explained the method of registering and cataloguing the enormous number of specimens which find their way to this great storehouse of the organic remains obtained by the Officers of the Geological Survey and others from the British Sedimentary Rocks.

EXCURSION TO RIDDLEDOWN AND CROYDON.

APRIL 17TH, 1875.

Directors—CALEB EVANS, Esq., F.G.S.; and J. LOGAN LOBLEY, Esq., F.G.S.

Leaving the train at Caterham Junction station, Members had but a few yards to walk to the fine section of the Upper Chalk at the western extremity of Riddlesdown. At the foot of the section, Mr. Lobley described generally the great Chalk formation as displayed in England, and pointed out the peculiarities of this section. Professor Morris, who was one of the party, then described the conditions which must have prevailed during the period of the deposition of the Chalk, and explained the relations of this formation to Cretaceous strata occurring in the Continental area. Gradually ascending the Down, while proceeding eastward, the Members attained an elevation which enabled them to obtain fine views of a portion of the Chalk country, with its finely swelling hills and riverless valleys, formed by the North Downs.

On reaching the mouth of the half-made tunnel of the abandoned Surrey and Sussex Railway, the ardent geologists immediately entered the excavation, and very assiduously examined the Chalk with its nodular and tabular flint here exposed. Mr. Caleb Evans, who has made the geology of this district his own, and who has, from his observations of the various Chalk sections of this neighbourhood, obtained sufficient evidence to enable him to divide the Chalk into palæontological zones, explained that the beds here exposed are the "Upper Kenley Beds," containing an assemblage of fossils markedly different from the fauna of the Purley Beds, higher in the series, and also from that of the immediately underlying Lower Kenley Beds. While *Inoceramus Cuivieri* is wanting in the Upper Kenley Beds, it is present in both the Purley Beds and the Lower Kenley Beds. *Holaster planus* and

Micraster cor-bovis occur in the Lower Kenley Beds, but are not found in the Upper, which appear to be characterised by the abundance of three of the best-known of Chalk species, *Micraster cor-anguinum*, *Ananchytes ovatus*, and *Spondylus spinosus*.

In his paper "On some Sections of Chalk between Croydon and Oxted," Mr. Evans fully describes this and other sections exposed by the work for the formation of the railway; and the following list of species from the Upper Kenley Beds of this locality is given:—

PROTOZOA—

- Cephalites campanulatus, Smith.
- Brachiolites convolutus, Smith.

ECHINODERMATA—

- Ananchytes ovatus, Leske.
- Micraster cor-anguinum, Guélin.
- Cidaris vesiculosa, Goldf.

POLYZOA—

- Desmeopora semicylindrica, Ræm.
- Flustra.
- Hornera or Homæosolen.

BRACHIOPODA—

- Terebratula carnea, Sow.
- „ semiglobosa, Sow.
- Rhynchonella limbata, Schlo.
- „ Mantelliana, Sow.
- Crania Ignabergensis, Retz.

LAMELLIBRANCHIATA—

- Pecten quinquecostatus, Sow.
- Spondylus spinosus, Sow.

PISCES—

- Lamna.

The summit of the Down was then crossed, and following a pretty country lane the party struck the London and Brighton road at the picturesque grove called "Purley Oaks," near to which is the Chalk quarry in which was found a granite boulder, possibly deposited on the bed of the old Chalk sea by an iceberg from the ice-capped lands of the Cretaceous Epoch.

A rapid walk of a mile brought the Members to the outskirts of Croydon, where the Cretaceous rocks give place to the Tertiaries of the London Basin, the southern edge of which is here found. Near to the conspicuous tower of the Croydon Waterworks, a large excavation affords a good exposure of the junction of the Secondaries and Tertiaries, the Chalk with the overlying Thanet Sands being well exposed. This was the last section visited; and the party subsequently took train to London.