

## Derbyshire Lead Weights.

By S. O. ADDY, M.A.

THE *Inquisitio Eliensis*<sup>1</sup> written a little before 1086 has the following passage in which I have written the abbreviated words at length. I have also given a translation.

Carreta plumbi del pec continet. xxiiij. fotineles quodlibet fotinel de .lxx. libris, et hoc est .xiiij. Cutti. quilibet cuttus de .v. libris.

Carreta de lundon est major illa de .cccc. et xx. libris per minus centum.

A fother of Peak lead contains twenty-four fotinels, every fotinel is of seventy pounds, and that consists of fourteen "cutts." Every "cutt" contains five pounds.

The London fother is heavier than that by four hundred and twenty pounds [estimated] by the lesser hundred.<sup>2</sup>

We may deduce the following table for the Peak:

5 pounds	make one "cutt."
14 "cutts"	„ footmeal.
24 footmeals	„ fother.

The word "fotinel" is a scribe's error for "fotmel," which is found in Old English as fotmæl, foot-meal, foot-measure. The reason for this name, according to the *Oxford English Dictionary*, is obscure.

By the London Standard the fother weighed 2100

<sup>1</sup> In *Inquisitio Comitatus Cantabrigensis*, ed. N.E.S.A. Hamilton, 1876, p. 191.

<sup>2</sup> i.e. 25 lead pounds to the way; the later and more usual London weight was 26 to the way or quarter, making 2184 lbs., 504 lbs. heavier than the one here given. This Peak measure has 20 lbs. to the quarter.—Ed.

pounds, whereas the Derbyshire fother weighed 1680 pounds. The London footmeal weighed  $87\frac{1}{2}$  pounds as against the Derbyshire footmeal of 70 pounds.<sup>1</sup>

The passage quoted from the *Inquisito Eliensis* had not been brought before the Editors of the *Oxford English Dictionary* and their first quotation is from the *Assisa de Ponderibus* in the Statutes of the Realm, i, 205. They give the following extract therefrom: "Charrus plumbi constat ex xxx fotmals: et quodlibet fotmal ex vi petris, ij libris minus: et quelibet petra constat ex xij libris." In English "A fother of lead consists of thirty footmeals, and every footmeal consists of six stones less two pounds, and every stone consists of twelve pounds." Here the fother was the London fother of 2100 pounds. The *Assisa de Ponderibus* is dated 1300, and is therefore more than two centuries later than the *Inquisitio Eliensis*. It will be seen that in the *Assisa* the footmeal weighs 70 pounds, as it does in the *Inquisitio*.

In his will dated 1455, John Milnes of Wirksworth gave two feet (pedes) of lead to the fabric of Wirksworth Church.<sup>2</sup> This was two footmeals weighing together 140 pounds. Richard Huloet in his *Abcedarium*, 1552, under the word "fote" gives the following paragraph: "*Pedaneus, a, um* Ang. the quantitie of a fote in breadth, distance or weyght."

Beef like lead, could be weighed by the foot. The Rev. Peter Walker, Nonconformist Minister of Newton-in-Bowland, in the West Riding of Yorkshire, on 17 December

<sup>1</sup> Assuming that 24 footmeals go to the fodder thus:—

6½ pounds	..	..	..	1 cutt.
14 cutts	..	..	..	1 footmeal (87½ lbs.).
24 footmeals	..	..	..	1 fodder (2100 pounds).

but taking the "cutt" or lead-pound at the same value as it subsequently became in the London measure

7 pounds	..	..	..	1 lead-pound.
12 lead-pounds	..	..	..	1 footmeal (84 lbs.).
25 footmeals	..	..	..	1 fodder (2100 lbs.).—Ed.

<sup>2</sup> *Journal* xlv, p. 47.

1725 "met with John Wilson, of whom I bespoke a foot of his cow in meat, and he told me he would kill her tomorrow night." On the 21st Walker "went to John Wilson, and bought half a foot of his beef at 10s. (*Diary*, 1866, p. 25).<sup>1</sup> I am here referring to a letter in *Notes and Queries* in which the question was asked whether the weight of a foot of beef was known. But nobody could answer. In 1748 Edward Bagshaw, Vicar of Castleton in Derbyshire, paid 3s. for 12 lbs. of beef,<sup>2</sup> i.e. 3d. a pound. At this rate 70 lbs. would have cost 17s. 6d. It looks as if a foot of beef weighed 70 pounds.

There was an ancient relationship between the standards of length, capacity, and weight, of which I have not been able to find the origin. We may see it in the words "inch" and "ounce," which are both from the Latin *uncia*.<sup>3</sup>

The foot was also a measure of weight in Cornish Lead-mining. In 1602 Richard Carew says: "They measure their blacke Tynne by the *Gill*, the *Topliffe*, the *Dish*, and the *foote*, which containeth a pint, a potell, a gallon and towards two gallons":<sup>4</sup> and we are told in William Pryce's *Mineralogia Cornubiensis*, 1778, that "Foot [was] an ancient measure for black tin, two gallons; now a nominal measure, but in weight 60 lb." So there is a difference of ten pounds between the Derbyshire footmeal and the Cornish foot.

In one of the Cottonian Manuscripts are some puzzling old English measures of weight,<sup>5</sup> apparently written at Norwich. They were published in *Reliquiæ Antiquæ*, 1841, i p. 70, and ascribed to the fourteenth century. I give the whole passage from the Cottonian M.S. as printed.

