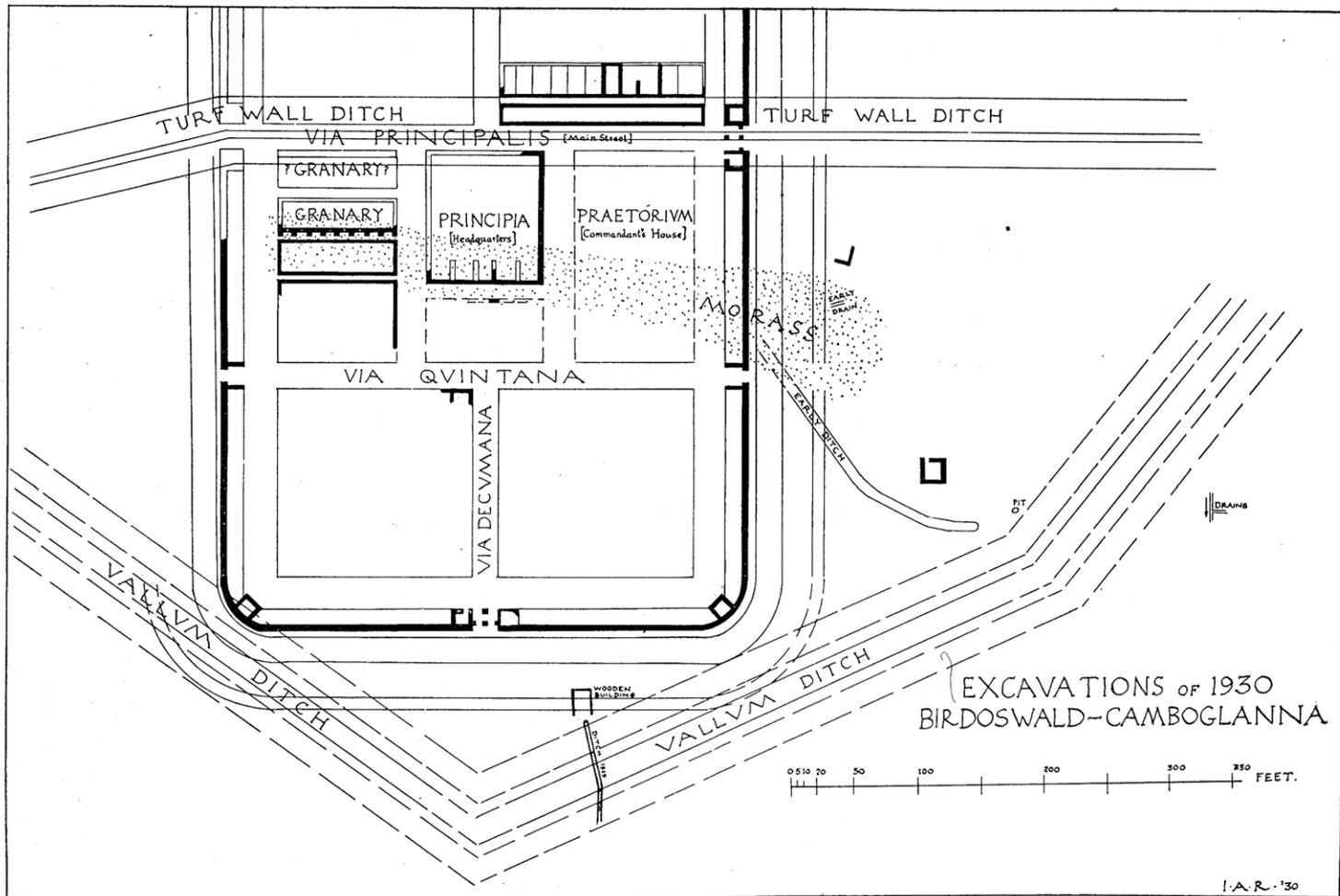


ART. XIV.—*Excavations on Hadrian's Wall in the Birdoswald—Pike Hill Sector, 1930.* By I. A. RICHMOND, M.A., F.S.A.

