
MISCELLANEOUS.

THE FORMATION OF COAL.

Few people have any conception of the process by which those immense deposits of combustible matter were prepared, from which the fuel of the world in all coming time, so long as fuel shall be required, is to be supplied—nor of the peculiar condition of the earth and its surroundings during the long period occupied by that mighty chemical elaboration. The thought that during the slow lapse of these uncounted years, and indeed during the almost inconceivable ages that had preceded them, no living voice broke upon the stillness of eternity, and no “moving thing that had life” existed above the surface of the waters, is one of peculiar interest and grandeur. Yet that such was the fact, is made evident by the unerring record of the great Architect himself upon his work.

In coal beds traces of peculiar vegetation have been found more luxuriant than any which now exists upon the earth.

This peculiarity, with the fact that no air breathing animals existed previous to the formation of coal beds, led to the belief that carbon existed in the atmosphere in the form of carbonic acid gas, in such quantities as to prevent the existence of animals breathing air. How solitary must have been the earth during the period of coal formation! No birds fluttered from branch to branch amid the dense foliage, and no living creature traversed its plains or thread its lonely forests. Verdure flourished, and beauty shone upon the surface, but the essential charms of life were wanting. Silence, too, reigned throughout the world, broken only by the hoarse thunders of the earthquake, as the pent up fires vainly endeavored to burst through the bonds that confined them.

But this gigantic race of vegetation absorbed the carbon from the air. As fast as those plants died and fell to the earth, they were succeeded by others, which in their turn died, and fell to the earth; and in this manner an immense mass of vegetable substance was accumulated, which, upon subsequent fermentation, was changed into a mass of coal. The calling into existence of this race of plants was the great purifying process of the world. They were not of a nature to sustain animal life, but after they had succeeded in absorbing the poison in the atmosphere, and rendering the earth fit for the habitation of air breathing creatures, such plants were produced.

The vegetation of the coal period differed from that of the present day, in the fact that nearly all of the plants grew on the inside; whereas nine-