used with that kind of cotton. There is still a difference of opinion as to the most satisfactory gin for use with Caravonica cotton. Comparing gins of the same length of feed, about four times as much cotton can be run through a saw gin as through a roller gin in the same length of time. The saw removes more of the dirt from the lint than does the roller gin, but does not clean the seeds so well as the roller gin. The loss of lint from the use of the saw gin, however, is very slight, and un-

less further tests show that Caravonica fiber is injured, or more waste cotton is produced by its use, the saw gin seems to have a decided advantage over the roller gin for Caravonica cotton.

There seems to be little question of the advantage of growing cotton as a perennial in Hawaii. This necessitates a peculiar line of treatment in order to control insect pests and also the form and size of the plants. Both of these results can be brought about most satisfactorily by a simple system of cutting back all the plants, preferably in November or December, to a height of from two to three feet and promptly burning all the trash thus obtained. The caterpillars and pupae of the boll worm in the stray bolls in the trash cut from the fields are thus destroyed. The plants shoot out promptly, but require several months before new bolls appear. The food supply of the boll worm is thus as completely interrupted as if the plants were dug up and new plantings made from seed. Moreover, the pruning system has an advantage over planting from seed in that the second crop is obtained more promptly than from seed, is not susceptible to cut-worm injury, and yields more heavily than the first year's crop, for the reason that the roots are larger and of wider distribution. By this system of pruning also the form of the plants is controlled. A number of experiments have been carried on in pinching back terminal buds after the new shoots reach a few feet in length. The yields following this practice, however, were less than in the case where the plants are allowed to grow without interference. It seems best, therefore, to prune back thoroughly once a year and allow the plants to grow during the whole season without further interference by pruning or pinching back.

In controlling the boll worm, which is our one serious insect pest, the system of pruning and burning the trash is absolutely necessary. The use of the lantern trap in the fields during the period when the bolls are growing is also very beneficial. An ordinary pan placed upon a stake a few feet high may be partly filled with water which is covered with a film of oil. Over the pan an ordinary lantern may be fastened and kept lighted during the night, since the moths of the boll worms fly chiefly, if not altogether, at night. By the use of these simple and inexpensive

means, the boll worm infestation on the Experiment Station grounds has been kept within 2 to 5 per cent. in the Caravonica cotton.

Cotton is notoriously one of the world's chief money crops. The demand for ordinary upland cotton is increasing, and the use of cotton for special purposes has been greatly extended during recent years. It is somewhat uncertain whether our best market will be found in the western part of the United States, Germany, France or Japan. Good quotations have been received for our cotton from all of these markets. The cultivation of cotton is being vigorously pushed in various subtropical colonies of England, Germany and France, but without thus far greatly increasing the total supply of cotton. This year's crop of cotton in the cotton belt of the United States is an unusually large one, being estimated at 14,000,000 bales of 500 pounds each. The dominating position of the United States in the cotton production of the world may be easily seen from the fact that the total world's crop of cotton is about 17,000,000 bales.

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### HONOLULU'S NEW Y. M. C. A. BUILDING.

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**H**ONOLULU has reason to be proud of its record in behalf of young men by its generous response to the movement for the new Y. M. C. A. home suitable to the city's growing needs. As a result, the press credits us with possessing the finest and best equipped Y. M. C. A. building in the United States in proportion to the size of the city.

It is a well known maxim that we appreciate best that which costs us most. Hence, the interest in the community that centered in this new structure during its building warranted the enthusiasm displayed in its week of dedicatory services, October 8th to 15th, and evinced at the same time due appreciation of the painstaking effort of the officers and committees of the Association having the responsibilities of the work so successfully finished in just two years from the inauguration of the financial campaign therefor, and within nine months from the laying of its cornerstones.

The building occupies a central and convenient location opposite its old home on Hotel street, from the corner of Alakea to Adams lane, and with its height of three stories and basement at this point sets off to advantage its excellent proportions. Its Alakea street frontage runs 212 feet, that on Hotel street 142 feet, while the wing on Adams lane runs back 175 feet, forming a court within and affording light to all its rooms. The main entrance being at the corner of the main streets, is approached by a flight of rounding steps, while another entrance at Adams lane corner leads to Cooke Hall and the boys' department and gymnasium.

Facing the main entrance, a spacious circular lobby intervening, is the counter, back of which is the office of the secretaries. To the right, or along the Alakea street section, is the music room, billiard room with four massive tables, the lanai, cafeteria and kitchen, as also stairways leading above and below. Along the Hotel street side of this same floor are the quiet game rooms, the library and reading room with its array of current period-



THE NEW Y. M. C. A. BUILDING.

icals, and corridor leading to Cooke Hall, with a seating capacity of about one hundred and twenty-five. Convenient stairways connect with the basement, the rooms of which are fitted for the physical training feature of the Association's work, with its laboratories, lavatories, lockers and bowling alleys; these latter being of maple with self-setting pins.

The second floor is assigned to the educational work with its various class rooms, and reading and recreation rooms for the boys. The top floor is devoted entirely to the dormitory, and is divided off into twenty-four rooms, comfortably furnished to accommodate thirty-three persons.

The Adams lane wing is given over entirely to the gymnasium work of the Association, and is outfitted with the most modern appliances for physical training and exercise. The games room occupying the upper floor of this division, when required for public meeting purposes, will seat about 850 people, as was shown at the dedicatory services.

The furniture of the building throughout has an air of comfort and durability rather than showy expenditure.

In the week's series of opening and dedicatory exercises was clearly demonstrated the value of these Young Men's Christian Associations to the communities they establish in by their uplifting and safeguarding power over young men. The Press and Pulpit dinner of Monday evening was an occasion where this feature had due recognition, as also in addresses by prominent speakers at the dedicatory services on Wednesday evening, notably that of Dr. W. C. Hobdy. Special reception evenings were assigned to members and subscribers on Tuesday; to general visitors on Thursday, and to the educators of the city on Saturday. Friday evening was given over to physical class demonstration in the gymnasium departments. These events opened by farewell services at the old hall Sunday afternoon, October 8th, and raising the flag on the new building and closed with the first men's meeting in Cooke Hall at 4 p. m. of Sunday the 15th.

Advantage was taken of the opportunity to briefly relate the history of this local Association and trace its development from the small company of young men who banded themselves together April 30, 1869, for mutual strength and helpfulness among their

fellows, of whom Judge Dole, W. R. Castle, and W. C. Weedon are the only charter members remaining. For over twelve years the Association held its monthly meetings in various places, temporary quarters being the Bethel vestry, Sailor's Home, Fort street church vestry, and the Lyceum. It was at this last place its first building movement was inaugurated, September 15, 1881, by Mr. P. C. Jones starting the project with a conditional offer of \$500, which resulted in securing \$2,170 that evening. Mr. Jones, C. M. Cooke, and J. B. Atherton was the building committee. We recall the visit about the same time of Rev. W. J. Smith of the Tabernacle church, San Francisco, who had been induced hither by John Thos. Waterhouse for a series of addresses, and this need of a new building had its first public appeal for funds at a Sunday afternoon service at the Lyceum, October 25th, in an address by Mr. Smith on the subject of "The Young Man's Mission," whereby the building fund reached \$6,000.

Good progress was made by the finance committee, so that the lot was secured, the work entered upon, and the cornerstone laid September 28, 1882, for a building estimated to cost \$21,000 with its outfit, which was completed and dedicated April 21, 1883, with Captain Isaiah Bray as its first general secretary.

The work of the Association naturally broadened and developed in its new quarters and required enlargement in due time for the educational and physical training features of its work, which in these days has become such an attractive force. In the years that have intervened a number of changes have taken place in its secretaries, several of whom came trained for the requirements of the position, and left their impress by the development of the association work in this "cross-roads" city of the Pacific. Thus when the present general secretary, Mr. Paul Super, arrived to assume charge of affairs and gathered to his aid a force of co-workers to make our Y. M. C. A., the magnet of attraction to the young men of the city, he clearly saw the need of new and larger quarters for expansion of the work under up-to-date methods. This prospect had been under consideration by the board of directors for some time, but no serious steps were taken until the gift of \$50,000 by the late C. M. Cooke toward a new building fund inaugurated the movement. Following this, Mr.

Super visited the States to formulate building plans suitable for this city and study the methods of money-raising campaigns. Upon his return and report to the directors, it was decided to enter upon a campaign to secure \$100,000 in addition to the sum in hand. Plans were laid accordingly.

The movement took its whirlwind character and inspiration from the spirit evinced at the representative and business men's banquet held at the Young Hotel October 11, 1909, at which addresses by Governor Frear, Judge Dole and others were made, when, under the slogan of "Honolulu United," the executive committee of the campaign, with Geo. R. Carter as its chairman, set forth to secure \$100,000 in a week's time, which resulted in obtaining \$137,000 within the time set and subsequently reaching \$144,500 from this united effort. This enabled the Association to enlarge upon the plans contemplated and secure a larger building site. The building committee chosen for the important work consisted of Messrs. T. Clive Davies (chairman), A. Gartley, R. A. Cooke, F. J. Lowrey, and W. G. Hall. Competitive plans were called for, of which that of Ripley & Reynolds were chosen, and the Pacific Engineering Co. won the bid for its construction of reinforced concrete at \$132,000, not including internal fittings.

Ground was broken for the new building by Governor Frear, October 26, 1910, and on February 1st, following, its cornerstones were laid with appropriate services by Judge Dole, the first president of the association, and Master Clarence H. Cooke, grandson of the donor of the liberal sum initiating the new building movement. The Alakea street corner held the box and contents removed from the old building, and the Hotel street corner held the records and publications appropriate for the new structure. The face of the two stones carries the Hawaiian motto: "Ua mau ke ea o ka aina i ka pono" on one, and its English translation, "The life of the land is preserved by righteousness," on the other. Following a brief speech by Judge Dole, appropriate remarks were made by Mr. T. Clive Davies, chairman of the building committee, Judge W. L. Whitney delivering the address befitting the occasion.

Steady progress has been a marked feature of the work throughout, the contractor completing his part several days

within the time provided. Its doors have opened, as already shown, with a "house warming" worthy of the cause.

The following comprise the officers and directors of the Association at this important mile-stone of its existence:

## BOARD OF DIRECTORS.

R. H. Trent, President.

W. G. Hall, Vice-President.

G. S. Waterhouse, Recording Secretary.

F. C. Atherton, Treasurer.

W. A. Love, Ed Towse, R. J. Pratt, R. B. Anderson, W. T. Pope,

F. D. Lowrey, R. A. Cooke, H. G. Dillingham, Robert

Anderson, C. H. Atherton, Alex. Lindsay, Jr.

## TRUSTEES.

R. H. Trent, F. J. Lowrey, C. H. Cooke, B. F. Dillingham,

P. C. Jones.

## EXECUTIVE OFFICERS.

Paul Super, General Secretary.

E. H. Hand, M.D., Physical Director.

A. E. Larimer, A.B., Educational Director.

C. F. Loomis, Boys' Work Director.

A. T. Wisdom, Manager Social Privileges.

F. H. Emmans and G. C. Chamberlain, Office Secretaries.

## KUKANILOKO: FAMED BIRTHPLACE OF ALIIS.

*Oahu's Traditional Mecca of Ancient Time.*

**A**MONG the various Hawaiian traditions connecting with important early periods in their history, few, if any, have had a deeper hold among them than attaches to Kukani-loko, the famous birth-place of aliis of the highest rank, at Hele-manu, in the Waialua district of Oahu, better known now as Wahiawa. The fact that a number of those who were born there became identified with events that affected the whole group doubtless helped in this recognition of predominant virtue, and

its recurrence from time to time through the centuries have maintained, if not magnified, its traditional benefits which held among them up to the dawn of civilization upon the islands.

We look in vain today for the prominent boulder which in tradition, if not in fact, held the magic power and marked the locality on the plains of Helemanu, and against which chiefesses of the highest rank were alleged to lie during childbirth that virtue of a painless accouchment as well as recognized "blue blood" of her offspring would be assured. Instead, the searcher will find a scattered lot of large stones, most of which are deeply imbedded in the earth, and several of which are flat surfaced, even with the ground. These are in an area of about one hundred square feet and within the past few years have been protected by a wire-fenced enclosure of perhaps twice the size, for preservation as the historic landmark that it is. Credit for this action is said to belong to Mr. W. W. Goodale, manager of the Waialua Agricultural Company.

Amid a group of three or four of the more prominent of these stones is one standing, tongue-shaped, measuring a little over five feet in height by two and one-third feet in width, that has been supposed by many was the famous stone in question from its weather-worn condition, but an aged native familiar with the locality and its traditions, says, it was brought from elsewhere a number of years ago by the late George Galbraith and set up there. It is clearly a different quality of lava rock than predominates in the vicinity. Facing this stone, westward, is one of the largest, deeply imbedded in the ground, the upper surface of which has rudely-shaped depressions fitting the human form that primitive mind in ages past coupled with a cause and a purpose familiar to the savage idea, which subsequent generations, through superstition and tradition, have magnified.

While this origin may be lost to us, the tradition of its recognized eminent virtue has come down by various native authorities which traces it back to about the opening of the twelfth century.

One early writer gives the following descriptive account of its origin and purpose:<sup>1</sup>

"There were two famous places for the birth of children of

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<sup>1</sup> Kuokoa, Vol. IV, No. 31.

tabu chiefs, viz., Holoholoku at Wailua, Kauai, and Kukaniloko at Waialua, Oahu. These birth places were thought to add some special divine gift to the sacred place already occupied by a tabu high chief.

"Kukaniloko was made or established by Nanakaoko and his wife Kahihiokalani as the place for the birth of their son Kapawa. A row of stones was laid down on the right hand and another on the left hand, and the face was to the right side. There stood thirty-six chiefs, eighteen on each side. A hill or mound was made for the back. Kukaniloko was the stone to be trusted. If any one came in confident trust and lay properly upon the supports the child would be born with honor. It would be called a chief divine; a burning fire.

"When the child was born, it was quickly taken inside the Waihou of Hoolonopahu. There were forty-eight chiefs to whom belonged the duty of the birth ceremonies of cutting the navel cord.

"The south side of Kukaniloko was a furlong and a half, and on the western side two furlongs. There the tabu drum of Haweia was sounded, signifying that a chief was born. On such occasions the common people assembled on the east side of the stream—a thousand of them (a mano), on that side of Kuaikua. On the south side were the servants.

"But some of the chiefs were born without, and at the hill for the back. Some chiefs were born on the highway; they were chiefs indeed, but not tabu; they were iwaho, outside."

Fornander says "that the building up and consecration of Kukaniloko, on the Island of Oahu, that peculiarly hallowed place in all subsequent ages of Hawaiian history as the birth-place of the highest 'kapu chiefs' is universally ascribed to Kapawa's father Nanakaoko,"<sup>2</sup> an Oahu chief of considerable note. "He and his wife, Kahihiokalani, are by the oldest, and by all the legends, acknowledged as having built this famous place, the remains of which are still pointed out about three-fourths of a mile inland (to the right) from the bridge crossing the Kaukonahua stream on the main government road, Waialua-wards. Chiefs that were born there were 'born in the purple' and en-

<sup>2</sup> Pol. Race, Vol. I, p. 200.

joyed the distinction, privileges and tabus which that fact conferred. So highly were those dignities and privileges prized even in latest times, when the ancient structure and surroundings had fallen in decay, that Kamehameha I, in 1797, previous to the birth of Liholiho, made every arrangement to have the accouchment take place at Kukaniloko, but the illness of Queen Keopuolani frustrated the design."<sup>3</sup>

The reign of Kapawa did not leave him an enviable record, yet "amid all the confusing accounts relating to him and his times, they are positive on three episodes in his life, viz: that he was born at Kukaniloko; that he was buried at Iao, an equally hallowed burying place of ancient chiefs situated in the valley of Wailuku on the Island of Maui; and that he was the last sovereign or supreme chief of the Island of Hawaii previous to the arrival of Pili, surnamed Kaaiea,"<sup>4</sup> about the year 1100.

"Mailikukahi, one of Oahu's most beneficent rulers, son of Kukahiaaililani and Kokalola, is said to have been born at Kukaniloko, and thus enjoyed the prestige of the tabu attached to all who were born at that hallowed place."<sup>5</sup> He is credited with marking definite boundaries between the different land divisions, thus obviating future disputes between neighboring chiefs and landholders; with enacting a code of laws in which theft and rapine were punishable with death; also that all first-born male children should be handed over to the Moi to be brought up by him and educated." While peacefully disposed, he proved a brave defender of his envied realm in thoroughly defeating an invading force of Hawaii and Maui raiders in a sanguinary battle which began at Waikakalaua and continued from there to the Kipapa gulch, where the invaders were vanquished, and the gulch is said to have been literally paved with the corpses of the slain, from which circumstance the name "Kipapa" applies.

"Kukaniloko, one of the daughters of Piliwale (a grandson of Mailikukahi) and Paakanilea, his wife, succeeded him in a successful reign of peace and prosperity. Her birth-place is not stated, but she is referred to as a powerful chiefess, her husband being Luaia, a Maui chief, grandson of Kukaalaneo.

<sup>3</sup> Pol. Race, Vol. II, p. 20.

<sup>4</sup> Pol. Race, Vol. II, p. 21-22.

<sup>5</sup> Pol. Race, Vol. II, p. 269.

“Kalaimanua followed her mother, Kukaniloko, as Moi of Oahu. She was born at Kukaniloko, the famous birth-place of Hawaiian royalty.”<sup>6</sup>

Kakuihewa, who became one of the great kings of Oahu, was also born at Kukaniloko, the account of which is more specific than the others. He is said to have been born “in the sleeping place consecrated by the tabu of Liloe. From thence he was taken to Hoolonopahu by his grandfather, Kanehoalani. Forty-eight chiefs of highest rank \* \* \* were present at the ceremony of cutting the navel-string of the new-born chief, and the two sacred drums named Opuku and Hawea announced the important event to the multitude.”<sup>7</sup>

This faintly indicates the august ceremonies attending the birth of a distinguished chief. It would be better understood if the tabu of Liloe was known. The place to which the child was taken, Hoolonopahu, was probably a heiau or temple, wherein were kept these two celebrated drums of Hawaiian history, which were later brought into like use on a similar occasion in honor of Kualii at the heiau of Alala, at Kailua, Koolaupoko.

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## LEPE-A-MOA.

*The Chicken-Girl of Palama.*

By W. D. WESTERVELT.

STRANGE things are sometimes imagined in the Hawaiian legends of ancient time. The story of Lepe-a-moa is an illustration of the blending of the Hawaiian idea of supernatural things with the deeds of every-day life. It is one of those old legends handed down by native bards through generations, whose first scenes lie on the Island of Kauai, but change to Oahu.

Keahua was one of the royal chiefs of Kauai. Apparently he was the highest chief on the island, but it was in the days when men were few and high chiefs and gods were many. He had

<sup>6</sup> Pol. Race, Vol. II, p. 269.

<sup>7</sup> Pol. Race, Vol II, p. 272.

spent his boyhood on the rich lands of Wailua, Kauai, and from there had crossed the deep channel to Oahu and had come to the home of the chiefess Kapalama after her beautiful daughter Kauhao, to take her to Kauai as his wife. But soon after his return one of the *kupua* gods became angry with him. A *kupua* was a god having a double body, sometimes appearing as a man and sometimes as an animal. The animal body always possessed supernatural powers.

This *kupua* was called Akua-pehu-ale (god of the swollen billows). He devoured his enemies and was greatly feared and hated even by his own tribe. He attacked Keahua, destroyed his people and drove him into the forests far up the mountain sides, where, at a place called Kawaikini (the many waters), where fresh spring water abounded, the chief gathered his followers together and built a new home.

One day Kapalama, who was living in her cluster of houses in the part of Honolulu which now bears her name, said to her husband: "O, Honouliuli, our daughter on Kauai will have a child of magic power and of *kupua* character. Perhaps we should go thither, adopt it, and bring it up; there is life in the bones."

They crossed the channel, carrying offerings with them to their gods. Concealing their canoe they went up into the forest. Their daughter's child was already born, and behold it was only an egg! The chief had given an order to carry it out into the deep sea and throw it away as an offering to the sea monsters. But the mother and her soothsayers thought it should be kept and brought to life.

Kapalama coming at this time took the egg, wrapped it carefully in soft kapas, bade farewell to her daughter and returned to Oahu. Here she had her husband build a fine thatched house of the best grass he could gather. The kapas put inside for beds and clothing were perfumed by fragrant ginger flowers, hala blossoms, and the delicate bloom of the cocoanut, while festoons of the sweet-scented maile graced its walls. For a long time that egg lay wrapped in its coverings of soft kapas.

One day Kapalama told her husband to prepare an imu (oven) for their grandchild. He gathered stones, dug a hole and took his fire sticks and rubbed until fire came; then he built a fire in

the hole and placed the wood and put on the stones, heating them until they were very hot. Taking some fine sweet potatoes, he wrapped them in leaves and laid the bundles on the stones, covering it all with mats, and poured on sufficient water to make steam in which to cook the potatoes.

When all was fully cooked, Kapalama went to the house of the egg and looked in. There she saw a wonderfully beautiful chicken born from that egg. The feathers were of all the colors of all kinds of birds. They named the bird-child Lepe-a-moa. They fed it fragments of the cooked sweet potato and it went to sleep, putting its head under its wing.

This bird-child had an ancestress who was a bird-woman and who lived up in the air in the highest clouds. Her name was Ke-ao-lewa (the moving cloud). She was a sorceress of the sky, but sometimes came to earth in the form of a great bird, or of a woman, to aid her relatives in various ways. When the egg was brought from Kauai, Ke-ao-lewa told her servants to prepare a swimming pool for the use of the child. After this bird-child had come into her new life and eaten and rested, she went to the edge of the pool, ruffled and picked her feathers and drank of sweet water, then leaped in, swimming and diving and splashing all around the pool. When tired of this play, she got out and flew up in the branches of a tree, shaking off the water and drying herself. After a little while she flew down to her sleeping house, wrapped herself in some fine, soft kapas, and went to sleep.

Thus day by day she ate and bathed, and when, by herself, she changed her bird form into that of a very beautiful girl, her body shone with beauty like the red path of the sunlight on the sea, or the rainbow bending in the sky.

One day after she had made this change she stretched herself out with her face downward and called to her grandparents: "O, where are you two? Perhaps you will come inside."

They heard a weak, muffled voice, and one said: "Where is that voice calling us two? This is a strange thing. As a tabu place, no one has been allowed to come here; it is for us and our children alone." The woman said: "We will listen again; perhaps we can understand this voice."

Soon they heard the child call as before. Kapalama said:

"That is a voice from the house of our child. We must go there."

She ran to the house, lifted the mat door, and looked in. When she saw a beautiful and strong girl lying on the floor, she was overcome with surprise and staggered back and fell to the ground as if dead. Honouliuli ran to her, rubbed her body, poured water on her head and brought her back to life. He anxiously asked about her trouble. She said: "When we heard that voice, I went to the door of the house and looked in. There lay our grandchild with a wonderfully beautiful human body. It was her voice calling us. When I saw her I fell dying with great surprise."

They went to the girl's house and saw her in her new body, wearing a beautiful green and yellow feather lei, or garland. The grandmother gave her a colored pa-u, or skirt, and tied it around her.

Thus Lepe-a-moa came into her two bodies and received her gift of magic powers. She was exceedingly beautiful as a girl, so beautiful that her glory shone out from her body like radiating fire, filling the house and passing through into the mist around, shining in that mist in splendid rainbow colors.

In almost all Hawaiian folklore and even in history, down to the last ruler of the islands, a divinely given rainbow was supposed to be arched from time to time over those of high chief birth. The older legends speak of this rainbow over a chief as if it were made by the shining out of colors from the body of the chief himself. A child born with divine and human or miraculous power in the family of a high chief would almost invariably have its birth attended by thunder, lightning, storm, and brilliant rainbows around its birthplace. These rainbows would usually follow the child wherever it went, resting over any place where it stopped. Sometimes the glory of the royal blood in a child would be so great that it would shine through the thatch of a house like a blazing fire, flashing out in the darkness like devouring flames, or if the child was in the sea, the glory shone into the spray until rainbows danced above.

Some legends ascribe to the sorcerers of ancient time the power of telling the difference between the colors radiating from members of different royal families. The sorcerer-priest would perhaps see a canoe far out on the ocean with a small mass of color

above it and would name the person in the canoe and the family of chiefs from which he was coming. It is even represented that it was possible to discern these rainbows of royal blood from island to island and know where the person was at that time staying. Lono-o-pua-kau was the god who had charge of these signs of a chief's presence.

Lepe-a-moa's beauty was so full of shining power that her colors rested in the air around her and attended her wherever she went. Her rainbow was over her house when she was in it, or it was over the pool when she was bathing, or even over her when she went down to the beach.

One day she said to her grandparents: "I want another kind of food, and am going down to the sea for fish and moss." In her chicken body she ate the potato food provided, but she desired the food of her friends when in her human form. Joyously she went down to the shore and saw the surf waves of Malama rolling in. Nearer her own home a fine sand beach welcomed the surf waves of Kapalama. She chanted as she saw this white surf: "My love, the first surf. I ride on these white waves."

As she rested on the crest of a surf wave sweeping toward the beach, she saw a squid rising up and tossing out its long arms to catch her. She laughed and caught it in her hand, saying, "One squid, the first, for the gods." This she took to the beach and put in a fish basket she had left on the sand with her skirt and lei. Again she went out, and saw two squid rising to meet her. This time she sang, "Here are two squid for the grandparents," which she caught and put in her basket. On going out again she saw and caught another floating on the wave with her. This she took, exclaiming: "For me; this squid is mine."

The grandparents rejoiced when they saw the excellent food provided them. Again and again she went to the sea, catching fish and gathering sweet moss from the reef. Thus the days of her childhood passed. Her grandfather gave his name, Honouliuli, to a land district west of Honolulu, while Kapalama gave hers to the place where they lived. The bird-child's parents still dwelt in their forest home on Kauai, hidden from their enemy Akuapehualē.

## KAUILANI AND AKUAPEHUALE.

After a time Lepe-a-moa's mother gave birth to a fine boy who was named Ka-ui-lani. He was born in the forest by the water springs Kawaikini. On the day of his birth a great storm swept over the land. Rain fell in torrents and swept in red streams down the valleys; thunder rolled; lightning flashed; earthquakes shook the land, and rainbows arched his birthplace. This time, since a boy was born, he belonged to the family of the father. His grandparents were Lau-ka-ie-ie and Kani-a-ula.

They took the child and bathed him in a wonderful fountain called Wai-ui, water of strength, which had the power of conferring rapid growth, great strength and remarkable beauty upon those who bathed therein. The child was taken frequently to this fountain, so that he grew rapidly and was soon a man with only the years of a boy. The two old people were kupuas having very great powers. They could appear as human beings or could assume wind bodies and fly like the wind from place to place. They could not give the boy a double body, but they could give him supernatural powers, with his name Ka-ui-lani, the divine athlete. They bound around him their marvelous malo, or sash, called Pai-hiku.

When Keahua, the father, saw the boy he said: "How is it that you have grown so fast and become a man so soon? Life is with you. Perhaps now you can help me. A quarreling friend sought war with me a long time ago and came near killing me; that is why we dwell in this mountain forest beyond his reach. Maybe you and my servants can destroy this enemy," telling him also the character and dwelling place of Akuapehuale.

Kauilani said to his father: "If you adopt my plan perhaps we may kill this Akuapehuale." The father agreed and asked what steps should be taken. He was then told to send his servants up into the mountain to cut down ahakea trees and shape them into planks, then carry some of the sticks to the foot of the precipice near their home and set them in the ground; the others were to be taken to the sea and there set up as stakes close together.

That night was made very dark by the sorcery of the young chief. All the people slept soundly. At midnight Kauilani went out into the darkness and called thus to his gods:

"O mountain! O sea! O South! O North! O all ye gods! Come to our aid! Inland at the foot of the pali is the ahakea; by the sea stands the ahakea, there by the beach of Hina. Multiply them with the wauke at the foot of the pali of Halelea and by the shore of Wailua. Bananas are ready for us this night. The Bread-fruit and the sugar cane are ours, O ye gods!"

Repeating this incantation, he went into his house and slept. In the morning the high chief, Keahua, went out and looked, and behold! the sticks planted below the precipice had taken root and sent out branches and intertwined until it spread an almost impenetrable thicket. There were also many groups of wauke trees which had sprung up in the night. He called his wife, saying: "While we slept, this wonderful thing has transpired."

Kauilani came out and asked his father to call all the people and have them go out and cut the bark from the wauke trees, beat it into kapa and spread it out to dry. This was quickly done, and two large houses also built and finished the same day. A tabu of silence was claimed for the night while he again petitioned the gods.

Soon deep darkness rested on the land and all the people fell asleep, for they were very tired; Kauilani only remained awake at his incantations, listening to the rapid work of the gods in cutting trees, carving images and filling the houses with them.

Awaking the next day, the chief and his people went to the houses and saw they were filled to overflowing with images, and covering the platforms and fences around the houses.

Kauilani said to his father: "Let the men go up to a high hill inland and burn the dry wood and brush to attract the attention of your enemy while we prepare our battle."

Akuapehaule was sporting in the sea when he saw the smoke rising from the hills and mingling with the clouds. He said: "That is something different from a cloud and must be smoke from a fire made by some man. What man has escaped my eyes? I will go and see, and when I find him he shall be food for me." Then he came to the beach and his magic body flew to the lands below Kawaikini.

All the people had been concealed by Kauilani, who alone remained to face the sea-monster. He stood in the doorway of one

of the two large houses with an image on each side, for which he had made eyes looking like those of a man.

The god came up and, fixing his eyes on the young chief, said: "Why are you hiding here. You have escaped in the past, but now you shall become my food." He opened his mouth wide, one jaw rising up like a precipice, the other resting on the ground, his double-pointed tongue playing swiftly and leaping to swallow the chief and the images by his side.

Kauilani said sternly: "Return to your place today, and you shall see my steps toward your place tomorrow for battle."

The god hesitated and then said: "Sweet is the fatness of this place. Your bones are soft, your skin is shining. The glory of your body this day shall cease."

The chief, without making any motion, replied: "Wait a little; perhaps this means work for us two. This is my place. If I strike you, you may be my food, and the pieces of your body and your lands and property may fall to me like raindrops. It may be best that you should die, for you are very old, your eyelids hang down and your skin is dry like that of an unihipili god (a god of skin and bones). But I am young. This is not the day for our fight. Tomorrow we can have our contest. Return to your sea-beach; tomorrow I will go down."

The god thought a moment and, knowing that the word of a chief was pledged for a battle, decided that he would return to a better place for a victory, so turned and went back to the shore.

The young chief at once called his father, and the people, and said: "Tomorrow I am going down to fight with our enemy. Perhaps he will kill me; if so, glorious will be my death for you; but I would ask you to command the people to eat until satisfied, lest they be exhausted in the battle tomorrow; then let them sleep."

He laid out his plan of battle and defense. His mother and the grandparents who had cared for him, with a number of the people, were to fight protected by the growth of trees at the foot of the pali, and were to turn the god and his people toward the houses filled with the wooden gods made by the aumakua—the ghost gods.