THE Durham University Excavations (1928) proved the Vallum, as well as the Turf Wall, to antedate the Stone Fort; and they began to indicate an earlier structure, avoided by the Vallum. These words are taken from last year's Report, to indicate that Mr. F. G. Simpson and the writer this year returned to the quest for which last year's work was a preparation. The results gained this season have been very useful, but they are not final.

Three discoveries, left from the work of 1927 and 1928, seemed worth following. In 1927, pottery and a drain had been found below the Stone Fort's east rampart, north of the postern Gate. In 1928, a small wooden building had been found cut through by the outermost south ditch of the Stone Fort, and a ditch had been traced running therefrom to the edge of the escarpment. In the same year, the east ditch-system of the Stone Fort was discovered to be running across an earlier ditch, laid out at an angle of thirty-six degrees to the Fort. The last clue seemed the most promising.

(1) *The East Ditch* (fig. 1).—The dimensions of this ditch had been altered by levelling the ground in which it was dug; but in one section it was eight feet wide by six feet deep, including a deep little channel at the bottom. This may represent its original proportions. It was traced in a straight line for eighty feet, and then turned in a very easy curve and came to a butt-end, without further continuation, near the Vallum. The Vallum was then located, running much as traced in 1896; but more ex-



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FIG. 1.—GENERAL PLAN.

TO FACE P. 122.

tensive trenching enabled us to lay down a quite sharp angle at this point, in which the butt-end of the new Ditch was contained. This angle, situated at the foot of a long slope from the west, had burst out over the escarpment, causing the swallow visible to-day. The relation of the ditch and the Vallum seems clear. If the Vallum were taken away, the course taken by the ditch, and its termination at that particular point, are deprived of all significance. Given the Vallum, it is evident that the ditch was designed to run up to it, and to cut off an area defined on the south by the Vallum and on the east by the Ditch. In other words, the ditch was not dug until the Vallum was there.

In the course of this work, other discoveries were made. An oval pit was found east of the butt-end of the ditch, while testing to see whether the ditch continued, but yielded only a bundle of silver birch sticks. The Vallum ditch was found to be filled up with peat blocks in exactly the same way as discovered on the south side of the Fort in 1928; and so it is evident that the artificial filling continued well to the east of the Annexe area of the Stone Fort. Dr. Kathleen Blackburn (Armstrong College) supplies the information upon which this statement is based; "The peat," she writes, "certainly was not growing *in situ* and was just ordinary heather peat."

Investigations at the other end of the ditch were less conclusive. The ditch was aiming straight for a collapse in the Fort wall, as if it had originally run underneath it at that point. But examination showed that the collapse was confined to the upper part of the wall, being caused by clumsy late refacing, and that the lowest courses were standing firm. Below this point it was impossible to make any sound examination, since the inflow of water baffled our double-acting pump. A section was then cut further back, designed to hit the junction of the early ditch and the inner Stone-Fort-ditch; actually, it missed

it by a few feet, but revealed another quite unexpected fact, that the ditch-system, both early and late, was cut through made ground tipped in on top of a morass. The extent of this morass was not discovered, but it continued north-eastwards, well beyond the limits of the ditch system, and it yielded Roman rubbish, old shoes and scraps of pottery and also a drain. It thus became quite clear that the newly-discovered ditch, whatever its real purpose may turn out to be, was not connected with the first occupation of the site. Before it was constructed, there was time to drain a morass, to deposit rubbish within it, and to level it completely. Thus, although the connections are not yet quite clear, it is evident that the data from this end of the ditch fit in with those from the other end. At the south the Vallum was laid out first; at the north, a morass was first drained and then filled up, two quite distinct operations, hinting at two distinct policies in treatment of the site. Further than this, these facts do not permit us to go. But they seemed to show us that we were to learn nothing conclusive about the earliest occupation of the site here, and it was therefore decided to explore the widest streets of the Stone Fort, the *viae decumana* and *quintana*.

