

Carbon. System. { II.—Very hard reddish-gray limestone, containing *Syringopora*, *Productus*, *Terebratula*, &c. In the middle of this bed there is an 8 foot layer of very hard compact bluish limestone containing many crinoid remains, whole 50 ft.

Oldest Silurian. { I.—Potsdam sandstone, containing *Lingula*, *Obolus*? and fragments of *Trilobites*,—30 to 50 ft.

J.—Coarse feldspathic granite, forming mountain masses.

K.—Highly metamorphosed strata, standing vertical.

We have also received from the authors a paper by Messrs. Shumard & Swallow, describing a large number of new species of animal remains from the coal measures of Missouri and Kansas, and a paper by Prof. Swallow and Major Hawn on the Permian rocks referred to in our last number. It would appear from this paper that the Permian rocks of Kansas attain a thickness of 820 feet, and consist of Limestone, magnesian limestone, shales, and clays of various texture and colour, conglomerate, and gypsum. They are divisible into two subordinate groups, an upper and lower, and are wholly marine. Their distinct superposition on the coal measures, and the character of the fossils, would seem to leave little doubt that they are really of the age ascribed to them.

We learn that in Prof. Hall's Report on Iowa, soon to be published, evidence will be adduced of the existence of the latest member of the Palæozoic series in that state, and also in Illinois. Nothing affords a stronger evidence of the activity of geology in the West, than the nearly simultaneous discovery of this important fact by several observers.

In the same report, Prof. Hall notices the remarkable intercalation in the coal measures of the West of a bed of limestone higher than the true or underlying carboniferous limestone, and gradually thickening westward. He argues from this the prevalence of oceanic conditions throughout the far West, at a time when terrestrial conditions prevailed to the East:—

“The evidences of the existence of this ocean in the far west and south-west during the Coal period, amount to almost a proof that the conditions of that area which now constitutes a part of the continent, were never such as to admit of the production of coal plants, and the deposition of such materials as make up the Coal measures, at least during the latter part of the Coal period. In regard to the earlier part of that period, or the time in which the Lower Coal measures were formed, we have not, at present,