

The depth to which observations of this kind can be carried is never very great, for no Artesian wells have hitherto exceeded 2280 feet, and our deepest mines do not descend below 6600 feet. Experiments in reference to the heat of the earth,

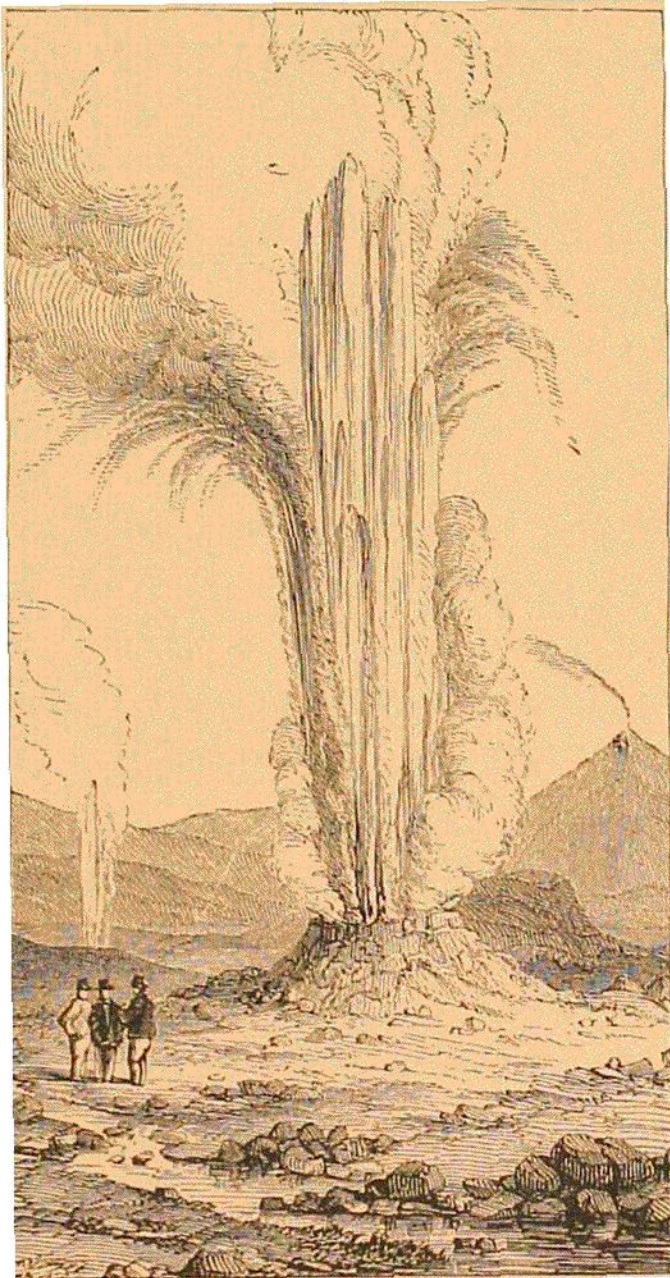


FIG. 120.—THE GEYSERS (ICELAND).

pushed to the furthest limits of human adventure, could not, therefore, arrive at a greater temperature than 176° at the utmost. But this temperature has never been observed with any instruments referred to the depth we speak of. Yet a peculiar geological phenomenon enables us to establish the existence of far higher temperatures in the interior of the earth.

Certain mineral springs rise to the surface of the soil with a temperature of even 158° F.*

These immense sheaves of water loaded with silica, which escape from the soil of Iceland, and are named *Geysers*,† exceed a temperature of 212° F. at the point of emergence, and in their subterranean channel, at a few yards deep, the temperature is 256° F. This heat is obviously due to the depth in the earth of their great reservoir.

[The eruptions, or explosions, of the geysers, is thus accounted for by Professor Bunsen. "He points to the fact that water, after being long subjected to heat, loses much of the air contained in it, has the cohesion of its molecules

much increased, and requires a higher temperature to bring it to boil; at which moment the production of vapour becomes so great, and so instantaneous, as to

* [We append a list of some remarkable thermal springs, with their ascertained temperature:—

Matlock (Derbyshire)....	68° F.	Ursprung (Baden), ...	158° 30' F.
Buxton (Derbyshire), ...	82° F.	St. Gervaise,...	98° F.
Stoney Middleton (Derbyshire),	70° F.	Aix-les-Bains, ...	117° F.
At Bath:—		Montiers, ...	101° F.
Cross Bath, ...	109° F.	Vichy, ...	104° F.
King's Bath, ...	114° F.	Baréges,...	120° F.
Hot Bath ...	167° F.	Carlsbad, ...	165° F.]

† [From the Icelandic *geysa*, to burst forth furiously.]