

combustion, from bituminous fermentation in the atmosphere. (*Wond.* p. 633. *Org. Rem.* I. p. 181.)

The manner in which the carboniferous strata have been deposited, has been a fruitful source of dispute among geologists. Some contend that the coal measures were originally peat-bogs, and that the successive layers were occasioned by repeated subsidences of the land; others, that the vegetable matter originated from rafts, like those of the Mississippi, which floated out to sea, and there became engulfed; others, that they were formed in vast inland seas or lakes, the successive beds of vegetable matter being supplied by periodical land-floods; and the supporters of each hypothesis bring numerous facts in corroboration of their respective opinions. There can, I think, be no doubt that coal may be, and has been formed, under all these conditions; and that at different periods, and in different localities, all these causes have been in operation; in some instances singly, in others in combination. Coal may have been produced in peat-bogs; at the bottom of fresh-water lakes, associated with freshwater shells and crustacea, as at Burdie House, (*Wond.* p. 621.) and in some of the Derbyshire and Yorkshire deposits; in the beds of rivers and estuaries, as in the Wealden, and in the Shrewsbury coal-field* (*Geol. S. E.* p. 206.); and

* In this coal-field are beds of limestone several feet thick, abounding in *cyprides*, freshwater mollusks, &c.—*Murch. Sil. Syst.* p. 84.