of Panama it sinks into a comparatively low ridge, but rises into the table lands of Guatemala, Mexico, and the ridges and plateaux of the western United States and British America, quite to the Northern Ocean.

The whole of the interior of North America may be regarded as a vast plateau, gradually passing into the Appalachian ranges upon the east, and the elevated table lands upon the west; but gradually descending to the Northern Ocean and the Mexican Gulf, from a water shed in the middle of the continent.

AZOIC ROCKS.

The azoic rocks are represented on the map by those areas which are covered by small crosses. They embrace all the crystalline and unfossiliferous rocks of every age, but chiefly the hypozoic or Laurentian groups. They are gneiss, mica schist, talcose schist, quartz rock, clay slate, saccharoid azoic limestone, granite, syenite, and the ancient porphyries.

Laurentian System.—On the north shore of the St. Lawrence there are two ranges of mountains running parallel to the river; one at the distance of fifteen or twenty miles, and the other 200 miles distant. Here are the Laurentine Mountains, from whence the name was derived. The system extends from the shores of the Arctic Ocean, passing round the Hudson's Bay palæozoic rocks, including the Laurentines, and occupying the eastern shores of the continent, to the north of the St. Lawrence. Greenland, Grinnell Land, and other islands to the north, are supposed to be of the same age. The space thus occupied has the form of the letter V.

The other deposits of this age, east of the Rocky Mountain range, are mostly insulated. In the northern part of New York the Adirondacs belong to this system, and are hardly separated from the Laurentines north of the St. Lawrence. Another isolated area of these azoic rocks is in Northern Michigan. In New York they are composed chiefly of Labradorite and hypersthene rock. Of the same age are the Ozark Mountains in Missouri, the Washita Hills, south of the Arkansas River, the Whitchita Mountains in Northern Texas, and other eminences in Central Texas.

The azoic rocks of Russian America, which extend uninterruptedly as far as Mexico, are supposed to be Laurentian, although analogy would lead us to suppose that many of them are of palæozoic age. Two or three interrupted ranges, with a few isolated patches of these azoic rocks, are represented along this region, extending into Mexico. The same rocks occupy the southern part of Mexico and most of the larger islands of the West Indies.

The Laurentian rocks contain large masses of magnetic iron ore. Those in Missouri are among the largest on the globe. They are connected with porphyry, and are separated from metalliferous limestones by a deposit of granite with trap dykes, six miles in width. Pilot Knob, which rises 500 feet, is partly, and the Iron Mountain, 300 feet high and two miles in circumference, is entirely composed of this ore. Vast deposits of iron ore exist also in the northern parts of New York. Many valuable gems are found in these rocks.

Azoic Rocks of later Age.—As yet, the only rocks of the age of the Cambrian discovered in this country are the azoic rocks about Lake Huron. These have already been described. The latest researches render it probable that most, if not all of the azoic rocks of New England and the British Provinces, which are continued along the eastern coast of the continent to Alabama, are of palæozoic age.

There are two methods employed to prove that the Appalachian azoic rocks are palæozoic. 1. The northern extremity of the ranges gradually merge into the unaltered silurian and devonian members. For example, a range