

of the cone contracts, the jet is thrown higher and higher, and the spray falling all around, covers the lava platform around with congealed drops of a lava rain. Each of these drops forms a Pele's hair, like the spray from the waves.¹

Over one of the ranges of low cliffs in the crater, a cascade of lava had poured, and cooling and setting as it flowed, had been drawn out into long ropes and rounded ridges which were twisted one over another, and formed a curiously gnarled and contorted mass. Everywhere complex ripple marks were sharply moulded in the rapidly setting melted mass (see Pl. XXXI.). All over the lava surfaces bubbles were to be met with blown in the hot lava by the escaping gases, and now set and covered by convex films of thin transparent lava like thin-blown green bottle glass.²

Not far inland from Hilo are the beautiful falls of the Waianuene, the basins of which are much used as a bathing place by the natives (see fig. 268).

SANDWICH ISLANDS TO TAHITI.

The Challenger left Hilo for Tahiti on the 19th August at 2 P.M. An excellent meridional section was made between the Sandwich and Society groups; at every Station the temperature of the water was taken at every 10 fathoms from the surface to 200 fathoms, and at every 100 fathoms to 1500 fathoms (see Sheet 38).

Dr. R. von Willemoes Suhm.—During the passage, on the 13th September, the Expedition had the misfortune to lose Dr. Rudolf von Willemoes Suhm, who died after a short illness from erysipelas. This sad circumstance cast a shade of melancholy over the ship, which was not entirely thrown off until the departure from Tahiti, for Dr. von Willemoes Suhm had won the respect of everyone on board by his zealous attention to work, and by his readiness to put up with the many inconveniences inseparable from life on board a ship, where the irksomeness of discipline can never be relaxed.

Rudolf von Willemoes Suhm, son of the Kammerherr Landrath von Willemoes Suhm, a native of Schleswig-Holstein, was born September 11th, 1847. From his earliest years he showed a special aptitude for the study of all branches of Natural History, and during his boyhood he was a frequent contributor to the Zoological Garden Journal of Frankfurt.

At eighteen he went to the University of Bonn, where he was a member of the corps "Borussia" and studied law. Though he was not remiss in his attendance on the lectures of the professors of the Legal Faculty, his own study during the three sessions

¹ Mr. H. C. Sorby, F.R.S., had come to the conclusion from the observations on furnace slag that Pele's hair was probably formed in this manner with globules attached, *Nature*, vol. xvi. p. 23, 1877.

² For a detailed account of the volcanos from a geological point of view, see W. T. Brigham, Notes on the Volcanic Phenomena of the Hawaiian Islands, *Mém. Boston Soc. Nat. Hist.*, vol. i. pp. 341 and 564.