EXCURSION TO TYLER'S HILL, CHESHAM.

SATURDAY, 18TH MAY, 1878.

Directors—JOHN EVANS, Esq., D.C.L., F.R.S., F.S.A., F.G.S., &c., and JOHN HOPKINSON, Esq., F.L.S., F.G.S., Hon. Sec. Watford Nat. Hist. Society.

(*Report by* MR. HOPKINSON.)

At various places beyond the northern limit of the London Tertiary Basin, outliers of the Lower Eocenes occur, ranging on the whole in a line parallel with the margin of the main mass of which they at one time formed a part. One of these, separated from the main mass by a greater distance than is usually the case, is at Tyler's Hill, or Cowcroft, as it is sometimes called, a mile and a half to the east of Chesham. The nearest railway station is at Boxmoor, and here, at about a quarter to three, a party consisting of Members of the Association and of the Watford Natural History Society, assembled for the purpose of visiting this outlier.

The distance being five miles each way, a waggonette was engaged, which the ladies of the party availed themselves of. An ascent by Box Lane had first to be made, and for about a mile up the hill the Chalk was seen to come to the surface, sections being exposed in several small pits, and in the road-side banks, owing to the road being excavated to reduce its steepness.

On the higher ground the Chalk is covered for a considerable distance with "brick-earth" and "clay with flints." This elevated plateau, some 500 feet above sea level, suddenly ends at Layhill Common, which is approached by a steep descent to the Chalk, here exposed by the erosion of a stream, no longer in existence, which at one time must have joined the Chess near Flaunden. From Layhill Common, where the Chalk is covered by Glacial gravel, there is a gentler rise of the ground towards the outlier, which is conspicuous for some distance by the dense wood which covers it. The presence of this wood seems to be entirely due to the existence of the outlier of which Tyler's Hill is formed; and to this outlier the protection of the hill itself from denudation is, no doubt, also due. A chalk-pit and brickfields expose a complete section of the hill from the London Clay down to the Chalk.

The following description of this section is given by Professor Prestwich, in his paper on "The Woolwich and Reading Series."*

		FEET.
London Clay.	a. Gravel, chiefly of flint-pebbles in clay, averages	4
	b. Brown clay with a few nodular septaria	10
	c. Layers of laminated grey and brown clay	3
Basement Bed of the London Clay, 3½ feet.	d. Layer of imperfect septaria, full of fossils†	0½
	e. Light brown sandy clay	2
	f. Flint-pebbles in clay	1
Woolwich and Reading Series, 31 feet.	g. Umber-coloured clay, in places slightly mottled red and yellow	2
	h. Fine siliceous sand, in places very white	3
	i. Light-coloured soft sandstone with an occasional pebble—variable	1
	j. Light-coloured siliceous sands with a few seams of grey clay, the lower part coarser, yellow, and brown	10
	k. Laminated grey and yellow clay and sand, with an under-seam of pebbles	1
	l. Yellow and ash-coloured sand with seams of grey clay	8
	m. grey clay laminated with sand	4
	n. Large unrolled flints, apparently white-coated	2
		51½
	Chalk	25

Several sections exposed in the brickfields at various parts of the hill were examined; and at the Chalk-pit Mr. John Evans drew attention to the perfectly level surface of the Chalk, which seemed, he said, to be a surface of marine denudation.

After returning to Boxmoor, the Chalk-pit on Rough Down, chiefly known as being the place from which Mr. Evans has obtained most of the fossils of the Chalk-rock, was to have been visited, but tea proved a greater attraction, and there was not time to spare for both; so after only a distant view of the band of Chalk-rock, which here divides the Upper from the Lower Chalk, the party separated, most of the members of the two Societies leaving Boxmoor Station by the 7.37 train for Watford and London.

* Quart. Journ. Geol. Soc., Vol. x., p. 90.

† The *Ditrupa plana* abounds, together with *Ostrea Bellovacina*, a few *Natica glaucinoides*, a *Fusus*, and teeth of *Lamna*.