

HORN FLIES

Have for some time been the pest of Stock Raisers and Dairymen.

We have just received a **FLY WASH** that will keep the Flies off any animal it is put on. It has been well tried here and found to work perfectly. Try a gallon and it will relieve your stock so much that you will wish more.

E. O. HALL & SON, Ld.

LOOKING TO SKY

At End of War Mars Shines as Leading Planet.

TO CROSS MERIDIAN TONIGHT

Discussion of Observations—Canals Do Exist—The Colors—in Straight Lines.

Mars is now the reigning planet. By 9 p. m. it is now two hours high, a little north of east, about fifteen degrees below the Twins. The ruddy planet is too brilliant an object to be mistaken for an ordinary star.

Since December 10 Mars has been retrograding, or moving westward with reference to the stars. This movement will continue until February 27, when the planet will be only about four degrees distant from Pollux—a little west of south. After that date its movement will be direct, or toward the east. The "loop," in its apparent path, caused by these movements, is shown on the planisphere.

The planet's opposition to the sun, when it will cross the meridian at midnight and will be at its brightest for this year, and in its best position for observing—since the earth will then lie directly between it and the sun—will occur on the 18th of this month, tonight. The conditions for observing the planet this year are partly favorable for observers in the northern hemisphere and partly unfavorable. The planet crosses the meridian at a high altitude, and for this reason is excellently well placed; but, as an offset to this favorable circumstance, it is now at nearly its greatest distance from the sun, and, consequently we shall not pass so near to it as we sometimes do. Our distance from Mars at the coming opposition will be about 62,000,000 miles, which is about 26,000,000 miles greater than at the opposition of 1892. Furthermore, the atmospheric conditions are always less favorable for observing celestial objects in the winter season than in the summer. It is hardly likely, for these reasons, that any new discoveries of importance will be made this year.

It has been pretty clearly established by observations made at the last three oppositions of Mars, beginning with those of 1892, when Professor W. H. Pickering obtained so excellent a view of the planet at Arequipa, in Peru, that, contrary to the view held until recently by astronomers generally, it is not universally, Mars has very little water upon its surface, and that the grayish and greenish areas seen upon it owe their color, in part at least, to vegetation. As to the so-called "canals" in Mars, there is no longer a doubt that they exist. As they are described and depicted by those who have seen them the best—and very few astronomers have seen any except the more conspicuous of them for the reason that to see them requires exceptionally favorable atmospheric conditions—they form a marvelous systematic network of perfectly straight lines, covering the entire surface of the planet, its dark as well as its light areas, thus affording convincing evidence that the former are not "seas," whatever else they are. The true character of these mysterious lines, which, by the way, are not at all times visible, nor all visible at one time, but which make their appearance successively with an obvious relation to the changing seasons of the planet—is now the most interesting question of Martian geography. The most probable view of them now seems to be that they are strips of vegetation—not water courses, though very likely containing water courses—since they are visible only when Mars is at least thirty miles in breadth and many of them are doubtless much wider than this. The theory that they are of artificial origin—perhaps works designed for purposes of irrigation—has considerable evidence in its support, and it would certainly be interesting should it eventually be established.

Mercury is now a morning star. Venus also is a morning star, visible an hour or so before sunrise in the southeast.

Jupiter is a morning star, rising at about 2:30 a. m. Saturn and Uranus are likewise morning stars, but are too close to the sun to be visible. Neptune is an evening star, very near to the star which tips the Bull's southern horn. It shines as a star of about the tenth magnitude.

Moonlight Concert.

The first of the series of moonlight concerts will be given this evening at Thomas Square by the Government band. Capt. Berger has arranged a popular program. The new song "Our Honolulu Queen," written in Topeka, Kansas, in honor of Miss Rose, of Hilo, will be introduced tonight at the concert by the Misses Kellaa, Alepai and Makawalu. The concert begins at 7:30, the entire program of which is as follows:

- PART I.**
Overture—King's Lieutenant Titi
Paraphrase—Ben Bolt Brode
Selection—Nabucco Verdi
Solo and Chorus—Our Honolulu Queen (new)
The Misses Kellaa, Alepai and Makawalu.
- PART II.**
Cornet Solo—Remembrance of Lib-eral Casey
Mr. Charles Kreuter,
Fantasia—Emperor's Review
Waltz—Town of Songs Fahrbach
March—Stars and Stripes Forever Sousa
The Star Spangled Banner.

RAINFALL FOR DECEMBER, 1898.

