

vity of the Cordilleras, and also the extremity of the island of Trinidad, there are numerous petrifications; and these are partly of land, partly of marine animals. The sandstone of Scotland also contains numerous vegetable, and sometimes also animal petrifications.

1.

Old Red Sandstone or First Sandstone Formation.

Ælter rother Sandstein.—*Werner.*

It rests immediately on transition, or, when these are wanting, on primitive rocks. It alternates from fine to coarse granular, which latter often inclines to conglomerate; yet in general its grains exceed in magnitude those of the newer sandstone formations. The grains are usually quartz and flinty-slate. Its cement is iron-shot clay, which gives to the whole a reddish colour. Although the principal character of this sandstone is the coarseness of its grains, and reddish colour, yet it sometimes occurs fine-grained, and of a greyish colour; but this kind is usually in single beds, and in inconsiderable quantity. The reddish kind is denominated by the German miners, *Rothe tode Liegende*, or Red Dead-Lier; and the grey variety, *Weisse Liegende*, White-Lier. The outgoings of its strata reach a more considerable height than those of any of the other floetz formations. It is particularly distinguished by the bituminous