

NOTES.

1. *The terminology of early iron-smelting in Lakeland.* By M. DAVIES-SHIEL.

Our Society is fortunate to hold practically a century of records of early iron-making in Lakeland, itself a region rich in iron ores that have facilitated exploitation from pre-Roman times till now. Major contributors have included W. G. Collingwood, Alfred Fell, Dr W. H. Chaloner, Dr Alan Harris and Dr R. F. Tylecote, Mr J. Cherry, Miss M. C. Fair and others.

However, as field evidence, documents and parish registers have added to our knowledge there has come into being a confusion of terms that besets even the experts. It is timely, therefore, to clarify these terms in the style adopted by the Historical Metallurgy Group — a recently formed society which has already won international repute.

1. BLOOMERY. A hand-powered smelting site, using hand or foot bellows and hand-held hammers, all within a small temporary wooden shed. The HEARTH was a simple clay dish (Fig. 1) up to five feet in diameter, surmounted by a clay dome from two to five feet in height and with a top "funnel". It held less than 100 lbs. of iron ore per smelt, and the maximum iron BLOOM obtained (AS. Blom — a lump) weighed less than 30 lbs. SLAG from these contains about 40% by weight of iron, as the operators could not attain the smelting temperature at which the metal becomes liquid. Hearths were broken open after each smelt then rebuilt on the growing mounds of slag. The latter is thus in small



FIG. 1.

fist-sized lumps of purplish-black that show short surface runs. Only a handful of complete hearths has been discovered within the British Isles, and none so far in Lakeland. Pre-Roman bloomery slag has been found in the Lickle valley and identified by Mr G. R. Moreton and Dr Tylecote (both of HMG). Mr J. Cherry discovered Romano-British sites at Eskmeals, and several reputedly Norse and monastic bloomeries are known, although the vast bulk of the 300 or so found by our teams to date was worked from *c.* A.D. 1550-1645.

2. BLOOM-SMITHY (e.g., at Muncaster Head, ref. CW2 lxx 69 ff.). These water-powered smelting sites superseded local bloomeries, as each smelt was up to 250 lbs. ore in weight and the bloom contained up to 200 lbs. of iron. Also, due to the more evenly applied blast, as little as 10% of the total iron remained in the slag. Reputedly first worked at Cunsey in A.D. 1550, they came into general use from 1603 until 1711, when blast-furnace introduction caused their closure.

A weir led to a headrace and a small millpond (DAM in Lakeland and HAMMERPOND in Sussex), thence to a wheel-race for two or more small but wide water-wheels, driving a bellows and a TILT-HAMMER (Fig. 3) and all contained

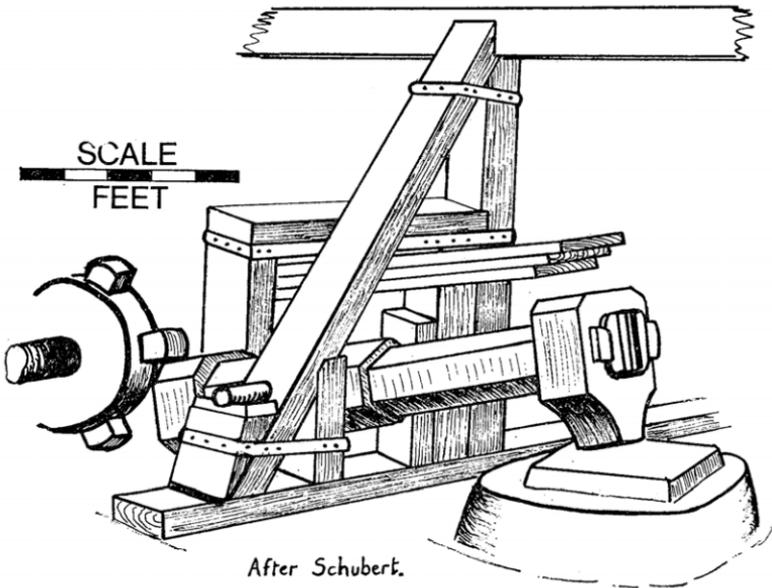


FIG. 3.

in one permanent building. In the earliest bloom-smithies the hearth was a simple round pit (ref. CW2 lxx 102), but soon developed into hearths like a blacksmith's forge, with an arched stone cupola over a waist-high square plinth, but with a deep smelt-trough at the back (Fig. 2). From this, slaggy FURNACE-BOTTOMS were taken after each smelt (*op. cit.*, 89) and MOSSERS were taken from the slag-bowls in front, that were pillow-shaped and about 17 in. long. In both types of hearth, the bellows-nozzle or TUYÈRE protruded into the smelt area through a back-wall.

Alfred Fell listed eleven bloom-smithies (see "Forges", below), but our teams have found 34 to date, five of which were found from parish register clues.

