Honolulu, H. I. Jan 9th 1865.

Dear Dr. Gray,

Herewith I send a list of the plants which this accompanies, which are my collections of flowering plants, made on these Islands in the year 1864. It certainly, when done up, does not look like a very large work for the 7 months I have been collecting but I hope its value will in part make up for the want of quantity. These collections were entirely made by me.

Perhaps it will not be out of place to say a few words about the shape and characteristics, as I have noticed them, of some of the Islands, and I will begin with Kauai.

This Island was not visited by the Expl. Exped under Wilkes. It is an interesting Island, both on account of its plants and of its shells, which last are exceedingly abundant, and unlike those of any other of the Islands. In reference to its physical structure; — it is highest about five miles from its S. E. extremity (the island is about 20 miles long by 15 broad, being somewhat the shape of an egg and lying S.E. & N.W.) being there 2500 or 3000 ft. high. This height is obtained by a rather abrupt rise from the SE end, but from its summit, which is gently rounded and a mile in diameter, it slopes

gently towards its N. W. extremity & the sea. The side towards Lahaina (10 or 12 miles distant across the channel) is very deeply gullied, and the sides and bottoms of the ravines are wooded as well as the summit of the mountain. The side of the Mt. towards the S.W. (opposite Lahaina) falls off abruptly, the whole length of the island, from the highest part of the Mt, some 1500 or 2000 ft, to a table land, formed of shallow saucer shaped valleys, (their depth a hundredth part of their area) which lies at an elevation of a 1000 feet or thereabouts, and terminates on the SW side of the island in a abrupt Pali or cliff 700 ft, more or less, of 12 or 15 miles in length. To the SE. the land gradually slopes to the sea, and it is there that the only secure anchorage is found, formed by a projecting point of lava, half a mile in length.

The vegetation of the summit of the Mt is of the same general character as that of the summits of the other islands when not over 6000 ft. high. In my notes of species I have used the terms "summit of Lanai" "Lanai, E. End", "Lanai, W. End.", "Lanai, S.W." The "Summit" I have just spoken of. The "E. end" is somewhat elevated, not wooded & dry; the "W end" is ~~that part~~ the Western half of the island, having a good soil, but not wooded except by patches of shrubbery, among which you will see some interesting plants, and there are few or no ferns, it being too dry. The "SW" part of the island is dry and rather

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grass =438, 436, Maui, and dwarfed Metrosideros, which I saw in full flower when only a foot high. Interspersed among this are pools of water, and the earth is soft and muddy. In the grass grows the most of the remarkable plants from this locality, but the violets grow mostly in the clumps of Metrosideros, that remarkable and showy Lobeliac =462, Maui, is a very striking feature of the vegetation. The whole region of W. Maui within 3 or 4 miles of the coast is very dry and barren, but the top of the Mt is almost always covered with clouds & in the heads of the valley there are daily showers, often of considerable violence, as regards the fall of water.

E. Maui is heavily wooded along its whole N. side to an elevation of 7000 ft. and there are 22 large and deep ravines on that side, which is well watered. The Eastern slope of the Mt is rather dry, but little gullied with ravines and open land, mostly now overrun with a species of Verbena, which has been imported here, and is proving an intolerable nuisance. The W. slope, Ulapalakua, is again wooded, and is so, because of a sort of eddy formed there by the passing of the trade winds on each side of the Mt, driving in the clouds in this sheltered place which keep the ground moist by frequent showers and prevents excessive evaporation. It is here, the most favored spot on the islands in my estimation that Capt. Makee has his sugar plantation, of nearly 1000 acres.

think I shall be able to do it easily after the visit which I hope to make next spring.

I hope to travel around this island the last half of this month & go to Kauai sometime next month.

I have, since I wrote you last, looked over Wright's Cuban Lichens, and certainly think it is a most beautiful collection. It has made me look sharper than ever for them.

I received your letter containing that one from Prof. Dana day before yesterday, but the bulk of our last mail has not yet arrived, it having been put onto a ship which sailed the day before the one which has just arrived here from the coast. It is now 21 days out and ought to be here at any minute.

Brigham rec'd your letter to him, containing information about Orchids, on 2nd of Jan., so your wish that your "Happy New Year" might get here at the right time was fulfilled. We are much obliged for the wish, and return it if it is not already too late.

I want to have a copy of Sullivant's Icones Muscorum but if you think there will be copies for sale when I get home next summer or fall, I will wait about buying one. If there is danger of their all being sold I should be very much obliged to you if you would secure me a copy in time.

I find at the last moment that I cannot quite fill the box without putting in waste paper unless I put in a package of ferns. There are some interesting ones in the package, and you will notice a small chaffy Polystichum from the side of Haleakala, E. Maui, which Dr. Hillebrand takes to be a new species. There is also Schizaea australis, Selaginella deflexa, and a nice Lycopodium.

I believe I have said all that is to be said, now, and with my best respects to Mrs. Gray, I remain,

Most respectfully, your obedient servant,

Horace Mann.

Prof. Asa Gray,
Cambridge, Mass.

408. Stenogyne
409. Vitex trifoli
410. Dodonea
411. Broussaisia
412. Rhus sand
413. Nothocestru
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416. Rubiac.
417. Rubiac
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419. Palm fr
420 Broussaisia
421 "
422 Kadua
423. Osteomeles
424. Fragaria
425 Rubus
426. Phytolacc
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428 Plantago
429 Geranium
430 Vac. pendu
431 Acaena
432. Viola K
433. Geranium
434 Panicum
435 "