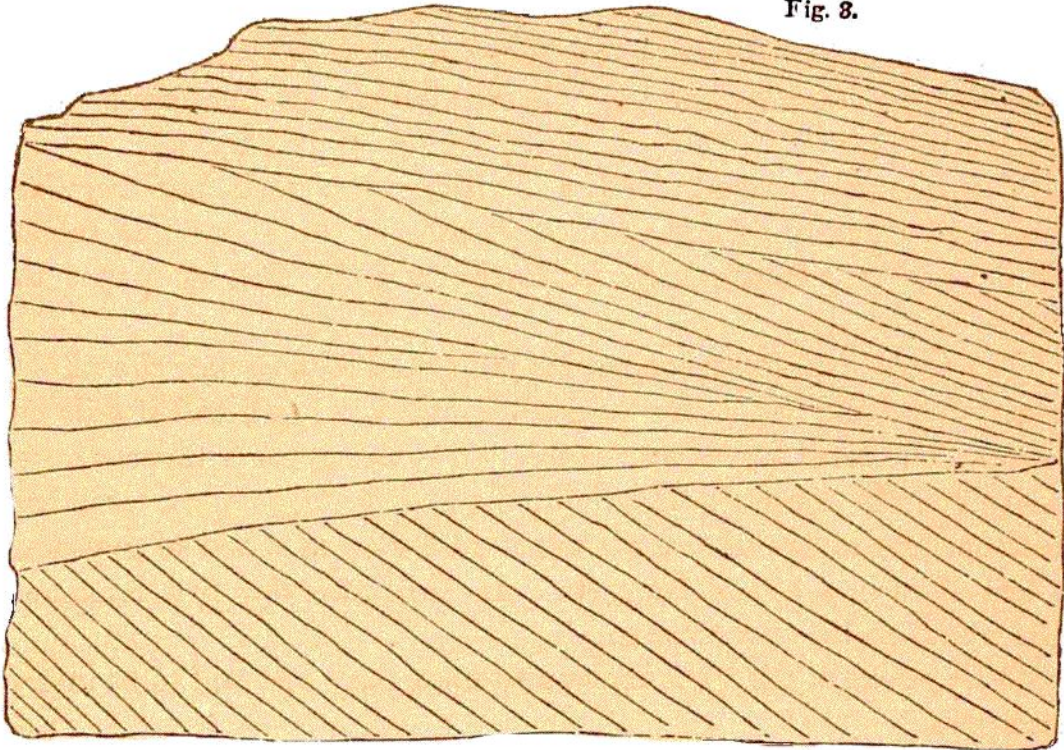


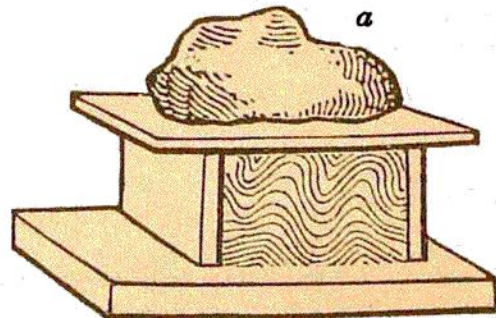
Fig. 3.



*Origin of lamination.*—All the lamination of stratified rocks was undoubtedly produced originally by deposition in water, and the varieties have resulted from modifying circumstances. 1. The parallel laminae are the result of quiet deposition upon a level surface. 2. The waved lamination, in many instances, is nothing but *ripple marks*; such as are seen constantly upon the sand and mud at the bottom of rivers, lakes, and the ocean. In the secondary rocks this is too manifest to be mistaken. 3. The oblique lamination has generally been the result of deposition upon a steep shore, where the materials are driven over the edge of an inclined plane. 4. Highly contorted lamination has often resulted from lateral and vertical pressure, as illustrated by Fig. 4. This is sometimes seen in deposits of clay.

*Illustration* If pieces of cloth of different colors be placed upon a table *c*, and covered by a weight, *a*, and then lateral forces, *b, b*, be applied; while the weight will be somewhat raised, the cloth will be folded and contorted precisely like the laminae of many rocks; as is shown in the figure.

Fig. 4.



*How to distinguish between strata and laminae.*—This cannot be done by the relative thick-