3. BLAST FURNACE. Fig. 4 shows the typical bottle-shaped furnace in its square STACK and with inward sloping BOSHES to hold the smelt above the tuyères. Below is the hearth, even initially capable of containing a two-TON cast, and on that iron floated the lighter slag. Charcoal-iron furnace slags contain less than 2% of iron and are glassy lumps of streaky greens, greys and blues that indicate completely molten smelts. (By comparison, modern furnace slags contain less than $\frac{1}{2}\%$ and look like porous limestone.) Continuous

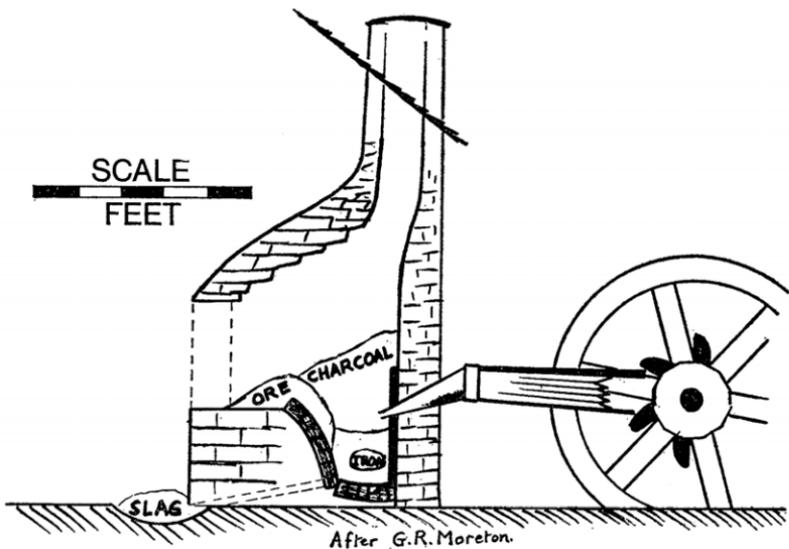


FIG. 2.

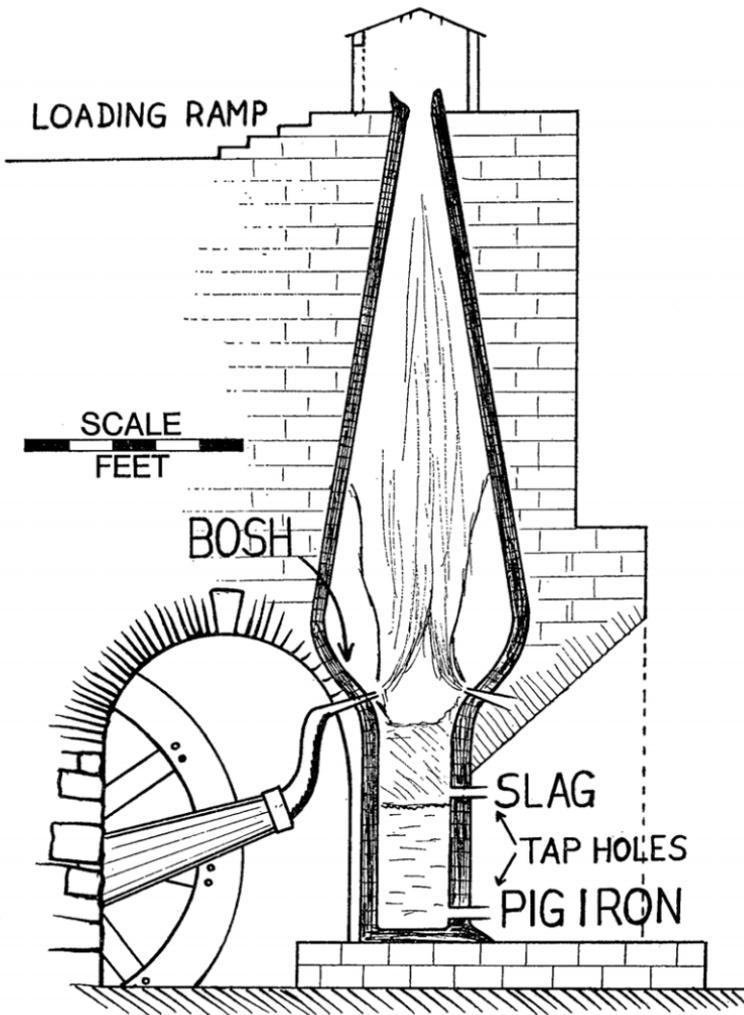


FIG. 4.

charging from the top led to inaccuracies of quality of the CAST irons produced, and as a result the metal was brittle. Thus a FORGE was *essential* (see below).

