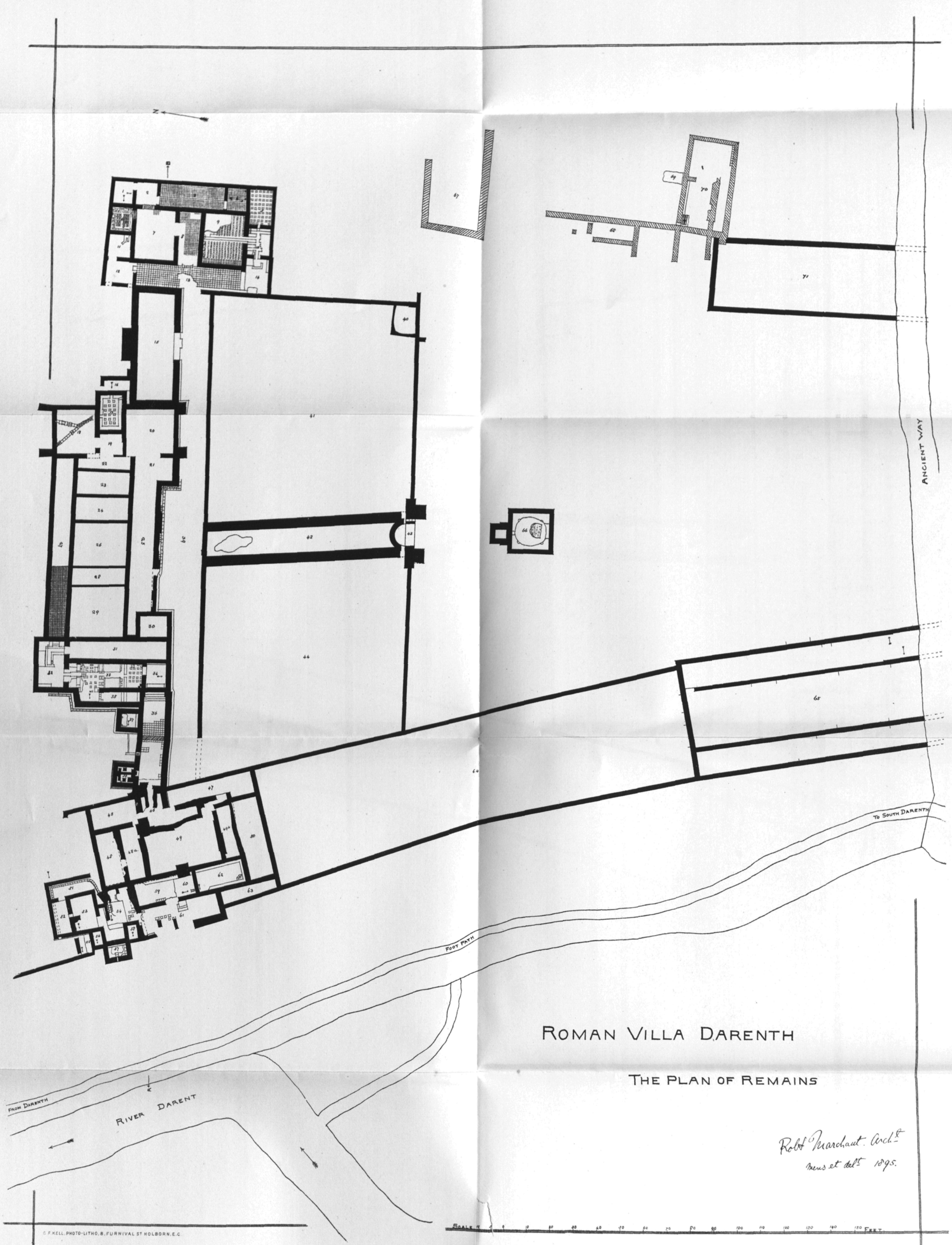




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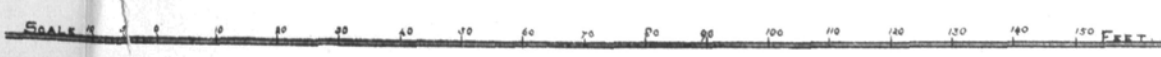
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ROMAN VILLA DARENTH

THE PLAN OF REMAINS

*Robt Marchant, Arch^t
mens et del^t 1895.*



C. F. KELL PHOTO-LITHO, 8, FURNIVAL ST HOLBORN, E.C.

THE ROMAN VILLA AT DARENTH.

BY GEORGE PAYNE, F.L.S., F.S.A.

THE little hamlet of Darenth has become famous for all time as containing within the boundary of the parish the largest Roman villa hitherto uncovered in this country. It had long been known to various persons residing in the locality that foundations of buildings existed in South Field on Court Lodge Farm, and it was suspected that they were of Roman date from the nature of the débris which had been torn up by the plough and scattered over the surface of the land for centuries. The late Rev. R. P. Coates, who was formerly Vicar of Darenth, (I am informed by his widow,) caused an excavation to be made in South Field, when walls and a tessellated pavement were found. Beyond this nothing further was done, and the discovery does not appear to have been recorded.

In the autumn of 1894 Mr. E. Arnott Clowes of Sutton Place was fortunately seized with a desire to make a thorough exploration of the site, as a result of which he and his friend Mr. T. B. Marchant of Broad Oak, Sutton-at-Hone, set men to work in opening a few trial trenches. After what has been said it is almost needless to remark that masonry was met with in all directions. Sir Wollaston Franks, K.C.B., was communicated with, and he very kindly recommended that the writer should be invited to conduct future researches.

Before proceeding to relate what subsequently transpired it will be convenient here to refer to some important matters connected with the locality under consideration.

. According to Hasted (8vo, ii., 367) Darenth is variously written Darent, Darente, Deorwent, and an earlier authority (Leland) calls it Dorquent. In Domesday it is spelt Tarent.

The first syllable is obviously derived from the Celtic *dwr* (Welsh *dwr*), *der*, *ter*, which was transformed into *duro* by the Romans, all meaning water. The second syllable is probably from the Celtic *gwent*, which denotes an open country, a word Latinized into *venta* by the Romans.

From these derivations it is not difficult to understand how the name became changed from *Duroventa* to *Deorwent* and finally to *Darenth*. The local people invariably pronounce it *Darn*, shewing how place-names become corrupted in the course of centuries.

Having traced the name of *Darenth* to a Celtic origin we should expect to find in the locality some vestiges of its pre-Roman settlers.

In *Darenth Wood*, towards the north-east, remains of strongholds exist, and a little beyond but in a more easterly direction earthworks may be detected in the woods about *Greenstreet Green*, while still further afield many similar evidences of occupation are to be met with, which must all be regarded as intimately associated with the early history of the district in question.

As far as the Romano-British period is concerned the great villa would alone be sufficient proof that the Roman colonists occupied the lands about *Darenth*, but other discoveries must be enumerated in order that each one may shed light on the other and thus render the whole more intelligible. The neighbouring town of *Dartford* has yielded a goodly number of Roman remains, and the hill at its eastern end is the site of an important cemetery which furnished a fine stone sarcophagus (now in *Dartford Church*), glass vessels, and other antiquities, indicating the rank and wealth of those who were interred there.

Between *Darenth* and *Dartford*, on either side of the public footpath opposite the *Powder Works* of Messrs. *Pigou and Co.*, foundations of Roman buildings have recently been exposed to view, and they may be traced during dry seasons in the corn over a wide area. We have every reason for hoping that Messrs. *Pigou* will prosecute further researches here at no very distant date. On the other side of *Darenth*, at *Farningham Wood*, towards the top of the hill and close

to Farningham Folly, the late Rev. R. P. Coates in company with the late Mr. C. Roach Smith uncovered the remains of a Roman building of mean description. (See *Gentleman's Magazine Library*, vol. i., part i., 146.) Close by, on the estate called "Franks," when a sewer was laid from the ancient mansion, a Roman fibula and pottery were discovered. About Farningham several coins have been dug or ploughed up by workmen, some of which were kindly presented to me by Mr. Thomas Aldworth; they are of large brass, and include two of Alexander Severus, and one each of Claudius, Domitian, Trajan, Commodus, Carausius, Constantine, and Constantius.

