In the midland counties the calcareous matter is less abundant in these beds, and a ferruginous sand and sandstone, containing a very small proportion of lime, predominates. The first beds, as exhibited in the section last referred to, appear to be wanting, or at least are so blended with the fullers' earth rock and great oolite as not to be distinguishable; while strata analogous in character to No. 2, 3, and 4 of that section are here exhibited on a much larger scale, and prevail exclusively over extensive districts, constituting that broad tract of red, or rather reddish-brown ferruginous sands, so well known in the north of Oxfordshire, Northamptonshire, and Rutlandshire.

In Oxfordshire, the series below the fullers' earth, as far as they can be ascertained in the neighbourhood of Banbury, appears to be,

1. Sand and sandstone with a slight calcareous mixture, highly ferruginous and frequently micaceous, sometimes containing large scales of mica in great abundance; the sandstone sometimes forming hard flagstones, but more generally soft. Few fossils, and those chiefly belemnites, occur, but towards the bottom are some beds containing rather more calcareous matter and more abundant fossils; these are externally of a rusty brown, and internally of a greenish grey colour, derived from the sub-oxide of iron. The white pearly shells of numerous plicated terebratulæ, scattered through this dark ground, and having their interior coated with crystallizations of calcareous spar, give a striking and pleasing character to specimens of these beds. Ammonites, belemnites, and gigantic limas also occur in them.

The calcareous sandstones in the upper part of this series, afford an indifferent and very unsightly material for architectural purposes, as the rusty looking buildings which characterize the neighbourhoods of Banbury and Northampton sufficiently evince.

The whole of this sandstone series is generally separated from the great oolite by a thick clay, corresponding to the fullers' earth clay; this may be seen particularly in the descent of Rolwright hill towards the east. Beds of micaceous loam also alternate with the sandy strata.

2. Marle and marly sandstone corresponding with No. 4 of the Down cliff section (page 236), and probably the marlestone of Smith. This marle is sandy, gritty, micaceous, and generally derives a green colour from a copious admixture of suboxide of iron. At first sight the brown ferruginous sands much resemble the iron sand, and the green varieties the green sand, beneath the chalk formation. The micaceous loams,