

almost imagine," Cuvier says,<sup>4</sup> "that when he had produced his nomenclature of external characters, he was affrighted with his own creation; and that the reason of his writing so little after his first essay, was to avoid the shackles which he had imposed upon others." His system was, indeed, made known both in and out of Germany, by his pupils; but in consequence of Werner's unwillingness to give it on his own authority, it assumed, in its published forms, the appearance of an extorted secret imperfectly told. A *Notice of the Mineralogical Cabinet of Mine-Director Pabst von Ohain*, was, in 1792, published by Karsten and Hoffman, under Werner's direction; and conveyed by example, his views of mineralogical arrangement; and<sup>5</sup> in 1816 his *Doctrine of Classification* was surreptitiously copied from his manuscript, and published in a German Journal, termed *The Hesperus*. But it was only in 1817, after his death, that there appeared *Werner's Last Mineral System*, edited from his papers by Breithaupt and Köhler: and by this time, as we shall soon see, other systems were coming forwards on the stage.

A very slight notice of Werner's arrangement will suffice to show that it was, as we have termed it, a Mixed System. He makes four great Classes of fossils, *Earthy, Saline, Combustible, Metallic*: the earthy fossils are in eight Genera—Diamond, Zircon, Silica, Alumina, Talc, Lime, Baryta, Hallites. It is clear that these genera are in the main chemical, for chemistry alone can definitely distinguish the different Earths which characterize them. Yet the Wernerian arrangement supposed the distinctions to be practically made by reference to those external characters which the teacher himself could employ with such surpassing skill. And though it cannot be doubted, that the chemical views which prevailed around him had a latent influence on his classification in some cases, he resolutely refused to bend his system to the authority of chemistry. Thus,<sup>6</sup> when he was blamed for having, in opposition to the chemists, placed diamond among the earthy fossils, he persisted in declaring that, mineralogically considered, it was a stone, and could not be treated as anything else.

This was an indication to that tendency, which, under his successor, led to a complete separation of the two grounds of classification. But before we proceed to this, we must notice what was doing at this period in other parts of Europe.

*Hall's System.*—Though Werner, on his own principles, ought to

<sup>4</sup> Cuv. *El.* ii. 314.

<sup>5</sup> Frisch. p. 52.

<sup>6</sup> Frisch. p. 62.