While I was at work at the villa my attention was called by Mr. Percy Hassell of the Clock House, Greenstreet Green, to a field on his property to the north of the Green where at one spot the plough continually turns up fragments of Roman tile and burnt earth. We visited the place together and I was enabled at once to pronounce that it was the site of a Roman building.

If all these discoveries are taken into consideration it will be seen how materially they bear upon the history of the Darenth villa which occupies the centre of the group, and it must always be borne in mind that such things augur well for the future, necessitating constant intercourse between the archæologist, landlord, tenant, and the labourer, to ensure success in gathering up the threads of evidence which when drawn together enable us to weave history from them.

We must now proceed to treat of the villa. Allusion has already been made to the preliminary steps taken by Mr. Clowes and Mr. Marchant for the excavation of the site, this was followed by the former arranging with the Ecclesiastical Commissioners, the owners of the property, and Mr. Burtenshaw, the tenant, to hire for a time the area of land which the foundations might be found to cover. At this juncture Mrs. Rolls Hoare, the mother of Mrs. Clowes, very generously came forward and advanced a hundred pounds to enable the excavations to be carried out. The work commenced in earnest in November 1894, proceeding, in spite of the extraordinary severity of the winter, almost

without intermission until June 1895, resulting in the discovery of a villa which, together with its court-yards and outbuildings, spread over a space of 370 feet from east to west and 414 feet from north to south. These measurements do not represent the full extent of this enormous establishment, as it has been ascertained by probing that the outbuildings are prolonged for a considerable distance towards the south in an adjoining property, which it is hoped the owner will allow to be excavated.

On referring to the Plan it will be seen that the house and its various offices extend without a break from east to west, facing the south. Along the entire front is a corridor 12 ft. 3 in. wide, in front of which are two court-yards with a large building between them. Beyond the court-yards occur two ranges of outbuildings opposite each other, both within view of the house.

It will be convenient to divide the villa into five sections, thus :—

- A. The eastern block containing the heated apartments.
- B. The long chamber with massive walls.
- C. The central block with a corridor back and front.
- D. The baths and rooms belonging thereto.
- E. The western block consisting of workshops and water-tanks.

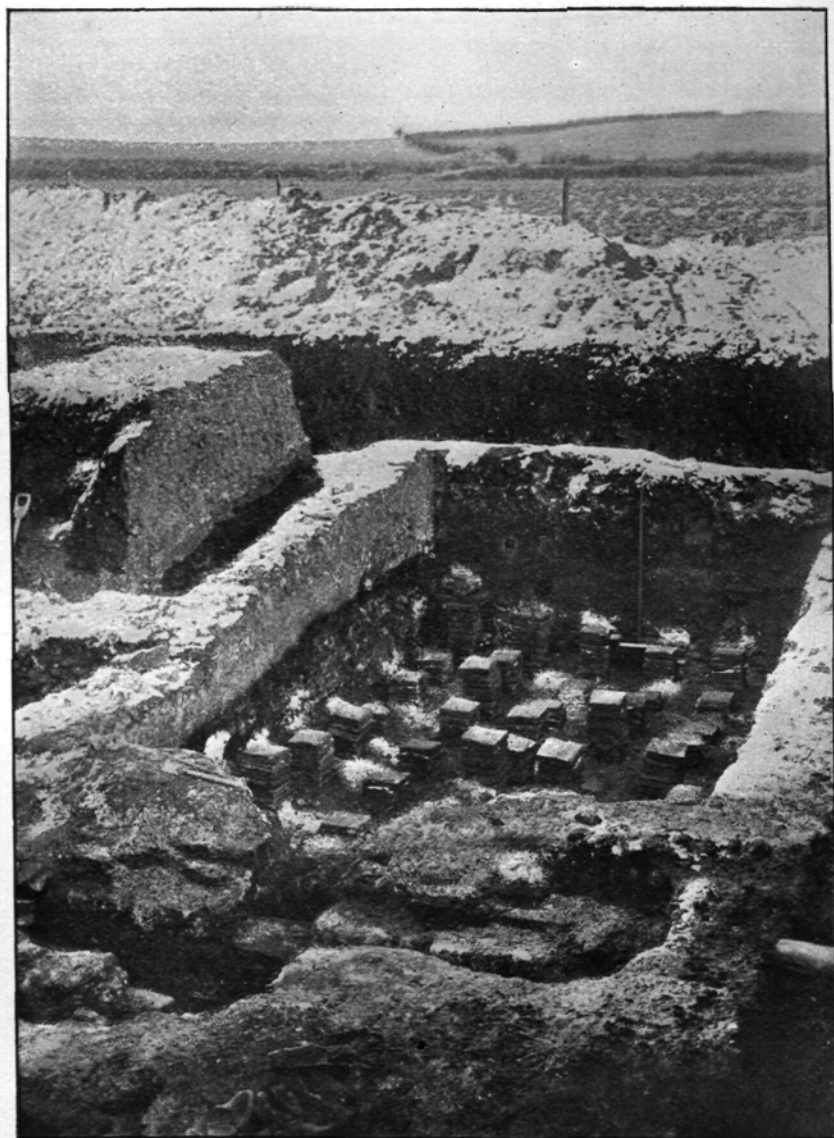
We now proceed to describe the sections according to the above classification, taking each room in order as numbered on the Plan.

SECTION A.

1. Stokehole of hypocaust under room No. 6. It is not square, as the north wall measures 7 ft. 9 in., the south 9 ft. 10 in., and the east and west 8 ft. 10 in. The doorway into it is 3 ft. 8 in. in width. The position of the archway leading to the hypocaust is indicated by an arrow. The round-headed opening built with tiles is 16 inches wide and 2 ft. in height.

2. A chamber, 10 ft. by 9 ft. 2 in., without floor, with entrance through south wall. An original doorway from No. 7, in the west wall, had been filled in with tiles laid in herring-bone courses. In the east wall were two flue tiles, one above the other.

PLATE A.



3. A long room, 38 ft. 2 in. by 10 ft., paved throughout with tiles. Upon the east and south walls portions of plaster remained, decorated with fresco painting. In the west wall were four flue tiles at intervals, and there were two placed one above another in both the north and east walls. The entrance to this room was from No. 2, the opening being 4 ft. 3 in. wide.

4. A small chamber, 10 ft. 3 in. by 8 ft., entered from No. 3, with two flue tiles above each other in the east wall. This room was paved with tiles and the walls painted.

On examination of the smoke flues in Nos. 2, 3, and 4, it was ascertained that there was no communication with them below the existing floor line. It was clearly seen that at some period an alteration had been made here, as the hypocaust which originally existed under these three rooms had been entirely filled in and a new floor laid.

At the time we were at work it was not possible to ascertain the exact position of the archway which led into the old hypocaust, but after the frost had split the plaster from the walls the crown of the arch was disclosed at the base of the south wall of the stokehole (No. 1), as indicated by the arrow, proving that this stokehole served for two hypocausts. When the filling in took place, to which we have referred, the stokehole seems to have been filled up at the same time, level with the tiled floor beyond, thus effectually rendering useless the hypocaust of No. 6.

