

XXIV.—*Excavations on the site of the Roman city at Silchester, Hants, in 1894.*
By GEORGE E. FOX, Esq., M.A., F.S.A.; with Appendices on: (1)
a hoard of Roman coins found at Silchester, by H. A. GRUEBER, Esq.,
F.S.A.; and (2) hoards of Roman silver coins found in Britain,
by F. HAVERFIELD, Esq., M.A., F.S.A.

Read March 21st and March 28th, 1895.

THE report which I have the honour to lay before the Society to-night on behalf of the Executive Committee of the Silchester Excavation Fund deals with the excavations carried on during the fifth year of the systematic exploration of the site.

If the past year's work be taken as a whole, it may be said that the discoveries made are of equal if not of greater importance than those of previous seasons, but they have been of a very different character. Although few houses have been found, and portions of the *insulæ* examined contain a large space of vacant ground, the buildings which line the south side of these *insulæ* are of exceptional interest, as they show us, for the first time in our examination of the site, considerable traces of some industry which covered a wide area in this north-western quarter of the town. What this industry was will be discussed later on.

Adopting the principle, whenever possible, of working along the main lines of roadway from the centre of the town to the gates, last year's explorations were planned so as to take in the *insulæ* lying in succession on the main street from *Insula* I. to the west gate. These have been numbered IX., X., and XI., a fourth, directly north of *Insula* X., being numbered XII.

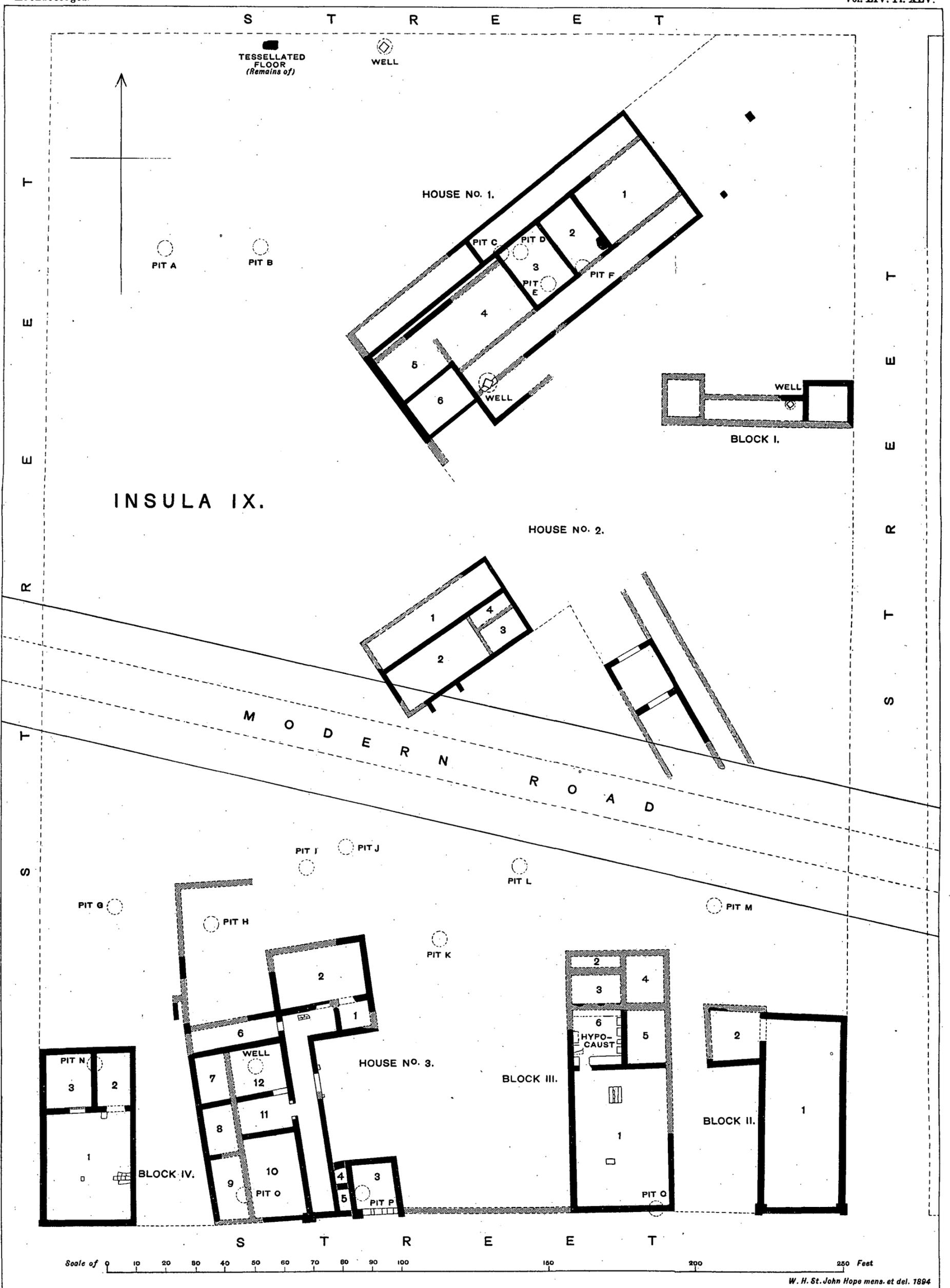
The modern roadway traversing the site from east to west runs diagonally across *Insulæ* IX. and X., making for a break in the city wall, reaching which it turns southward, and continuing parallel to and within the wall, finally quits the town by the west gate.

Taking the *insulæ* in their order from east to west for the purpose of a detailed examination, the first which presents itself is numbered IX. on the plan (Plate XLV.). It is situated at the intersection of the main roads or streets through the city, and forms a parallelogram 386 feet long by 274 feet wide, traversed as before stated by the modern road.

The upper and larger half, to the north of this road, was excavated in 1893, but with the exception of the stone with an Ogam inscription found in a well in House No. 1, of which a description was given in the report for that year, the discoveries made have not as yet been recorded. It was considered better to defer any account of them until the entire *insula* had been examined, and the excavation of what remained, *i.e.* the lower half, was the first work undertaken at the beginning of last season.

The disposition of the houses in this *insula* is singular. Hitherto, with small exceptions, the buildings in the various divisions of the town yet examined have been found to stand with their principal walls either lining the roadways or nearly at right angles to them. Here, all is different. The large House No. 1, near the north-east angle of the *insula*, was not only well within its boundaries but lay at an angle of 51 degrees with the line of the street on the north. House No. 2, south of No. 1, had the same irregularity of position, and House No. 3, at the south-west angle, though following a usual rule in respect to having one end upon a street, showed a marked inclination of its axis to the west.

House No. 1 belonged to the corridor type. It was of considerable size, having a length of 120 feet by a breadth of 44 feet. The central range of chambers had a uniform length of 21 feet 3 inches, with the exception of the last one at the southern end, which was 3 feet 5 inches less. The corridors which lined the range, back and front, were about equally wide, averaging 8 feet 3 inches. The north corridor was divided by a cross wall at 68 feet from the north-east angle of the house, and the south corridor terminated at its south-western end in a chamber, No. 6, having the same breadth as No. 5, the last chamber at this end of the central range. The wall at the west end of this corridor was prolonged for over 10 feet and then returned eastward as if to form a double corridor at this point, but at some 26 feet from the angle all further traces of it were lost. The western end wall of the house was also prolonged in a southerly direction, but could not be traced for any distance. This wall had an exceptional thickness of 2 feet 10 inches, the other walls of the building averaging only 1 foot 6 or 7 inches. It must be remarked that the walls of the



SILCHESTER.—PLAN OF INSULA IX.

W. H. St. John Hope mens. et del. 1894

central range of chambers and those of the corridors were of equal thickness, an unusual feature, and possibly indicating the absence of an upper story to the house.

Taking the chambers in order, No. 1 showed throughout a flooring of *opus signinum*. Owing to its size it is likely that it was originally divided by one or more partitions. The next chamber, No. 2, had been floored with the usual red *tesseræ*. The next, No. 3, was probably some kind of workshop. Its floor was covered with flint pitching, and two flint-lined shallow pits were sunk in the ground, one at each end of the space. No. 4 was an area of still larger dimensions than No. 1, and like it was in all probability originally divided into smaller compartments by lath and plaster partitions, all traces of which are now lost. No. 5 corresponded in breadth with No. 6, which has been already mentioned. Nearly parallel with the wall bounding Nos. 4 and 5 on the north ran a line of foundation, 1 foot 10 inches thick, separated from it by an interval 10 inches wide. It is possible that this foundation, taken together with rooms 5 and 6, the fragment of a corridor close by, and the thick western end wall of the house showing a prolongation southward, may indicate a later alteration.^a

At the west end of the southern corridor, and beneath the line of its external wall, was found a shallow well of the usual construction, about 8 feet deep. In it, about 5 or 6 feet from the surface, lay, point downwards, the fragment of the sandstone pillar with the Ogam inscription treated of by Professor Rhys in his remarks appended to our report for 1893. The stone was so fully described in that report^b that it is needless to do more than refer to it here. Beneath the stone, and completely flattened by it, lay a vessel of peculiar form, of white metal or pewter; but no other objects of interest were brought up, and it was evident that the well was disused and partly filled up when this vessel, and the *stèle* which crushed it, had been flung into it. The well could only have been sunk when the portion of the house in which it occurred was in a ruinous condition, and probably somewhat late in the Roman period.

Between the north-east end of House No. 1 and the angle of the *insula*, a few traces of what may have been hypocausts were uncovered; as there was nothing to indicate that they had formed part of the dwelling, little can be said concerning them.

^a The dimensions of the chambers of House No. 1 are as follow: 1, 21 feet 3 inches by 28 feet 8 inches; 2, the same by 13 feet; 3, the same by 15 feet 9 inches; 4, the same by 31 feet; 5, 17 feet 10 inches by 19 feet 6 inches; 6, 13 feet by 19 feet 6 inches.

^b *Archæologia*, LIV. 233, where an illustration of it is given.

At a level with the lower end of House No. 1, and running into the *insula* at right angles to the main street north and south, was a curious little structure, Block I., consisting of two nearly square chambers joined by a long passage or corridor. The walls of the building were on an average 2 feet thick, the south wall of the western chamber being somewhat thicker, viz. 3 feet. In the corner of the passage, less than 3 feet from the west wall of the eastern chamber, was a small well of the usual timbered construction, and 1 foot 8 inches square. It is not possible at present to conjecture to what uses this singular building could have been put. Possibly further discoveries may throw some light upon the matter.^a

Immediately south of House No. 1, and partly covered by the modern road, was House No. 2. What remains of it is but a fragment, and there are doubts if the building to the west of it, and nearly at right angles to the line of its chambers, be a part of it. As before mentioned, the house stood at a considerable angle with the side of the *insula*, and well within its eastern boundary. The portion remaining shows it to have been of the same type as House No. 1, but with only a single corridor on the eastern side of its range of chambers. This corridor could be traced for a length of 72 feet, and was 7 feet 5 inches wide. From a pit at its northern extremity came pieces of painted plaster, which showed that the house had been adorned with coloured stuccoes. All the floors, wherever they could be found, were of *opus signinum*. The depth of the chambers in the range had been uniformly 15 feet 4 inches, and the general thickness of the walls 1 foot 7 inches. Both corridor walls and range walls were of the same thickness, in this particular resembling those of House No. 1. The partition walls, however, of the only chamber remaining were somewhat thicker, viz. 1 foot 10 inches, as was also the southern half of the range wall next the corridor. The chamber, the dimensions of which were 16 feet 3 inches by 15 feet 4 inches, had a broad opening, 8 feet wide, in each partition wall, the openings being nearly opposite each other. Possibly the chamber formed a centre to apartments right and left of it, and in such sort would have served as the *tablinum* of the house.

A discovery of some interest was made in uncovering this chamber. When the western jamb of the southern opening was exposed the foundation was seen to contain two worked stones. These on being extracted proved to be the capital and base of a column from some earlier building used up again as building

^a The following were the dimensions of Block I.: eastern chamber, 13 feet by 11 feet 3 inches; passage, 33 feet 4 inches long by 6 feet 6 inches wide; western chamber, 11 feet 3 inches by 12 feet.

material. The capital was much worn. A drum, probably a part of this column, had been found previously, also used in the same way. This is the second occasion when architectural remains of earlier houses have been found thus worked up, also in this quarter of the town, as Mr. Joyce discovered in House No. 1, *Insula I.*, a fragment of a column incorporated in the walling. Both capital and base in the present instance, from their comparatively small dimensions, could only have come from domestic buildings. They are of good type, and may very likely have originally formed part of the structure of a house of the middle of the second century. At some period there seems to have been a good deal of destruction of the earlier houses in this part of the city, and they had never been rebuilt in the old way. The working up of early material and the irregular placing of the buildings in which such material has been found certainly point to considerable changes, the reason for which we can only guess.

Another object of interest found in this house was a fine slab of Purbeck marble, 3 feet long, 1 foot 11 $\frac{3}{4}$ inches wide, and 4 $\frac{3}{4}$ inches thick. Its surface was so perfect as to permit of its being repolished. At one end there is on each side the hole for a metal cramp or dowel, $\frac{7}{8}$ inch square and 5 inches and 4 $\frac{1}{4}$ inches long respectively. Each terminates in a round hole, 2 inches in depth from the edge of the slab.

The building to the west, and nearly at right angles with the remains of the house just described, has been classed with it under the head of House No. 2. Though in fact it was a structure complete in itself, it was possibly a dependency of No. 2. It had a length of 51 feet 3 inches, with a breadth of 29 feet

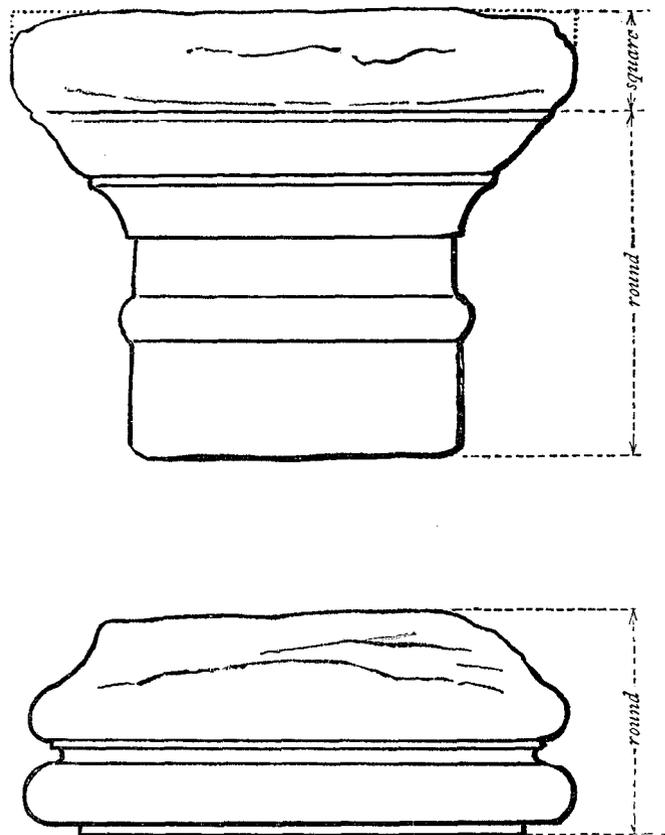


Fig. 1. Capital and base of a column found in *Insula IX.*
($\frac{1}{8}$ linear.)

7 inches, and the walls were 1 foot 6 or 7 inches thick. Internally it was divided longitudinally into two chambers, the first and narrower (No. 1) occupying the whole length of the building, the second (No. 2) having a portion parted off at its eastern end by a wall 13 inches thick. This portion was again divided longitudinally into two unequal spaces, No. 3 and No. 4.

The southern angle of this building runs beneath the hedge of the modern road. About 8 feet from the angle on the south side occurred a brick pier, projecting 3 feet from the wall and having a width of 1 foot 6 inches, and at a further distance of 10 feet 3 inches another similar one. These piers would seem to indicate a wide opening like a barn door between them. Probably the whole building was used for storage, or as stabling, as fragments of flint pitching were found at the east end of chamber No. 1. If the building had lofts, space No. 4 may have contained a stairway to them.^a

Close to the northern boundary of the *insula*, and 72 feet from the north-west angle, a small patch of the usual tile *tesseræ*, with scattered fragments of loose flint rubble, indicated the position of some building, and 34 feet still further east and close to the street a well may be seen marked upon the plan. This, though noted down as a well, might rather be called a circular pit. It was 17 feet deep and 5 feet in diameter, and in place of the usual boarding the sides were upheld at the bottom by rough stakes and wattling after the fashion of a rude kind of hurdle.^b It seems possible from the character of the work that this hurdled pit may have belonged to an earlier time than the Roman occupation, though it might have remained in use during a part of that period.

Proceeding now to the part of the *insula* south of the modern road, House No. 3 claims our attention. This house is complete, and shows no alteration in its plan, but, as before stated, it was irregularly placed with reference to the boundaries of the *insula*. The south end, situated upon the main roadway or street of the city running east and west, actually encroaches, at its western angle, upon that street as much as 3 feet 6 inches beyond the general line, and the axis of the house is canted over considerably to the west. The house is of the corridor type, with a large annexe at the northern and a smaller one at the southern end. The main portion measured 68 feet in length and 43 feet in breadth. The

^a The dimensions of the various chambers in this building are: for No. 1, 48 feet 3 inches by 10 feet 3 inches; No. 2, 33 feet by 14 feet 7 inches; No. 3, 13 feet 10 inches by 8 feet 7 inches; No. 4, the same by 4 feet 7 inches.

^b A well of similar construction was found in Leicester in 1860. See *Proceedings of the Society of Antiquaries of London*, 2nd Series, i. 245, where a woodcut of it is given.

corridor serving its various rooms lay on its eastern side, and was 7 feet 6 inches wide. It had originally been paved with brick. It was returned at the northern end for a length of 24 feet in an easterly direction, the last 14 feet being cut off by a wall to form a small room (No. 1). Attached to the northern wall of this returned corridor was a large chamber with a cemented floor (No. 2); there may have been an entrance from it into room No. 1. At the southern end of the main corridor, lying upon the street, was a partly detached chamber (No. 3), which in its position very much resembled a similar one in House No. 3, *Insula VII*. It was in all probability a shop fronting the street. Its walls were parallel with those of the house to which it belonged, and consequently did not stand at right angles with the roadway; the chamber was therefore somewhat irregular in shape. Between the western wall of the shop and that of the corridor was an interval of about 4 feet, divided into two compartments (Nos. 4 and 5) by a thick mass of chalk rubble. It is difficult to make out how this chamber (No. 3) was entered, except from the street, as there were no signs of any communication between it and the house. Be this as it may, the room or shop as it seemed to be had some *pretensions to display, for the walls had been plastered and elaborately decorated* with painted ornaments. Some of the painted plaster remained round the walls, while many fragments were found on the floor. These fragments showed grounds of yellow, red, and blue, with traces of lines and ornaments upon them, and painted imitations of a marble, apparently a brecchia, exhibiting large circular spots of yellow upon a red ground.

