

## STRATIFIED ROCKS.

The rocks that compose the globe are divided into two great classes, the STRATIFIED and UNSTRATIFIED, or AQUEOUS and IGNEOUS.

*Stratification* consists of the division of a rock into regular masses, by nearly parallel planes, occasioned by a peculiar mode of deposition. Strata vary in thickness from that of paper to many yards.

The term *stratum* is sometimes employed to designate the whole mass of a rock, while its parallel subdivisions are called *beds* or *layers*. The term bed is also employed to designate a layer, whose shape may be more or less lenticular, or wedge-shaped, included between the layers of a more extended rock ; as a bed of gypsum, a bed of coal, a bed of iron, etc. In this case the bed is sometimes said to be subordinate.

When beds of different rocks alternate, they are said to be inter-stratified.

A *seam* is a thin layer of rock that separates the beds or strata of another rock ; ex. gr., a seam of coal, of limestone, etc.

A bed or stratum is often divided into thin laminæ, which bear the same relation to a single bed as that does to the whole series of beds. This division is called the *lamination* of the bed ; and always results from a mechanical mode of deposition.

The lamination is sometimes parallel to the planes of stratification ; sometimes the layers are much inclined to each other ; and often they are undulating and tortuous.

Fig. 2, shows the different kinds of lamination.

Without Laminæ.

With waved Laminæ.

Finely Laminated.

Coarsely Laminated.

Obliquely Laminated.

Parallel Laminæ.

Fig. 3, is a sketch of a block of sandstone, six feet long, from Mount Tom, in East Hampton. Its face is a fine example of the oblique lamination above described, resulting from counter currents and depositions of coarse sand on surfaces sloping in different directions. Such examples are common in that locality.