

The ochre of Shotover hill occupies a similar geological position; a list of the accompanying strata will be found in the appended note.\*

The workings for iron in the Weald of Sussex are described in the agricultural survey for that county, from which an extract will also be found below.†

In these works they seldom undermine the ground, but as they dig away the earth below, others are employed to dig and carry off the surface; otherwise, the matter above, being of so light and fitting a nature, would fall in and endanger the workmen; for, as was observed before, the stratum of sandstone which occurs before they come to the fullers' earth, does not lie, as in coal-pits, immediately over the matter they dig for, like a ceiling, but even in the midst of the superjacent strata of sand, and therefore can be no security to them if they undermine them.

The perpendicular fissures are frequent, and the earth in the strata, besides its apparent distinction into layers, like all other kinds of matter, by reason of its peculiar unctuousness, or the running of the adjacent sand imperceptibly among it, breaks itself into pieces of all angles and sizes.

For the geographical situation of these pits, they are digged in that ridge of sand-hills by Woburn; which near Oxford is called Shotover; on which lies Newmarket heath by Cambridge, and which extends itself from east to west, every where, at about the distance of eight or ten miles from the Chiltern hills, which in Cambridgeshire are called Gog-Magog; in Bucks and Oxon, the Chiltern hills, from the chalky matter of which they chiefly consist; which two ridges you always pass, in going from London into the north, north-east, or north-west counties in the manner before mentioned: after which you come into that vast vale, which makes the greater part of the midland counties of Cambridge, Bedford, Bucks, Northampton, Oxford, and Gloucester, and in which are the rivers Cam, Ouse, Nen, Avon, Isis, and others, which I take notice of because it confirms what you say of the regular disposition of the earth into like strata or layers of matter, commonly through vast tracts, and from whence I make a question, whether fullers' earth may not be found in other parts of the same ridge of sand hills, among other like matter."

We must observe however that the author has fallen into an error in supposing Newmarket heath, which in truth is occupied by the chalk formation, to be the continuation of this chain of hills.

\* Sections of the Ochre pits, Shotover hill.

|  | feet | inches |
|--|------|--------|
| Beds of highly ferruginous grit, forming the summit of the hill..... | 6    |        |
| Grey sand .....  | 3    |        |
| Ferruginous concretions .....  | 1    |        |
| Yellow sand .....  | 6    |        |
| Cream-coloured loam.....   | 4    |        |
| Ochre .....  | 0    | 6      |

Beneath this is a second bed of ochre separated by a thin bed of clay; then succeeds an interval of nearly 40 feet occupied by various alternations of ferruginous and sometimes cherty and argillaceous loams of a deep cream colour; beneath these is the formation of Aylesbury limestone.

† The soil of Penhurst is gravelly to an intermediate depth: at the bottom of the Earl of Ashburnham's park, sandstone is found, solid enough for the purposes of masonry. Advancing up the hill, the sand rock is 21