finally, at the time of upturning, the trap and sandstone, thus interstratified, were forced up into monoclines, which by denudation became the existing trap ridges.

According to the views already presented, (1) the trap mass in the trap ridges may be conformable, or not, to the associated sandstone; and (2) the supply fissure was near the eastern base of the ridges, or not far distant. These conditions are illustrated in Figs. 275, 276, on page 302. In the views of W. M. Davis, on the contrary, (1) the trap mass of the ridges is conformable with the sandstone and with its other trap sheets; and (2) it extends to the east and west of the ridges as a conformable sheet in the sandstone formation, and should be found there by boring if not exposed at surface.

It is favorable to this hypothesis that the sandstone is admitted to be in monoclines; that the trap ridges look like monoclines, the trap and sandstone so far as exposed to view being eastward in dip; that the greater trap belt and the smaller attendant belt on the east and west have the positions in the external view that correspond to layers in a monocline; that in some regions the beds of the sandstone formation underneath the columnar trap in the front of trap ridges have a like order of succession.

But it is unfavorable to it that the hooked or bow-like shapes among the ridges are not such as are characteristic of monoclinal regions; that the varying dip of the sandstone within the bow — it being nearly at right angles to the direction of its sides and ends — is an exceptional feature for monoclines, and an actual feature of those trap ridges which are admitted by all to be eruptive. It is also unfavorable that no outcrops of either of the three conformable sheets of trap have been observed along the eastern margin of the area; that no sections of the sandstone formation occur anywhere in the part of the area east of the Connecticut River, which exhibit the conformability of the trap sheets with one another or with the sandstone, or that show any trap at all; that no sections exhibiting conformability have been observed in any of the trap ridges themselves, and none over the part of the Triassic area west of these ridges. Thus positive evidence in favor of the hypothesis fails; and there is the evidence against it that the Saltonstall region, instead of exemplifying it, as claimed by its author, is a region of eruptions after the upturning of the sandstone, and that the Mount Tom Ridge bears the strongest evidence of a laccolithic origin.

The existence of buried volcanoes at Mount Carmel (740′ high), 9 miles north of New Haven, has been announced. But there is no evidence of the "buried volcanoes" in sight: neither in lava streams, volcanic ashes, nor anything else. The rocks in view are the ordinary compact trap of the trap dikes of the region and the intersected granitic sandstone.

Origin of the eruptions. — Although the geosynclines or troughs in the earth's supercrust occupied by the deposits were comparatively shallow, none probably exceeding in depth 10,000 feet, the lateral thrust from the opposing directions produced, at intervals, fractures and movements, if not also crushings, at considerable depths for the whole length of the Eastern Continental border, from Nova Scotia to southern North Carolina. For, according to existing theory, the region of fusion was where the earth's interior temperature was so near the fusing point of the rock, that the heat from dynamical sources, added to the statical heat of the region, would produce fusion. The near uniformity in the kind of ejected rock, through all the Triassic areas, has been already mentioned as other evidence that the fissures descended below the supercrust to regions where basic Archæan-like rocks prevail. The ejection of rocks of the basaltic type alone may, however, be a consequence of the temperature not being high enough to melt the less fusible rocks containing oligoclase or orthoclase.