

shire, in the same sand, is 110 feet deep. (G. Notes.) At Shaftesbury in Dorsetshire the wells (G. Notes) are very deep. It is 200 feet thick at Blackdown in Devonshire. But if the breadth of surface be an indication of thickness in a bed, we must look for the greatest thickness of this on the east of Alton in Hants, where its breadth is about 12 or 14 miles: but we have no account of sinkings in this neighbourhood. The greatest thickness of this stratum is given by Professor Buckland in his order of superposition, as 300 feet. In the Weald however it probably exceeds this.

(g) *Inclination, &c.* The dip of this bed may be considered to be nearly the same as that of the chalk which it underlies, usually dipping at a low and almost inappreciable angle beneath the escarpment of that formation; but in those districts in which the strata of chalk become highly elevated, these also assume a conformable position: to enter further into details, would be only to repeat without necessity what has been already stated in describing the inclination of the chalk.

(h) *Agricultural character.* This formation usually affords a light loamy soil; which, in the vallies formed by it in Wilts, has been found to possess considerable fertility. The elevated Downs covered by it in Devonshire and in Surrey, are still however mostly left in the sate of unreclaimed heath.

(i) *Phænomena of springs, &c.* The waters which rise in this formation, and are thrown out by the thin seams of clay which alternate with it, are frequently chalybeate. The general character of the formation being porous, it is often necessary to pierce it to a considerable depth in order to reach the water thrown out by the great retentive substratum of the Weald clay.

## Section IV.

### WEALD CLAY.\*

This formation has hitherto attracted a very slight degree of attention, and a very few words will be found to comprise all that is at present known concerning it.

It is exhibited on the largest scale in the Wealds of Kent, Surrey, and Sussex, where it separates the central nucleus of ferruginous sand from the encircling ranges of the green sand formation. Mr. Smith has designated this district by the name of the *Oaktree clay*, but as that name was originally applied to

\* By the Rev. W. D. Conybeare.