

direction, and of which the escarpment is towards the north. The line of hills then sweeps suddenly round, a little to the east of south, forming the Wolds of Yorkshire, and are terminated by the river Humber. On the opposite coast of that river, at Burton in Lincolnshire, the chalk rises again from beneath the alluvial matter forming its banks, into a range of hills, the Wolds of Lincolnshire, having a south-easterly direction, and terminating at Burgh, a town about five miles north of Wainfleet, and near the easternmost point of the Lincolnshire coast, where it dips beneath alluvium. The chalk tract of the Yorkshire and Lincolnshire wolds has an average breadth of rather more than six miles. (G. Map.)

Near the shore of the north-western point of Norfolk, and bordering the Wash which separates it from Lincolnshire, the chalk re-appears† as a ridge of hills running nearly south for about 15 miles, and occupying the surface for about 10 miles on the east of the hills, to Burnham Market, but its breadth on the southern half scarcely exceeds three to five miles. This little range terminates at Castle Acre about five miles north of Swaffham, sinking beneath the diluvial sands of Norfolk. The chalk appears again on the north of Thetford, and forming a low tract, passes, except where it is covered by marshy or alluvial soil, by Newmarket in Suffolk, to a little on the east of Cambridge,‡ on the west and south-west of which appear some outlying masses, as the Coach and Horses hill, and the summit of Madingley hill which rest (G. T. vol. v. p. 115) on gault. From Cambridge, the western limit of the chalk

\* In the Wolds of *Lincolnshire*, the chalk consists of two colours, red and white, each lying in regular strata, the red being generally undermost; in the white, seams of flints are frequently met with from two to six inches thick. The chalk rests upon a coarse brown pebbly sand without organic remains, consisting of quartz and oxide of iron. (G. T. vol. iii. p. 394.)

† Hunstanton cliff, though only about 80 feet high, forms, from the flatness of the adjacent country, a conspicuous object; immediately beneath the vegetable soil and chalk marle, beds of regular chalk about 30 feet in thickness occur; these rest on a hard red stone four feet deep, which is often ground and made into a red paint (evidently the same with the lower bed in the Lincolnshire wolds); seven feet of loose friable dirty yellow stone succeed, placed on a base of iron-coloured pudding-stone projecting into the sea, with vast fragments scattered over the beach. (C.)

‡ The chalk of *Cambridgeshire* is described as consisting of two varieties; the *upper* containing the common black flint in abundance, and the *lower* or *grey chalk*, which contains little or none. If a line be drawn from Royston by Balsham to Newmarket, it will pretty exactly define the limits of both varieties; the hills to the eastward of it being composed of the upper beds, while those to the west, consist of the lower or grey chalk which composes by far the greater part of the hills of Cambridgeshire, and which will be again noticed in treating of the chalk marle. (G. T.)