

has been proposed by Mr. T. Belt, in descending order as follows:²¹

3. Dolgelly slates, about 600 feet, well seen at Dolgelly, consist of soft and hard blue slates and contain *Protospongia*, *Lingulella*, *Orthis lenticularis*, *Olenus scarabæoides*, *O. spinulosus*, *Agnostus trisectus*, *Conocoryphe abdita*.
2. Ffestiniog flags, about 2000 feet, well seen at Ffestiniog, consist of hard sandy micaceous flagstones, and have yielded *Lingulella Davisii*, *Olenus micrurus*, *Hymenocaris vermicauda*, *Bellerophon cambrensis*.
1. Maentwrog flags and slates, about 2500 feet, best seen at Maentwrog in Merionethshire, consist of gray and yellow flagstones, and gray, blue, and black slates, and contain among their somewhat scanty fossils, *Olenus cataractes*, *O. gibbosus*, *Agnostus princeps (pisiformis)*, *A. nodosus*.

Tremadoc Slates.—This name was given by Sedgwick to a group of dark gray slates, about 1000 feet thick, found near Tremadoc in Carnarvonshire, and traceable thence to Dolgelly in Merionethshire, and reappearing beyond the eastern side of Wales at the Wrekin, in Shropshire.²² Their importance as a geological formation was not recognized until the discovery in them of a remarkably abundant and varied fauna, which now numbers more than 80 species, including early forms of crinoids, star-fishes, lamellibranchs, and cephalopods. The trilobites embrace some genera (*Olenus*, *Agnostus*, *Conocoryphe*, *Dikelocephalus*, etc.) found in the Lingula flags, but include also new forms (*Angelina*, *Asaphus*, *Cheirurus*, *Neseuretus*, *Niobe*, *Ogygia*, *Psilocephalus*). The phyllopoths are represented by *Ceratiocaris* and *Lingulocaris*. The same genera, and in some cases species, of brachiopods appear which occur in the Lingula flags, *Orthis lenticularis* and *Lingulella Davisii* being common forms. Dr. Hicks has described 12 species of lamellibranchs from the Tremadoc rocks of Ramsey Island and St. David's, belonging to the genera *Ctenodonta*, *Palæarca*, *Glyptarca*, *Davidia*, *Modiolopsis*. The cephalopods are represented by *Orthoceras sericeum* and *Cyrtoceras præcox*; the pteropods by *Theca*

²¹ Geol. Mag. 1867, p. 538.

²² Callaway, Q. J. Geol. Soc. xxxiii. 1877, p. 652. Lapworth, op. cit. 1888, p. 485, 1891, p. 533.