dition of the uppermost bed of Skiddaw Slate was noted. The lowest member of the Volcanic Series is here seen to be a light-grey, compact lava, about 150 feet in thickness, and is overlain by a lava much darker in colour and more crystalline in structure. The western mass of the St. John's quartz-felsite next received attention. Afterwards the members returned to Keswick.

SUPPLEMENTARY EXCURSION TO EYCOTT HILL AND THRELKELD MINE.

MONDAY, AUGUST 27TH, 1900.

THE members remaining in the Lake District visited Eycott Hill and Threlkeld Mine under the leadership of MR. JOHN POSTLETHWAITE, F.G.S.

They proceeded by train to Troutbeck, and walked thence to Eycott Hill, where two exposures of enstatitic lava were inspected. Leaving this interesting section, shortly after mid-day, they paid a visit to the Threlkeld Mine, where, through the kindness of Captain Bawden, they were able to examine the process of dressing the ore (containing galena and blende), and to collect specimens from the rough material as it is taken out of the mine. There are two veins, one bearing 10° E. of N., the other bearing 25° W. of N., the veins running together in the northern part of the mine. This mine has been worked northward into the chiastolite slate.

EXCURSION TO STROOD AND HALLING.

SATURDAY, SEPTEMBER 8TH, 1900.

Director: G. E. DIBLEY, F.G.S.

Excursion Secretary: H. A. HINTON, B.Sc.

(*Report by* THE DIRECTOR.)

THE members arrived by the 10.45 a.m. train, and walked to the pits known as "The Quarry." (All the pits visited during the excursion are described in the PROCEEDINGS, vol. xvi, pp. 484-487, so that no detailed account of them is necessary here). A large upper valve, with part of the lower valve, of *Inoceramus volutus* was seen, and the Director obtained an undescribed *Pecten*.

From this pit the members walked to Messrs. Martin & Earle's pits, and thence to Messrs. Booth's pit, where fossils characteristic of the zone of *Holaster planus* were obtained. Afterwards, by the kind permission of the Manager, Mr. Craske, the members

FIG. 1.—OLD RED CONGLOMERATE, POOLEY BRIDGE, ULLSWATER.

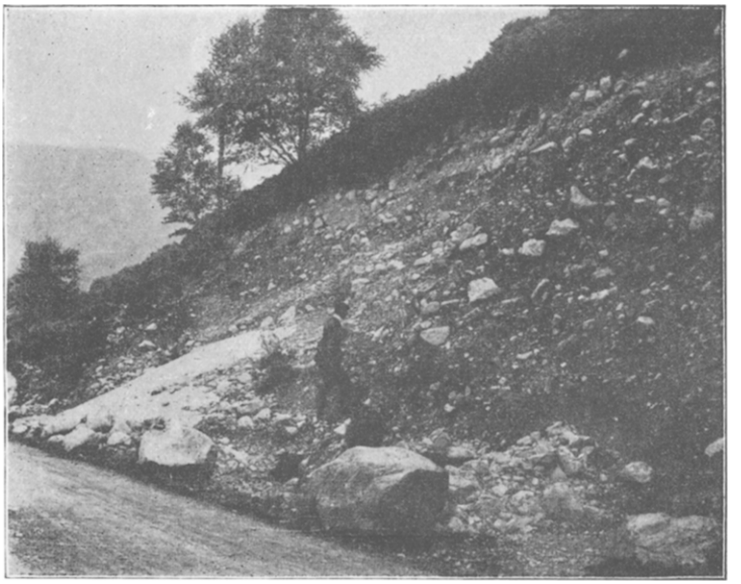

FIG. 2.—DRIFT ON GLACIATED ROCK NORTH OF ROSTHWAITE.
(From photographs by A. K. Coomara-Swamy, F.G.S.).

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were conducted over the cement factory by the foreman, Mr. Usborne, who described the process of the cement manufacture. A vote of thanks was accorded the Manager and Mr. Usborne for their kindness.

Messrs. Hilton & Anderson's pits at Halling, in the zones of *Rhynchonella cuvieri*, *Actinocamax plenus*, and *Holaster subglobosus* were next examined.

The next pits visited were those of Messrs. Lee & Co., at Holborough, the finest exposures of chalk on the west side of the Medway. The *Actinocamax plenus*-marls here form a very conspicuous feature in the upper part of the lower pits. A large number of typical fossils were at the disposal of the members.

After tea at the Bull Hotel, Snodland, a cordial vote of thanks to the Director was proposed by Mr. Sherborn, and carried unanimously.

REFERENCES.

Geological Survey Map, Sheet 6.
Ordnance Survey Map, New Series, Sheet 272. 1s.
1872. WHITAKER, W.—"Geology of London Basin." *Mem. Geol. Survey*, vol. iv.
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EXCURSION TO ORPINGTON,

SATURDAY, SEPTEMBER 22ND, 1900

Director: T. V. HOLMES, F.G.S.

Excursion Secretary: A. C. YOUNG, F.C.S.

(*Report by* THE DIRECTOR.)

THE object of this excursion was to see the Tertiary sections now exposed, between Chiselhurst and Orpington, on the S.E.R. main line, which is being widened.

The party, numbering more than forty, assembled at Orpington Station and proceeded northward towards Chiselhurst. A few yards south of the station bare Chalk is visible, but at the northern end of it a fine clear section of Thanet Sand, capped by a few feet of greenish-looking Woolwich Beds, appeared. Unfortunately it was impossible to examine the Woolwich Beds otherwise than by means of such fragments as had fallen down. Before leaving the precincts of the station, the Director called attention to the slight anticlinal and synclinal folds between Orpington and the cutting south of Grove Park. Between Orpington and Chiselhurst there is a slight synclinal fold. Then at Chiselhurst a slight anticline causes the appearance of the Chalk and Thanet Sand there. At the southern end of the Sundridge tunnel the dip is northerly, and, at the northern end, southerly, the tunnel