The side walls of this shop, which were largely composed of chalk, were finished by piers, the brick footings of which projected something over a foot upon the roadway, the eastern being 2 feet, while the western was 3 feet wide. Another brick footing, 12 feet 6 inches west of the latter, was even larger, having a breadth of 4 feet 6 inches. The full width of the interval between the first and second was 12 feet, and was occupied by a layer of tiles based on a rubble foundation 2 feet wide. In this layer are three breaks, at fairly regular intervals, indicating apparently the posts of a shop front of much the same construction as those of medieval date. If this surmise be correct, the tiles would have been carried up to a convenient height to form a counter between and in front of two of the posts in two of the openings, while the third interval would have been left vacant to form a doorway.

In a pit under the cemented floor of this chamber was found a portion of a large quern and some perfect vessels of pottery, and in the loose earth from near the eastern wall a fragment of foreign marble and pieces of cakes of the same

kind of metallic substance which was discovered in House No. 4, *Insula VIII*. Further specimens of this substance were turned up also at the angle of the eastern and northern corridors.

The body of the house consisted of a range of three chambers all of equal depth, viz. 17 feet 6 inches, backed by a second range of the same number of divisions, all 10 feet deep, this second range being in fact a wide corridor divided into three chambers of unequal breadth by cross walls. The average thickness of the walls throughout the house was 2 feet, with the exception of that of the east corridor, which was 1 foot 8 inches thick. At the northern end of the house was a long passage (No. 6) with a doorway, 3 feet wide, into the corridor, and there was doubtless another at the opposite end. If there was an upper floor to the house the staircase probably occupied a portion of this passage.

It should be noted that the arrangement of the external doorways of this house differed somewhat from those of other dwellings of similar plan already found on the site. The principal entrance was not upon the street at the end of the main corridor, where it might have been looked for, but it was placed in its eastern wall about 8 feet from the northern angle. At this point is a block of stone 21 inches wide, projecting 8 inches from the wall; and at a further distance south of it of 8 feet 6 inches in another of somewhat smaller dimensions (viz. 8 inches by 12 inches) also against the wall. It is clear that between these stones was the main entrance to the house from the courtyard in front of it, and not directly from the street. From the north-west corner of the house, where as mentioned there was probably a doorway, a long wall at an obtuse angle extended northward for a distance of 40 feet, when it returned eastward for 26 feet and was then lost. It was merely the wall of an enclosure. Not far from the doorway, and north of it, was a rubble foundation forming a projection in the shape of a reversed L from this enclosure wall.

But to return to the internal arrangements of the house. Chambers Nos. 7, 8, and 9 do not require description. No. 10, however, is of larger dimensions and of more importance. It may have been the *triclinium*. No. 11 has the appearance of a large lobby or passage-room to the various divisions of the house. It had a well-defined doorway 4 feet 3 inches wide, with brown sandstone bases to the jambs communicating with the main corridor, and another 4 feet 9 inches wide led into chamber No. 12. This chamber had undergone considerable changes of destination. As found, it had a floor of very well laid *opus signinum* of excellent quality, and from fragments of plaster that were turned up, the walls must have been brilliantly painted in panels of yellow and red; it was therefore

probably the *tablinum* of the house. A depression, however, in the centre of the floor showed, when it came to be dug out, that whatever might have been the later use of the room, the earlier use was that of a kitchen, for beneath the perfectly laid floor of *opus signinum*, $2\frac{1}{2}$ inches thick, was a second, 5 inches thick, of coarser material, and under the depression was a well 18 feet deep. The construction of the well was peculiar. For a depth of 13 feet from the original floor of the chamber it had been lined with flint. All the upper half of this lining had fallen in or been removed, but the lower portion remained in part. This was circular, with a diameter of 3 feet 6 inches; then for the rest of the distance there was a lining of wooden staves, 5 feet long and slightly bowed outwards, in fact forming a large barrel. The staves rested on a wooden curb, 2 feet 4 inches square, the timbers of which had a thickness of $2\frac{1}{2}$ inches and a width of 10 inches, and were dovetailed into each other. The staves were on the average 6 inches wide and $1\frac{1}{2}$ inch thick, and were nineteen in number. On one side of this cask was a bung-hole $2\frac{1}{2}$ inches in diameter and 1 foot 11 inches from the bottom. When the well was cleared out, the water came in through this aperture very freely, and rendered our examination difficult. The woodwork or barrel was well pugged behind with clay, and on this the flint lining partly rested; the bottom beneath the curb was also of the same substance.

Examination showed that the well was filled down to the level of the woodwork with the wreck of the flint lining, in which mass of rubbish only two fragments of pottery were found, both of small vessels of pseudo-Samian ware bearing respectively the potters' marks VERVSF and DITANIM. Beneath this, from the wooden barrel, a quantity of black slush was emptied out. In it lay the remains of the bucket; a few fragments of coarse black and buff pottery with one shard showing a purplish glaze; three nails and the head of a javelin; a small flat top of a vessel of bronze which had been thickly gilt; pieces of leather soles of shoes of two sizes; two oyster-shells and a few bones of oxen and sheep. From the blackness of the mud filling the barrel, and from the condition of the iron remains, it is probable that the well before it was filled up and floored over had been used as a latrine and receptacle for rubbish, but not for long, as the fragments found were but scanty when compared with the contents of pits elsewhere, used for a similar purpose.

The discovery of this well was a most interesting one, because it revealed with exactness the precise method of construction employed in all the wells on the site. Whenever these wells have been dug out, it has been observed that quantities of loose flints have first to be removed before reaching the boarding

with which they are invariably lined for part of their depth. Looking to this example, it is now clear that they were, in the upper part, lined with flint, and boarded only in the lower portion, and it seems probable that the boarding was only carried up from the bottom to a height beyond which it was believed the water would not rise.

With this discovery the exploration of House No. 3 was concluded, and we will now pass on to the consideration of other remains.*

At the south-east corner of the *insula* occurred a large rectangular enclosure, Block II., the eastern side of which lay along the main street running through the city from north to south. Its southern end faced the main street leading to the west gate. It was 66 feet long by 29 feet 6 inches wide, with fine brick quoins at the southern angles; the walls were over 2 feet in thickness. Attached to its north-west corner was a smaller enclosed space, not quite rectangular, measuring 20 feet each way. No flooring was discovered in either space. At 28 feet west of the larger enclosure another (Block III.) showed itself. Like its neighbour, it had good brick quoins, and abutted on the main street. Its length was 86 feet and its breadth 35 feet; its walls averaged 2 feet in thickness, and there were traces of a wall of the same thickness along the street joining it to House No. 3. The block was divided into two unequal portions, the southern forming a large and undivided area (No. 1), the northern showing five compartments of varying size. This northern division may have been the remains of a small house, and, if so, what appears as a passage (No. 2) probably contained the stair to an upper floor. Of chambers Nos. 3, 4, and 5 nothing can be said. No. 6 had been a large room warmed by a composite hypocaust, in which the pit for the *pilæ* was surrounded by unusually narrow banks of rubble next the walls, through which passed the passages to the wall flues. The furnace passage was in the south wall of the chamber at the north-west corner of the enclosure No. 1. From the disposition of this furnace passage and the arrangement of the wall flues it seems certain that the room was entered from chamber No. 3.

A question arises as to whether the large area No. 1 was ever roofed over.

* The following are the dimensions of the various chambers of House No. 3: No. 1, 8 feet 1 inch by 10 feet; No. 2, 17 feet 8 inches by 29 feet 7 inches; No. 3, 14 feet 9 inches by 13 feet 7 inches; No. 4, 3 feet 11 inches by 4 feet 9 inches; No. 5, the same by 6 feet 11 inches; No. 6 (passage), 6 feet 10 inches by 29 feet 6 inches; No. 7, 10 feet by 15 feet 3 inches; No. 8, the same by 15 feet 6 inches; No. 9, the same by 20 feet 5 inches; No. 10, 17 feet 6 inches by 26 feet 8 inches; No. 11, the same by 10 feet 8 inches; No. 12, the same by 15 feet.

If it were, there must have been posts so disposed as to support the roof. Perhaps a large block of sandstone near the southern end may be one of a line of similar blocks on which such posts would certainly be raised.

Near the southern end is a rectangular bed of tiles with a base of a flue down the middle. It lay north and south, and was about 5 feet long by 4 feet wide. The probable use of this and the area in which it is placed will be discussed presently.^a

The last building (Block IV.) to be described in *Insula IX.* lay at the south-west angle, one of its sides and its southern end lining the streets bounding the *insula*, as in the corresponding block at the south-east angle. North and south it had a length of 59 feet, with a breadth of 32 feet 10 inches.^b In places a considerable quantity of ironstone was worked up in the walls.

The enclosure was divided in a similar way to Block III., having a large area upon the street, with two chambers behind it of unequal size. Here, again, blocks of stone (ironstone in this instance) were found, which may have been used as bases to posts supporting a roof to the area. One was lying loose in the enclosure, another was attached to the north wall near the east side. A patch of flint rubble occurred also in the centre, but it is doubtful whether it could have had anything to do with supports to the roof.

At 12 feet from the street, against the east wall, and at right angles to it, lay a mass of roof tiles with a central flue. It was 6 feet long, and there was no sign that the flue had any outlet through the wall. The fragment resembled the one found in Block III., except that it abutted against a wall instead of being in the open ground, and that it lay east and west instead of north and south. The bed of this flue lay about 1 foot 6 inches beneath the level of the tessellated tile floor of No. 2, the smaller of the two chambers at the north end of the block. Since that floor represented the general ground level, it follows that the flue was beneath it; a fact to be borne in mind when dealing with similar remains found in the other *insulæ*.

There was a doorway in room No. 2 communicating with the area (No. 1), and a pit lay under the wall separating the two chambers. Chamber No. 3 also had a

^a Dimensions of chambers in Block III.: No. 1 (area), 45 feet by 31 feet 2 inches; No. 2 (passage), 16 feet 7 inches by 3 feet 7 inches; No. 3, the same by 9 feet 4 inches; No. 4, 12 feet 9 inches by 15 feet 7 inches; No. 5, the same by 17 feet 6 inches; No. 6, 18 feet 1 inch by 16 feet 3 inches.

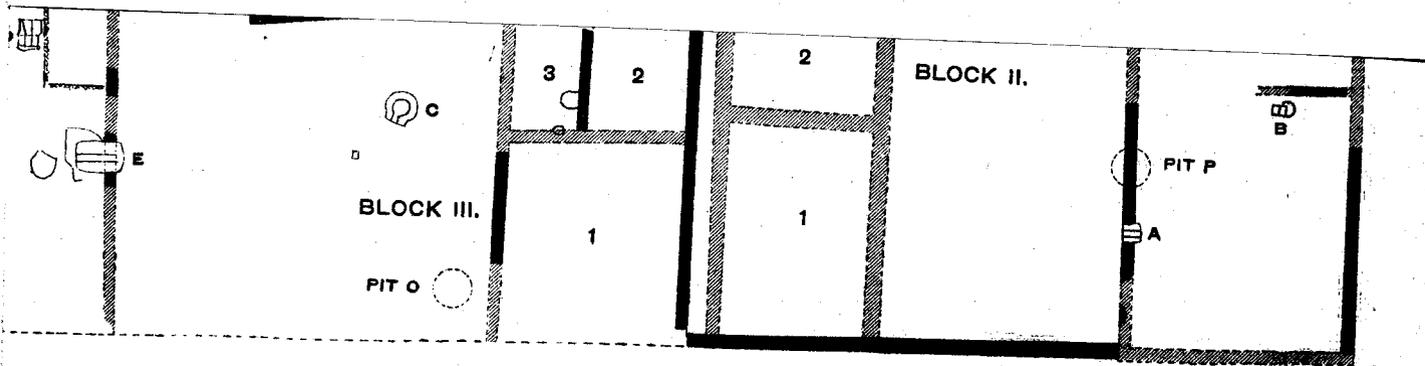
^b Its north, south, and west walls averaged 2 feet 3 inches in thickness, the remaining one being only 1 foot 8 inches thick.

doorway 5 feet 3 inches wide, with a tile sill, from the area. Neither in the area nor in the latter chamber were there any traces of flooring.^a

Insula X. was of the same length (386 feet) as *Insula IX.*, but was 10 feet wider, or 284 feet in all. (See plan, Plate XLVI.) The modern road crosses it diagonally, separating it into two almost equal parts. It was divided from the surrounding *insulæ* on the north, east, and west by streets or roadways having an average breadth of 18 feet. On the south, the main street east and west through the city formed its boundary, and was there from 23 to 25 feet wide. It is only directly upon and along this street (with but two or three exceptions) that remains of buildings were found. These were certainly not houses, and there is strong reason for believing that they were workshops and storerooms. Five out of the six whose traces can be made out in this *insula* had, with trifling modifications, the same plan as Block IV., *Insula IX.*; in fact, that block may be taken as the type of the buildings in all the *insulæ* under consideration, consisting of a large area with two chambers in or attached to its northern end. Block I., at the south-east angle of the *insula*, was 60 feet long by 37 feet 6 inches wide, with walls 2 feet thick. Of the chambers at the northern end only a portion of the wall dividing them from the area remained; all else had been swept away. Penetrating the west wall of the area at 19 feet from the south-west angle were the tiles of a flue (A) similar to those noted in Blocks III. and IV. of *Insula IX.*, and at 6 feet further north a rubbish pit occurred underlying the same wall. At the northern end of the area, close to the remains of the party wall, lay a circular furnace (B). It was sunk in the ground, its tile floor being 2 feet 9 inches below the level of the neighbouring street. Its diameter was 2 feet 4 inches, and the sides were roughly built of broken tile, three courses of which remained, the middle one being laid in herring-bone fashion. Clay had been used as mortar, and was burnt to redness by the heat of the fires, which had also turned the tile floor of the furnace to an ashy grey. Near by, in fact undermining the chamber wall, was a large hole or ash-pit completely filled with fine charcoal dust, the refuse of the fires.

From the south-west angle of Block I. a wall bordered the street, and towards its western extremity formed the southern limit of Block II., of which nothing remained but the gravel foundations of its walls. These showed an enclosure

^a The dimensions of the various divisions of Block IV. are as under: No. 1 (area), 34 feet 10 inches by 23 feet 6 inches. Chambers: No. 2, 17 feet 9 inches by 11 feet 1 inch; No. 3, the same by 15 feet 3 inches.



54 feet 3 inches long by 27 feet 7 inches wide. At the northern end a transverse line of foundations indicated the limit of the chambers, but the space thus marked off had not the usual division into two compartments. Possibly a partition had formerly existed, but of it we could find no trace. At a distance of only 2 feet 10 inches from the north end of the block, and towards its western side, lay a chamber imperfectly rectangular, which measured 13 feet 7 inches by 10 feet 4 inches. Nothing remained of its walls but the gravel foundations, 2 feet thick; on the east side these were prolonged to touch the wall of the block. Within this chamber or enclosure was a second, the walls of which were 2 feet in thickness, with brick quoins. They lined the foundations of the larger one on the north and east sides, were within 8 inches of them (on an average) on the west, and were rebuilt upon them on the south side. It is by no means easy to guess what these constructions were. Mr. Hope suggests that the inner enclosure may have been a tank. There were, however, no remains of plastering with which tanks were generally lined, but still such a use of the enclosed space is not impossible.

Block III. was in close proximity to Block II., being separated from it by an interval of less than 3 feet. The north and south walls had been completely removed. The length of the block was about 50 feet, its width 31 feet.^a The two chambers at the northern end could be made out, the eastern was the wider of the two. In the western was a doubtful trace, against the partition wall, of a circular furnace similar to that in Block I.

A space of open ground 20 yards in width occurs between Block III. and the next to the west, Block IV. In this open ground, 16 feet from the west wall of Block III., and 33 feet from the street, another circular furnace (C) was uncovered. It was like that already described as found in Block I., but in this case of larger size, and not sunk below the surface level. Nothing but the mere base of it remained with the first course of tiles forming its sides, the indication of the opening, and the much calcined hearth.

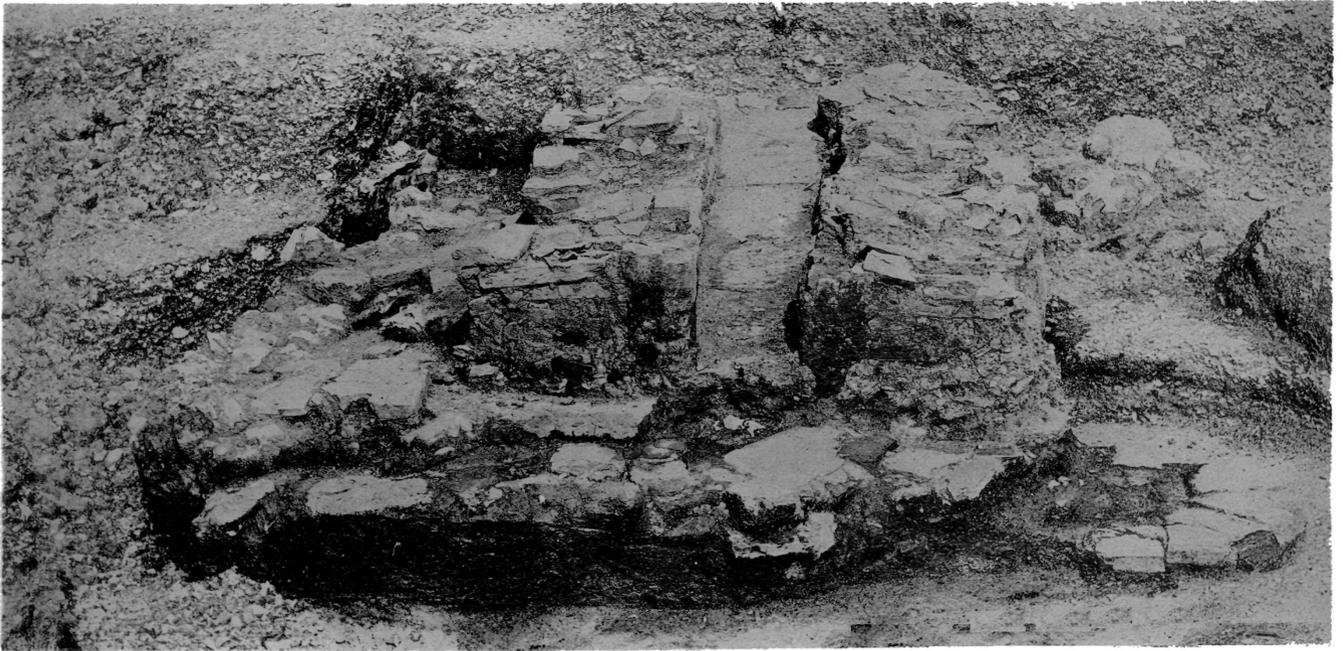
Block IV. is a mere wreck. The east wall only could be traced, showing a length of 55 feet, at the end of which were faint indications of the northern wall. There were also lines of flint showing the limits of one of the chambers at the north end. The rest of the structure had entirely perished. There are nevertheless two noticeable fragments in this block. Close to, and on the west side of the line of flints indicating the partition wall of the one chamber still to be

^a The walls were 1 foot 10 inches thick.

traced, is a patch of tiling (D) showing the signs of a flue at right angles to the wall, with the start of another parallel to the same wall. But similar remains in the area of the block are still more noteworthy. At 25 feet from the main street, lying against and at right angles to the eastern wall, a mass of brickwork (E) was uncovered, 5 feet across and projecting 4 feet 6 inches into the area. It was composed, for the most part, of rudely built up layers of broken roof tiles laid with wide joints, with clay for mortar. In this mass of brickwork were the remains of a flue, its eastern end passing through the wall and its western one terminating in stone jambs, of which one remained to a height of a foot. The flue was $10\frac{1}{2}$ inches wide, its sides stood to a height of 8 inches, and the bottom was laid with roof tiles, fairly perfect and much burnt. The western end of the mass of brickwork, where the stone jambs were placed, was much ruined, but there seemed some indication of a cross flue at right angles to the one described. (See Plate XLVII., Fig. 1.) What appeared to be one floor tile of this cross flue remained about 2 feet north of the flue opening. It lay at the same level as the bottom of the flue, and was much burnt, a sure sign of its having been part of such a floor lining. The whole mass of brickwork had sunk inwards from the wall. It was based on a thick bed of burnt clay, and at 1 foot 3 inches beneath the level of the flue, and under this bed, lay fragments of a rough tile pavement. The bed of burnt matter could be traced here and there throughout the whole block, but more especially towards the southern end.

