

CHAP. III.

GENERAL TRUTHS CONCERNING THE STRUCTURE OF
THE EXTERNAL PARTS OF THE GLOBE.

FROM these facts and reasonings concerning the nature and constitution of the materials of the globe, derived from chemical and physical science, we may turn to contemplate the general truths obtained by direct processes of observation and induction, concerning the mode of arrangement of these materials, in that limited portion of the earth's mass which it is possible for man to explore by artificial excavations, or to understand by skilful interpretation of the disclosures effected by nature.

Beginning at the surface, and passing gradually towards the deeper parts, we shall be able easily to gather clear ideas of this fundamental portion of positive geology, without a right knowledge of which the otherwise pleasing task of following and examining the common reasonings in the science would be useless, if not presumptuous.

STRUCTURE OF THE EXTERNAL PARTS OF THE
GLOBE.

SOIL, the external investment of the land, though it somewhat veil from geologists the objects of their peculiar research, merits attention; for this thin covering varies in some real relation to the rocks beneath, and appears, in many instances, to be nothing else than the substance of those rocks decomposed by time, and altered by vegetable admixtures. The depth of soil is extremely irregular, — some feet thick over certain sandy rocks, a foot thick over clays, only a few inches