

particular or local formation of basalt, or in its flowing out as lava, when we know what the relations of this rock are in Germany, and when we remember how many different kinds of rocks are there associated with basalt as essential accompaniments, how these rocks form with basalt a connected whole which is absolutely inconsistent with any notion of volcanic action—a peculiar coal formation, entirely distinct from any other, only found with basalt and entirely enclosed among basaltic rocks, often even a peculiar formation of limestone.”¹

This was the one side of the picture. He could not yet break entirely the Wernerian bonds that held him to the beliefs he had imbibed at Freiberg. He could not bring himself to admit that all that his master had taught him as to the origin of basalt, all that he had himself so carefully noted down from his extended journeys in Germany, was radically wrong. He, no doubt, felt that it was not merely a question of the mode of origin of a single kind of stone. The whole doctrine of the chemical precipitation of the rocks of the earth's crust was at stake. If he surrendered it at one point, where was he to stop? We cannot wonder, therefore, that he still refused to permit himself to question the truth of the Wernerian faith in so far as the old basalts of Saxony and Silesia were concerned. He comforted himself with the belief that they at least, with all their associated sedimentary strata, must have been deposited by water.

But when he turns round again to the clear evidence displayed in Central France, he asks, “Is it the fault of

¹ *Op. cit.* p. 309.