

clay, &c., rises with much force, and continues to flow, unless drained by other of these "Artesian" wells. This method of obtaining water is now commonly known, but deserves to be far more extensively practised in agricultural districts, where natural springs of pure water are rare blessings.

Another thing, probably of importance to agriculturists, is the discovery of substances at small depths, which, if brought to the surface, would enrich, by a suitable mixture, the soil of their fields. This is very strongly insisted on by sir H. Davy in his Essays, and considering how easy a thing it is for a landowner to ascertain positively the series of strata in his estate, it is somewhat marvellous that so few cases can be quoted, except that of sir John Johnstone, bart. of Hackness, near Scarborough, in which this easy work has been performed.

Finally, in experiments for the introduction of new systems and modes of management, with respect to cattle and crops, it will be of great consequence to take notice of the qualities of the soil, substrata and water, for these undoubtedly exercise a real and perhaps decisive influence over the result.

Construction of Roads, Railways, Canals, &c.

In planning and executing public works, such as canals, railroads, and common roads, a knowledge of the rocky structure of a country ought to be considered indispensable, and the boring rod is in continual requisition. But the engineer, who is also a geologist, will find it a surer method of research, to trace the systems of strata across miles of country, than to merely feel by the chisel at so many points of a line. To fix the line of a road is the problem, and a knowledge of the geological structure of the country on a large scale is one of the grand data for a true solution of it. When the line is fixed, the practical man will need minuter in-