

observations ; but though the thermometer stood at  $41^{\circ}$ , still the keen mountain breeze affected me so much, of course mainly owing to the fatigue and heat I had suffered the day before, that I was reluctantly obliged to relinquish the attempt, and being unable to settle again to sleep, I replenished my blazing stock of fuel, and sat gazing on the roaring and agitated state of the crater, where three new fires had burst out since ten o'clock the preceding evening. Poor Honori, my guide, who is a martyr to asthma, was so much affected by their exhalations (for they were on the north bank, just below my tent) that he coughed incessantly the whole night, and complained of cold, though he was wrapt in my best blanket, besides his own tapas, and some other articles that he had borrowed from my Woakee man. The latter slept with his head towards the fire, coiled up most luxuriously, and neither cold, heat, nor the roaring of the volcano, at all disturbed his repose."

On his descent from the Volcano Mr. Douglas describes some extensive caves.

"Among the grassy undulating ground are numerous caves, some of great magnitude from forty to sixty-five feet high, and from thirty to forty feet broad, many of them of great length, like gigantic arches, and very rugged. These generally run at right angles with the dome of Mouna Roa and the sea. Some of those natural tunnels may be traced for several miles in length, with occasional holes of different sizes in the roofs, screened sometimes with an overgrowth of large trees and ferns, which renders walking highly dangerous. At other places the vaults have fallen in for the space of one hundred or even three hundred yards, an occurrence which is attributable to the violent earthquakes that sometimes visit this district. The inhabitants convert these caverns to use in various ways ; employing them occasionally as permanent dwellings, but more frequently as cool retreats, where they carry on the process of making native cloth, from the bark of the mulberry tree, or where they fabricate and shelter their canoes from the violent rays of the sun."

"They are also used for goat-folds and pig-styes, and the fallen in places, where there is a greater depth of decomposed vegetable matter, are frequently planted with tobacco, Indian corn, melons, and other choice plants. At a distance of ten miles north of Kapupala, and near the edge of the path, are some fine caverns above sixty feet deep. The water dropping from the top of the