4. FORGE. This term is the most muddling as it has been used indiscriminately for over 1,000 years to indicate bloomery,

bloom-smithy, furnace and forge. Essentially a forge is a defunct bloom-smithy (or a totally new site) that has been rebuilt into a FINERY and CHAFERY FORGE. Its purpose is to resmelt bars of PIG or cast iron from the blast furnace in such a way that the resultant metal is MALLEABLE (WROUGHT IRON), like that from bloomeries and bloom-smithies. In appearance, the hearth is like that of a bloom-smithy of Fig. 2 type but with important minor differences.

About one-third of Lakeland's bloom-smithies were rebuilt into forges as the second half of each blast-furnace unit (there were 10 furnaces here), but not usually at the same site due to charcoal supply problems.

Of the dozen or so examples in Lakeland and the hundreds elsewhere in Britain and on the Continent, only one is at present known to have survived in any sort of complete form to date. That one is at Stony Hazel in the Rusland valley. A full report on that site — cleared by myself and a team over the last three years — will be produced shortly. This site is open for inspection to visitors, and the owner is generously bequeathing the site to the nation. (Grid reference 335897 on East bank of Force Beck.)

2. *Medieval grants to the Priory of Carlisle*. By C. R. DAVEY.

The lack of a cartulary or collection of original medieval deeds relating to the lands of the Priory of Carlisle has long been a source of frustration to local historians. A few brief references occur to deeds formerly in the Diocesan Registry, principally in the list of items allegedly embezzled by John Denton (see Canon Bouch, *The muniments of the Diocese of Carlisle*, in CW2 xlvi 181), and in the recital of royal charters and twenty-two private grants contained in the confirmation charter of 6 Edward III. The original of this charter, which could not be found in Canon Bouch's day, is now again available among the diocesan archives at the Record Office, Carlisle, as are the 15th-century account rolls and many of the other items not traceable in 1946.

Because of this lack it is particularly interesting that early 17th-century certified copies of three medieval items from the Diocesan Registry have come to light during the listing of records at Cocker-mouth Castle (Record Office reference D/Lec. 303). One of these was taken in 1615-16 from "an Auncient Register booke in parchment", and is a copy of the *Distributio Cumberlandiae* from the Register of Wetheral (no. 245 in the printed edition, p. 384). The other items are copies of two of

the 12th-century grants to the Priory recited in the Edward III *Inspeximus*, and were certified by Bernard Robinson, occupier of the third prebendal stall in Carlisle Cathedral between 1612 and 1634. They are printed below.

The earlier grant, by Waldeve son of Gospatric, is known from another source (Harleian MS. 1881), and a translated abstract is printed in the *Register and Records of Holm Cultram* (no. 66a, p. 26). It probably dates from shortly after the foundation of the Priory, in the later 1120s. The full text of the other grant, by Alan son of Waldeve, is not otherwise known so far as I can discover, and has an interesting list of witnesses. The date falls during the episcopate of Athelwold, 1133-56, and is perhaps before 1150 since the Prior of Holm Cultram is not a witness. Each of these two copies is certified in the following words: "This Coppie agreeth with the originall which remaineth under seale in the Registree of the Church of Carlile. Examined by Bern: Robinson, prebendarie of the saide church; Geo. Clay, notarie publick; Thomas Peirson."

(a) *Grant of Crosscanonby Church and the Chapel of St Nicholas at Flimby.*

Notum sit omnibus filijs Sancte Ecclesie quod ego Wallevus filius Gospatricij Comitis et uxor mea Sieris et filius meus Allenus concessimus Ecclesiam de Crosbye et Carrucatam Terre et Cum omnibus decimis et omnibus que ad illam Ecclesiam pertineant usque ad aquam Alne Ecclesie sancte Marie de Carleolo et Cannonicis eiusdem loci. Concessimus eiam Capellam sancti Nicolai super mare et Terram que Circa Capellam Jacet et decimam Allecium.

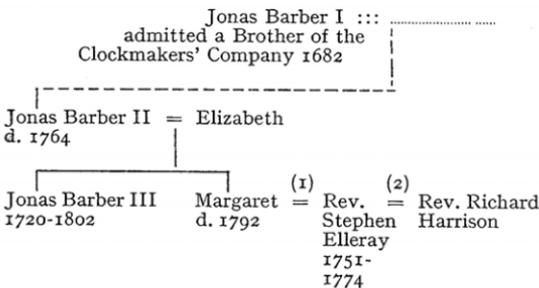
(b) *Grant of Little Crosby in Crosscanonby.*

