

arrangement which will enable us to keep together the consideration of the conglomerates of this district. (C.)

In the cliffs about half way between Sidmouth and Seaton in Devonshire, the red marle contains gypsum, very much resembling the mineral called mountain leather; nor was it difficult to trace on the spot, the gradual transition of the transparent crystalline gypsum into this amianthiform state. (K. 106.) The red cliffs of Budleigh Salterton near Teignmouth, which are of considerable height, and those also of Teignmouth itself, consist of alternations of argillaceous beds of sandstone and of breccia (conglomerate) and the red strata on the opposite side, near Powderham, are alternately soft and stony, but always intermixed more or less with strata of breccia; and they are inclined in various directions. (K. 109.)*

* The Rev. J. J. Conybeare has given in the *Annals of Philosophy* for April 1821, a fuller description of the range of strata from Dawlish to Teignmouth; as it contains a more precise examination of the rolled masses of various rocks included in the breccia of this formation than any account hitherto published, we have subjoined it nearly entire.

In these strata the rock exhibits itself under the several characters of a sandstone, either loosely compacted, or altogether pulverulent; a marle, more or less indurated: and a breccia composed of fragments of various sizes. Near to Dawlish, the sandy form is more frequent, towards Teignmouth the breccia, the base of which is usually marle, of an unctuous and argillaceous character. The marle has frequently those patches of white and purple, which have been often noticed as characteristic. The mineral contents of the rock seem to be few. *Calcareous spar* occurs in small patches a little south of Dawlish. *Gypsum* I could not detect either here or under the elevated plains of Haldon. On Blackdown, however, I have found it in small nodules. A sand sufficiently charged with, and indurated by iron, to be termed *ironstone*, traverses in all directions, the cliff to the north of Dawlish (see Deluc, vol. ii. p. 85), and the *earthy brown oxide of manganese* is found in numerous and small cavities nearly through the whole range of the coast. In one instance I detected a small portion of the black oxide of cobalt, precisely resembling that found at Alderley edge (Cheshire) in the same strata.* But the most remarkable feature in the rock appears to be the variety of substances contained in its brecciated form. Deluc has mentioned two only of these, the limestone and grey-wacké, though he insinuates that there are others, and appears (if I rightly understand the paragraph) to apprehend that of these the limestone only can be traced to any neighbouring rock, an opinion which, in its full extent, seems untenable. The following catalogue presents a tolerably faithful description of the fragments occurring in the breccia of Dawlish and Teignmouth, with the addition of some few from other quarters.

Granitic and Porphyritic Rocks.—These form a very considerable portion of the imbedded fragments. A 1. A minute aggregation of pale reddish-

* I am indebted to the Rev. the Dean of Bristol for an addition to this meagre catalogue. That gentleman has had the kindness to forward me some specimens of chaledony, which he discovered in this rock not far from Torquay. It is coarse, and appears under the form of spherical nodules, either hollow or investing portions of the marle itself.