(2) *The Via Decumana* (Fig. 3).—A cross-section located this street fifty feet behind the south Gate. The surface was badly robbed and almost entirely disintegrated; the kerbs had been shaken, but were recognisable giving a width of 20 feet to the street. The line of the street was then followed by a central trench to the junction with the *quintana*, and the angle of a barrack block was located at the south-west junction. There were three distinct levels therein, the third a rough repair of the second, the second a drastic reconstruction of the first. The first was dated securely by a little hoard (*see* Appendix I) of thirty *denarii*, held in a pot-base and pushed into the floor. They ranged from 130 B.C. to A.D. 121,

and included 18 Republican coins, an unusually large percentage for a British hoard. The latest coins, three of Trajan and two of Hadrian, were in excellent condition, those of Hadrian being mint. There is thus no doubt that at this point the earliest level traced in alinement with the Stone Fort can be equated with period I of that Fort's existence, as identified last year. We had not yet found anything earlier here. The two later levels will go to Severus and Constantius Chlorus, there being a marked similarity between the Constantian masonry of last year and that which we are now assigning to the same period.

On pursuing our examination further, we encountered abnormalities at once. The road surfaces of the *viae decumana* and *quintana* had been almost completely removed, and in their place were two levels containing buildings out of alinement with the rest of the Fort. The upper building was clearly late. It had a heavy flagged floor, its walls were built upon flagged footings, and Huntcliff ("vesicular") ware was associated with it; this takes it into the fourth century, and the whole type of its construction would lead us to associate it with Theodosius. Its eastward extent is not known, but it looks like a building laid out to fit the free space. The date of the building below it was for some time uncertain, since it consisted of one long wall, with a rough foundation, about fifteen feet wide, on its west side, containing re-used stones and resembling road-bottoming. But we were able to define its relation to a ruined building of the first period behind the *principia* of the Stone Fort, proving that it was secondary; and the quality of masonry, together with its level, places it in the second period of the Stone Fort. It was of some importance, however, to make sure that this abnormality was confined to the small area behind the *principia*, so often encumbered with abnormalities in other Forts. We therefore did some rapid trenching, locating the buildings round this area as

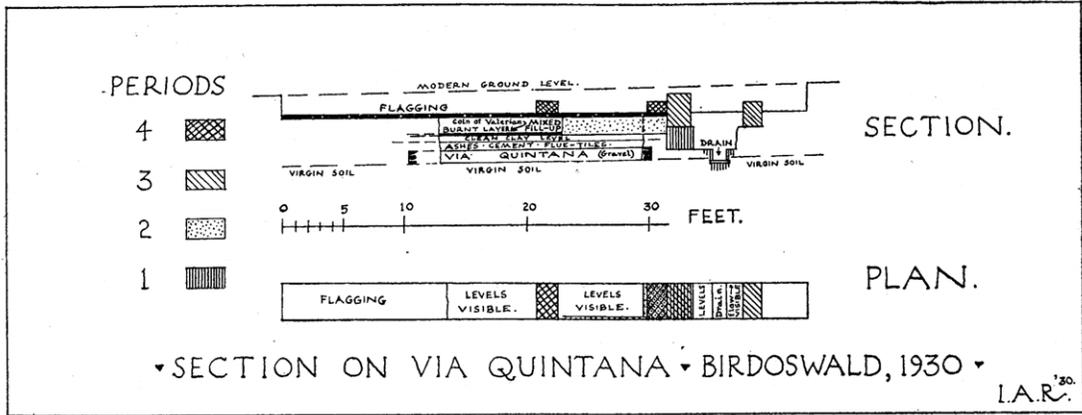


FIG. 2.

