

The sulphur-bank is about one hundred and fifty yards in length by about forty wide, and is separated from the perpendicular basaltic rocks that bound the plain, by a chasm from which steam issues in quantities. By descending into it as far as the heat would permit, we obtained some beautiful crystallized masses of sulphur, which we found in small cavities. In some parts of the chasm, the temperature was at the boiling point. The bank seemed to be formed by the decomposition of the rock, through the agency of heat and water. Without the chasm, the bank was formed of an unctuous, red and blue clay, or rather marl, so nearly allied to a pigment, that I understood it had been used as a wash or paint by the missionaries. The steam from below seemed to be penetrating and saturating the whole bank. We returned to our encampment well laden with specimens.

During the day I had signals put up on the points surrounding the crater, and made every preparation for surveying it the next day. Dr. Judd volunteered to go down into the crater, with a party of natives, to endeavour to obtain some gases with the apparatus we had brought from the ship, (which we disinterred here,) and at the same time to procure some liquid lava, by dipping it up from the boiling cauldron. For this purpose we thought of many contrivances, but at last fixed upon one of the frying-pans, as the article best calculated to effect the object when lashed to a long pole.

On the 16th, Dr. Judd and I set out on our several tasks. The various instruments with which we were provided caused us much amusement; but I was somewhat uneasy and doubtful relative to his descent and prospect of obtaining the objects of his search, for I knew the state of the crater; but the doctor, always enthusiastic, parted from me in high spirits, with his party of natives, after receiving many cautions not to be too venturesome. I waited to see him pass over the edge of the bank, and then went to my work of triangulation.

The wind was strong from the northeast, and though clear, the weather was unpleasant. After measuring my base, I visited all the stations around the crater in their turn. The banks, like those on the south side, are formed of sand and pumice, of which the former is most abundant, and occurs in strata, of from six to eight inches in depth. On the southwest side of the crater we did not find the gases so perceptible or suffocating as I had been led to expect from the natives' account, who urged numerous objections in order to prevent my going there, for they imagined that they would have a difficult journey. They told many stories of persons falling through the sand: this I could not understand until one of my men suddenly sunk in up to his middle, which at once caused us to make a halt,