REPORT OF EXCURSION TO CLANDON, NEWLANDS CORNER AND SILENT POOL.

SATURDAY, MAY 11TH, 1912.

BY GEORGE W. YOUNG, *Director of the Excursion.*

About twenty members travelled together from Waterloo to Clandon, where they were joined by a few others. A halt was called at the railway bridge, close to the station, for a short general description of the geology of the district to be given. Proceeding southward over Tertiary beds through West Clandon village for about a mile, the main road from Guildford to Leatherhead was reached. This road is useful as forming a rough boundary line between the Chalk-zones of *Marsupites* and *Micraster cor-anginum*. Here, turning westward, the party soon reached the chalk pits facing Clandon Park. The larger (eastern) one has not been worked for many years, and is now used by a rifle club. It is much overgrown and contains many large trees. The western pit (No. 281)* is smaller, and is still occasionally worked. It is cut at the junction of the *Unitacrinus* and *Marsupites* bands of the *Marsupites* zone, and specimens of both these fossils were found, and also of *Echinocorys scutatus* of the shape variation characteristic of this horizon. The chalk is white and soft, with fairly numerous scattered flints.

A pleasant lane passes between these two pits and leads on to the open ground of Merrow Down, and Dean Bottom pit (No. 282) was soon reached. Here the chalk is harder, with nodular flints in well-marked bands. The zone is that of *Micraster cor-anginum*. After lunch the extensive gravel workings near Newlands Corner were noticed, but time would not allow of detailed examination. The brow of the escarpment (Newlands Corner, 562 feet above O.D.) affords a fine view over the Lower Greensand country to the south. Immediately below, at the foot of the escarpment, is Albury Downs pit (No. 286). Here the junction of the Lower and Middle Chalk is well seen. All the beds are dipping at a high angle, whereas in the two pits previously visited the dip was at a low angle. The pit is divided into two parts by a convenient platform, above which are beds of the zone of *Rhynchonella cuvieri*, hard, greyish, streaky, nodular chalk, yielding the name fossil abundantly. *Inoceramus labiatus* (*mytiloides*) and *Echinoconus subrotundus* were also found. Just below the platform comes a band of *Actinocamax plenius*-marl, and below it massive grey chalk of the zone of *Holaster subglobosus*.

* The figures in brackets are the numbers given to the pits in "The Chalk Area of Western Surrey," *Proc. Geol. Assoc.*, vol. xx., p. 422.

After crossing the narrow outcrop of Sebornian strata, the next pit visited was in Lower Greensand, consisting of richly-coloured, iron-stained sands, strongly false-bedded, and containing thin seams or veins of iron. As this is but a quarter of a mile away from the previous pit, it shows how small a feature the Lower Chalk makes in this neighbourhood compared with its development westward at Seale, and eastward at Betchworth. The high dip is due to the Peasemarch anticline, which, however, seems scarcely to affect the upper part of the chalk mass.

Retracing their steps for a few yards the party turned eastward along the margin of the Gault, and followed the track of the supposed "Pilgrims' Way" past Woodbarn. This leads to a small Gault brickfield, a short distance beyond which are the two ponds at Sherbourne Farm. The upper of these ponds is the well-known Silent Pool. The water is beautifully clear, and is derived from springs from the Chalk. Tea was taken here.

When work was resumed a path was followed due north, ascending the escarpment of the Chalk. A little below its crest is Sherbourne Chalk pit (No. 277), which is at the junction of the zones of *Micraster cor-testudinarium* and *Holaster planus*, most of the *Micrasters* being of the latter type. Time did not permit of an extended search, but fossils were, as is usual in these zones, found to be fairly plentiful. Still going northward, and passing New, and Old, Scotland Farms, the path led through well-wooded country, down the dip slope of the Chalk, to East Clandon and then across Tertiary grass lands to Clandon railway station, whence the party returned to town by the 8.33 train.

Miss E. Pearse was the Secretary for this excursion.

REFERENCES.

- Geological Survey Map, 1-in. scale. (Old Series.) Sheet 8.
1907. YOUNG, GEORGE W.—"The Chalk Area of Western Surrey."
Proc. Geol. Assoc., vol. xx, p. 422.

REPORT OF AN EXCURSION TO BORSTAL AND BURHAM.

JUNE 22ND, 1912.

BY G. E. DIBLEY, F.G.S., *Director of the Excursion.*

ON arrival at Chatham Station at 10.20 the members proceeded to the Victoria Park recreation ground, where the chief features of the district were pointed out.

The alluvial tracts on the left bank of the Medway were seen stretching towards Upnor Castle, where the London Clay is