While all slept, Kauilani went out into the darkness and prayed

to the thousands of the multitude of gods to work and establish his power from dawn until night.

In the morning he girded around him his sash of magic power and made ready to go down. His father came to him with a polished spear, its end shaped to a sharp edge, and set it up between them, saying: "This spear is an ancestor of yours. It has miraculous power and can tell you what to do. Its name is Koa-wi Koa-wa. It now belongs to you to care for you and fight for you." The young chief gratefully took the spear and then said to his father: "Your part is to be watchman in the battle today. If the smoke of the conflict rises to the sky and then sweeps seaward and at last comes before you, you may know that I am dead, but if the smoke rises to the foot of the precipice and passes along to the great houses, you may know that the enemy is slain."

Then Kaulani took his spear and went down to the open field near the shore, talking all the way to it and to the gods. When he came to the seashore, he saw the god rising up like a mighty dragon, roaring and making a noise like reverberating thunder. As he rushed upon the chief, there was the sound as of great surf-waves beating on the beach. The sand and soil of the battlefield was tossed up in great clouds. The god fought in his animal body, which was that of a great, swollen sea monster.

Kaulani whirled his sharp-edged spear with swift bird's-wing movement, chanting meanwhile "O Koa-wi Koa-wa, strike! Strike for the lives of us two! Strike!" The power of his magic girdle strengthened his arms and the spear was ready to act in harmony with every thought of its chief. It struck the open mouth of that god and faced it toward the precipice and thick trees. Backward it was forced by the swift strokes of the spear. When a rush was made, the chief leaped toward the pali and thus the god was driven and lured away from his familiar surroundings. He became tangled in the thickets and was harrassed by the attacks of Kaulani's friends.

At last his face was turned toward the houses filled with gods. The power which all the ghost gods had placed in the images of wood was now descending upon Akuapehualé, and he began to grow weak rapidly. He felt the loss of strength and turned to make a desperate rush upon the young chief.

Kauilani struck him a heavy blow and the spear leaped again and again upon him, till he rolled into a mountain stream at a place called Kāpaa, out of which he crawled, almost drowned. Then he was driven along even to the image houses, where a fierce battle took place, in which the wooden images took part, many of them being torn to pieces by the teeth of Akuapehualē.

Some legends say that Kauilani's ancestress, Keaolewa, who had watched over his sister, the bird-child, Lepemoa, had come from her home in the clouds to aid in the defeat of Akuapehualē.

All forces uniting drove their enemy into a great, mysterious cloud of *mana*, or miraculous power, and he fell dead under a final blow of the cutting spear Koa-wi Koa-wa. Then Kauilani and his warriors rolled the dead body into one of the large houses. There he offered a chant of worship and of sacrifice consecrating it as an offering to all the gods who had aided him in his battle.

When this ceremony was over, he set fire to the houses and burned the body of Akuapehualē and all the wooden images which remained after the conflict, the smoke of which rose up and swept along the foot of the precipice.

The father saw this and told his people that the young chief had killed their enemy, so with great rejoicing they prepared a feast for the victorious chief and his helpers.

Kauilani went with his parents and grandparents down to the shore and took possession of all that part of the island around Wailua, comprising large fish ponds, and taro and sweet potato lands, held by the servants of the vanquished god. These he placed under the charge of his father's own faithful chiefs and made his father once more king over the lands from which he had been driven.

#### KAUILANI FINDS HIS SISTER LEPEAMOĀ.

For some time after the famous battle with the evil god, Kauilani aided his parents in establishing a firm and peaceful government, after which he became restless and wanted new experiences.

One day he asked his mother if he was the only child she had. She told him the story of his sister, who had been born in an egg and had become a very beautiful young woman. They had

never seen her, because she had been taken to Oahu by her grandparents and there brought up.

Kauilani said: "I am going to Oahu to find her."

His mother said: "Yes, that is right. I will tell you about my people and their lands." So she told him about his ancestors, his grandparents and their rich lands around the Nuuanu stream and its bordering plains; also of the stopping places as he should cross the island to Kapalama, his grandmother, where he would find his sister under a rainbow having certain strong shades of color.

The parents prepared a red feather cloak for him to wear with his fine magic sash. These he put on and, taking his ancestral spear, went down to the sea. Laying his spear on the water, he leaped upon it, when it dashed like a great fish through the water; leaping from wave to wave, it swept over the sea like a malolo (flying fish), and landed him on the Oahu beach among the sand dunes of Waianae.

Taking up his spear he started toward the sunrise side of the island, calling upon it as he went along to direct his path to Kapalama. Then he threw the spear as if it were a dart in the game of pahee, but instead of sliding and skipping along the ground it leaped into the air, and, like a bird floating on its wings, went along before the young chief.

Once it flew fast and far ahead of him to a place where two women were working, and fell at their feet. They saw the beautiful spear, wonderfully polished, and picked it up, and quickly found a hiding place wherein they concealed it. Covering up the deep furrow it had made in the ground where it fell and looking around without seeing any one, they resumed their work.

Soon Kauilani came to the place where they were, and greeting them, asked pleasantly: "When did you see my traveling companion who passed this way?" They were a little confused, yet said they had not seen any one.

Then he asked them plainly if a spear had passed them, and again they denied all knowledge of anything coming near. Kauilani said: "Have you not concealed my friend, my spear?"

They replied, "No. We have not had anything to do with any spear."

The chief softly called "E Koa-wi! E Koa-wa! E!" The

spear replied in a small, sharp voice, "E-o-e-o!" and leaped out from its hiding place, knocking the women over into the stream near which they had been working.

Taking the spear, he went down to the seashore, scolding it on the way for making sport of him, and threatened to break it if anything else went wrong. The spear said: "You must not injure me, your ancestor, or all your visit will result in failure. But if you lay me down on the beach I will take you to the place where you can find your sister."

The chief said: "How shall I know you are not deceiving me?"

The spear replied: "Sit down on me and in a little while we shall be at a place where you can see her." Then it carried the complaining chief to the beach of Kou. There it lay on the ground and said: "You see a tree, a wiliwili tree, standing alone near the sea and looking out over the waters? Go you to that tree and climb it and look along the beach until you see a rainbow rising over the waves. Under that rainbow you will see a girl catching squid and shellfish and gathering sea moss. She is doing this for her old people. She is your sister."

The chief said: "I will go and see, but if no one is there I will punish you for deceiving me and break you into little pieces."

He went to the tree, climbed to the top branches, and looked along the beach as the spear had directed. He saw a very strange thing out over the water; red mist and bloody rain clouds moving back and forth over the dark-blue waves, extending far out toward the foot of the sky and also covering the place where he was to see the girl. He called down to the spear that he could not see any rainbow or any girl.

The spear replied: "Everything is changing rapidly on the face of the sea. Look again."

He watched the whirling mist and rain, and as it moved slowly he saw an immense bird with many red feathers on its body and wings. When it flew up from the sea it hid the light from the sun and cast a dark shadow over all that beach. He called to the spear: "What is this great bird flying over the ocean?"

The spear replied: "That is one of your ancestors, a *kupua*. She has a double body, sometimes appearing as a bird and some-

times in human form. Her name is Ka-iwa-ka-la-meha. She has dwelling places in all the islands, and even in Kahiki. She has come to your sister, Lepeamo, over the seas of the gods Kane and Kanaloa."

Kauilani watched the great bird as it rose from the sea and flew in mighty circles around the heavens, rising higher and higher until it was lost in the sky.

Soon the atmosphere began to clear, and he saw the rainbow and the girl in the far distance. He came down and told the spear that all its words were true. The spear again asked the young chief to sit on it. He did so, and was carried rapidly to the cluster of houses where Kapalama was living with her husband and grandchild.

That same day after Lepeamo had taken her basket and gone to the shore, Kapalama looked along the road toward the sunset and saw a small cloud hastening along the way. Watching it carefully, she saw a rainbow in the cloud and called to her husband: "O, Honouliuli, this is a very strange thing, but from the rainbow in the cloud I know that our grandchild from Kauai is coming to this place. You must quickly fire the oven and prepare food for this our young grandchild."

He made the oven ready and soon had chicken, fish and sweet potatoes cooking for their visitor.

When Kauilani came to his grandparents, they all wailed over each other according to the ancient custom of the Hawaiians. When the greeting was finished, he went into the house set apart for men as their eating place, into which women were not allowed to enter, and there eat his food. After this he went outside and lay down on a mat and talked with his grandmother.

She praised him for the great victory won with his spear against his father's enemy, and then asked why he had come to Oahu.

He said: "I have come to see my sister in her double nature."

She replied: "That is right. I will take you to her house. There you must make a hollow place and hide under the mats and not let her see or hear you lest you die. But when she falls asleep you must catch her and hold her fast until she accepts you as her brother. I will utter my chants and prayers for your success." So he hid himself in the girl's house and kept very quiet.

Meanwhile Lepeamoa, who was through fishing, picked up her basket and started toward her home. She saw a rainbow resting over their houses and thought some strange chief had come. She rejoiced and determined that the chief should play her favorite game *konanae*, a game resembling checkers. When she came to the houses, she asked her grandmother for the strange chief, saying she saw the footsteps of some man, perhaps now concealed by the grandmother.

Kapalama denied that anyone had come. So the girl went into her house, laid aside her human body, and assumed that of many kinds of birds. Kapalama broke cooked sweet potatoes and fed the pieces to this bird-body. Having eaten all she wished, Lepeamoa went into her house and lay down on her mats and fell asleep.

When deep sleep was on her, the young chief leaped upon her, caught her in his arms, and held her fast. Jumping up, she dashed out of the house, carrying him with her. She flew up into the sky, but he still clung to her. The magic power of that spear helped him to hold fast and made the bird fly slowly.

As she heard her grandmother chanting about herself and her brother, the young chief of Kauai, her anger modified, and she asked the stranger: "Who are you, and from whence have you come?" He said: "I am from Kauai, and I am Kaulani, your younger brother."

Then she began to love him, and flew back to her grandparents, who welcomed them with great rejoicing.

For many days the young people and their grandparents dwelt happily together. In later years the young chief and his sister saved King Kakuhihewa in a remarkable manner. As a result, the king gave his favorite daughter to Kaulani as his wife, and Lepeamoa cared for their children.

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PIONEERING.—When Kauai was testing the possibilities of silk culture in 1838, Maui was doing likewise with cotton. The Spectator for April of that year states that "a cotton plantation has been commenced at Haiku, by Chas. R. Smith, an American, who had planted an area of about 55 acres."

## AN ENTOMOLOGICAL POTOMAC.

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By DAVID L. MACKAYE, in the Sunday Advertiser, Oct. 15, 1911.

Revised for the HAWAIIAN ANNUAL.

**O**CCURENCES in the Hawaiian horticultural and agricultural world during 1911 threw a spot light on the Honolulu entomologists, who, although a small band whose work eleven months in the year is vulgarly considered as a joke, are called upon in the twelfth month, to save some part of the Island's wealth by the application of their learning.

The discovery in the spring of 1911 of the fruit fly was one of these occasions and while the Territory became alarmed over this unexpected peril to its fruits, it was but an illustration of several emergencies which the entomologists have to meet each year, a little more serious in this instance, it is true. What ever the chances are for getting rid of that pest, however, the publicity it gave to this branch of the various agricultural stations should be valuable and call the attention of the agriculturists to the work being performed. In these days of scientific farming most farmers keep in touch with this as all other departments, and do to a great extent in Hawaii as well, but there is said to be much chance of improvement in the relationship of the bug-pestered and the trained bug-fighters.

Among the active entomologists of Honolulu are David T. Fullaway, of the Federal Experiment Station; Otto H. Swezey, A. Koebele, F. Muir, J. C. Kershaw, of the Planters' Experiment Station, and E. M. Ehrhorn, the Territorial entomologist, and their assistants.

Fullaway spent some time on Guam aiding growers there in their fight against a sudden attack of insect pests, but is now back in Honolulu. On Mr. Ehrhorn falls most of the precautionary work, for his men are the guardians at the wharves, commissioned to halt all insects who might travel hitherwards from foreign lands bringing their destructive propensities with them.

Others, of course, are active in this little colony and as all engaged in agricultural experimenting including the directors of

the various stations, can not go far in their work without meeting here and there the problems of the entomologist, their right to enrollment on an entomological roll of honor can not be denied.

The entomologists have their own organization, the proceedings of which are of inestimable benefit to the community although, as they themselves say, exhibiting their bulky volumes with their Latin descriptions, it is mighty dry to the public, however interesting it might be to them.

#### PECULIARLY HAWAIIAN.

No more fitting introduction to a description of their work could be given than the statement that in Hawaii more than in any other portion of the United States, natural means in the war against insect pests are the most effectual, by which is meant the breeding of insect parasites who prey on insect pests. While this may be true of all tropical countries, it is nowhere more developed than in this Territory.

Dr. E. V. Wilcox, director of the federal experiment station, explained this recently in comparisons between climate conditions here and on the Coast. He pointed out that the latter rejoiced in a routine schedule of seasons, which compelled the insects, as a general rule, to hibernate over winter. With these conditions it was fairly easy to keep them down by several applications of an insecticide sprayed over their retreats, which wiped out one generation. The next generation did not show up for such a comparatively long time that the farmers were able to get proper percentages of their crops off undamaged.

In Hawaii, however, the climate is as good to bug-pests as it is to everything else and all of them, however humble they may be, multiply with remarkable rapidity, one generation stepping lively on the heels of the last. Logically, under these conditions, applications of insecticide are impracticable. No sooner is one generation of the enemy treated to a dose of Paris Green, Bordeaux mixture or tobacco juice, than the next one has crept out of the ground and is hard at work. There are few crops the value of which can stand this repeated treatment, and Doctor Wilcox shows that for this reason there are numerous crops absolutely impossible to introduce in Hawaii on account of the pests. While these pests exist on the Coast just the same, the approved

means (application of insect-killing mixtures) which save the crops there, are too expensive when they have to be applied to Hawaii's constantly increasing hordes. Yet despite that, the isolated position of the islands has prevented the introduction of many of the mainland's worst foes.

But the same feature of Hawaii's climate which is such a drawback in this way is a valuable asset in another. Its balmy air and uniformity, prospering as it does the bollworm, the cutworm and others, prospers just as much the deadly enemies of their numerous ilk.

Consequently entomological work in Hawaii has resolved itself in greater part into fighting insect with insect. On the Coast this method is looked at askance, and Doctor Wilcox himself states that until he came here he did not think much of it either. Naturally, on the Coast, the same climate that compels mainland bugs to go in forced retirement usually kills off their parasites, for with few exceptions the parasite is weaker than the insect he destroys.

#### DISCRIMINATION.

There are bugs and bugs, and the work of the local entomological experimenters resolves itself into determining which bugs are what. To indulge in unscientific phrase, a bug with one spot on his back might have such an appetite for corn leaves that he endangers the whole crop, while his very brother, who happens to have two spots on his back, will eat him with such relish that a mixture of the two will generally mean the complete absorption of the one.

Upon discovering a new bug, the first procedure is to lock him up with some choice agricultural delicacy and see if he will eat or breed on it. If he does he is at once classed as an undesirable. The next thing to do is to lock him up in turn with the rest of his relations to see which of them eats him. The one who does is figuratively patted on the back and every convenience offered for his further propagation.

Happily for the success of the workers, the war waged between these minute enemies, while a war to the death, is altogether one-sided. It is a war between vegetarians and their carnivorous cousins, a war for the satisfaction of the appetite alone, and the vegetarians have no means of redress.

The parasites, too, are discriminating. One parasite who will feed entirely on cane-leaf hoppers will turn up his nose at a corn leaf-hopper, although to ordinary human eyes there is no difference between the two victims. On the other hand the parasite who will make a greedy meal of the corn leaf-hopper will pass up his cane-cousin like a white chip.

#### THE FIGHT FOR COTTON.

Perhaps the value of the entomologist's learning is nowhere greater than in the fight to preserve Hawaii's infant industry of cotton-growing. While we must be thankful that the dreaded boll weevil of the Southern States which has wrought such terrible destruction there, has been successfully kept out (or at least, has not been discovered here to date), it is a sad fact that Hawaii has harbored the boll-worm, the larva of a Tineid moth, for a number of years.

It has now been proved beyond a doubt that Hawaii can raise cotton better than any ever raised on the mainland, probably ranking equal with any in the world, but at the outset of the industry the growers have found themselves called upon to battle continually with this pest. By keeping, as Doctor Wilcox says, "everlastingly at it," it is possible to prevent this pest from growing to serious proportions and this has been done so far, but he adds, "while all might go well for a long time some one might get weak-kneed and quit, let his field go and pretty soon it will infect all the others."

It seems that this insect is just about completing a world tour. Entomologist Fullaway of the federal experiment station, in his report, states that it is supposed to have been introduced in India with Egyptian or American cotton. We got it from India, he says, possibly in recent years, but Doctor Wilcox believes that it is possible that it has been here for a long time.

Fullaway estimates that in a field not cared for fifty per cent. of the bolls and fifteen per cent. of the seeds will have been entered by the boll worm and practically destroyed. In the larval stage, the only stage where it is dangerous, it is about half-an-inch long and an eighth wide when grown. It is a dirty white and spotted, each of the four spots on its back marking a protuberance and surrounded by a suffusion of pink.

"The use of artificial remedies," says Fullaway, "to combat the boll-worm is at the present time, for practical reasons, not advised." He recommends clean culture, the burning of infested bolls and severe pruning and burning after the last picking.

But here again, nature has come to the aid of man and supplied a natural parasite for the boll worm. Some success has met the efforts of the entomologists in using hymenopterous flies who feed on the worm to some extent. But the appetite of this parasite is in no ways commensurate with the dinner spread for him and the growers are endeavoring to raise funds to send an entomologist to India to seek a more effective parasite. It is thought that the source of the boll worm, according to Nature's rules and regulations, should also be the most probable source of its best enemy.

But boll worms are not the only pest that infests our cotton, although it is the most serious. Among those mentioned by Fullaway are stem maggots, wire worms, cut worms, aphids, mealy bugs, etc. A number of varieties of lady bugs have been turned loose in the field and are doing yeomen's service. Each variety selects its own particular diet and goes to it. Some take the aphids, others take the mealy bugs, and like Jack Spratt and his wife, between them they often manage to lick this platter clean.

A number of flies, too, have been supplied by Nature to back up the efforts of the indefatigable lady bugs and to the man with the magnifying glass, the average cotton field will present a scene of bloody war, with none of its pomp and circumstance.

#### TYPICAL CANNIBALISM.

The extraordinary multiplication of insects is counterbalanced in nature by the predatory or parasitic habits of species of the same class," says Fullaway in his cotton pamphlet.

But Nature, in her desire to keep down the supply of her vegetarians, does not extend any favor to the parasites she supplies to kill them off, and has made many of them so weak, that while they may not suffer retaliation from their non-fighting brethren, they are unable to "get around" as are the others. If they were there would probably be no more insect pests.

But wily man, however, having overcome the laws of depopula-

tion imposed on himself in his early days, now undertakes to regulate the combats of the insect world, and like the mercenary creature he is, sees that the battle goes the way of his own interests.

The sugar planters' experimenters long ago discovered a parasite for the cane leaf-hopper and he is doing invaluable service, but he was such a weakling that he had to be brought up from Australasia, where he was found, by stages and given a stay ashore at every island he passed. Naturally he was going over a route that Nature never laid out for him. As soon as he got here he went right to work and has been dining on cane leaf-hoppers ever since, who, having no means of retaliating, are quickly being thinned out by the gluttonous parasite.

But while this parasite dined on the cane leaf-hopper, the corn leaf-hopper was wiping out the corn fields, doing inestimable damage to our corn crop and keeping the entomologists on the jump trying to get to windward of him.

Suddenly, however, a native parasite, a product of our own Hawaiian Islands, woke up to the fact that this corn leaf-hopper was pie and ice cream to him. Whether this was a sudden cultivated taste or whether he just found that it was his natural food is doubtful. At any rate the entomologists discovered that he dined on the corn leaf-hopper and that was about all they wanted.

He was a weakling in every sense of the word, and while he had no difficulty in putting his stronger neighbor out of commission when he got him, Nature had not provided him with any means to get him. Consequently it became necessary for the entomologists to assist, and by breeding colonies and moving them about from field to field, the leaf-hopper has gone the way of all flesh, being thinned out almost to the tune of ninety-five per cent. Once in the field the parasite did all that was expected of him, but he stayed in that particular field. If he attempted to make a field a few hundred yards away the chances are he would be blown away. Even the outside of a leaf spelled danger for him, but once befriended by man he may expect to live in luxury as long as he or the leaf-hopper lasts.

Occasionally certain crops, flowers or shrubs, are overrun by aphids, more familiarly known to us as ant-cows, carried about by ants when their own means fails them. They do a great deal

of damage and appear, on these occasions, in such great numbers that artificial means are not always successful. Lady bugs and other natural parasites, (and the aphid has many of them), get busy and help out in these emergencies.

#### IN THE VEGETABLE GARDEN.

The well beloved sweet potato is no less subject to the raids of insects than is King Cotton, and humble as it is, has so many devotees in this line, that the opinion has been expressed by entomologists that it is remarkable that the unfortunate tuber survives at all.

Cut worms, sweet potato sphinx moths, sweet potato leaf-miners, sweet potato stem-borers, sweet potato leaf-rollers are all listed, each variety of pest taking care of some part of the plant with a conscientiousness and thoroughness that is extremely hard on the plant. To make matters worse there are various species of weevils who take care of the potato if their friends let its growth get that far.

About the only consolation the sweet potato has is that its pests, numerous as they are, are in nearly all cases, very pretty to look at in the moth stage, for most of them are moths. The caterpillar of the sphinx moth is capable of eating two or three leaves a day, and its desire to do the job up in style makes him, perhaps, not so dangerous as his brethren who prefer a bite out of each leaf.

The sweet potato leaf-miner which develops into a beautiful feathery creature, tunnels through the juicy leaves, eating out the tissues while the stem-borer secretes himself in the stem and eats that where his winged and human enemies cannot get at him.

Parasites more or less effective are always on the job, however, and in nearly all cases are flies. A hymenopterous fly has taken it upon himself to eat all of the eggs of the sphinx moth he can get while other parasites are reported to dine on its larva. The larva of the sweet potato leaf-miner is generally taken care of by a chalcid fly.

The stem-borer is said to have been recently introduced from the Indo-Malaysian region and also that it promises to be a serious pest if not checked by natural enemies. Neither of the two

weevils are as yet prevalent, but prove destructive at times. Both of them have been introduced recently.

#### MAKING DATES WITH NATURE.

Plans are now being drawn to introduce in Hawaii the real date bearing palm, which has been grown with more or less success in Arizona and in the other middle southwestern States. So far the direct importation of the date plants has not been undertaken, for they are said to be infested with a dangerous scale, the introduction of which is not to be desired here.

The date palm that we have at present does not bear the edible dates while the others do. Two hundred seeds taken from the Arizona plants have been planted at the federal experiment station and their growth watched for anxiously. They are said to be pedigreed seeds, fifty per cent. of them guaranteed to result in fruit bearing trees, but if this experiment is not successful, the plants themselves will be imported and every precaution taken by quarantine and fumigation, to see that their scale pest does not come with them.

The parasite imported several years ago to fight the algaroba bean weevil is doing better with each succeeding year and by the same token, the bean weevil in question, which formerly not only destroyed the bean but caused an itch on the humans that handled it, is doing worse.

#### THE PICKET LINE.

While the territorial entomologist's department is continually occupied in experiments similar to those in the other stations, it has the added burden of protecting the Territory against the importation of injurious or other insects from foreign lands. The last legislature drew up laws comprehensively adding to his powers and there are adequate funds for this particular branch of the work, which is entirely protective, as distinguished from the experimental.

Almost seven thousand bugs from the full collection of the territorial entomologist, and while many of these are of collections of insects found in Hawaii, and those not here that ought to be here, a large part of it is of those who are not wanted here, but who were caught coming. Every vessel arriving is boarded

by officers from his department and all vegetable matters, seeds, etc., are carefully examined for insects. Some plants are fumigated, a few have to be destroyed, and fewer still are admitted without similar precautions.

The reports of the entomologists show the arrival of insects from all parts of the world, Hawaii being distinguished as a crossroads of entomological travel as it is in every other kind. Orchids from Manila and Singapore, ginseng from Hongkong, cocoanuts from Fanning, bananas from Singapore, flowers and fruits from Japan and America, soils from New Zealand, every possible conveyance is utilized by the insect tramps and the most unexpected arrivals are found in the most unexpected things. The work resembles that of the medical quarantine service a great deal and about the same problems confront the inspectors, owing to Hawaii's situation.

These are but a few of the many enterprises and a little of the work undertaken by our entomologists, who, jovially referred to as "bug-hunters," are doing lasting service to the Territory, gaining very little credit for it from the general public and not enough from the agriculturists.

The sugar industry knows to the full the value of scientific entomology applied to industry for it saved the sugar crops from devastation by the leaf-hopper, and while cotton growers have not appeared as warm as they might be to the science, it has done much for cotton, also, and is preparing to do more.

Now that the world has to support a so much larger non-agricultural population, the effects of the insect raids are felt more than when the majority of people raised their own foodstuffs and could plant so much that there was sure to be some kind of a harvest. The damage wrought by cutworm or moth larva in a field is felt more now, and as time goes on, the work of the entomologists will become of still greater importance. The larger the crop to be raised, the more damaging are the careers of our minute enemies.

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G. P. WILDER'S "Hawaiian Fruits," that was planned to be issued in parts, is withdrawn from sale and a revised and complete work in one volume is in press, to appear shortly.

## THE FUTURE OF THE HAWAIIAN RICE INDUSTRY.

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By F. G. Krauss, College of Hawaii.

**T**HAT the Hawaiian rice industry, which has for so many years played an important part in the prosperity of the Territory, is on the decline there can be no question. It is equally certain that unless an earnest and united effort is made to bring about the rehabilitation of the industry, this important agricultural resource of the Territory will ere long be relegated from its former high position to somewhere far below its rightful station.

For half a century Hawaii's rice crop stood second to sugar in importance, and though far below the great staple in magnitude and total money value, it is the most extensively consumed in Hawaii of any product of the land. Nor are any of her products more favorably known abroad than is the "Sandwich Island" rice, which for many years commanded the highest market prices in San Francisco and elsewhere.

For the planter there was no surer crop. Two harvests per annum was the rule, and yields were invariably large, 5000 to 6000 pounds of clean rice per acre being not uncommon for the two crops grown annually. When prices were good the profits were large and the whole community prospered. It is safe to say that the 10,000 acres representing the maximum area cultivated to this crop yielded an average annual income of two and a half millions of dollars over a period of twenty or more years.

Not once has there been recorded a complete failure in the two crops grown annually during the sixty years since the industry was first established. During the greater part of this period, had all other crops failed and the food supplies been cut off from the mainland, the subsistence of her inhabitants would have been assured by this one product. It may be well

for us to bear in mind both the economic and stratagematic importance of this phase of the industry.

Why then is the Hawaiian rice industry declining, and what then the remedy? The following statistics will answer the question in part.

IMPORTS OF RICE INTO HAWAII.

Year	Japan		China		United States	
	Amount	Value	Amount	Value	Amount	Value
	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
1905 .....	9,656,796	221,116	11,964	245	9,983,491	303,029
1906 .....	12,496,396	283,653	22,600	529	4,129,643	164,683
1907 .....	21,012,842	539,021	13,906	351	755,050	34,144
1908 .....	26,695,642	740,975	6,485	155	95,524	4,821
1909 .....	27,866,102	717,064	13,966	314	109,300	4,358
1910 .....	30,967,892	704,440	17,716	401	70,000	2,600

The exports to the United States from Hawaii during the same period were as follows:

Year	Amount	Value	Year	Amount	Value
	<i>Pounds.</i>	<i>Dollars.</i>		<i>Pounds.</i>	<i>Dollars.</i>
1905 .....	2,771,083	84,414	1908 .....	3,038,624	140,768
1906 .....	5,739,500	223,012	1909 .....	5,823,585	255,210
1907 .....	3,324,107	147,439	1910 .....	5,859,231	269,157

From the above data it is apparent that the consumption of rice in Hawaii is not lessening, but rather that the home product is slowly but surely being superseded by foreign importations. The reasons for this are clear enough. So long as our Chinese population predominated, the so-called Hawaiian rice, which bears a long, hard, translucent, non-glutenous grain, was greatly sought after, as it most nearly approached the accustomed native varieties of the Chinese. However, as our Japanese population increased and gradually supplanted the Chinese, they became the principal rice consumers, but the old varieties grown were not acceptable to them, the Japan type of rices differing materially from the Chinese varieties. Instead of being a hard, starchy grain, the Japanese rices are soft and glutenous, more oily and highly flavored, and the

grain is short and thick. The Japanese themselves speak of it, as "strong," "rich," and "fat" in comparison with the Hawaiian and Chinese sorts, which to them are insipid. And it is for these very reasons that the Chinese do not like Japanese rices; they claiming that these types are too "strong," heavy and indigestible, and these or similar kinds are used only on special occasions, and not as a regular diet.

With the gradual decline in the demand for the locally grown product, and consequent lowering of prices, together with increasing scarcity of labor, the Chinese grower became discouraged. The crops received less care than formerly and both quality and yields began to decline. In not a few cases sharp practices, such as adulteration with inferior varieties, short weights and carrying over old stock were indulged in. Poor grading also became the rule, so that at the present time even our export trade is suffering.

It is thought by many that the whole fault lies with the Japanese; that they are prejudiced and would not use Hawaiian-grown rice regardless of its quality and any prices at which it may be offered.

The writer is convinced that this is certainly not wholly true. A careful study of the two types of rice both here and in Japan convinces him that there is a marked difference between the two sorts. Not alone is there a striking difference between the two types, but even the same variety grown in different parts of Japan frequently differ in flavor to such an extent that the Japanese soon detects the difference. Nor need we wonder at this since we have ample examples of a similar nature with other crops in other places. And it is but fair and good business to give this phase full consideration.

There seems to the writer two ways of remedying the present situation. One is that the rice planters organize and cooperate as the sugar planters have done; that they then standardize their product to the high quality that is capable of being done. And then keep it uniformly at that standard.

The writer has been assured again and again by those in a position to know, that if Hawaii could again produce the quality of rice formerly grown, a ready sale at good prices

could be met on the mainland. That as good rice can be grown now as at any time in the past should need no better demonstration than the notable (but not well known) work being done by our Federal Experiment Station. Beginning with the deteriorated stocks which had resulted from reckless management and neglect, pure and superior strains of the best sorts have been developed, but which the planter rarely availed himself of, though they were to be had for the asking. Nor is less notable the splendid research work being done on the chemical side of the rice plant and rice soils which have resulted in more than doubling the yields. Could, or would the planter avail himself of these advantages to the fullest extent possible, there is no question but that the higher cost of labor and other advances in the general cost of production would be compensated for and the industry placed on even a surer footing than ever before.

The other point of attack is a radically different one, but likewise made possible by the efforts of the Experiment Station. By referring to the table of imports, it will be noted that for the year 1910, rice to the value of \$704,000 was imported from Japan, which is probably considerable below the actual amount since it calls for over 300,000 hundred-pound bags. For 1911 the amount both in bulk and value is probably still greater, since the prices within the past few months have been unprecedented.