The next and last block on the line of the street, Block V., was situated at the south-west angle of the *insula*. Although nothing but the gravel foundations of its walls remained, its dimensions could be perfectly made out. It had a length of 55 feet with a breadth of 27 feet 8 inches, and exhibited the usual arrangement of an area and two chambers. Its western wall, which lined the end of the street dividing *Insula X.* from *Insula XI.*, could be traced northwards from its north-western angle for a length of 53 feet, at which point it was interrupted by a well which had been sunk close upon the street. This well was 16 feet deep from the present surface. Its wood lining remained to a height of 8 feet 4 inches from the bottom and was 2 feet 6 inches square. No trace of the wall could be found north of this well. At a point half-way between the well and Block V., and a few feet east of the wall, occurred the remains of a circular furnace (F), and at the north-west corner of the block, quite in the street, was a rubbish pit.

The interesting discovery was made in Block V. of a quern (G), which was



1. FLUE IN BLOCK IV, INSULA X.

From a photograph.



George E. Fox del., 1894.

2. FURNACE IN BLOCK III, INSULA XI.

SILCHESTER.—TYPES OF FLUES AND FURNACES FOUND IN 1894.

found *in situ* at the south-west corner of the area (No. 1). It was of the usual form found on the site, viz. a flattened cylinder of no great thickness. It was 3 inches thick in the centre and $1\frac{1}{2}$ inch thick at the edge, and measured $17\frac{1}{2}$ inches in diameter. It was fixed upon a circular base of the same diameter, of imperfectly burnt brick, 2 inches high. The floor beneath it appeared to be of burnt clay. The upper stone had been broken but the pieces lay near. Strewn around were fragments of charred boarding and charcoal as if part of a burning roof had fallen upon it.

Block VI. now claims attention. It has been left until the last in this description since it differs both in position and arrangement from the others, being placed mainly in a parallel direction with the main street at some 50 feet from it, and having its axis east and west, whereas in all the other blocks the axis lies north and south. Its eastern end overpassed the north-west angle of Block III. by about 11 feet. It was 50 feet long by 23 feet wide, and was cut up into four unequal spaces by party walls. Three out of four of these divisions were each subdivided unequally, and thus the whole building was parted into seven chambers of varying size. No. 1 showed traces of a tile floor, and amongst the rubbish the stones of two querns were turned up. A shallow rubbish pit occurred in the south-west corner. Chamber No. 7 may also have had a tile floor, and another rubbish pit lay under the partition wall between it and the adjoining room (No. 6). This latter chamber contained the base of a circular furnace (H), close to the northern wall. As further reference will be made to this singular building we may pass on now to other matters.

Between the row of buildings spoken of as bordering the southern end of the *insula*, and the modern road which crossed it, extended a considerable space of ground in which no constructions could be detected, but in which a certain number of rubbish pits were to be found. The rest of the *insula* to the north of the modern road had also rubbish pits scattered over it, and on the eastern side remains of circular furnaces (I, J, K) with what looked like the fallen tile roof of a shed or wooden building, 13 feet square. On the eastern side of this structure was a small shallow well or pit lined with flint.

On the western side of the *insula*, where the modern roadway crosses the line of the ancient street, were the remains of a chamber floored with tile *tesseræ*; and close to its eastern wall, at an interval of only 3 feet, the perfect foundations of another, roughly square in form, 14 feet by 12 feet 4 inches, and with walls 1 foot 7 inches thick. The last to be mentioned of the circular furnaces (L)

occurring in this *insula* was found at 6 feet from the south-east corner of this chamber.^a

We now come to *Insula XI.*, which is triangular in shape. (See plan, Plate XLVI.) It is divided from *Insula X.* by a street on its eastern side. It is bounded on the south by the main street through the city, and has the western gate at its south-western angle. This side was 356 feet long. On the third and longest side the city wall running north-east and south-west formed the boundary, and measured along the foot of the mound was 486 feet in length. The modern roadway occupies a considerable strip of the *insula* within the city wall.

As in *Insula X.*, the buildings, with slight exceptions, lay along the main street, and were of the same character. Block I., at the south-east angle, had the same plan as that of the majority of the blocks already noted, viz. an area upon the street backed by two chambers of unequal size, but with this difference, that the two chambers were divided by a space 2 feet wide. This may have been somewhat wider when the walls were erect, and probably contained a rough stair to lofts over the chambers. The east wall of the block had disappeared, but the general dimensions could be made out. The block was 61 feet 9 inches by 31 feet 8 inches. In the area, 17 feet from the street and parallel to it, was a fragment of a long flue (A) similar to those observed in the blocks in *Insula X.* About it was much wood ash, and the whole surface of the area, wherever examined, showed a surface of burnt matter. From the excavations here was turned up another of those round saucer-shaped cakes of metallic substance of the same nature as those found in House No. 3, *Insula IX.*, and elsewhere.

At a distance of 9 feet north of Block I. lay a detached quadrangular chamber with foundations largely constructed of ironstone.

Block II., in close contiguity to Block I., there being only an interval of 3 feet

^a The dimensions of the various blocks in *Insula X.* are here appended :

Block I. Area 40 feet by 33 feet 6 inches. Depth of chambers 15 feet 1 inch.

Block II. No. 1 (area), 32 feet 9 inches by 27 feet 7 inches. Undivided space at north end. No. 2, 15 feet 1 inch by 27 feet 7 inches.

Block III. No. 1 (area), 29 feet 6 inches by 31 feet. Chambers : No. 2, 16 feet 9 inches (?) by 15 feet 2 inches ; No. 3, the same by 10 feet 5 inches.

Block IV. Area 35 feet (?) by 20 feet 2 inches (?). Chamber 15 feet by 8 feet 6 inches (?).

Block V. No. 1 (area), 34 feet 1 inch by 23 feet 10 inches. Chambers : No. 2, 14 feet 10 inches by 12 feet 9 inches ; No. 3, the same by 9 feet 3 inches.

Block VI. No. 1, 13 feet 1 inch by 12 feet 8 inches ; No. 2, the same by 5 feet 3 inches ; No. 3, 9 feet 2 inches by 8 feet 8 inches ; No. 4, the same by 9 feet ; No. 5, 10 feet 2 inches by 5 feet ; No. 6, the same by 13 feet 2 inches ; No. 7, 19 feet 7 inches by 8 feet 8 inches.

between them, breaks by its different form the line of buildings, all of similar plan hitherto described. It measured 36 feet in length by 26 feet 5 inches in breadth. There were no signs of chambers; it consisted simply of a large area, within which were traces of walls enclosing a somewhat smaller area on the eastern side. This again seems to have had some internal partition, but nothing can be clearly made out. Against the foundation of the north-west angle of the inner area were two fragments of flues (B), whose direction was parallel to the main road.

The west wall of Block II., with a continuation of it northward, and the east wall of Block III., formed the boundaries of a lane 14 feet 6 inches wide which ran up towards an isolated square chamber situated near the bend of the modern road. This chamber, which may have had a doorway at its north-west corner, showed traces of a much burnt floor as of clay reddened by heat. Among the fallen rubbish of the walls, at the opposite angle to the door, was found a sword blade and some fragments of iron.

Half-way between this building and Block II. two patches of burnt material are to be seen indicated on the plan, perhaps the remains of floors, or flues, or furnaces, and near them a small piece of walling. A similar but larger piece was uncovered to the east of the square building, having on one side of it some flint pitching and on the other part of a cement floor. These faint indications of some structure and the lane close by may possibly point to the existence of a house on this spot at an early period, to which the square chamber may have belonged. The suggestion is given here for what it may be worth.

Not far from these burnt patches there was found in the earth on the side of a pit (D), but not in the pit, between 3 and 4 feet below the present surface of the soil, a black vase filled with silver *denarii*. They were 253 in number, and ranged from Marc Antony to Septimius Severus, early in whose reign the treasure was probably buried. These coins were mostly much worn. Being of silver they were promptly claimed by the Treasury as "treasure trove," but after deduction of thirty-nine specimens which were not represented in the national collection in the British Museum, the rest of the hoard was given back, and will form part of the Silchester collection at Reading.^a

Near the street dividing *Insula* X. from *Insula* XI., at 150 feet from the south-east corner of the latter, lay the remains of a circular furnace (C), and a few feet west of it was a well of the usual construction.

^a A full list and details respecting this treasure, obligingly communicated by our Fellow Mr. H. A. Grueber, will be found in the Appendix to this Report.

Block III., situated at the junction of the lane just mentioned with the main street, was of considerable size. All trace of its northern wall is gone, but the block can be guessed to have been 71 feet long by an ascertainable width of 43 feet. The foundations of its western wall showed an exceptional thickness of nearly 3 feet. No trace of chambers could be discovered. In the area, near the eastern wall but not quite parallel to it, were found the remains of a wall, that from its thickness and the depth at which it was discovered, had evidently formed part of one of the earlier buildings of the city. At 42 feet from its southern end was the start of another wall running west. Immediately to the south of this at a higher level lay the remains of a circular furnace (D). (Plate XLVII., fig. 2.) South of this again and nearer the west wall the base of a flue (E) could be made out in a mass of burnt earth and tiling. The direction of this flue was nearly but not quite parallel to the street. The whole mass was at a slightly higher level than the floor of the neighbouring furnace.

On the same side of the enclosure, at 18 feet from the main street, occurred a wood-lined well of the usual construction, and another was found beneath the foundations of the east wall, and encroaching on the lane, at 45 feet from the south-east angle. This second well was 16 feet deep and 2 feet 2 inches square, and two boards deep of its wood lining remained at the bottom.

A stretch of ground over 28 yards wide intervened between the block just mentioned and Block IV., the last in the *insula*. Although no foundations of buildings were to be found in this interval other remains occurred in it. Just outside the south-west corner of Block III., at a few feet from the street, was the floor of a circular furnace, and north-west of this were some patches of floors or the wreck of flues. Again, near the east wall of Block IV., at 19 feet from the street, another mass of tiling, similar to that in Block III., was uncovered, with the base of a flue in it 7 feet long. The axis of the flue was very nearly parallel with the main street. Block IV. was distant 24 yards from the double western gate of the city. No structures of any kind could be found between it and this gate. It may therefore be surmised that the neighbourhood of the gate was left largely free for the exigencies of traffic and defence. Each wall of the enclosure could be made out, with the exception of the southern one, of which not a stone remained. The block measured 59 feet in length, by 31 feet 9 inches in breadth. The plan was the same as that of the majority of the other blocks, a large area backed by two chambers, side by side, of unequal width, in this case with well-preserved walls. In the west wall of chamber No. 3 was a doorway, 4 feet wide, communicating with the road or space on that side, and there was another, with a

tile sill, between chamber No. 2 and the area No. 1. Both chambers had been paved with tiles. In the area was found a mass of tiling, containing a flue, close to and at right angles with the eastern wall. It was very similar to, but rather smaller, than that in the open ground outside the same wall. A length of 5 feet of this flue could be traced. North of it were the scanty relics of a circular furnace, and all the soil around both was much blackened and burnt.

Nothing further was observed in the area, but close without the south-west angle of the enclosure, where the main street falls into the open space about the gate, was a circular well, 4 feet in diameter, 12 feet deep, and lined throughout with flints. As it was sunk beside the roadway, just outside the corner of the enclosure, it may possibly have been used for watering horses and draught cattle entering the city.

A certain number of pits were found in this *insula*, but, as was the case with others in *Insula X.*, the finds in them were scanty, a fact which has some importance attaching to it, as will be seen later on.^a

The last *insula* to be described is that we have numbered XII. It lies due north of *Insula X.*, and, like *Insula XI.*, was triangular in shape. The side

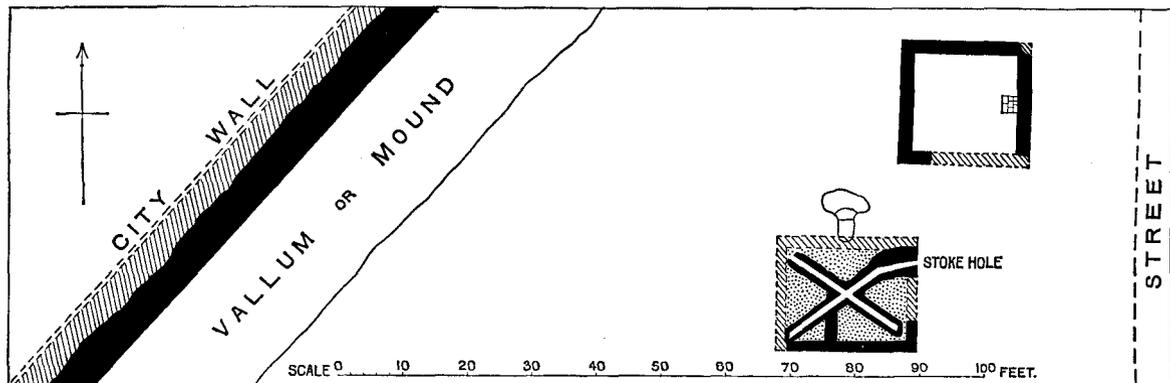


Fig. 2. Plan of buildings discovered in *Insula XII.*

^a The following are the dimensions of the divisions in the blocks of *Insula XI.* :

Block I. Walls 2 feet thick. No. 1 (area), 37 feet 8 inches by 27 feet 8 inches. Chambers : No. 2, 18 feet 9 inches by 12 feet 3 inches ; No. 3, the same by 9 feet 5 inches. Chamber north of Block I. walls 2 feet thick, 13 feet by 15 feet 9 inches.

Block II. Walls averaging 1 foot 9 inches thick. Area, 32 feet by 25 feet 8 inches ; inner area, 19 feet 9 inches by 18 feet 9 inches.

Block IV. Walls 1 foot 10 inches thick. No. 1 (area), 36 feet by 28 feet 3 inches. Chambers : No. 2, 16 feet 6 inches by 12 feet 6 inches ; No. 3, the same by 14 feet 6 inches. Chamber at angle of modern road, walls 2 feet thick, 17 feet 9 inches by 16 feet 4 inches.

abutting upon the road dividing it from *Insula X.* was 272 feet long from the foot of the mound. The eastern side was 316 feet long, and the north-western side, where it was bounded by the city wall, measured along the foot of the mound 418 feet. Few remains of buildings were to be found within the boundaries of this *insula*.^a Such as occurred were at the northern end, where two chambers (see plan, fig. 2), 12 feet apart, were dug out. The more northerly had been paved with square tiles, but presented no other features for remark. The southern contained a channelled hypocaust, the ducts of which ran diagonally from angle to angle. The walls did not remain to a sufficient height to show the arrangement of the flues, but there was a well-built furnace passage of brick in the north-east corner. Outside the north wall some rough tiling perhaps showed the presence of a furnace of some kind.

The two chambers^b appeared to be entirely detached. If they were in any way connected with other buildings these had been completely destroyed. A little south of these structures, and close to the street, the base of a circular furnace (A) was uncovered. But the contents of a pit near the south-east angle offered more matter for remark than any other discoveries made in this quarter. This pit (B) yielded as many as a dozen nearly perfect vessels of pottery. They were found at a depth of 8 feet 4 inches from the present surface of the soil, and seemed as if they had been deposited in three distinct layers. There were patches of moss above and about them, and some bones of animals. The pit was dug out to its full depth of 16 feet. It had a clay bottom, and showed little of the black deposit not uncommon in these rubbish holes. The vessels were of various forms of *ollæ*. Three of them were hand made, of that coarse ware, generally black and badly baked, the paste of which contains a considerable quantity of pounded flint or chalk. It should be noted that the kind of pottery here mentioned differs in its paste from all the other classes of fictile ware found on the site, though unquestionably of the Roman time. It is found in considerable quantity, as often moulded by hand as turned on the potter's wheel. Vessels of some size were made of it, but from the want of cohesion in its composition perfect specimens are rare. It may be added

^a From the paucity of buildings, etc. in the *insula*, it has not been thought necessary to give a complete plan of it here. The only buildings found in it are shown in fig. 2, to the same scale ($\frac{1}{30}$ inch to a foot) as the other plans.

^b The following are the dimensions of the two chambers in *Insula XII.*: the northern, 16 feet by 16 feet 3 inches, walls 2 feet thick; the southern, 14 feet 8 inches by 18 feet 9 inches, walls 1 foot 8 inches thick.

that the vessels showing the character of paste described are of the simplest forms of *ollæ*, the chief variation they possess being in the shape of their rims. Such ware might be looked upon as the production of native potters, little influenced by the better methods of manufacture introduced by the Romans. There is, however, a better class found on the site which singularly enough seems an attempt at an improvement on this coarse primitive manufacture. The forms of the vessels in this class are more varied, and the vessels themselves have always been made on the wheel. They are generally red in colour, and the paste contains fewer grains of flint. Two specimens of this class were among those deposited in the pit, and they may be compared with the three first mentioned.

