

1. TRIASSIC AND JURASSIC PERIODS.

AMERICAN.

The orographic events in North America closing Paleozoic time changed greatly the areas of future rock-making. The map on page 735 shows that no marine deposits were possible on the Atlantic border except far outside of the present coast-line. Moreover, as announced on page 734, all of the eastern half of the continent had become dry land, leaving only the western half covered with the Interior Continental Sea, and therefore as the great arena of progress. The mostly emerged condition of the Atlantic border, indicated on the map, continued through the Triassic and Jurassic periods and after the Cretaceous period had opened; for the beds of the Upper Cretaceous are the earliest Mesozoic *marine* deposits on the border. Before this, however, in the Triassic period, there were large estuary and fresh-water deposits in progress, and these constitute the Triassic formation of the Atlantic border.

In this condition of the continent, the regions of Mesozoic rock-making were the following: (1) the Atlantic border area; (2) the Gulf border area; (3) the area of the Western Continental Interior; (4) the Pacific border; (5) the Arctic area, Arctic rock-making continuing to be independent of that over the North American continent in changes of level and in the formations produced.

The Pacific border comprises four belts, ranging from northwest to southeast, which were more or less independent in their geological history:—

I. The *Rocky Mountain belt*, which includes in British America the Archæan protaxis and the adjoining upturned or mountain region situated mainly to the *east* of the protaxis, comprises over the United States the wide summit region between the Great Basin and the eastern foothills of the Front or Colorado Range.

II. The *Plateau belt*, or that of the Great Basin, with its continuation northward in British Columbia over the interior plateau west of the Gold Range or Protaxis; and southward into Mexico, along the corresponding plateau region.

III. The *Sierra belt*, or that of the Sierra chain, including the Sierra Nevada, the Cascade Range, and the high ridges in the same line through British Columbia.

IV. The *Coast belt*, or that of the Coast Range of California and Oregon, and the Island Range of British Columbia.

The interval between the Sierra and Coast ranges, also, is in some respects entitled to be considered a separate belt; but it is narrow, and its history is mostly involved in that of these ranges.

Only in western North America have the Triassic and Jurassic formations been separately distinguished, and there at but few outcrops. Deposits of the