It seems plain if this large amount of produce were grown in Hawaii, where the entire amount is consumed, it would place the local industry in a prosperous condition even if the product were sold for 20 per cent less than the imported article, thus, benefiting apparently everyone concerned.

That Japan rice can be grown successfully in Hawaii has been amply demonstrated both on a small and large scale. The crop matures earlier than does the Hawaiian and Chinese varieties, thus occupying the ground for a shorter period. Furthermore, the yields average larger and mill more easily, and at the same time give a larger percentage of grain. It would seem that the Japan varieties possess every cultural advantage over the older sorts, it needs only to be proved and

accepted by the Japanese that its quality is equal to their own. The writer believes that at least one out of the four varieties selected in Japan by the Station in 1909 bids fair to fill every requirement. The demonstration is being made by Japanese planters themselves. It is a logical sequence. One that a shrewd observer might have seen before it happened.

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## HAWAII'S FINANCIAL STATUS.

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BY D. L. CONKLING, *Treasurer, Territory of Hawaii.*

TO FULLY appreciate the present splendid financial standing of the Territory of Hawaii it is necessary to go back to the formation of the constitutional government of the Hawaiian Islands which was accomplished before gold was discovered in California and long before American government was established in either California, Oregon or Washington.

There are three periods in the life of the Islands to be considered from a financial standpoint; the monarchy, the republic and the territory. Time was when eighteen to twenty-four per centum per annum was considered an adequate return for money advanced to the government, and as time went on and the world began to know of the existence of the Islands and deal with the people thereof, credit began to be established.

Many dangers have been encountered and overcome, and several times has the ship of state been near the rocks of financial destruction until at this time the Territory has taken its place as part and parcel of the United States, proud of the record made by itself and its predecessors, that never has default been made by the government of the islands in the payment of public debt, or the interest thereon.

From an undeveloped country the surface of which was scratched only sufficiently to produce one kind of food for its inhabitants, Hawaii has become one of the most extensively cultivated sections of the world, and as the agricultural development of the Islands has increased and been brought to the high-

est state of perfection, so has the credit of the country increased until at the present time one-sixth of the sugar consumed in the United States is produced in Hawaii's fields and mills, and the balance of trade is with the people of the territory to the extent of many millions of dollars a year.

Hawaii depends primarily on agriculture for a living, sugar being the greatest product of the territory; pineapple growing and preserving are increasing at a great rate and already the use of wood and native drawn plows were used to break the soil.

The first attempt to cultivate sugar on a large scale was at Koloa, on Kauai, about 1835. From 1836 to 1841 sugar was exported from the islands to the amount of \$36,000. In those days the cost of manufacture was about 5¢ a pound, while labor was abundant at from \$2 to \$5 a month. During the twenty years from 1851 to 1871 inclusive, the domestic exports from Hawaii of all kinds amounted to \$16,918,944.51, while the imports amounted to \$31,073,595.40, showing a balance of trade against Hawaii of \$14,054,650.89. The tables herewith will show better than words the advance made by the islands from 1845 to the present time. Since the organization of the territory a great many public improvements have been necessary and have been carried on mostly with money raised by the sale of bonds, for the payment of the interest and principal of which the credit of the territory backed by the consolidated revenues has been pledged. Each sale of bonds has been a better one for the territory than the previous one. Neither the Kingdom, nor the Republic of Hawaii, was able to borrow at a less rate than 5%, while the Territory on its entire bonded debt at the world's supply of this fruit is being affected by the product of Hawaii. Tobacco cultivation is in its first stages of development and some experimenting is being done with cotton. Less than one hundred years ago the islands produced but enough sugar and molasses for home consumption. Sugar mills were present time is paying but a fraction over 4%. The public debt amounts to but a little more than three and one-half per cent. of the assessed valuation of the real and personal property of the islands, and the assessments will likely prove to be less than 7% of the actual cash value.

Since the organization of the Territory, June 14, 1900, there

have been paid and retired \$578,000 in bonds, while \$600,000 5% bonds were refunded at 4%. At the present writing the entire debt of the territory is \$5,454,000 and a sinking fund has been provided for which will reduce the debt, so that with some refunding the great progress of the territory will not be impeded by the payment of interest and principal.

The report of the Treasurer of the United States not being available for the year ending June 30, 1911, the following figures will show the standing of the territory among the states and territories and possessions of the United States June 30, 1910. Hawaii paid into the Federal treasury in the year 1910 duties and taxes amounting to \$1,772,869.56. This is more than was paid by either Maine, New Hampshire, Vermont, Rhode Island, Delaware, District of Columbia, South Carolina, Georgia, Alabama, Mississippi, Iowa, Colorado, Oregon, Montana, Idaho, North and South Dakota, Wisconsin, Utah, West Virginia, Arkansas, Kansas, New Mexico, Arizona, Alaska, Porto Rico and the Philippines. Hawaii paid to the federal treasury nearly three times the amount of the total payments made by Arizona, New Mexico, Alaska, Porto Rico and the Philippines.

The following tables show the assessed valuations of property for purposes of taxation; and the value of imports and exports, since the organization of Territorial Government:

ASSESSMENTS OF REAL AND PERSONAL PROPERTY BY FISCAL YEARS, SINCE ORGANIZATION OF TERRITORIAL GOVERNMENT.

Year.	Real Property.	Personal Property.	Total.
1901 . . . . .	\$58,547,890	\$62,625,038	\$121,172,928
1902 . . . . .	60,591,587	62,319,216	122,910,803
1903 . . . . .	66,137,075	63,675,607	129,812,682
1904 . . . . .	63,516,979	60,381,525	123,898,504
1905 . . . . .	67,509,036	66,415,064	133,924,100
1906 . . . . .	66,908,337	64,266,678	131,175,015
1907 . . . . .	64,901,609	66,149,614	131,051,223
1908 . . . . .	66,936,032	65,354,150	132,290,182
1909 . . . . .	68,440,615	70,470,205	138,910,820
1910 . . . . .	75,792,523	74,475,944	150,268,467
1911 . . . . .	77,932,535	77,076,903	155,009,438

## IMPORTS AND EXPORTS, BY FISCAL YEARS, ENDED JUNE 30.

Year.	Imports.	Exports.
1901 . . . . .	\$ 2,826,633	\$28,053,843
1902 . . . . .	3,036,583	24,793,607
1903 . . . . .	15,817,039	26,275,438
1904 . . . . .	15,784,691	25,204,875
1905 . . . . .	14,718,483	36,174,526
1906 . . . . .	16,499,808	26,940,523
1907 . . . . .	18,376,919	29,364,381
1908 . . . . .	19,985,724	42,238,455
1909 . . . . .	21,424,980	40,521,504
1910 . . . . .	25,138,247	46,486,412
1911 . . . . .	27,512,580	41,938,583

Customs receipts since the organization of Territorial Government, by fiscal years, ended June 30, have been as follows:

1900 (half of June) . . . . .	\$ 45,523.99	1906 . . . . .	\$ 1,218,764.13
1901 . . . . .	1,219,618.93	1907 . . . . .	1,458,843.48
1902 . . . . .	1,327,518.23	1908 . . . . .	1,550,157.32
1903 . . . . .	1,193,677.83	1909 . . . . .	1,396,379.91
1904 . . . . .	1,229,492.15	1910 . . . . .	1,575,319.15
1905 . . . . .	1,043,404.40	1911 . . . . .	1,654,761.54
		Total . . . . .	\$14,913,461.06

Hawaii in 1910 ranked thirteenth in the collection of customs, being exceeded only by New York, Massachusetts, Pennsylvania, Maryland, Florida, Louisiana, Ohio, Michigan, Illinois, Missouri, California and Washington.

In 1900 the total population of the Territory was 154,001, and in 1910, was 191,909, a gain in those ten years of 24.62 per cent.

The total indebtedness of the Territory is \$5,454,000, which is 3.56 per cent. of the present assessed valuation of property for taxation. No county or municipal bonds have ever been issued. The following table shows the date of issue, amount, interest, character, and term of the outstanding bonds, and the rate and place of sale:

Date of Issue	Amount Out-standing	Interest %	Character of Bonds	Term in Years	Sale Price	Place of Sale
May 1, 1903	\$ 110,000	4	Fire Claim	5-15	100.00	Hon
Oct. 1, 1903	1,000,000	4½	Pub Imprvmt	5-15	100.0625	N York
Jan. 2, 1905	1,000,000	4¼	Pub Imprvmt	5-15	100.10	N York
Oct. 4, 1905	600,000	4	Refunding	5-15	101.375	Hon
Jan. 2, 1906	750,000	3½	Pub Imprvmt	5-15	98.125	N York
Oct. 1, 1907	294,000	3½	Pub Imprvmt	5-15	98.15	Hon
Oct. 1, 1909	200,000	3½	Pub Imprvmt	5-15	98.25	Hon
Aug. 1, 1911	1,500,000	4	Pub Imprvmt	20-30	101.587	N York

NOTE.—The imports for 1901 and 1902 do not include those from the mainland. Estimates made subsequently place the figures at \$22,000,000 for 1901, and \$19,000,000 for 1902.

TABLE SHOWING FINANCIAL CONDITION OF HAWAIIAN ISLANDS DURING THE TIME OF THE KINGDOM, REPUBLIC AND TERRITORY, FROM 1845 TO 1911.

	1845.	1849.	1859.
Imports . . . . .	\$564,941.00	\$771,763.84	\$1,555,558.74
Exports . . . . .	269,710.00	338,102.07	931,329.27
Revenue * . . . . .	64,045.55	166,286.41	287,758.34
Expenditures . . . . .	70,537.03	166,480.20	321,544.20
Public Debt . . . . .	67,815.36	nil	108,777.33
Assessed Val. Real Estate. . . . .			3,417,076.00
Assessed Val. Personal Prop. . . . .			2,909,572.00
Estimated Population . . . . .	92,221	84,165	70,277
	1869.	1879.	1889.
Imports . . . . .	\$1,821,364.14	\$3,742,978.39	\$ 5,438,790.63
Exports . . . . .	2,366,358.83	3,781,717.97	13,874,341.40
Revenue * . . . . .	417,056.33	839,918.44	1,495,023.02
Expenditures . . . . .	468,050.15	747,848.74	1,393,775.27
Public Debt . . . . .	126,568.68	388,900.00	2,599,502.94
Assessed Val. Real Estate. . . . .	4,808,815.00	10,699,607.00	17,704,119.00
Assessed Val. Personal Prop. . . . .	4,682,947.00	12,022,550.00	17,212,347.00
Estimated Population . . . . .	59,973	64,230	93.100
	1899.	1909.	1911.†
Imports . . . . .	\$19,059,605.00	\$21,424,980.00	\$27,512,580.00
Exports . . . . .	22,628,741.82	40,521,504.00	41,938,583.00
Revenue * . . . . .	3,345,231.50	3,443,264.00	3,532,779.74
Expenditures . . . . .	2,553,727.42	3,160,875.81	3,310,097.89
Public Debt . . . . .	4,890,351.49	3,959,000.00	4,004,000.00
Assessed Val. Real Estate. . . . .	38,459,370.00	68,440,615.00	77,932,535.00
Assessed Val. Per. Prop. . . . .	37,707,602.00	70,470,205.00	77,076,903.00
Estimated Population. . . . .	109,020 <sup>1</sup>		191.909 <sup>3</sup>
	154,001 <sup>2</sup>		

\* Exclusive of Loan.

† Figures in this column are from the report of the Governor of Hawaii for year ending June 30, 1911, except the figures showing Revenue and Expenditures which are actual.

<sup>1</sup> Census 1896.

<sup>2</sup> Census 1900.

<sup>3</sup> Census 1910.

THE long promised visit of the Pacific fleet of cruisers from San Francisco has fruition as the ANNUAL'S forms close, in time for their Thanksgiving observances, for a few weeks stay in Hawaiian waters. The fleet under Rear-Admiral Thomas, comprise the following vessels:

U. S. S. California, Captain C. H. Harlow, commanding.

U. S. S. Maryland, Captain J. M. Elliott, commanding.

U. S. S. South Dakota, Captain F. M. Bennett, commanding.

U. S. S. West Virginia, Rear-Admiral W. H. Southerland, commanding second division.

U. S. S. Colorado, Captain Wm. A. Gill, commanding.

## RETROSPECT FOR 1911.

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**A**NOTHER year of marked prosperity and favor is being rounded out as Hawaii's portion for 1911, notwithstanding conditions threatening the public health and the discovery of insect pests which seriously menace our fruit industry. An even better rainfall than the preceding year has prevailed throughout, without damage through freshet or storm, a condition favorable alike to planter, agriculturalist and stock raiser, and permitting also those of mechanical pursuits to push forward their enterprises without interruption. Looking back over the year's activities it seems filled with the boom spirit without realizing its presence as the months rolled by. This progressiveness will be more readily seen under the various headings of the more important subjects that have transpired since our last issue, as follows:

### MATTERS POLITICAL.

Following the quiet and somewhat satisfactory election of 1910 the contest for alleged irregularities in one of the voting precincts of this city, as shown in the last Annual, failed to change municipal figures some hoped for. With the change of supervisors of the City and County of Honolulu at the opening of the year its Republican majority was looked to for more harmony and broader consideration of measures of public interest. This was partially met in its prompt action on health matters that agitated the community the early part of the year, and secured also the long talked of building ordinance.

### LEGISLATIVE.

The sixth territorial session convened February 15th, electing Hon. E. A. Knudsen as President of the Senate and Hon. H. L. Holstein Speaker of the House, and at once entered upon its work which was vigorously prosecuted throughout the session and completed within its prescribed term. Among the many subjects considered, the school and health questions,

land policy, loan and taxation matters and appropriations were prominent. A department of immigration, labor and statistics was created; the City and County Act amended granting supervisors power heretofore vested in the mayor; Harbor Commission established; the attempt to disgrace the Territory with a Sunday theater bill was defeated; extension of Rapid Transit franchise denied; attempt made to transfer Honolulu's water works to a County commission failed; effort to establish direct primaries carried in the House to be defeated in the Senate; the late A. S. Cleghorn's conditional gift of Aina-hau was declined, and the Queen Emma place in the valley was assigned as "Nuuanu Park." Land matters held sway the entire session but failed at the end. It was a strenuous term, with more to its credit for measures considered and less of a detrimental character passed, (thanks to the absence of the Kaniho "wise-acres") so that it was commended as "the best legislature the Territory has ever had." A less crowded session would have given chance for more consideration of acts dealt with, and met with fewer vetoes from overlooked defects.

#### FIRST KIRMESS.

Honolulu held its first Kirmess February 18th at the old market for "sweet charity's" sake, realizing therefrom \$5,515 after meeting all expenses which naturally were heavy for a single entertainment, instead of a series. Its novelty for Honolulu and the attractiveness of the different booths of the various nationalities represented, as also the worthy cause which appealed alike to all—the support of the Palama Settlement work—fairly packed the building with cosmopolitan patrons from its opening at 5:30 p. m. till near midnight. The affair which was termed an "artistic, financial and social success" was under the leadership of Mrs. W. F. Dillingham.

#### OUR FLORAL PARADE.

This feature of Honolulu's observance of Washington's birthday far eclipsed all former effort, and by a combination of circumstances was entered upon with enthusiasm and en-

ried through successfully. Past experiences helped toward better organization, this year under Director Arthur F. Wall. Following close upon the Kirmess, its spirit of buoyancy and helpfulness was abroad in the community; the timely arrival of the delegation of Mystic Shriners on their third pilgrimage to these shores, swelling the already large number of visitors attracted hither, together with the lavish preparations of the Elks for their carnival season combined to the day's success.

With the large increase of autos in the city it was natural that the number of competitive decorated machines would be a marked feature of the procession it was, rendering it a difficult problem for the judges to award the prizes. National, allegorical and other floats as also decorated carriages, cycles, etc., were more numerous. The number of pa-u riders were less. The "princesses," representing the different islands, with their pages and attendants of honor was as attractive as ever and met with appreciation at all points along the route. An innovation this year was the body of small children to head the procession dressed in colors and so arranged in their marching as to form the American flag.

In the evening an elaborate Japanese torchlight procession—a voluntary tribute by that nationality to the memory of Washington—paraded the city and waterfront, halting at the latter point for brief speeches by Consul General Uyeno and Governor Frear.

The festivities of the day closed with the carnival ball of the Elks at the Alakea wharf, assigned them for their season of money-making merriment for their building fund, an undertaking made eventful by the fact of President Taft pressing the button, in Washington, that inaugurated their festivities.

#### DISAPPEARING LANDMARKS.

The old Robinson warehouse with its seaward-end adornment of the figure-head of Alderman Wood, from an English ship of that name which was wrecked on the Island of Lanai in 1824, and has, as it were, welcomed the incoming and sped the outgoing shipping of Honolulu ever since the erection of the building a few years later, has fallen in decay. The ap-

pearance of our waterfront will seem unnatural to many frequenters of the port who will miss the old familiar figure and once prominent building.

The old Judd homestead, known as "Sweet Home," at the corner of Nuuanu and Judd streets, the scene of important official activity in the formative days of Hawaiian constitutional government, and the center of Honolulu's social life for many years is also of the past, the premises having been disposed of to the Cemetery Association for the extension of their property, which it adjoins, and the house torn down.

The Queen Emma, or old Rooke residence, corner of Nuuanu and Beretania streets, is no more; a relief from the old "junk shop" character of the premises by its Japanese lessees of several years past. The history of this early home would furnish interesting reminiscences of the city during its monarchy days.

#### FAVORING UNIVERSAL PEACE.

At a general mass meeting held at the Opera House, July 9th, 1911, in support of the movement for unlimited arbitration between England and the United States, the following resolution, introduced with an eloquent address by Walter G. Smith on behalf of Americans and ably supported by T. Clive Davies on behalf of British residents carried without a dissenting voice:

"Resolved, That this meeting of American and British residents of Honolulu cordially welcomes the proposal that the United States of America shall enter into a general treaty of unlimited arbitration with the British Empire, and it urges on the Senate of the United States the approval and ratification of this most desirable and important measure, believing that such a treaty would materially promote the peace of the world and further the best interests of these two great Nations."

On further motion copies of the resolution, duly signed by the general committee presiding at the meeting, were directed sent to the President of the United States; to the President of the Senate, and to His Britannic Majesty's Secretary of State for Foreign Affairs.

A like gathering took place August 15th at the same place

to hear an address by Dr. David Starr Jordan on International Peace, at the conclusion of which Governor Frear, in a few brief remarks befitting the occasion, introduced a resolution to the following effect which carried unanimously:

"That the residents of these Islands call the attention of all participants in the movement for international and interracial respect and amity, and particularly to the officers and members of the First Universal Races Congress, recently held in London, England, the desirability of convening such a congress at an early date on this side of the globe and the peculiar propriety of the city of Honolulu as the place of meeting."

#### SANITARY CAMPAIGN.

Honolulu has wrestled with various sanitary problems in the period under review. Early in the year was the enforcement of law against bovine tuberculosis which fell with more or less severity on many of the dairies supplying the city. The Dairy-men's Association as a safeguard for the purity of its product has introduced the Goucher system of electrical treatment of milk, the first of its kind established west of the Mississippi.

An outbreak of cholera which occurred in February was early brought under control, as also its recurrence, the victims being all of the Hawaiian race and traced by medical experts to certain taro patches in Manoa as the source of infection. This was followed by a few cases of smallpox in Porto Rican quarters, also held in check.

A mass meeting of citizens declared for a clean city, in support of the emergency fund bill in favor of the Board of Health, following which the governor appointed a sanitary committee with Geo. R. Carter at its head to investigate and advise on the health conditions of the city. One outcome resulted in Honolulu having a "clean-up day," Saturday, June 24th, all public offices and places of business closing to permit everyone's sharing in the work for the common good. This volunteer citizens movement in aid of the Board of Health's sanitary work, and for which leading citizens contributed the needed funds, was carried through by a committee of which Mr. Emil Berndt was chairman.

The mosquito campaign is now on with the aim of ridding us of these pests, more particularly the yellow fever propagator, *stegomyia calopus*, whose presence here threatens us with grave danger upon the completion of the Panama canal, as shown in the arrival recently off port of a suspicious case on the *Hong-kong Maru*, from the Mexican coast, which was pronounced yellow fever. A rigid quarantine was maintained, and to safeguard this port the authorities and commercial bodies here had just won in a protest to the Federal authorities at Washington against any modification of rules hitherto observed at ports of departure.

In spite of precautions one of the federal guards of the steamer, several days later, became an alleged yellow fever patient and was taken charge of by the health authorities and strict quarantine regulations established over all possible contacts and the premises. With this possibility of an outbreak of the dread fever the Board of Health and the federal authorities have entered upon a vigorous campaign to rid the city of its mosquitos and their breeding places, which work is being carried on by a citizens' committee of which W. F. Dillingham is chairman, under the direction of Dr. D. H. Currie, whose experienced services, at the request of Governor Frear, was assigned by Washington authority for this special work, and a large number from the military forces have been detailed as lieutenants in the work of inspectors. On account of departure Dr. Currie is succeeded by Dr. Rupert Blue.

At this writing we have escaped the fever threat. With the sacrifice of all banana trees within 150 feet of dwellings, and reduction of dense foliage, etc., by the force of 700 laborers, aided by householders generally, the situation at much personal sacrifice and public and private expense may be said to be met.

Improvement is noted in the condition of lepers being treated at the Kalihi Experiment Station with anti-toxin by the Federal Medical Officers Currie and Clegg. Dr. Wayson's work for ameliorating its conditions are giving hopeful signs of success in cases taken in the incipient stage, two cases being said to be cured after months treatment with carbolic acid snow.

## EXODUS OF LABORERS.

Quite an exodus of laborers for the Coast and Alaskan canneries set in at the close of March last through the effort of recruiting agents. Legal restraint was sought as the third lot was leaving and a number of arrests were made, including the agent, charged with recruiting without a license. A special steamer, the *Senator*, arrived to convey the expected rush in response to alluring promises direct to the northern fields of labor, but new laws for the preservation of Hawaii's expensively obtained immigrants, for a period at least, were enacted that helped defeat the scheme, for after a brief stay in port she went outside the league limit to await her expected quota, 125 of which were secured the first night in defiance of law, but as several days passed without further result she vanished in the darkness without the formality of a customs clearance.

## PUBLIC IMPROVEMENTS.

There is little of new work to report under this head beyond wharf and shed work for the demands of our increasing shipping. Richards street wharf, or Pier No. 1, has been constructed at a cost of \$27,882, and the contract for its shed has been let at \$27,980. This wharf is to be paved with ohia blocks costing \$7,950, and a like work will be done with the Hackfeld wharf on the completion of its widening approach, the two contracts thereon calling for \$14,694. Sorenson's wharf has also had widening.

All wharf work and port facilities will devolve hereafter on the Board of Harbor Commissioners, as by recent legal enactment.

Much work is planned for from avails of the recent loan, to cover sewer extension, larger water mains, judiciary building changes, school buildings, belt roads, etc.

The old market on the waterfront, at the foot of Alakea street, is being converted into a receiving station for immigrants after being passed by the federal authorities. They are being fitted up as for permanent use, with modern conveniences and sanitary appliances for the health and comfort of our future wards, awaiting engagements. Provision is made also to serve the De-

partment with office quarters in place of the Merchant street corner.

#### FEDERAL BUILDING SITE.

Honolulu's federal building awaits decision of its site. Movement for a 5,000 signature petition in favor of the civic center for the new federal building, instead of the Mahuka site, met with favorable response, and on completion was forwarded on to Washington. A counter one for the central business site was agitated later and forwarded also.

#### PLANTATION MATTERS.

At the close of 1910 McBryde plantation completed their four new reservoirs in the Aipo valley, with a combined capacity of over 260 million gallons, whereby a large area of new land can be brought under cultivation.

Hoea Mill is fitted this year with a new crusher, doubling its mill capacity.

Proposal for converting the molasses output of the Islands into denatured alcohol is presented for the consideration of the the sugar interests by Wm. Antoni, chemist of the Hawaiian Preserving Co. Molasses is now being shipped to the Coast in bulk, where it is largely used in the manufacture of cut feed for stock.

E. E. Batelle, chemist of the Wailuku plantation, applies for letters patent on an invented process of treatment of cane juice to produce refined sugar directly in its manufacture from cane, as also the saving of 5 per cent from the waste of present molasses output.

Ernest W. Kopke has invented a centrifugal clarifier to effect a great saving in the sugar industry. The machine has had practical tests at the Honolulu plantation to prove all claimed for it. Patents have been secured thereon in various countries.

Lanai is experimenting with sugar beets.

#### OUR WATER SOURCES.

The investigations in progress for the conservation of our water supply throughout these Islands by the territorial and federal governments in cooperation by W. F. Martin, district

engineer in charge of the work, had the distinction of a visit last spring of Jno. C. Hoyt, of Washington, engineer in charge of surface water supply being carried on by the federal government, to join in a tour of the main islands in the study of their several conditions and problems which occupied some two months.

Jos. B. Lippincott, an authority on water supply and reclamation, arrived shortly after to investigate the project of conveying Koolau waters by tunnel and ditch to the Oahu plantation lands. With Mr. Martin and others due examination of the head waters available for the supply was made and the scheme reported feasible though costly. At this writing decision has been reached to put up at auction the government rights in the head waters of Waiahole and rights of way for same, by tunneling the Koolau range, on a thirty-year lease, with option of ten-year extensions, on a graded rental basis per million gallons daily. The estimated cost of the undertaking is placed at \$1,500,000.

Another, the third, Kohala ditch is under way to furnish more water to its cane lands; the Kehena Ditch Co. tapping the waters of East Honokane for this project at an elevation of 5,000 feet. Its length will be fourteen miles.

The Kau ditch proposition of J. T. McCrosson to convey the waste waters of Hilo district around onto the agricultural lands of Kau is still mooted.

#### IMMIGRATION.

Mention was made in last issue that Mr. A. J. Campbell as special agent of the Board of Immigration had gone forward to reopen immigration, etc. As a result the S. S. *Orteric* arrived here April 13th with 1451 Spaniards and Portuguese, consisting of 547 men, 373 women and 531 children. Owing to outbreak of measles and fever there were 57 deaths among the children on the voyage.

Mr. Campbell is abroad again on a like mission and finds less difficulty in recruiting for Hawaii than before. One ship-load per S. S. *Willsden* is now about due, comprising some 540 Portuguese and 1300 Spanish immigrants, among whom are 352 families, and there are 803 persons under 16 years of age. The

outlook is favorable for another shipload to follow with little effort should a vessel be secured.

#### AIDING THE FARMERS.

Mr. S. T. Starrett, market expert of Southern California, comes to the position of market superintendent for the Territory of Hawaii, provided by last legislature, to place the marketing of the small farm products on a systematic basis. Seeds and plants best suited for the particular localities are distributed, advice given as to culture, as also in meeting market demands. The office at present is with the Department of Immigration, located at the foot of Alakea street. Visits have been made to the small farm and homestead sections of the various Islands to become acquainted with local conditions and opportunities, and be in personal touch with "the man with the hoe."

#### DREDGING WORK.

Honolulu dredging has progressed favorably, the new section on the lower side of the harbor under the federal contract of \$125,000 being completed by August, the lower half of which dredging embraced much needed blasting of coral for the required depth. Following this the naval section is being dredged deeper, though encountering ledges of solid rock, in place of coral, renders the work more difficult than anticipated. The re-dredging of the channel, which job was secured on a bid of \$29,000, will be entered upon early in 1912.

Despite heavy weather conditions in May and June good progress on Pearl Harbor work of dredging the bar and channel for its straightening and widening has been made, so that one of the powerful dredgers was withdrawn and sent back to the Coast, as this completing part of the Pearl Harbor dredging contract is expected to be finished in February.

Work on the drydock is coming along now satisfactorily. The discovered unstable and leaky condition of its coral floor on reducing the water in the first section caisson of the drydock, in May, led to the adoption of new plans to secure a firm foundation before the concrete could be laid on. This resulted in pinning down the floor by driving piles throughout its whole area, over 2,500 being so driven up to September. On the surface

of these pile heads is being poured eight feet thickness of cement which will form a floor matching any for solidity.

The deepening of Kahului harbor, under federal direction, as also the construction of its new breakwater, is being pushed forward. The Hilo breakwater is nearing its third and final section, the contract for which was recently secured by an Eastern firm.

#### REAL ESTATE.

The activity noticed in last issue has continued through this year and has been general throughout the city and its suburbs. Sales of residence properties in the Kaimuki tracts have been phenomenal, and the College Hill section of Manoa shows no abatement in its claims of steady growth. Both localities are to be favored with further school attractions. The old "Zoo" property, corner of Waialae road and Koko Head Avenue, has been purchased, on which will be erected a \$60,000 public school building, while the Aliiolani College secured thirteen lots of the Ocean View Tract just beyond, and erected new and larger buildings to which it has moved, opening its school year as the "Honolulu School for Boys." The College of Hawaii has secured adjoining property to its tract in Manoa and plans the erection of a building worthy of its work and aims.

Transfers of city properties have been many, among which is noted the sale of the old Y. M. C. A. premises to the Elks Lodge for \$29,000. The adjacent Orpheum has been purchased by the C. M. Cooke, Ltd. This same estate has also secured Mrs. Lack's Fort street lot and building for \$20,000, and the old "Commercial" corner at Nuuanu and Beretania for \$9,000, on which is to be erected a business structure. The Methodist Church premises vacated last spring sold at auction without the church building for \$12,000. The Brewer Estate has secured the Cartwright property on Hotel and Union streets for the erection of a business block. John F. Colburn disposes of his property on the corner of King and Mauna Kea streets, with the buildings thereon for \$50,000 to H. Holmes, trustee. A long lease of the Queen Emma corner results in plans for the erection of a combined business and theatrical block, of brick, already entered upon.

Of residence properties A. J. Campbell has bought the Berger home for \$14,000 and Walter Macfarlane secures lots adjacent to his on Pensacola street, then tears down his mansion to build greater.

The Hawaiian Preserving Co. has bought some four acres of Iwilei property of the Dowsett Estate for the sum of \$30,000 for a building site. The U. S. Government secures a portion of the S. M. Damon property east of Fort Kanehameha reservation for \$15,952.

Hackfeld & Co. purchases from W. R. Castle et al land in the town of Hilo known as Kukuau 2nd. for \$20,000, and the Honolulu Iron Works Co. buys the Hilo Cannery property, which it plans to refit with a plant for modern foundry and machine shop.

#### BUILDING MATTERS.

Many new homes have resulted from the foregoing real estate activity, largely of the Bungalow type, though there are a number of more pretentious residences. This has kept all branches of the building trade well employed throughout the year.

The Pantheon Block, corner of Fort and Hotel, is the principal business structure of the year, and with the new Y. M. C. A. building (described elsewhere) will set the pace for the proposed improvements along that section of the city.

Kaumakapili Church was completed in early summer and had its dedication service June 25th. The Alice Mackintosh memorial of St. Andrew's Cathedral is now towering above adjoining structures and nearing completion. In the near neighborhood has been erected a new concrete residence for Bishop Restarick. St. Clement's Chapel has enlarged by an addition to its Makiki street front.