illustrated in figs 1 and 3. Here the surprising feature was not the plan of the buildings, which appeared perfectly normal, but the height to which they were preserved. Hitherto, we had been working in a robbed area; now not only did the robbing cease, but the ground continued to dip very rapidly towards the north, disclosing that the buildings here were all built in a deep hollow of which there is not the least indication on the surface. Thus it came about that the back wall of the *principia* may be estimated at 15 courses high, while the north wall of the building south of the granary is at least eight feet high. Southwards, the height rapidly reduces, to foundation level on the line of the *quintana*, and to five courses only on the *via principalis*, where the roads of the Fort are also in excellent order. But the back rooms of the *principia* must be among the most remarkable in Britain; in one room alone we found the voussoirs of the arched entrance lying as they had fallen. For the early occupation of the site, however, the discovery of this unexpected "slack" or "leach" on the site of the Fort, is of the highest importance; together with a steady fall from west to east, which levelling also revealed, it completely explains the presence of the morass under the eastern ditch-system; and it demonstrates two points; first, that there could be no contiguous occupation of the north and south halves of the site until draining and levelling had been carried out on an extensive scale; secondly, its relation to the divergence of the Vallum seems strongly to suggest that the earliest occupation must have chosen the south side of the depression as its site; and the corollary of this conclusion would be that an extension north of the depression was connected with the first boundary on the north, that is, with the Turf Wall. In other words, our newly-discovered ditch would have something to do with a new lay-out of the site connected with the Turf Wall; and from this again it would follow that the Turf Wall

builders were reckoning the Vallum as an element in their lay-out. But too much importance must not be attached to this argument until more work has been done, testing its validity.

(3) *The Via Quintana* (fig. 2).—The cross-trench cut here, 56 feet west of the outer face of the Stone Fort's east wall, revealed no early remains. But it was important for the later history of the Fort. The finds are illustrated by a cross-section (fig. 2). There were four levels. (1) The *via quintana*, a gravelled road one foot thick and twenty feet wide. This was covered with a thick layer of burnt rubbish; ashes, cement, flue-tiles and hold-fasts, representing the destruction of a hypocaust in the Commandant's house to the north. To the south lay a wall backed by a drain. (2) A clean floor of yellow clay, spread on top of the rubbish, and associated with the angle of a room, in which in turn there was a burnt layer representing a second destruction, and containing a coin of Valerian (A.D. 253-61). This is undoubtedly the Severan occupation of the site, terminated by a disaster at the end of the third century. (3) A very substantial flagged floor, which produced a small domestic altar, and a wall in association with it, built on top of the early south wall. (4) Alterations to the third period, consisting of two walls set on the flagged floor. The floor associated with these had been removed, unless the flags were continuing to be used. The four periods distinguished at the barrack in 1929 thus emerge once more, equally clear. But the interesting point is the occupation of the line of the *quintana* by buildings as early as the second period. The reason for this is supplied by the Severan inscription of last year, which mentions a second unit in garrison with Cohors Prima Aelia Dacorum. It must have been necessary to pack tight in order to accommodate this reinforcement, and here are traces of one of the measures taken, the abolition of a street which could well

