

drainage of a mine may often be passed downwards, through the natural channels of the rocks.

One of the most obvious sources of advantage to the farmer from an acquaintance with the distribution of mineral masses, is the facility with which in many instances the injurious effect of small springs coming to the surface may be obviated. The theory of the earth's internal drainage is so simple, that every man of common sense would be able to drain his lands upon sure principles, or else to know precisely why it cannot be drained, if he were to become so much of a geologist, as to learn what rocks existed under his land, at what depth, and in what positions. Springs never issue from stratified masses, except from reservoirs some how produced in jointed rocks — and at the level of the overflow of these subterranean cavities. Faults in the strata very frequently limit these reservoirs, and determine the points of efflux of the water. Let those faults be ascertained, or the edge of the jointed rock be found, the cure of the evil is immediate. But some geological information is needed here; and landed proprietors, who think it less troublesome to employ an agent than to direct such a simple operation, may at least profit by this hint, and choose an agent who knows something of the rocks he is to drain.

The same knowledge which guides to a right general method of draining, conducts to a clear and almost certain method of finding water by wells, and enables an engineer to predict with much probability, whether, at what depth, in what quantity, and even of what quality, water will be found. Why is water so generally found by deep wells at London and Paris? Why is it often so abundant in these wells? Why is it often of pure quality, though in the descent small quantities of impure water are frequently penetrated? Because under both these capitals, the open, jointed, purely calcareous chalk strata, in great thickness, converge with opposite dips, and collect the water, which, upon the perforation of the superincumbent masses of