STATIONS.	ELEV. (Ft.)	RAIS (In.)
HAWAII—		
Waiakea	50	2.04
Hilo (town)	100	.....
Kaunana	1250	6.39
Pepeekeo	1003	3.68
Honoumou	300	7.96
Hakalua	200	6.98
Honohoua	.....	8.04
Laiapohoe	70	8.73
Ookala	400	4.39
Kukui	250	4.42
Paauhau	750	8.86
Paauhau	300	4.01
Paauhau	1200	7.77
Honokaa	425	6.42
Honakaa (Kalehua)	1900	.....
Kukuihaele	700	7.76
Awaii Ranch	1100	4.73
Niuli	200	.....
Kohala (Ostrom)	350	.....
Kohala Mission	585	4.45
Kohala Sugar Co.	234	3.34
Waimea	2720	4.02
Kailua	950	1.97
Lauhau	1540	.....
Keaokukua	1380	2.25
Kalahiki	800	1.34
Kalahiki	1200	1.49
Naalehu	650	5.77
Naalehu	1350	6.94
Naalehu	1725	6.51
Honouapo	15	.....
Hilea	310	4.40
Pahala	850	3.94
Moaula	700	.....
Volcano House	4000	3.33
Olaa (Mason)	1650	8.04
Pohakuloa (Olaa)	2800	.....
Waiakeahou	750	.....
Kapoho	110	4.05
Pohohi	10	6.70
Kamaili	650	.....
Kalapana	8	.....
MAUI—		
Kahului	10	.....
Labatunana	600	.....
Olowalu	15	0.92
Waipaoa Ranch	700	3.43
Kaupo (Mokulau Coffee Co.)	285	6.53
Kipahulu	.....	4.33
Hanalei Plantation	50	5.84
Nabiku	.....	.....
Hakua	700	8.25
Kula	4000	4.87
Kealahou (Kula)	.....	4.41
Puomalei	1400	9.64
Pala	180	.....
Haleakala Ranch	2000	5.24
MOLOKAI—		
Mapulehu	70	4.55
LANAI—		
Koee	1600	.....
Waipapa	.....	.....
OAHU—		
Punahou W. Bureau	50	2.03
Kulaokahua	50	.....
Kewalo (King St.)	15	1.79
Makiki Reservoir	150	1.48
Kapiolani Park	10	2.16
School St. (Bishop)	50	1.95
Insane Asylum	50	2.17
Nuuanu (W. W. Hall)	50	1.76
Nuuanu (Wyllie St.)	250	3.74
Nuuanu (Elec. Sta.)	405	.....
Nuuanu	850	9.05
Nuuanu	285	2.45
Maunawili	300	4.23
Kaneohe	100	3.73
Waialana	25	5.67
Ahuhimanu	35	9.06
Kalukou	25	1.05
Waianae	1700	7.43
Ewa Plantation	60	.....
Waipahu	200	1.10
KAUAI—		
Lihue Grove Farm	200	2.42
Lihue (Molokoa)	300	3.01
Hanamaulu	200	.....
Kilauea	325	4.05
Hanalei	10	4.05
Waiawa	32	1.02

Records Not Hitherto Published: NOVEMBER, 1898.

Awini Ranch	5.27
Pahala	3.30
Luakaha	9.12
Kailua	3.45
Kaneohe	0.60
Nuuanu (Wyllie St.)	4.19

C. J. LYONS, Meteorologist Gov't Survey.

N. B. Observers are requested to forward their reports promptly at the end of each month, that they may appear in the published report on the fifteenth of following month.

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Moderate in Price

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Siliesias, Sleeve Linings, Stiff Linen, Italian Cloth, Moleskins, Meitons, Serge, Kammgarns, Etc.

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- 1—House and Lot on Liliha Street.....\$ 3,500
- 2—House and Lot at Punahou..... 1,500
- 3—House and Lot at Punahou..... 1,800
- 4—House and Lot at Makiki..... 4,000
- 5—House and Lot at Makiki..... 4,750
- 6—House and Lot at Makiki..... 5,000
- 7—Paying Business property on Beretania Street..... 4,000
- 8—Paying business property near Nuuanu Street..... 3,000
- 9—Paying business property on Smith Street..... 8,000
- 10—Paying business Property on River Street..... 8,000
- 11—Well established paying business..... 6,000
- 12—9 Beautiful Lots on Beretania Street, each..... 1,000
- 13—8 Large Building Lots at Kalihi, each..... 1,300
- 14—Property on King Street, including three Houses and Lots and 1 choice Building Lot, present income \$60 per month.. 7,500

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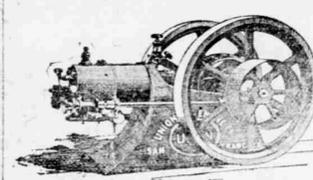
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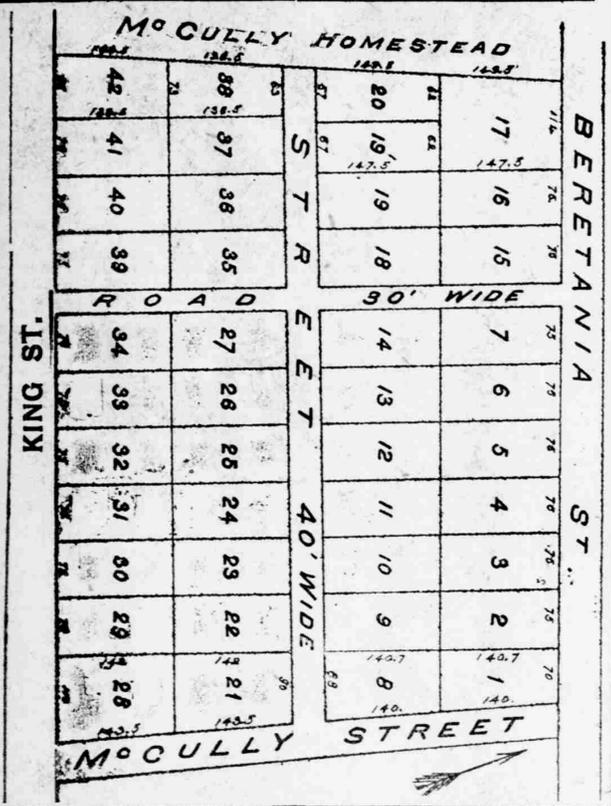
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