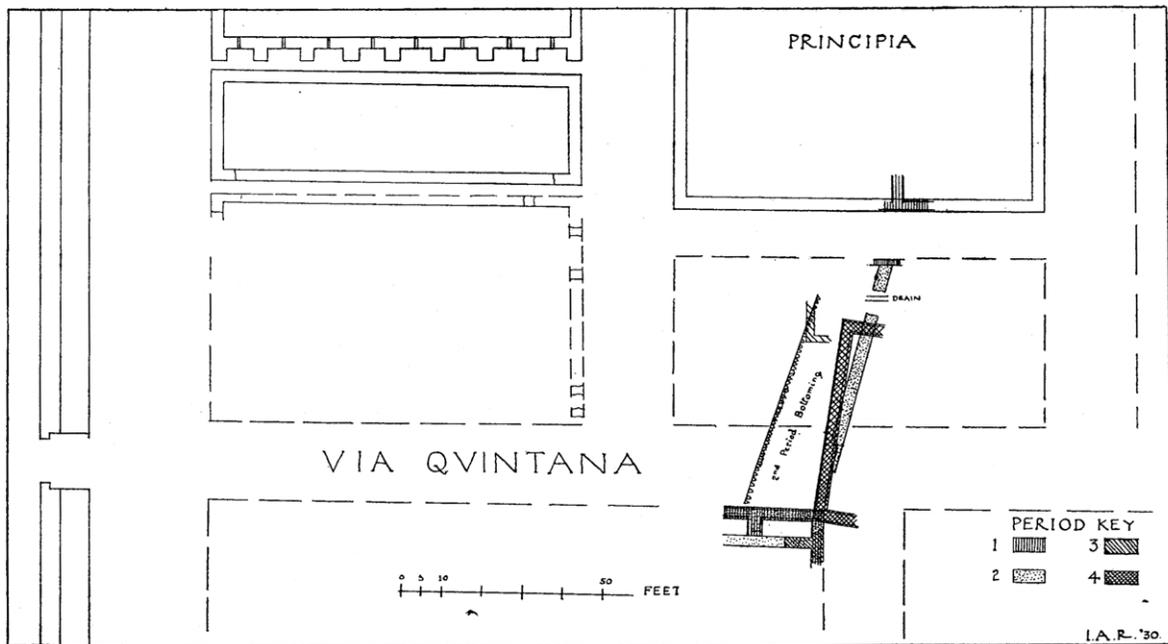


FIG. 3.

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be spared. It would be interesting to know whether the postern gates were also built up at the same time, but the conclusion does not necessarily follow from these facts, since the gates could still open from the *intravallum* road, if this was intact.

(4) *The Annexe of the Stone Fort.* During the search for the new ditch three discoveries of note were made in connexion with the later annexe. A good building, twenty feet square, with three-foot walls standing thirteen courses high, was found just north of the curve in the ditch. A drain seemed to lead away from it towards the escarpment, but the connexion between the two features was not demonstrated before rain and flooding compelled us to leave this investigation half-finished. Secondly, east of the bend of the Vallum and south of its course, we struck a complex of deep drains. If these belong to annexe buildings, they explain at once why the Vallum was filled up so far eastwards, and they suggest that the Birdoswald annexe was a large one. Thirdly, in tracing the morass, north-east of the east postern, another building was found between the mounds east of the fort. This was not alined with any feature now to be recognised, but not enough was discovered to diagnose its nature. These three discoveries, however, illustrate that there is more of the annexe left than had been thought. Modern levelling has greatly increased the depth of the remains, and has given the field a speciously smooth appearance.

APPENDIX I.

A note on the hoard of *denarii*, Birdoswald, 1930.

The coins were contained in the base of a small cooking pot of coarse fabric, with highly burnished black exterior surface. There were faint traces of iron in the pot, suggestive of a rag pinned round it. We are indebted once more to Mr. H. Mattingly, of the British Museum, for the identification of the coins. The list runs as follows; all are *denarii*: G=Grueber, *Coins of the Roman Republic*; C=Cohen, *Médailles impérialés.*)

