## § 2. Local Development

Britain.<sup>50</sup>—The stratigraphical succession of the Jurassic rocks was first worked out in England by William Smith, in whose hands it was made the foundation of stratigraphical geology. The names adopted by him for the subdivisions he traced across the country have passed into universal use, and though some of them are uncouth English provincial names, they are as familiar to the geologists of other countries as to those of England.

The Jurassic formations stretch across England in a varying band from the mouth of the Tees to the coast of Dorsetshire. They consist of sands, sandstones and limestones interstratified with softer clays and shales. Hence they give rise to a characteristic type of scenery—the more durable and more porous beds standing out as long ridges, sometimes even with low cliffs, while the clays underlie the level spaces between. Arranged in descending order, the following subdivisions of the English Jurassic system are generally recognized:

Formations Groups or or Series. Stages.			Sub-groups or sub-stages.					l tł	Maximum thicknesses		
Middle or Upper or Oxford Portland Oolites. Oolites.	Purbeckian	•	Upper fresh-water Middle marine bed Lower fresh-water	bed s bed	s)	•	•			Feet. 360	
	Portlandian Kimeridgian	•	Portland Stone Portland Sands Kimeridge Clay	•	•		:	•	:	70 150 600	
	Corallian	•	Coral Rag, Corallin	ne Od	olite, s	and Ca	lcar	eous (	<b>Frit</b>	250	
	Oxfordian	•	Oxford Clay and I	Cella	ways	Rock	•	•	•	600	

<sup>59</sup> For British Jurassic rocks the student's attention may be specially called to Phillips' "Geology of Oxford and the Thames Valley"; Tate and Blake's "Yorkshire Lias"; Hudleston's "Yorkshire Oolites," in Geol. Mag. 1880-84, and Proc. Geol. Assoc. vols. iii. to v.; Memoirs published by the Palæontographical Society, particularly Morris and Lycett's "Mollusca from Great Oolite"; Davidson's "Tertiary, Oolitic, and Liassic Brachiopoda"; Wright's "Oolitic Echinodermata" and "Lias Ammonites"; Owen's "Mesozoic Reptiles"; "Mesozoic Mammals," "Wealden and Purbeck Reptiles"; Hudleston's "British Jurassic Gasteropoda"; Buckman's "Inferior Oolite Ammonites." The Memoirs of the Geological Survey comprise some important works on thia subject, such as Hull's "Geology of Cheltenham"; Judd's "Geology of Rutland," etc.; H. B. Woodward's "Jurassic Rocks of England and Wales (Yorkshire excepted)"; C. Fox-Strangway's "Jurassic Rocks of Yorkshire," etc. Further information will be found in the Address by Mr. Etheridge, Q. J. Geol. Soc. 1882; in Woodward's "Geology of England and Wales"; and in other memoirs cited below. See also Oppel's "Juraformation England's Frankreichs und Deutschlands," 1856; Quenstedt's "Der Jura," 1858.