measures, and it is to this part of the series we purpose more particularly to direct the reader's attention.

The nature of coal was at one time a matter of dispute; but although it is generally so thoroughly mineralized, as to make it very difficult to detect its vegetable origin with the naked eye, yet, when it is brought under the microscope, the cellular tissue in every part becomes so evident, that we wonder how there ever could have been any doubt upon the subject. Geologists now all agree, that coal is a vast accumulation of vegetable matter, carbonised by its exclusion from the air, and hardened by the great pressure of the rock in which it is enclosed.

The coal measures have the same distinctive features in all parts of the world, and consist of a number of seams of coal, varying from the smallest part of an inch, to upwards of fifty feet in thickness. These seams are always accompanied by muddy, or as geologists call them, argillaceous shales, and arenaceous, or in other words, sandy shales. These shales are more or less carbonised, that is to say, they contain more or less vegetable matter. They are almost invariably found both above and below the coal seams, while above and below them again are bands of sandstone, of various kinds, and different thicknesses, with which also is occasionally associated limestone.

The coal itself bears but a small proportion to the rocks in which it is contained, being seldom more than a half per cent., or six inches of coal to every hundred feet of the surrounding rock. The thickness of the coal measures varies in different countries, being in some only 6,000 feet thick, in others 12,000 feet, while in Nova Scotia they reach the enormous thickness of upwards of 15,000 feet !

Kind reader,-have you stood under one of the tallest steeples in this city, and cast your eye up to where the apex of the spire seemed to pierce the clouds ! Then we would ask you to try and imagine several hundred such structures, piled one above the other, and you will be able to form some faint idea of the wondrous height of these rocks. And now, while the mind is lost in the towering mass which the imagination has thus conceived, we would impress upon you the fact that upwards of 90 per cent. of these rocks were deposited once in water, as the interval was formed in the St. John, or as the muddy bottom of our lakes; and then we would ask you to reflect upon the vast time it must have taken, upon the tens of thousands of years which must have rolled by, ere by this slow and tedious process, so enormous an amount of aqueous deposit could have been obtained. As we have reflected upon the vast duration time represented by the carboniferous era; we have of the thought that it is a standing argument against a class of theologians, who assert that the end of all things is at hand. For it seems to us, that as the means which God takes is always just equal to the ends to be accomplished,-and since it took so many thousand years to lay up this vast store of fuel for the wants and necessities of man,-that at least an equal portion of time must pass