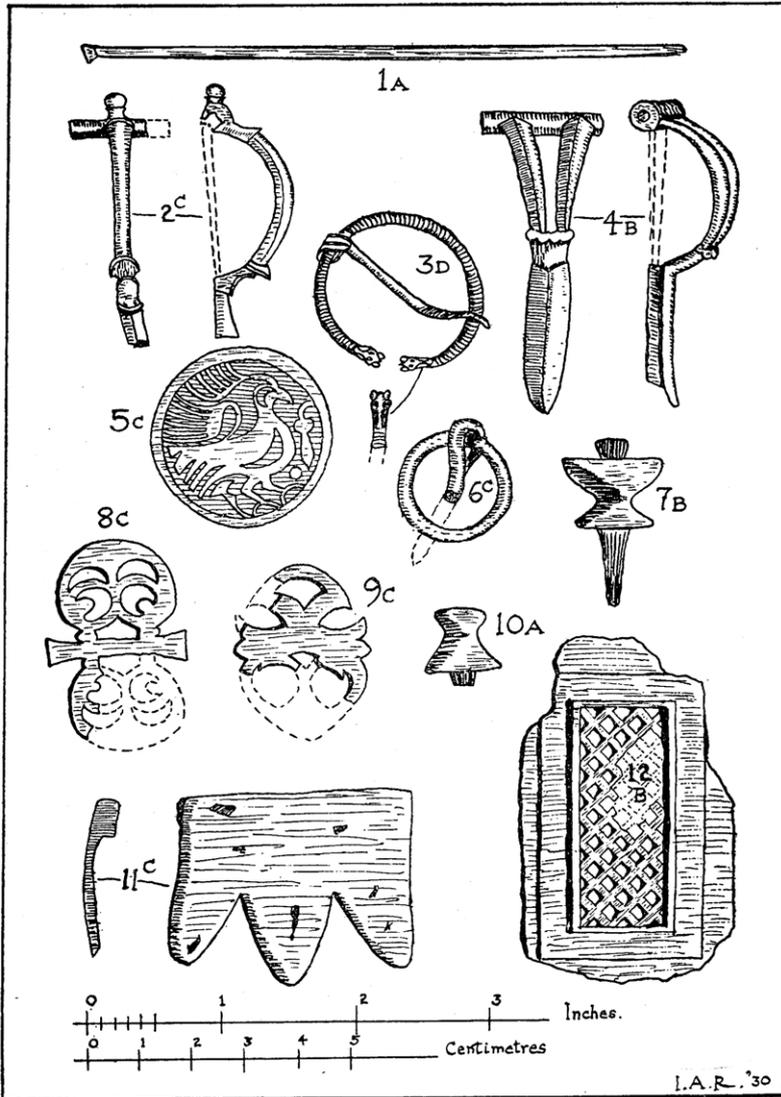
C. 130 B.C.	L. ANTES. CRAG. No. 1. G. I. 976.
C. 112 B.C.	CN. DOMIT. No. 2. G II. 490.
C. 107 B.C.	M. HERENNI. No. 3. G I. (Italy), 1231.
C. 88 B.C.	Q. TITI. No. 4. G. I. 2220.
	L. TITURI. L. F. SABINI No. 5. G. I. 2322.
C. 87 B.C.	L. RUBRI. DOSSEN. No. 6. G. I. 2448.
	C. VIBIUS PANSA. No. 7. G. I. 2244.
C. 70 B.C.	P. GALB. No. 8. G. I. 3516.
C. 55 B.C.	LIBO No. 9. G. I. 3377.
C. 52 B.C.	CAESAR No. 10. G. II (Gaul) 27.
C. 45 B.C.	M. CORDIUS RUFUS No. 11. G. I. 4040.
C. 32-I B.C.	ANT. (legionary). Nos. 12-17. G. II (East) 187 (3), 204 (1), 205 (2).
C. 18 B.C.	AUGUSTUS. No. 18. C. 265.
A.D. 66.	NERO. No. 19. C. 119.
A.D. 70.	VESPASIAN. No. 20. C. 226.
A.D. 71.	VESPASIAN. No. 21. C. 566.
A.D. 72.	VESPASIAN. No. 22. C. 563.
A.D. 74.	VESPASIAN. No. 23. C. 364.
A.D. 80.	TITUS. No. 24. C. 313.
A.D. 81-3.	DOMITIAN. No. 25. C. 412.
A.D. 98-9.	TRAJAN. No. 26. C. 302. Good condition.
A.D. 107.	TRAJAN. No. 27. C. 394. Good condition.
A.D. 115-16.	TRAJAN. No. 28. C. 270. Good condition.
A.D. 120-1.	HADRIAN. Nos. 29, 30. C. 1120, 907. Mint condition.

The condition of the last five coins indicates that the date of deposit must have been soon after 121. In other words, the Stone Fort is undoubtedly Hadrianic, if further proof of this fact were required. The large number of Republican coins is remarkable, for these were not common in Britain after the turn of the first century. They represent either the savings of a life-time or speculation. Trajan is known to have called in old Republican coins, and the owner of these may have appropriated them during that process. This, however, is pure conjecture, and the importance of the hoard does not lie in this feature, but in the fact that it confirms the early Hadrianic date of the Stone Fort at Birdswald.

APPENDIX II.

SMALL OBJECTS OF METAL FROM THE BARRACK BUILDING,
1929.