The pottery found at Silchester has not as yet been taken in hand by any specialist, though it is seldom such an opportunity occurs, or is likely to occur again, for a careful examination of such varied amount of material, found also on one site and without any earlier or later admixture. The study, no doubt, would require some time and patience, and the leisure which few in these days appear to possess, but it certainly would repay the trouble bestowed upon it.

With the description of this last find the detailed account of the four *insulæ* examined last season may be brought to a close.

From that account it will be seen that in the *insulæ* described, although there are a large number of buildings or traces of such, very few are of a domestic character. The deduction may therefore be drawn from the nature of the buildings, but more especially from the accessories found in and around them, that this north-western quarter of the town was given up to some important industry.

We have now to endeavour to ascertain what that industry was.

After the completion of the excavation of *Insula IX.*, and while that of *Insula X.* was in progress, it was at first thought, from the number of querns found and from the knowledge that an equal number had been dug up in a neighbouring *insula (II.)*, that we had come upon the traces of bakeries, the circular hearths or furnaces being at first sight not unlike the bases of ovens. But a very slight examination proved that this could not be the case, and the number of the querns dug up in the trenches would certainly not have sufficed to furnish a quarter of the workshops along the main street had they been bakeries.

Still less could the remains be those of potteries. The furnaces were distinctly not potters' kilns, and there was a complete absence of the accumulated *débris* of broken and distorted vessels always to be found where potteries have been established.

The discovery of several cakes of metallic substance in *Insulæ* IX. and XI. was thought to be an indication that some metallurgic process had been carried on in certain of the enclosures; but although the flues found in most of the blocks might have been the remains of hearths used in such a process, the circular furnaces certainly were not so used, and no refuse nor scoriæ were to be found about any of the furnaces. It is true that the earth in some of the areas presented a blackened or reddened appearance, but this might have been caused by the destruction by fire of the wooden roofs which covered them, or have resulted from the presence of the wreck of broken-up hypocausts.

If metal workers had not plied their trade here, it was equally certain that the blocks had not been occupied by tanners; neither could fullers have carried on their business in them, since fulling requires a large supply of water. Certainly there were wells, of which we found three or four in *Insula* IX., one in *Insula* X., and four in *Insula* XI., while a certain number of the pits in two if not three of the *insulæ* were in all probability used as such, they having been found clean and with few objects in them. Also, in this part of the site the water rises readily, and is obtainable at a less depth than elsewhere. Still even the supply named would not have sufficed for fulling operations on such a scale as the remains of the buildings would indicate.

A careful examination of the remains led us to the conclusion that it was from the circular furnaces most was to be learned, and that could we ascertain to what use these had been put, we should be in the way of discovering what was the handicraft, the traces of which our excavations had this year revealed.

The flues occurring in the areas of the blocks have been already sufficiently described, but the furnaces require some further elucidation.

These furnaces appear to have been rude cylinders built up, for the most part, of broken tiles laid with thick joints of clay for mortar. (See Plate XLVII., fig. 2.) They may have been from three to four feet high, with a circular boiler, possibly of iron or bronze, set in the mass of brickwork of which each was composed. Nothing, however, remains of any superstructure; only one or two courses of tiles surrounding a tile hearth are now to be seen in any of them, with occasionally fragments of stone jambs to the openings. The openings or mouths of the furnaces have an average width of 1 foot, and are sometimes turned to the north, sometimes to the south. The diameter of the hearths varies from 2 feet to 2 feet 9 inches, that of the greater number being 2 feet 6 inches. The tile floors are burnt to an ashy grey from the fierceness of the fires, as is the flooring in front of the openings from the raking out of the hot ashes. It is

to be noted that while few of these circular furnaces are to be met with in the blocks, the long flues are, with one exception, never found outside them.

A search amongst the sculptured reliefs upon sepulchral monuments from

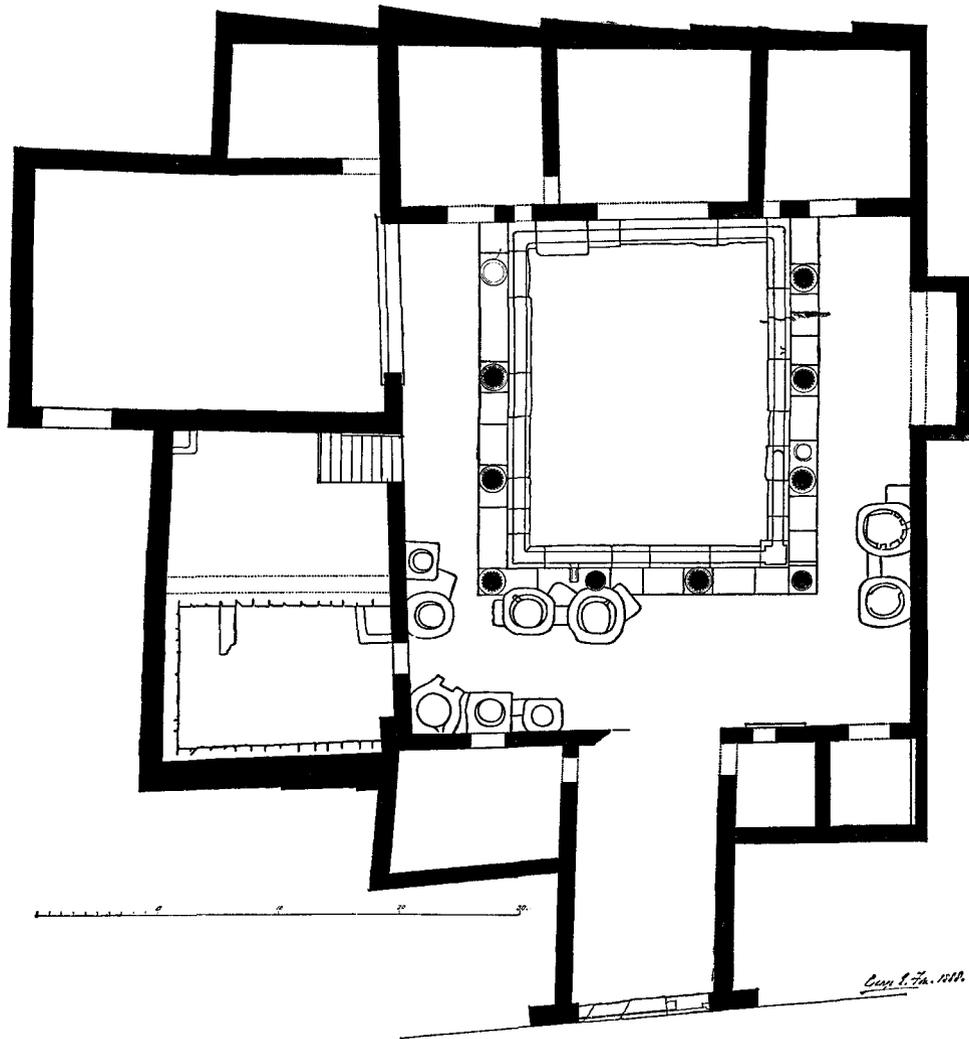


Fig. 3. Plan of a Pompeian house used as a dyeing workshop.

Italy and Gaul, and more especially from Gaul, might possibly throw some light upon the object of these structures, for the buildings and implements connected with trades are often figured in such reliefs; but, as always, the surer way was to seek in the ruins of the Campanian cities for the solution of the question, and we believe we have found that solution within the walls of Pompeii. In that city,

situated in the street of Stabia, is a fine house,^a originally of the Samnite period, but altered at a later time. It consists of a spacious peristyle, to which access was obtained from the street through a wide vestibule. The peristyle was surrounded by various chambers, the principal being a large *tablinum* with a chamber of a fair size on either side, and near it a spacious *triclinium* or *œcus*.

The fact of importance to the present inquiry with respect to this house is that between the columns of its peristyle and against the back walls are a series of furnaces, which, had they been reduced to the condition of those at Silchester, would have presented identically the same appearance. (See Fig. 3.) Not only that, they agree almost to an inch in dimensions. If therefore such a close likeness is to be relied upon, it may with reason be considered that the furnaces at Silchester and those in the house in Pompeii were built for the same purpose.

We know from an inscription, and from a painting now faded,^b that the house in Pompeii (which was certainly not originally built for the purpose) had been converted to the uses of a dyer's workshop; the furnaces it contained were therefore constructed to serve the uses of the dyer's trade. Looking then to the likeness between the remains at Silchester and those at Pompeii, we may fairly come to the conclusion, which was also independently suggested by Mr. Hope, that the occupation of dyeing was practised at some period in this quarter of the town of *Calleva*, and that the excavations of last season have revealed very considerable traces of the means by which it was carried on.

A word or two must suffice to describe the Pompeian furnaces. They are rude cylindrical blocks, roughly built up of equal quantities of mortar and stone, and from 3 to 4 feet in height. (Fig. 4.) The mouths have jambs and lintels formed

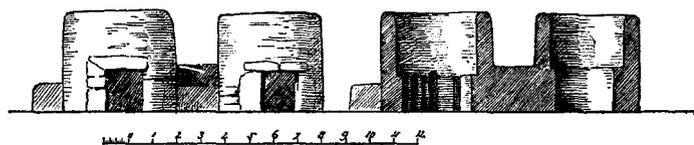


Fig. 4. Furnaces in a dyer's workshop at Pompeii.

generally of lava. Within is a ring of brickwork forming a set-off to the sides, $3\frac{1}{2}$ inches wide, and from 1 foot 6 inches to 1 foot 10 inches high, on

which rested the cauldron or vat to contain the dye. Occasionally this set-off has flues in it, to allow the heat to penetrate to the sides of the cauldron, and there is always a smoke flue with its exit in the top of the masonry near the rim of the vat. The metal vats have all disappeared. The diameters of the furnaces vary. The largest is 3 feet 4 inches across the top, and measured on its floor 2 feet 9 inches, or exactly the size of the largest of the furnace hearths at Silchester, where only the diameters of the floors can be made out.

^a *Regio VII., Insula II., No. 11.*

^b *Fiorelli, Descrizione di Pompei, 184.*

The greater number of the furnaces at Silchester were in open ground, but it does not follow that they therefore originally stood exposed to the weather. On the contrary, there is every probability that they were covered by at least wooden sheds. These have, of course, perished, but perhaps the remains of the roof of one may be seen in the square of broken tiling in the northern half of *Insula X*. Such sheds as these, if left only to the action of time and weather, would soon fall to decay and disappear, leaving but few or no traces.

It may be objected that the comparatively small size of the furnaces would not allow cloth to have been dyed in them; but if we suppose, and the supposition is a reasonable one, that winches were rigged up over the vats, there could be no difficulty in dyeing narrow pieces of cloth of some length by keeping the cloth revolving in the boilers by these means. There is no sign of such arrangements over the Pompeian furnaces, and consequently the articles must have been moved and stirred with sticks in the boiling vats.

If the use to which the furnaces were put can be determined with some certainty, this is not the case with the buildings near and round which they occur. As has been said, houses they cannot be, and some, if not all, must have been appropriated to the purposes of the trade carried on in this quarter. As to those which contain remains of circular furnaces there can be no doubt; with the others it is not so easy to divine their use, but perhaps it may be fairly guessed.

Referring again to the dyer's house in Pompeii, it should be noted that the columns of the peristyle show that nails had been driven into them to support lines on which the dyed cloths could be hung to dry. It is clear that this accommodation was far too limited, and besides, there was the disadvantage of the reek from the furnaces close by. It is equally clear why the dyers established themselves in the dilapidated mansion, namely, that the spacious *triclinium*, as well as the *tablinum* and other chambers, afforded ample room for the drying of their goods under cover and for the storage of the same. As at Pompeii, so here at Silchester, covered spaces independent of weather would be required, and as our climate is far less favourable for drying than that of Italy, recourse to artificial heat must often have been found necessary. The areas of the blocks along the main street, which have long flues in them, may have served the purpose of drying sheds, if we suppose that the remains of these flues indicate the existence of rude stoves fashioned somewhat after the manner of channelled hypocausts.

The two chambers of unequal size which are to be found at the north end of each of the areas or sheds, might have served a variety of purposes. Some no

doubt, those for example which show tiled or tessellated floors, might have contained the presses for the better class of goods; in others, cloths, woollen yarns, or wool in its unwashed state, or ready for the vat, might have been stored.

Another theory with respect to the use of some of the areas may here be put forward.

At the present day the materials requisite for carrying on the operations of a trade are but seldom drawn from the neighbourhood in which that trade is practised. In building, for example, the timber used may come from the Baltic, while the stone is extracted from quarries hundreds of miles from the spot where it is employed. Painters have ceased to grind their own pigments, and the oils and varnishes used are prepared by a different set of artisans from those who apply them. Dyers also now derive the materials of their trade from lands as far apart as India and America. This was certainly not so, or but to a limited extent, when Britain was a province of the Roman empire. Then, the neighbouring forest, the nearest quarry or brickfield, supplied the building material required, and where linen was woven, or wool dyed, in the near vicinity or at no great distance, the flax was grown or the plants cultivated from which the dye stuffs were obtained. Without entering on a long disquisition, for which this is not the place, on the substances used as dyes in antiquity, we may with reason venture to conjecture that two of the plants, woad (*isatis tinctoria*)^a and madder (*rubia tinctorum*),^a from which dyes known in the Roman period were derived, more especially the latter, might have been cultivated in the neighbourhood of the Roman town now Silchester, and that the process by which these plants were made to give up their colouring matter may very well have been completed by the dyers in the workshops of which we are treating. It is not impossible that the querns, two of which were found in Block VI., *Insula X.*, and one *in situ* in the area of Block V. of the same *insula*, may have served, together with others discovered in the trenches, to grind up the roots of the madder in order to prepare it for infusion in the vats, and that the leaves of the woad, which require fermentation to render them available for dyeing, may have been heaped up and manipulated in some of the covered sheds of the enclosures.^b

^a Pliny.

^b It may be of some interest to note here the methods by which the two plants named were, and still are, prepared for the use of dyers.

In the case of woad, the following extract from a work published early in the present century gives an account of the processes by which the raw material is rendered available for the dyers'

It has been noted with respect to the buildings in *Insula X.* that though they belong to one type, consisting of an area and two chambers, there is one exception,

use: "The plant, after being cut, washed, and partly dried, is carried to a mill, and there ground to a paste, after which it is formed into a mass or heap, and being covered to protect it from rain, is left to undergo a partial fermentation for about a fortnight. The heap is then stirred, well mixed, and formed into balls or cakes, which are exposed to the sun and wind to dry, and thereby obviate the putrefactive process which would otherwise take place. Being afterwards collected in heaps, these balls again ferment, become hot, and emit the odour of ammonia or volatile alkali. . . . After the heat has continued for some time, these balls fall into a dry powder, and are then sold to the dyer, who now seldom employs them without a mixture of indigo, which last the woad helps to deoxygenate and render soluble. Formerly, however, this preparation, fermented by well-known means, was employed *alone*, though it was incapable of giving a deep and bright blue colour, because the tinging matter was in union with too great a proportion of the other constituents of the plant. The colour, however, which it did give was very durable." Edward Bancroft, M.D., *Experimental Researches concerning the Philosophy of Permanent Colours, and the best means of producing them by Dyeing, Calico-Printing, etc.* (London, 1813), i. 166, *note*.

Woad is still cultivated for dyeing purposes both in Lincolnshire and Cambridgeshire, and its preparation, with certain differences, is the same as that described above.

The same writer, describing the plant (*Rubia tinctorum*, Lin.) from which the noted madder dye is obtained, says, "This is properly the Zealand madder, and appears to have been greatly cultivated in that province during more than 300 years; the Emperor Charles the Fifth having encouraged its cultivation by particular privileges conferred on the inhabitants of Zuyderzee for that purpose; and Great Britain alone is supposed for a long time to have paid annually two millions of guilders (nearly 200,000*l.* sterling) for the purchase of Zealand madder; which I believe is never exported otherwise than in a prepared state." *Ibid.* ii. 221-222. He then goes on to explain the manner in which the roots of the plant, which contain the colouring matter, were dried by stove heat and ground into powder for export.

At the present day madder is imported in powder from the south of France.

An extract from another and earlier work, the *Discorsi* on Dioscorides of Matthioli, the Siennese physician and naturalist, will show the cultivation of madder for dyeing purposes in Italy in the sixteenth century. This writer says that the plant was well known in Tuscany everywhere where the dyeing of cloth was practised, and that as the dyers were known to buy every year an infinite quantity of the roots, the country people during the winter dug up these roots and sold an infinite quantity of them in bundles to the dyers. *I discorsi di M. Pietro Matthioli, Sanese, medico cesareo, etc.—nelle sei libri di Pedacio Dioscoride Anazarbeo della materia medicinale. In Venetia MDLXVIII.* ii. 971.

From these remarks it may be seen that in Italy in the sixteenth century the madder roots were furnished to the dyers unprepared, who must therefore have had to grind them themselves. The fact here stated may show what was probably the practice at a much earlier time.

Pliny, writing concerning the distribution of this plant throughout the Roman empire, says that it was produced in nearly all the provinces in great abundance, and was used for dyeing wool and leather.

Block VI, which, unlike the others, is divided into seven compartments of greatly varying size. It is difficult to assign uses to all these chambers. No. 6 is occupied by one of the best preserved of the circular furnaces, and therefore was used for dyeing, and fragments of querns were found in No. 1. It may be, as suggested by Mr. Hope, that such of the dye stuffs as were prepared on the spot were stored in some of the chambers, together with such others, in smaller quantities, as had been brought from a distance. In the house occupied by the dyers in Pompeii, already referred to, a large recess of considerable capacity, made in the walls of the peristyle, had been filled with shelves, and when the house was excavated the remains of glass vessels which had contained some of the dye stuffs were found in it. We may be permitted to imagine a similar use in one or more of the rooms of this block, and also to suppose that the handmills for grinding the madder had a place in chamber No. 1. But this is of course matter for conjecture.

Scouring and bleaching are connected with dyeing, and these processes must also have been practised in the *insulæ* under consideration. This implies that a greater number of furnaces must have formerly been in existence than we have found. Perhaps the flues in the blocks may be the remains of the heating apparatus for the requisite boilers. The wide space of open ground in the *insulæ*, together with the slope of the mound lining the city wall on this side, would have afforded ample room for bleaching, and if the process of sulphuring was also employed, *i.e.* whitening cloth or wool by submitting it to the fumes of burning sulphur, some of the detached chambers in all these *insulæ* would have admirably served this purpose. But this practice possibly belongs rather to fulling than dyeing.^a

The water supply we have found seems scarcely sufficient for carrying on the various processes named. Still it must always be remembered that the trenches, close as they are to each other, cannot clear the entire surface of the ground examined, and therefore more wells and water pits, as well as furnaces, may yet remain beneath the surface of the soil. The plough also may have carried away the remains of many of these last.

Some further remarks may be added as to the date of the remains examined last year.

