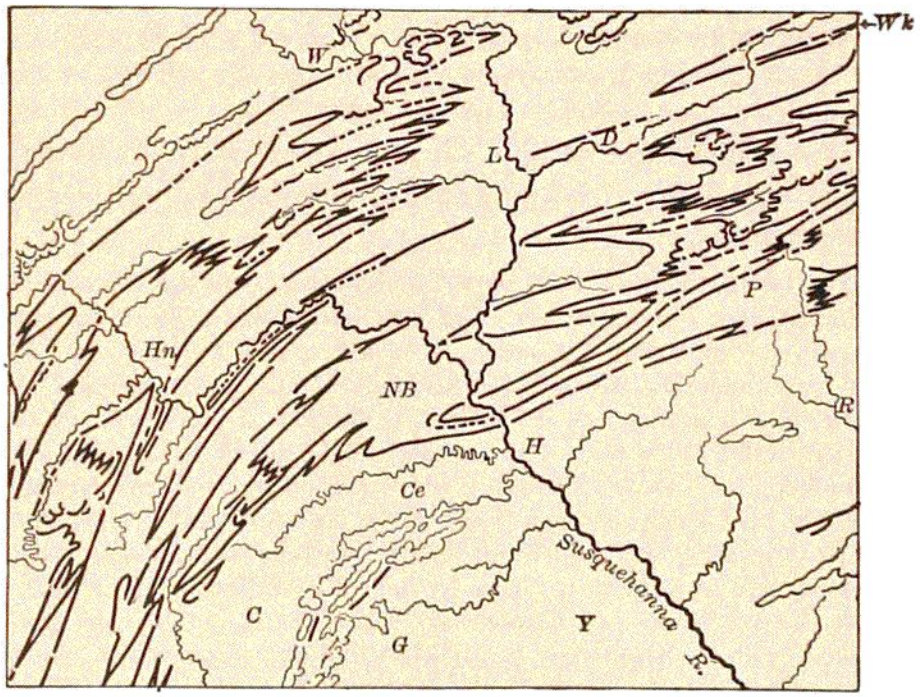
On the map on page 730 the lines T S, I C are the outline of the Triassic area of Pennsylvania. The transversely lined areas on its western part are the oil-producing and gas-producing areas of the state; the former light-lined, the latter dark-lined.

The character of the ridges in this east-northeast portion of the ranges, as they approach the Susquehanna on either side, their many small zigzag flexures (well exhibited in the diagram), and at the same time the wider spacing of the ridges there than to the westward, where the Appalachian Range takes its more normal northeasterly course, are points to be noted. These differences appear to have resulted in some way from the inequality of the action of the orogenic lateral pressure in the two directions; that is, at right angles to the normal northwesterly course, and to the less normal north-northwesterly. The course of the Susquehanna River appears to have been determined by the warpings then occasioned.

1154.



Diagram, showing the courses and flexures of the ridges in central Pennsylvania. From map by Lesley. Abbreviations: C, Chambersburg; Ce, Carlisle; D, Danville; G, Gettysburg; H, Harrisburg; Hn, Huntington; L, Lewisburg; NB, New Bloomfield; P, Pottsville; R, Reading; W, Williamsport; Wk, Wilkesbarre; Y, York.

The map also shows the parallelism between the positions of the oil-well and gas-well areas in western Pennsylvania and the trend of the mountains, and indicates a relation in their positions to the mountain structure, as already pointed out. The region of the anthracite is to the eastward, as will be seen on comparison with the map on page 730; while to the west and southwest there are the great areas of bituminous coal.

The Appalachian Range is a single mountain individual, or synclinorium, nearly 1000 miles long. But it is only one of the ranges made at this time