1. Attachment for leather strap, bronze (fig. 4 No. 8). From level III, north of apsidal building. *cf.* CANNSTATT *O.R.L.* 28, Taf. viii, 22.
2. Pennanular brooch, bronze with horse-head terminals (fig. 4 No. 3). Room IVa. This relatively rare type is assigned by Reginald Smith (*Archaeologia*, lxxv, p. 226; *Proc. Soc. Ant.* 1914-15, p. 97) to the fifth century. Wheeler (*Segontium & R. Occupation of Wales*, p. 137-8) brings it down to the third century. Here is a securely stratified example for the period A.D. 369-383.
3. Flat disc brooch, bronze and blue enamel. The design is a conventionalised peacock, with two plants filling space below tail and in front of breast (fig. 4, No. 5). From the make-up of IVa. Identical form AMBLESIDE (*Transactions*, n.s. xiv, p. 461, fig. 182). The peacock motif may be derived from the large *consecratio* coins of Faustina I; but the execution is purely Keltic; *cf.* WROXETER (*Report*, 1912, fig. 10 No. 16) where a Keltic artist borrows a sea-eagle from a Black Sea coin.
4. Cross-bow brooch, silver (fig. 4, No. 2). Same provenience as 3. This is the earliest form of cross-bow *fibula*. An exactly similar type is in Tullie House Museum from BROUGH (*Transactions*, n.s. xix, p. ii, 8B).
5. Brooch with split bow, tinned bronze (fig. 4, No. 4). From IIb. Commoner on the German *Limes* than in England, as Haverfield (*Transactions*, n.s. xix, p. 7) and Bushe-Fox (*Richborough*, ii, p. 43) point out. Other examples from CHESTERS (*Arch. Ael.* Ser. 2, vi, p. 225) and CORBRIDGE (*Arch. Ael.* Ser. 3, v, p. 402, fig. 19, and two more examples *Arch. Ael.* Ser. 3, ix, p. 274).
6. Surgical probe, bronze (fig. 4, No. 1). From the Alley, Hadrianic level. *Cf.* POLTROSS BURN, p. 442, fig. 21, No. 23 for a similar instrument of less delicate type. No doubt these were common enough, the equipment of the *medicus ordinarius* (*vide* Cheesman, *Auxilia of the R.I.A.*, pp. 43, 44).
7. Plain bronze ring. From IVa.



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FIG. 4.—Small Objects from Birdoswald, 1929 (3).

8. Oval disc brooch of bronze, once enamelled, with central cone bezel. From IVb. Cf. examples from CARLISLE (*Transactions*, N.S. xix, p. 11, No. 11A) and SOUTH SHIELDS (noted by Bushe-Fox, *Wroxeter Report*, 1912, p. 23).
9. Small tube or sheathing of bronze. From outside IVd, unstratified. Cf. NEWSTEAD, pl. lxxxiv, No. 6.
10. Bronze stud. From make-up of IVa.
11. Scrap of tinned bronze. From above the Alley, unstratified.
12. Small tube or collar. From IIIa.
13. Bronze stud for attachment to leather (fig. 4, No. 7). From make-up of IIIa.
14. Bronze pin-head attached to iron pin (fig. 4, No. 10). From Ia. Cf. BENWELL (*Arch. Ael.* 1928, pl. xxii, No. 6).
15. Open-work plate of bronze (fig. 4, No. 9). From IIIh. This was no doubt attached to leather. *Faute de mieux*, we classify as horse-trappings; the Germans, as *Beschläge* and *Gürtelzierate*. Cf. CORBRIDGE (*Arch. Ael.* Ser. 3, vii, p. 189, fig. 35), KASTELL PFÜNZ (*O.R.L.* 14, pl. xiii, Nos. 17 and 52.)
16. Scabbard mounting of bronze (fig. 4, No. 11). From make-up of IVa. Such objects are familiar enough, but I find no exact parallel for the shape.
17. Intaglio; a dolphin cut in jasper. From the make-up of IIIg.
18. Belt fastener of bronze (fig. 4, No. 12). From IIa. Cf. CORBRIDGE 1910, p. 188, fig. 33, which is described as a harness mounting, but compare similar pattern carried out in enamel at NEWSTEAD, pl. lxxxix, No. 25; also RÜCKINGEN *O.R.L.* 38, pl. ii, 9, OSTERBURKEN *O.R.L.* 2, pl. vi, 8, CARNUNTUM *R.L.O.* 9, fig. 38.
19. Bronze object, either a buckle or a ring on the end of a staple (fig. 4, No. 6). From IIIa.