We have seen that the dyers in Pompeii established themselves in a dilapidated mansion in the street of Stabia, and converted it to their own uses. Similar cases,

^a We are indebted to our Fellow Mr. William Morris for valuable hints as to various processes of dyeing, and also for the opportunity obligingly afforded us by him of seeing some of those processes in operation.

with artisans practising other trades, were not uncommon in the Campanian city, and something of the same kind may have happened here.

It is scarcely to be supposed that the dyers maintained their workshops unchanged in form and arrangement for over three centuries in the main street of *Calleva*. It is far more likely that they set up their works upon ground which had become vacant by the destruction of houses originally built upon the main street. These houses may have been few in number, with a considerable extent of open land behind them. One very slight trace of early structures is to be found in Block III., *Insula XI.*, and the irregular spacing of the blocks may have resulted in some way from the former existence of earlier buildings. The flues found in the blocks had a great likeness to the ducts of a certain form of hypocaust in which the channels were at right angles to each other, and this likeness inclined me in the first instance to consider them as the partial remains of the hypocausts of the earliest houses in this quarter of the town, retained and converted to the dyers' uses.

Mr. Hope, however, who noted them very carefully in making the plans now before us, is of a different opinion, as is Mr. Jones, who had every opportunity of closely examining them day by day in the course of excavation. They both agree in considering these flues the remains of stoves or furnaces, specially constructed by the dyers for some of the processes of their trade, and not adaptations of earlier remains, and in all probability they have come to the correct conclusion.

But although the remains just mentioned may have nothing to do with the earlier houses, there are two facts which point to the presence of change in this quarter. The first is the deposit of treasure turned up in *Insula XI.* It seems to me inconceivable that so large a deposit of coin should have been made in close proximity to busy workshops, and the constant stir and movement which their existence implies. Treasure is more likely to be buried near a house, within its inclosure; in any case where it can be easily watched and resorted to without observation. Let us suppose, therefore, that the pot full of silver *denarii* discovered in *Insula XI.* was buried near a dwelling. If we take the date of this deposit to be somewhat later than that of the latest coin contained in it, a coin in good condition of the earlier years of Septimius Severus, we arrive at an approximate date at which some great change may have taken place in this quarter of the town, possibly the abandonment or destruction of domestic buildings on or near the main street. After such destruction, perhaps even after the lapse of many years, the dyers may likely enough have settled on the deserted land.

Secondly, it is quite clear that there was at some period a re-construction of the houses and other buildings in *Insula IX*. Not only do we find these buildings differently placed from those in the other *insulæ*, but we have discovered, in one of them at least, architectural fragments from earlier edifices used up again.

Changes, even considerable in character, must have occurred during the long period during which the city was in existence, and it is rather a matter of wonder that traces of such changes are not oftener detected. In the centuries covered by the Roman occupation much must have happened in this town in the way of destruction and re-construction, even in times when the current of life and the march of events were far less hurried than in our own day.

One word more. Putting out of consideration the indications of the potters' trade exhibited by the extensive remains discovered by the Medway and in the valley of the Nen, it may be said without fear of contradiction that the traces of handicrafts practised in the Roman period in Britain are few and far between. In consequence, the relics of the industry occurring over a large area of the Roman town at Silchester are of much interest and importance, the more so that they are the first remains on a considerable scale yet found in this country of the art of the dyer.

From the character of the buildings described, and the use to which the quarter of the town in which they occur was put, the objects found in and about them do not, perhaps, quite equal those discovered in other parts of the site. There are, nevertheless, several which deserve special notice.

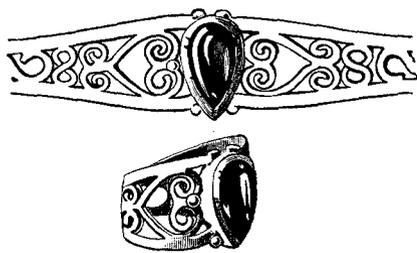


Fig. 5.
Gold ring found near the west gate. $\frac{1}{4}$.

First should be mentioned a small ring of gold (fig. 5), of late Roman date, which was found, in a flattened condition, in clearing the inner face of the city wall near the west gate. It is $\frac{9}{16}$ inch in diameter, and consists of a band of coarse filigree work, joined to a central bezel containing a pear-shaped carbuncle. The band is $\frac{1}{4}$ inch in width at its narrowest part, gradually increasing to $\frac{7}{16}$ inch where it joins the bezel.^a

Besides the ring there was turned up elsewhere in the excavations the stone of

^a A similar stone to that in the ring, but of larger size and unset, was found during the excavations of 1893.

another ring. It is of red jasper, $\frac{5}{8}$ inch long by $\frac{1}{2}$ inch wide, rudely engraved with an intaglio representing a youthful figure standing upright and facing to the left. In the left hand he holds what may be fruit, and in the right a branch with a bunch of grapes. Behind the figure is a tree. The figure is nude, with the exception of some drapery falling in straight folds from the shoulder, and may possibly represent Bacchus or the Genius of the Vine. Several engraved gems and intaglios have been found at Silchester, but they are seldom of much interest in subject or execution. As, however, their rudeness of execution is probably due to native workmanship, their discovery is always welcome.

The hoard of silver coins found in *Insula XI.* has already been mentioned. It may, however, be noted that our trenches yielded as many as eighteen other coins^a in this metal, including a medieval one^b of king John, with the name of his son Henry.

Of the bronze coins the large proportion turned up were those of the early Empire, a fact which deserves notice. Unfortunately, as is generally the case, they were much worn.

Passing on to other objects in bronze, the most important in point of size is an arm purse. It was found in a pit in *Insula XI.* It appears to have been wrought with great skill out of a thin narrow plate or strip of bronze, the two ends of which were brought together and rivetted to form the ring through which the arm was passed. The boat-shaped body of the purse is worked into seven flattened lobes, and the opening that fitted against the arm is $2\frac{1}{2}$ inches long and $1\frac{3}{4}$ inch wide. The flat ring that passed round the arm is an oval measuring 4 inches by 3 inches, with a general breadth of $\frac{7}{8}$ inch. There are no traces of a lid or lining to the purse, but in the bottom of it is a small hole.

Objects of this class are so rare that only five examples are recorded as having hitherto been found in Britain. One discovered at the Roman station of *Ambo-glanna*, at Birdoswald, in Northumberland, in 1820, and another in 1849, at Farn-dale, Yorkshire, are engraved in the *Archæological Journal*.^c A third, containing gold and silver coins ranging from Tiberius to Trajan, was discovered at Thorn-grafton, Northumberland, in 1837.^d A fourth, from Colchester, is preserved,

^a Of Faustina, Julia Domna, Marcus Aurelius, Caracalla, Macrinus, Elagabalus, Maximinus, Gordian III., Valerianus, Postumus, Honorius.

^b Only one other medieval coin, a silver penny of Edward I. now in the Reading Museum, is recorded to have been found at Silchester.

^c xvi. 84, and viii. 89.

^d Rev. J. Collingwood Bruce, *The Roman Wall*, 3rd edition (London, 1867), 419, and *Archæologia Æliana*, iii. 269, where the purse is figured.

together with the Farndale example, in the British Museum, and a fifth, also from Colchester, is in the National Museum of Antiquities at Edinburgh.^a

The next object is of pierced and, apparently, cast work, and has evidently formed part of a hinge. It is $2\frac{3}{4}$ inches wide and $4\frac{1}{8}$ inches long, with straight sides, but the lower end is obtusely pointed. The

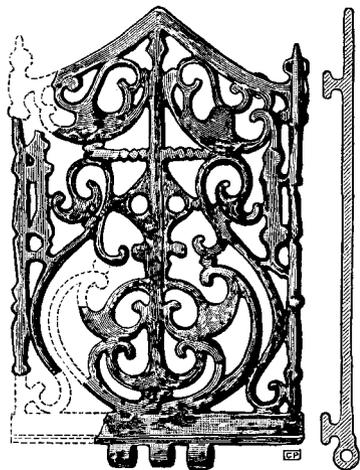


Fig. 6. Bronze hinge of pierced work found in *Insula XI*. ($\frac{1}{2}$ linear.)

design shows a central stem, with twisted cross-bar towards the bottom, with symmetrically disposed scroll-work, etc. of considerable complexity on either side. The character of these scrolls, with their double endings, is somewhat late-Celtic, but the Roman influence is seen in the straight fillets that form the border on each side, and have the appearance of being imitated from the well-known bead and reed moulding. On the whole the design is remarkably good. The plate itself is only $\frac{1}{10}$ inch thick, and has at the back four bronze studs, with rivets for attaching it to something.

The position of the rivets shows that the material, whatever it was, to which the hinge was fastened, was $\frac{1}{8}$ inch thick. No traces of this material remain, and it is therefore not easy to suggest the precise use to which this ornament may have been put. It may have been part of a belt or the hinge of a casket or coffer.

A charming little fragment of enamelled work must next be mentioned. It is a thin plate of bronze, now $1\frac{3}{4}$ inch long, but originally longer, and widens out from $\frac{7}{8}$ inch at the broken end to $1\frac{5}{8}$ inch at the other end, where it is perfect. It is slightly convex on the front, but flat on the back, and is $\frac{1}{16}$ inch thick in the centre. The sides, which are straight, are turned up for a width of about $\frac{1}{16}$ inch at an angle of 60° , and have evidently been rivetted to a hexagonal stand or base of some kind. The ornamentation consists of scroll-work of *cloisonné* enamel with central stem, with a groundwork of blue and scrolls filled in with green. Here again, as in the bronze hinge previously described, the design is very late-Celtic in character, though of the Roman period.

A small bronze bell, an object of some rarity on the site, may also be noted.

^a FU. 1. *Catalogue of the National Museum of Antiquities of Scotland*, Edinburgh, 1892, p. 224.

It is $1\frac{5}{8}$ inch high, with loop for suspension, and at the mouth is a parallelogram $1\frac{9}{16}$ inch long by 1 inch wide. The sides taper upwards in a rather graceful curve. The bell still retains parts of its clapper, which is of iron and rusted to one of the sides.

Among the miscellaneous objects in metal turned up were sundry brooches, buckles, rings (two with imitation jewels of glass), pins of various sizes and patterns, needles, *ligulæ* (one ornamented with a spiral thread of silver), keys, a perfect and a broken scale-pan, and two pieces of a bronze scale-beam with the divisions marked by silver studs. The handle of a pewter or white-metal vase was also found, terminating in a well-modelled lion's head. The objects in bone and glass call for no special remark.

I cannot conclude the record of the more notable finds of this year without a mention of some remarkable pieces of pottery forming parts of two vases of precisely similar design and probably cast from the same moulds. I have already referred to a class of pottery of the rudest description as being the product of native workers, uninfluenced by Roman methods; the pottery now in question is a specimen of the manner in which native workers endeavoured to copy the admired work of their Roman masters.

Everyone is acquainted with what we may call pseudo-Samian ware, but possibly it is not generally known that there is a ware found at Silchester, though not in large quantities, which in colour endeavours to vie with it, but unsuccessfully. The red is of a much more orange hue, and is easily washed off, while the glaze of the pseudo-Samian ware is permanent. On the all-important matter of the paste of which the vases are composed, there can be no question of confounding one with the other. The close-grained substance of the pseudo-Samian cannot be mistaken for the often ill-burnt and in many cases buff-coloured stringy paste of the native ware. The ware is often plain and also often ornamented; the ornamentation consisting principally of indented daisy-like flowers variously arranged, in lines, in groups, and sometimes linked together by indented lines. In some examples bands of indented diaper have friezes between them decorated with slip scrolls similar to those of the Durobrivian ware, but these are not common. As yet, however, with one small exception, only the classes of ornamentation just mentioned have been found, but last season the fragments above described were dug up, and they show the first attempt that has come to our notice at Silchester on any appreciable scale of a direct imitation, not only of colour but of form and design, of figured pseudo-Samian vases of an early type. The subject might be

pursued much farther and with interesting results, but it would involve an investigation taking up more time than can be given to it on this occasion.

The accompanying plan (Fig. 7) shows the progress made in the excavation of the site.

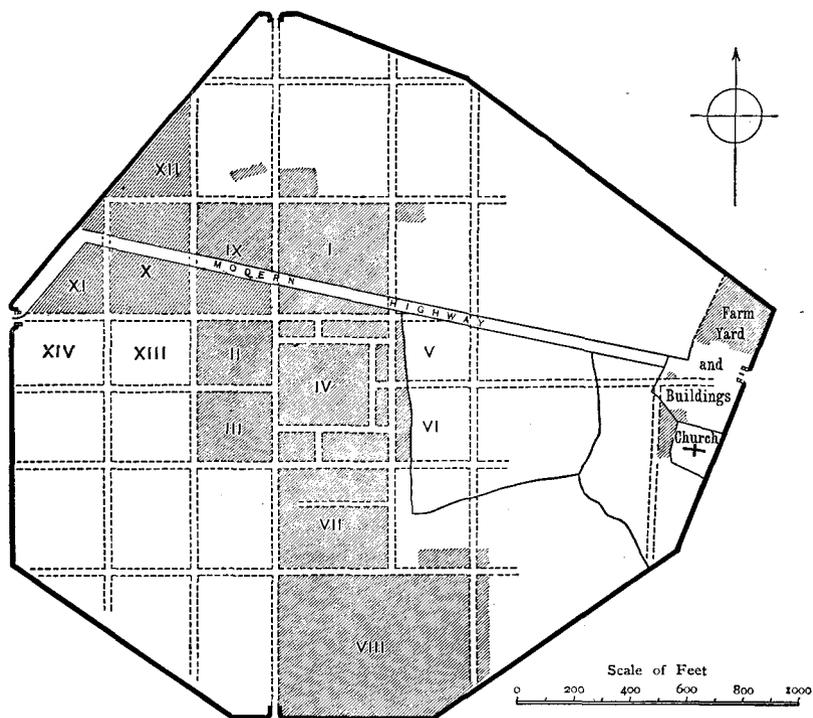


Fig. 7. Block-plan of Silchester, showing portions already excavated up to October, 1894.

APPENDIX I.

On a hoard of Roman Coins found at Silchester.

By HERBERT A. GRUEBER, Esq., F.S.A.

Read March 28, 1895.

THE find of Roman coins which took place at Silchester in July, 1894, consists entirely of silver denarii ranging in date from the time of Marc Antony to Septimius Severus. They numbered in all 253, and the following is a summary of the contents of the hoard :

Marc Antony (Legionary Coins)	9	Faustina Senior	16
Nero	4	Marcus Aurelius	23
Galba	1	Faustina Junior	10
Vitellius	4	Marcus Aurelius and Lucius Verus	1
Vespasian	38	Lucius Verus	3
Titus	9	Lucilla	3
Domitian	7	Commodus	13
Trajan	27	Crispina	1
Hadrian	46	Clodius Albinus	1
Sabina	4	Septimius Severus	1
Antoninus Pius	32		
			253

From the above list it will be seen that the coins are not equally distributed over the period which they cover. The earliest pieces are those struck by Marc Antony, bearing his name, and those of Legions II. and XII. These legions were with him during his residence at Alexandria B.C. 39-31, at which place the coins are supposed to have been struck. Of these legionary coins there exists a continuous series for Legion I. to Legion XXIX. So far as the condition of the coins in this hoard will allow, we can only identify those of Legions II. and XII. Following these we have a blank of about 85 years, no coins being present which were issued between B.C. 31 and the time of Nero A.D. 54, and we may put it even a little later, viz. A.D. 60, as the three coins of that emperor in the hoard cannot be placed at an earlier date. There are thus none of the later coins of the Republic for B.C. 31-27; nor any of Augustus and his successors down to Claudius I. inclusive.^a From the reign of Nero all the emperors are represented on the coins to that of Severus, and some of their empresses, with the exception of Otho, Nerva, Pertinax, Didianus Julianus, and Pescennius Niger. Coins of this last emperor are never found so far west as Gaul and Britain, as they were struck in the East; and the short reigns of the other emperors

^a For the absence of these coins in the hoard see Appendix II., page 489

not represented would account for the absence of these coins. The latest coin in the find is that of Septimius Severus, which we are able to assign to A.D. 193, the first year of his reign. It no doubt belongs to the first issue of that emperor. It would have been interesting if these coins could have been associated with the actual arrival of Severus in Britain; but if that had been so we should most probably have had some of his later coins, as he did not land here till about the end of A.D. 208. These data give us almost the exact time of the burial of the hoard, viz. as near as possible A.D. 200.

The coins themselves are strong evidence of the length of time they had been in circulation. The earliest are much worn, so much so that a minute identification of those of Marc Antony is not in every case possible; but gradually as we come down to later times their condition improves so much that it is evident that the latest pieces could only have been in circulation for a short period before their burial. By this means we are able to arrive at a fairly actual date for the concealment of the hoard.

For the most part the coins are of well-known types; but there are amongst them some which vary slightly from the descriptions given by Cohen in his *Monnaies Frappées sous l'Empire Romain*, and a few which he has not noticed. The smaller varieties have been noticed in the descriptions of the coins which are appended, it is only necessary therefore to draw attention to those which are *unpublished*, and to add some remarks on one or two types of exceptional interest.

Nos. 28-32, with Pax seated to left, is a new type with the inscription COS . ITER . TR . POT. There are coins published with a similar inscription, but bearing representations of Mars and Neptune No. 33 is similar, but Pax is standing.

No. 36. Quinarii or half-denarii of this type are known, but till now no denarius has been met with. This particular coin is of interest, as it records the conquest of Judæa and the taking of Jerusalem.

No. 99. The occurrence of this coin, which is a denarius struck for currency in Lycia, is of interest, as it shows that it passed in currency with the ordinary imperial denarius, being of the same weight. The issue of this colonial denarius was limited to a few provinces and cities only, amongst which were Crete, Bithynia, and Caesarea in Cappadocia.

No. 114. Cohen had never seen a specimen of this coin, but describes one which was said to be in the *Wetzel* collection, at the same time querying his description, which, however, as proved by the coin in the hoard, is quite accurate.

No. 174 is a new type representing Artemis *Kriophoros* holding a kid on her right hand, whilst with her left she touches a goat springing up to her. This type is an unusual one, and does not appear to occur on any other denarii. The nearest approach to it is to be found on a medallion of Antoninus Pius, which shows Artemis holding a kid on her right hand, her left resting on a sceptre.

No. 231. In this coin we have one of those interesting "restorations" of denarii struck during the Republic. These "restorations" were issued by Trajan, Marcus Aurelius, and Lucius Verus, the last two jointly. The reason for their issue is not at first sight apparent, since their types do not for the most part show any connection with the history of the emperor by

whom they were struck, and besides that the original coin had most probably long passed out of currency. Under Trajan these "restorations" are fairly numerous; but the only one struck by Marcus Aurelius and Lucius Verus is that of which a specimen occurs in the hoard. As will be seen from its description it is of the same type as the legionary coins struck by Marc Antony (see Nos. 1—4). For the issue of this coin there may, however, be a reason, as we know from Dio Cassius that the VIth Legion was not disbanded till after the reign of Commodus. The coin therefore may have been re-struck in honour of that legion. This coin is of special rarity, and it is interesting that one should occur in this hoard.

