

standpoint. The palæontological sequence established in the Alps was applied to the Himalayan development of Trias with a few slight modifications. Waagen, Diener, and Mojsisovics, who investigated the Eastern faunas, divided the whole of the Triassic system into four series (Skytian, Dinarian, Tyrolean, and Bajuvarian), further sub-divided into eight groups, fifteen sub-groups, and twenty-two zones.

At the present time, the general succession of the Alpine Trias may be said to be fairly definite, but there is still some variance of opinion regarding the parallelism of the Alpine and extra-Alpine divisions. For example, there is no certainty yet where the Alpine Muschelkalk may be said to end and the "Lettenkohlen" group to begin; whether the Wetterstein, Esino, and Marmolata limestones and the St. Cassian strata may be referred to the uppermost horizons of Muschelkalk or regarded as members of the "Lettenkohlen" group in the Alps; again, whether the Lunz and Raibl strata in the Alps correspond to the "Lettenkohlen" group or the lower Gypsum-Keuper in the extra-Alpine development of Trias.

G. *The Jurassic System*.—In the very beginning of the nineteenth century the fundamental features of the Jurassic succession had been so securely established by William Smith that subsequent observers had little to amend. The Jurassic deposits have attained a remarkably typical and perfect development in England. No serious obstacles of any kind are interposed in the path of the observer; no great tectonic disturbances, foldings, fractures, or high inclinations of the strata; no sudden changes of facies, and no gaps in the sedimentary series. The straightforward aspect of the stratigraphical relations, together with the characteristic lithological development of each individual member of the series, and the extraordinary wealth of fossil remains, has rendered England the classic ground of the Jurassic system.

William Smith at first treated the successive strata as equal in rank, and although he afterwards (1815 and 1817) united them into groups, these were not well defined and underwent modifications before they were received into the literature. Conybeare and W. Phillips comprised under the name of Oolitic series all the strata between the ferruginous sand (lowest Cretaceous) and the red marl (Triassic). The same geologists classified the Lias as an independent basal forma-