In one and the ſame mechanical formation, we obſerve a gradation in theſe parts in regard to their magnitude. Thus they occur as pebbles, gravel, and ſand, and the fineſt as loam and clay. We ſometimes, however, obſerve ſubſtances that are partly of a mechanical, partly of a chemical formation. Thus there is a kind of ſandſtone whoſe baſis or connecting matter is quartz; ſo that we have in this inſtance a mechanical and chemical formation in the ſame rock.

The deſtroying and forming effects of volcanic fire on the ſurface of the earth, will be conſidered when we come to treat of Volcanoes.

CHAP. III.

INTERNAL STRUCTURE OF THE EARTH.

32. HAVING in the preceding Chapters deſcribed the various inequalities obſervable on the earth's ſurface, and ſtated the means which nature appears to have employed in forming them, we come now to the conſideration of the ſecond branch of Geognoſy, which makes us acquainted with the *Internal Structure* of the earth.

At firſt ſight the ſolid maſs of the earth appears to be a confuſed aſſemblage of rocky maſſes piled