5. A room, 15 ft. 9 in. by 10 ft. It possessed a red tessellated floor which had collapsed into the hypocaust. The floor was suspended on fifty-two columns or pilæ of tiles more or less perfect, as will be seen by referring to Plate A. The pilæ were built of tiles 8 inches square, and where intact measured 17 inches in height. They were placed about 10 inches apart. Upon each column was a tile 11 inches square, and upon these were laid tiles 15 inches in length by 11 inches in width, which reached from column to column; thus when complete the hypocaust was covered in with a layer of tiles. Above this came a bed of fine cement, 5 inches thick, liberally mixed with pounded tile, then a further layer, 1½ in. thick, of still finer cement, with a greater proportion of pounded tile, in which were embedded red tesserae $\frac{3}{8}$ of an inch thick and an inch square. The total thickness of this floor, including the tiles upon which it lay, was 9 inches. In both the south and east walls of the room two smoke flues remain, there being a pair of flue tiles in each case. The apartment was adorned with fresco painting, as several fragments of coloured plaster were found when clearing it out. The entrance to it must have been through the west wall, which was

demolished to the floor line together with the archway of the hypocaust. Of the latter something more will be said when treating of No. 9.

6. Room, 10 ft. 4 in. by 9 ft. 5 in. (Plate B). In consequence of its perfect state this apartment is the most instructive in the villa. The walls were painted, and the floor was paved with white concrete composed of lime, sand, and small pebbles, with a half-round skirting of cement mixed with pounded tile. As there was a hypocaust under this chamber the floor was cut out in order to shew the construction. It was found to be suspended on thirty-four flue tiles which had been filled with clay, pieces of chalk, and tile to give them greater stability. These flue tiles were 16 in. in height, their orifices being $4\frac{3}{4}$ in. by $2\frac{1}{2}$ in. Each was placed on a tile 11 in. by 12 in., bedded on a prepared base. Each flue tile was capped with a tile 11 in. by 12 in., upon which rested, from column to column, tiles 1 ft. 5 in. by $12\frac{1}{2}$ in. Then came a layer of concrete 3 in. thick, giving a total thickness to the floor of 5 in.

The natural chalk forming the walls of the hypocaust had been cut out a few inches from the bottom to admit of the insertion of 2, 3, and 4 courses of paving tiles which formed the support for the margin of the floor. In the north wall of the room, near the corners, were two drain pipes, 19 in. in length and $2\frac{1}{2}$ in. in diameter, serving the purpose of smoke flues; there were two in the south wall also, one on the west side of the doorway, the other in the west corner. At the bases of three of the flue pipes there remained *in situ* the short cylindrical pipes, 4 in. in diameter, which conducted the fumes from the furnace into them.

In the north wall was the space for the window, 3 ft. 3 in. from the floor, the splayed cill being 3 ft. wide and quite perfect. The doorway of the room, as in No. 2, had been filled up with two courses of short flue tiles laid horizontally, with paving tiles set in herring-bone courses above. When the entrances of these rooms were blocked the door-posts had evidently not been withdrawn, hence their decay explains the gap, 4 in. wide, on either side of the closed doorway, which is clearly seen in the engraving. The block in the entrance was 2 ft. 11 in. high by 2 ft. 9 in. wide.

In early days, after the villa became a ruin, this chamber appeared to have been used as a shelter by the wayfarer. On the floor was a circular burnt patch where fires had been continually ignited, so often indeed that a hole was burnt completely through the hard concrete. Below this hole the writer found potsherds, bones, and the skull of a dog. When clearing out the hypocaust we

PLATE B.



PLATE C.

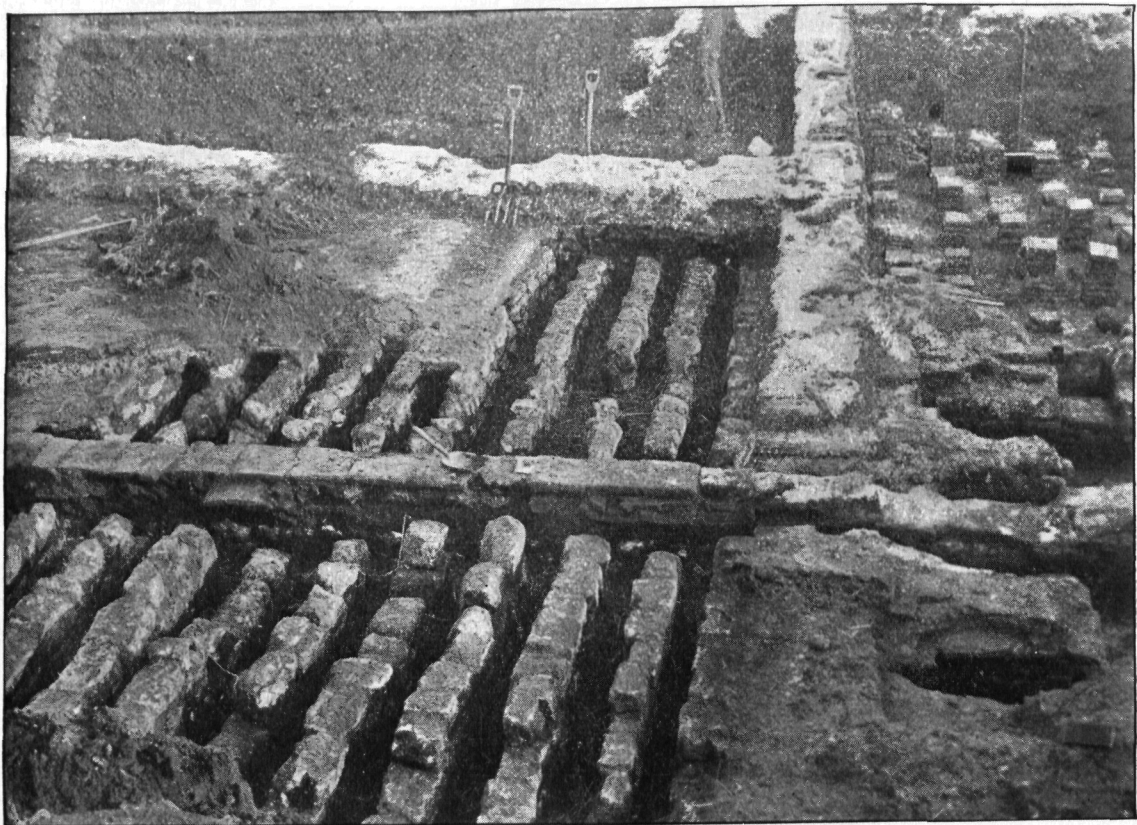


PLATE D.



found two burnt coins, a neatly made bone stopper suitable for a bottle, and a leaden weight with a piece of iron through the ring.

7. Adjoining No. 6, to the south, was a room 22 ft. 4 in. by 17 ft. 2 in., paved with white concrete. Upon the white concrete floor were several flue tiles, giving one the impression that the room had been warmed by means of a flue laid round the floor. If so the hot-air supply came from the adjoining hypocaust (No. 6), or that destroyed under Nos. 2, 3, and 4. These small flue tiles measured outside $8\frac{1}{2}$ in. by $5\frac{1}{2}$ in. and $5\frac{1}{4}$ in. deep. The entrance to this chamber was in the south wall.

8. A tiled passage, 9 ft. 6 in. wide by 22 ft. 4 in. long, dividing Nos. 7 and 9. At the west end of it was a step descending to No. 13 passage.

