they must all have been elevated at the same time.—See Plate II. fig. 2., where the relative situation of the beds of upper secondary limestone is represented, *a*, *a*.*

At Charnwood Forest, in Leicestershire, very highly inclined beds of granitic and slate rocks are covered with horizontal beds of the upper secondary strata, analogous to those in the Alps.—See Plate II. fig. 4. *a*. *a*. Now it is evident that the beds of granitic and slate rocks were raised before the horizontal strata were deposited upon them. Hence we attain the knowledge of an interesting fact in the natural history of our island: its beds of primitive and transition rocks were raised before the beds in the mountains of Savoy and Switzerland, nor can this conclusion be invalidated, unless we admit, what would be contrary to analogy, that secondary strata, possessing the same geological relations and the same organic remains, were formed at different epochs. I have cited the Charnwood Forest hills, because there the proof is more direct and palpable than at the Malvern Hills or elsewhere, for the horizontal upper secondary strata may be seen resting immediately on highly inclined beds of granitic and schistose rocks.

The horizontal beds resting on the Charnwood Forest granite and slate, are composed of sandstone (a part of the red marle and sandstone formation), and, at a little distance, the sandstone is covered by strata of lias limestone, *e*, which determine its relative age. In some parts, the sandstone strata also cover the coal strata; the latter, *d*, *d*, rise, very abruptly as they approach the granite in the north. At the Vosges mountains in France, the same red marle and sandstone, associated with lias, covers the granite and coal strata unconformably.

When M. Daubuisson published his *Traité de Geognosie* in 1819, he asserted, that the beds of granite in the Alps were raised into their present vertical or highly inclined position, soon after their original formation. I visited the Alps in the two following years, and the appearances presented by the secondary strata compelled me to draw a very different inference respecting the period when the beds of granite were elevated, which I stated in the second volume of my Travels, published in 1823.

"One important fact may be deduced from these elevated beds of pudding-stone, sandstone, and other strata, comparatively modern, ranging conformably with beds of granite and gneiss; namely, that the beds of granite did not acquire their elevated position till after the formation of the secondary strata. In England, the elevation of the beds of granite was anterior to the deposition of the upper strata, consisting of magnesian limestone, lias limestone, oolite, chalk, and

* The calcareous mountains in the outer ranges of the Alps, removed from the central granite, are often bent into arches as represented in Plate II. fig. 2. *x*, *y*, *z*. Such beds, of course, cannot be conformable to those nearer the granite.