

finding that it was a cause so easily removed; and the whole was put up anew.

I now flattered myself that I should be able to go on successfully; but this was soon found to be a fallacious hope. The series were evidently less disturbed, and the disturbance was found to be connected with the times of the greatest surf. I, however, went through a thorough examination of the apparatus, and discovered, with a high magnifying power, what was thought to be a scratch in the agate planes. I therefore shifted the knife-edge, causing it to rest about one-sixth of an inch from its former place. As like irregularities continued, the scratch could no longer be assigned as the cause. I therefore concluded finally that the roll of the surf was the sole cause of the discrepancies; and on the 23d of February I determined to make another move, to Mount Kanuha, a hill back of Hilo, which I named after the chief who owned the spot. At this hill I engaged three grass-houses, one of which he agreed to enlarge for me, about ten feet, which, with the rent for the time I should require them, was to cost ten dollars. A detachment of sailors was at once ordered, and the whole apparatus, house, &c., was soon on the move. Mount Kanuha is three quarters of a mile from the bay, and elevated above half tide one hundred and forty feet. Before twenty-four hours had expired, the whole apparatus was up and the clock in motion. After its rate became settled, the series with the pendulums were successfully completed, no disturbance being found to exist at this last locality.

For these interesting results, the reader is referred to the volume on Physics. The difference in altitude of the two stations at which the pendulums were swung, was thirteen thousand three hundred feet.

On this occasion I was assisted by Mr. Eld, who entered most fully into my anxieties and the excitement incident to them, and who joined me in the perseverance and exertions necessary to overcome all the obstacles we had to contend with. On the 2d of March, these duties were completed, and the instruments embarked.

Our time would have passed quite agreeably here had it not been for the vexatious delays that have been spoken of. The house I occupied at Paneo was on a charming spot, susceptible of much improvement; and altogether one of the most desirable situations for a residence on the islands. During the period of my stay, it offered a delightful retreat, and enabled me to enjoy it as well as the fine weather: the latter I may have estimated more highly than it deserves; for the inhabitants of the village were by no means inclined to extol their climate, and considered the season as quite remarkable both for the absence of