

## BLOWING HOUSES IN THE VALLEY OF THE WALKHAM (MOORLAND).

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(Read at Exeter, 25th June, 1931.)

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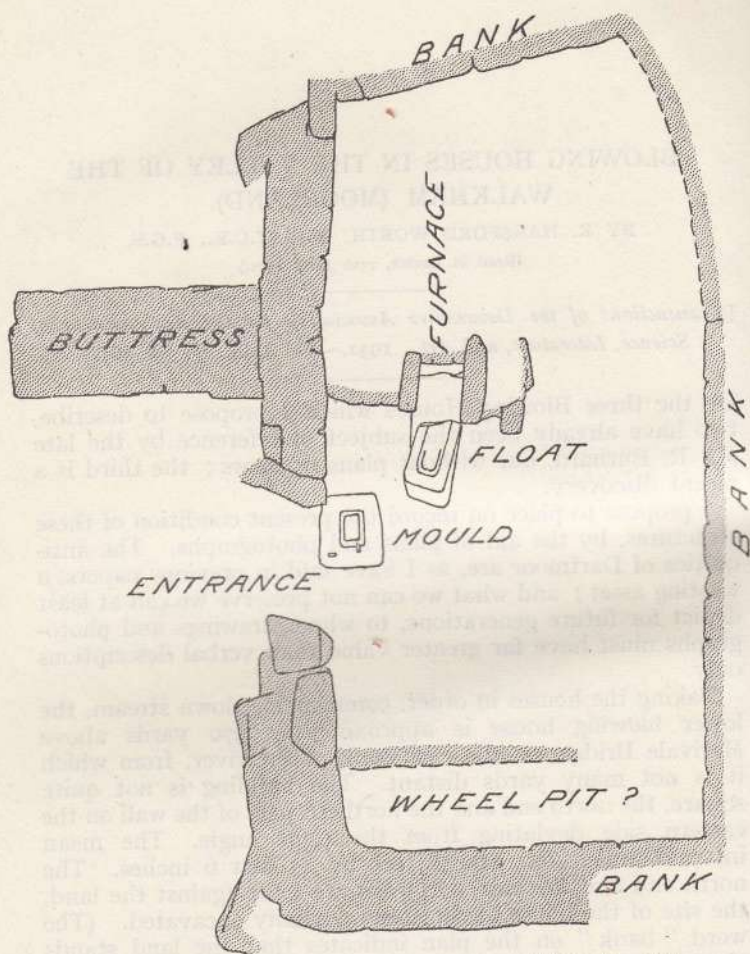
[*Transactions of the Devonshire Association for the Advancement of  
Science, Literature, and Art.* 1931.—Vol. lxiii, pp. 361-367.]

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OF the three Blowing Houses which I propose to describe, two have already been the subject of reference by the late Mr. R. Burnard, but without plans or views; the third is a recent discovery.

I propose to place on record the present condition of these structures, by the aid of plans and photographs. The antiquities of Dartmoor are, as I have said in previous papers, a wasting asset; and what we can not preserve we can at least depict for future generations, to whom drawings and photographs must have far greater value than verbal descriptions only.

Taking the houses in order, commencing down stream, the lower blowing house is approximately 370 yards above Merivale Bridge, on the east bank of the river, from which it is not many yards distant. The building is not quite square, the north end and the northern part of the wall on the eastern side deviating from the right angle. The mean internal dimensions are 32 feet by 15 feet 6 inches. The north end and the east side walls are built against the land, the site of the house having been partially excavated. (The word "bank" on the plan indicates that the land stands above the level of the floor of the house). The doorway was in the western wall; a little to the north of the door, and outside the building, is a buttress. Immediately within the doorway stands a rectangular mould-stone. The sides of the mould are sloping, so that, while the top measurement is  $17\frac{1}{4}$  inches by 12 inches, the bottom is but  $12\frac{1}{4}$  inches by  $7\frac{1}{2}$  inches, the depth is  $6\frac{1}{2}$  inches. There is in one end a groove, sloping toward the bottom of the mould, in this a piece of wood could be inserted when the tin was run; withdrawn when the metal had cooled it left a perforation in the block, which gave a hold for lifting it from the mould, and might also serve for slinging it for transport. (There is in the



R.H.W. 23 Aug. 1929.

Fig. 1. Lower Blowing-House, Walkham, General Plan.  
Scale 1 inch to 8 feet.

museum of the Plymouth Institution an ingot of tin, found near Slade, Cornwood, which has such a perforation). In the mould-stone there is sunk a smaller depression,  $3\frac{1}{2}$  inches by 2 inches, and  $1\frac{1}{4}$  inches deep, in which a sample of the bulk metal could be cast for testing and grading.