9. Room, 21 ft. 7 in. by 17 ft. 6 in., paved with red tesserae set on a bed of concrete laid upon tiles. This floor, 8 in. thick, was suspended on twenty-eight rows of chalk blocks, each row being 18 in. high and about 6 in. apart. On referring to Plate C it will be seen that there is a low wall, built with tiles, which divides the rows into two equal portions. Another view is given (Plate D) of this hypocaust looking north, shewing the space between the rows and wall for the passage of hot-air from the furnace. On the extreme western side of the hypocaust it will be observed there is also a space between the wall and the chalk rows. This was apparently filled with pilæ of tiles, as the bottom tile of a double row of columns remained. For the purpose of exposing as much as possible of the construction of this interesting hypocaust the greater part of the floor above it, which was in a very dilapidated state, was removed, leaving only the more perfect portion. The walls of the apartment having been razed to the floor line it was not clear to what extent the hypocaust had been fitted with smoke flues. One existed in the east wall, and there were others probably in the west wall.

10. The furnace of No. 9. Reference to the Plan will shew that the fire kindled in it discharged the heat into the hypocaust at right angles on either side of the central wall between the chalk rows. This peculiar arrangement was possibly adopted to prevent both fire and flame coming into contact with the chalk blocks in the hypocaust, which would have succumbed to their action. At the opening shewn in the west wall of the furnace a portion of the tiled archway of the stokehole remained. It will be noted on the Plan that the passage from the stokehole communicates in a direct line with the hypocaust of No. 5, indicating that that chamber was also heated by the same fire as No. 9.

The furnace we have described was really a hypocaust itself, as it was partitioned off from north to south with low walls 12 in. apart, very roughly built with tiles, the partitions being divided in the centre by the passage leading from the stokehole alluded to above. Over all was a thick floor constructed with layers of roof tiles embedded in concrete. No. 10 may therefore be regarded as a chamber through which the members of the household passed from No. 9 to No. 5.

11. A mean apartment, possibly a kitchen, without pavement, the east side of it measured 9 ft. 7 in., the west 10 ft. 2 in., the north and south sides 10 ft. In the west wall was an entrance 4 ft. wide. Against the east wall was a rude kind of fire-place constructed with two tile walls 8 in. apart and 2 ft. high. The space between was filled with wood-ash, shewing that fire had been kindled in it. On the north side of it a semi-circular hole, 3 ft. in diameter, had been carefully cut out to a depth of 2 ft. in the chalk bottom; in it was found a circular bronze enamelled brooch, a bone pin, and a green glass bugle bead. This hole may have been originally lined with lead, and used for a cistern.

12. An unimportant room, 12 ft. by 10 ft., entered from the tiled passage (No. 13). The west wall is imperfect, but there was evidently a doorway in it leading to the outside of the house.

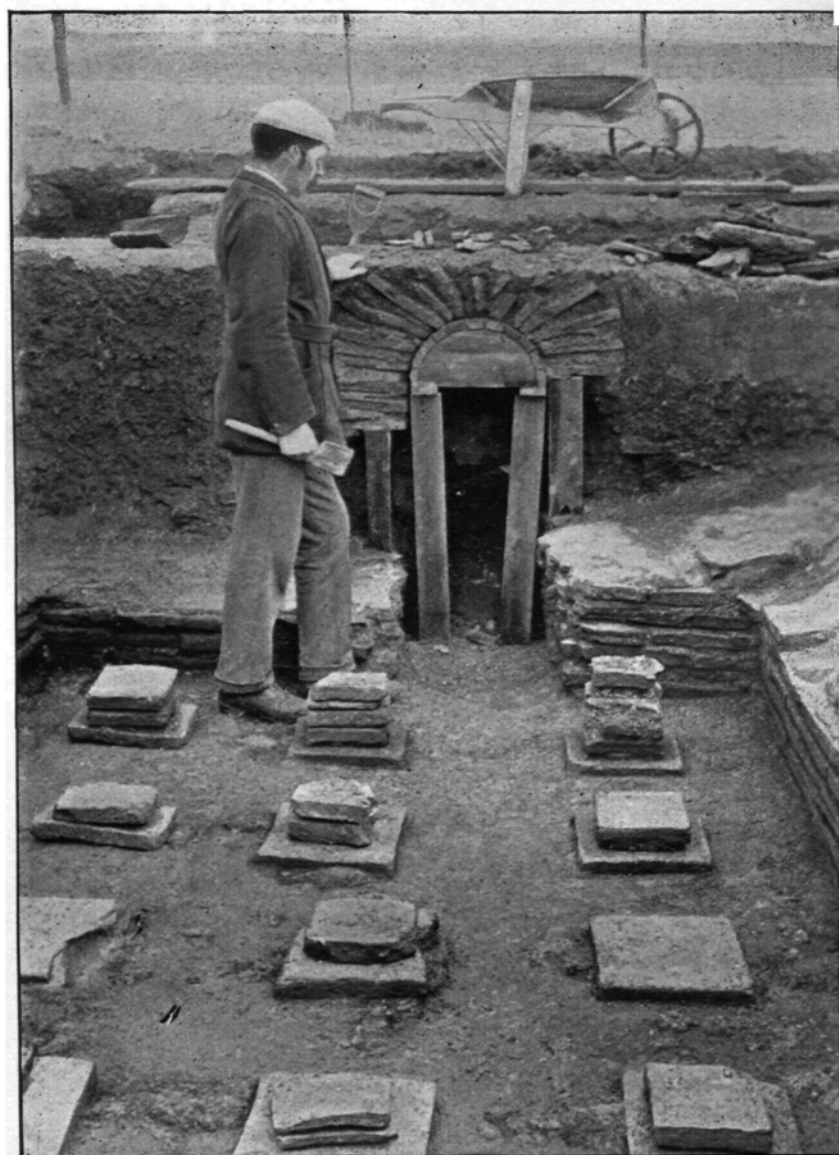
13. A corridor, 46 ft. 10 in. by 10 ft., paved with tiles. Half the west side is bounded by the wall of the eastern court-yard; between the wall and the pavement may be seen on the Plan a narrow gutter, 20 ft. long, 1 ft. wide, and 1 ft. deep, which leads into a cistern, 4 ft. by 2 ft., cut in the chalk floor of the stokehole (No. 14) to a depth of 1 ft. Whether the gutter and cistern had been originally lined could not be ascertained. In the latter a portion of a mill-stone was found.

Along the corridor we discovered two leaden bowls and a large iron knife.

It will be seen by the Plan that the main approach to Section A was by the great corridor in front of the house.

14. The stokehole to No. 10. The north side of this chamber was so mutilated that it is difficult to determine its relation to the corridor (No. 13), but we are of opinion that the south wall of No. 9 extended to that of the court-yard, thus dividing the corridor from the stokehole, with simply an opening in it for the gutter before mentioned to pass under, hence the entrance to the stokehole would have been through the south wall from the outside. In this chamber we found a bronze chain, fragments of glass, a bronze bangle, and

PLATE E.



iron articles, including a knife, a piece of iron looped at each end, and portions of what appeared to be the suspending irons of a bucket or cooking pot.

Before concluding Section A it must be stated that the outer wall of the block, and some of the inner walls, averaged 4 ft. in height.

SECTION B.

15. An apartment of large proportions, the north wall being 47 ft. 6 in. long, the south 48 ft. 8 in. by 16 ft. 1 in. wide; all four measuring 3 ft. 8 in. in height and 2 ft. 11 in. in thickness. Against the centre of the north wall was a buttress, 14 ft. 10 in. wide and 4 ft. 10 in. thick. There was also a buttress, 6 ft. wide and 3 ft. thick, outside the south-west corner, at the junction of the south wall with that of No. 20. The floor of the room was white concrete, and over its surface round charred places were visible where camp fires had been ignited by ancient vagrants after the villa fell into decay. The interior walls had been elaborately decorated with fresco painting, a portion of which was most kindly copied by my friend and colleague Mr. George E. Fox, F.S.A. The plaster upon the walls was 2 in. thick and of very fine quality. The room was entered through the south wall from the great corridor, and as far as could be ascertained the doorway was about 4 ft. 9 in. wide.

