

The Portage group in this Report, is called provisionally the "Huron group," an objectionable term, as likely to be confounded with the very dissimilar Huronian series of Canada. The Chemung subdivision is also described as the Marshall group, after the town of that name in Calhoun county. In neither of these sets of strata have any explorations been made, as yet, in quest of petroleum; nor have any natural "oil springs" been discovered amongst them. The fossils collected from the higher group are stated by Professor Winchell to be specifically distinct from those obtained from the Chemung beds of more eastern localities.

Continuing to ascend in the geological scale, we now reach the great Carboniferous formation. This, as occurring in Michigan, is subdivided in the Report into six separate groups, according to the following order. First, a series of micaceous sandstones, the so-called "Napoleon group," separated from the underlying Marshall deposits by a bed of clay or argillaceous shale. Secondly, the "Michigan salt group," comprising various shales and limestones, with gypsum and marl beds. This is the great brine formation of Michigan, a kind of repetition, as it were, of the Onondaga salt or gypsiferous group of more eastern sites. Some of the sandstones of the lower or "Napoleon" group, however, are also highly saliferous. Next follows the Carboniferous Limestone, 66 feet thick, succeeded by the so-called Parma Sandstone, a subdivision considered to represent the Ohio conglomerate, though here separated from the Devonian rocks by three intervening groups of calcareous and arenaceous deposits. The Coal Measures come next in order, attaining in some places to a thickness of over 120 feet. The coal seams, which consist of bituminous varieties, are said to reach in the aggregate a thickness of eleven feet. A single seam, averaging from three to five feet, appears to extend continuously throughout the formation, and to furnish material of good quality. It is chiefly worked at Woodville. Fire clay and some thin bands and nodules of iron-stone occur in connexion with it. Above the Coal Measures, a thick arenaceous deposit is met with. This, which much resembles the rock beneath the coal strata, is called the Woodville Sandstone; but Professor Winchell remarks that these three latter formations, though separated for convenience, should strictly be united, and ranked collectively as the Coal Measures proper. With the Woodville Sandstone, the entire Palæozoic series of Michigan is brought to a close; and the next succeeding deposits