Hence, if a valley of denudation cuts through these pervious and impervious strata, we may expect springs along their junction.

In Fig. 92, if B, B, be the pervious, and C, C, the impervious strata, and a valley of denudation has been excavated in them, we may expect springs at E, E. If a fault occurs where pervious and impervious strata join each other, the water will be accumulated in the lowest portion of the pervious strata, and we may expect to find a spring at L.

And vice versa, the geologist can sometimes discover the line of a fault by the occurrence of mineral springs, where nothing else indicates its existence at the surface.

Fig. 92.
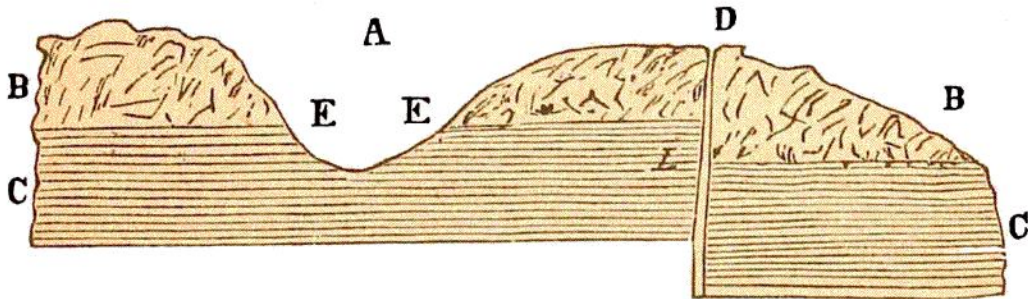
In many parts of the world if the strata be penetrated to a considerable depth by boring, water will rise sometimes with great force to the surface, and continue to flow uninterruptedly. Such examples are called *Artesian Wells*, from having been first discovered in the province of Artois, in France, the ancient Artesium.

The theory of these wells is simple. In Fig. 93, suppose the stratum M, M, to be pervious to water, while the rocks above and below, A, A, and B, B, are impervious. The result is, that all the water which accumulates in the stratum M, M, will press toward the lower part of the basin. If now an opening be made at any place lower than the outcrop of the stratum, the water will be forced above the surface in a jet, by hydrostatic pressure, and an artesian well will be the consequence.

Fig. 93.