

## CHAPTER V.

LAURENTIAN, CAMBRIAN, AND LOWER SILURIAN  
ROCKS.

THE LAURENTIAN ROCKS are the oldest formations at present known in the world. They are metamorphic and mostly gneissic in character, and were for long classed as granitic and igneous rocks till their true nature was shown by the late Sir William Logan. They occupy vast tracts of country in Labrador and Canada, and are well seen on the north of the river Ottawa. They consist of two divisions, *Lower and Upper Laurentian*, the upper, according to Logan, lying quite unconformably on the lower strata. The gneiss of the lower division is chiefly orthoclase gneiss of great thickness, and it is interstratified with several thick bands of crystalline limestone, sometimes serpentinous, in one of which a remarkable foraminifer called *Eozoon Canadense* was found. This is the oldest known fossil. The upper Laurentian rocks, which also contain beds of limestone, are to a great extent formed of Labrador felspar, and in these no fossils are known.

In the Outer Hebrides and on the west coast of the Highlands between Cape Wrath and Tiree, Laurentian rocks occur of highly metamorphic gneiss, interpene-