A commodious addition has been made to the Bishop Museum for its working department, and an art gallery annex to the Cooke Library, at Oahu College, is in progress. An enlargement of its Preparatory department building, costing over \$25,000, is well under way, and contracts are placed for the new girls' dormitory to replace their recent loss by fire.

## OUR MINOR INDUSTRIES.

*Sisal.*—The upper tract extension of the Hawaiian Fiber Co.'s planting demonstrates the advisability of doubling their mill capacity, which step was settled upon at its last meeting that orders may be early forwarded for same. Their present output is twenty-five tons monthly. Market rates have unfortunately declined this season till but a fraction over four cents per pound is realized—the lowest price known to our planters. This Coast rate is in keeping with the Eastern market, said to be due to increased production and falling off in demand. What mitigates against Hawaii's product is the heavy steamer freight charges against it in marketing same, as compared with Yucatan shipments.

Pahala Plantation's 500-acre field of sisal reaches the cutting stage this year and is being decorticated at the rate of ten to eleven tons a month and sent down for shipment to the San Francisco market. This upland product from fields unsuited to cane culture is producing a choice fibre in length, strength and color. The sisal tract in Kona has suffered from the scarcity of labor and the low market rates ruling this year.

*Tobacco.*—The Kona Tobacco Co. have been busy with the curing and forwarding to market the last of their 1910 crop, approximating 150,000 pounds of various grades, a large portion of which will bring good figures. Planting of this year has continued and the plants are reported as looking well. Already 300,000 pounds has been harvested and is now in process of curing. Hackfeld & Co. comes to the financial support of the company for extension and improvement for the larger operations warranted by the market reports on its product.

The Keokea Cigar Co. of Kona, Hawaii, organizes to establish a factory for the manufacture of cigars from tobacco grown by the Kona Tobacco Co. and has secured three tons of the 1910 crop that was being shipped East, having orders in hand for 214 M for the local market.

The Hawaiian Tobacco Co. reports sixty acres under cultivation with the prospect of a good crop. This concern has also made arrangements for its further development, its experimental

stage showing the advisability of larger scale operations at materially less proportionate expense.

Chas. Notley has purchased the Hamakua tobacco plantings begun by Geo. Kretchmar.

*Rubber.*—The Nahiku rubber section, comprising four plantations, reports 350,000 trees in good condition, with a number of others yet to develop. At the last annual meeting of planters the Nahiku Rubber Co. estimated there would be 20,000 to be tapped this year, many of which comes to this stage for the first time, while 1,000 were expected to yield half a pound to each tree. Commercial work is thus entered upon this year. The experimental testings heretofore in the tapping of the trees, the collecting of the latex and its treatment to produce the smooth sheet rubber for marketing by laborious hand process is changed for both expedition and more profitable handling with better marketable quality. This is obtained by allowing the milk sap to run to the ground instead of collecting it in cups, then gathering the coagulated latex and washing it free of soil and foreign matter and passing same through mangle rolls of rough surface to produce what is known as crepe rubber in sheets. The amount of rubber gathered averages about 3½ pounds per day per man, of wet product. This reduces 20 per cent in its curing. The work of commercial tapping may be said to have commenced in October, and has progressed slowly owing to the scarcity of labor.

Market returns from New York for the trial shipment earlier in the year was within ten cents per pound of the world's best price, this reduction being due, it was said, to the lack of tensile strength, a quality that will develop as the trees mature.

The Puna growth of rubber is coming along and will be ready for the tapping stage two years hence, being that time behind Nahiku in starting.

*Cotton.*—An authoritative article on this subject in this issue shows its present status. While the presence of certain insect pests may modify our enthusiasm, it is well to be forewarned for the needed vigilance to be exercised for self protection. As intimated in a prior issue Japan stands ready to buy all the cotton we can produce, a representative of the Mitsui Co. having

looked over the prospect here and taken samples of our product, the quality of which has favorably impressed their experts.

*Lava Brick.*—This new enterprise noted in our last issue as about locating at Kaimuki, has established an elaborate plant for the manufacture of compressed brick of the capacity of 20,000 a day, utilizing the rough lava rocks of the vicinity, reducing the same by several graduated crushers to a uniform grade of sand which is mixed with lime or cement, as desired, and run into molds and put under great pressure, then run into large cylindrical ovens and baked for a length of time under 150 pounds pressure of steam.

The product is a fine smooth and heavy brick of bluish color, weighing over six pounds each, and from a number of testings give satisfactory results in comparison with the clay product as to absorption of moisture, pressure, and fire tests, so as to win the commendation of architects and builders. It further commends itself for possibilities of varied colors and mold of ornamental design.

*Broom Factory.*—A broom factory has established this year on Liliha street, making four grades from imported material till such time as local broom corn may be had in sufficient quantity.

#### SHIPPING CASUALTIES.

German steamer *Erna* arrived here January 2nd wheat laden from Tacoma, having met with such heavy weather as to seriously damage her cargo, which on testing at this port was ordered by the health authorities destroyed, save some 700 bags which sold at auction.

Schooner *Moi Wahine* came into collision February 27th with the lighthouse tender *Kukui* in the Molokai channel about 9 p. m. and sunk. All hands were lost except Capt. Sam Mana, who, with the aid of a couple of boards, swam to Lanai, distant some 20 miles, landing at noon the next day.

April —, four-masted schooner *Helene*, arrived at Aberdeen, from Honolulu under jury rig, having lost main, mizzen and spanker masts in a heavy gale ten days out from this port.

P. M. S. *Asia*, on her returning voyage from the Orient went ashore in a dense fog April 23rd on Finger Rock, off the

China coast, and became a total loss, with nearly all of her cargo. All hands saved.

Stmr. *W. G. Hall*, on the trip from Kauai to Honolulu, April 23rd, was thrust by a sword fish, a foot or more of the sword penetrating the six-inch planking and breaking off, causing the vessel to leak.

Schooner *Wm. H. Marston* left San Francisco May 18th with a heavy cargo of construction material for Honolulu and the Pearl Harbor naval station. She sprung a leak during heavy weather two days out and was abandoned. Officers and crew were rescued by S. S. *Honolulan*. The *Marston's* lumber kept her afloat and she was picked up a derelict by the steamer *Fenwick* May 21st and towed to Port Harford.

Barkentine *Jas. Johnson*, from Newcastle with coal for San Francisco, arrived March 27th in distress, having met with disaster in loss of sails, and leaking through heavy weather, and through the long voyage had run short of provisions.

July 15th the jigger and foremasts of schooner *Gamble*, at Hilo anchorage, was badly splintered by a bolt of lightning, during an electric storm.

Schooner *Ka Moi* got ashore September — off Kahana, Oahu, and for a time was in a precarious position so that tugs were sent to her aid. After lightening her cargo of ohia ties she was floated off and brought to port for repairs.

Three-masted schooner *Sailor Boy*, from Fanning Island for San Francisco, lost her main and mizzen topmasts in a hurricane September 7th. Leaking badly she bore for this port during which passage it was feared she would have to be abandoned. Arriving off Diamond Head she was met by the tug and brought to safety.

#### NOTABLE PASSAGES.

Ship *Edward Sewall* made the voyage from Kahului to New York in 102 days, arriving there August 23rd, 1911. The *John Ena* just before her made the trip to Delaware Breakwater in 104 days, having left here May 14th.

S. S. *Makura* made a record run from the Colonies in March last, and reporting a passage of six days from Fiji.

## MEMORIALS.

A bronze memorial bas-relief of Mr. and Mrs. S. N. Castle was presented to Oahu College by its trustees and occupies a place in the corridor of Pauahi Hall. It was unveiled February 5th with appropriate exercises by Judge Dole, who, with Judge Hartwell, paid glowing tributes to the memory of these worthy folk who did much for Punahou.

The McKinley statue erected in front of the High School to his name and memory was unveiled with appropriate ceremonies February 23rd, Judge Dole giving the address. The statue was the design of Mr. Gordon Usborne of this city, and was executed in bronze in New York. The figure is life-size and stands on a polished granite pedestal some six feet high.

A marble and bronze Rice-Isenberg-Cooke monument was erected in the Lihue cemetery, Kauai, September 1st, in memory of the dear departed, and unveiled by Mrs. C. M. Cooke. The monument is a masterpiece by the famous Danish sculptor Prof. Stephen Sinding, of Copenhagen, and consists of a shaft of white marble, weighing ten tons, carrying in bas-relief many shrouded figures of men and women with upturned faces. Upon its steps are two bronze figures, a youth mourning with buried face, while over him tenderly offering solace leans a mother sharing the deep grief. This is probably the finest art product of the kind in the Islands.

## HIBISCUS EXHIBIT.

A notable floral exhibition was held at the rooms of the Hawaii Promotion Committee June 28th on the occasion of the display of 250 varieties of hibiscus, contributed by the various growers, mostly of this city, a number of whom have given thought and care to the possibilities of new varieties by scientific culture. Thirty gardens were represented. Eighteen of the varieties were imported while several shown were indigenous to Oahu, or the other islands.

## OHIA AND KOA USES.

More and more is our ohia wood being recognized as of great utility since its acceptance as railroad ties. Its durability

and hardness renders it most desirable for flooring, for which, as also other purposes the Pahoa Mill of the Hawaiian Development Co. have installed special machinery for its treatment to meet market demands. Paving blocks for wharf and street use have been laid and contracted for; that laid this past year proving satisfactory, so far, for heavy traffic.

A shipment of sixteen large choice koa logs was recently made to New York and to London (eight to each point) to be cut into veneer for the choice cabinet work it is so well adapted. This duplicates a similar test made in Germany some fifty years ago.

#### FIRES.

Fire disasters have been more numerous this year and damages consequently heavier, the insurance losses totaling \$103,306.41 since our last issue, against \$94,097.86 the year before. The principal fires of the city embrace Mrs. Atherton's Pacific Heights residence; Mrs. Wright's premises known as the old "Luce residence"; the girls' dormitory of Oahu College; residences at Kalihi and Liliha, with several minor events, including nine automobiles. Waiialua suffered by the fire of a block of four Japanese stores, with loss placed at \$2,500; little insurance. The Kona winery fire was the extent of Hawaii's loss this year; fully insured.

#### VOLCANIC STUDY.

Prof. Frank A. Perret of Volcanic Research renown and Dr. E. S. Shepherd from the Carnegie Institute, Washington, arrived here this summer to enter upon the study of our volcano. Kilauea, for which point they sailed June 28th. Among the points of observation desired was the securing of the temperature of lava. After two unsuccessful attempts, the first by the loss of the thermometer in the lake, the second by its being crushed, while the third by use of the pyrometer registered it. July 30th, at 1010 centigrade. Dr. Shepherd returned after but a short stay while Prof. Perret continued his observations till in October, the account of which is given elsewhere.

Steps have been taken toward the establishment of a permanent observatory at Kilauea, to carry on the work inaugurated by

Dr. Perret. The committee selected to formulate plans for its founding and maintenance, in confirmation of the movement to this end at Prof. Thos. A. Jagger's visit in 1909, are: L. A. Thurston, Chairman; A. F. Judd of the Bishop Museum, Prof. J. W. Gilmore of the College of Hawaii, C. H. Cooke and J. A. Kennedy.

#### AVIATION IN HAWAII.

Aviation in Hawaii had its opening exhibition December 31, 1910, at the Moanalua field of Mr. S. M. Damon, before some 3000 spectators, "Bud" Mars being the pioneer in a series of several aeroplane flights in his biplane "Skylark" which proved very successful, notwithstanding the unsteady winds found amid the Oahu hills. Like successful flights took place also at same grounds the two following days. With J. C. Mars came Tod Schriever, the designer and builder of the machine, and the veteran aviator Captain Thos. Baldwin. From here the party went to Japan.

In May last Dexter P. Doran, manager for Clarence H. Walker and Didier Masson, aviators, arrived to arrange for a series of flights, and considered Leilehua an ideal place for same. Walker made his first flying exhibition at Hilo, June 10th, but after a successful ascent, through some mishap to the engine in descending, and when about 100 feet from the ground, it became unmanageable and dashed into a tree, wrecking the biplane, but Walker escaping injury.

June 18th Masson made a successful high flight at 6 a. m. in his monoplane from the Schofield Barracks, Leilehua, circling over Honolulu en route and landing as planned at Kapiolani Park. Other expected flights during the day were not attempted, though a second series of exhibitions took place at Leilehua later, in one of which Masson miraculously escaped serious injuries by his machine, at about 100 feet up, taking a sudden dive to earth.

#### CORONATION DAY OBSERVED.

The crowning of King George V. and Queen Mary, of England, June 22nd, was commemorated in Honolulu by British subjects and others, by services in St. Andrew's Cathedral at

11 a. m. in honor of the event, followed with field sports in the afternoon at the Alexander Field; Punahou, and closing with a ball at the Moana Hotel in the evening.

#### CORNER STONE LAYING.

Corner stones of the new Y. M. C. A. building on Hotel and Alakea streets, this city, were laid with appropriate ceremonies February 1st, full particulars of which are set forth elsewhere in this issue.

The corner stone of new Japanese Church on site of former, or old Lyceum, corner Nuuanu and Kukui streets, was laid June 25th, which was made an eventful occasion.

On October 21st, 1911, was laid the corner stone of the new Library of Hawaii building, corner of King and Punchbowl streets with memorable services under Masonic auspices at which addresses by Dr. David Starr Jordan, representing Andrew Carnegie, Hawaii's benefactor by his aid toward this library building, and R. O. Matheson were delivered.

#### CHINESE SCHOOLS.

The first school in Honolulu supported by Chinese was officially opened by Liang Kwo Ying, the Chinese consul, February 4th, 1911, known as the Mun Lun School of Honolulu, situated on Achi lane off Beretania street. The movement has been in progress some time, the building being finished in 1908, but the school has waited funds for maintenance.

Another Chinese school is being planned for on Kukui street, the building now receiving its finishing touches.

Japanese schools have been established in various parts of the Islands for several years for the education of the children of that nationality in language and matters Japanese, largely under the auspices of the Buddhist sects, but the above are the first public schools for the instruction of Chinese youths here in their own language.

#### NOTED VISITORS.

Madam Calve, the noted singer, stopped over for a brief season en route from the Orient in February last, giving three concerts at the Opera House before crowded audiences. Seats \$3.00. Jaroflay Kocian, the famous violinist, who was to have met

her here, came later, and gave one concert at the Opera House to \$2.00 seats.

The celebrated "Sheffield Choir" of over 200 members under the direction of Dr. Harriss, in their visit in May, en route from Vancouver to the Colonies, gave a matinee and evening concert at the Opera House to packed houses.

Souza's Band, that famous aggregation of musicians, touching here from the Colonies for Vancouver, gave two concerts while in port.

The visit of the Mystic Shriners in February last was made memorable by their pilgrimage to the hot lava beds of Kilauea, and the founding of a branch organization as the "Daughters of Pele."

#### OTHER ORGANIZATIONS.

With not a little enthusiasm there was launched last February the "Pan-Pacific Travel Congress" for the promotion of tourist travel and other mutual interests of various lands bordering on this ocean. With a number of Hawaii's leading citizens there gathered representatives and delegates from other Pacific lands for its formation.

On similar lines the "Hands-around-the-Pacific Club" formed later, with the further aim of establishing a Tourist Bureau and exhibition building in New York City, and extending trade by a through-America Pan-Pacific exhibition train.

For the promotion of Honolulu's claims of desirability for residence and business opportunity, a body of loyal residents, instigated by an enthusiastic new comer, joined in a movement to secure 100,000 residents for the city by a given time in the near future.

The Boy Scouts movement has also shaped itself here this year. Jas. A. Wilder, D. Howard Hitchcock, Paul Super and others have aided their organization and conducted several of their outings.

The latest organization aimed to promote and serve public interests is the Public Service Association, which becomes headquarters for the Civic Federation, and several other with most of the above clubs, affiliating, being "an association of organizations in the service of the public," with a convenient central office on King street, open at all hours.

## COMMERCIAL MUSEUM.

A commercial museum has been established at the rooms of the Japanese Consulate for the exhibit of samples of the products of that country, as also of the agricultural products of Hawaii, for the promotion of trade to the mutual advantage of both countries.

## FRUIT SHIPMENT RESTRICTIONS.

Owing to the discovered presence here of the Mediterranean fruit fly, California quarantine regulations place an embargo on nearly all our island fruits, even to the restriction of passengers from taking "certain fruits, plants, or other horticultural products." Pineapples and bananas at present are the only exceptions and they must be more carefully packed hereafter.

## BOATING MATTERS.

Boating interest has deepened this past season through the advent of the new Puunene Rowing Club of Maui, with their new Keenan barge entering and taking part in the annual regatta event. The Myrtles also received a new Keenan barge for this year's races, while the Healani's rejoice in a new Alf. Rogers boat. With this benefit and new material in the selected crew they carried off the day's honors.

## SWIMMING RECORD.

Duke P. Kahanaimoku of the recently organized Hui Nalu (Surf Club) of this city made two amateur swimming records August 13th last when, in a series of aquatic sports, he came off victor in the 100-yard contest in 55 2-5 seconds and the 50-yard event in 24 1-5 seconds. In the 220-yard race, in which he again had two contestants, he won easily in 2:42 2-5.

Another surprise of the day was the success of Vincent Genoves, a new comer of the same club, in winning all the long distance events of half, mile, and quarter mile, against several competitors by an even, double over-arm stroke without apparent tiring, promising to be a wonder yet to be heard from.

## STEAMER KILAUEA.

A new coasting steamer with the favorite name of the pioneer (Kilauea), built for the island trade, has been constructed by the

Union Iron Works, San Francisco, for the Inter-Island Nav. Co., and will shortly arrive to take her place on the Kona run.

NECROLOGY.

Again are we called upon to record a number of persons identified with the Islands, some of them with many years of service, who have been called to their reward.

The following are among the more prominent of the kamaainas dying at these Islands, or abroad, since our last issue:

Judge L. A. Andrews, Capt. Wm. A. Clark (58), C. R. Buckland, Mrs. Julian Monsarrat, Mrs. Allan Herbert (78), Miss H. S. Judd (78), Mrs. P. C. Jones (68), Jos. M. Oat (63), Judge A. N. Keпоikai, Maui (50), Mrs. Jas. Renton, Kohala (78), "Mother" Rice, Kauai (94), E. Hoffmann, Maui (73), H. P. Baldwin, Maui (69), Mrs. Alex. Lindsay, Kauai; Mrs. Sturenbeck (94), Jas. W. McGuire (80), E. F. Richards, Hilo (45), Rev. M. K. Nakuina, J. J. Sullivan (61), Dr. J. S. McGrew (84), John Nott (79), Mrs. S. A. Berger (64).

Of early residents dying abroad there have been reported:

Mrs. R. C. Janion and Major Jas. H. Wodehouse, in England; Mrs. F. M. Hatch, in Baltimore; Mrs. A. T. Atkinson, in New York (64); Mrs. J. W. Austin, in Boston; Rev. J. M. Alexander, in Oakland, H. H. Renjes, in Germany (56).

HAWAII'S RECORD SUGAR CROP.—At the recent meeting of the Hawaiian Sugar Planters' Association, its thirty-first annual session, a most gratifying showing was made in the address of the retiring president and various reports as the season's work of 1910-11. The crop not only proved to be the record one in the history of the industry in the islands, approximately 574,000 tons, but also in the price obtained, the average basis realized for the crop being about 4.35 cents per pound. With the best returns also obtained from the molasses output this would place the income of the industry for the year at \$50,000,000.

The excellent sugar yield is shown to be the outcome of improved culture as the result of the experiment station's testings with a new formula of fertilizer for our cane lands, largely practiced the past season, which is reported to have increased the yield of sugar in average cases twenty-seven per cent. Its adoption on all plantations may naturally follow.

## THE VOYAGE OF LIFE

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Composed and delivered at the Public Exhibition of the Students of  
Oahu College, May 29, 1862.

By W. H. ROGERS.

[Inserted in the ANNUAL, by request, for convenient reference.]

How great the Artist's mind, whose glowing hand  
The Voyage of Life so vividly portrayed,  
That as we gaze upon its scenes, we feel our  
Souls to thrill within us at the sight—  
For Oh! the mysteries of Life and Death,  
Nor Painter's skill, nor Poet's muse can tell  
For whence the stream first flows, or where it ends;  
For man can see no farther than the place,  
Where, issuing from Oblivion's murky cave,  
The stream of life in smoothness winds its way;  
And all around in peaceful solitude  
Sing the gay birds of hope from every tree.  
The skiff of life first starts upon the voyage,  
The destiny of which, unknown to all  
Save him who launched it forth, whose watchful eye,  
From the beginning, pierces to the end;  
Dedeked with many a flower, and sparkling gem,  
Which blend their radiance with the silvery tide—  
While Time sits on her prow, holding the glass,  
Whose sands began to run when first she felt  
The current of the stream on which she glides.  
Upon a seat within, an infant sits,  
Its dimpled hands are filled with smiling flowers,  
By angel-hands, fresh gathered from the bank;  
While near his guardian angel stands,  
One hand the tiller holds, the other raised  
Above the smiling child, as if to bless,  
While, with a look of tender love and care,  
He gazes on his happy playful child.  
O beauteous scene! almost beyond compare,  
Sweet love and hope, together sit enshrined.  
Alas! that scene so beautiful and fair,  
Should change their hues, and shortly disappear.

As shift the clouds upon a Summer's day,  
So change the scenes upon the stream of life,  
No longer in the skiff an *infant* sits,

But by his angel-guide, stands a fair *youth*.  
 With watchful eye, he gazes o'er the stream,  
 And marks the waters as they ripple by.  
 There seems to be a longing in its breast—  
 A nearest longing, yet unsatisfied.  
 Soft music fills the air, the angel speaks:  
 "Fair youth, though I would gladly stay with thee  
 Until the end of life, 'tis Heaven's decree  
 That I should leave thee now, to guide alone  
 Thy bark adown the stream until its close;  
 Yet I would warn thee, ere I quit thy side,  
 Of all the dangers that beset thy way;  
 Of treacherous sands, of sunken rocks, which wreck  
 Full many a voyager on the stream of life.  
 And now my parting pledge I give to thee,  
 'Tis this—when at thy journey's end thou art,  
 As weak and helpless as when first we met,  
 I'll come and help thee in that trying hour:  
 But now, farewell, *I'll follow thee afar*  
 And watch thy little bark until the end."  
 Thanks, thanks! fair angel; with thy teaching skilled,  
 I can now venture on my voyage alone,  
 Fame's castle yonder rises to my view,  
 And I would hie me to its bowers gay.  
 And heedless of the angel's sad adieu,  
 Waved to him from the bank on which he stands,  
 He speeds into the widening stream alone;  
 His cheek is all aglow with youthful hope,  
 His eyes flashing with the fire of pride,  
 And mad ambition flows in every vein.  
 Oh youth! 'twere well for thee if life's false stream  
 Would always flow as smooth. But ah!  
 As greatest danger oft is hidden deep  
 By fancies veil of sweet security,  
 So too the stream of life in stillness flows,  
 Before 'tis ruffled by the winter's storm.

For once again the scene is changed, and now  
 A mighty river, carrying all before,  
 Rushes and roars through many a deep cut gorge—  
 And steep defile, while ragged rocks tower high  
 And wall the stream of life on every side.  
 Along the bank lies many a shattered tree,  
 Whose branches once their giant arms outstretched,  
 Till the wild blast swept by and at a stroke  
 Bowed their proud heads, and laid them in the dust.

From ridge to ridge, dark threatening clouds extend,  
 Spreading o'er all a canopy of dread,  
 While sending forth their copious floods which flow  
 Into the stream, and urge with maddening haste  
 Its speed toward the sea, which lies beyond,  
 In the dim vista of the future scene.

A little bark drives swift before the gale,  
 Dashing the spray from off her dripping prow,  
 And trembling to her keel as if alive,  
 And conscious of the dangers thronging round;  
 While with clasped hands, and looks of mute despair,  
 Within the skiff, the youth, to manhood grown,  
 Now trembling stands; the rapid's deafening roar  
 Strikes terror to his soul and pales his cheek;  
 The tiller wrenched away, the little bark  
 Unchecked, speeds wildly on her fatal course;  
 While fiends on lowering wing are hovering near—  
 Intemperance, offering him the soothing cup,  
 And Suicide, the dagger in her hand;  
 Despair affrights him with her visage grim.  
 He heeds them not, his heavenly guide is near,  
 And though *unseen*, that angel strengthens him;  
 And as he nears the roaring cataract,  
 He breathes to heaven a wild, and earnest prayer,  
 Then disappears amid the foam below

And now the last, sad scene, presents itself,  
*Sad* scene, I say, yet *happiest* of them all—  
 As darkest night gives sweetest sleep to man,  
 So life's tired voyager, wearied at the oar,  
 Lies down amid the gloom and seeks repose.  
 The stream has widened as it neared the sea,  
 Till now, no land is seen on either side,  
 But vast expanse of waters, dark as night,  
 When silence reigns supreme—silence so dread,  
 And darkness so profound, a whispered word  
 Would seem a thunderbolt, and deepest night  
 Would seem as if it were the fairest day.  
 A shattered bark moves slowly down the stream;  
 The waters at her prow seem scarce to part,  
 So quiet is the tide on which she flows;—  
 Dark clouds, the like of which have never yet  
 O'rspread life's sky, hang heavy all around.  
 And Time, afraid to enter Death's domain  
 Has taken wing and sought a sunnier clime.  
 Old Age sits helpless in the battered bark,

And calmly waits for his expected guide;  
For though he sails upon an unknown sea,  
With Darkness, and her sister, Solitude—  
Companions feared and dreaded most by all—  
Yet nought he fears, an angel's pledge, he knows,  
Is always sure, will shortly be redeemed.  
But now the trying moment has arrived,  
The broken bark lets in the waves of death—  
“Oh haste thee, angel, haste! I need thee now.”  
A moment's pause, and he is by my side—  
“Hail, happy voyager, hail! I come to bear  
Thee worn and wearied, to the land of rest.”  
All radiant shines the old man's face with joy,  
So beauteous to behold, one scarce can tell  
Which is most fair, the pilgrim or his guide;  
One hand he lays in peace across his breast,  
The other taken by his spirit guide,  
Who bears him gently from the bark away,  
While notes of triumph, from an angel band,  
Waken the silence of the vale of death.  
All radiant now with heaven's glorious light;  
And now for aye! the storms of life are o'er,  
A blissful haven gained—a peaceful shore.

## VOLCANIC OBSERVANCES AT KILAUEA INAUGURATED

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BY FRANK A. PERRETT, K. I. C., *Director Hawaiian Expedition of  
the Mass. Inst. of Technology, 1911.*

*A three months series of daily observations at the brink of Hale-  
maumau, Volcano of Kilauea, as furnished in weekly reports  
to the Pacific Commercial Advertiser.*

HAWAII certainly has cause for congratulation for the timely visit this year of so distinguished a volcanologist as Dr. Frank A. Perrett, to inaugurate the series of scientific observations at the brink of Halemaumau, for the gathering of data whereby it will be possible to predict seismic disturbances. The visit is termed timely for he was fortunate in finding Kilauea in a state of unusual activity, with frequent changes, as shown by his records.

In the following series of continuous observations from early July to the latter part of September, reported weekly to the *Advertiser* (to whose courtesy, and consent of the recorder, the ANNUAL is indebted for their use for convenient reference), we are made better acquainted with our volcano than we were. Unfortunately the illustrations which accompanied these several letters are unavailable, having been sent abroad. Nevertheless, information as fascinating as it is valuable is here conveyed, and but for its source and purpose would be classed in parts as fairy tales, notably, the self-propelled inflated lava glass bubble crossing the lake and glowing into an incandescent balloon, a phenomenon never before known to any observer. The sinking of the floating island of nearly a year's existence and the birth of two new ones ten days later were naturally objects of close observation and study as a remarkable feature peculiar to Hawaii's volcano.

By persistent effort the temperature of its lava has been registered. Their liquid character is said to lend to the safety of approach during long periods of activity and accounts for the absence of explosions as at Etna and Vesuvius. The records also

show an interesting observance of luna effect in raising the level of the lake.

Following the daily observations some two weeks were devoted to checking over the results from which, among other things, intimation is gathered of the likelihood of Mauna Loa's activity in 1912, possibly on the north side. This will be watched with interest.

Dr. Perrett's daily observations, as follows, will tell their own story:

On June 29, with my colleague Doctor Shepherd, I left Honolulu for Hilo, breaking the journey at Kahunui where the crater of Haleakala was visited and photographed.

July 2, arrived Hilo and proceeded to volcano. The lake of lava—about 150 meters greatest diameter—was fairly active with several fountains coming up at intervals of about twelve seconds. An island consisting of two unequal parts joined by a low isthmus floated just east of the center of the crater lake. Its most remarkable feature was an arched opening under the isthmus leading to a cavity under the island into which the surface lava of the lake was pouring in cascades from either side. The main circulation of lava in the lake was from under the southwest bank over the surface to the north and east. Estimated lava to be about eighty-five meters below rest house and to be rising. Fountains were clear red in full daylight; estimated temperature at 1000 degree centigrade. During the following days a number of changes were observed. The grotto under the island was enlarged and a freer flow of lava took place.

At intervals the level inside would rise to the level of the lake and the downflow ceased only to be resumed again later on when a fountain could be seen welling up inside the cavity. After this the level would drop and the cascade again would be formed, and this alternation continued until the 17th, when the island moved during the night to the southeast bank of the lake and the remarkable cascade ceased its flow. (The "Old Faithful" lava fountain was not in action during the last days of the cascade but resumed when the cascade ceased). Spatter cones were formed on the west and a line of them on the southeast bank all emitting flames of burning gas, and on the 7th a vent was formed high up on the east wall of the crater from which little spurts of lava were issuing

accompanied by jets of burning gas. In two days this vent was inactive, but it has quite recently again become incandescent. The rising lake overflowed its banks at frequent intervals forming the well known corded pahoehoe flows. Many observations, both visual and photographic, were initiated for a systematic study of the various phenomena of the lava lake, the flames, the circulation of the lava, formation of grottoes, the mechanism of the lava foundations, etc. In the latter, four principal phases were distinguished and have been photographed by day and by night, the special telephoto camera being found invaluable for this work. On July 8, sites were selected for the cable anchorages and for the observation station, and work was begun on stretching the cables on the 11th. On the first trial the smaller cable broke and fell into the lake, and the end, on being pulled up, was found to be converted into iron sulphide. This boded ill for the electric thermometer which was successfully immersed into the lake July 20. but which failed to connect electrically with the recording instrument on the shore. During the four minutes of immersion the three protecting tubes of iron, nickel and quartz were completely dissolved, although the melting point of each is well above the temperature of the lava. The result is due to the high chemical activity of the lava from the presence of sulphur, etc., and this was not fully foreseen in the designing of these instruments.