Universis Sancte Matris Ecclesie Filijs ubicunque per totum orbem Constitutis Allanus Filius Waldevi Salutem. Notum sit universitati vestre quod ego Alanus pro Anima patris mei Waldevi et matris meae Sicharith et pro Salute Anime meae et pro Anima uxoris meae Emmae et pro Animabus omnium parentum meorum tam vivorum quam defunctorum Concessi et dedi et in perpetuam Elemosinam assignavi Ecclesie sancte Marie Carleol et Cannonicis deo et beate Marie ibidem Servientibus parvam Crosbye Juxta Schadebuches sicam cum terris et herbis in planis et pascuis et Aquis et in omnibus parve Crosbye iure pertinentibus et per easdem devisas et Tenuras per quas Willelmus filius Baldewini tenuit. Sciatis etiam quod eam ab omni seculari Servizio et Consuetudine preter Carrevium Regis liberam

et quietam in Eternum clamo. Quare precor omnes notos et amicos meos quatenus Supradictos Canonicos manu teneant ut predictam Elemosinam sicut eis donavi in pace habeant et amodo possideant. Teste domino Adeloldo Episcopo, Reginaldo priore de Wederhall, Willelmo priore de Sancta Bega, Adelaldo Clerico, Hudardo Capelano Alani filio Hudardi, Cospatricio fratre Alani, Willelmo de Sumervilla, Willelmo de Herris, Randulfo de Lindsey, Uctredo filio Liulfi, Udtredo filio Udtredi, Cospatricio filio Ormi, Cospatricio filio Dolfini, Adam fratre eius, Ailwardo filio Dolfini, Fintore preposito Alani, Ketello filio Ulchilli, Adam filio Udervi [*sic*], Werri, Rodberto filio Triuche, Wiberto, Ulstan, et Ceteris quam pluribus. Valete.

3. *Jonas Barber, clockmaker, and the Cookson and Elleray families.* By C. ROY HUDESTON.

In his paper on the Barber family of clockmakers in CW2 xxxix 171-189, the late T. Cann Hughes did not include a chart pedigree to explain relationships. Had he provided one it would have read:



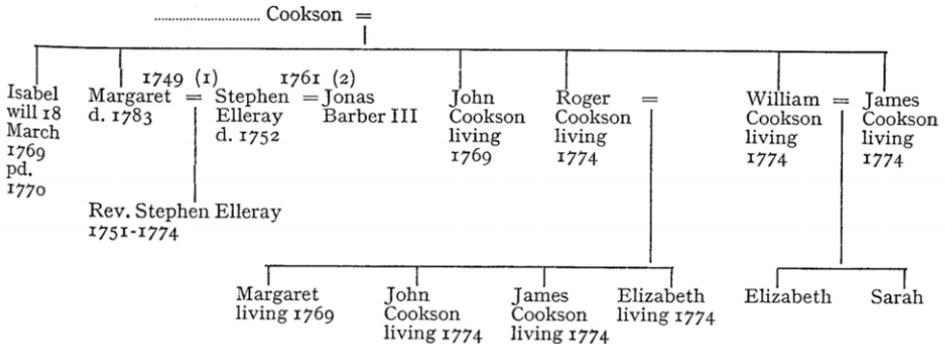
For proof of Margaret's marriage to the Rev. Stephen Elleray, Mr Cann Hughes relied on the fact that administration with the will annexed of the Rev. Stephen Elleray was granted in the Archdeaconry of Richmond to his father-in-law Jonas Barber, clockmaker, on 4 February 1775. On Mr Cann Hughes' own showing, however, Jonas Barber II had been in his grave eleven years in 1775, so that Elleray's father-in-law must have been Jonas Barber III.

Doubt on the statement that Margaret Barber married firstly Elleray was cast by the fact that Elleray does not mention her in his will, and proof that she was not his wife was forthcoming when I discovered that when the Rev. Richard Harrison married her at Kendal in August 1762, she was described not as

Margaret Elleray but as Margaret Barber. Since Elleray did not die until 12 years later she could not have been his widow in 1762.

The explanation of Elleray's relationship to the Barber family was discovered by chance when I examined — for another reason — the will in the Lancashire Record Office, Preston, of Isabel Cookson, spinster, of Winster. This will, dated 18 March 1769, tells us that the testatrix had four brothers — James Cookson, John Cookson, William Cookson and Roger Cookson — and one sister, Margaret, wife of Jonas Barber of Winster. Since Jonas Barber II died in 1764, Margaret must have been the wife of Jonas III. The testatrix also mentions her nephew Stephen Elleray, a minor. The will was proved by Jonas Barber, clockmaker, on 20 January 1770.

