low and red crinoid-shales=Stage F, in parts Onondago group (?).

Limestone with orthoceratites, gasteropods, lamellibranchs, trilobites (Kokberg). About 100 species occur in the lower or dark Orthoceras limestone. These rocks appear to represent Stage E of Bohemia, and the Ludlow and Wenlock groups of England.

Graptolite-schists with Diplograptus folium, D. pristis, etc.=Stage D and base of E (Tarannon group). Graywacke-slate and sandstone (Strophomena grandis, Orthis)=upper part of Stage D; perhaps Bala beds.[118]

In the southern half of Sardinia, Silurian rocks (in part, at least, Upper) have been divided into three zones, the lowest of which contains important metalliferous lodes.[119] Among these rocks Meneghini recognizes two chief graptolitic horizons, one probably representing the Tarannon subgroup (with Monograptus antennularius, comp. Becki, M. Gonii, comp. continens, M. hemipristis, comp. jaculum) the other (with M. colonus, M. Lamarmoræ, M. multuliferus, comp. vomerinus) answering to the Wenlock group.

In the southwest of Russia (Podolia) and in Gallicia, an Upper Silurian area occurs in which there is almost perfect palæontological agreement with the Silurian rocks of the basin of the Baltic, but a great contrast to those of Bohemia, with which it has only a few brachiopods in common.[120]

North America.[121]—In the United States and Canada, Silurian rocks spread continuously over a vast territory, from the mouth of the St. Lawrence southwestward into Alabama and westward by the great lakes. They almost encircle and certainly underlie all the later Palæozoic deposits of the great interior basin. The rocks are most typically developed in the State of New York, where they have been arranged as in the subjoined table:

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[118] Verhandl. Geol. Reichsanst. 1884, p. 25; Zeitsch. Deustch. Geol. Ges. 1884, p. 277.

[119] Meneghini, Mem. R. Acad. Lincei, 1880.

[120] F. Schmidt, "Die Podolisch-galizische Silurformation," St. Petersburg, 8vo, 1875.

[121] See especially the Memoirs of the Geological Survey of Canada, numerous monographs of Prof. James Hall, of Albany; Walcott, Monogr. U. S. Geol. Surv. viii. 1884.