Further within the house, and not far distant from the mould, are the remains of the furnace, about two feet by one foot eight inches internal measurement, the sides now standing

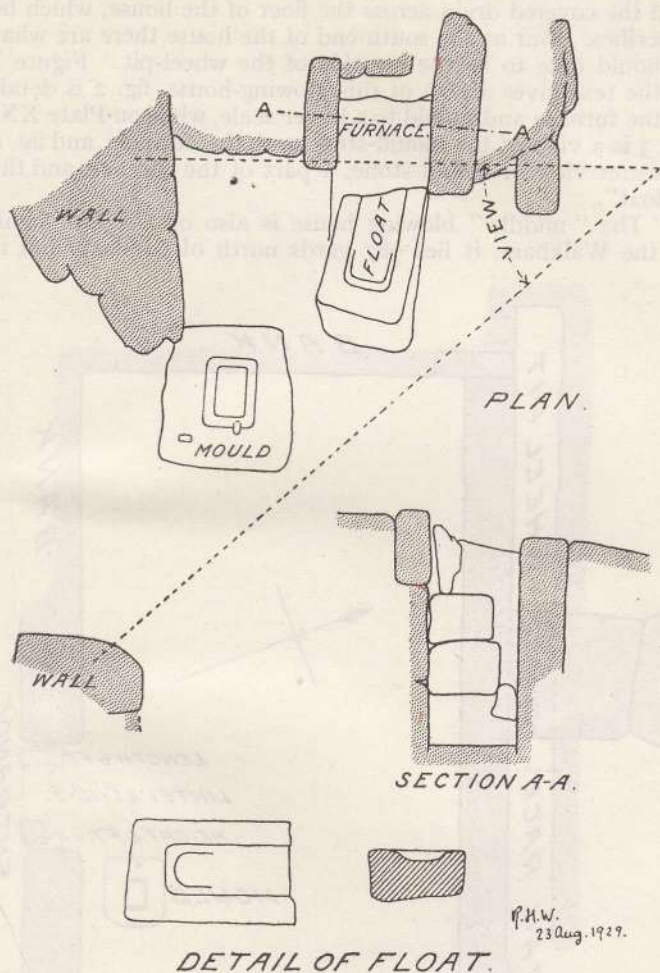


Fig. 2. Lower Blowing-House, Walkham, Detail of Furnace, etc.  
Scale 1 inch to 4 feet.

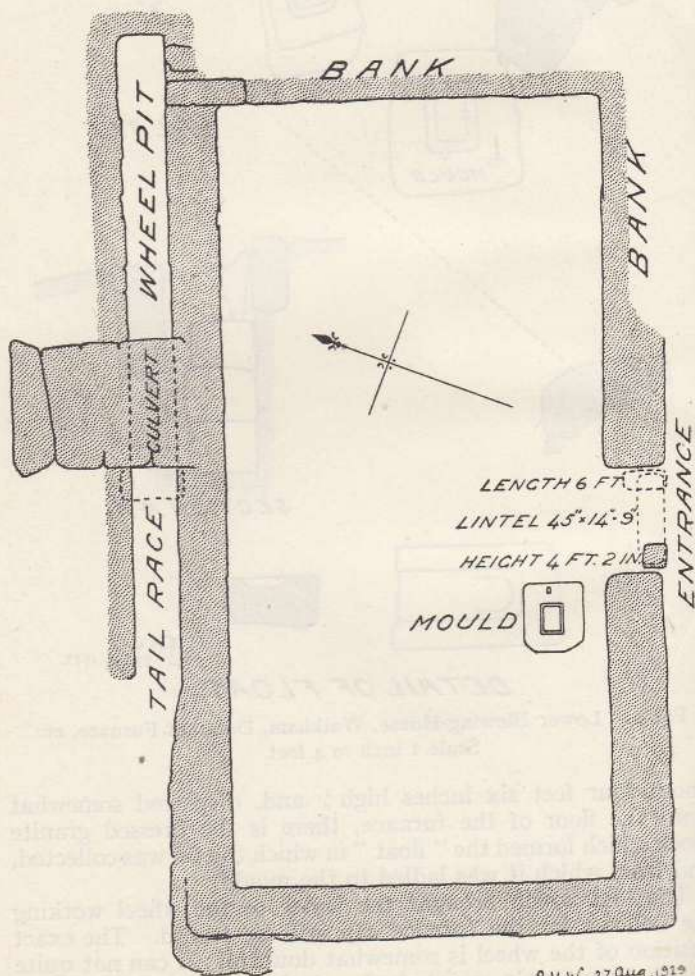
about four feet six inches high; and, displaced somewhat from the floor of the furnace, there is the dressed granite block which formed the "float" in which the tin was collected, and from which it was ladled to the mould.