The second thermometer also failed under test, and finally a third instrument was prepared by Dr. Shepherd, and was successfully immersed July 31st. This consisted of a thermo-electric couple with a large water packeted cold end, and this also was lost, but not before a satisfactory reading had been obtained, which gave 1850 degrees Fahrenheit as the temperature of the lava in the lake from one to three feet below the surface. By means of the cable an iron pot was lowered for an instant into the "Old Faithful" fountain and a quantity of fresh lava obtained for analysis. The two earthquake shocks of July 14th were not felt at the crater, but on the 25th at 10:32 a. m., a shock of the third to fourth magnitude (Mercalli scale) was felt at the station, and two distinct shocks were felt at Volcano House August 7th. The station was completed on the 23d and immediately occupied.

The south end of the island began to sink on the 17th and the lake itself began to lower its level on the 22d. On the 23d the

cascade under the island was re-formed in a modified condition, but after several alternations it ceased forever. With the lowering of the lake sublimations began forming around the banks and at the spatter cones, and the amount of vapor was greatly increased. The lowest level—about forty feet below its banks—was reached August 7th, when it began rising, and culminated on the 9th (full moon), having risen nineteen feet. On the 10th it again sank, but started rising rapidly on the 11th and was oscillating on the 12th and 13th. With the falling of the lava and the consequent withdrawal of its support many sections of the banks and of the ledges were dislodged and fell, causing rock avalanches of considerable size. The heaviest of these were from the north black ledge, July 26th, and from the west and east on the 28th and August 1st. The evening of August 4th a large section of each black ledge fell off and early on the 6th a large landslide to the southwest. These ceased on the 9th with the rising of the lake, but began again on the 10th, a large mass falling from southwest black ledge in the evening. Banks from the lake fell in from time to time and the lake is being thus much enlarged. The sinking of the island has steadily continued its progress, being photographed daily.

The line of spatter cones on the southeast bank have developed rapid-changes from the flame emitting to the solfataric condition, all of which have been photographed. About July 28th a large gas vent under the east black ledge became very troublesome, preventing a sight of the lake from the operating end of the cable and necessitating a line of signal men around the crater. Since August 6th all the vapors from this vent have developed free acid which has consumed the zinc coating of the galvanized iron roof of the station.

Lava stalactites were found in a cave near by and their formation is being studied. On the 12th the visible island was reduced to a flat floating area of black lava crust contiguous to the east bank of the lake.

The station is situated on the east brink of the crater, commanding a view of the entire lake of lava. Its equipment consists of a Zeiss telemeter for direct measurement of distances to 500 meters, a portable transit for measuring angles, Zeiss telephoto camera, 32-inch focus, working at F. 10; a 3A Zeiss lens kodak, stereo

camera, panoramic camera, thermograph, barograph, maximum and minimum thermometers, windvane, field glass, pyrometers, etc., Perret seismoscope and microphones. The seismoscope is set up for visual observations and shows the ground to be continually in movement. The coming up of every fountain in the lake is clearly shown by movement of the indicator. An arbitrary decimal scale has been adopted by which the average seismicity for each day is recorded, the normal being 5. This is indicated by a slow, continuous movement with sharper quivers every fifteen to twenty seconds. Shorter intervals or stronger movements would be rated as 6, and a quieter condition by 4, etc. Aug. 2, seismicity 6; Aug. 3, 5; Aug. 5, 6; Aug. 7, 6; Aug. 8, not observed; Aug. 9, 7; Aug. 10, 5; Aug. 11, 6; Aug. 12, 6, and Aug. 13, 6. An interesting fact is that the seismoscope shows strong tiltings in a north-south direction, i. e., tangential to the crater; on August 11th the ground was tilted south to north, and on August 12th there was a heavy tilt north to south. The meteorological instruments are awaiting installation. Every visible change in the crater is being photographed.

August 14-20 inclusive—Aside from the very general subsidence of the walls of the crater and the many breakdowns of its ledges as described below, the most important event of the week was the final sinking and disappearance of the island and the extraordinary sensational manner of its going. As stated in the report of last week the visible island had been reduced to an almost flat area of black crust lying adjacent to the east shore of the lake just below the station. Late on the evening of the 17th this crust was observed to be cracked and fissured in all directions, showing a bright glare below. As this clearly foreshadowed a change a daylight view was eagerly awaited, but it so happened that a very strong wind filled the pit with vapor and the lake could only be seen at rare intervals. Everything appeared to be normal, however, until 1:30 p. m. of the 18th, when, in a momentary clearing away of the smoke, an extraordinary object was seen floating far out in the center of the lake. A huge, sausage-shaped, gas-inflated balloon of black lava-glass, triangular and box-shaped at one end and cylindrical at the other, was making its way across the lake. A lava fountain boiling continuously under the eastern end gave the appearance of a screw propeller, and this most amazing contrivance seemed to be navigating the lake under its own

power like a great whaleback steamer, or a black Zeppelin airship. Its length was not less than 170 feet and the cylindrical portion about thirty feet in diameter. After nearing the western bank it was driven back by a current and returned toward the station.

#### PHOTOGRAPHS LAVA BUBBLE.

Knowing that such a construction could not last, I made desperate attempts to photograph it and succeeded in part, which is fortunate, as I believe no one but myself and two Japanese were witnesses to the scene.

The object no sooner reached the shore when two other fountains were formed under it—"Old Faithful" being withdrawn from its accustomed place to assist in the work of demolition—and the entire structure soon collapsed and sank out of sight beneath the now unbroken surface of the fiery lake. I have no doubt that the explanation of this phenomenon is as follows:

The island was kept from sinking by the large, flat area of black crust and, on the breaking up of this, it began to sink. In so doing, a great quantity of gas was evolved when the hot lava covered the rock and this blew the great cylindrical bubble which then continued to support the island, although below the surface, for the final tour of the lake. On the demolition of the great bubble the entire mass sank below the surface.

The effect of this has been to very materially reduce the activity of the fountains, probably partly by obstructing the conduit and partly by lowering the temperature in the lower part of the lake.

#### ROCK AVALANCHES.

Imposing changes have taken place in the crater walls as a result of an imperceptibly slow settling down of the banks of the lake. It is difficult to believe that actual measurement shows, that a whole section of a massive black ledge has settled twenty feet without a sound, yet such is a fact. On the other hand, many rock avalanches have fallen on the west and east sides of the crater. On the west the rock is under stress and detachment takes place with a series of sharp cracks like pistol shots, while avalanches from the east wall fall with a long steady roar—it is therefore easy to tell when lying in bed at night which side of the crater is falling in. The falling of the walls reached a climax on the 15th, when the lowest level of the lava for the week was reached.

Recent visitos to the crater will be interested to know that the large detached rock below the station fell during the evening of the 18th.

The average seismicity for the week has been 6 to 7 (normal, 5). The maximum, 7 to 8, occurred on the 15th.

The wind has been northeast—very strong on the 18th—and on the 19th southwest, with heavy rain.

The level of the lava, while oscillating considerably during the week, has not materially changed, although the downward slope of the banks gives it the appearance of being higher.

The lake is now five hundred feet in length from east to west.

Important observations were made in regard to the mechanism of the fountains and the behavior of the gases.

August 21 to 27, inclusive.—Salient among the observations of the week are the birth of two new islands on the 21st, a strong series of earthquake shocks on the 25th and the almost complete demolition of the west and north black ledge. On the collapse of the great gas-inflated cylinder and the sinking of the island, as described in last week's bulletin, the lake presented a clear unbroken surface for the first time in many months.

The island, however, had not sunk far, and on the 21st there appeared on the lake directly over the spot two oblong, coffin-shaped patches of crust corresponding in position to the two points of the original island. Their formation was due to a chilling of the surface lava by the proximity of the still solid island below, and they are still growing by accretion and may already have become united by a downward growth with the original island itself.

The chilling effect of the mass of the island is also shown by the almost complete cessation of the lava fountains, even "Old Faithful" being affected to the extent of appearing on an average of but once an hour since the island sank.

The average seismicity for the week was 6 (normal, 5), but was registered as 8 for the 25th when a series of fairly strong local shocks was inaugurated at 6:50 a. m. by two slight shocks in quick succession. These were followed by a strong shock at 7:15, which caused a heavy landslide from the north black ledge; a moderate shock at 8:10 and slight shocks at 2:10 and 2:35 p. m.

A rapid though temporary rise of the lava lake testified to the local origin of the earthquakes, the lava overflowing both islands

and remaining some seven feet above its former level until 4:30 p. m., when it began to sink slowly. The lowest point reached (280 feet below the station) was on August 26th and this coincided with the maximum of the dawnfalls from the ledges.

It will be difficult for any one not actually present to realize the extent of the changes produced during this era of subsidence which was begun July 21. At present the west and north shores of the lake are hidden beneath a talus of loose blocks of stone sloping into the lake and the rocks fall directly into the liquid lava. The solid stone sinks rapidly in the liquid. The entire south ledge has, by a process of almost infinite subdivision, actually flowed downward toward the lake as though composed of plastic materials.

The wind has been continuously northeast and so strong on the 22d and 23d as to necessitate anchoring the station.

A large cave on the west wall was visited and photographed on the 22d and specimens secured. The next day the ledge collapsed below the cave, which is now inaccessible.

Long roaring blasts of the gas collected under the downward sloping banks have become quite frequent.

On the whole we are in the midst of an era of gradual but general subsidence and the future depends upon the continuation, cessation or reversal of this condition.

August 28 to September 3, inclusive.—The lowest point in the descent of the lava lake was reached this week on August 29, when the level was 313 feet below the station. The lava, since then, has been oscillating as before without showing any marked tendency to rise or fall excepting that it stood fairly high on the morning of September 1st. At the time of writing it has again fallen to nearly the same point as on the 29th.

The seismicity has averaged 6 (normal, 5) for the week without any abnormal features but the slow tilting of the ground N.-S. and S.-N. was very marked during the week.

On August 28 the islands moved out from their former position under the eastern bank to a point near the south shore of the lake and showed by maintaining their relative positions that they are actually connected with the original, but now sunken, island as foreshadowed in last week's bulletin. They now stand some ten feet above the lake surface and present a curious appearance.

With the change in the location of the islands "Old Faithful," which had virtually gone out of action, immediately resumed its operations and has been quite active ever since although its doming up occurs a little nearer to the N.E. shore of the lake.

Hydrochloric acid has been detected in the gases from the crater—this is generally an indication of a high grade of volcanic activity and, in fact, although the lake of lava stands at a lower level, the actual movement of the lava, as shown by convection currents and fountains, is very great.

The downfall of the ledges continues and was at a maximum on August 29 when from 4 p. m. until midnight the avalanches were almost incessant. They were strong again in the afternoon of September 1.

An event of the week was a visit from Prof. Wm. T. Brigham of the Bishop Museum, many of whose observations of these volcanoes made forty years ago are being so strikingly corroborated by the present expedition. His kindly sympathy and keen interest were shown in more ways than one and the visit was a positive inspiration to further discovery.

A systematic investigation of the causes of the diurnal variation in the height of the lava column has now been inaugurated.

September 4 to 10, inclusive.—The well known effect of the lunisolar opposition (full moon) in raising the level of the lava column was never better shown than during the past week when the September opposition occurred on the 8th, caused overflows along the recently formed artificial banks of the lake and the almost complete submergence of the islands, the smaller of which remained covered until the morning of the 10th.

On this date the lava is again falling and has reached a level of 350 feet below the station, which is the lowest level of the present era of subsidence. The island moved westward on the 9th as a result of violent movement in the convection currents of the lake. At this time and on the 8th, the emission of gas from the lava was very great, the blasts of gas bursting out from under the bank with considerable pressure.

If the Kilauea lava were less fluid and had the consistency of the lava of Vesuvius or Etna, there would be heavy explosions and lava bombs would be projected hundreds of feet above the crater. The activity of the lake is still very great and it is re-

grettable that so many persons visit the crater only at night when the scene, although more spectacular, is far less interesting than by day, as the details of the crater are invisible.

A large gas vent has developed under what remains of the north black ledge. This is, at present, a low temperature vent and deposits sulphur in large quantities.

The downfall of the walls continues intermittently but is effected more gently and gradually than before and large columns and pyramids of rock become detached, lean over and sink slowly downward into the talus below.

It has been demonstrated that the diurnal rise and fall of the lava columns does not follow the diurnal maxima and minima of barometric pressure. The north and south shores have very recently grown outward into the lake making it narrower in a north-south direction, while remaining very long east and west.

The seismicity has averaged from 5 to 6 during the week. Maximum temperature 79 deg., Sept. 5; minimum temperature, 56 deg. Sept. 7.

Sticks placed across a crack in the crater wall south of the station dropped through on Sept. 4, indicating a widening of the crack.

September 11 to 17, inclusive.—With the close of the past week the routine, daily observational work of the expedition at the Halemaumau Station comes to an end and with it will cease the issue of the regular weekly bulletin. Much yet remains to be done and several new instruments, including an optical pyrometer for supplementing and checking the earlier temperature measurements, are expected in the course of the next two weeks but these and other investigations will be directed from the Volcano House as a base. The Halemaumau Station will be maintained with the instruments in place and as an occasional night shelter until the writer's departure from the island.

A resume of what has been accomplished during the ten weeks of observation at the crater would include a number of findings which, in the very nature of the case, must first appear in a scientific report of the expedition to be published in due time. It may suffice to state here that certain hypotheses affecting the very core of the nature of volcanic action have been established beyond doubt and that these, in general, tend to confirm the doctrine of

the solidarity of volcanic phenomena in all parts of the world. That is to say, the visibly wide divergence in the outward form of different volcanoes and the still more various nature of what may be called their eruptive habit are both more apparent than real and are easily explained on the basis of the physical condition of the lava itself at the time of eruption. The actual habit of any given volcano should also not be too hastily judged as constituting its normal or continuing one as the periodicity of certain phases of volcanic phenomena may seem very long from a purely human standpoint.

The average seismicity for the week was 6 (normal 5). Maximum temperature 78 deg. on September 11. Minimum temperature 55.2 on September 16.

The downfall of the ledges continues and is now nearly complete. The remarkable downflow of the south ledge has, by its weight, so depressed the banks of the lake that frequent overflows occur on that side. The advance of the north shore has caused the now rather infrequent outbursts of "Old Faithful" to take place partly under the bank. The principal maintainer of the convection currents in the lake at present is a furiously active spatter grotto under the southeast bank from which the gases escape in great quantities and towards which the surface lava rapidly surges for its descent into the great caldron only to reappear quietly under the western corner of the lake.

The hot steam crack to the north of the pit near the "Devil's Kitchen" has a surface temperature of 580 degrees Fahrenheit. The gases are principally atmospheric air (which is probably poor in oxygen), vapor of water, and sulphur dioxide. Neither at this point nor at the "Devil's Kitchen" is it possible to produce the well known effect of the condensation of the water vapor by the application of a torch, although this takes place readily in several of the lava caves and at the various sulphur banks.

The writer takes this opportunity to deny the report that he has predicted a great eruption of Mauna Loa in December. What he said was, that certain astronomical conditions indicated a rather active period of volcanism during last spring and up to the end of June; that because of this he arranged, as far back as last winter, to arrive here by that time; that in fact, shortly after this date the present era of downfall in Halemaumau was inaugurated;

that the next period of stronger astronomical influence comes in December and again next June; that an eruption of Mauna Loa is due next year; that it should break out on the north side of the mountain and that there was more probability of its occurring in those months than at other times.

A station for instruments on Mauna Loa would make prediction comparatively easy—without it the task is impossible.

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## IN AND AROUND HONOLULU.

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*A Chapter of general information for Tourists and others.*

FOR several years past this chapter, which had long been a regular feature of the ANNUAL, has been omitted for what was deemed good and sufficient reasons; not that it had outlived its usefulness through diminishing visitors, for these have been increasing annually in a gratifying number. As this was in direct line of the Promotion Committee work for which they were well fitted and was expending liberal sums to serve tourist's demands, locally as well as distribution abroad, the wisdom of this contribution was questioned.

While some lines of duplicated effort may be wasted energy, this can hardly apply to multiplying sources of reliable information for the passing tourist, transient visitor, or intending resident. Hence this chapter, revised, as rightfully belonging to this reference book of information, to serve the natural inquiries of visitors the coming year.

From the days of Cook, and Vancouver, Hawaii has claimed the attention of the reading world with intense and growing interest, and the changes that have taken place in recent years have combined to attract this attention more and more. There is a charm about these islands alike in their delightful scenery and climate as in the history of their civilization, educational, political and commercial development which few other lands possess.

Much of this attraction has been from causes within, though much again is the natural sequence of the world's progress. Commercial activities and rivalry for supremacy in the Pacific was never more alert, nor so deep the plans in which Hawaii is

intimately related as 'the cross-roads of the Pacific' than they are today. The heavy expenditures in the establishment of Pearl Harbor naval station and various points of defense to render Oahu a veritable Gibraltar of the Pacific; our connection with all the world by cable; the increasing lines of steamships in this ocean are all tributary, and the completion of the Panama canal in the near future will emphasize Hawaii's advantageous and important position.

Hand in hand with this growth of commerce Hawaii desires to attract to its shores her share of the tourist travel for the enjoyment of her climate and scenery, and the agriculturist and investor for the development of her tropical resources.

The intelligent traveler naturally seeks reliable information of the country he is visiting, or expects to visit, as does the business the character of his investments.

It has been the province of the HAWAIIAN ANNUAL, ever since its existence, to present just such lines of reliable information as indicated above, for the benefit of foreign inquiry and home reference, and the widening circle of readers and flattering testimonials received give evidence that the labors in this direction have not been in vain.

The carefully prepared and revised statistical tables cover the fields of Government and commercial progress for many years past, while special articles present attractions and existing conditions in Hawaii, and indicate also its possibilities.

But while the preceding information has value for many readers, the transient visitor or tourist, with but a few days—or may be hours only—at their disposal, is desirous of improving the most of his (or her) opportunity to see the attractions of place and people. For such readers the following brief outline is given:

To the incoming visitor, Honolulu, situate on the island of Oahu—and the capital city of the group—present peculiar attractions, nestled as it is amid evergreen foliage at the foot and in the valleys of a mountain range whose peaks kiss the clouds at a height of 3,000 feet. The grove of cocoanut trees that fringe the shore along Waikiki give strangers their first tropical impression after rounding Diamond Head—Honolulu's landmark—and the nestling cottages, or more pretentious residences, that open up 19

view while passing down the reef to the entrance of the harbor, presents a picture of restfulness that charm alike all incomers. First impressions are said to be lasting, and nature has so favored Hawaii that it is a rare occurrence for visitors after a tour of the city, or of the islands, not to express the hope to return for re-enjoyment of place and people.

Vessels on entering port find, with but rare exceptions, wharfage facilities awaiting them, and as the mail steamers warp in to the dock, numerous native boys swim about anxious to display their skill in diving for nickels, or a "nimble six-pence," that may be thrown in the water. The scramble of from six to twenty divers after a single coin affords rare sport to strangers.

Upon landing, courteous chauffeurs and hack drivers are at hand with autos and carriages, or within easy reach by telephone, to convey passengers to hotels or private residences, or for a drive about the city and suburbs. The charge for such service is regulated by law.

If one's time is limited to the few hours' stay of a through steamer in port, the first important point of interest to visit is the Pali, at the head of Nuuanu valley, distant six miles from the Honolulu Post Office. The road leads through the earlier residence portion of the city, affording a view of spacious and well kept grounds to the majority of homes, indicative of the comfort and taste of our residents, then on past stretches of wilder country, flanked on either side by moss and fern banked mountain slopes, till all of a sudden the gap is reached and the scenic view of the precipices of Koolau, with its rolling table land some twelve hundred feet beneath, and the blue Pacific Ocean in the distance, presents a scene of entrancing beauty. The Pali is made historically famous as the place over which the forces of Kamehameha the First drove his enemies in the final battle in the conquest of this island in 1795.

Next in scenic interest would be a trip to Tantalus, a mountain peak some 2,000 feet high, overlooking, not only Honolulu, but the stretch of country ranging from Koko Head to Barber's Point. A good winding carriage road traverses the entire distance and passes through shady forest glades and wild shrubbery into a balmy atmosphere that is attracting public attention as an unsurpassed location for summer cottages.

Another pleasant drive to a commanding point is around Punch-bowl, an extinct volcano some 500 feet high, just back of the city, or a trip up Pacific, and Alewa Heights, each side of Nuuanu valley, all of them dotted with comfortable dwellings at an elevation of about 800 feet. From these advantageous positions many delightful views are obtained. Honolulu, hidden for the most part amid luxuriant foliage, gives the impression of one large park on the borders of the sea.

While the attractiveness of a drive to Waikiki and Kapiolani Park is admitted by visitors to afford rare enjoyment, the ideal is reached by a sojourn among its seductive groves where the sound of the restless surf, dashing on the guarding reef, or wavelets rippling on its sandy shore, sings a sweet lullaby, and the pleasure of ocean bathing in a temperature that, like its skies, its seas, and atmosphere, is surpassed by no other spot in all the wide world. Poets have sung its praises; writers have vied with each other in describing its charms, and artists have sought inspiration to depict on canvas glimpses of its beauty.

To the north of Honolulu are situated the Kamehameha Schools, for boys and for girls, established for Hawaiians by will of the late Mrs. Bernice Pauahi Bishop. The Museum, established by Hon. Chas. R. Bishop, in connection therewith, is an exceptionally fine institution, noted for a completeness in Polynesian antiquities second to none other in all the world. It is open daily each week except Wednesday and Sunday, for the free admission of all visitors from 10 A. M. to 4 P. M. These institutions are reached by the King street cars.

Some distance beyond the Museum and just beyond the King street terminus of the car line is the Fort Shafter military post with well laid out grounds and group of splendidly equipped buildings.

Several Waikiki hostleries have been erected to meet the increasing demand for public accommodation at the beach of Waikiki, and affords patrons an excellent vantage ground from which to witness or participate in the rare sport of surf riding. Beyond the hotel and bathing beach section and within Kapiolani park is located the Aquarium which is well worth a visit. The collection of tropical fishes of marvelous colorings, variety and

sizes, afford visitors a rare treat for a nominal admission fee all days of the week except Saturday, when it is free. It has been said that "No aquarium can boast a collection of fishes more unique in form or colorings."

Along the central part of Waikiki shore is located Fort De Russey whose fortifications and permanent buildings are in course of construction. At the rear or base of Diamond Head is Fort Ruger with its increasing military quarters, about a mile beyond the Waialae car terminus.

Trains of the Oahu Railway and Land Company leave the station at Leleo, King street, thrice daily for Pearl Harbor, Ewa Plantation and way stations. Two trains continue on to the Waianae Plantation, distant thirty-three miles, and from thence around the northern point of the island to Waialua, where the fine hotel, Haleiwa, has been erected with special view to the attraction and comfort of visitors. Trains to this point continue on to Kahuku, the terminus of the line. Visitors taking a railway trip have an opportunity of viewing the magnificent Pearl Harbor, also of witnessing the interesting features, en route, in the cultivation of rice and sugar cane. At no other point, throughout the islands, can these two industries be seen so advantageously working, as it were, side by side. Ewa Plantation, or the later established Oahu Plantation, on lands adjacent will afford tourists an insight into the most modern methods of cane culture and sugar manufacture by two of the largest concerns of the kind on the island.

If time is too limited to permit any of the above mentioned trips, an observation tour of the city would be in order, and an interesting time spent in visiting the different public buildings and grounds, hotels, places of business, and the attractive residence portions of the city or its suburbs, and the notable horticultural gardens of Mr. S. M. Damon, at Moanalua, generously thrown open to the public on Saturday afternoons.

#### BRIEF POINTERS.

The post office is a natural center of interest to all visitors. It is located on the corner of Merchant and Bethel streets, with its money order department in the adjoining building on the

latter street. Office hours will be found under the title of Postal Service (see index).

Hotel accommodations are ample, with an individuality to each establishment, and those not in the city's center are conveniently reached by one or more lines of cars. These mid-Pacific hostleries are the surprise of strangers for their up-to-date accommodations and high class character. Several restaurants and cafés supplement the public's requirements in their conveniences.

*Banks.* Honolulu enjoys banking facilities sufficient for local demands, with correspondents in all commercial centers of the world. These monetary institutions are located on Merchant, and on Fort streets.

The office of the Commercial Pacific Cable Co. is on Bishop street, in the Young building, and is open at all hours. The Wireless Telegraph is in the Telephone building, for the transmission of inter-island or ship messages.

The business houses of the city cover all lines of trade to a commendable degree, a few verging on the department character. While a number carry miscellaneous stocks there are not a few conducted on distinctive lines. Honolulu's fashionable retail section is fully up-to-date in their appointments, to the surprise of many visitors and convenience of all patrons.

The government buildings are eastward of the business center, on both sides of King street, the executive building (formerly the palace) on the upper side of the way, with the archives building to the right in the same grounds, while on the lower side of the road is the judiciary building, in front of which stands the statue of Kamehameha the Great. At the lower eastern corner of the same lot is the building assigned to the Board of Health and Survey department. The municipal offices of the city and county of Honolulu occupy the second floor of the McIntyre building, corner of Fort and King streets.

*Schools.* To those interested in the cause of education a visit to the various schools and colleges of the city would be of special interest from the remarkable success shown therein, notwithstanding the mixture of races in the majority of them.

*Churches.* At the close of the Register and Directory division of this issue will be found the list of churches and church ser-

vices of the various denominations and races in the city, to any or all of which strangers are especially invited. The oldest and historic church of the city is the large native stone edifice, with square clock tower, on King street, near the government buildings; services in Hawaiian. The Catholic cathedral would date next, then Central Union (Congregational), St. Andrew's (Episcopalian), and others later.

Fraternal lodges of the various prominent orders of the world are well represented in the city, to which visiting members in good standing are invited. The list, with their location and time of meeting, will also be found toward the close of the Directory division.

### List of Sugar Plantations, Mills and Cane Growers Throughout the Islands.

Those marked with an asterisk (\*) are planters only; those marked with a dagger (†) are mills only; all others are plantations complete, owning their own mills. (Corrected to Nov. 15, 1911.)

NAME.	LOCATION.	MANAGER.	AGENTS
Apokaa Sugar Co.*.	Ewa, Oahu.....	G. F. Renton....	Castle & Cooke
Ewa Plantation.....	Ewa, Oahu.....	G. F. Renton....	Castle & Cooke
Gay & Robinson*....	Makaweli Kauai.	Gay & Robinson.	H. Wat'h'se Tr. Co.
Grove Farm*.....	Nawiliwili, Kauai.	Ed. Broadbent....	Hackfeld & Co.
Hakalau Plant. Co....	Hilo, Hawaii.....	J. M. Ross.....	Brewer & Co.
Halawa Sugar Co....	Kohala, Hawaii...	Atkins Wight....	Davies & Co.
Hamakua Mill Co....	Hamakua, Hawaii.	A. Lidgate.....	Davies & Co.
Hawi M. & P. Co....	Kohala, Hawaii...	John Hind.....	Hind, Rolph & Co.
Haw. Agr. Co.....	Kau, Hawaii.....	W. G. Ogg.....	Brewer & Co.
Haw. Com. & S. Co..	Puunene, Maui...	F. F. Baldwin...	Alex. & Baldwin
Hawaiian Sugar Co..	Makaweli, Kauai.	B. D. Baldwin...	Alex. & Baldwin
Hawaii Mill Co.....	Hilo, Hawaii.....	W. H. Campbell.	Hackfeld & Co.
Hilo Sugar Co.....	Hilo, Hawaii.....	John A. Scott...	Brewer & Co.
Honolulu Plant. Co..	Halawa, Oahu....	Jas. Gibb.....	Brewer & Co.
Honokaa Sugar Co..	Hamakua, Hawaii.	Alex. Morrison...	Schaefer & Co.
Honoum Sugar Co....	Hilo, Hawaii.....	Wm. Pullar.....	Brewer & Co.
Hutchinson S. P. Co.	Kau, Hawaii.....	C. Wolters.....	Brewer & Co.
Kaeleku Sugar Co....	Hana, Maui.....	J. Chalmers.....	Davies & Co.
Kahuku Plantation..	Kahuku, Oahu....	Andrew Adams..	Alex. & Baldwin
Kaiwika Sugar Co....	Ookala, Hawaii...	Geo. McCubbin...	Davies & Co.
Kekaha Sugar Co....	Kekaha, Kauai...	H. P. Faye.....	Hackfeld & Co.
Kilauea S. Plant. Co.	Kilauea, Kauai...	J. R. Myers.....	Brewer & Co.
Kipahulu Sugar Co..	Kipahulu, Maui...	Ah Ping.....	Hackfeld & Co.
Kohala Plantation..	Kohala, Hawaii...	Geo. C. Watt....	Castle & Cooke
Koloa Sugar Co....	Koloa, Kauai....	C. H. Wilcox....	Hackfeld & Co.
Kona Dvlpmt Co., Ltd.	Kona, Hawaii....	E. E. Conant....	Davies & Co.
Koolau Agr. Co....	Koolau, Oahu....	W. M. McQuade.	Hawn. D'pmt Co.
Kukaiu Mill Co.†...	Hamakua, Hawaii.	E. Madden.....	Davies & Co.

### List of Sugar Plantations, Mills and Cane Growers Throughout the Islands—Continued.

NAME.	LOCATION.	MANAGER.	AGENTS.
Kukaiiau Plant. Co.	Hamakua, Hawaii.	Albert Horner.	Hackfeld & Co.
Laie Plantation.	Laie, Oahu.	S. E. Wooley.	Alex. & Baldwin
Laupahoehoe S. Co.	Laupahoehoe, Ha C.	McLennan.	Davies & Co.
Lihue Plantn. Co.	Lihue, Kauai.	F. Weber.	Hackfeld & Co.
Makee Sugar Co.	Kealia, Kauai.	G. H. Fairchild.	
Maui Agrl. Co.	Haiku, etc., Maui.	H. A. Baldwin.	Alex. & Baldwin
McBryde Sugar Co.	Wahiawa, Kauai.	F. A. Alexander.	Alex. & Baldwin
Niuli Mill & Plant.	Kohala, Hawaii.	Robert Hall.	Davies & Co.
Oahu Sugar Co.	Waipahu, Oahu.	E. K. Bull.	Hackfeld & Co.
Olaa Sugar Co.	Olaa, Hawaii.	Jno. Watt.	Bishop & Co.
Olowalu Sugar Co.	Olowalu, Maui.	Geo. Gibb.	Brewer & Co.
Onomea Sugar Co.	Hilo, Hawaii.	John T. Moir.	Brewer & Co.
Paauhau S. Plant. Co.	Hamakua, Hawaii.	Alex. Smith.	Brewer & Co.
Pacific Mill (†)	Hamakua, Hawaii.	Aug. Ahrens.	Schaeter & Co.
Pepeekeo Sugar Co.	Hilo, Hawaii.	Jas. Webster.	Brewer & Co.
Pioneer Mill Co., Ltd.	Lahaina, Maui.	W. Weinheimer.	Hackfeld & Co.
Puakea Plant. Co.	Kohala, Hawaii.	H. R. Bryant.	H. Wat'h'se Tr. Co.
Puako Plant. Co.	S. Kohala, Haw.	J. C. Searle.	Hind, Rolph & Co.
Union Mill Co.	Kohala, Hawaii.	H. H. Renton.	Davies & Co.
Waiakea Mill Co.	Hilo, Hawaii.	C. C. Kennedy.	Davies & Co.
Waialua Agri. Co.	Waialua, Oahu.	W. W. Goodale.	Castle & Cooke
Waianae Plantation.	Waianae, Oahu.	Fred Meyer.	J. M. Dowsett
Wailuku Sugar Co.	Wailuku, Maui.	H. B. Penhallow.	Brewer & Co.
Waimanalo S. Co.	Waim'nalo, Oahu.	Geo. Chalmers.	Brewer & Co.
Waimea Sug. M. Co.	Waimea, Kauai.	Jno. Fassoth.	Hackfeld & Co.