The last coin to be noticed is No. 247, which has on the obverse the bust and name of Commodus, but the reverse type is from a die of Marcus Aurelius. This is proved by the inscription on it. Commodus had received the "Tribunitian Power" seventeen times only, in A.D. 192, when he also entered on his seventh consulship. On the other hand Marcus Aurelius only received the consulship three times, but was granted the "Tribunitian Power" for the thirty-first time in A.D. 177. As regards the "Imperatorship," both emperors received it eight times, Aurelius in A.D. 177, and Commodus in A.D. 192, so that in this respect the titles of the two emperors correspond. What then is this coin? It is either a forgery of the time, or as the bust of Commodus is youthful it may be an instance of an emperor using the old dies of his predecessors, which was of very common occurrence in later times, but of which no instance is known in Roman coins. The first view is perhaps the more probable, seeing that the coin is of coarse work, and some of the letters are turned upside down. It has also the appearance of having been struck from a cast mould.

From the above remarks it will be seen that this find is interesting from a numismatic point of view as well as historically, for besides enabling us to fix the date of the buildings which surrounded it, it has also added somewhat to our numismatic knowledge by giving several new types. It rarely happens that so many coins of this class and period are found together in this country; on this account a complete list has been appended. In the description of the coins references have been given to Cohen's work entitled *Monnaies Frappées sous l'Empire Romain*, 2nd ed.

DESCRIPTION OF THE COINS.

REPUBLICAN DENARII.

MARC ANTONY, B.C. 39—31.

1—2. *Obv.* ANT . AVG . III VIR . R . P . C. Galley to left.

Rev. LEG . II. Three standards, centre one surmounted by eagle. *Cohen*, I. 27.

3—4. Similar: but inscription on *rev.* LEG . XII. *Cohen*, I. 41.

5—9. Similar to Nos. 1—2: but the inscriptions on the *rev.* are illegible, the coins being much worn.

IMPERIAL DENARII.

NERO, A.D. 54—68.

10. *Obv.* NE[RO CAESAR] AV[GVSTVS]. Bust of Nero to right, laureate.
Rev. IV[PPITER CVSTOS]. Jupiter seated to left, holding thunderbolt and sceptre. *Cohen*, I. 118. *Worn.*
- 11—13. *Obv.* NERO CAESAR AVGVSTVS. Bust of Nero to right, laureate.
Rev. SALVS. Salus seated to left, holding patera. *Cohen*, I. 314. *Worn.*

GALBA, A.D. 68—69.

14. *Obv.* IMP . SER . GALB[A CAESAR AVG]. Head of Galba to right, laureate.
Rev. DIVA AVGVSTA. Livia standing to left, holding patera and sceptre. *Cohen*, I. 55.
Rubbed.

VITELLIUS, A.D. 69.

- 15—16. *Obv.* A . VITELLIVS GERMAN . IMP . TR . P. Head of Vitellius to right, laureate.
Rev. CONCORDIA PR. Concordia seated to left, holding patera and cornucopiæ. *Cohen*, I. 20.
- 17—18. *Obv.* A . VITELLIVS GERMANICVS IMP. Head of Vitellius to right, bare.
Rev. Victory seated to left, holding patera and palm. *Cohen*, I. 21.

VESPASIAN, A.D. 69—79.

19. *Obv.* CAESAR VESPASIANVS AVG. Bust of Vespasian to right, laureate.
Rev. ANNONA AVG. Annona seated to left, holding her robe in right hand. *Cohen*, I. 30.
20. *Obv.* IMP . CAES . VESP . AVG . P . M. Bust of Vespasian to right, laureate.
Rev. AVGVR PON . MAX. Sacrificial implements. *Cohen*, I. 42.
- 21—22. Similar: but legend on *rev.* AVGVR TRI . POT. *Cohen*, I. 43.
23. *Obv.* CAESAR VESPASIANVS AVG. Bust as on No. 20.
Rev. CERES AVGVST. Ceres standing to left, holding ears of corn and torch. *Cohen*, I. 54.
24. *Obv.* IMP . CAES . VESP . AVG . P . M . COS . III. Bust as on No. 20.
Rev. CONCORDIA AVGVSTI. Concordia seated to left, holding patera and cornucopiæ. *Cohen*, I. 74.
- 25—27. *Obv.* IMP . CAESAR VESPASIANVS . AVG. Bust as on No. 20.
Rev. COS . VIII. Mars standing to left, holding spear and trophy. *Cohen*, I. 125.
- 28—32. *Obv.* IMP . CAESAR VESPASIANVS AVG. Bust as on No. 20.
Rev. COS . ITER . TR . POT. Pax seated to left, holding branch and cornucopiæ. *Unpublished.*
33. Similar: but on *rev.* Pax standing. *Unpublished.*
34. *Obv.* CAESAR VESPASIANVS AVG. Bust of Vespasian to left, laureate.
Rev. IMP . XIX. Modius with ears of corn. *Cohen*, I. 215.

- 35—36. *Obv.* IMP . CAESAR VESPASIANVS AVG. Bust as on No. 20.
Rev. IVDAEA. Judæa seated at foot of trophy. *Cohen*, I. 225.
37. *Obv.* IMP . CAES . VESP . AVG . P . M. Bust as on No. 20.
Rev. PON . MAX. Vesta seated to left, holding simpulum. *Cohen*, I. 358.
38. *Obv.* IMP . CAESAR VESP . AVG. Bust as on No. 20.
Rev. PON . MAX . TR . P . COS . V. Caduceus, winged. *Cf. Cohen*, I. 361.
 A variety of *Cohen* reading VESP for VESPAS.
39. *Obv.* IMP . CAESAR VESPASIANVS AVG. Bust as on No. 20.
Rev. PON . MAX Vespasian seated to right, holding sceptre and branch. *Cf. Cohen*, I. 363.
- 40—44. *Obv.* IMP . CAESAR VESPASIANVS AVG. Bust as on No. 20.
Rev. PON . MAX . TR . P . COS . VI. Pax seated, to left, holding branch. *Cohen*, I. 366.
- 45—47. *Obv.* IMP . CAES . VESP . AVG . CENS. Bust as on No. 20.
Rev. PONTIF . MAXIM. Vespasian seated to right, holding sceptre and branch. *Cohen*, I. 386.
48. *Obv.* IMP . CAESAR VESP . AVG. Bust as on No. 20.
Rev. PONTIF . MAXIM. Caduceus, winged. *Cohen*, I. 390.
49. *Obv.* IMP . CAES . VESP . AVG . CEN. Bust as on No. 20.
Rev. SALVS AVG. Salus seated to left, holding patera. *Cohen*, I. 431.
50. *Obv.* DIVVS AVGVSTVS VESPASIANVS. Bust as on No. 20.
Rev. S . C. on shield, supported by two capricorns; below, globe. *Cohen*, I. 497.
- 51—52. *Obv.* IMP . CAES . VESP . AVG. Bust as on No. 20.
Rev. TRI . POT. Vesta seated to left, holding simpulum. *Cohen*, I. 561.
53. Similar: but *obv.* legend IMP . CAES . VESPA . AVG . P . M . COS . IIII. *Cohen*, I. 563.
- 54—55. *Obv.* IMP . CAES . VESP . AVG . P . M . COS . III. Bust as on No. 20.
Rev. VESTA. Vesta standing to left, holding simpulum and sceptre. *Cohen*, I. 572.
56. *Obv.* IMP . CAES . VESP . AVG . P . M . COS . IIII. Bust as on No. 20.
Rev. VICTORIA AVGVSTI. Victory to right crowning standard. *Unpublished.*

TITUS, A.D. 79—81.

57. *Obv.* T . CAESAR VESPASIANVS. Bust to right, laureate.
Rev. ANNONA AVG. Annona seated to left. *Cohen*, I. 17.
58. *Obv.* T . CAESAR IMP . VESPASIANVS. Bust to right as the preceding.
Rev. COS . V. Eagle standing on cippus. *Cohen*, I. 60.
59. *Obv.* T . CAES . IMP . VESP . PONT . TR . POT. Bust as on No. 57.
Rev. [NEP.]RED. Neptune standing to left, holding acrostolium and sceptre. *Cohen*, I. 120.
60. *Obv.* T . CAESAR IMP . VESPASIANVS. Bust as on No. 57.
Rev. TR . POT . VIII . COS . VII. Quadriga to left. *Cohen*, I. 335.

- 61—62. *Obv.* IMP . TITVS CAES . VESPASIAN . AVG . P . M. Bust to left, laureate.
Rev. TR . P . IX . IMP . XV . COS VIII . P . P. Trophy at the base of which are seated a male and a female captive. *Cohen*, I. 305.
63. *Obv.* Similar: but bust to right.
Rev. Similar: but type, Throne. *Cohen*, I. 311.
64. *Obv.* Same as No 61.
Rev. Same as No 61: but type, Dolphin on tripod. *Cohen*, I. 320.
65. *Obv.* Same as No. 63.
Rev. Same as No. 61: but type, Curule chair surmounted by wreath. *Cohen*, I. 317.

DOMITIAN, A.D. 81—96.

66. *Obv.* CAESAR AVG . F . DOMITIANVS. Bust of Domitian to right, laureate.
Rev. COS . V. Horseman to right. *Cohen*, I. 49.
67. *Obv.* IMP . CAES . DOMIT . AVG . GERM . P . M . TR . P . VIII. Bust as on the preceding.
Rev. IMP . XIX . COS . XIII . CENS . P . P . P. Pallas to left, holding spear. *Cohen*, I. 250.
68. *Obv.* Similar: but legend ending TR . P . X.
Rev. Similar: but legend IMP . XXI . COS . XV . CENS . P . P . P. *Cohen*, I. 263.
69. *Obv.* Similar: but legend ending TR . P . XIII.
Rev. IMP . XXII . COS . XVI . CENS . P . P . P. Pallas to right, holding spear and shield.
Cohen, I. 288.
70. *Obv.* CAES . AVG . F . DOMIT . COS . III. Bust as on No. 66.
Rev. PRINCEPS IVVENTVT. Spes to left, holding flower. *Cohen*, I. 374.
71. *Obv.* CAESAR AVG . F . DOMITIANVS COS . VI. Bust as on No. 66.
Rev. PRINCEPS IVVENTVTIS. Vesta seated to left, holding palladium and spear. *Cohen*, I. 377.
72. *Obv.* Same.
Rev. PRINCEPS IVVENTVTIS. Two hands clasping standard on prow. *Cohen*, I. 393.

TRAJAN, A.D. 98—117.

73. *Obv.* IMP . TRAIANO AVG . GER . DAC . P . M . TR . P . COS . VI . P . P. Bust of Trajan to right, laureate, and slightly draped.
Rev. ALIM . ITAL . —S . P . Q . R . OPTIMO PRINCIPI. Abundantia standing, holding ears of corn and cornucopiæ; at her side a child. *Cohen*, II. 9.
- 74—75. *Obv.* IMP . TRAIANO AVG . GER . DAC . P . M . TR . P. Bust as on the preceding.
Rev. COS . V . P . P . S . P . Q . R . OPTIMO . PRINC. Victory to left, holding wreath and palm.
Cohen, II. 74.
- 76—78. *Obv.* IMP . TRAIANO AVG . GER . DAC . P . M . TR . P. Bust as on No. 73.
Rev. COS . V . P . P . S . P . Q . R . OPTIMO PRINC. Aequitas standing to left, holding scales and cornucopiæ. *Cohen*, II. 85.

79. Similar: but type on reverse, Aequitas seated. *Cohen*, II. 86.
80. Similar: but type on reverse, Fortuna holding rudder and cornucopiæ. *Cohen*, II. 87.
81. Similar: but type on reverse, Trophy. *Cohen*, II. 100.
82. *Obv.* Same as No. 76.
Rev. DAC . CAP . — COS . V . P . P . S . P . Q . R . OPTIMO PRINC. Dacia seated to left on arms.
Cohen, II. 120.
83. *Obv.* Same as No. 76.
Rev. DANVIVVS—COS . V . P . P . S . P . Q . R . OPTIMO PRINC. The Danube reclining to left.
Cohen, II. 136.
84. *Obv.* IMP . TRAIANVS AVG . GER . DAC . P . M . TR . P . COS . VI . P . P . Bust as on No. 73.
Rev. DIVVS PATER TRAIAN. Trajan's father seated to left holding patera and sceptre.
Cohen, II. 140.
85. *Obv.* IMP . CAES . NERVA TRAIAN . AVG . GERM. Bust as on No. 73.
Rev. P . M . TR . P . COS . III . P . P . Hercules standing facing on altar, holding club and lion's skin. *Cohen*, II. 215.
86. Similar: but legend on reverse, P . M . TR . P . COS . III . P . P . *Cohen*, II. 231.
87. Similar: but type of reverse, Victory standing towards left, holding wreath and palm.
Cohen, II. 240.
- 88—89. Similar: but Victory to right. *Cohen*, II. 241.
90. *Obv.* IMP . NERVA TRAIANVS AVG . GER . DACICVS. Bust as on No. 73.
Rev. P . M . TR . P . COS . V . P . P . Mars walking to right, carrying spear and trophy.
Cohen, II. 255.
91. *Obv.* IMP . CAES . NER . TRAIANO OPTIMO AVG . GER . DAC. Bust of Trajan to right, laureate and draped.
Rev. P . M . TR . P . COS . VI . P . P . S . P . Q . R . Virtus standing to right, his foot on helmet, holding spear and sword. *Cohen*, II. 274.
92. Similar: but type of reverse, Pax standing to left, holding caduceus and cornucopiæ.
Cohen, II. 278.
93. *Obv.* IMP . TRAIANO AVG . GER . DAC . P . M . TR . P . COS . V . P . P . Bust as on No. 73.
Rev. S . P . Q . R . OPTIMO PRINCIPI. Ceres standing to left, holding ears of corn and patera. *Cf. Cohen*, II. 316. On coins described by *Cohen*, Ceres always holds ears of corn and a torch.
94. Similar: but type of reverse, Virtus standing to right, her foot on helmet, holding spear and sword. *Cohen*, II. 401.
95. Similar: but type of reverse, Abundantia standing to left, holding ears of corn and cornucopiæ; before her, modius; behind her, prow of vessel. *Cohen*, II. 467.
96. Similar: but type of reverse, three standards. *Cohen*, II. 577.

- 97—98. *Obv.* IMP . TRAIANO AVG . GER . DAC . P . M . TR . P . Bust as on No. 73.
Rev. VESTA — COS . V . P . P . S . P . Q . R . OPTIMO PRINCI. Vesta seated to left, holding palladium and sceptre. *Cohen*, II. 644.
99. *Obv.* AVT . KAIC . NEP . TPAIANOC CEB . ΓEPM. Bust to right, laureate.
Rev. ΔΗΜ . ΕΞ . ΥΠΙΑΤ . Β. Two lyres side by side; surmounted by owl.
 Struck for Lycia.

HADRIAN, A.D 117—138.

100. *Obv.* IMP . CAES . TRAIAN . HADRIANO OPT . AVG . GER . DAC. Bust of Hadrian to right, laureate, slightly draped.
Rev. ADOPTIO—PATHIC . DIVA TRAIAN . AVG . F . P . M . TR . P . COS . P . P . Trajan and Hadrian holding right hands. *Cohen*, II. 3.
101. *Obv.* IMP . CAESAR TRAIAN . HADRIANVS AVG. Bust as on the preceding.
Rev. AET . AVG . — P . M . TR . P . COS . II. Aeternitas standing to left, holding heads of the Sun and Moon. *Cohen*, II. 128.
102. *Obv.* IMP . CAES . TRAIAN . HADRIANO AVG . DIVI[TRA]. Bust as on No. 100.
Rev. CONCORD . — PARTH . F . DIVI NER . NEP . P . M . TR . P . COS. Concordia seated to left, holding patera; cornucopiæ below her seat. *Cf. Cohen*, II. 248.
 This is a variety of the coin described in *Cohen*, on which a figure of Spes is seen behind Concordia.
- 103—105. *Obv.* Same as No. 101.
Rev. CONCORD . — P . M . TR . P . COS . II. Concordia seated as on the preceding. *Cohen*, II. 253.
106. *Obv.* HADRIANVS AVGVSTVS. Bust to right, laureate, slightly draped.
Rev. COS . III. Neptune standing to left, his foot on prow, holding acrostolium and trident. *Cohen*, II. 309.
- 107—108. Similar: but type of reverse, Diana standing to right, holding arrow and bow. *Cohen*, II. 315.
109. Similar: but type of reverse, Virtus standing to right, her foot on helmet, holding spear and sword. *Cohen*, II. 353.
110. Similar: but type of reverse, Libertas standing to left, holding cap and sceptre. *Cohen*, II. 374.
- 111—112. *Obv.* HADRIANVS AVGVSTVS P . P . Head of Hadrian to right, laureate.
Rev. COS . III. Abundantia seated to left, holding poppy and cornucopiæ. *Cohen*, II. 350.
113. Similar: but type of reverse, Spes walking to left. *Cf. Cohen*, II. 390.
 The coin described by *Cohen* is without P . P . (Pater Patriæ) at the end of the *obv.* legend.
114. *Obv.* Same as No. 106.
Rev. COS . III. Female figure, standing to left, her foot on cuirass, holding flower and cornucopiæ. *Cohen*, II. 399.
115. Similar: but type of reverse, Seven stars above crescent. *Cohen*, II. 466.

