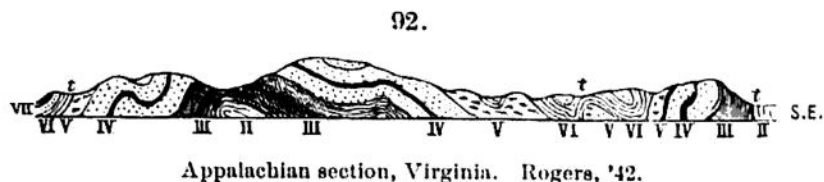


to have come from the left, they would be *underthrust* flexures, — a kind that is exemplified in some sections of the Alps, but is not common like the overthrust.

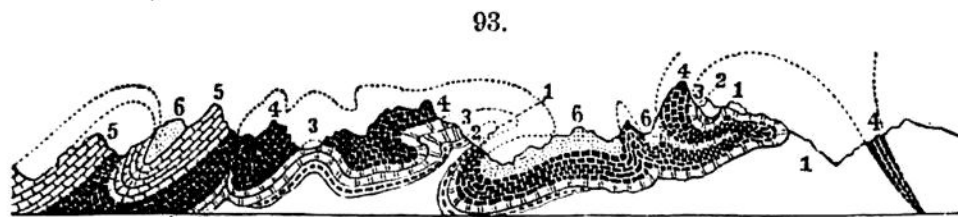
Flexures are either *anticlines* or *synclines*. Upward and downward bends alternate, as the figures show; the upward, lettered A, are anticlines, — so-named from the Greek *ἀντί*, *opposite*, and *κλίνω*, *incline*; and the downward, are synclines — from *σύν*, *together*, and *κλίνω*. When strata have been pushed up so as to dip only in one direction, the structure is called *monoclinical*, from *μόνος*, *one*, and *κλίνω*. One example of a *monocline* is shown in Fig. 91 (2). The beds in Fig. 96, on page 104, have a monoclinical position, but they may be either those of a monocline or of anticlines and synclines, as explained beyond.

As the following figures of actual sections indicate, flexures are not found in nature with their original forms, owing to the wear such regions have always undergone. Fig. 92, by Rogers, represents a section six miles



long, from the Appalachians in Virginia. The strata are numbered, so that the flexures of a given stratum may be followed; thus III bends over II, to the left of the middle of the figure, and the right portion descends to come up again in III at the right end of the figure; again, IV, to the left, rises and bends over III and II, though disjoined about the top of the fold by denudation.

Fig. 93 represents a section from the Swiss side of the central Alps. To the right, the strata, 1 to 6, are so flexed over that the newest stratum 6 is beneath 4, 3, 2, 1, with 1, the oldest, *at top*. The dotted lines help in tracing out the flexures. Other sections from the Appalachians, the Alps, and other regions, are given under the subject of Mountain-making (pages 355–360).



Section east of Lucerne, extending south, 15 m., through Windgille (4, to the right), a peak 10,455 feet high; 1, Gneiss; 2, Triassic beds; 3, Lias; 4, Jurassic, above the Lias; 5, Cretaceous; 6, Eocene Tertiary, including Nummulitic beds. Heim.

Besides the apparent irregularities introduced into a region of flexures by denudation, there are others still greater arising from fractures and faults (displacements). Overthrust flexures very commonly become broken