### Hopes Deferred.

WE hoped to have been able to furnish in this issue of the ANNUAL some interesting features of the 1910 Federal census work of Hawaii, for which several important tables are yet lacking. Our latest report from the Bureau is given on page 19.

ANOTHER disappointment is the non-receipt of an authoritative article on the progress of Hilo by her railroad, breakwater, and wharf extension plans and other commercial activities connected therewith.

## HAWAIIAN SUGAR CROPS IN TONS, 1906-1911.

From Table Prepared for Hawaiian Planters' Association, by  
W. O. Smith, Secretary.

Prior years of this table, originating in 1891, will be found in Annuals since 1901.

ISLANDS.	1906	1907	1908	1909	1910	1911
Production of Hawaii .....	137,250	143,891	180,159	172,341	159,856	193,456
"    "    Maui. ....	102,960	104,772	122,629	134,605	139,454	139,564
"    "    Oahu. ....	113,750	119,273	137,013	138,423	128,648	133,133
"    "    Kauai. ....	74,753	72,081	81,322	89,787	90,169	100,668
Grand Total. ....	429,213	440,017	521,123	535,156	518,127	566,821
HAWAII PLANTATIONS.						
Waiakea Mill Co. ....	10,766	8,186	9,761	9,486	10,424	13,365
Hawaii Mill Co. ....	1,825	1,800	2,818	2,838	2,313	2,917
Hilo Sugar Co. ....	11,751	11,649	12,853	12,291	12,568	12,301
Onomea Sugar Co. ....	13,930	12,432	17,006	14,416	12,843	16,230
Pepeekeo Sugar Co. ....	6,477	6,677	7,590	6,873	7,012	7,925
Honomu Sugar Co. ....	5,852	5,502	7,511	6,041	6,541	7,293
Hakalau Plantation Co. ....	12,869	11,914	12,834	11,586	11,905	14,157
Laupahoe Sugar Co. ....	7,864	7,848	7,944	8,004	7,970	8,058
Kaiwiki Sugar Co. ....	3,223	5,352	5,195	6,646	*2,134	5,010
Kukaiau Plantation Co. ....	2,154	2,103	2,141	2,225	1,037	2,662
Kukaiau Mill Co. ....	1,435	1,402	1,427	1,483	1,728	1,774
Hamakua Mill Co. ....	6,358	6,835	12,355	8,293	5,526	7,262
Paauhau Sugar Pl'nt'tion Co. ....	8,795	7,857	10,448	9,315	7,493	8,411
Honokaa Sugar Co. ....	7,940	6,898	7,657	10,533	7,562	9,134
Pacific Sugar Mill. ....	4,331	2,931	3,459	5,263	5,055	7,499
Niulii Mill and Plantation. ....	2,226	2,501	2,452	2,768	2,231	2,648
Halawa Plantation. ....	1,036	1,615	1,958	1,135	1,679	1,667
Kohala Sugar Co. ....	3,300	2,400	4,914	5,570	4,662	5,924
Union Mill Co. ....	2,570	2,828	3,259	3,160	1,811	3,022
Hawi Mill and Plantation. ....	4,389	5,296	7,125	6,011	6,881	7,715
Kona Development Co. ....			1,000	1,271	1,589	2,333
Hutchinson Sugar Plntn. Co. ....	6,940	7,063	9,628	4,712	6,580	6,659
Hawaiian Agricul. Co. ....	826	11,630	10,274	11,406	11,003	13,775
Puakea Plantation. ....	398	400	661	992	1,474	1,094
Olaa Sugar Co. ....	9,405	9,431	15,795	} 19,179	19,483	24,026
Puna Sugar Co. ....	867	1,172	1,691			
Puako Plantation. ....	223	169	403	835	352	595
	137,750	143,891	180,159	172,341	159,856	193,456

\* Formerly Ookala Sugar Plantation Co.

## HAWAIIAN SUGAR CROPS, 1906-1911—Continued.

MAUI PLANTATIONS.	1906	1907	1908	1909	1910	1911
Kipahulu Sugar Co.....	1,464	1,809	1,843	1,960	2,046	2,193
Kaeleku Plantation Co....	850	2,702	3,026	4,004	5,221	4,492
Maui Agriculture Co.....	19,861	20,220	22,627	28,808	29,295	30,765
Haw'n Coml & Sug. Co..	43,652	44,143	56,150	52,725	56,865	55,050
Wailuku Sugar Co. ....	7,828	7,425	10,072	17,761	16,932	16,197
Olowalu Co.....	1,635	1,448	1,765	1,829	1,796	1,693
Pioneer Mill Co., Ltd....	22,509	23,099	27,146	27,518	27,299	29,174
Kihei Plantation Co., Ltd.	5,161	3,926	†.....	.....	.....	.....
	102,960	104,772	122,629	134,605	139,454	139,564
OAHU PLANTATIONS.						
Waimanalo Sugar Co.....	4,148	3,186	4,242	4,404	3,845	4,962
Lae Plantation.....	1,112	873	971	829	1,170	784
Kahuku Plantation Co....	6,689	6,500	6,519	6,487	5,566	5,686
Waialua Agricultural Co.	20,788	22,614	30,376	32,267	30,870	32,271
Waianae Co.....	5,490	6,214	5,686	6,469	6,614	7,124
Ewa Plantation Co.....	29,302	31,790	33,919	33,949	31,422	31,206
Apokaa Sugar Co.....	865	461	984	432	902	453
Oahu Sugar Co.....	26,710	28,457	35,320	34,651	29,296	33,243
Honolulu Plantation Co.	18,646	19,178	18,996	18,688	18,373	17,143
Koolau Agricultural Co..	.....	.....	.....	247	590	261
	113,750	119,273	137,013	138,423	128,648	133,133
KAUAI PLANTATIONS.						
Kilauea Sugar Plntn Co.	2,700	3,844	3,194	4,975	4,102	5,471
Makee Sugar Co.....	7,986	6,696	7,408	4,664	5,823	4,168
Lihue Plantation Co.....	16,005	14,127	14,445	15,780	14,765	17,740
Grove Farm Plantation...	1,933	1,807	2,508	3,376	3,673	3,724
Koloa Sugar Co.....	5,570	5,553	7,361	7,303	7,709	8,960
McBryde Sugar Co.....	11,024	7,890	11,294	13,686	10,596	14,073
Hawaiian Sugar Co.....	18,616	20,140	21,633	23,788	23,422	24,975
Gay & Robinson.....	2,099	2,590	2,675	3,354	3,223	4,684
Waimea Sugar Mill Co....	1,550	1,425	1,790	1,707	1,906	1,860
Kekaha Sugar Co.....	6,626	7,329	8,283	10,385	14,124	14,185
Estate of V. Knudsen....	644	680	731	769	826	828
Total.....	74,753	72,081	81,322	89,787	90,169	100,668

†Now under the Hawaiian Commercial and Sugar Co.

POSTAL SERVICE, TERRITORY OF HAWAII.

Corrected to December 1, 1911.

Frank J. Hare, Inspector in Charge.

Geo. W. Carr, Asst. Sup't. Railway Mail Service.

Jos. G. Pratt, Postmaster.

Jos. Kubey, Asst. Postmaster; Wm. McCoy, Chief Registry Clerk; W. C. Peterson, Chief Money Order Clerk; F. T. Sullivan, Supt. of Mails; W. C. Kenake, Chief Mailing Clerk.

POSTMASTERS ON HAWAII.

Hilo.....	Geo. Desha	Keauhou....	Mrs. H. L. Kawewehi
Pepcekeo.....	A. P. Martin	Holualoa.....	L. S. Aungst
Honomu.....	Wm. Hay	Kailua.....	John P. Curts
Kawaihae....	S. K. Kamaipelekane	Kealakekua.....	Robt. V. Woods
Mahukona.....	R. R. Elgin	Napoopoo.....	J. A. Luis
Kukuihaele.....	W. Horner	Hoopuloa.....	W. H. G. Arnemann
Paauihau.....	Alex. Smith	Hookena.....	L. P. Lincoln
Kohala.....	A. J. Stillman	Pahala.....	T. C. Wills
Paauiilo.....	Anthony Lidgate	Waiohinu.....	Anna H. McCarthy
Laupahoehoe.....	E. W. Barnard	Naalehu.....	Carl Wolters
Ookala.....	Jas. Johnson	Hakalau.....	Wm. Ross
Honokaa.....	A. B. Lindsay	Olaa.....	John Watt
Mountain View.....	H. G. Junkin	Papaaloa.....	J. Hay Wilson
Volcano House.....	D. Lycurgus	Lalamilo.....	J. C. Searle

POSTMASTERS ON MAUI.

Lahaina.....	Arthur Waal	Kipahulu.....	
Wailuku.....	M. T. Lyon	Kahului.....	J. N. S. Williams
Makawao.....	J. E. Tavares	Paia.....	D. C. Lindsay
Hana.....	N. Omsted	Hamakuapoko....	W. F. Mossman
Puunene.....	F. F. Baldwin	Haiku.....	Jas. Lindsay
Kaupo.....	Jas. Keawe	Keanae.....	J. W. K. Halemano
Makena.....	D. Kapohakimohewa	Nahiku.....	Jas. A. Achong
Kihei.....	Alex. McLeod	Waiakoa.....	Joaquin Vincent
Honokohau.....	R. C. Searle		

POSTMASTERS ON OAHU.

Aiea.....	Geo. J. Wond	Kahuku.....	Andrew Adams
Pearl City.....	J. P. Keppler	Laie.....	S. W. Woolley
Watertown.....	H. P. Benson	Kahana.....	R. S. Pollister
Waipahu.....	J. H. Travis	Punaluu.....	D. Kaapa
Wahiawa.....	W. E. Skinner	Waikane.....	Sam'l Kaiwi
Ewa.....	Jas. D. Davidson	Heeia.....	John Ii Pahia
Waianae.....	F. Meyer	Waimanalo.....	A. Irvine
Waialua.....	C. A. De Cew	Schofield Barracks...	M. Goldsbury
Haleiwa.....	Clifford Kimball		

## POSTMASTERS ON KAUAI.

Lihue.....	Frank Crawford	Kealia.....	Jno. W. Neal
Koloa.....	C. H. Wilcox	Kilauea.....	J. R. Myers
Hanapepe.....	H. H. Brodie	Kekaha.....	A. F. Knudsen
Makaweli.....	B. D. Baldwin	Waimea.....	C. B. Hofgaard
Eleele.....	Mrs. Maria Silva	Hanalei.....	Mrs. S. B. Deverill
Homestead.....	M. R. Jardin	Wainiha.....	Mary Hanohano

## POSTMASTERS ON MOLOKAI AND LANAI.

Pukoo.....	D. K. Ilae	Keomoku.....	Chas. Gay
Peuekunu.....	J. Kapahu Wilson	Kalaupapa.....	J. S. Wilmington
Halawa.....	J. Nakaleka	Kaunakakai.....	Joel Kao

## POST OFFICE INFORMATION.

Office hours of the General Delivery are from 6 a. m. to 12 o'clock midnight. On Sundays and legal holidays the time is from 8 a. m. to 9 a. m.

Hours of the Stamp and Registry Department are from 8 a. m. to 6 p. m., and of the Money Order Department from 8.30 a. m. to 5 p. m.

The General Delivery is open (except Sundays and holidays) from 6 a. m. till midnight, for the delivery of mail, registering of letters and issuance of Money Orders.

Inter-island mails close forty-five minutes before the sailing of steamers, excepting steamers sailing at noon Tuesdays and Fridays, which close at 11 a. m. For foreign ports the ordinary mails close one hour prior to steamer's departure.

Registry office closes two and a half hours before steamer departure.

## RATES OF POSTAGE, DOMESTIC.

First class matter (letters, etc.).....	2 cents per oz. or fraction
Second class (newspapers and periodicals).....	1 cent per 4 oz. or fraction
Third class (books, circulars).....	1 cent per 2 oz. or fraction
Fourth class (merchandise—limit of weight 4 lbs.).....	.....
.....	.....1 cent per oz. or fraction
Registration Fee (additional postage).....	10 cents
Immediate Delivery Stamp (additional to postage).....	10 cents
Postal Cards.....	1 cent each

## FOREIGN POSTAGE.

The rate to all foreign countries except Great Britain, Canada and Mexico are: Letters per ounce or fractional part, 5 cents for first ounce, and 3 cents for each additional ounce. Printed matter, 1 cent for each 2 ounces or part. Postal Cards, 2 cents each.

Parcels of Merchandise, 12 cents per pound. Limit of weight, 12 pounds.

# TERRITORIAL REGISTER AND DIRECTORY FOR 1912

Corrected to December 1, 1911

## TERRITORIAL OFFICIALS.

Walter F. Frear.....Governor  
E. A. Mott-Smith.....Secretary  
Alex. Lindsay, Jr.....Attorney General  
D. L. Conkling.....Treasurer  
Marston Campbell.....Supt. Public Works  
Chas. S. Judd.....Commissioner Public Lands  
W. T. Pope.....Supt. Public Instruction  
J. H. Fisher.....Auditor  
Wm. Henry.....High Sheriff

Jonah K. Kalaniana'ole.....  
.....Delegate to Congress

## LEGISLATIVE BODY.

### SENATORS.

Hawaii—J. T. Brown, D. K. Baker, R. H. Makekai, G. C. Hewitt.  
Maui—S. E. Kalama, W. T. Robinson, Philip Pali.  
Oahu—Cecil Brown, A. F. Judd, C. F. Chillingworth, E. W. Quinn, A. S. Kalei'opu.  
Kauai—E. A. Knudsen, G. H. Fairchild.

### REPRESENTATIVES.

Oahu—N. Watkins, E. A. C. Long, S. P. Correa, E. K. Fernandez, Ed. Towse, W. Williamson, A. Q. Marcellino, F. K. Archer, A. L. Castle, J. K. Kamanoulu, C. Kanekoa, S. K. Mahoe.  
Maui—Jos. Cockett, G. P. Cooke, S. Keli'inoi, A. F. Tavares, J. W. Kawaakoa, Ed. Waiahole.  
Hawaii—J. W. Moanauli, H. L. Holstein, J. P. Hale, H. S. Rickard, J. R. Yates, G. F. Affonso, H. L. Kawewehi, M. K. Makekai.  
Kauai—W. J. Sheldon, C. A. Rice, J. H. Coney, G. H. Huddy.

## NATIONAL GUARD OF HAWAII.

Walter F. Frear.....  
.....Governor and Commander in Chief

## GENERAL STAFF OFFICERS.

John W. Jones.....Col. and Adjutant General  
Charles B. Cooper.....Lt. Col. and Surg. Genl.  
John W. Short.....Lt. Col. and Q. M. Genl.  
Joseph H. Fisher.....Lt. Col. and P. M. Genl.  
Marston Campbell.....Lt. Col. and C. E. Officer  
William L. Moore.....Major Surg. Med. Dept.  
Emil C. Peters.....Captain J. A. Genl.  
Elmer T. Winant.....Captain Insp. S. A. P.

George E. Smithies.....Captain Ord. Officer  
James H. Raymond.....Captain Surg. M. Dept.

Capt. Walter H. Johnson, 25th U. S. Infantry.....U. S. Army, Officer on Duty

## FIELD OFFICERS.

Charles W. Ziegler.....Col. 1st Infy.  
Arthur Coyne.....Lieut. Col.  
William R. Riley.....Major 1st Batt.  
Gustave Rose.....Major 2nd Batt.

## REGIMENT STAFF OFFICERS.

Thomas P. Cummins.....Capt. and Adjutant  
Merle Johnson.....Captain and Q. M.  
Arthur W. Neely.....Captain and Coms.

## Department of Judiciary.

### SUPREME COURT.

Chief Justice.....A. G. M. Robertson  
Associate Justice.....Hon. Antonio Perry  
Associate Justice.....Hon. J. T. De Bolt

### CIRCUIT COURTS.

First Judge 1st Circuit, Oahu.....  
.....Hon. H. E. Cooper  
Second Judge 1st Circuit, Oahu.....  
.....Hon. W. L. Whitney  
Third Judge 1st Circuit, Oahu.....  
.....Hon. W. J. Robinson  
Second Circuit, Maui.....Hon. S. B. Kingsbury  
Third Circuit, Hawaii.....  
.....Hon. J. A. Matthewman  
Fourth Circuit, Hawaii.....Hon. O. F. Parsons  
Fifth Circuit, Kauai.....Hon. J. Hardy

### CLERKS OF COURTS.

Clerk Supreme Court.....J. A. Thompson  
Assist. Clerk, Supreme Court.....Robt. Parker, Jr.  
Stenographer, Supreme Court.....Miss Kate Kelly  
Bailiff and Librarian Supreme Court.....  
.....J. M. Uluhahele  
Clerks, 1st Circuit, Oahu, Henry Smith,  
Chief Clerk; Job Batchelor, M. T.  
Simonton, Jno. Marcellino.  
Second Circuit, Maui.....E. H. Hart  
Third Circuit, Hawaii.....James Ako  
Fourth Circuit, Hawaii.....A. S. Le B. Gurney  
W. Ragsdale, Deputy Clerk  
Fifth Circuit, Kauai.....Phillip L. Rice  
Probation Officers, 1st Circuit.....  
.....John Anderson, L. B. Maynard

## INTERPRETERS, ETC.

Hawaiian Interpreters	.....	C. L. Hopkins, F. W. Beckley
Japanese Interpreter	.....	S. K. Maruyama
Chinese Interpreter	.....	Farm Cornn
Portuguese Interpreter	.....	J. M. Camara
Stenographers:	P. M. McMahon, J. L. Horner, F. P. Thielan.	
C. A. K. Hopkins	.....	Asst. Clerk & Bailiff 1st Judge
A. K. Aona	.....	" " " 2nd Judge
V. M. Harrison	.....	" " " 3rd Judge

## DISTRICT MAGISTRATES.

## Oahu.

Jas. M. Monsarrat	.....	Honolulu
Alexr. D. Larnach, Second	.....	Honolulu
S. Hookano	.....	Ewa
J. Kekahuna	.....	Waianae
L. B. Nainoa	.....	Koolauloa
A. S. Mahaula	.....	Waialua
E. Hore, Second	.....	Waialua
E. P. Aikue	.....	Koolaupoko
Henry Cobb Adams, Second	.....	Koolaupoko

## Maui.

W. A. McKay	.....	Wailuku
Edward C. Robinson	.....	Lahaina
Guy S. Goodness	.....	Makawao
Edward Wilcox	.....	Second Makawao
L. K. Kakani	.....	Hana
J. K. Piimanu	.....	Second Hana
C. C. Conradt	.....	Molokai
S. K. Kaunamano	.....	Kalawao
J. D. McVeigh	.....	Second Kalawao
S. Kahoohalahala	.....	Second Lahaina

## Hawaii.

Wm. S. Wise	.....	Hilo
John V. Marceil	.....	North Hilo
R. H. Atkins	.....	North Kohala
Thos. Nakanelua	.....	South Kohala
Henry Hall	.....	Hamakua
M. S. Botelho, Second	.....	Hamakua
Jos. S. Ferry	.....	Puna
Walter H. Hayselden	.....	Kau
Chas. H. White, Second	.....	Kau
J. L. Kaulukou	.....	North Kona
Robt. Makahalupa	.....	South Kona

## Kauai.

Chas. S. Dole	.....	Lihue
Jas. H. K. Kaiwi, Second	.....	Lihue
D. K. Kapahee	.....	Koloa
Wm. Schelempfennig, Second	.....	Koloa
Wm. Huddy	.....	Hanalei
C. B. Hofgaard	.....	Waimea
J. A. Akina, Second	.....	Waimea
R. Puuki	.....	Kawaihau

## DEPARTMENT OF SECRETARY.

Secretary	.....	E. A. Mott-Smith
Chief Clerk of Department	.....	Henry O'Sullivan
Clerks	.....	Eben Cushingham, R. S. Lono

## FOREIGN REPRESENTATIVES.

Portugal—Consul General	.....	Senhor A. de Souza Canavarro
Italy—Consul	.....	F. A. Schaefer (Dean of the Consular Corps).
Netherlands	.....	H. M. von Holt
Norway—Acting Consul	.....	W. Pfothenhauer
Denmark	.....	C. Hedemann
Germany	.....	W. Pfothenhauer
Mexico—Acting Consul	.....	W. Lanz
Peru	.....	Bruce Cartwright, Jr.
Chili—Acting Consul	.....	H. Focke
Great Britain—Consul (Acting)	.....	Thos. Harrington
Great Britain—Vice-Consul	.....	Geo. F. Davies
Belgium—Vice-Consul	.....	R. W. Lange
Sweden—Consul	.....	Geo. Rodiek
Spain—Consul	.....	Ignacio De Arana
France—Consular Agent	.....	A. Marques
Japan—Consul	.....	S. Uyeno
China—Consul	.....	Chen Ching Ho
Panama—Consul	.....	T. Guard
Russia—Vice-Consul	.....	A. Marques

## DEPARTMENT OF ATTORNEY GENERAL.

Attorney-General	.....	Alex. Lindsay, Jr.
1st Deputy Atty-General	.....	E. W. Sutton
2nd Deputy Atty-General	.....	A. G. Smith
Clerk of Department	.....	Saml. Upa
Stenographer	.....	Miss E. Dwight
High Sheriff	.....	Wm. Henry

## BOARD OF PRISON INSPECTORS.

Oahu—J. W. Waldron, Edward Davis, E. H. Wodehouse.
Maui—Wm. Henning, J. N. K. Keola, H. A. Baldwin.
W. Hawaii—L. S. Aungst, H. H. Renton, M. A. Malakaua.
E. Hawaii—E. N. Holmes, A. B. Lindsay, R. A. Lyman, Jr.
Kauai—A. S. Wilcox, J. M. Lydgate, John Gandall.

## TREASURY DEPARTMENT.

Treasurer	.....	D. L. Conkling
Registrar of Public Accounts	.....	H. C. Hapai
Deputy Regis. and Bookkeeper	.....	T. Treadway
Corporation Clerk	.....	Francis Evans
Stenographer and Typewriter	.....	E. J. Treadway

## BUREAU OF CONVEYANCES.

Registrar of Conveyances	.....	C. H. Merriam
Deputy Registrar	.....	Isaac Iishi

## ASSESSORS AND COLLECTORS.

## First Division, Oahu.

Chas. T. Wilder	.....	Assessor
A. W. Neely	.....	Deputy 1st Division
T. V. King, P. J. Jarrett, H. Sing	.....	Frank V. Fernandez, J. H. Harbottle, R. G. Ross
T. Mito, Deputies, Honolulu	.....	
S. L. Kekumano	.....	Ewa and Waianae

Edward Hore ..... Waialua  
 J. Kekuku ..... Koolauloa  
 H. C. Adams ..... Koolaupoko

## Second Division, Maui.

J. H. Kunewa ..... Assessor  
 J. N. K. Keola ..... Wailuku  
 G. H. Dunn ..... Lahaina  
 A. F. Tavares ..... Makawao  
 M. H. Reuter ..... Hana  
 G. H. Dunn ..... Molokai and Lanai

## Third Division, Hawaii.

R. T. Forrest ..... Assessor  
 E. K. Kaiwa ..... North Hilo  
 G. H. Kaihenui ..... South Hilo  
 H. J. Lyman ..... Puna  
 W. A. Schwallie ..... Kau  
 James Ako ..... North Kona  
 L. P. Lincoln ..... South Kona  
 W. P. McDougall ..... North Kohala  
 J. C. Searle ..... South Kohala  
 Wm. Horner ..... Hamakua

## Fourth Division, Kauai.

J. K. Farley ..... Assessor  
 Chas. Blake ..... Keloa  
 J. K. Kapuniui ..... Waimea  
 A. G. Kanulukou ..... Lihue  
 Ed. Deverill ..... Hanalei  
 J. W. Neal ..... Kawaihau

## AUDITING DEPARTMENT.

Auditor ..... J. H. Fisher  
 Deputy Auditor ..... G. W. R. King  
 Clerks—A. Mav, Jno. W. Vannatta,  
 Stenographer—Elsie K. Brown.

## DEPARTMENT OF PUBLIC WORKS.

Superintendent ..... Marston Campbell  
 Chief Clerk of Department ..... Manuel K. Cook  
 Clerks ..... O. K. Stillman, B. K. Kane  
 Stenographers ..... Ethel Carter, Florence Lewis  
 Supt. Water Works and Sewers, Honolulu  
 J. M. Little  
 Clerks Water Works, Honolulu  
 Daniel M. Woodward, S. Oncha  
 Inspectors Water Works  
 S. Chillingworth, Jr., H. Bishaw  
 Harbor Master, Honolulu ..... Capt. W. R. Foster  
 Assistant ..... H. S. Swinton  
 Pilots, Honolulu—Cants. J. C. Lorenson, J.  
 R. Macaulav, M. N. Saunders.  
 Harbor Master and Pilot, Hilo ..... Capt. F. Mosher  
 Pilot, Kahului ..... Capt. E. H. Parker

## DEPARTMENT OF IMMIGRATION, LABOR AND STATISTICS.

Commissioners—Richard Ivers, Superintendent;  
 J. J. Carden, E. H. Wodehouse, A. L. C. Atkinson, F. L. Waldron.  
 Commissioner and Executive Officer ..... Victor S. Clark  
 Secretary ..... Ralph A. Kearns  
 Clerk ..... Paul Smith  
 Market Superintendent ..... S. T. Starrett

## BOARD OF HARBOR COMMISSIONERS.

Chairman (ex-officio) ..... Marston Campbell  
 Secretary ..... E. A. Berndt  
 Jas. Wakefield, P. B. McStocker, C. J. McCarthy.

## HONOLULU PARK COMMISSION.

President ..... H. E. Cooper  
 Secretary ..... G. P. Wilder  
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## GOVERNMENT SURVEYING CORPS.

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 S. M. Kanakanui, Robt. D. King (office assts.),  
 H. E. Newton, S. W. Tay, Huffman,  
 Young, H. H. Allen, J. K. Kahookole,  
 Robt. T. Neal ..... Draughtsman  
 Cecilia Bishaw ..... Stenographer

## BOARD OF COMMISSIONERS OF AGRICULTURE AND FORESTRY.

Commissioner—Charles S. Judd, President  
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 H. M. von Holt, Albert Waterhouse,  
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 A. Koebele ..... Consulting Entomologist  
 D. B. Kuhns ..... Inspector's Assistant  
 Fred. Muir ..... Beneficial Insect Collector  
 Louise Gulick ..... Laboratory Assistant

## Division of Forestry.

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 David Haughs ..... Forest Nurseryman  
 Joseph F. Rock ..... Consulting Botanist  
 Bro. M. Newell ..... In Charge Nursery, Hilo  
 W. D. McBryde ..... In Charge Nursery, Kauai

## Division of Animal Industry.

Victor A. Norgaard, V. S. ..... Superintendent and Territorial Veterinarian  
 Dr. L. N. Case ..... Assistant  
 Dr. J. C. Fitzgerald, Dep. V. S. ..... Maui  
 Dr. H. B. Elliott, Dep. V. S. ..... Hilo  
 A. R. Glazier, Dep. V. S. ..... Kauai  
 Mrs. C. L. Siebold ..... Sec. to the Board

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 J. A. Matthewman, Kailua  
 Kauai ..... Jacob Hardy

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 Manuel K. Cook.  
 Ewa and Waianae—A. Waterhouse, E. O.  
 White, C. A. Brown.  
 Waialua—A. S. Mahaulu, R. Kinney, W. P.  
 Thomas.

Makawao—C. D. Lufkin, J. K. Kahookole.  
 N. Kona—A. S. Wall, Thos. Silva, J. Kaele-  
 makule.  
 S. Kona—E. K. Kaaua, L. P. Lincoln, A.  
 Haili.  
 Kau—Geo. Campbell, C. J. Macomber, Luka  
 Kila.  
 Molokai—C. C. Conrardt, S. Fuller, J. H.  
 Mahoe.

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W. E. Brown.....Chairman  
 C. A. Long.....Secretary  
 C. H. Cooke, J. H. Craig, O. Sorenson,  
 County of Maui.  
 J. N. S. Williams.....Chairman  
 Geo. Copp, H. A. Baldwin, C. D. Lufkin, D.  
 C. Lindsay.

County of Hawaii.

John T. Moir.....Chairman  
 R. A. Lyman.....Secretary  
 Albert Horner, W. G. Ogg, S. M. Spencer.  
 County of Kauai.  
 W. H. Rice, Sr.....Chairman  
 G. N. Wilcox, W. D. McBryde, J. K. Apolo,  
 A. F. Knudsen.

**DEPARTMENT OF PUBLIC LANDS.**

Chas. S. Judd.....Commissioner  
 J. D. Tucker.....Secretary  
 Walter A. Engle.....Bookkeeper  
 Henry Peters.....First Clerk  
 S. K. Kamaopili.....Second Clerk  
 Eileen Bertelman.....Third Clerk

**Sub-Agents.**

1st District, Hilo and Puna. } G. H. Williams  
 2nd District, Hamakua. }  
 3rd District, Kona and Kau. } T. C. White  
 4th District, Maui. } W. O. Alken  
 5th District, Oahu. } J. D. Tucker  
 6th District, Kauai. }  
 L. M. McKeague; Miss B. Hundley, Asst.

**LAND BOARD.**

W. A. Kinney.....Chairman  
 J. F. Brown.....Secretary  
 A. W. Carter, R. H. Trent, S. C. Dwight,  
 F. Andrade.

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 PUBLIC ARCHIVES.**

Chairman, ex-officio.....E. A. Mott-Smith  
 Commissioners—Prof. W. D. Alexander and  
 G. R. Carter.  
 Librarian.....R. C. Ivdecker  
 Translator.....Stephen Mahaulu

**DEPARTMENT OF PUBLIC INSTRUO  
 TION.**

Superintendent.....Willis T. Pope  
 Commissioners.  
 Oahu.....Mrs. May Wilcox, W. L. Stanle-  
 Maui.....W. O. Aike-  
 Hawaii.....Jno. T. Moir, Ella H. Paris

Kauai.....W. H. Rice, Sr.  
 Normal Inspector.....T. H. Gibson  
 Supervising Principals—1911-1912:  
 Oahu—Edgar Wood, C. W. Baldwin, Jas. C.  
 Davis, Mrs. F. W. Carter, Mrs. N. L. D.  
 Fraser, I. M. Cox.  
 Maui—W. W. Taylor, H. M. Wells, C. E.  
 Copeland, Geo. S. Raymond.  
 Hawaii—Miss Josephine Deyo, Eugene Hor-  
 ner, Bertha B. Taylor, Chas. E. King,  
 Maude Woods, J. V. Marciel.  
 Kauai—H. H. Brodie.  
 Secretary.....Miss Daisy Smith  
 Asst. Secretary.....C. K. Stillman, Jr.  
 Stenographer.....H. H. Williams  
 Board of Examiners.  
 T. H. Gibson, Chairman; Wm. McCluskey,  
 Jas. C. Davis, C. W. Baldwin, Mrs. N.  
 J. D. Fraser.