The will of the Rev. Stephen Elleray, also in Lancashire Record Office, makes the relationships still clearer. Dated 4 October 1774, the will describes the testator as of Winster and B.A. of Emmanuel College, Cambridge. He leaves to his father-in-law Jonas Barber all his messuages and lands in Winster, charged with the payment of various legacies to his uncle John Elleray and his children, to the children of his uncle and aunt Thomas and Elizabeth Moss, to the children of his uncle Roger Cookson, his uncle William Cookson and his two daughters, his cousin Isaac Higgin of Havorthwaite and his sister Mrs Ray of Whitehaven, and his uncle John Cookson. All the legacies were to be paid at the end of one year after the testator's death. It is clear that when Elleray described Jonas Barber as his father-in-law he meant what we should call stepfather. Venn's *Alumni Cantabrigienses*, 2nd series, III, tells us that Elleray was son of Stephen Elleray, and the evidence contained in his will and that of Isabel Cookson, plus entries from the parish registers of Kendal and Winster, enable us to construct a more accurate pedigree.



4. *The Roman road from Papcastle to Egremont.* By R. L. BELLHOUSE.

Early in 1964 Mr S. B. Cook of Town Head, Dean, near Workington, was having a field tile-drained. I visited the work with a colleague and discovered that the machine digging the trenches for the drains had cut across the line of an ancient road in nearly a dozen places. The alignment of the road and its construction made it evident that here was a new section of the Roman road from Papcastle towards Egremont, the most likely course of which in this area I had described in CW2 lvi 56 f. At that time my purpose was to present a case for the road to the fort at Moresby being a branch from a pre-existing main north-south highway near Dean. The remains lie very close to the suggested line and, in fact, lie accurately on the main alignment already established to the south near Todhole and shown on the 6-inch maps of the area. To the north this line makes for the high point a little to the south-west of Eaglesfield, 465 ft. O.D. ref. o82275.

The average width of the road was 16 ft.; it was made of a bed of rounded boulders from the local glacial drift 12-18 in. thick, well cambered and curbed with the same boulders. Some of the gravel surfacing survived but most of it had been ploughed away. Although the drain trenches crossed the road nearly at right angles and revealed a fossil soil below, no traces were visible of any side ditches. In appearance the road was exactly comparable with sections of other Roman roads elsewhere, for example, on Wharrels Hill, near Braithwaite Station, leading out of Caermote fort and south-east of Brougham. At one point on the west side of the field close by the hedge a similarly constructed feature exposed in plough furrows was observed, and this may be the beginning of the branch road to Moresby. Weather conditions did not favour further investigation; alternate frost and thaw during the progress of the drainage work made the ground either so hard that digging was impossible or so muddy that features could not be properly examined or recorded. I hope that this short account may stimulate members to search for more remains of the road towards Papcastle and more particularly to confirm the branching-off point of the Moresby road. I wish to thank Mr Cook for his kindness in allowing me to investigate the road in his field.

5. *Potash pits in Lakeland — an initial report.* By M. DAVIES-SHIEL.

In Vol. XVIII of the Transactions of the Newcomen Society (1937/38), H. W. Dickinson, a past president, wrote concerning two strange pits shown to members at the summer meeting in Lakeland. Mr Alfred Fell "expressed no doubt that these pits were elinghearths and used for making wood ashes for the purpose of soap-making when everybody made their own".

Since 1938 no attempt had been made to prove conclusively that these pits were so used. In 1965 I discovered several pudding-bowl shaped pits in High Furness and elsewhere. These have several shapes and could have been animal pounds, drying kilns, rubbish pits, calcining hearths, lime kilns or potash pits. They are usually to be found either on areas of birch wood with place-names such as Birkrigg or on lower fell sides having names like Brackenthwaite; yet they are always associated with early packhorse routes and pre-18th-century habitation.

The larger (and earlier) form is as shown in Figs. 1a and 1b, with a frontal tunnel too narrow to admit a man and often emerging on to a beck or crag, so therefore not intended as

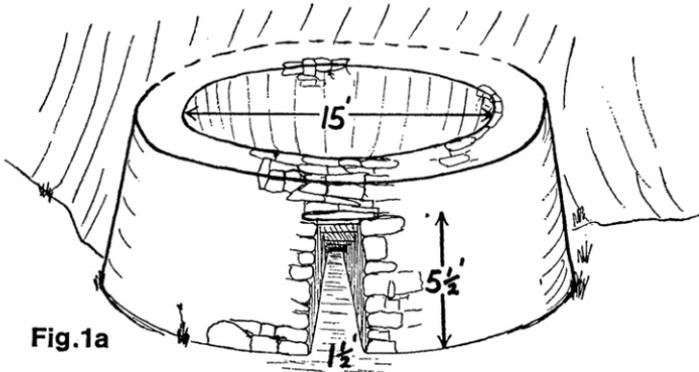


Fig.1a

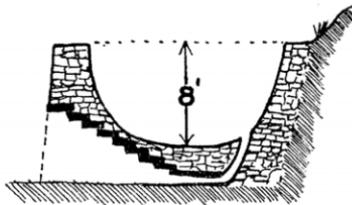


Fig.1b
SIDE VIEW

entrance. The inner end reaches beyond the centre of the bowl, emerging at the back to give an intensely concentrated draught. Burnt stone, cherry-red in colour, occupies the lower two-thirds walls of the bowl. In the deepest pit found so far (built into a cartway), a step and a slot opening at the lip of the bowl indicate top filling and emptying—suicidal with lime kilns. In some cases small square (hut?) foundations lie nearby. The later, more common and smaller form (Fig. 2) has merely a simple horizontally roofed tunnel leading into the bowl at the front. A very few pits indicate a rim that may have been mortared to hold an inner metal-pot.

