DESCRIPTION OF A

PERFORATED STONE IMPLEMENT FOUND IN THE PARISH OF WITHYCOMBE RALEIGH.

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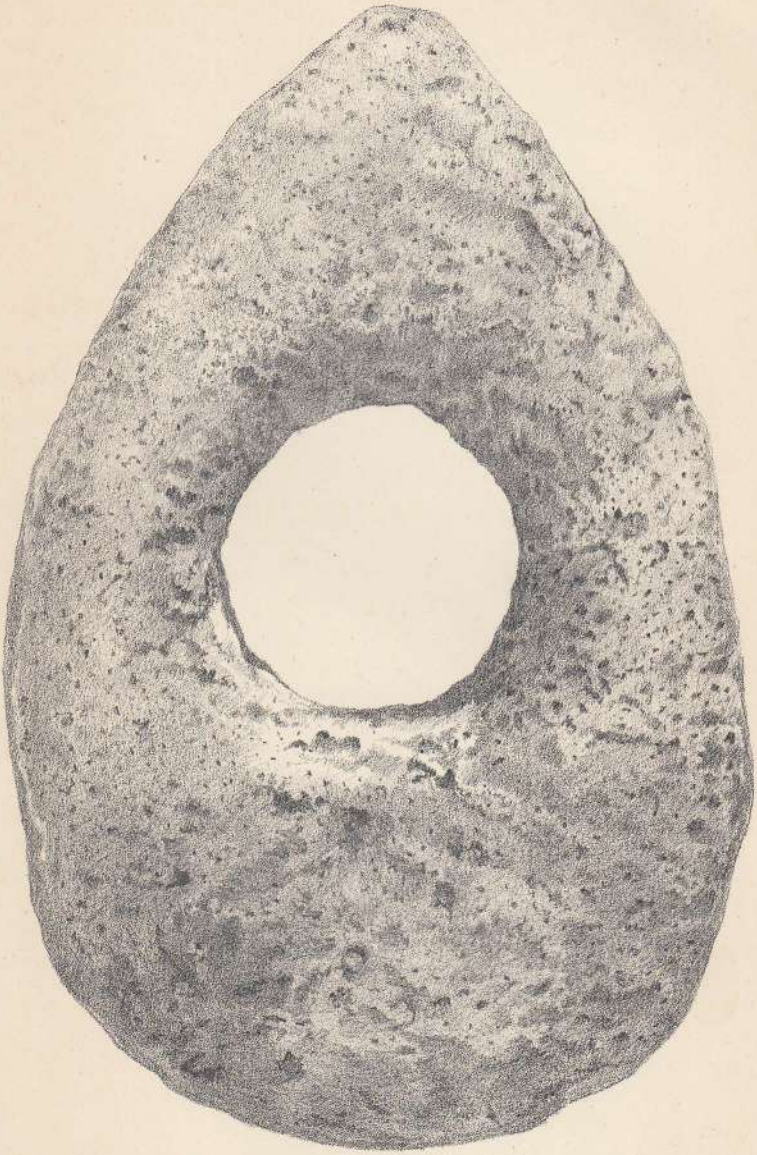
THE neolithic perforated stone axe-hammer now exhibited presents some features worthy of notice, as well as a singular history.

In the course of a visit, made in the year 1883, to a patient at Knowle, in the vicinity of Budleigh Salterton, and situated in the parish of East Budleigh, Dr. Robert Watson, late of that place (now of Ladismith, Cape Colony), noticed that the door of a neighbouring cottage was propped open by a singular-looking stone, perforated, and of a bright green colour. A cursory examination proved that the colour was due to a coat of paint. Believing the stone to be a prehistoric implement, he gave the cottager a small sum for it, and from him obtained the particulars of its history. It was found about twenty years since, while ploughing a field situated on one of the slopes of Woodbury Common ridge, near the church of St. John's-in-the-Wilderness, and in the parish of Withycombe Raleigh. The ploughman was struck by its singular appearance, and so took it home, where it had been used as a door-prop ever since, and until seen by Dr. Watson, had never been out of the possession of the man who found it. Since then the greater portion of the paint has been removed, and thereby facilitated a proper examination of the material, as well as of the general character of the implement.

