

so large an area along the western flank of the mountain range of Masson Hill, is attributable to the thermal springs having, at some very remote period, issued from a much higher source than at present, and flowing down the side of the hill, into the river at its foot, the water, as it cooled, deposited the lime with which it was charged, on the stems, branches, leaves, and other extraneous bodies. At this time the springs escape from crevices in the rocks, at an elevation of about one hundred feet above the bed of the river; the waters, at their source, have a temperature of from  $66^{\circ}$  to  $68^{\circ}$ , and contain free carbonic acid, and minute quantities of muriates and sulphates of magnesia, lime, and soda. Their origin is now concealed, and the water conducted by pipes to the various baths and fountains; but wherever a rill escapes, and flows down the hill, the moss, &c. is quickly incrustated. I was informed, that in about eight months, a basket of eggs would be entirely enveloped in a thick mass of tufa. The uniform high temperature of these waters, shows that they emanate from a very deep source; and it is probable that they originate from steam, which is cooled and condensed as it approaches the surface of the earth. The miners assured me, that the springs burst out from beneath the volcanic rock, here termed *toad-stone*, and that the water, when it first issues, is of a higher temperature than the Matlock Bath water; but its heat is reduced by the cool land springs with which it becomes intermingled.