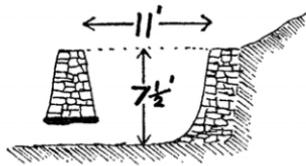


Fig. 2
SIDE VIEW

Of those found to date, sixteen have been discovered in the Rusland and Colton areas; three each in Patterdale, Mitredale and Buttermere; two each in the Winster, Cunsey, Coniston, Lickle, Eskdale and Ennerdale valleys and several single finds of which two contemporaneous pits were discovered by myself, each with associated iron and lead smelt-works. One is in Patterdale and one at Long Intakes, Little Langdale, to which latter Miss Burkett has since referred in CW2 lxx 273.

My thanks are due to Miss Clare Fell, Miss Tillotson, Messrs H. E. Barker, B. J. N. Edwards, H. Kellett, A. W. Norris and Dr Ogilvie for reporting several of the finds.

6. *Four stone implements at Levens Hall, Westmorland.* By JULIAN MUNBY.

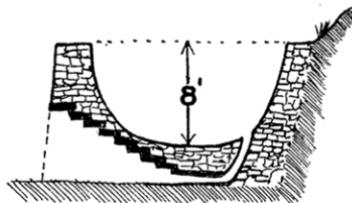
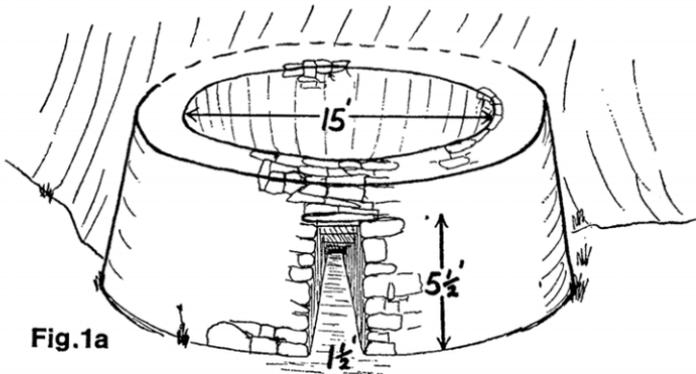
At Levens Hall, Westmorland, are four stone implements which came from Gaythorne Hall (NY 649132) some time in the 19th century. The largest has a label on it saying "Unfinished stone implement dug up near Gaythorne Hall, Westmorland", in the handwriting of Col. the Hon. Fulke Greville Upton, later Howard, who married Mary Howard the heiress of Levens in 1807 and died in 1846. The implements are referred to in CW2 lxii 19, lxx 24, and PPS xxx 47 but not in detail.

5. *Potash pits in Lakeland — an initial report.* By M. DAVIES-SHIEL.

In Vol. XVIII of the Transactions of the Newcomen Society (1937/38), H. W. Dickinson, a past president, wrote concerning two strange pits shown to members at the summer meeting in Lakeland. Mr Alfred Fell "expressed no doubt that these pits were elinghearths and used for making wood ashes for the purpose of soap-making when everybody made their own".

Since 1938 no attempt had been made to prove conclusively that these pits were so used. In 1965 I discovered several pudding-bowl shaped pits in High Furness and elsewhere. These have several shapes and could have been animal pounds, drying kilns, rubbish pits, calcining hearths, lime kilns or potash pits. They are usually to be found either on areas of birch wood with place-names such as Birkrigg or on lower fell sides having names like Brackenthwaite; yet they are always associated with early packhorse routes and pre-18th-century habitation.

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entrance. The inner end reaches beyond the centre of the bowl, emerging at the back to give an intensely concentrated draught. Burnt stone, cherry-red in colour, occupies the lower two-thirds walls of the bowl. In the deepest pit found so far (built into a cartway), a step and a slot opening at the lip of the bowl indicate top filling and emptying—suicidal with lime kilns. In some cases small square (hut?) foundations lie nearby. The later, more common and smaller form (Fig. 2) has merely a simple horizontally roofed tunnel leading into the bowl at the front. A very few pits indicate a rim that may have been mortared to hold an inner metal-pot.

