EXCURSION TO WORTH.

JUNE 30TH, 1883.

Director :—W. TOPLEY, Esq., F.G.S., H.M. Geological Survey.*(Report by THE DIRECTOR).*

The party assembled at Three Bridges Station early in the afternoon, and walked to Worth Church, passing over the higher beds of the Tunbridge Wells Sand, sections of which are seen in the railway cuttings north of Worth.

Some time was spent in examining the church, an especially interesting example of "Saxon" architecture, the original ground plan being strictly preserved. The chief architectural peculiarity is in the external upright bands or pilasters of masonry, supporting another band, which runs as a string-course around the church. The "long and short work," so characteristic of Saxon churches, is well seen here. The stone employed is the Wealden sandstone of the neighbourhood.

By the courtesy of the Rector (the Rev. G. W. Banks) the Rectory gardens were visited. On the lawn is a very fine specimen of *Araucaria imbricata*, a seedling from which is growing close by. Another cone was shown to the members. This is one of the very few examples of the species which have fruited in England.

A walk through Worth Forest brought the party to the summit of Balcombe Down. The forest is partly of modern planting, replacing the trees cut down for the old ironworks; but there are large tracts of the remains of the ancient forest, chiefly of oak and birch. The site of one of the old furnaces was visited at Cinderbanks, where large heaps of slag are seen, but no remains of the furnaces have been preserved. A large pond formerly existed here, to supply water-power to the ironworks; the dam being partly constructed of slag. Large quantities of cannon were cast at these furnaces, some as late as the latter part of the last century.

From the summit of Balcombe Down an extensive view is obtained over the Weald. The North and South Downs are clearly seen, whilst to the north-west the higher lands of the Leith Hill range (Lower Greensand) bounds the view. An explanation was here given of the geological structure of the Wealden district,

and attention was especially drawn to the important influence which this district has had on the history of English geology.

A MS. section, made in 1806-7 by John Farey, was exhibited, by which the "denudation" of the Weald was clearly established. The term "denudation" was, in fact, introduced by Farey with reference to this district. The various theories to account for this denudation were then referred to.*

The President of the Geological Society (J. W. Hulke, Esq., F.R.S.) then gave an interesting address on the general characters of the *Dinosauria*, whose remains are found in the Wealden beds, pointing out especially the advances recently made in our knowledge of these forms. It was shown that their skeletal characters singularly combine features which in existing reptiles mark different and distinct orders, they being, therefore, generalized types. Their close avial resemblances, hinting a common ancestry of reptiles and birds, were also touched upon; and allusion was made, in passing, to the first discovery of the *Iguanodon*, by Mantell, in the neighbouring Cuckfield Quarry.

From Balcombe Down the party descended to the village of Balcombe, where tea was provided at the Railway Inn. A section of Tunbridge Wells Sand was seen on the way, and large heaps of Grinstead Clay and Shale, taken out of the tunnel, were examined at Balcombe Down; but the main object of the excursion was the walk through a very beautiful piece of Wealden scenery and the visit to the site of the iron-furnaces, whilst geology, in the sense of hammering rocks or collecting fossils, formed no part of the programme.

* For details of this matter see 'The Geology of the Weald,' chap. ii., 1875 ('Mem. Geological Survey'). A description of the district, with sections, is given in the reports (by Mr. W. Fawcett) of Mr. Lobley's series of Wealden Excursions ('Proc. Geol. Assoc.,' Vol. vii).