SECTION C.

16. The stokehole of No. 17. East wall 11 ft. 5 in. long, return wall to the north 2 ft. 6 in., entrance 2 ft. 4 in. wide. The archway of the hypocaust was entirely built with tiles, its position in the east wall of No. 17 being indicated by an arrow in the Plan. Height to crown of arch 3 ft. 11 in., width 1 ft. 5½ in. The size of the opening was reduced at some time by the insertion of several courses of tiles in the head of the arch, thus reducing the height of it to 1 ft. 11½ in. Upon the floor of the stokehole was found a piece of enamelled bronze which Mr. C. H. Read, F.S.A., suggests was probably the inlaid decoration of some piece of furniture.

17. Room with hypocaust beneath (Plate E). East wall 9 ft. 3 in., west 9 ft. 9 in. The floor of this chamber had apparently been removed together with the pilæ on which it was suspended. There were eighteen of the latter as shewn by the 11-inch square base tiles remaining *in situ*; upon some of these were two or three 8-inch square tiles of the pilæ. The walls of the hypocaust were faced

interiorally with nine courses of tiles to a height of 18 in., thus forming a ledge for the tiles to rest upon that were laid across from the pilæ. Adhering to the ledge was a portion of the floor of the room, 6 in. thick, composed of a bed of rough concrete 6 in. thick, upon which was an additional layer of red cement 4 in. thick, giving, with the tiled floor on which it originally laid, a total thickness of 12 in. In the walls above were the smoke flues, four in both the north and south walls, and one in the west wall, the orifices of the flue tiles being $3\frac{1}{2}$ in. by 5 in. In the north wall of the hypocaust was an opening 10 in. wide and 1 ft. high, neatly constructed with tiles laid in courses (Plate F). This was for the admission of hot air from the furnace to the adjoining chamber.

18. Room, 19 ft. 3 in. by 16 ft. 3 in., the entrance in the south wall being 4 ft. 3 in. wide. The floor of the apartment was covered with white concrete composed of lime and small pebbles, with a half-round moulding of red cement round the edge. The walls were adorned with fresco painting. On referring to Plate F the method of heating this chamber from the hypocaust of No. 17 will be seen. On cutting out a portion of the concrete floor to a depth of $4\frac{1}{2}$ in. a layer of large tiles was disclosed reaching across the room in the form of the letter Y. A few of these were removed revealing a channel 9 in. wide, walled on each side with flints firmly set in mortar to a height of 8 in., the bottom of the channel being the natural soil. Upon the top of the little flint walls, tiles 8 in. square were laid overlapping inwardly 2 in.; over these came the large tiles, their undersides being blackened with smoke, then the layer of concrete. In the north wall of this chamber were two imbrex roof tiles serving as smoke flues, which communicated below the floor with the two arms of the Y channel. From this room we obtained a Roman spear-head 10 in. long, and a turning tool 13 in. long with a gouge-shaped tip, both of iron. The antiquity of the latter is doubtful.

19. Room, 9 ft. 3 in. by 9 ft. 6 in., with an entrance into No. 18 4 ft. 3 in. wide. The west wall was much broken away, and it is therefore almost impossible to say how it related to No. 22, but there was probably an entrance into it from that room. The floor of the chamber was of white concrete with a tile embedded here and there.

20, 21. Appeared to have formed the head of the inner corridor (No. 25). If No. 20 was an apartment the short wall seen in the Plan, opposite an external buttress in the south wall, must have continued to the south-west angle of No. 19, with perhaps a doorway in

PLATE F.



it. In the north-east corner of No. 20 a small portion of red tessellated pavement remained.

We have now to describe a series of summer apartments with a corridor back and front. The walls of this block were so low that none of the entrances to the rooms were visible.

22. Room, 22 ft. 6 in. by 5 ft. 9 in., paved with white concrete. Portion of a coping-stone of sandstone found here.

23. Room, 22 ft. 6 in. by 10 ft. 8 in., paved with white concrete. Other fragments of coping-stone found.

24. Room, 22 ft. 6 in. by 10 ft. 4 in., paved with white concrete.

26. Room, 22 ft. 6 in. by 19 ft. 8 in., paved with red tesserae.

28. Room or passage, 22 ft. 6 in. by 7 ft. 3 in.

29. Room, 22 ft. 6 in. by 21 ft. 11 in., paved with red tesserae.

The floor of No. 24 was 6 in. below the level of No. 23, and Nos. 26, 28, and 29, 1 foot lower than No. 24.

These six rooms had round the margin of the floors the same kind of moulded skirting of red cement that was present in some of the rooms in Section A, already described. Upon the floors of these six apartments we found numerous fragments of plaster decorated with fresco painting, the colours being as bright as when first laid on. All the pieces having patterns upon them were saved, and these Mrs. Payne faithfully copied in water-colours before the tints faded. Out of the fifty-five examples no two are alike. These will be described hereafter. Perhaps the most interesting feature of these rooms is that they were divided by plaster partitions, the bases of which remained set upon a foundation wall of flint level with the floor line. The plaster walls of each partition were 3 in. thick and 9½ in. apart, the intervening space having been apparently filled in with timber, as the impress of it could be distinctly seen in the mortar upon which the first slab was laid. On the inner sides of the plaster walls there was a coating of mortar a quarter of an inch thick, which could be easily detached with a knife, shewing that as the timbers were placed in position mortar was run in down the sides in order to fill up the crevice between the plaster and wood. This careful method of construction is a striking contrast to the flimsy lath and plaster partitions of the present day, which keep out neither cold nor sound.

The corridors on either side of these rooms will now be dealt with.

25. A corridor on the south side, 68 ft. 2 in. by 9 ft. 9 in. A portion of its pavement of red tesserae remained at the western end.

27. The corridor on the north side. This was evidently paved with tiles, as a large portion of the floor at the western end was in

its original state. Upon the tiles a quantity of bones of oxen were found. At the opposite end a mass of blackened earth was met with which yielded oyster shells, bronze tweezers, fragments of iron, bone pins, bronze bangles, a glass disc, a bronze handle terminating in the head of a lioness with eyes of some red glistening substance, a flat piece of bronze in the form of a bird's head, an iron hoe, and one of those curious objects that have been erroneously termed "*hippo-sandals*," of which more will be said later.

30. A room, 12 ft. 3 in. by 9 ft. 9 in. One half projects into corridor No. 25, the other half into the great corridor No. 39. The walls of this room had not been plastered, and there was no trace of a floor. It was excavated to the foundation of the walls and down to the natural soil in search of it. On the southern side of the chamber we met with quite a barrow load of red tesserae piled against the wall. The cubes had certainly never been set in a pavement, and a workman may possibly have sat in this room and fashioned them.

31. A corridor, 43 ft. 2 in. by 8 ft. 5 in., paved with white concrete. There was a break in the east wall suggesting the site of a doorstep up into No. 29.

SECTION D.

The area occupied by rooms Nos. 32, 33, and 35 underwent an entire alteration in Roman times. The whole was originally heated, but subsequently converted into cold rooms, the hypocausts under each having been filled in with earth, broken tile, flints and mortar rubbish to a depth of 3 ft. 8 in. Upon the top of this débris a new floor of white coarse concrete had been laid nearly level with the adjoining corridor (No. 31). The writer suspecting the presence of older work below decided to clear out the area to its base, which resulted in the exposure of the extensive hypocaust seen on Plate G.

32. The stokehole, 11 ft. 7 in. by 8 ft. 5 in. To the east of it is a hypocaust 12 ft. by 7 ft. 5 in., roughly built with low walls of tiles.

