

pare all that has been effected by volcanic forces since the commencement of this era, or what they may be expected to do if that era be extended for thousands of ages to come, with the meanest mountain chain, and then say whether the ordinary volcanic forces, acting for any series of years, could have produced them.

The other statements made by M. de Beaumont, that chains elevated at the same period have the same direction, and that chains of different ages are not parallel, must be submitted to the test of very extensive and accurate observations.

We may close these remarks with an extract from M. de Beaumont's own paper on the subject. "The fact of a general uniformity in the direction of all the beds upheaved at the same epoch, and consequently in the crests formed by these beds, is perhaps as important in the study of mountains as the independence of successive formations is in the study of superimposed beds. The sudden change of direction in passing from one group to another, has permitted European mountains to be divided into a certain number of distinct systems, which penetrate and sometimes cross each other without becoming confounded. I have recognised from various examples, of which the number now amounts to twelve, that there is a coincidence between the sudden changes established by the lines of demarcation observed in certain consecutive stages of the sedimentary rocks, and the elevation of the beds of the same number of mountain systems.

"Pursuing the subject as far as my means of observation and induction will permit, it has appeared to me that the different systems, at least those which are at the same time the most striking and recent, are composed of a certain number of small chains, ranged parallel to the demi-circumference of the surface of the globe, and occupying a zone of much greater length and breadth, and of which the length embraces a considerable fraction of one of the great circles of the terrestrial sphere. It may be observed respecting the hypothesis of each of these mountain-systems being the product of a single epoch of dislocation, that it is easier geometrically to conceive the manner in which the solid crust of the globe may be elevated into ridges along a considerable portion of one of its great circles, than that a similar effect may have been produced in a more restricted space.

"How well soever it may be established by facts, the as-