The leat which brought the water to the wheel working the bellows for the furnace can still be traced. The exact position of the wheel is somewhat doubtful; I can not quite follow BURNARD'S printed description, and I can not now



find the covered drain across the floor of the house, which he describes. But at the south end of the house there are what I should take to be the remains of the wheel-pit. Figure 1 in the text gives a plan of this blowing-house, fig. 2 is detail of the furnace and mould to a larger scale, while on Plate XX, fig. 3 is a view of the mould-stone and the furnace, and fig. 4 a nearer view of mould-stone, a part of the furnace, and the "float".

"The "middle" blowing house is also on the east bank of the Walkham, it lies 987 yards north of the last, and is



R.H.W. 27 Aug. 1919

Fig. 5. Middle Blowing-House, Walkham. General Plan.  
Scale 1 inch to 8 feet.

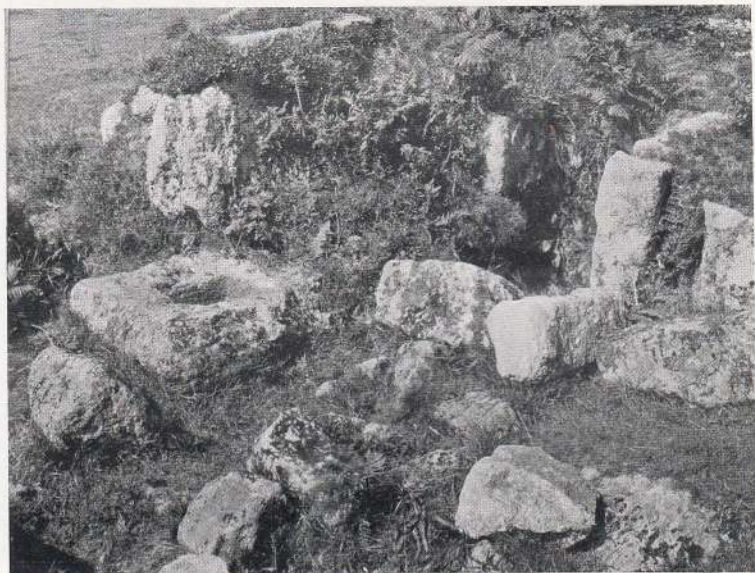


Fig. 3. LOWER BLOWING-HOUSE, WALKHAM.  
View of Furnace, Float and Mould,



Fig. 4. LOWER BLOWING-HOUSE, WALKHAM.  
Nearer View of Float and Mould (angle of view indicated in Fig. 2).



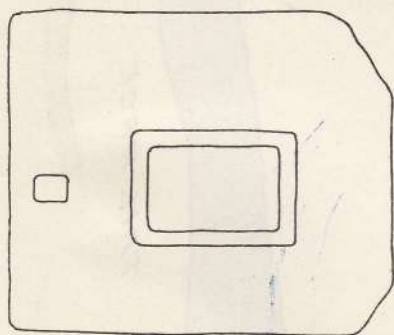
Fig. 4 a. LOWER BLOWING-HOUSE, WALKHAM.  
Mould-Stone.





Fig. 7. MIDDLE BLOWING-HOUSE, WALKHAM.  
Mould-Stone and Door-post.

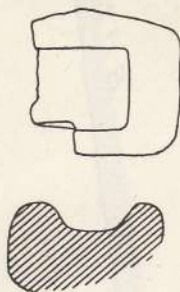
about 60 yards from the river. This building is more regular in plan, its internal dimensions are 32 feet 6 inches, by 15 feet 6 inches, differing only from the last described by six inches in length. The east end and a part of the south side are built against the land. The door is in the south side, one post still stands, its height is 50 inches, the other post has fallen, it is 6 feet in length. Immediately within the door, and on the left hand on entry, is a mould-stone, the position corresponds precisely with that of the mould in the lower house. The mould measures at the top  $15\frac{1}{4}$  inches by 11 inches, at the bottom 12 inches by 8 inches, and it is 6 inches deep. There is, in the same stone, a mould for a sample, this measures  $3\frac{1}{4}$  inches by  $2\frac{3}{4}$  inches, and is 2 inches in depth. The position of the furnace can not now be determined, but the wheel pit is clearly marked outside and against the north wall. A raised platform or buttress crosses the wheel pit, the tail race running under it in a channel which is now 3 feet 3 inches deep below the coverstone. The pit is of such dimensions that one may judge the wheel to have been of ten feet diameter, and not more than fourteen inches breast.