33. The great hypocaust. At the bottom of Plate G may be seen the passage, 2 ft. 1 in. wide, leading to it from the stokehole, the south end of which shews the springing tiles of the arch in position. The block of masonry on either side of the passage is simply the filling in with broken tiles set in clay of two recesses that were probably used as receptacles for charcoal for the supply of the furnace. To facilitate description the hypocaust may be divided into three compartments.

PLATE G.



(1) That next the stokehole arch is 10 ft. square, and contains twenty-two pilæ of tiles, some of the pilæ on the east side having been laid upon a slanting structure built with chalk. The west wall of this compartment was broken down, but as the pilæ on that side reached to the outer face of the wall, there was probably a passage here for hot air into No. 35.

(2) Compartment, 19 ft. 8 in. by 10 in., on either side was one of those curious slanting chalk structures, each 6 ft. 8 in. long, 3 ft. 8 in. wide, and 14 in. high at the junction with the wall.

(3) Compartment, 7 ft. by 10 ft., fitted with pilæ. In both corners of the south wall were smoke flues of imbrex tiles. In order to keep one of these flues in position, tiles were built up from the floor of the hypocaust to support it, sufficient space being left between them to enable the fumes to ascend.

On referring to Plate G the remains of a wall with a division in the centre 16 in. wide, for the passage of hot air, will be seen between compartments Nos. 2 and 3. The wall was of flint and tiles, and doubtless built to relieve the pilæ from the weight of the floor that was originally above. A similar precaution was taken between Nos. 1 and 2, where two rows of large tiles had been inserted. The length of the floor would have necessitated more substantial support than mere single columns of pilæ could have given.

The curious slanting ledges of chalk in the centre are a novel feature and difficult to explain. A practical manager of a cement factory, who saw them, suggested that they might possibly have influenced the draught through the hypocaust; a suggestion we are disposed to agree with.

It is almost needless to say that so extensive a hypocaust required great heat to keep it going. The appearance of the walls of the furnace fully proved this.

34. Room, 10 ft. 4 in. by 8 ft. 7 in., partially paved with red tesserae. When this chamber was cleared out the hollow sound of the western portion of the floor, which was paved with tiles, induced the writer to investigate the cause. On lifting the tiles and the bed of mortar on which they lay a quantity of tile rubbish was found underneath, which on being removed disclosed at a depth of 1 ft. 5 in. the floor of a room paved with red tesserae, the walls being coated with fine hard reddened plaster. Here was another of the many alterations to the villa. When the steps were made into the great bath (No. 36), this older room was destroyed, the wall dividing No. 34 from No. 36 passing over it. Having slightly digressed in order to

describe this alteration. we return to No. 34. In the south wall of the apartment, level with the floor, existed a drain pipe communicating with the gutter outside the house; the pipe was precisely the same as the modern one used in draining land. The entrance to the chamber was in the north wall.

35. This chamber, 26 ft. 7 in. by 5 ft. 5 in., seems to have been connected, as before observed, with the hypocaust (No. 33) adjoining, which is indicated on the Plan by the position of the pilæ at the point where the west wall terminates. Against the end of this wall a flue tile remained in its original vertical position. Upon the north wall the remains of three flue tiles were found which had been fixed to the face of it, at a height of 11 in. from the floor, and there were marks also where others had existed. Against the west wall nine tiles had been placed vertically, these and the walls at this end of the chamber bore evidence of having been subjected to the direct action of flames. Over the vertical tiles, at the spot indicated by an arrow in the Plan, a V-shaped opening had been cut through the wall, with an imbrex tile at the bottom serving for a gutter which discharged into an open drain outside. The floor of the chamber was partially paved with tiles. At the south-west angle a flue tile was inserted obliquely in the west wall, which conveyed the smoke to the outside of the house.

In the opposite wall, at the southern end, there was an oblong opening at the floor line 5 ft. wide and 2 ft. 3 in. high, which had been blocked up with rubbish when the general filling in of Nos. 32, 33, and 35 took place, as previously stated. On removing the loose material from the aperture the skeleton of a dog was discovered.

We have already seen that heat was transmitted into this chamber at the northern end from the hypocaust No. 33, and it seems reasonable to suppose that the aperture just mentioned was made for the purpose of admitting the hot air to the southern end also. In short there was a circulation of heat under all the apartments situate above Nos. 32, 33, and 35.

We wish it to be clearly understood that the opinions expressed with regard to these three chambers are given with reserve, as the dilapidated condition of the area they cover prevents any accurate conclusions being arrived at.

36. The great bath, 39ft. 6in. long, 9ft. 11 in. wide, and 4ft. deep. (Plate H.) The walls were built of flint with a lining of tiles laid in courses, faced with a thick coating of fine plaster mixed with pounded tile. There were four steps leading down into the bath, constructed with tiles and covered with plaster, the edges of the steps being

PLATE H.



rounded off, doubtless for the comfort and safety of the bathers. The floor of the bath was paved with tiles, but the majority had been removed, which exposed the bedding of red cement. At some period during Roman times the bath was rendered useless for its original purpose by the erection of a wall across the centre as shewn in the Plate. This is an interesting example of masonry, being constructed as follows :—

- 2 courses of tiles.
- 1 course of chalk.
- 2 courses of flint.
- 1 course of chalk.
- 2 courses of flint.
- 2 courses of tiles.

The opening for the drain of the bath appears on the Plan in the north wall, at the base of it was an imbrex tile which served as a gutter.

37. A cold bath, 7 ft. 4 in. by 6 ft. 2 in., paved with tiles. Height of walls above floor 3 ft. As the tiles from the northern half of the bath had been removed an excavation was made in that portion, revealing four drain holes 7 in. in diameter in the natural soil underneath the north wall. Neither shewed any trace of having been lined, but the pipes in the earth had the appearance of having been "puddled," and had become smoothed by the whirl of water down them. In front of the easternmost hole was a square pan of red cement which drained the water off into the pipes below; how the two were connected was not apparent. The exposure of these drain holes enabled us to see the manner in which the floor of the bath had been constructed. Upon the natural soil a rammed bed of chalk, 4 in. thick, was laid, then a 6-in. layer of concrete, and above this the tiled floor.

In the west wall of the bath a leaden pipe was discovered on a level with the floor, which was perhaps a secondary drain, rendered necessary by the blocking of the others.

38. A bath, 6 ft. 7 in. by 6 ft. 3 in., with hypocaust under. The floor, which had collapsed, was suspended on low walls as shewn on the Plan. The bath seems to have been emptied by means of a pipe which passed down through the floor of the hypocaust by the west wall. The drain hole remained, but the pipe was missing. The hypocaust was divided in the centre by a solid wall, hence fires were kept going on either side of it; the two stokehole arches being present in the south wall, these were 18 in. high, and 9 in. and 10 in. wide respectively.

Between the two baths the drain came from the great bath (No. 36), as shewn on the Plan.

When the latter was put out of use by the insertion of the wall across the centre, already referred to, the western half was used as a stokehole for the hot bath (No. 38), the approach to the stokehole being made through the west wall of No. 36. Outside the opening were four short projecting walls, the two central being very roughly built (see Plan, No. 46).

Outside the west wall of Nos. 32 and 35, at its base, was a slanting set-off built with chalk, in front of which a flange-tile gutter had been laid, so that as the rain-water descended from the eaves of this section of the house it ran down the sloping set-off into the gutter. The latter had a very decided fall from north to south, discharging into the same drain as the bath (No. 37).

In the gutter the workmen found nearly a whole pane of window-glass which had fallen from a sash above. The approximate size of the pane being 1 ft. by $9\frac{1}{2}$ in.

All round the exterior of Section D the soil below the surface was much blackened, and yielded several coins, bone pins, and a variety of fragments of personal ornaments.