- 116—117. *Obv.* HADRIANVS AVG . COS . III . P . P . Head to right, laureate.
Rev. FIDES PVBLICA. Fides standing to right, holding ears of corn and patera with fruit.
Cohen, II. 715.
118. *Obv.* HADRIANVS AVGVSTVS P . P . Bust of Hadrian to right, laureate and draped.
Rev. INDVLGENTIA AVG . — COS . III. Indulgentia seated to left, holding sceptre. *Cf. Cohen*,
 II. 845.
 A variety, the bust of the Emperor being draped.
- 119—121. *Obv.* IMP . CAESAR TRAIAN . HADRIANVS AVG. Bust to right, laureate, slightly draped.
Rev. IVSTITIA . — P . M . TR . P . COS . II. Justitia, seated to left, holding patera and
 sceptre. *Cohen*, II. 876.
122. *Obv.* Same as No. 118.
Rev. LIBERALITAS AVG . — COS . III. Liberalitas standing to right, emptying cornucopiæ.
Cf. Cohen, II. 917.
 A variety, the bust of the Emperor being draped and COS . III. being in the exergue.
123. *Obv.* Same as No. 119.
Rev. LIB . PVB . — P . M . TR . P . COS . III. Liberalitas seated to left, holding branch and
 sceptre. *Cohen*, II. 902.
124. *Obv.* HADRIANVS AVG . COS . III . P . P . Head to right.
Rev. MONETA AVG. Moneta standing to left, holding scales and cornucopiæ. *Cohen*,
 II. 963.
- 125—126. *Obv.* IMP . CAES . TRAIAN . HADRIANO AVG . DIVI TRA. Bust to right, laureate, slightly
 draped.
Rev. PAX . — PARTH . F . DIVI NER . NEP . P . M . TR . P . COS. Pax standing to left, holding
 branch and cornucopiæ. *Cohen*, II. 104.
127. *Obv.* IMP . CAESAR TRAIAN . HADRIANVS AVG. Bust to right, laureate, draped and wearing
 cuirass.
Rev. PAX . — P . M . TR . P . [COS . II.] Pax, as on the preceding. *Cohen*, II. 1015.
128. *Obv.* HADRIANVS AVG . COS . III . P . P . Head to right, laureate.
Rev. PIETAS AVG. Pietas seated to left, holding patera and sceptre. *Cohen*, II. 1037.
129. *Obv.* IMP . CAESAR TRAIAN . HADRIANVS AVG. Bust to right, laureate, slightly draped.
Rev. P . M . TR . P . COS . III. Mars walking to right, carrying spear and trophy. *Cohen*,
 II. 1073.
- 130—131. *Obv.* IMP . CAESAR TRAIAN . HADRIANVS AVG. Head to right, laureate.
Rev. P . M . TR . P . COS . III. Victory walking to right and bearing trophy. *Cohen*, II. 1131.
- 132—133. Similar: but type of reverse, Roma seated to left, holding Victory and spear. *Cohen*,
 II. 1108.
134. Similar: but type of reverse, Genius standing to left, near an altar, holding patera and
 cornucopiæ. *Cohen*, II. 1093.
135. *Obv.* HADRIANVS AVG . COS . III . P . P . Head to right, laureate.
Rev. RESTITVTORI HISPANIAE. Emperor raising Hispania kneeling and holding branch.
Cohen, II. 1260.

136. *Obv.* IMP . CAESAR TRAIAN . HADRIANVS AVG. Head to right, laureate.
Rev. SAL . AVG . — P . M . TR . P . COS . III. Salus seated to left, feeding serpent rising from altar. *Cohen*, II. 1324.
137. Similar: but bust on obverse draped and wearing cuirass. *Cohen*, II. 1327.
- 138—139. *Obv.* HADRIANVS AVG . COS . III . P . P. Bust to right, slight drapery before bust.
Rev. SALVS AVG. Salus standing to right, feeding serpent rising from altar. *Cohen*, II. 1335.
140. Similar: Laureate head on obverse; and on reverse Salus standing to left, holding patera and sceptre, and sacrificing at altar. *Cohen*, II. 1329.
141. *Obv.* IMP . CAESAR TRAIAN . HADRIANVS AVG. Bust to right, laureate, slightly draped.
Rev. SALVS AVG . — P . M . TR . P . COS . III. Salus seated to left, feeding serpent rising from altar. *Cf. Cohen*, II. 1353.
 A variety, the bust being draped.
142. *Obv.* HADRIANVS AVG . COS . III . P . P. Head to right.
Rev. TELLVS STABIL. Female figure standing to left, holding ploughshare and rake. *Cohen*, II. 1425.
143. *Obv.* HADRIANVS AVGVSTVS. Bust to right, draped.
Rev. TRANQVILLITAS AVG . COS . III . P . P. Tranquillitas standing to left, holding sceptre and leaning on column. *Cohen*, II. 1440.
144. *Obv.* Same as No. 142.
Rev. VICTORIA AVG. Victory standing to right, branch in left hand. *Cohen*, II. 1454.
145. *Obv.* Same as No. 142.
Rev. VOTA PVBLICA. The Empress sacrificing at altar. *Cohen*, II. 1481.

SABINA, WIFE OF HADRIAN.

146. *Obv.* SABINA AVGVSTA. Bust of Sabina to right, diademed and draped, hair *en queue*.
Rev. CONCORDIA AVG. Concordia standing to left, holding patera and double cornucopiae. *Cohen*, II. 3.
147. *Obv.* SABINA AVGVSTA HADRIANI AVG . P . P. Bust as on the preceding.
Rev. CONCORDIA AVG. Concordia seated to left, holding patera and sceptre. *Cohen*, II. 25.
- 148—149. *Obv.* Same as No. 146.
Rev. IVNONI REGINAE. Juno standing to left, holding patera and sceptre. *Cohen*, II. 43.

ANTONINVS PIVS, A.D. 138—161.

150. *Obv.* ANTONINVS AVG . PIVS P . P . TR . P . COS . III. Head of Antoninus to right, laureate.
Rev. AEQVITAS AVG. Aequitas standing to left, holding scales and sceptre. *Cohen*, II. 14.
151. *Obv.* IMP . T . AEL . CAES . HADRI . ANTONINVS. Head to right, bare.
Rev. AVG . PIVS P . M . TR . P . COS . DES . II. Fides standing to right, holding ears of corn and basket of fruit. *Cohen*, II. 79.

152. *Obv.* Similar: but HADR.
Rev. AVG . PIVS . P . M . TR . P . COS . II . P . P. Two right hands joined, holding caduceus.
Cf. Cohen, II. 100.
 A variety, reading HADR for HADRI.
153. *Obv.* ANTONINVS AVG . PIVS P . M . TR . P . COS . III. Head to right, bare.
Rev. CLEMENTINA AVG. Clementia standing to left, holding patera and sceptre. *Cohen, II. 123.*
154. *Obv.* DIVVS ANTONINVS. Head to right, bare.
Rev. CONSECRATIO. Eagle standing on garlanded altar. *Cohen, II. 155.*
155. *Obv.* Similar: bust slightly draped.
Rev. CONSECRATIO. Funeral pyre. *Cf. Cohen, II. 163.*
 A variety, the bust being draped.
156. *Obv.* ANTONINVS AVG . PIVS . P . P . TR . P . XVI. Head to right, laureate.
Rev. COS . IIII. Vesta standing to left, holding simpulum and palladium. *Cohen, II. 197.*
157. *Obv.* ANTONINVS AVG . PIVS . P . P. Head to right, laureate.
Rev. COS . IIII. Aequitas standing to left, holding scales and sceptre. *Cohen, II. 228.*
158. *Obv.* ANTONINVS AVG . PIVS . P . P . TR . P . XII. Head to right, laureate.
Rev. COS . IIII. Felicitas standing to left, holding caduceus and cornucopiæ. *Cohen, II. 252.*
- 159—160. *Obv.* Similar: but TR . P . XVI.
Rev. COS . IIII. Fortuna standing to right, holding rudder and cornucopiæ. *Cohen, II. 270.*
161. *Obv.* Similar: but TR . P . XV.
Rev. COS . IIII. Abundantia standing to left, holding ears of corn and resting left hand on modius placed on forepart of vessel. *Cohen, II. 288.*
162. Similar: but TR . P . XVIII . on obverse. *Cohen, II. 292.*
163. *Obv.* ANTONINVS AVG . PIVS . P . P. Head to right, laureate.
Rev. COS . IIII. Two right hands joined holding caduceus and two ears of corn. *Cohen, II. 344.*
164. *Obv.* DIVVS ANTONINVS. Head to right, bare.
Rev. DIVO PIO. Altar. *Cohen, II. 357.*
165. *Obv.* ANTONINVS AVG . PIVS P . P . TR . P . XXII. Bust to right, laureate.
Rev. FORTVNA OPSEQUIENS (sic) COS . IIII. Fortuna standing to left, holding rudder and cornucopiæ. *Cohen, II. 390.*
166. *Obv.* ANTONINVS AVG . PIVS P . P . COS . III. Head to right, laureate.
Rev. IMPERATOR II. Victory standing to left, holding wreath and palm. *Cohen, II. 437.*
- 167—169. *Obv.* ANTONINVS AVG . PIVS P . P. Head to right, laureate.
Rev. LIB . IIII.—TR . POT . COS IIII. Liberalitas standing to left, holding tessera and cornucopiæ. *Cohen, II. 490.*

170. *Obv.* IMP . CAES . T . AEL . HADR . ANTONINVS AVG . PIVS . P . P . Head to right, laureate.
Rev. PAX—TR . POT . XIII . COS . IIII . Pax standing to left, holding branch and sceptre.
Cf. Cohen, II. 552.
 A variety; Pax holding a sceptre, and not, as usual, a cornucopiæ.
171. *Obv.* ANTONINVS AVG . PIVS P . P . TR . P . XXIII . Head to right, laureate.
Rev. PIETATI AVG . COS . IIII . Pietas standing to left between two children, and holding another on each arm. *Cohen, II. 631.*
172. *Obv.* Same.
Rev. SALVTI AVG . COS . IIII . Salus standing to left, feeding serpent rising from altar and holding cornucopiæ. *Cohen, II. 741.*
173. *Obv.* ANTONINVS AVG . PIVS P . P . Head to right, bare.
Rev. TR . P . COS . IIII . Fortuna standing to left, holding rudder and cornucopiæ. *Cohen, II. 859.*
174. *Obv.* ANTONINVS AVG . PIVS P . P . IMP . II . Head to right, laureate.
Rev. TR . POT . XIX . COS . IIII . Female figure (Artemis) standing to left, holding kid on right hand; her left touching goat which springs up. *Unpublished.*
175. *Obv.* Same.
Rev. TR . POT . XX . COS . IIII . Salus seated to left, feeding serpent which rises from altar.
Cohen, II. 1023.
176. *Obv.* Same.
Rev. TR . POT . XXI . COS . IIII . Roma seated to left, holding Victory and sword. *Cohen, II. 1028.*
177. *Obv.* ANTONINVS AVG . PIVS P . P . Head to right, laureate.
Rev. TR . POT . COS . IIII . Soldier standing to left, holding spear and sword. *Cohen, II. 945.*
178. *Obv.* ANTONINVS AVG . PIVS P . P . TR . P . XXII . Head to right, laureate.
Rev. VOTA SOL . DEC . II .—COS . IIII . Antoninus standing to left, sacrificing at altar.
Cohen, II. 1102.
179. *Obv.* Same.
Rev. VOTA SVSCEPTA DEC . III .—COS . IIII . Antoninus sacrificing at altar, &c. as preceding.
- 180—181. Similar: but legend on obverse ending TR . P . XXV . and on reverse, VOTA SVSCEP . DECENN . III .—COS IIII. *Cohen, II. 1117.*

FAUSTINA SENIOR, WIFE OF ANTONINUS PIUS.

- 182—184. *Obv.* DIVA FAVSTINA. Bust of Faustina to right, draped.
Rev. AETERNITAS. Aeternitas standing towards left, her right hand raised, left holding sceptre. *Cohen, II. 26.*
- 185—186. Similar: Aeternitas holds globe; above her head a veil. *Cohen, II. 32.*
187. Similar: Aeternitas holds phoenix. *Cohen, II. 11.*
188. *Obv.* DIVA AVG . FAVSTINA. Bust as on No. 182.
Rev. AETERNITAS. Aeternitas standing towards right, holding sceptre. *Cohen, II. 41.*

189. *Obv.* Same as No. 182.
Rev. AVGVSTA. Ceres veiled, standing to left, holding ears of corn and torch. *Cohen*, II. 78.
190. Similar: but reverse type, Vesta standing to left, holding simpulum and palladium. *Cohen*, II. 108.
191. Similar: but reverse type, Female figure standing to left near altar, right hand raised, left holding cista. *Cohen*, II. 124.
- 192—194. Similar: but reverse type, Ceres standing to left, holding torch; over left arm her robe. *Cohen*, II. 114.
195. *Obv.* Same as No. 182.
Rev. CONSECRATIO. Peacock to right. *Cohen*, II. 175.
196. *Obv.* Same as No. 188.
Rev. PIETAS AVG. Pietas standing to left, near altar, both hands raised. *Cohen*, II. 251.
197. *Obv.* Same as No. 182.
Rev. VESTA. Vesta standing to left, holding palladium and sceptre. *Cohen*, II. 291.

MARCUS AURELIUS, A.D. 161—180.

198. *Obv.* IMP . M . AVREL . ANTONINVS . AVG. Head of Aurelius to right, bare.
Rev. CONCORD . AVG . TR . P . XV . COS . III. Concordia seated to left, holding patera and resting left arm on figure of Spes. *Cohen*, III. 30.
199. Similar: bust draped and wearing cuirass.
This is a variety not mentioned by Cohen.
- 200—202. *Obv.* IMP . M . ANTONINVS AVG. Head to right, bare.
Rev. Similar: but legend ending TR . P . XVII . COS . III. *Cohen*, III. 37.
- 203—206. *Obv.* AVRELIVS CAESAR AVG . PII F. Head to right, bare.
Rev. COS . II. Emperor standing to left, holding branch and cornucopiæ. *Cohen*, III. 110.
207. *Obv.* M . ANTONINVS AVG . TR . P . XXIII. Head to right, laureate.
Rev. COS . III. Diana standing to left, holding arrow and bow. *Cohen*, III. 130.
208. *Obv.* M . ANTONINVS AVG . TR . P . XXVI. Head to right, laureate.
Rev. IMP . VI . COS . III. Aequitas standing to left, holding scales and cornucopiæ. *Cohen*, III. 257.
209. *Obv.* M . ANTONINVS AVG . GERM . SARM. Head to right, laureate.
Rev. PAX . AVG . — TR . P . XXXI . IMP . VIII . COS . III . P . P. Pax standing to left, bearing arms with torch, and holding cornucopiæ in left hand. *Cohen*, III. 440.
210. *Obv.* IMP . M . AVREL . ANTONINVS AVG. Head to right, laureate.
Rev. PROV . DEOR . TR . P . XV . COS . III. Providentia standing to left, holding globe and cornucopiæ. *Cohen*, III. 508.
211. Similar: bust to right draped, head bare. *Cohen*, III. 511
212. *Obv.* Similar: head bare to right.
Rev. Similar: but legend ending TR . P . XVI . COS . III. *Cohen*, III. 519.

213. *Obv.* Same as No. 209.
Rev. SECVRIT . PVB . TR . P . XXX . IMP . VIII . COS . III. Securitas seated to left, her right hand raised above her head. *Cohen*, III. 588.
214. *Obv.* AVRELIVS CAES . ANTON . AVG . PH . F. Head to right, bare.
Rev. TR . POT . X . COS . II. Aequitas standing to left, holding scales and sceptre. *Cohen*. III. 701.
215. Similar: but type of reverse, Soldier standing to left, holding parazonium and spear. *Cohen*, III. 703.
216. Similar: but reverse legend TR . P . XI . COS . II. *Cohen*, III. 721.
217. *Obv.* M . ANTONINVS AVG . ARM . PARTH . MAX. Head to right, laureate.
Rev. TR . P . XXI . IMP . IIII . COS . III. Providentia standing to left, holding staff and sceptre; at her feet, globe. *Cohen*, III. 881.
218. *Obv.* Same.
Rev. TR . P . XXI . IMP . IIII . COS . III. Aequitas standing to left, holding scales and cornucopiae. *Cohen*, III. 882.
219. *Obv.* M . ANTONINVS AVG . GERM . SARM. Head to right, laureate.
Rev. TR . P . XXIX . IMP . VIII . COS . III. Felicitas standing to left, holding caduceus and cornucopiae. *Cohen*, III. 920.
220. *Obv.* Same.
Rev. TR . P . XXX . IMP . VIII . COS . III. Roma standing to left, holding Victory and spear. *Cohen*, III. 935.

FAUSTINA JUNIOR, WIFE OF MARCUS AURELIUS.

221. *Obv.* FAVSTINA AVGVSTA. Bust of Faustina to right, draped.
Rev. AVGVSTI PH FIL. Concordia standing to left, holding patera and cornucopiae. *Cohen*, III. 21.
222. Similar: but type of reverse, Female figure standing, right hand raised and holding her dress with left. *Cohen*, III. 31.
223. *Obv.* Same.
Rev. DIANA LVCIF. Diana standing to left, holding torch with both hands. *Cohen*, III. 84.
224. *Obv.* Similar.
Rev. FECVND . AVGVSTAE. Fecunditas standing towards left, between two children; two others in her arms. *Cohen*, III. 95.
225. *Obv.* Same as No. 221.
Rev. HILARITAS. Hilaritas standing to left, holding palm and cornucopiae. *Cohen*, III. 110.
226. *Obv.* Same as on No. 221.
Rev. LAETITIA. Laetitia standing to right, holding sceptre and wreath. *Cohen*, III. 147.

- 227—228. *Obv.* Similar: bust diademed.
Rev. SAECVLI FELICIT. Commodus and the young Antoninus seated on throne. *Cohen*, III. 191.
229. *Obv.* Same as No. 221.
Rev. SALVS. Salus standing to left, holding sceptre and feeding serpent which rises from altar. *Cohen*, III. 197.
230. *Obv.* FAVSTINAE AVG. PII AVG. FIL. Bust to right, draped, hair wavy and bound with pearls.
Rev. VENVS. Venus standing to left, holding apple and rudder. *Cohen*, III. 266.

MARCUS AURELIUS AND LUCIUS VERUS.

231. *Obv.* ANTONINVS ET VERVS AVG. REST. Three standards; between which LEG. VI.
Rev. ANTONINVS AVGV. Galley to left; beneath IIIIVR. R. P. C.

LUCIUS VERUS, A.D. 161—169.

232. *Obv.* DIVVS VERVS. Head of Verus to right, bare.
Rev. CONSECRATIO. Eagle. *Cohen*, III. 55.
233. *Obv.* L. VERVS AVG. ARMENIACVS. Head of Verus to right, laureate.
Rev. TR. P. V. IMP. II. COS. II. Mars walking to left, carrying Victory and trophy.
Cf. Cohen, III. 265.
 This coin is only published in gold. There is a specimen in silver in the National Collection.
234. *Obv.* L. VERVS AVG. ARM. PARTH. MAX. Head to right, laureate.
Rev. TR. P. VII. IMP. III. COS. III. Aequitas standing to left, holding scales and cornucopiae. *Cohen*, III. 297.

LUCILLA, WIFE OF LUCIUS VERUS.

235. *Obv.* LVCILLAE AVG. ANTONINI AVG. F. Bust of Lucilla to right, draped.
Rev. CONCORDIA. Concordia seated to left, holding patera; left arm on figure of Spes.
Cohen, III. 6.
- 236—237. *Obv.* LVCILLA AVGVSTA. Bust to right, draped.
Rev. VENVS VICTRIX. Venus standing to left, holding Victory and shield. *Cohen*, III. 89.

COMMODUS, A.D. 180—192.