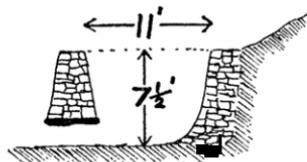


Fig. 2
SIDE VIEW

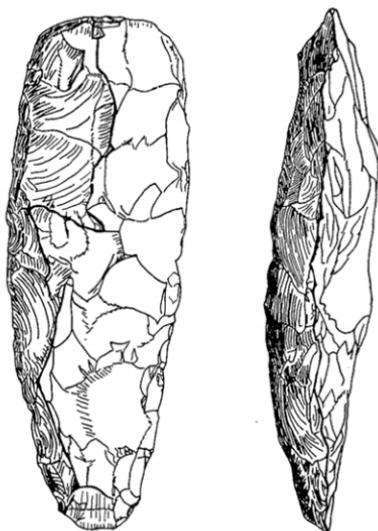
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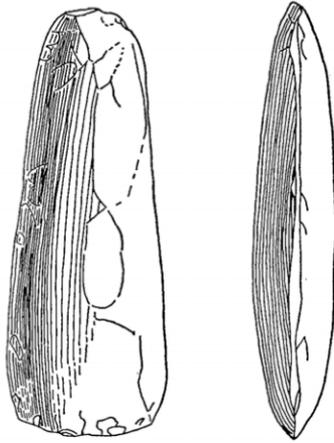
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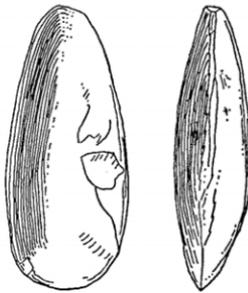
- I. ROUGH-OUT STONE AXE. Weight 3 lb. 13½ oz. 10⅝ in. in length, 2¼ in. in thickness. Rectangular for half its length and then narrowing from 3¾ in. to a rounded butt of 1½ in. The cross-section is a pointed oval and the axe is fairly symmetrical. It has been worked in large flakes. One face is more coloured and rubbed by modern handling than the other which is much lighter.



- II. POLISHED STONE AXE. Weight 2 lb. ½ oz. 8¾ in. in length. 2¾-in. cutting-edge widening to 3¼ in. after 1½ in. and tapering slowly to 2 in. just behind the rounded butt. Maximum thickness 1⅞ in. The axe is symmetrical and the lateral edges are faceted. The front and back are polished on two main longitudinal planes, with small scratches, possibly from contemporary polishing at right angles to the lateral edges. Some scars that have not been ground out remain from the original chipping. One face has been much scratched and rubbed in modern times.



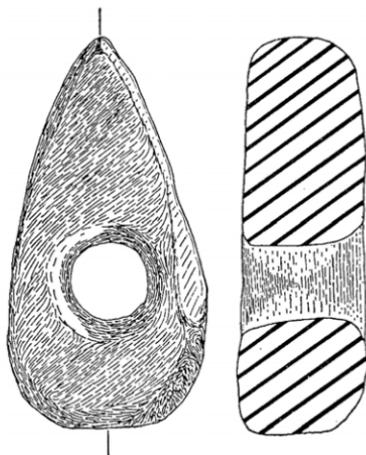
- III. POLISHED STONE AXE. Weight 1 lb. 3 oz. $5\frac{7}{8}$ in. in length. $2\frac{1}{4}$ in. blade widening to $2\frac{1}{2}$ in. and curving to a butt of 1 in. which is almost pointed. $1\frac{1}{2}$ in. in thickness. The cross-section is oval, but one face is flatter than the other. The axe is highly polished and rounded, though there is one scar from chipping left on the flatter side.



The material of these three axes in each case polished by handling to a grey-green and even brown, but scratching reveals that they each have a much lighter grey stone beneath the surface. Probably Group VI.

- IV. PERFORATED STONE AXE-HAMMER. Weight 4 lb. 15 oz. $8\frac{3}{8}$ in. in length and broadens from a point to $4\frac{1}{8}$ in. Uniformly. $2\frac{1}{2}$ in. thick. The perforation is almost cylindrical. The axe is of rough texture and not polished,

but has an even surface. The material appears grey-green, coloured by handling and is partly stained brown. It may be grit, possibly Group XV.



I wish to thank Mr and Mrs O. R. Bagot for permission to publish these implements, which are in their possession.

7. *Two stone objects from the Penrith area.* By JEAN E. BURNS.

(a) Sandstone Loom-weight from High Bank Hill, near Kirkoswald (Fig. 1).

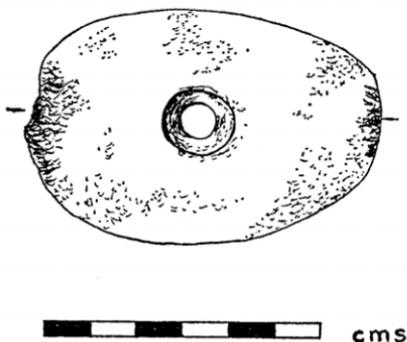


FIG. 1.