Having completed the description of the various rooms in the villa immediately connected with its domestic economy, we now proceed to treat of its external adjuncts, taking first:

39. The great corridor in front of the house, 217 ft. 5 in. long by 12 ft. 3 in. wide. This was apparently paved with flints grouted with mortar. For some distance along its northern edge existed the tiled gutter which carried away the water from the eaves of the house. As the gutter approached No. 30 it gradually deepened and continued on as a cemented drain towards Section E.

Nothing remained to shew that there was a verandah over the corridor; had such ever existed probably some trace of its supports would have been met with upon the north wall of the court-yards.

The chief entrance to the house from the corridor was perhaps at the spot where the wall of the inner corridor (No. 25) is widest.

40. A small room, 10 ft. 8 in. by 9 ft. 2 in., in the south corner of the east court, which may have been for an attendant who kept guard over the main approach to the establishment.

41. The east court-yard, 92 ft. long; the north side is 102 ft. 7 in. wide, and the south 90 ft. 6 in.

44. The west court-yard, 92 ft. long; the north side is 76 ft. wide, and the south 77 ft.

PLATE I.



42. A large hall between the courts, 84 ft. 2 in. long by 11 ft. 1 in. wide. The walls were constructed of flint 3 ft. thick, with an inner facing of tiles, $11\frac{1}{2}$ in. wide, laid in courses, making a total thickness of 3 ft. $11\frac{1}{2}$ in. One end of the chamber was excavated to a depth of 3 ft., when it was ascertained that the inner face was composed of seventeen courses of tiles. A further trench was subsequently made round the whole of the interior, shewing that the tiles existed throughout. While this work was in progress some fragments of wall plaster were found, more richly decorated than any hitherto met with. The patch shewn on the Plan at the northern end of the chamber represents almost the only portion of the floor discovered; it is 4 in. thick, of yellow concrete, and upon the same level as the pavement of the great corridor. In digging the interior trench at the north-east corner we found the minute bronze head of a lioness. This must have formed part of a fountain or water-jet as there is a hole through the head coming out at the mouth. In the trench outside the west wall we met with a large brass coin of Hadrian, one of Antoninus Pius, and a few fragments of glass vessels. The southern end of this remarkable chamber terminated in

43. A semi-circular cistern, 1 ft. 4 in. deep, 4 ft. 8 in. wide in the centre, the southern wall being 9 ft. 5 in. long. From the appearance of the interior of the tank there can be no doubt that it was originally lined with lead, which had been torn out by ancient despoilers. At the east corner was a gutter, 9 in. wide and 3 ft. 9 in. long, leading into it, paved with tiles, while in the opposite corner was an outlet which bore traces of having been purposely broken away to get at the drain pipe, which was probably of lead.

On referring to Plate I the construction of the cistern will be clearly understood. The curved wall was 2 ft. 4 in. thick, while the straight one in front of it was 3 ft. 8 in. thick, and built of flint. This massive piece of wall extended for a distance of 30 ft. 4 in., and the walls of the courts were built against it on either side. In front of it were the bases of two piers or buttresses of equally solid masonry. These were not added after the short wall was built as they were incorporated with it. We now proceed to describe

SECTION E.

Reference to the Plan will shew the relation of this westernmost block to the rest of the villa, its peculiar position being due to the close proximity of the River Darent, which flows 62 ft. from the outer wall. Roughly speaking this Section may be described as a series

of tanks and floorless chambers with gutters passing through them, with workshops adjoining.

45. A chamber, 21 ft. by 9 ft. 7 in., the south-west corner destroyed. Several bushels of red tesserae were found in it, which had probably been made on the spot.

46. Entrance to the stokehole of hot bath (see No. 38).

47. A chamber, 37 ft. 6 in. by 9 ft. 4 in., the west wall much broken away.

48. A chamber, 22 ft. 8 in. by 8 ft. 8 in., with entrance through south wall.

49. Central chamber of the block, 32 ft. long. In it quite a cart-load of clay was met with, evidently stored here for use in repairing the hypocausts. In all the hypocausts we found that the large tiles covering the pilæ had been bedded upon similar clay instead of mortar, and the joints between them had also been stopped with clay. In front of the stokehole a quantity of burnt material was accumulated which had been thrown out into this chamber from the furnace near at hand.

In the east corner a quantity of pounded tile was stored for use in mixing with cement.

49 B. Chamber, 23 ft. by 10 ft.

50. Chamber, 34 ft. 6 in. by 10 ft.

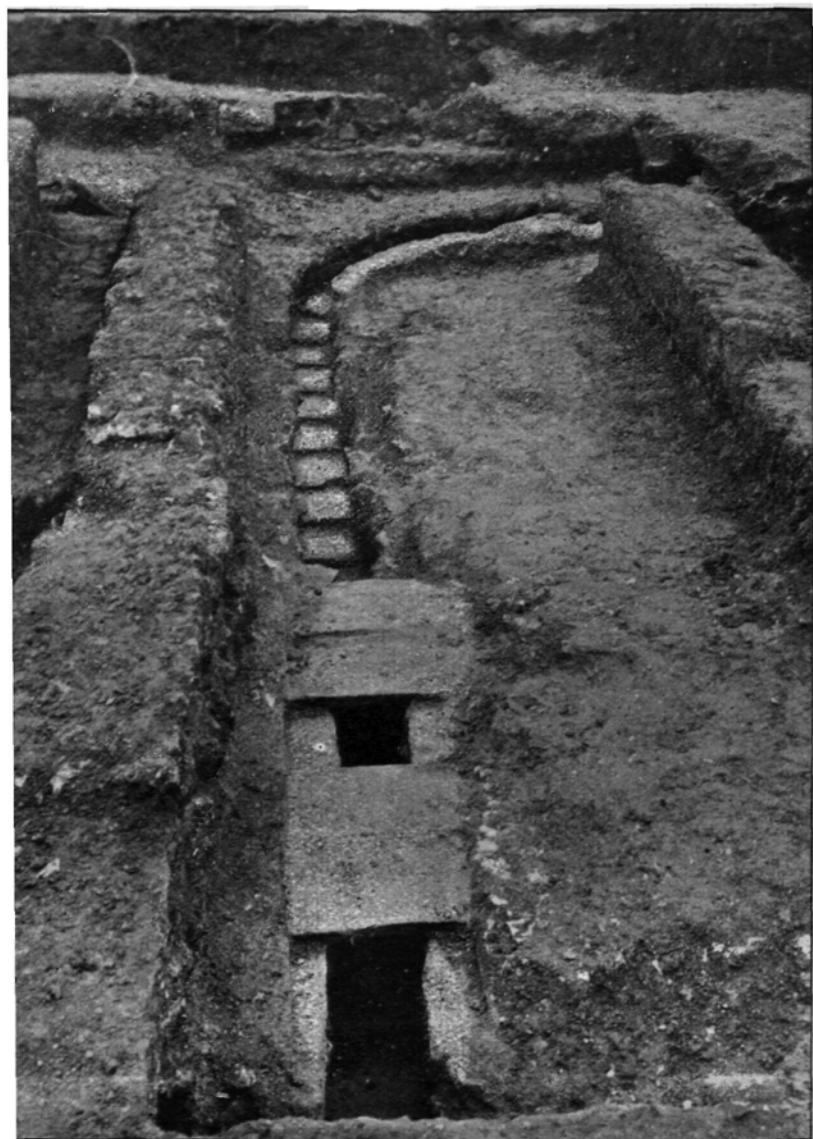
51. A chamber, 22 ft. 8 in. by 5 ft. 5 in. At the bottom was an admirably constructed gutter (Plate J) 9 in. deep. Its sides were of flint and 10 in. apart, with tiles laid between them, overlapping each other throughout the entire length of the gutter. The Plan shews the gutter entering from a covered conduit in No. 54, and passing through Nos. 51 and 52, under an arch in the west wall of the latter, towards the river. The drain had originally been sealed with tiles, four of which remained *in situ*.

