

strated that calcareous and marly strata (Plänerkalke) are present between the Upper and Lower Quader Sandstone, and contain in some localities a rich marine fauna. Cotta thought these marine limestones were the time-equivalents of the Gault clays. Geinitz published, between the years 1839-42, an excellent *Monograph on the Strata and the Fossils of the Cretaceous Rocks in Saxony and Bohemia*. His results confirmed Cotta's surmise, and upon palæontological evidence established the equivalents of the German and British developments:—

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| 4. Upper Quader Sandstone . . . | = | White Chalk. |
| 3. Upper Pläner Marls . . . | = | { Lower Chalk. |
| | | { Chalk Marl. |
| 2. Middle and Lower Pläner Lime-
stone and Marls . . . | = | { Upper Greensand |
| | | { Gault. |
| 1. Lower Quader Sandstone . . . | = | Lower Greensand. |

August Emmanuel Reuss, the famous Austrian authority on the Cretaceous system, published in 1843 and 1844 the first results of his detailed researches on the Cretaceous deposits of Bohemia. Two years later, his monograph on the Bohemian Cretaceous formations appeared, and this work has been regarded as the fundamental stratigraphical work on the Bohemian facies. The four chief divisions distinguished by Reuss are: 1, The Lower Quader Sandstone, present in Bohemia in its full development; 2, the Pläner marls, richly fossiliferous; 3, the Pläner limestones, together with the conglomerates reposing upon them; 4, the Upper Quader Sandstone, poorly fossiliferous, but attaining very great thicknesses in Bohemia.

The insecurity of the systematic position of the Lower and Upper Greensand in England induced Fitton to undertake a renewed examination of those deposits in the Isle of Wight. The result, published in 1847, showed conclusively that the Lower Greensand was an equivalent of the Neocomian.

A very great influence was exerted upon the systematic arrangement of the Cretaceous system by the publication of D'Orbigny's *Paléontologie Française*. In the second volume of this gigantic work, D'Orbigny introduced a new classification of the Cretaceous formations, which was based upon intimate knowledge of the French development. He divided the system into five stages, named in accordance with typical