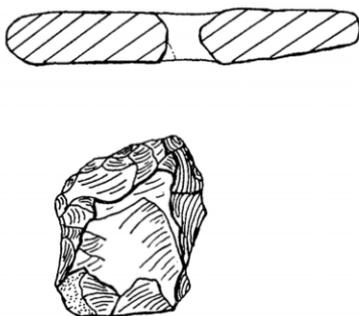


FIG. 2.

The object is manufactured from fine red sandstone, oval in shape and with a central hour-glass perforation created by boring from both sides. Its dimensions are 8 cm. on the long axis and 5.1 cm. at the broadest point of the short axis, while the perforation narrows from 1.4 cm. diameter to 0.8 cm. Described by the finder as a macehead, its most likely use is as a crude loom-weight, as it shows slight traces of abrasion where it would have brushed the ground.

(b) Flint Thumbnail Scraper from Glassonby (Fig. 2).

The scraper has evidence of steep retouching along the scraping edge and a neat depression for a thumb on the upper surface. There are no traces of wear, and the position of a large bulb on the reverse side suggests abandonment before completion. The flint is a speckled brown and white variety, common on beaches of the Cumberland area.

Both objects were detected as casual finds in 1969, and have no accurate find-spot or definite archaeological context beyond Bronze-Iron Ages. They are in the possession of Mr W. F. Davidson of Penrith, to whom I am indebted for permission to publish.

8. *Mr. Nichol of Edinburgh, architect.* By M. I. M. MACDONALD.

The architect of Lowther Street Congregational Church, Carlisle, the "Jacobean" façade of which forms a distinctive constituent of Lowther Street and the interior of which is one of the lesser-known delights of the city, is generally known to be a "Mr Nichol of Edinburgh" (Pevsner, *Buildings*, p. 98). The source of this information is Mannix and Whellan's *Directory*, 1847, p. 132. The *Carlisle Journal* of 21 November 1840 reports the opening of the new Royal Hotel, English Street, built to the designs of "Mr Nichol, a very talented architect from Edinburgh". In the same newspaper, on 22 January 1842, an advertisement to contractors for the building of the Lowther Street Church states that the plans may be inspected at the house of Mr John Nichol, architect, 35 English Street, Carlisle. A search of the 1841 census of English Street has shown that at the time of the census John Nichol, architect and builder, was living there. His age is given as 35 years, and his birth-place as Scotland. It is possible that his plans for the church may date from 1838, when the intention to erect a new building was announced (C.J., 21 July 1838). As he had become "Mr Nichol of Edinburgh" again in 1847 his sojourn in Carlisle may have been brief. Mannix and Whellan's 1847 *Directory* does not include his name in the lists of architects and builders.

9. *Gaities at Whitehaven in 1819.* By C. ROY HUDLESTON.

Writing from Whitehaven 21 February 1819 to her nephew Andrew Fleming Hudleston, Isabella Hudleston describes some of the gaities in the town. She says: "We have now got from Germany Madam Griardelli, the Wonderful Fireproof lady who, to the astonishment [*sic*] of all the beholders, poured boiling lead into her mouth with a ladle, put her bare feet into boiling lead, pour[ed] the strongest aquaforts in steel filings and tread on them with her feet, pass [a] red hot iron over her toung [*sic*] till it is cold, drop'd on her tongue a large quantity of burning sealing wax, from which Mr Dykes took an impression of his seal and many more too tedious to mention. I did not go to see her, being well assured flesh and Blood could not bear all this, tho' many believes it to be void of sensentson [*sic*] but I do not . . . I went to see Signior Simmons' performing Dogs which I was highly entertained with. These sagacious creatures did wonders indeed, such as casting accounts, playing at cards, telling the hour by any person's watch. One was shot as a Deserter and personated Death better than I ever saw any human creater do it upon a stage."

10. *An Armstrong tragedy.* By C. ROY HUDLESTON.

The *Newcastle Courant* of 15 December 1792 contains the following obituary of a Cumbrian: "On the 10th at his house at North Shields, John Armstrong, one of the people called Quakers, an eminent linen and woollen draper, son of George Armstrong of Thrustonfield near Carlisle, a young man much respected for his humane and friendly disposition, and what makes his death more to be lamented, the day was fixed for his marriage with an aimable woman, whose distressed state may be much easier felt than expressed." Administration of his estate was granted at Durham on 20 December, he being described as mercer and linen draper and a bachelor, to George Armstrong of Thurstenfield, Cumberland, yeoman, whose bondsmen were David Orr of Newcastle, warehouseman, and William Spencer of Newcastle, woollen draper.