Yorkshire, as already (p. 1545) referred to, the "Red Chalk" —a ferruginous, hard, nodular chalk zone (4 feet), lies at the base of the Chalk and rests on the Upper Neocomian "Carstone," the true Gault being there absent, although it occurs a few miles further south.[138] Its proper horizon has been the subject of much discussion; but it probably belongs to the Chalk Marl. Bands of red and yellow chalk occur in the lower parts of the Chalk above the horizon of the "Red Chalk" in Lincolnshire and Suffolk.[139]

Gray Chalk.—The lower part of the Chalk has generally a somewhat grayish tint, often mottled and striped. In Bedfordshire and adjoining counties a band of hard gray sandy chalk, from 6 to 15 feet thick, containing 8 per cent of silica and in places much glauconite, is known as the Totternhoe Stone,[140] and forms the base of the Gray Chalk, which as a stage comprises the palæontological zones of Holaster subglobosus and Belemnitella plena. It attains its fullest development along the shore-cliffs of Kent, where it has a thickness of about 200 feet. According to Mr. F. G. H. Price,[141] it is there divisible into five beds or sub-stages. Of these the lowest, 8 feet thick (= lower part of the Ammonites varians zone), contains among other fossils Discoidea subucula, Pecten Beaveri, Ammonites varians; the second bed (11 feet) contains many fossils, including Ammonites rothomagensis, A. Mantelli, A. lewesiensis (= part of A. varians zone); the third bed (2 feet 9 inches), also abundantly fossiliferous, contains among other forms Peltastes clathratus, Hemiaster Morrisii, Terebratula rigida, Rhynchonella mantelliana, Ammonites rothomagensis, A. varians; this and the two underlying beds are regarded as comprising the zone of Ammonites rothomagensis and A. varians; the fourth sub-stage, or zone of Holaster subglobosus (148 feet), contains among its most characteristic fossils Discoidea cylindrica, Holaster subglobosus, Goniaster mosaicus, and in its upper part Belemnitella plena; the fifth bed, or zone of Belemnitella plena, consisting of yellowish-white gritty chalk (4 feet), forms a well-defined band between the Gray Chalk and the overlying lower subdivision of the White

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[138] See Whitaker, Geol. Mag. 1883, p. 22; Proc. Geol. Assoc. viii. No. 3, 1883, p. 133. This author gives a full description and bibliography of the Red Chalk in Proc. Norwich Geol. Soc. i. part vii. 1883, p. 212.

[139] A. J. Jukes-Browne, Geol. Mag. 1887, p. 24.

[140] For the list of fossils of this bed in Norfolk and Suffolk see Jukes-Browne and W. Hill, Quart. Journ. Geol. Soc. 1887, p. 575.

[141] Q. J. Geol. Soc. xxiii. p. 436.