MIDDLE HOUSE.

INS. 12 6 0 1 2 FEET.

Fig. 6.



UPPER HOUSE

Fig. 9.

Figure 5 in the text is a plan of this house, and fig. 6 shows the mould-stone to a larger scale. Plate XXII, fig. 7, is a view of the mould-stone.

The "Upper" blowing house lies on the west bank of the Walkham, 457 yards north of the middle house, and about 233 yards south of the point at which the newtake wall crosses the river, it is close to the bank of the river. Like the other two houses, it has connected with it the recognisable traces



of a leat, and the wheel pit is here clearly marked; but conclusive evidence of status as a blowing house requires the

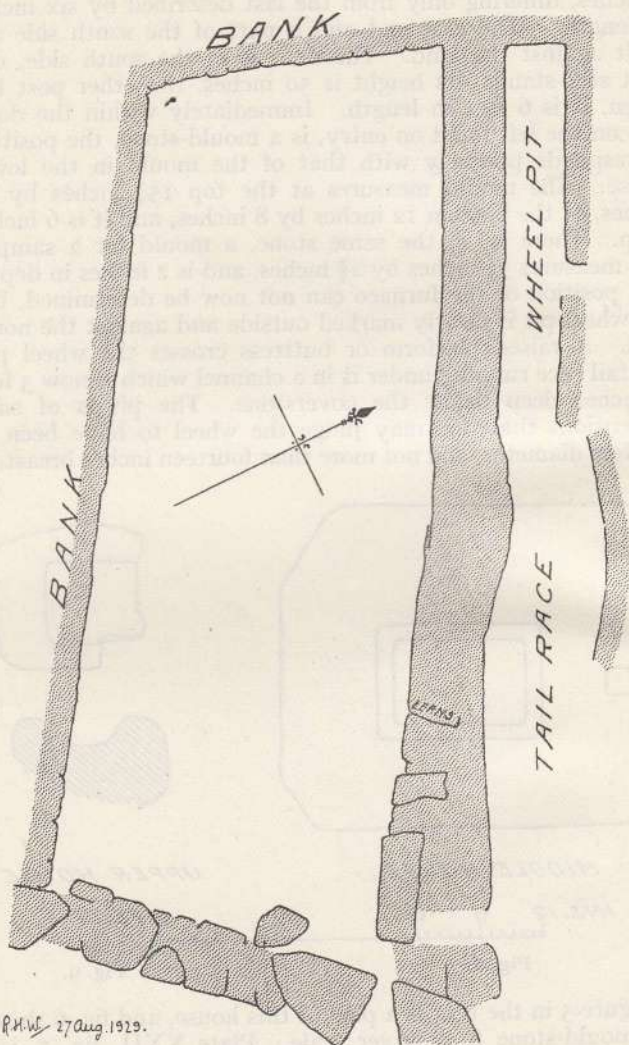


Fig. 8. Upper Blowing-House, Walkham. General Plan.  
Scale 1 inch to 8 feet.

discovery of either, slag, the remains of a furnace, mortar-stones, or a mould-stone or stones, and all these were wanting prior to August, 1929, or rather, neither had been discovered.

Then, however, a much worn and broken mould-stone was found.

This building is far from rectangular. Its mean internal dimensions are 36 feet 6 inches by 13 feet 6 inches. The west and north walls are built against the ground; the wheel pit and tail race are on the east side. The habit of building one or more walls against the ground arises from the convenience which this affords for bringing the leat right up to the house with no more than, at most, a trivial length of artificial bank.

The length of the mould can not now be determined, beyond that it must have exceeded 9 inches at the top, the width at the top was eight inches, the depth was not less than three inches. It is of an older type than the moulds of the other houses, and the structure of the house is more ruined. Figure 8 in the text is a plan of the upper blowing house, and fig. 9 gives detail of the mould.

At the point where the newtake wall crosses the Walkham there is a stone in the bed of the stream, in which there is a hollow very like the hollows in the usual mortar stones, but the stone can not with certainty be stated to be a mortar stone.