

to a safe distance, when it burst from the orifice with terrific momentum, rising in a column the full size of this immense aperture, to the height of sixty feet; and through and out of the apex of this vast aqueous mass five or six smaller jets or round columns of water, varying from six to fifteen inches in diameter, were projected to the marvelous height of two hundred and fifty feet." This eruption continued twenty minutes; and two eruptions occurred during twenty-four hours.

The numerous other geysers in their action present phenomena essentially similar to these. The mineral deposit generally forms a mound, cone, or nozzle, through which the water escapes. This varies greatly in diameter and height. In the White Dome and White Pyramid geysers it is twenty-five feet high. In the Giant geyser the cone is ten feet high and rests on a platform four feet high and over three hundred feet in diameter. The material is generally geyserite; but a few geysers and springs exist in which it is *travertin* or calcareous tufa, consisting of calcium carbonate. The Soda Butte, on the east of the Yellowstone, is a conical mound twenty feet high, which though now closed at the top, was formerly an active geyser. It is composed of *travertin*, and *Soda Butte* is a misnomer.

The thermal springs of the Park have built up mineral deposits of extremely curious and interesting character. The Mammoth Hot Springs, on Gardiner's river, three miles from its mouth, situated on a series of terraces, present a fine development of a style of formation characteristic of hot springs in various parts of the world. The waters issue at many different levels along a slope, and the calcareous deposit takes the form of a pile of tubs so arranged that the overflow from one at a higher level falls into another at a lower level. The tubs are of various depths and diameters, and sometimes display lively shades of color—greenish, reddish, and yellowish. There are several terraces of deposits from which the water has disappeared; and the evidence is, generally, that the thermal energy of the region is diminishing.

The phenomena of hot springs are well known in various