

have been compared with the Permian and Trias rocks of Europe.<sup>236</sup>

**Asia.**—The Carboniferous system is extensively developed in Asia. In China, where it covers an area of many thousand miles, forming a succession of vast tablelands, it has been found by Richthofen to be composed of three stages: 1st, a massive brown bituminous limestone, which from its foraminifera (*Fusulina*, *Susulinella*, *Lingulina*, *Endothyra*, *Valvulina*, *Climacammina*) is obviously the equivalent of the Carboniferous Limestone of Europe. It is covered by (2d) productive Coal-measures with both bituminous and anthracitic coals, and containing a characteristic Coal-measure flora, among which are numerous ferns of the genera *Sphenopteris*, *Palæopteris*, *Cyclopteris*, *Neuropteris*, *Callipteridium*, *Cyatheites*, etc., also species of *Calamites*, *Sphenophyllum*, *Lepidodendron* (including *L. Sternbergii*), *Stigmaria* (*S. ficoides*), *Cordaites*, and others. 3d, Upper Carboniferous—sandstones, conglomerates and thin limestones, containing marine fossils, among which are the cosmopolitan brachiopods mentioned on p. 1344.<sup>237</sup>

**Australasia.**—In Australia, important tracts of true Carboniferous rocks, with coal-seams, range down the eastern colonies, and are specially developed in New South Wales, where they are divisible into: 1st, Lower Carboniferous—sandstones, conglomerates, limestones, shales, much disturbed in some places, traversed by valuable auriferous quartz-reefs, and yielding abundant plant-remains (*Lepidodendron veltheimianum*, *L. nothum*, species of *Bornia*, *Sphenopteris*, *Calamites*, *Rhacopteris*, etc.). 2d, Upper or Permo-Carboniferous, including a series of coal-bearing strata, both below and above which are thick masses of calcareous conglomerates and sandstone abounding in marine fossils. The coal-seams are sometimes 30 feet thick, and among the plants associated with them are five species of *Glossopteris*, also species of *Phyllotheca*, *Annularia*, and *Noggerathopsis*. The genus *Glossopteris* was formerly believed to be entirely Mesozoic, and its occurrence with true Carboniferous organisms was for a time denied. There can now be no doubt, however, that it appears among strata in which

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<sup>236</sup> A. H. Green, Quart. Journ. Geol. Soc. xliv. 1888, p. 240.

<sup>237</sup> Richthofen, "China," vols. ii. and iv.