

ming, etc. They are frequently replaced by faults, of which indeed they may be regarded as an incipient stage (p. 916).

(b) *Symmetrical Flexures*, where the strata are inclined on the two sides of the axis at the same or nearly the same angle, may be low gentle undulations, or may increase in steepness till they become short sharp curves. Admirable illustrations of different degrees of inclination may be seen in the ranges of the Jura⁶ (Fig. 464) and the Appalachians (Fig. 246), where the influence of this structure of the rocks on external scenery may be instructively studied. In many instances, each anticline forms a long ridge, and each syncline runs as a corresponding and parallel valley. It will



Fig. 464.—Symmetrical Flexures of Swiss Jura
(the ridges coinciding with anticlines and the valleys with synclines).

usually be observed, however, that the surface of the ground does not strictly conform, for more than a short distance, to the surface of any one bed; but that, on the contrary, it passes across the edges of successive beds, as in Fig. 464. This relation—so striking a proof of the extent to which the surface of the land has suffered from denudation—may be followed through successive phases until the original superficial contours are exactly reversed, the ridges running along the lines of syncline and the valleys along the lines of anticline (Figs. 244, 245). Among the older rocks of the earth's crust which have been exposed alike to curvature and prolonged denudation, this reversal may be considered to be

⁶ On the geology of the Jura see C. Clerc, "Le Jura," Paris, 1888; G. Boyer, "Remarques sur l'Orographie des Monts Jura," Besançon, 1888; and the older work of Thurmann, "Esquisses Orographiques de la Chaîne du Jura," 1852.