tively impervious"[77] strata (*a*). Rain falling upon the upper sandy stratum (*d*), will sink through it to the surface of the clay (*e*), along which it will flow until it issues either as springs, or in a general line of wetness along the side of the valley (*b*). The second sandy bed (*c*) will serve as a reservoir of subterranean water so long as it remains below the surface, but any valley cutting down below its base will drain it.

Except, however, in districts of gently inclined and unbroken strata, springs are more usually of the second class, where the water has descended to a greater or less distance, and has risen again to the surface in fissures, as in so many siphons. Lines of joint and fault afford ready channels for subterranean drainage (Fig. 104). Powerful faults which

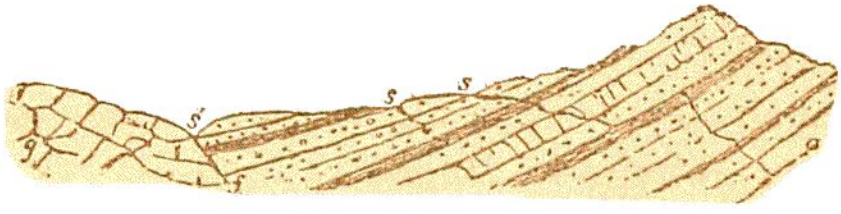

Fig. 104.—Deep-seated Springs (*s*, *s'*) rising through joints and a fault (*f*).

bring different kinds of rock against each other (as *a* and *g* are by the fault *f* in Fig. 104) are frequently marked at the surface by copious springs. So complex is the network of divisional planes by which rocks are traversed, that water may often follow a most labyrinthine course before it completes its underground circulation (Fig. 105). In countries with a sufficient rainfall, rocks are saturated with water below a certain limit termed the *water-level*. Owing to varying structure, and relative capacity for water among rocks,

[77] This term *impervious* must evidently be used in a relative and not in an absolute sense. A stiff clay is practically impervious to the trickle of underground water; hence its employment as a material for puddling (that is, making watertight) canals and reservoirs. But it contains abundant interstitial water, on which, indeed, its characteristic plasticity depends.