It weighs $2\frac{3}{4}$ lbs., and is $2\frac{1}{2}$ in. thick. The upper and lower surfaces are similar to each other, and are of an oblong oval form, with one end broad, and the other worked to a



rough point. Its length is $5\frac{3}{4}$ inches, and its greatest breadth, situated one-third from the butt-end, $3\frac{3}{4}$ inches. The circumference connecting the two surfaces is slightly rounded, more especially marked at the pointed end. Situated almost mid-distance from the two extremities is a large perforation, presenting some singular features. It is approximately circular, with an average diameter of $1\frac{3}{4}$ in., and is slightly tapering, one opening being $\frac{3}{8}$ of an inch greater than that of the other. At its point of junction with the two surfaces its edges have been rounded off. Portions of the surface are smooth, caused apparently by the repeated friction on a rough floor, to which they were subjected during the many years the implement was employed as a stop to a cottage door. All the rest, including that of the perforation, are roughly tuberculated, and show no sign that the stone, when originally worked into its present shape, had been polished.

With respect to the material, it has been carefully examined by Mr. H. J. Carter, of Budleigh Salterton, and by a number of experienced geologists, and without being able to demonstrate it as an actual fact (without, for instance, being able to examine a section of a portion under the microscope), their general opinion is, that it is olivine basalt; that is, of basalt containing grains or crystals of olivine—greenish, translucent crystals embedded in a dark material. Olivine is a silicate of iron and magnesium, and under favourable circumstances suffers very slow decomposition at the surface, a red oxide of iron remaining in its place. If the smoothened portions of the specimen be carefully examined with a magnifying glass, the grains and crystals of olivine will be seen of a greenish hue; while dotted over the roughened surface are many patches of iron oxide, showing where olivine had originally existed. From whence the material was obtained is not very clear. According to H. Watts (*Dictionary of Chemistry*, iv. 201, 1871), it is found in Germany, Iceland, the Ural Mountains, and America, but not in England.

There are several points worthy of notice in the perforation.

1st. In its being taper; one opening being of greater diameter than the other; the sides being straight. In Evans's exhaustive work on *Ancient Stone Implements*, it is pointed out and illustrated, that the boring operation was made from each face, the diameter at the point of junction in the centre being of less size than that at either surface, comparatively few specimens having straight sides.

2nd. In its being placed in the centre of the implement. The majority of specimens of axe-hammers have the opening nearest the butt-end.

3rd. In its unusually large size, relative to the mass of the implement; its diameter being nearly a third of its length. The effect of this has been to weaken its power of giving heavy blows, as there is only three quarters of an inch of solid material between the perforation and the two sides of the narrow end.

4th. In the hole not being truly circular. If even it was originally formed by drilling or boring, it was evidently enlarged to its present dimensions by chipping, and that from one end.

The history of it will testify to its being a genuine specimen, and this is further strengthened by the opinion of Mr. Evans, who has examined it.

The absence of any ornamentation, the certainty that it has never been polished, and its general rude character, all serve to show that it probably belonged to the neolithic period, and prior to that of bronze.

Both axe-heads, as well as perforated hammers of basalt, have been found in many parts of England; the latter are, however, by no means common. Of the kinds of implements of this material, Mr. Evans describes several specimens. (*Op. cit.* (1872) 31, 165, 174, 176, 187, 191.) He does not, however, mention two remarkably massive examples of the perforated class, preserved in the Bateman Collection. One of these, 9 inches long, and weighing 7 lbs 10 oz., was found in North Wales during the year 1849; the other, of $10\frac{3}{4}$ lbs., and measuring 11 inches, was discovered at Hungry Bentley, in Derbyshire, in 1831. (*Catalogue of Mr. Bateman's Museum* (1855) 19, 26.) The Collection is at present located in Sheffield. One, similar in material and in the formation of the perforation, is described and figured by Mr. Evans (*Op. cit.* 181), but dissimilar in being more massive (its weight being $8\frac{1}{2}$ lbs.), and in the one end being more prolonged than in the example under notice, the total length being $10\frac{1}{2}$ inches. These large specimens are rarely, if ever, found in barrows.

The relative size of this hole, its situation, and the manner of its construction, are very different to all other specimens I have had an opportunity of examining. It has been suggested to me that the hammer was originally of much larger size, and for some reason or other had been re-constructed, and thereby considerably reduced in size; of this

there are some indications on one of its sides, but the other shows no trace of any.

If the statement that olivine basalt is not one of the native products of this country be correct, it indicates that facilities of communication and of barter with Continental tribes must have existed during the Stone Period. That such took place during the Palæolithic Period, amongst the various English tribes, is shown by the universal presence of early flint instruments throughout the length and breadth of the land.