

water suddenly left the basin, and sunk into the pipe in the centre to a depth of ten feet. After a few hours the eruption was repeated; the jets sometimes attaining ninety feet in altitude. The basin of the "great Geyser" is an irregular oval, about fifty-six feet by forty-six, formed of a mound of silicious depositions about seven feet high; the pipe through which the water is ejected being sixteen feet in diameter at the opening, but contracting to ten feet lower down; its perpendicular depth is estimated at sixty feet. Sir G. S. Mackenzie has proposed an ingenious explanation of these phenomena, which the diagram in the preceding page will serve to illustrate. It is supposed that the water from the surface percolates through crevices (Tab. 13, *a*) into a cavity in the rock (*b*), and heated steam, produced by volcanic agency, rises through fissures in the lava (*cc*). The steam becomes in part condensed, and the water filling the lower part of the cavity (*d*) is raised to a boiling temperature, while steam under high pressure occupies the upper part of the chasm. The expansive force of the steam becomes gradually augmented, till at length the water is driven up the fissure or pipe (*e*), and a boiling fountain with an escape of vapour is produced, which continues playing till all the water in the reservoir is expended, and the steam itself escapes with great violence till the supply is exhausted.*

* Travels in Iceland, p. 229.