Sex waxpunde makiet j ledpound: xij ledpunde j fotmel:

<sup>1</sup> *Notes and Queries*, 9th S. vii, p. 510.

<sup>2</sup> *Journal* ii, p. 81.

<sup>3</sup> *Ounce* and *inch* both mean one twelfth part, i.e. of a pound and of a foot respectively.

<sup>4</sup> *Survey of Cornwall*, 13b.

<sup>5</sup> M.S. Cotton Claudius E. VIII, folio 8 recto.

xxiiij fotmel j ffothir of bristowe, ys have [md]cc and xxviiij ti wexpund.

Sex waxpunde makiet j leedpound: xviiij leedpund j leed bole ; xviiij leed boles, 1 ffothir of the Northleonds, ys haat xc and xiiij [cccxxiv] leed punde, that beeth xix hundryd and foure and fourti wexpunde, and ys avet more bi six and thritti leed punde, that beeth to hundred and sextene wexpunde.

Sevene waxpund makeit on levepunde: [xxvj leed ponde] one waye: twelf weyen on fothir, this aveit two thousand and ix score and four wexpund that beeth thre hundryd and twelfve leedpound, this his more than that of the Norethland be foure and thritti [and] more of leed poundes,<sup>1</sup> that beeth foure and twenti lasse."

One thing of great interest emerges from these tables, namely the fact that a bole was a measure of lead in the Northlands, which would include Derbyshire. According to the first table below a bole, of eighteen lead-pounds, weighed 108 pounds and is thus equivalent to the local hundredweight.

As will be seen, the word "bole," so familiar to Derbyshire men as meaning a smelting-place for lead, was also used as meaning a measure of lead, and that was the earlier use. A "bole" was a bowl into which the molten lead ran. In Derbyshire wills published in this *Journal*, we have two earlier forms of the word: 1509, boyle (xlv, 49) and 1535, bools (xlv, 65, 72) The derivation is from O.E. *bolla*, a vessel to hold liquids.

"The ore was smelted up to the close of the seventeenth century on the tops of hills. Trenches were cut in the

---

<sup>1</sup> At first sight it appears that the Northland fodder of 324 pounds is greater than this of 312 lead pounds, but the actual weight 2184 lbs. is 240 lbs. greater which amounts to more than 34 lead pounds, to be precise 34 $\frac{2}{3}$ . The M.S. has *lole*, for which I have retained *bole*, there being no such word as *lole*. The Editor has rightly read *lede ponde* for *leve ponde* in the third paragraph, and has inserted some words in brackets. In the third line of the second paragraph he reads "cccxxiv for the meaningless xc and xiv."

ground on a brow facing the west, so as to gain the full advantage of the prevalent wind." In 1731 we are told that "when the Ore is smelted it runs out at an Opening in the Bottom part of the Front of the Furnace, through a small channel made for that purpose, into a cylindrical vessel, out of which it is laded into the Mould" (*Memoirs of the Geological Survey, Derbyshire*, 1887, pp. 120, 121, where references are given). The "cylindrical Vessel" must have been the "bole," or bowl. The spots used for smelting are still known in most cases as Bole-hills.<sup>1</sup>

TABLE I.<sup>2</sup>

6 wax-pounds	make 1 lead-pound
12 lead-pounds	1 foot-meal
24 foot-meals	1 fodder of Bristol

This has 2[88 *lead pounds*  
that is 17]28 wax-pounds.

6 wax-pounds	make 1 lead-pound
18 lead-pounds	1 lead-bowl
18 lead-bowls	1 fodder of the Northland

This has 324 lead-pounds  
that is 1944 wax-pounds.

and this has more (than the Bristol Measure) by 36 lead-pounds, that is 216 wax-pounds.

7 wax-pounds	make 1 lead-pound
[26 lead-pounds]	1 way
12 ways	1 fodder [of London]

This has 2184 wax-pounds  
that is 312 lead-pounds.

This is more than that of the Northland by 34 [and] more lead-pounds, that (i.e. the Bristol fodder) is four and twenty (lead-pounds) less (than this).

<sup>1</sup> "Boles or bolestids are places where in ancient times (before smelting-mills were invented) the miners did fine their lead." Pettus in New Eng. Dict. s.v. Bole.

<sup>2</sup> These two most ingenious tables have been kindly prepared by the Editor.—S. O. A.

TABLE II.

	Hundred-weight.	Lead pounds to the cwt.	Pounds to the lead-pound.	Gross weight in pounds.
Peak (1086) 1 fodder	3	112	5	1680
London (1086)				
1 fodder .. ..	3	100	7	2100
		(The lesser cwt.)		
Bristol (14th cent.)				
1 fodder .. ..	3	96	6	1728
Northlands (14th cent.) 1 fodder ..	3	108	6	1944
London (14th cent.)				
1 fodder .. ..	3	104	7	2184
Modern (standard)				
1 fodder .. ..	3	112	7	2352
		(The greater cwt.)		

There are of course other fodders ancient and modern but the above are the ones "referred to in the preceding notes and are sufficient to show that the lead-hundred-weight is always  $\frac{1}{3}$  of a fodder. The fact that a lead-pound weighed five, six, or seven times as much as a pound of other commodities apparently accounts for the old catch question regarding the relative weight of a pound of lead and a pound of feathers.