

The Lead-miners' Dish.

I take leave to offer the following comments on the articles by Mr. Thomas L. Tudor.

On page 96 No. LVIII he takes exception to the use of the word 'dish' for the oaken oblong shallow flat-bottomed vessel illustrated opposite page 41, which he describes as an "object of deep rectangular form," although it is little more than three inches deep although two feet in length. A reference to page 327 of 'The Concise Oxford Dictionary' Third Edition, will show him that the term 'dish' is correct.

There does not seem to be any foundation for his statement that "it seems therefore that the earliest measures were round."

Table No. 2 on page 107, No. LIX gives the dimensions of the oaken dish marked GR 1770 at South Kensington. These dimensions do not give "a calculated capacity of nearly 467 inches" unless one ignores the statement that the width varies from $5 \frac{5}{16}$ to 6 inches and takes it at 6 inches throughout.

In a reference on page 110 No. LIX to the South Kensington Bronze Dish and the Moot Hall Brazen Dish it is stated that "illustrations of these two bronze measures appear opposite this page."

There is only one measure illustrated opposite page 110 and it is brazen not bronze. The bronze dish is illustrated opposite page 111.

On page 116 the Moot Hall Brazen Dish is described as the 'Wirksworth Bronze Measure.'

The expression 'rhomboidal cast' used on page 116 is incorrect. Possibly the author intended to write 'prismoidal.'

It is clear that these dishes were made to measure ore not lead, and therefore it is not clear why it is suggested on page 116 that the shape of the dish was "prompted by known specimens of Roman pigs of lead." Again at the foot of page 116 it appears that reference is intended to the Brazen Dish when the author gives thanks to "Mr. Waters and Mr. S. Bunting of Wirksworth for enabling the Bronze Measure to be weighed by the steelyard."

This apparently refers to the operation conducted "in the presence of the Steward of the Barmote Court" and the author, when the said dish plus a short length of rope was found to weigh slightly under $79\frac{1}{2}$ lbs.

This is a very interesting basis on which to compare the qualities of the alloys of which the two dishes are made.

If the capacity of the dish is taken as 14 pints, i.e. $1\frac{3}{4}$ gallons it should contain $17\frac{1}{2}$ lbs. of water on the basis that a gallon weighs ten pounds.

The specific gravity of galena is 7.5 so that on a theoretical basis the dish should hold $131\frac{1}{4}$ lbs. of ore. In view of the fact that the percentage of lead in pure galena is 86.6 it is interesting to note on page 104 No. LVIII that an ore giving 81 per cent. lead ran 75 lbs. to the dish.

On page 112 No. LIX at the end of the first sentence of the last paragraph the word 'Winchester' appears to have slipped in for no apparent reason.

As possibly the Member of the Barmote Grand Jury for the King's Field in the Wapentake of Wirksworth and the Manor of Crich who wrote the articles may like to see some comments thereon I enclose a duplicate of my letter.

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