238. *Obv.* M. COMM. ANT. P. FEL. AVG. BRIT. P. P. Head of Commodus to right, laureate.
Rev. APOL. PAL. P. M. TR. P. XVI. COS. VI. Apollo standing towards right; plectrum in right hand, and with left placing lyre on altar. *Cohen*, III. 24.
239. *Obv.* M. COMM. ANT. P. FEL. AVG. BRIT. Head to right, laureate.
Rev. AVCT. PIET. P. M. TR. P. XII. IMP. VIII. COS. V. P. P. Pietas standing to left, sacrificing at altar; box in left hand. *Cohen*, III. 34.
240. *Obv.* Same as No. 238.
Rev. FIDEI. COM. [P. M. TR.] P. XVI. COS. VI. Fides standing to left, holding ears of corn and sceptre. *Cohen*, III. 127.

241. *Obv.* Same as No. 239.
Rev. HILAR . AVG . P . M . TR . P . XII . IMP . VIII . COS . V . P . P. Hilaritas standing to left, holding branch and palm. *Cohen*, III. 212.
242. *Obv.* Same as No. 239.
Rev. LIBERALITAS AVG . VII. Liberalitas standing to left, holding tessera and cornucopiæ. *Cohen*, III. 323.
243. *Obv.* L . AEL . AVREL . COMM . AVG . P . FEL. Head to right, laureate.
Rev. LIB . AVG . VIII . P . M . TR . P . XVII . COS . VII . P . P. Liberalitas standing to left, holding tessera and cornucopiæ. *Cohen*, III. 325.
244. *Obv.* Same as No. 238.
Rev. MIN . AVG . P . M . TR . P . XVI . COS . VI. Minerva running to right, looking back, holding branch in right hand and shield and spear in left. *Cohen*, III. 350.
245. *Obv.* Same as No. 239.
Rev. P . M . TR . P . XIII . IMP . VIII . COS . V . P . P. Genius standing to left, holding patera and ears of corn. *Cohen*, III. 531.
- 246—247. *Obv.* M . COMMODVS ANTONINVS . AVG. Head to right, laureate.
Rev. TR . P . VII . IMP . III . COS . III . P . P. Providentia standing to left, holding staff and sceptre; at her feet globe. *Cohen*, III. 830.
248. *Obv.* L . AVREL . COMMODVS AVG. Head to right, laureate.
Rev. TR . P . XXXI . IMP . VIII . COS . III . P . P. Emperor seated to left, holding branch and sceptre. *Unpublished*.
249. *Obv.* Same as No. 239.
Rev. VIRTVT . AVG . P . M . TR . P . XII . IMP . VIII . COS . V . P . P. Virtus standing to left, holding Victory, spear, and shield. *Cohen*, III. 966.
250. *Obv.* Same as No. 239.
Rev. VOT . SOL . DEC . P . M . TR . P . XII . IMP . VIII . COS . V . P . P. Emperor standing to left, sacrificing at altar. *Cohen*, III. 1001.

CRISPINA, WIFE OF COMMODUS.

251. *Obv.* CRISPINA AVGVSTA. Bust of Crispina to right, draped.
Rev. HILARITAS. Hilaritas standing to left, holding palm and cornucopiæ. *Cohen*, III. 18.

CLODIUS ALBINUS A.D. 193—197.

252. *Obv.* D . CLOD . SEPT . ALBIN . CAES. Head of Albinus to right, bare.
Rev. MINER . PACIF . COS . II. Minerva standing to left, holding branch in right hand and sceptre and shield in left. *Cohen*, III. 48.

SEPTIMIUS SEVERUS, A.D. 193—211.

253. *Obv.* IMP . CAE . L . SEP . SEV . PERT . AVG. Head of Severus to right, laureate.
Rev. VIC . AVG . TR . P . COS. Victory to right, holding wreath and palm. *Cohen*, IV. 682.

APPENDIX II.

Note on hoards of Roman Silver Coins found in Britain, with special reference to the Silchester Hoard. By F. HAVERFIELD, Esq., M.A., F.S.A.

Read March 28, 1895.

The coinage of the later Roman Republic was, in the main, a silver coinage of denarii issued either (1) at Rome by the officials of the mint, or (2) in the provinces by various generals, of whom for our present purpose the most noteworthy is Mark Antony. The older numismatic writers described the whole of this coinage as "consular," and the issues of the Roman mint as "family" coins, and the appellations, though inaccurate, have remained in use like "Samian ware," and other convenient phrases. The silver of the coinage is on the whole very pure, the alloy rarely exceeding three per cent., but the issues of Antony form an exception, containing fifteen per cent. of alloy. A considerable number of the denarii of this period, both Antony's and others, are plated, but this is a feature which is common to all periods of Roman coinage. So far as we can make out, a proportion of plated silver was regularly issued from the Roman mint, to ease the treasury and to serve somewhat the purpose of our modern paper-money.

Examples of this Republican coinage have been frequently found in Britain, as elsewhere in Europe, both in hoards and sporadically, and, as elsewhere, the finds fall into two distinct groups. The division between these groups coincides partly with the division between the issues of the Roman mint and those of Antony, but is determined actually by questions of date.

(A) The first group of finds comprises "contemporary deposits," coins lost or buried near to the time when they were issued. This means for Britain the coins imported previous to the Claudian conquest. It is well known that the Republican silver circulated outside the Roman dominions, and Tacitus, in a well-known passage, observes that it was gladly accepted in Germany a century after the Empire had been founded, the cause being the purity of the silver. It had currency also in Britain, where it supplemented the native silver coinage, and many examples have been found. As we should expect, these occur mostly in the southern counties, which were most open to Roman influences, and the are all, or nearly all, "family coins." As instances I may refer to the hoards of Ayott St. Lawrence in Hertfordshire, of Frome in Somersetshire, of Almondbury and of Lightcliffe, near Halifax, all of which were buried before or during the Claudian invasion. Here too I would place the "family" coins found at Boxmoor (Herts), where Briton and Roman successively inhabited the same spot. Here also I would, at least conjecturally, class the instances of family coins found sporadically in southern England at places which were not specially Roman sites, Newtown in the Isle of Wight, Waltham in

Hampshire, Prinstead in Sussex, Weston in Norfolk, Reigate in Surrey, and others. Here we are dealing with contemporary deposits, and we ought perhaps, historically, to classify these coins in Britain as pre-Roman. A somewhat different instance of a contemporary deposit was found in Swithin's Lane, London; it consisted of several hundred denarii, "family" coins, issues of Antony and of the Emperors till Claudius, and all plated. These coins belong to the "paper-money" class mentioned above, and may perhaps have been intended for the army of invasion in or soon after A.D. 43. This is the only instance known to me in which plated denarii have occurred in a hoard.

(B) The second group of finds differs from the first in two respects: (1) the deposits are not contemporary but survivals, the coins having been lost or buried two centuries after minting, and (2) they are usually legionary issues of Antony. They appear both in hoards and sporadically. The hoards are well illustrated by the Silchester example; they contain (1) a few republican coins, and (2) a fairly complete series from Nero or Vespasian till a point which varies between (roughly) A.D. 175 and 250. The sporadic finds occur on Roman sites, often in the north, at Ellenborough, *Aesica*, Chesters, York, Lancaster. Here we are plainly dealing with survivals; the explanation of their occurrence is in the main easy and certain.

The silver coinage of the early Empire, like that of the Republic, is generally good; debasement began with Nero, who reduced the weight and increased the alloy of the denarius. The debasement continued into the third century, and it has been calculated that, if a denarius of Augustus was worth ninepence, Nero's was worth eightpence, Hadrian's sixpence, and that of Severus under fourpence. As the debasement went on, the older and better coins were melted down, and Trajan actually "converted" a large part of the pre-Neronian issues, by calling them in and reissuing them with the alloy and weight of his own denarius. The Treasury, of course, gained the surplus silver. In the result pre-Neronian silver vanished, with two exceptions: (1) The heavily alloyed denarii of Antony were spared for a while, since they were not worth "converting"; it was not till Hadrian that the imperial denarius sunk below their level. (2) Many republican coins survived in Germany and elsewhere outside the Empire; the inhabitants of these lands preferred good coin, which they could easily distinguish from the debased imperial denarii of (say) Hadrian or Severus. Hence we can explain the characteristics of the hoards of denarii which were buried in the second half of the second century or the first half of the third century. These hoards are very numerous, both in Britain and on the continent, and those which, like the Silchester example, contain republican coins form only a variety in a large class. The feature of this class is the omission of early imperial silver and the commencement of a continuous series with Nero or Vespasian, and this feature harmonises exactly with the sketch of the silver currency which I have given. The coins of the Republic found a place in such hoards because they were either good silver: even if minted by Antony, they were now relatively valuable. They had a further value in that their types distinguished them absolutely from imperial issues, and we have a curious proof that this was recognised. A hoard was discovered in 1853 at the village of Tibod, in the Roman province of Dacia, which contained nearly 200 republican coins, many of them Antonian issues, and over 600 imperial denarii from Vespasian to A.D. 167. The coins were in two urns, and were so arranged that the republican were in one urn, the imperial

in the other. It is a fair inference that the owner of these coins drew a marked distinction between the republican issues of all sorts and the post-Neronian issues of the Empire.^a A similar feeling prevailed in other parts of the Empire, and we see that towards the end of the second century the legionary issues of Antony, which had escaped melting down through their badness, now found their way into hoards through their relative goodness.

It remains to say a word as to the date when the Silchester hoard was buried. The hoards of denarii found in Britain, which commence a continuous series with Nero or Vespasian, end either just before A.D. 170, or in the reign of Severus, or in the middle of the third century, when silver coining ceased. The larger number end just before or after A.D. 170, that is to say, they include M. Aurelius, Verus, and Lucilla; and it is possible that they were buried when troubles broke out in Britain about A.D. 184-6. At the same time, it must be remembered, as Mommsen has observed, that hoards of silver seem to include rather the oldest (that is, the best) than the newest coins in the burier's possession, and some of the hoards that end with Aurelius may conceivably have been buried in the struggle between Albinus and Severus (A.D. 194-197), which closely concerned Britain. The Silchester hoard ends with a coin dated A.D. 193, and as that coin is said to be nearly unused, the hoard may well have been buried during the struggle just mentioned.

I append three lists of (1) hoards of denarii found in Britain, which commence about Nero's reign but include issues of the Republic, (2) hoards of the same character which do not include republican issues, and (3) sporadic instances of republican denarii. All three lists have reference only to Britain, and even in that limited area are intended to be illustrative, not exhaustive.

^a Gooss, *Chronik der Archäologischen Funde Siebenbürgens* (Hermannstadt, 1876), p. 113; Mommsen and Blacas, *Histoire de la Monnaie Romaine*, iii. 51.

A.—HOARDS OF DENARII COMMENCING WITH NERO, BUT INCLUDING
REPUBLICAN COINS.

1. Beachamwell (Norfolk), in 1847, perhaps 50, certainly 37, pieces: A "consular medal of the Antonia family," and Vespasian to Commodus (*Norfolk Chronicle*, quoted in *Numismatic Chronicle*, x. (1843) 102; Mommsen, *Histoire de la Monnaie Romaine, traduite de l'allemand, par le Duc de Blacas*, iii. 54).
2. Castor, near Walton (Norfolk), in 1820, about 300 pieces, some of Antony and Vespasian to M. Aurelius. This hoard also contained bronze pieces (*Archaeologia*, xx. 578).
3. Linton (Cambridgeshire), in 1840, about 200 pieces: "Hadrian, Severus, Nerva Macrinus [? Trajanus], and a few legionary" (*Numismatic Chronicle*, xvi. (1854) 22).
4. March (Cambridgeshire), in 1730, a large hoard; 100 examined included a legionary coin of Antony and Vespasian to Pius. (Gale's Papers in Nichols's *Bibliotheca Topographica Britannica*, iii. 163.)
5. Leigh Down, near Bristol, in 1817, 500 or 1,000 pieces. A list of 240 is given by Seyer (*Memoirs Historical and Topographical of Bristol, &c.*, i. 164-7). The imperial coins range from Nero to Salonina; a fourth-century coin is mentioned also, perhaps by error. Ten republican coins are noted, one of the gens Appuleia (*Babelon*, i. 208), one of the Cordia (*Ib.*, i. 383, No. 1), four seem to be Antony's, and four are obliterated.
6. Wroxeter, 402 pieces, including one of gens Porcia and some of Severus (Wright, *Uriconium*, 332-408).
7. Cilhaul, near Trefeglwys (Montgomeryshire), about 1835, over 200 pieces secured by the tenant of the farm, who gave all but 10 gradually away; the 10 included Antony and Vespasian to Aurelius (*Montgomeryshire Collections*, iii. (1870) 417; xii. 23).
8. Near Harlech, in 1848, Republic (gens Naevia) and Empire?
9. Bentley Ings, near Doncaster, about 1865, legionary coins of Antony, some Augustus (?), and Nero to M. Aurelius (*Numismatic Chronicle*, v. (1865) 371; Mommsen-Blacas, iii. 53).
10. Lombard's Green (Derbyshire), about 1768, 80 pieces: Coins of "the Triumvirate" and Nero to M. Aurelius (Watkin, in *Journal of the Derbyshire Archaeological Society*, viii. 204).
11. Near Sheffield, in 1861, about 100 pieces: Coins of Antony and Nero to M. Aurelius (*Archaeological Journal*, xviii. (1861) 71.)
12. Near Cliviger (Lancs.), in 1695, "Consular"—gens Cassia and Valeria—and imperial (Watkin, *Roman Lancashire*, 232; compare *Archaeologia*, vii. 414).
13. Thorngrifton, Barcombe Hill, near Housesteads, in 1837, 3 gold and 60 silver pieces: The silver included 9 family coins (Aquillia, Coelia, Cordia, Furia (?), Livineia, Iulia (*Babelon*, ii., No. 10), Marcia, Plautia (*Ib.*, ii., No. 13), and Nero to Hadrian (Bruce, *The Roman Wall* (3rd ed.), 419-423).

B.—HOARDS OF DENARII COMMENCING ABOUT NERO, NOT INCLUDING
REPUBLICAN COINS.

London (Jewin Street)	68. Galba to Faustina the Elder	<i>Journal of the British Archaeological Association</i> , ii. 172; <i>Numismatic Chronicle</i> , 1st Series, ix. 85.
Colchester	32. Hadrian to Severus Alexander	<i>Numismatic Chronicle</i> , 3rd Series, x. (1890) 262.
Benacre (Suffolk)	920. Nero to Aurelius	<i>Gentleman's Magazine</i> , 1786, i. 472; ii. 538, 581; Alfred Suckling, <i>History and Antiquities of Suffolk</i> , ii. 127.
Hinxworth (Herts.), Cashio	500. Nero to Aurelius	J. E. Cussans, <i>History of Hertfordshire</i> , iii. (2) 316.
Horseheath (Cambs.)	Many. Nero to Verus	C. C. Babington, <i>Ancient Cambridgeshire</i> , 35.
Knapwell „	„ Vespasian to Verus	<i>Numismatic Chronicle</i> , 1st Series, i. (1841) 64.
Stoneham	„ Vespasian to Severus (? Verus)	<i>Ibid.</i> , vii. 193; <i>Gentleman's Magazine</i> (1844), 526.
Feltwell (Norfolk)	300. Early middle period	<i>Journal of the British Archaeological Association</i> , xxxvi. 103.
Melton „	? Titus to Aurelius	G. E. Fox, in <i>Archaeological Journal</i> . xlv. 362.
Mansfield (Notts.)	300—400. Vespasian—Geta	<i>Journal of the British Archaeological Association</i> , v. 160.
Naseby	38. Vespasian to Aurelius	<i>Archaeological Journal</i> , xxxii. 112.
Alfreton (Derbyshire)	500 or 1,500. Vespasian to Severus, perhaps to Gordian	<i>Journal of the Derbyshire Archaeological Society</i> , viii. 196, 219.
Boverton (S. Wales)	40. Vespasian to Faustina	
Bryn Gwydiaw (N. Wales)	46. Vespasian to Pius (one Claudius).	
Eccleston (Chester)	43. Vespasian to A.D. 168	<i>Journal of the Chester Archaeological and Historic Society</i> , N.S., i. 91.
Standish (Lancs.)	200. Domitian to Gordian	W. T. Watkin, <i>Roman Lancashire</i> , 239.
Fleetwood „	400. Vespasian to Caracalla	<i>Ibid.</i> , 238.
Torbock „	33. Vespasian to Aurelius (or Gordian)	<i>Ibid.</i> , 237.
Kinross (N.B.)	600. Nero to Severus	C. R. Smith, <i>Retrospections, Social and Archaeological</i> , ii. 180.

C.—SPORADIC FINDS OF REPUBLICAN COINS.

Richborough	{ Antony (plated) . Plactoria Consular (lead)	{ C. R. Smith, <i>The Antiquities of Richborough, Reculver, and Lymne</i> , 122.
Reculver	Antony	Hasted, <i>History of Kent</i> , iii. 634, note; Smith, 212.
Springhead	?	<i>Journal of the British Archaeological Association</i> , i. 155.
Upchurch	?	<i>Ibid.</i> xxi. 231.
Prinstead (Sussex)	Cornelia	<i>Archaeological Journal</i> , xiii. 96.
Newtown (Isle of Wight)	Rubria	<i>Journal of the British Archaeological Association</i> , vi. 439.
Waltham (Hants)	Scribonia	<i>Archaeological Journal</i> , vi. 193.
Reigate	Carisia	<i>Ibid.</i> xiii. 276.
London	Various	C. R. Smith, <i>Illustrations of Roman London</i> , 154.
Boxmoor	Family	<i>Archaeologia</i> , xxxiv. 397; xxxv. 66.
Northwold (Hants)	Lucretia	<i>Archaeological Journal</i> , xiii. 296 (in a Saxon ornament).
Weston (Norfolk)	{ Cassia Antonia Claudia	{ <i>Norfolk Archaeology</i> , iv. 357 (with British coins). Evans, <i>Ancient British Coins</i> , 361.
Stubbington (Hunts)	?	<i>Journal of the British Archaeological Association</i> , ii. 192.
Leicester	?	<i>Gentleman's Magazine</i> , 1797, i. 203.
Wroxeter	{ Porcia Antony	{ Thomas Wright, <i>Uriconium</i> , 407.
Chester	Antony	W. T. Watkin, <i>Roman Cheshire</i> , 227, 237.
Northwich	Sicinia	<i>Ibid.</i> 257.
Wilderspool	Antony and Acilia	<i>Ibid.</i> 271.
Lancaster	{ Antony Postumia	{ W. T. Watkin, <i>Roman Lancashire</i> , 189.
York	Antony	<i>Gentleman's Magazine</i> , 1767, 49; 1770, 155.
Maryport (Cumb.)	Antony	J. C. Bruce, <i>Roman Wall</i> , 3rd ed. 370. Another specimen found lately.
Greatchesters (<i>Aesica</i>)	Antony	Found July, 1894.
Chesters (Cilurnum)	Cassia	<i>Archaeological Journal</i> , xix. (1862) 363.
South Shields	Family, Antony	<i>Archaeologia Aeliana</i> , x. (1885) 275.