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President.....Dr. J. S. B. Pratt  
 Members—F. C. Smith, Dr. W. C. Hobdy, Geo.  
 R. Carter, Alex. Lindsay, Jr. (ex-officio).  
 D. Kalauokalani, Sr., Dr. W. D. Bald-  
 win.  
 General Health Officer.....Dr. J. J. Shepherd  
 Chief Sanitary Officer, Oahu.....C. Charlock  
 Secretary.....K. B. Porter  
 Bacteriologist.....Dr. A. N. Sinclair  
 Registrar Births, Deaths and Marriages.....  
 Miss M. Hester Lemon  
 Chief Clerk.....W. K. Simerson  
 Stenographer.....Miss M. Weir  
 Food Commissioner and Analyst.....  
 Ed. B. Blanchard  
 Supt. Insane Asylum.....Dr. C. A. Peterson  
 Supt. Leper Settlement.....J. D. McVeigh  
 Med. Supt. Leper Settlement.....  
 Dr. J. W. Goodhue  
 Chief Sanitary Officer, Hawaii—D. S. Bow-  
 man.  
 Chief Sanitary Officer, Maui—H. V. Trevenon.  
 Chief Sanitary Officer, Kauai—F. B. Cook.

**Government Physicians.**

**Oahu—**  
 A. N. Sinclair.....Honolulu  
 H. Wood.....Waialua  
 C. P. Durney.....Kahuku  
 R. J. McGettigan.....Ewa and Waianae  
**Maui—**  
 Franklin Burt.....Lahaina  
 W. F. McConkey.....Makawao and Kula  
 W. B. Deas.....Hana  
 Wm. Osmer.....Waialeale  
 F. L. Sawyer.....Puunene and Kihikihi  
**Hawaii—**  
 E. S. Goodhue.....N. Kona  
 H. J. Ross.....S. Kona  
 F. A. St. Sure.....S. Kohala  
 B. D. Bond.....N. Kohala  
 P. W. Taylor.....Hamaui  
 L. L. Sexton.....S. Hilo  
 Archer Irwin.....N. Hilo  
 Frederick Irwin.....Puna  
 W. A. Schwallie.....E. Kau  
 Martin J. O'Neill.....W. Kau

<b>Kauai—</b>	
R. F. Sandow .....	Waimea
A. H. Waterhouse .....	Koloa
F. L. Putnam .....	Lihue
K. Yanagihara .....	Hanalei
K. Hofmann .....	Kawaihau

## BOARDS OF EXAMINERS.

Medical—Dr. Geo. Herbert, Dr. W. C. Hobdy, Dr. Jas. R. Judd.
Pharmacy—A. J. Gignoux, S. S. Peck, Dr. F. F. Hedemann.
Dental—P. F. Frear, H. Bicknell, A. J. Derby.

## COMMISSIONERS OF INSANITY.

L. J. Warren .....	Chairman
Drs. W. L. Moore, G. H. Herbert.	

## PANAMA PACIFIC EXPOSITION COMMISSION.

H. P. Wood .....	Chairman
J. A. Hughes, J. N. S. Williams, C. E. Wright, J. M. Lydgate.	

## CONSERVATION BOARD.

J. P. Cooke, Marston Campbell, S. V. Wilcox.
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## PACKET AGENCIES.

Brewer Line N. Y. Packets—Theo. H. Davies & Co., Ltd.
Matson's Line Sailing Vessels San Francisco— C. Brewer & Co., Ltd.
Canadian and Australian S. S. Line—Theo. H. Davies & Co., Ltd.
Oceanic S. S. Co.'s Line—C. Brewer & Co., Ltd.
Pacific Mail S. S. Co.—H. Hackfeld & Co., Ltd.
European Packets—H. Hackfeld & Co., Ltd.
American-Hawaiian S. S. Co.—H. Hackfeld & Co., Ltd.
Matson Nav. Co.—Castle & Cooke, Ltd.
Toyo Kisen Kaisha Line—Castle & Cooke, Ltd.

## CHAMBER OF COMMERCE.

President .....	E. I. Spalding
Vice-President .....	J. A. Kennedy
Secretary and Treasurer .....	H. P. Wood
Trustees—J. P. Cooke, T. Clive Davies, F. Klamp, E. D. Tenney, C. H. Cooke, J. D. Dole, Jas. F. Morgan, J. W. Waldron, E. F. Bishop, J. M. Dowsett, E. E. Pax- ton, Albert Waterhouse.	

## MERCHANTS' ASSOCIATION.

Organized March 18, 1901.

President .....	F. O. White
Vice-President .....	O. C. Swain
Secretary .....	M. Brasch
Treasurer .....	C. Von Hamm

Directors—F. L. Waldron, O. C. Swain, N. Watkins, E. A. Berndt, E. O. White, W. F. Dillingham, M. Brasch, C. C. von Hamm, J. D. McInerny.

## MAUI CHAMBER OF COMMERCE.

Organized Jan. 29, 1910.

President .....	F. F. Baldwin
Vice-President .....	R. A. Wadsworth
Secretary .....	D. H. Case
Treasurer .....	C. D. Lufkin

## HILO BOARD OF TRADE.

Organized ....

President .....	Dr. H. B. Elliott
Vice-President .....	C. E. Wright
Secretary .....	Wm. McKay
Treasurer .....	E. H. Deyo
Directors—E. N. Holmes, J. A. M. Osorio, P. Bartels, A. Lindsay, E. F. Nichols.	

## HAWAII PROMOTION COMMITTEE.

Representing the Territory of Hawaii, Chamber of Commerce and Merchants' Association.

Organized 1903.

W. H. Hoogs, Chairman; W. H. McInerny, D. P. R. Isenberg, Z. K. Meyers.	
H. P. Wood .....	Secretary
H. von Damm .....	Treasurer

## PAN-PACIFIC CONGRESS.

Organized Feb. 23, 1911.

President .....	W. H. McInerny
1st Vice-President .....	Percy Hunter
2nd Vice-President .....	D. P. R. Isenberg
Treasurer .....	F. C. Smith
Secretary .....	H. P. Wood

## HONOLULU STOCK AND BOND EXCHANGE.

Organized August 8, 1898.

President .....	A. F. Afong
Vice-President .....	Wm. Simpson
Secretary .....	R. H. Trent
Treasurer .....	Hawaiian Trust Co.

## HAWAIIAN SUGAR PLANTERS' ASSOCIATION.

Re-organized Nov. 18, 1895.

President .....	F. M. Swanzy
Vice-President .....	J. P. Cooke
Secretary and Treasurer .....	W. O. Smith
Assistant Sec.-Treas. ....	L. J. Warren
Auditor .....	G. H. Robertson
Trustees—F. A. Schaefer, E. D. Tenney, E. F. Bishop, W. Pfotenhauer, F. M. Swanzy, J. P. Cooke, J. M. Dowsett, A. W. T. Bottomley, W. O. Smith.	

EXPERIMENT STATION OF PLANTERS' ASSOCIATION.

Experiment Station Staff.

C. F. Eckart.....	Director
R. C. L. Perkins.....	Entomologist
Noel Deerr.....	Sugar Technologist
H. L. Lyon.....	Pathologist
S. S. Peck.....	Chemist
H. P. Agee.....	Agriculturist
A. Koebele.....	Consulting Entomologist
R. S. Norris, Technical Chemist; F. R. Werthmueller, A. E. Jordan, Assistant Chemists.	
Otto H. Swezey, Acting Entomologist; F. Muir, J. C. Kershaw.....	Assistant Entomologists
L. D. Larsen.....	Assistant Pathologist
L. D. Larsen, A. T. Speare.....	Assistant Pathologists
W. P. Naquin.....	Assistant Agriculturist
D. C. Broderick.....	Field Foreman
G. H. Tuttle.....	Cashier
W. R. R. Potter.....	Illustrator
A. Warren.....	Clerk
S. J. Cunningham.....	Stenographer
J. F. Melanphy.....	Fertilizer Saupler

HAWAIIAN SUGAR CHEMISTS' ASSOCIATION.

President.....	R. S. Norris
Vice-President.....	Ralph A. Lyon
Secretary-Treasurer.....	S. S. Peck
Executive Committee—F. E. Greenfield, P. Messchert, H. E. Savage, H. J. Johnson, A. Kraft.	

HAWAIIAN ENTOMOLOGICAL SOCIETY.

Organized 1905.

President.....	E. H. Ehrhorn
Vice-President.....	D. F. Fallaway
Secretary and Treasurer.....	D. B. Kuhns
The above officers also constitute the Executive Committee.	

HAWAIIAN RUBBER GROWERS' ASSOCIATION.

President.....	C. D. Lufkin
Vice-President.....	Wm. Williamson
Secretary-Treasurer.....	D. C. Lindsay
Trustees—W. W. Thayer, B. von Damm.	

HAWAIIAN COTTON GROWERS' ASSOCIATION.

Organized ....., 1911.

President.....	Dr. E. V. Wilcox
1st Vice-President.....	E. C. Smith
2nd Vice-President.....	J. E. Hamilton
Secretary-Treasurer.....	P. L. Weaver
Directors with the above Officers—S. M. Lowrey, A. V. Gear, Dr. J. H. Raymond.	

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Boston.....	C. Brewer & Co.
Philadelphia.....	C. Brewer & Co.
New York.....	Bruce Cartwright
Liverpool.....	Theo. H. Davies & Co.
Lloyds, London.....	Theo. H. Davies & Co.
San Francisco.....	Bishop & Co.
Bremen.....	F. A. Schaefer

BOARD OF FIRE UNDERWRITERS OF TERRITORY OF HAWAII.

F. A. Schaefer.....	President
J. A. Gilman.....	Vice-President
A. R. Gurrey.....	Secretary
Bishop & Co.....	Treasurer
H. Hackfeld & Co.....	Auditor

QUEEN'S HOSPITAL.

Erected in 1860.

President.....	T. Clive Davies
Vice-President.....	A. Gartley
Secretary.....	Geo. W. Smith
Treasurer.....	Geo. C. Potter
Auditor.....	Jno. Waterhouse
Surgeons—Drs. C. B. Cooper, W. C. Hobbs, G. F. Straub.	
Physicians—Drs. J. H. Raymond, F. F. Hedeman, I. N. Shepperd.	
Resident Physician.....	Dr. J. M. Thompson
Interns.....	Drs. E. B. Beasley, Albert Bowen
Oculists and Aurists.....	
.....Drs. W. G. Rogers, H. P. Nottage	
Superintendent.....	J. F. Eckardt
Head Nurse.....	Susan G. Parish
Trustees—F. J. Lowrey, W. E. Brown, A. Gartley, T. C. Davies, G. W. Smith, H. M. von Holt.	

LEAHI HOME.

Organized April 4, 1900.

President.....	C. H. Atherton
Vice-President.....	Geo. P. Castle
Secretary.....	T. Clive Davies
Treasurer.....	A. W. T. Bottomley
Auditor.....	J. P. Cooke
Medical Supt.....	A. N. Sinclair, M. B. C. M.
Asst. Supt.....	H. Taylor
Matron.....	Mrs. H. Taylor
Trustees—J. P. Cooke, C. H. Atherton, T. Clive Davies, A. W. T. Bottomley, Geo. P. Castle, C. Montague Cooke.	

CHILDREN'S HOSPITAL.

Opened Nov. 24, 1909.

President.....	S. B. Dole
Vice-President.....	J. F. Morgan
Secretary.....	Goldie G. Morgan
Treasurer.....	W. O. Smith
Auditor.....	Audit Co. of Haw.
Superintendent.....	Miss J. N. Dowd
Trustees—S. B. Dole, W. O. Smith, G. P. Castle, A. S. Wilcox, Allen Herbert, P. R. Isenberg, J. F. Morgan.	

## SAILORS' HOME SOCIETY.

Organized 1853. Meets annually in December.

President.....F. A. Schaefer  
 Vice-President.....  
 Secretary-Treasurer.....C. H. Atherton  
 Executive Committee—W. M. Giffard, F. W. Damon, B. F. Dillingham, E. D. Tenney.

## CIVIC FEDERATION.

Organized Jan. 26, 1905.

President.....Arthur G. Smith  
 Vice-President.....R. B. Anderson  
 Secretary.....W. A. Bryan  
 Treasurer.....C. H. Dickey

## PUBLIC SERVICE ASSOCIATION.

Chairman.....Hon. W. F. Frear  
 Director and Secy.....W. A. Bryan  
 Treasurer.....W. R. Castle  
 Board of Control—J. P. Cooke, L. A. Thurston, G. A. Stanton, A. Dondero, T. F. Sedgwick, A. G. Smith, J. W. Gilmore, A. H. Ford.

## LIBRARY AND READING ROOM ASSOCIATION.

Organized March. Incorporated June 24, 1879.

President.....Prof. M. M. Scott  
 Vice-President.....Dr. W. D. Alexander  
 Secretary.....J. H. Fisher  
 Treasurer.....A. Gartley  
 Auditor.....J. H. Fisher  
 Librarian.....Miss Edna I. Allyn  
 Asst. Librarian.....Miss M. Peacock

## HAWAIIAN HISTORICAL SOCIETY.

Organized Jan. 11, 1892.

President.....Rev. W. D. Westervelt  
 Vice-Presidents—Geo. R. Carter, Dr. W. D. Alexander, A. F. Judd.  
 Recording Secretary.....Edgar Wood  
 Cor. Secretary.....H. M. Ballou  
 Treasurer.....A. Lewis, Jr.  
 Librarian.....Miss E. I. Allyn

## LIBRARY OF HAWAII.

Trustees.

W. L. Whitney.....President  
 W. F. Dillingham.....Treasurer  
 C. H. Atherton.....Secretary  
 W. H. Babbitt, P. L. Weaver, A. Lewis, Jr., J. H. Fisher.

## BERNICE PAUAAHI BISHOP MUSEUM.

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 E. P. Bishop.....Vice-President  
 A. W. Carter.....Secretary  
 J. M. Dowsett.....Treasurer  
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William T. Brigham, A. M., D. Sc....Director  
 W. H. Dall, D. Ph....Hon. Curator of Mollusca  
 John F. G. Stokes.....Curator of Polynesian Ethnology  
 Miss E. B. Higgins.....Assistant and Acting Librarian  
 C. Montague Cooke, Jr., D. Ph.....Curator of Pulmonata  
 C. N. Forbes.....Curator of Botany  
 Mrs. E. Helvie.....Superintendent of Exhibition Halls  
 J. W. Thompson.....Modeler  
 John J. Greene.....Printer  
 August Perry.....Assistant Printer

## BAR ASSOCIATION OF HAWAII.

Organized June 28, 1899.

President.....D. L. Withington  
 Vice-President.....F. E. Thompson  
 Secretary.....L. A. Dickey  
 Treasurer.....C. H. Olson

## KILOHANA ART LEAGUE.

Organized May 5, 1894.

President.....Miss Frances Lawrence  
 Vice-President.....E. A. Newcomb  
 Secretary.....Mrs. I. M. Cox  
 Treasurer.....Vaughan MacCaughy  
 Auditor.....W. A. Love  
 Managing Trustee.....B. F. Dillingham

## HAWAIIAN PHILATELIC SOCIETY.

Organized April 13, 1911.

President.....W. Wolters  
 Vice-President.....Jno. T. Gribble  
 Secretary.....B. Cartwright, Jr.  
 Treasurer.....F. W. Wood  
 Trustees—Chas. Hustace, Jr., A. F. Cooke, C. Karston.

## HAWAIIAN MEDICAL ASSOCIATION.

Organized May 24, 1895. Annual Meeting in May.

President.....Dr. Wm. G. Rogers  
 Vice-President.....Dr. W. D. Baldwin  
 Secretary and Treasurer.....Dr. W. C. Hohdy  
 Drs. C. B. Wood, St. D. G. Walters, with the above officers, constitute the Executive Committee.

**HAWAIIAN SOCIETY SONS OF THE  
AMERICAN REVOLUTION.**

Organized June 17, 1895.

President.....	C. H. Dickey
Vice-President.....	R. J. Pratt
Secretary.....	F. D. Lowrey
Treasurer.....	P. L. Horne
Registrar.....	H. C. Mohr
Board of Managers—	F. B. McStocker, C. H. Atherton, A. F. Cooke.

**HAWAIIAN EVANGELICAL ASSOCIATION.**

Originally Organized 1823.

Constitution revised 1863. Annual Meeting June.

President.....	P. C. Jones
Vice-President.....	F. J. Lowrey
Cor. Secretary.....	Rev. Wm. B. Oleson
Rec. Secretary.....	Rev. W. D. Westervelt
Treasurer.....	Theo. Richards
Auditor.....	Wm. J. Forbes

**WOMAN'S BOARD OF MISSIONS.**

Organized 1871.

President.....	Mrs. Theo. Richards
Recording Secretary.....	Miss M. L. Sheeley
Home Cor. Secretary.....	Miss J. A. Cooke
Foreign Cor. Secretary.....	Mrs. E. A. Jones
Treasurer.....	Mrs. B. F. Dillingham
Asst. Treasurer.....	Mrs. W. L. Moore
Auditor.....	O. C. Swain

**MISSION CHILDREN'S SOCIETY.**

Organized 1851. Annual Meeting in June.

President.....	Jos. P. Cooke
Vice-President.....	W. F. Dillingham
Secretary.....	Mrs. R. W. Andrews
Recorder.....	R. W. Andrews
Treasurer.....	L. A. Dickey

**YOUNG MEN'S CHRISTIAN ASSOCIATION.**

Organized 1869. Annual Meeting in April.

President.....	R. H. Trent
Vice-President.....	W. G. Hall
Rec. Secretary.....	G. S. Waterhouse
Treasurer.....	F. C. Atherton
General Secretary.....	Paul Saver
Educational Secretary.....	A. F. Larimer
Physical Instructor.....	Dr. E. H. Hand
Boys' Work Secretary.....	Chas. F. Loomis
Office Secretary.....	Geo. C. Chamberlain

**YOUNG WOMEN'S CHRISTIAN ASSOCIATION.**

Organized 1900.

President.....	Mrs. B. F. Dillingham
Vice-President.....	Mrs. A. F. Cooke
Secretary.....	Mrs. B. L. Marx
Treasurer.....	Miss Carrie Gilman
General Secretary.....	Miss C. O. Moyer

**WOMAN'S CHRISTIAN TEMPERANCE  
UNION OF HAWAII.**

Organized December, 1884.

President.....	Mrs. J. M. Whitney
Vice-Presidents—	Mrs. D. Scudder, Mrs. J. W. Wadman.
Recording Secretary.....	Miss Florence Yarrow
Cor. Secretary.....	Mrs. E. W. Jordan
Treasurer.....	Mrs. Lydia Coan

**FREE KINDERGARTEN AND CHILDREN'S AID ASSOCIATION.**

Organized 1895.

President.....	Mrs. Theo. Richards
Vice-Presidents—	Mrs. L. T. Peck, Mrs. B. J. Marx, Mrs. S. B. Dole.
Recording Secretary.....	Mrs. W. R. Farrington
Treasurer.....	Mrs. F. M. Swanzy
Financial Secretaries.....	Mrs. C. W. Ashford, Mrs. M. F. Prosser
Auditor.....	D. W. Anderson

**ASSOCIATED CHARITIES.**

Organized June 7, 1899.

President.....	S. B. Dole
1st Vice-President.....	W. D. Westervelt
2nd Vice-President.....	Mrs. C. du Roi
Secretary.....	Mrs. J. M. Whitney
Treasurer.....	Geo. C. Fuller
Manager.....	Mrs. E. W. Jordan

**STRANGERS' FRIEND SOCIETY.**

Organized 1852. Annual Meeting in June.

President.....	Mrs. A. Fuller
Vice-Presidents—	Mrs. E. F. Bishop, Mrs. S. B. Dole.
Secretary.....	Mrs. S. M. Dames
Treasurer.....	Mrs. E. W. Jordan
Auditor.....	E. W. Jordan
Directress.....	Mrs. E. B. Waterhouse

**BRITISH BENEVOLENT SOCIETY.**

Organized 1869. Meets Annually.

President (Ex-officio).....	H. B. Ma's Consul
Secretary.....	R. Gatten
Treasurer.....	George F. Daxie
Relief Committee—	G. R. Ewart, J. C. Cook, W. H. Baird, F. Harrison, R. Anderson and H. E. McIntyre, with the above officers.

**GERMAN BENEVOLENT SOCIETY.**

Organized August 22, 1856.

President.....	F. A. Schaefer
Vice-President.....	W. Pfetehauer
Secretary.....	John P. Eckardt
Treasurer.....	B. von Damm
Auditor.....	H. Hege

## HAWAIIAN RELIEF SOCIETY.

Organized 1895.

President ..... Mrs. C. S. Holloway  
 Secretary ..... Mrs. E. S. Cunha  
 Treasurer ..... Mrs. F. W. Macfarlane

## PORTUGUESE CHARITABLE SOCIETY.

Organized Sept. 1, 1902.

President ..... J. P. Rodriguez  
 Vice-President ..... J. Madeira  
 Secretary ..... A. H. R. Vieira  
 Treasurer ..... J. D. Marques

## CATHOLIC ORPHANAGE, KALIHI.

Established 1909.

Mother Mary Lawrence in charge.

## RED CROSS SOCIETY.

Hawaiian Chapter.

Organized Sept. 2, 1907.

Chairman ..... F. J. Lowrey  
 Vice-Chairman ..... Mrs. B. F. Dillingham  
 Secretary ..... H. G. Dillingham  
 Treasurer ..... C. H. Cooke  
 Auditor ..... J. R. Galt  
 Executive Committee—Chairman, Secretary,  
 with Dr. W. C. Hobdy, Mrs. E. A.  
 Weaver, J. A. Rath.

## HOSPITAL FLOWER MISSION.

President ..... Mrs. E. W. Jordan  
 Vice-President ..... Mrs. A. F. Judd  
 Secretary ..... Mrs. G. F. Davies  
 Treasurer ..... Mrs. Allen Bottomley  
 Auditor ..... E. W. Jordan

## HAWAIIAN HUMANE SOCIETY.

President ..... Mrs. S. B. Dole  
 Vice-Presidents—Mrs. L. L. McCandless, Mrs.  
 S. M. Damon, Mrs. E. P. Low, Miss  
 Lucy Ward, Mrs. C. Du Roi, Mrs. G.  
 Sherman.  
 Secretary ..... Miss N. Swanzy  
 Treasurer ..... Mrs. G. C. Potter  
 Official Officer ..... Miss Rose Davison

## OAHU CEMETERY ASSOCIATION.

President ..... Geo. R. Carter  
 Vice-President ..... F. J. Lowrey  
 Secretary and Treasurer ..... J. R. Galt

ANTI-SALOON LEAGUE OF HONOLULU,  
T. H.

Organized March 4, 1901.

President ..... W. A. Bowen  
 Vice-President ..... Rev. W. D. Westervelt  
 Vice-Pres. Honorary ..... Mrs. J. M. Whitney  
 Secretary ..... L. A. Dickey  
 Treasurer ..... C. H. Dickey

## PACIFIC CLUB.

Organized 1852. Premises on Alakea Street,  
two doors below Beretania.

President ..... Geo. R. Carter  
 Vice-President ..... J. M. Dowsett  
 Secretary ..... Geo. C. Potter  
 Treasurer ..... R. W. Shingle  
 Governors—C. S. Holloway, E. I. Spalding,  
 Geo. Rodiek, A. Gartley, P. Muhlenhoff,  
 with the above officers, comprise the  
 Board.

## UNIVERSITY CLUB.

Organized 1905.

President ..... W. F. Dillingham  
 Vice-President ..... John R. Galt  
 Secretary ..... A. M. Nowell  
 Treasurer ..... W. L. Whitney  
 Auditor ..... M. M. Graham  
 Governors—A. G. Hodgins, Alonzo Gartley,  
 Gen. M. M. Macomb.

## CORNELL CLUB OF HAWAII.

President ..... Prof. J. W. Gilmore  
 Vice-President ..... Prof. J. M. Young  
 Secretary-Treasurer ..... Chester J. Hunn

## HARVARD CLUB OF HAWAII.

D. L. Withington, '74 ..... President  
 Ralph S. Hosmer, a '94 ..... Secretary-Treasurer  
 Executive Committee—With the above, H. G.  
 Dillingham, '04; R. B. Anderson, Jr. '03;  
 J. D. Dole, '99.

## COMMERCIAL CLUB OF HONOLULU.

Organized Aug. 30, 1906.

President ..... F. L. Waldron  
 Vice-President ..... Marston Campbell  
 Secretary ..... Theo. Lansing  
 Treasurer ..... E. A. Berndt

## SCOTTISH THISTLE CLUB.

Organized April 27, 1891.

Chief ..... John Walker  
 Chieftain ..... G. S. Leithhead  
 Secretary ..... Robt. Anderson  
 Treasurer ..... J. H. Fiddes  
 Master-at-Arms ..... P. Higgins  
 Club Rooms, 11 and 12 Young Building.  
 Meetings 2nd and 4th Fridays, 7:30 p. m.

## BUCKEYE CLUB.

Organized 1904.

President ..... Rev. W. D. Westervelt  
 Vice-President ..... Paul Super  
 Secretary ..... Mrs. W. C. Weedon  
 Treasurer ..... Dr. W. G. Rodgers

## COUNTRY CLUB.

Organized 1906.

President.....J. D. McInerney  
 1st Vice-President.....H. H. Walker  
 2nd Vice-President.....G. C. Potter  
 Secretary.....W. M. Kendall  
 Treasurer.....J. O. Young  
 Auditor.....W. Jamieson  
 Directors—R. B. Booth, A. Lewis, Jr., E. I. Spalding, H. C. Carter.

## HAWAIIAN ENGINEERING ASSOCIATION.

Organized .....

Chairman.....Prof. J. M. Young  
 Vice-Chairman.....H. M. Hepburn  
 Secretary.....J. E. Sheedy  
 Treasurer.....Irwin Spalding  
 Directors—R. J. Pratt, W. A. Ramsay, W. J. Weinrich, C. H. Kluegel, J. N. S. Williams, F. O. Boyer.

## TRAIL AND MOUNTAIN CLUB.

Organized April 5, 1910.

President.....W. R. Castle  
 Vice-President.....L. A. Thurston  
 Recording Secretary.....Irwin Spalding  
 Corresponding Sec.....Alex. Hume Ford  
 Treasurer.....Waterhouse Trust Co.

## OUTRIGGER CLUB.

Organized May, 1908.

President.....P. L. Weaver  
 Vice-President.....I. Spalding  
 Secretary.....Guy H. Tuttle  
 Treasurer.....A. C. Smith

## HUI NALU (Surf Club).

Organized 1911.

President-Captain.....E. K. Miller  
 Secretary-Treasurer.....W. H. D. King

## HAWAII YACHT CLUB.

Organized Oct., 1901.

Commodore.....Geo. Crozier  
 Vice-Commodore.....T. V. King  
 Secretary and Treasurer.....R. H. Ryeroft  
 Measurer.....O. L. Sorenson  
 Captain.....H. D. Bowen  
 Regatta Com.—Gunkhase, H. L. Kerr, A. Robertson.  
 Directors—R. L. Scott, H. D. Bowen, G. S. Smithies, L. M. Vettleson.

## MYRTLE BOAT CLUB.

Organized Feb. 5, 1883.

President.....T. V. King  
 Vice-President.....A. F. Ewart  
 Secretary.....Geo. R. Clark  
 Treasurer.....I. Spalding  
 Captain.....W. Lyle  
 Trustees—J. H. Soper, F. A. Bechert, H. T. Bailey.

## HEALANI YACHT AND BOAT CLUB.

Incorporated Dec., 1894.

President.....Jas. E. Jagger  
 Vice-President.....A. H. Tarleton  
 Secretary.....A. T. Longley  
 Treasurer.....H. Lempeke  
 Captain.....Lawrence Cunha  
 Commodore.....R. Sullivan  
 Vice-Commodore.....J. B. Walker  
 Auditor.....W. P. Johnson

## HAWAIIAN ROWING ASSOCIATION.

President.....C. C. Rhodes  
 Vice-President.....Geo. Crozier  
 Secretary-Treasurer.....I. Spalding

## OAHU COLLEGE.

President—Arthur F. Griffiths, A. B., History and Economics.  
 Wilbur J. MacNeil.....Science  
 Ernest T. Chace, Vice-Principal—Mathematics.  
 Susan G. Clark—Latin and Greek.  
 Chas. S. Schmutzler—German.  
 Levi C. Howland—Head of Commercial Department, Asst. Business Agent.  
 Eda M. Arthur—French.  
 Antoinette J. Foster, Francis B. Dillingham—English.  
 Charlotte P. Dodge—History.  
 Edith R. Collais—Voice, Piano.  
 Mary H. Cooper—Oral Expression, Dramatics.  
 Caroline Sheffield Barnes, C. P. Ewing—Instructors in Piano.  
 Margaret E. Clarke—Organ and Piano.  
 D. Howard Hitchcock—Art Drawing.  
 Bernice K. Ross—Violin.  
 Mabel B. Sweet—Vocal Music.  
 Clarence E. Barter—Science, Mathematics.  
 Lulu B. Smith—English, History, Latin.  
 Daniel J. Ricker—Mathematics.  
 Lucy E. Crosby—Bookkeeping, Typewriting.  
 Mrs. Maud Taylor—Matron in Charge of Girls.  
 Mary L. Bettis, Grace P. Boardman—Assistant Matrons.  
 Ernest J. Reece—Librarian.  
 Edith C. Lawrence, Doris E. Girdler—Assistant Librarians.  
 Jona. Shaw—Business Manager.  
 Frank Warwick—Supt. of Grounds.  
 H. G. Wooten—Engineer.  
 Margaret Omsted—Office Secretary.  
 F. F. Hedemann, M. D.—Medical Examiner.

## PUNAHOU PREPARATORY.

Chas. T. Pitts—Principal.  
 Mary P. Winne—Vice-Principal—Second Grade.  
 Claire H. Uecke—First Grade.  
 Mrs. Elizabeth A. Turner—Fourth Grade, Drawing.  
 Florence N. Carter, Helen Watkins—Third Grade.  
 Blanche M. Folsom—Fourth Grade.  
 Mary G. Burden—Fifth Grade, Drawing.  
 Anna F. Johnson—Sixth Grade.  
 Zella M. Breckenridge, M. Harriett Williamson—Seventh and Eighth Grades.  
 S. M. Sheldon—Eighth Grade, German.  
 Ella D. Crandall, Ethel A. McKenzie—Fifth Grade.

