above that of their melting-point, and were, to use his phrase, "superfused." [74]

The varying degrees of liquidity are manifested in a characteristic way on the surface of lava. Thus, in the great lava-pools of Hawaii, the rock exhibits a remarkable liquidity, throwing up fountains of molten rock to a height of 300 feet or more. During its ebullition in the crater-pools, jets and dribblets, a quarter of an inch in diameter, are tossed up, and falling back on one another, make "a column of hardened tears of lava," one of which (Fig. 49) was found to have attained a height of 40 feet, while in other places the jets thrown up and blown aside by the wind give rise to long threads of glass which lie thickly together like mown grass, and are known by the natives under the name of "Pele's Hair," after one of their divinities.[75] Yet although the ebullition is caused by the uprise and escape of highly heated vapors, there is no cloud over the boiling lake itself, heavy white vapor only escaping at different points along the edge.

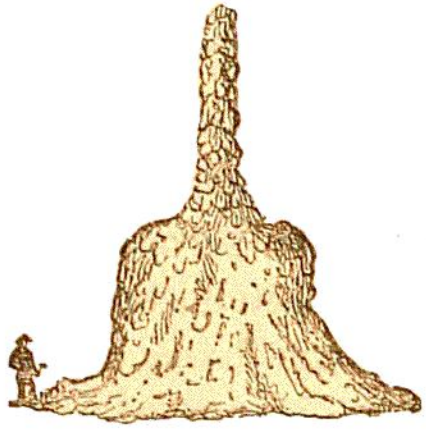

Fig. 49.—Column formed of congealed jets of liquid Lava, Crater of Kilauea (Dana).

On the other hand, the lavas of Vesuvius and of most modern volcanoes, which issue so saturated with vapor as to be nearly concealed from view in a cloud of steam, are accompanied by abundant explosions of fragmentary materials. Slags and clinkers, torn by explosions of steam from the

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[74] "High Plateaus of Utah," Geog. and Geol. Sur. Territories. Washington, 1880, chap. v.

[75] Dana, Geol. U. S. Explor. Exped., "Geology," p. 179; "Characteristics of Volcanoes," p. 160.