

to the sources of boundless wealth, in our hills and mountains, calling from their native fastnesses for science to unearth them ; though, to grasp which, it is necessary that some acquaintance with geological facts be acquired, and kept prominently in view.

In an industrial country like this, the practical ability of any study is invariably thrown into the scale, and geology at first sight seems to the multitude, unpractical. What money will it earn for me in life ? is the question which first presents itself ; for if the answer be, none, a man has a right to rejoin, then let me take up some study, which will equally train and refresh my mind and yet be of pecuniary benefit to me. But to him who comes in contact with rude nature teeming with unsuspected wealth, of what incalculable advantage is it, to have a knowledge, if it be but of the rudiments of a science which will tell him the properties and therefore the value of the rocks and hills, and formation of country he meets with, or resides in. Let us take an example. Two individuals possessed of equal capital set out, let us suppose, to settle in a new region. The one ignorant of geology, fixes upon a locality characterised by the beauty of its scenery, and the fertility of its soil ; the other skilled in the science decides upon some rejected lot of bleak and barren aspect, but rich beneath in minerals, which his geological knowledge at once enabled him to detect. The former pays a high price for his land, and yearly toils over it, to reap, therefrom a remunerative, harvest ; the latter obtains the despised territory for a trifling sum ;—in the course of a few years by tapping its mineral wealth he secures a fortune, and eventually resells his purchase for a princely amount. Such an instance, is by no means rare. Again the capitalist, the agent who effects sales, the statistician, the traveller, the explorer, may all reap advantage from an acquaintance with this branch of study. Nature beckons alike the peer and the peasant to the perusal of her book spread out before them.

Various theories have been propounded to account for the formation of mineral veins, but it has become now an established idea, that all such with perhaps the exception of bog iron, are traceable to an igneous origin, many of them probably owing their existence to some process of sublimation, arising from the fiery mass below. Vast periods of eruptions could not have