

this line is not strictly horizontal, like that of the surface of a lake. Moreover, it is liable to rise and fall according as the seasons are wet or dry. In some places it lies quite near, in others far below, the surface. A well is an artificial hole dug down below the water-level, so that the water may

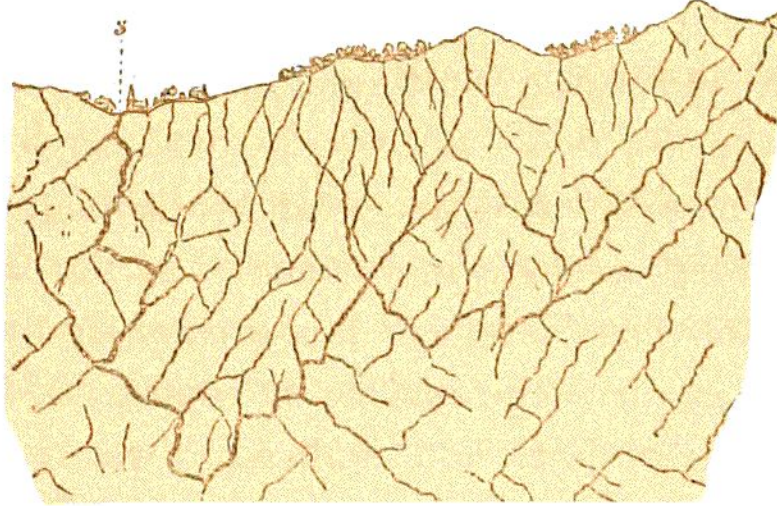


Fig. 105.—Intricate subterranean course of percolating water.

percolate into it. Hence, when the water-level happens to be at a small depth, wells are shallow; when at a greater depth, they require to be deeper.

Since rocks vary greatly in porosity, some contain far more water than others. It often happens that, percolating along some porous bed, subterranean water finds its way



Fig. 106.—Diagram illustrative of the theory of Artesian Wells.

*a, b*, Lower water-bearing rocks, covered by an impervious series (*c*), through which, at *L*, and elsewhere, borings are made to the water-level beneath.

downward until it passes under some more impervious rock. Hindered in its progress, it accumulates in the porous bed, from which it may be able to find its way up to the surface again only by a tedious circuitous passage. If, however, a bore-hole be sunk through the upper impervious bed down to the water-charged stratum below, the water will avail