

but are often disposed in layers parallel to their walls.

3. Veins

is the effect of deposition from water, and we should perceive no marks of the materials having been introduced with violence into their place. The Neptunists cannot object to the trial of their theory by these two facts.

“ As to the first, it is acknowledged, that there is a regular disposition of the substances in mineral veins, but it is one which has hardly any thing in common with the real phenomena of stratification. It consists in the distribution of the principal substances in coats parallel to the sides of the vein, each substance forming a separate coat. In a vein, for instance, containing quartz, fluor, calcareous spar, lead, &c. we might expect to find a lining of quartz crystals, applied immediately to the walls of the mine, and following exactly the irregularities of the surface; next, perhaps, a coat of fluor; then of calcareous spar; and last of lead-ore, in the centre of the vein, the same order being observed on the opposite side. These successive coats, it is material to remark, are not in planes, but in uneven surfaces, of which the inequalities are evidently determined by those of the walls, that is, of the rock which forms the sides of the vein: neither are they horizontal, but are parallel to the walls, whether these be perpendicular or inclined. Here, therefore, there is no appearance of the action of that statical law, which has directed the arrangement of the other strata, and which tends to make the plane of every stratum deposited by water perpendicular to the direction of gravity.

“ The coating of the veins has, therefore, been performed under the conduct of some other power than that
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