## REGENTS COLLEGE OF HAWAII.

H. E. Cooper.....President  
 C. H. Cooke.....Treasurer  
 A. Gartley, R. S. Hosmer, C. M. Cooke,  
 C. F. Hemenway.

## College of Hawaii Faculty.

John W. Gilmore, M.S.A.  
 President, Professor of Rural Economy and Agronomy.  
 John S. Donaghoo, B.A.  
 Professor of Mathematics.  
 John M. Young, M.E., M.M.E.  
 Professor of Engineering, and Engineer for the College.  
 Frank T. Dillingham, B.S.  
 Professor of Chemistry.  
 Arthur R. Keller,  
 Professor of Civil Engineering.  
 Wm. Alanson Bryan, B.S.  
 Professor of Zoology.  
 Vaughn McCaughey, B.S.A.  
 Professor of Botany and Horticulture.  
 Howard M. Ballou, A.B.  
 Professor of Physics.  
 Arthur J. Andrews, M.L.Ph.D.  
 Professor of English.  
 Henry H. Severin, M.A., Ph.D.  
 Professor of Etymology.  
 F. G. Krauss,  
 Professor of Agronomy.  
 Minnie E. Chipman,  
 Asst. Professor Ceramics.  
 Florence M. Lee, B.S.  
 Assistant Professor Domestic Science.  
 Miss Mildred M. Yoder, B.S.  
 Instructor of History and Economics.  
 John P. McTaggart,  
 Instructor in Shop Work.  
 Jesse Shaw,  
 Assistant, Domestic Science.  
 Ferno Ceresole,  
 Professor of French.  
 Rev. W. Felmy,  
 Asst. Professor of German.  
 Professor of Animal Husbandry.  
 Carrie P. Green,  
 Librarian.

## KAWAIAHAO GIRLS' SEMINARY.

Miss Mabel E. Boshier—Principal.  
 Assistants—Mary F. Kinney, Mary Stambaugh, Bertha Kemp, Rose Faast.  
 Teacher of Music—Jane Winne.  
 Sewing—Francis M. Gould.  
 Nurse—Miss L. Worthington.  
 Matron and Domestic Science—Miss May Worthington.  
 Assistant Matron—Miss Esther Kalino.  
 Lo Wai Hung, Chinese; Tsuru Kishimoto, Japanese, and C. N. Han, Korean Classes.

## MILLS INSTITUTE.

Arthur M. Merrill—Principal.  
 English Department—Messrs. Wallin, Hammond, Cross, Robinson, Cotter, Shaw, Miss Peabody.  
 Chinese Department—Tang Kwang Yan.  
 Japanese Department—Yasaburo Sakai.  
 Korean Department—N. S. Kim.  
 Mrs. Osborne—Matron.

## THE KAMEHAMEHA SCHOOLS.

## FACULTIES.

## School for Boys' Manual Department.

Perley L. Horne—President.  
 Uldrick Thompson—Vice-Prin. and Science.  
 Stanley C. Livingston—Registrar and Business Agent.  
 David Kanuha—Tailoring.  
 Dr. E. C. Waterhouse—Physician.  
 Geo. Hitchings—Carpentry and Repairs.  
 Albert Parsons—Agriculture.  
 C. G. Livingston—Mechanical Drawing.  
 Jno. Lloyd Hopwood—Chaplain.  
 W. A. Gill—Electrical Engineer.  
 John Meugel—Forging and Blacksmithing.  
 Frank H. Patridge—Asst. in Agriculture.  
 Mrs. Alice M. Bradstreet—Matron.  
 Miss Caroline C. Foote—Nurse.  
 Adolph Hottendorf—Printing.  
 Chas. G. Collais—Supt. Mechanical Instruction.  
 Jos. T. Boyd—Machinist.  
 Minnie H. Armstrong—English.  
 Earle G. Bartlett—Science and Mathematics.  
 Nelson G. Smith—Painting.  
 Milton E. Crossman, Jas. Mahikoa—Carpentry.  
 Miss Z. M. Hummel—Bookkeeper and Stenographer.  
 Edgar M. Cramer—Music and Mathematics.  
 Florence A. Perrott—English.  
 Lieut. Geo. E. Turner—Commandant.

Preparatory Department.

Alice E. Knapp—Principal.  
 Estelle Roe—Third and Fourth Grades.  
 Maud Post—First and Second Grades.  
 Grace Putnam—Primary.  
 Nevada Moore—Manual Training.  
 Margaret Medill—Matron.  
 Assistants—Eliza Kahele, J. Kamakawiwoole, Frances Baker.  
 Andrew Poepeo—Military Instructor.

## School for Girls.

Ida M. Pope—Principal.  
 Frances A. Lemon—Mathematics.  
 Cora Root—Music.  
 Harriet E. McCracken—Matron.  
 Katharyn Burgner—Nature Study.  
 Katherine Pope—History.  
 Emma Gault—Nurse.  
 Carolyn Church—Sewing.  
 Myra Gault—English.  
 Lewa Iokua—Office Assistant.  
 Lydia K. Aholo—General Assistant.  
 Mattie Kibler—Dressmaker.  
 Assistants—Hannah Aiau, Irene Silva, Kaipo Senna.

## HONOLULU (STEAM) FIRE DEPARTMENT.

Originally organized 1851, and conducted as volunteers till March 1, 1893, when it was changed to a paid department.

Chief Engineer—Chas. Thurston.  
 Asst. Engineer—Augustus Deering.  
 Honolulu Engine No. 1—Location, Central Station, cor. Fort and Beretania streets.  
 Mechanic Engine No. 2—Location, Central Station, cor. Fort and Beretania streets.  
 Chemical Apparatus No. 3—Location, Central Station, cor. Fort and Beretania streets.  
 Protection Hook and Ladder Co. No. 1—Location, Central Station, cor. Fort and Beretania streets.  
 Engine Co. No. 4—Location cor. Wilder avenue and Piikoi street.  
 Engine Co. No. 5—Location King street, near Reform School.

## PRINCIPAL PUBLICATIONS.

The Hawaiian Gazette, issued semi-weekly by the Hawaiian Gazette Co., Ltd., on Tuesdays and Fridays. R. O. Matheson, Editor.  
 Sunday Advertiser, issued every Sunday morning by the Hawaiian Gazette Co., Ltd. R. O. Matheson, Editor.  
 The Daily Pacific Commercial Advertiser, issued by the Hawaiian Gazette Co. every morning (except Sunday). R. O. Matheson, Editor.  
 The Daily Bulletin, issued every evening (except Sundays), by the Bulletin Pub. Co. W. R. Farrington, Editor. Weekly editions issued on Tuesdays.  
 The Hawaiian Star, issued every evening (except Sundays), by the Hawaiian Star Newspaper Association. Walter G. Smith, Editor. Semi-weekly issued on Mondays and Thursdays.  
 The Guide, issued every Tuesday and Friday morning by the Guide Pub. Co.  
 The Friend, Organ of the Hawaiian Board, issued on the first of each month. Rev. Doremus Scudder, Editor.  
 The Hawaiian Church Chronicle, issued on the first Saturday of every month. Rt. Rev. H. B. Restarick, Editor.  
 The Paradise of the Pacific, issued monthly. W. M. Langton, Editor and Publisher.  
 The Mid-Pacific Monthly, an illustrated descriptive magazine. Alex. Hume Ford, Editor and Publisher.

The Hawaiian Forester and Agriculturist, issued monthly under direction of Board of Com. Agr. and Forestry. Daniel Logan, Editor.  
 Crossroads of the Pacific, issued weekly on Fridays. Edward P. Irwin, Editor and Publisher.  
 The Defender, issued on 1st and 3rd Saturdays each month. E. W. P. St. George, Editor and Publisher.  
 The Kuokoa (native), weekly, issued every Friday morning by the Hawaiian Gazette Co., Ltd. Solomon Hanohano, Editor.  
 Aloha Aina (native), issued every Saturday. J. M. Poepeo, Editor.  
 Kuokoa Home Rula (native), issued each Friday. C. K. Notley, Editor.  
 Ke Au Hou (weekly), issued on Wednesday. John H. Wise, Editor and Publisher.  
 O Luso (Portuguese), issued weekly on Saturdays. G. F. Affonso, Editor.  
 Chee Yow Shin Bo (The Liberty News), tri-weekly, Chinese.  
 Sun Chung Kwock Bo, tri-weekly, Chinese.  
 Hawaii Shinpo, issued daily in Japanese. S. Sheba, Proprietor.  
 Hilo Tribune, issued weekly on Saturdays by the Tribune Pub. Co., Hilo. H. W. Kinney, Editor.  
 The Hawaii Herald, issued weekly at Hilo on Thursdays by the Herald Pub. Co. L. S. Conness, Editor.  
 The Kohala Midget, issued each Thursday, at Kohala. Dr. J. F. Cowan, Editor.  
 The Maui News, issued weekly at Wailuku, Maui. Chas. C. Clark, Editor and Manager.  
 The Garden Island, issued weekly at Lihue, Kauai. E. B. Bridgewater, Editor.  
 Hoku o Hawaii, issued on Friday of each week, at Hilo. Rev. S. L. Desha, Editor.  
 THE HAWAIIAN ANNUAL, issued the latter part of December for the following year. Thos. G. Thrum, Editor and Publisher.

## HONOLULU LODGES, ETC.

Oceanic Lodge No. 371, F. & A. M.; meets on the last Monday in each month in Masonic Hall.  
 Hawaiian Lodge, No. 21, F. & A. M.; meets in its Hall, Masonic Temple, corner Huled and Alakea streets, on the first Monday in each month.  
 Honolulu Chapter, No. 1, R. A. M.; meets in Masonic Hall on the third Thursday of each month.  
 Honolulu Commandery, No. 1, Knights Templar; meets in Masonic Hall on second Thursday of each month.  
 Mystic Shrine, Aloha Temple. No stated time of meeting. Meets at Masonic Hall.  
 Kamehameha Lodge of Perfection, No. 1, A. & A. S. R.; meets in Masonic Hall on the fourth Thursday of each month.  
 Nuuanu Chapter of Rose Croix, No. 1, A. & A. S. R.; meets in Masonic Hall on the first Thursday in the month.  
 Alexander Liholiho Council, No. 1, of Kadosh; meets on the third Monday of alternate months from February.  
 Honolulu Lodge, No. 409, F. & A. M.; meets at Masonic Hall every second Monday of the month.  
 Leahi Chapter, No. 2, Order of the Eastern Star; meets on third Monday of each month in Masonic Hall.

- Lei Aloha Chapter, No. 3, Order of the Eastern Star; meets on second Saturday of each month in Masonic Temple.
- Harmony Chapter, No. 4, Order of the Eastern Star, meets on third Saturday of each month in Masonic Temple, at 7:30 p. m.
- Excelsior Lodge, No. 1, I. O. O. F.; meets at the hall in Odd Fellows' Building, on Fort St., every Tuesday evening.
- Harmony Lodge, No. 2, I. O. O. F.; meets each Monday evening in Odd Fellows' Building, Fort street.
- Pacific Degree Lodge, No. 1, Daughters of Rebekah; meets in Odd Fellows' Building, Fort street, second and fourth Thursdays of each month.
- Olive Branch Rebekah, No. 2, I. O. O. F.; meets first and third Thursdays each month in Odd Fellows' Building.
- Polynesian Encampment, No. 1, I. O. O. F.; meets in Odd Fellows' Building, Fort street, first and third Fridays of each month.
- Canton Oahu, No. 1, P. M., I. O. O. F.; meets second Friday each month in Odd Fellows' Hall, Fort St.
- Oahu Lodge, No. 1, K. of P.; meets every first and third Friday evening at Pythian Hall, corner Beretania and Fort streets.
- Mystic Lodge, No. 2, K. of P.; meets every Wednesday evening at Pythian Hall, cor. Beretania and Fort streets.
- Section N. 225—Endowment Rank, K. of P.; meets on the second Saturday of January, July and December in Pythian Hall.
- Honolulu Temple, No. 1, Rathbone Sisters; meets in Pythian Hall, first and third Tuesday evenings of each month.
- Wm. McKinley Lodge, No. 8, K. of P.; meets every 2nd and 4th Saturday evenings in Pythian Hall.
- Hawaiian Council, No. 689, American Legion of Honor; meets on second and fourth Friday evening of each month in Harmony Hall.
- Oceanic Council, No. 777, American Legion of Honor, meets on the first and third Tuesdays of each month.
- Hawaiian Tribe, No. 1, Improved Order of Red Men; meets on first and third Thursdays of each month at K. of P. Hall.
- Forest Lunalilo, No. 6606, A. O. of Foresters; meets at K. of P. Hall on first and third Wednesdays of each month.
- Forest Camoes No. 8110, A. O. F.; meets second and fourth Tuesday evening of month in San Antonio Hall.
- Geo. W. de Long Post, No. 45, G. A. R.; meets the second Tuesday of each month at Odd Fellows' Building, Fort street.
- Roosevelt Camp, No. 1, Dept. of Hawaii U. S. W. V.; first and third Saturdays, Waverly Hall, Bethel street.
- C. Wittae Camp, Sons of Veterans; meets on third Tuesday of each month in San Antonio Hall.
- Capt. Cook Lodge, No. 353, Order Sons of St. George; meets at Harmony Hall every Monday evening.
- Fort Hawaii, No. 3769, Independent Order of Foresters, meets third Monday of each month.
- Hawaiian Council, Young Men's Institute; meets second and fourth Wednesdays of each month at Catholic Mission Hall.
- Honolulu Lodge, B. P. O. Elks, 616; meets every Friday evening in the Elks' Building, King street near Fort.
- Honolulu Aerie, No. 140, Fraternal Order of Eagles, meets second and fourth Wednesdays each month in Pythian Hall.
- Loyal Order of Moose, No. 800, meets weekly at .....
- American Association of Masters and Pilots of Steam Vessels, Honolulu Harbor, No. 54; meets first Sunday of each month at 7 p. m. in Odd Fellows' Hall.
- Marine Engineers' Beneficial Association, No. 100; meets every second and fourth Monday nights at K. of P. Hall.
- Kamehameha Lodge (native); meets last Thursday of each month in Odd Fellows' Hall.
- Kauikaouli Lodge, No. 1 (native); meets on first and third Fridays each month in St. Antonio Hall.

## PLACES OF WORSHIP.

Central Union Church, Congregational (Independent), corner Beretania and Richards streets; Rev. Doremus Scudder, D. D., pastor; Rev. A. A. Ebersole, assistant pastor. Services every Sunday at 11 a. m. and 7:30 p. m. Sunday school meets one hour before morning service. Prayer meeting Wednesday evenings at 7:30.

Palama Chapel, J. A. Rath, Superintendent. Sunday school at 9:30 a. m. Gospel services at 7:30 p. m.

Methodist Episcopal Church, corner Beretania and Miller streets. Rev. Robt. Elmer Smith, pastor. Sunday services 11 a. m. and 7:30 p. m. Sunday school meets at 10 a. m. Prayer meeting Wednesdays at 7:30 p. m.

The Christian Church, Rev. D. C. Peters, pastor. Rev. Chas. C. Wilson in charge of Mission work. Sunday services at 11 a. m. and 7:30 p. m. at their house of worship, Alakka street near King. Sunday school meets at 9:45 a. m.

Salvation Army, services held nightly at hall, Nuuanu street, with Sunday services at the usual hour.

Roman Catholic Church, Fort street, near Beretania; Rt. Rev. Libert Boeynaems, Bishop of Zeugma. Services every Sunday at 10 a. m. and 4:30 p. m. Low mass every day at 6 and 7 a. m. High mass Sundays and Saints' days at 10 a. m.

St. Andrew's Cathedral, Protestant Episcopal; entrance from Emma street, near Beretania. Rt. Rev. Henry Bond Restarick, Bishop of the Missionary District of Honolulu; Rev. Wm. Ault. Holy Communion, 7; Sunday school, 10; morning prayer, litany and sermon, 11; Hawaiian service, 3:30; evening prayer and sermon, 7:30.

Chinese Congregation. Rev. Kong Yim Tet, Curate. Services on Sunday at 11 a. m. and 7:30 p. m. Evening prayer every Wednesday at 7 p. m.

St. Clement's Chapel, Punahou. Services on Sundays. Holy Communion, 7 a. m. Morning prayer, 11 a. m.; evening prayer, 7:30 p. m. Rev. John Osborne, rector.

- First Church of Christ, Scientist, Fraternity Hall, Odd Fellows' building. Sunday services 11 a. m.
- Christian Chinese Church, Fort street; Rev. Tse Kei Yuen, acting pastor. Services every Sunday at 10:30 a. m. and 7:30 p. m. Prayer meeting Wednesdays at 7:30 p. m.
- German Lutheran Church, Beretania St.; Rev. W. Felmy, pastor. Services on Sunday at 11 a. m.; Sunday school at 10 a. m.
- Portuguese (Protestant) Mission; Rev. A. V. Soares, pastor. Services every Sabbath at the usual hour. Sunday school at 3 p. m. Chapel situated corner of Punchbowl and Miller streets.
- Reorganized Church of Jesus Christ, G. J. Waller, pastor. Services in new chapel on King street near Thomas Square; Sunday school at 10 a. m.; preaching in Hawaiian at 11 a. m.; in English at 7:30 p. m.
- Seventh Day Adventists. S. D. M. Williams, pastor. Chapel 767 Kinau street. Sabbath school Saturdays at 10 a. m.; preaching at 11. Wednesday prayer and missionary meeting at 7:30 p. m.
- Japanese Union Church (connected with Hawaiian Board Missions); Rev. T. Hori, pastor. Hold services at 10 a. m. Preaching at 11 a. m. and 7:30 p. m. Sunday services. Prayer and praise meeting Wednesdays at 7 p. m.
- Japanese Methodist Church, Rev. C. Nakamura, pastor. Hold services in chapel on River street, near St. Louis College.
- Japanese Church, cor. Kinau and Pensacola Sts., Rev. T. Okumura, pastor; hold regular services at the usual hours.
- Bishop Memorial Chapel, Kamehameha School. Rev. J. L. Hopwood, Chaplain. Morning services at 11.

## COUNTY OFFICIALS.

### CITY AND COUNTY OF HONOLULU.

- Mayor ..... Joseph J. Fern
- Sheriff ..... Wm. P. Jarrett
- Clerk ..... D. Kalauokalani, Jr.
- Auditor ..... Jas. Bicknell
- Treasurer ..... Robert W. Shingle
- City and County Attorney... John W. Cathcart
- Supervisors—M. C. Amana, C. N. Arnold, S. C. Dwight, F. J. Kruger, E. P. Low, H. E. Murray, W. H. McLellan.
- Deputy Sheriffs—Honolulu, Chas. H. Rose.  
Koolauloa, L. K. Naone.  
Koolaupoko, R. W. Davis.  
Waianae, J. K. Kupau.  
Waialua, Oscar P. Cox.  
Ewa, Jno. Fernandez.
- Road Supervisor—Chas. B. Wilson.
- Supt. Garbage Dept.—Chas. Costa.
- Civil Engineer—G. H. Gere.
- Chief Engineer Road Dept.—H. G. Wooten.
- Chief Engineer Fire Dept.—Chas. H. Thurston.
- Asst. Engineer Fire Dept.—Aug. G. Deering.
- Supt. Electric Light Dept. and Police and Fire Alarm System—W. L. Frazee.
- Deputy County Attorney—F. W. Milverton.
- Prosecuting Attorney, Police Court—A. M. Brown.
- Bandmaster Hawaiian Band—Capt. Henry Berger.
- Supt. Kapiolani Park—Alex. Young.

### COUNTY OF MAUI.

- Sheriff ..... Clement Crowell
- Attorney ..... Daniel H. Case

- Auditor ..... Charles Wilson
- Treasurer ..... L. M. Baldwin
- Clerk ..... W. F. Kaat
- Supervisors—Wailuku, Chas. Lake.  
Lahaina, Wm. Henning.  
Makawao, Wm. F. Pogue.  
Hana, R. A. Drummond.  
Molokai, T. T. Meyer.

### COUNTY OF HAWAII.

- Sheriff ..... Samuel K. P.
- Auditor ..... C. K. Maguire
- Clerk ..... Jno. K. Ke
- Attorney ..... W. H. Bee
- Treasurer ..... Chas. Sw
- Supervisors—Kau, S. Kauhane.  
Kona, J. N. Koomoa.  
Kohala, H. P. Beckley.  
Eilo, E. H. Austin, J. D. Low  
Puna, N. K. Lyman.  
Hamakua, Wm. Purdy.

### COUNTY OF KAUAI.

- Sheriff ..... W. H. Rice
- Auditor ..... S. Mag
- Clerk ..... J. M. Kane
- Attorney ..... S. K. Ke
- Treasurer ..... A. H. Est
- Supervisors—Francis Gay.  
Koloa, W. D. McBryde.  
Lihue, H. D. Wishard.  
Kawaihau, J. Rodriguez.  
Hanalei, Jas. K. Lata.

## FEDERAL OFFICIALS.

## DEPARTMENT OF JUSTICE.

## U. S. DISTRICT COURT.

Hon. Sanford B. Dole. . . . . Judges U. S. Dis-  
 Hon. C. F. Clemons. . . . . trice Court.  
 R. W. Breckons. . . . . U. S. Attorney  
 C. C. Bitting. . . . . Asst. U. S. Attorney  
 E. R. Hendry. . . . . U. S. Marshal  
 H. H. Holt. . . . . Chief Office Deputy U. S. Marshal  
 D. K. Sherwood. Office Deputy, U. S. Marshal  
 A. E. Murphy. . . . . Clerk  
 F. L. Davis, Geo. R. Clark. . . . . Deputy Clerks  
 H. G. Spencer, Chas. S. Davis. . . . .  
 . . . . . U. S. Commissioners  
 W. W. Thayer. . . . . Referee in Bankruptcy  
 Chas. Furneaux. . . . . U. S. Commissioner, Hilo  
 Wm. H. Beers. . . . . Referee, Hilo  
 Regular Terms:—At Honolulu on the second  
 Monday in April and October.  
 Special Terms:—May be held at such times  
 and places in the district as the Judge  
 may deem expedient.

Miss C. F. Sackett, Miss E. Pratt. . . . .  
 . . . . . Clerks U. S. Attorney  
 P. Soares. . . . . U. S. Court Stenographer  
 Miss Goldie G. Gurney—Stenographer to U.  
 S. District Judges.  
 U. S. Jury Commissioners—R. H. Trent, A. E.  
 Murphy.

## TREASURY DEPARTMENT.

## CUSTOMS DIVISION.

E. R. Stackable. . . . . Collector  
 R. C. Stackable. . . . . Special Deputy Collector  
 Kaymer Sharp. . . . . Chief Examiner  
 A. B. Ingalls. . . . . Examiner and Gauger  
 John W. Short. . . . . Clerk  
 J. K. Brown. . . . . Cashier  
 D. Beringer, R. H. Bemrose, E. H.  
 Boyen, C. J. Cooper, Mark Weil. . . . .  
 . . . . . Examiners  
 J. B. Gibson, P. M. Naluai, M. J. Scan-  
 lan, W. H. D. King, W. D. Wilder. . . . .  
 . . . . . Deputy Collectors and Clerks  
 L. R. Medeiros. . . . . Deputy Collector  
 Geo. P. Thielen. . . . . Private Secretary  
 F. E. Miller, M. G. Johnston, Geo. W.  
 Jurens, Joseph Ordenstein, R. K.  
 Brown, E. S. McGrew. . . . . Clerks  
 Cora L. E. Neumann. . . . .  
 . . . . . Stenographer and Typewriter  
 James I. Arcia. . . . . Weigher  
 E. J. Taylor. Deputy Collector and Inspector  
 E. Friedersdorff. . . . . Sampler and Verifier  
 J. A. K. Williams. . . . . Assistant Gauger  
 Kanuha. . . . . Foreman  
 A. Gottrell. . . . . Messenger  
 B. Cameron, Wm. F. Storey, C. M.  
 Neal, J. B. Reeves, W. H. Straud,  
 F. D. Ferreira, G. McNicoll, J. K.  
 Sackett, F. M. McGrew, W. V.  
 Koll. . . . . Inspectors

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 John Hodson, James Dodd, C. F. G.  
 Rowold, B. H. Atwood, A. E.  
 Mitchell, F. J. Robello, M. J. Scully,  
 M. R. Medeiros, H. H. Williams, T.  
 P. Harris, J. K. Bunker. . . . .  
 . . . . . Night Inspectors  
 W. O. Aiken. . . . . Deputy Collector, Kahului  
 B. K. Baird. . . . . Deputy Collector, Hilo  
 R. R. Elgin. . . . . Deputy Collector, Mahukona  
 W. D. McBryde. . . . .  
 . . . . . Deputy Collector and Inspector, Koloa

## INTERNAL REVENUE OFFICE.

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 Ralph S. Johnstone. . . . . Chief Deputy Collector  
 B. F. Heilbron. . . . . Division Deputy  
 J. A. K. Evans. . . . . Gauger  
 O. A. Berndt. . . . . Stamp Deputy and Cashier  
 S. Hamamoto. . . . . Messenger  
 R. E. Bayliss, Lee Sing. . . . .  
 . . . . . Storekeepers and Gaugers

## POSTOFFICE DEPARTMENT.

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 Geo. W. Carr. . . . . Asst. Supt. Railway Mail Service  
 Jos. G. Pratt. . . . . Postmaster  
 Jos. Kubej. . . . . Asst. Postmaster  
 Wm. McCoy. . . . . Chief Registry Clerk  
 W. C. Peterson. . . . . Chief Money Order Clerk  
 W. C. Kenake. . . . . Chief Mailing Clerk  
 F. T. Sullivan. . . . . Supt. of Mails

DEPARTMENT OF COMMERCE AND  
LABOR.

## IMMIGRATION SERVICE.

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 R. L. Halsey, H. B. Brown, Edwin  
 Farmer. . . . . Inspectors  
 Tomizo Katsunuma. . . . . Japanese Interpreter  
 Tong Kau. . . . . Chinese Interpreter  
 Henry Paoa, Moses Kauwe, Louis Caesar,  
 S. Lukua, Manl. Spencer, Robt.  
 Plunkett, W. Fieldgrove. . . . . Watchmen

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## Hawaii Experiment Station.

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 Miss A. R. Thompson. . . . . Asst. Chemist  
 Wm. T. McGeorge. . . . . Asst. Chemist  
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 C. J. Hunn, V. Holt. . . . . Asst. Horticulturists  
 D. F. Fullaway. . . . . Entomologist  
 C. K. McClelland. . . . . Agronomist

## U. S. WEATHER BUREAU.

Wm. B. Stockman. . . . . Section Director  
 D. P. McCallum. . . . . Assistant

## MAGNETIC STATION.

J. W. Green. . . . . In Charge

## WAR DEPARTMENT.

## U. S. ARMY.

## Engineer Department.

Major W. P. Wooton, Corps of Engineers, U. S. Army, in charge of works for defense of Honolulu and Pearl Harbor, and of the Improvement of Honolulu, Hilo and S. F. Burbank } Assistant Engineers.  
 Richard Quinn }  
 Geo. F. Whittemore, Junior Engineer.  
 A. K. Sheperd, Chief Clerk.  
 F. M. Bechtel, L. H. Camp and Miss Edna Perkins, Clerks.  
 F. C. Betters and F. W. Carter, Overseers.  
 L. M. Temple, Storekeeper.  
 S. H. Ware, Superintendent.

## Engineer Camp at Waikiki.

Major W. P. Wooton, Corps of Engineers, Commanding  
 Capt. Alfred B. Putnam, Corps of Engineers, U. S. A.  
 First Lieut. R. T. Ward, Corps of Engineers, U. S. A.  
 Second Lieut. Jas. A. O'Connor, Corps of Engineers, U. S. A.  
 Second Lieut. Lewis A. Watkin, Corps of Engineers, U. S. A.  
 First Lieut. Geo. B. Tuttle, Surgeon, U. S. A.

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## U. S. Naval Station, Hawaii.

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 Lieut. Leo Sahn, U. S. N., Aide to Comdnt.  
 Surgeon G. T. Smith, U. S. N., Senior Medical Officer.  
 Paymaster H. E. Stevens, U. S. N., Pay Officer and General Storekeeper.  
 Civil Engineer E. R. Gaylor, U. S. N.  
 Asst. Civil Engineer R. F. Smith, U. S. N.  
 Asst. Civil Engineer G. S. Burrell, U. S. N.  
 Chief Boatswain B. H. Shepley, U. S. N., Captain of Yard.  
 Chief Boatswain P. J. Kenney, U. S. N.  
 Chief Gunner C. B. Babson, U. S. N., Commanding Officer U. S. S. *Navajo*.

## U. S. MARINE BATTALION.

Major W. C. Neville, U. S. M. C., Commanding Marine Battalion.  
 Capt. A. T. Marix, U. S. M. C., Post Quartermaster.

First Lieut. H. B. Pratt, U. S. M. C.  
 First Lieut. R. S. Kingsbury, U. S. M. C.  
 Second Lieut. E. A. Blair, U. S. M. C.  
 Second Lieut. G. A. Johnson, U. S. M. C.

## LIGHT-HOUSE ESTABLISHMENT.

Lieutenant Leo Sahn, Inspector of the 1905 Light-House District, in charge of all light-house affairs in the Hawaiian Islands.

Arthur E. Arledge, Superintendent.  
 Frank C. Palmer, Asst. Suptd.  
 Ernest L. Wilson, Chief Clerk  
 M. W. Mikkelsen, Clerk  
 Emil C. Legros, Keeper, Light-House Depot.

## Light-House Tender Kukui.

Frederick Kariger, Captain.  
 Henry Blackstone, First Officer.  
 Aubrey D. Shaw, Second Officer.  
 Frederick E. Clarke, Chief Engineer.  
 Anthony P. Lederer, First Assistant Engineer.

## PUBLIC HEALTH AND MARINE HOSPITAL SERVICE.

Carl Ramus, P. A. Surgeon U. S. P. H. & M. H. S., Chief Quarantine Officer.  
 Edward R. Marshall, Asst. Surgeon U. S. P. H. & M. H. S.  
 Julian M. Gillespie, Asst. Surgeon U. S. P. H. & M. H. S.  
 A. N. Sinclair, Acting Assistant Surgeon U. S. M. H. S.  
 Wm. F. James, Acting Assistant Surgeon U. S. M. H. S.  
 Frank A. Stump, Pharmacist, U. S. M. H. S.  
 Emma F. Smith, Medical Inspectress.  
 Leo. L. Sexton, Acting Assistant Surgeon U. S. M. H. S., Hilo, Hawaii.  
 Wm. Osmer, Acting Assistant Surgeon U. S. M. H. S., Kahului and Kihai, Maui.  
 Franklin Burt, Acting Assistant Surgeon U. S. M. H. S., Lahaina, Maui.  
 A. H. Waterhouse, Acting Assistant Surgeon U. S. M. H. S., Koloa, Kauai.  
 Thos. J. West, Acting Assistant Surgeon U. S. M. H. S., Port Allen, Kanai.  
 B. D. Bond, Acting Assistant Surgeon U. S. M. H. S., Mahukona, Hawaii.

LEPROSY INVESTIGATION STATION.  
MOLOKAI.

Geo. M. McCoy, P. A. Surgeon, District  
 Dr. Moses T. Clegg, Asst. District  
 H. T. Hollmann, Asst. Surgeon  
 F. L. Gibson, Pharmacist

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