52. A chamber, 13 ft. 10 in. by 6 ft. 5 in. In the south wall was an opening 1 ft. 5 in. wide, faced with tiles laid in courses on each side. For what purpose it was intended was not apparent. In the west wall was a gutter arch.

53. A chamber, 14 ft. 5 in. by 9 ft. 11 in. In the south-west corner was the entrance. In the west wall a gutter arch existed, but the gutter under it had been removed. This drain passed through No. 55, under a second arch in the west wall of that chamber in the direction of the river.

54. This enclosure was so hopelessly wrecked that it is impossible to give any idea of its original condition. Near the north wall part of a gutter of flange tiles remained, which discharged through the

PLATE J.



east wall into the gutter of No. 51, previously described. On the south side of the flange tiles and level with them was a patch of rammed chalk 8 ft. 6 in. by 5 ft. 2 in., which formed the foundation of something originally existing above it. Whatever it may have been, it seems reasonable to presume that it was connected with the gutter by its side. To the south of the chalk were five tiles *in situ*, which belonged to a hypocaust.

55. This seems to have been enclosed as a protection to the drain.

56. A cistern, 5 ft. 2 in. by 3 ft. 8 in., and 17 in. deep.

57. A cistern, 8 ft. 3 in. by 4 ft. 2 in., and 1 ft. deep.

58. A cistern, 5 ft. 10 in. by 3 ft. 7½ in., and 1 ft. 2 in. deep.

These three cisterns were lined with a pink coloured cement, 2½ in. thick, of the finest quality. The floors had been first laid with red tesserae, over which, at a subsequent period, a course of tiles was laid. Each tank was originally fitted with a round leaden pipe in their western walls, on a level with the tessellated floors. No. 57 bore the impress of the pipe. In front of this outlet, on the outside, was found the leaden bottom of a drain-trap, 8½ in. by 6½ in. Around its edge is a double row of iron nails, and in the centre is the hole, 2 in. in diameter, through which the water escaped. The presence of the nails in this piece of lead shews that the drain-box or trap was of wood encased with lead. In Nos. 56 and 58 it was clearly seen that the masonry had been hacked away in order to extract the leaden pipes, and it was evident that the same pilfering hands had been at work upon No. 57, but fortunately a portion was left for us to discover.

59. A chamber, 15 ft. by 8 ft. 1 in., with entrance through west wall. A few tiles were found in position on the north side of the entrance, which may have formed part of the floor.

60. It is difficult to determine whether this was a separate chamber from No. 59; if not, the two together measured 25 ft. by 8 ft. 1 in. In the east wall of No. 60 was the foundation of a pier, with tufa quoins and tiles between the angles.

61. An enclosure, 34 ft. 7 in. by 9 ft. 6 in. It was in such a ruined state that little can be said of it. On referring to the Plan the remains of pilæ will be seen towards the centre. These probably extended over the northern half of the chamber, as indicated by the base tile of a column in the north-east corner, and may have been connected with No. 54, where bases of pilæ were also found. In this area we met with the fragments of a large *dolium*, the neck and two handles of an amphora, and sundry fragments of iron.

62. A chamber, 20 ft. 2 in. by 8 ft. 5 in. In the south-west corner was the base of what seemed to be a fire-place for cooking. It is shewn on the Plan.

63. A chamber, 24 ft. 4 in. long, 6 ft. 2 in. wide at the northern end, and 4 ft. 2 in. wide at the southern. Several fragments of richly coloured wall plaster were found in this oddly shaped chamber. It will be convenient to withhold our comments on the various sections of the villa until the whole of the numbered spaces upon the Plan have been dealt with.

We shall therefore now treat of the enclosures outside the court-yards.

64. This area, 191 ft. 6 in. by 48 ft., was possibly a walled garden, there being no cross walls and no trace of pavement.

65. A range of out-buildings floored with rammed chalk. The central space is 25 ft. 2 in. wide, and the two outer compartments 10 ft. 5 in. Their length, as far as they are shewn on the Plan, is 101 ft. 10 in., which will probably be exceeded if excavations are made in the adjoining property. The block may have been used for *stabling horses and stalling cattle*.

66. This chamber stood 35 ft. distant from the front wall of the semi-circular cistern (43). It was 16 ft. 3 in. square, and the projecting structure on the north side 3 ft. by 5 ft. 4 in.

The floor consisted of a layer of flints grouted with mortar, rather unevenly finished off on the surface. Its appearance suggesting that it was secondary work, a portion of the floor was cut away, revealing underneath a mass of broken tiles with pink mortar an inch thick adhering to the fragments. As this continued for some depth the entire floor was removed and the débris below thrown out. When all was cleared a large circular earth-pit remained, 13 ft. in diameter and 4 ft. deep. At the bottom lay, in a tilted position, a huge mass of masonry, semi-circular in form, consisting of portions of tiles bedded in pink mortar. The mass measured 5 ft. 9 in. both ways and 3 ft. thick. On the under-side several large flints adhered to the mortar, shewing that it had originally been laid upon a *flint foundation*. The pit seemed to have been excavated for the purpose of obtaining brickearth, subsequently becoming filled in with building rubbish, which undoubtedly came from the same structure as the mass just mentioned, as their component parts were identical. After the hole was filled up No. 66 was erected on the site.

67. The foundations of this building had been reduced by the plough to almost the last layer of flints. It was 23 ft. wide and

exceeded 30 ft. in length. Here we found an iron ring 4 in. in diameter, and part of an iron chain.

68. A chamber, 18 ft. 11 in. by 6 ft. 6 in.

69. A rubbish hole scooped out in the chalk. In it were found fragments of Samian ware, one piece (the base of a cup) being stamped with the potter's name ALBVCIANI, a horse's bit, pieces of iron and pottery, four tiles which had formed the segments of a circle, and an iron stand with legs.

70. The foundations of this building, like the other portions adjoining it, which are lightly shaded on the Plan, were very meagre. The outer wall enclosed a space 39 ft. by 18 ft. 6 in. The floor was of rough mortar. In the north-west corner were four flange tiles *in situ*, laid 19 in. below the level of the floor, and a fifth was fixed in a vertical position. It may be described as a double gutter. The two portions of wall shewn in the interior of this out-house were not sufficiently well defined to enable one to say how they were related to the rest.

71. Four feet below the level of No. 70 the foundations of a large barn or store were met with. Its length, as far as could be ascertained, was 85 ft. 8 in., and width 28 ft. 4 in. The foundations were only a few inches deep, but they were as firm as a rock, the top surface having been coated with hard mortar, forming a perfect level. Above this came possibly a bonding course of tiles or woodwork. The floor of the barn was of rammed chalk. It was not deemed advisable to go to the expense of removing the enormous body of earth which covered this and the out-buildings to the west, otherwise perhaps some further light would have been thrown upon their history.

It is now time to say something of the various antiquities and other objects discovered during the work of excavating. They were not numerous, which may be accounted for by the villa having been abandoned instead of being destroyed by fire.

All portable articles of any value were probably taken away by the owners themselves, the remainder being left at the mercy of the wayfarer and incoming marauders.

TILES.

These were of the usual kinds, the square varieties for paving or for use in the hypocausts ranging from 6 to 11 in. square, one tile measuring as much as 23 in. square.

It was noted that the oblong tiles on which the concrete floors were laid over hypocausts, in spite of their excellent quality, had been rendered exceedingly brittle by the action of fire. When the writer removed them from the floors almost every tile broke into fragments. The flue tiles were scored with those curious patterns familiar to archæologists. It is supposed that the scoring was done to enable the mortar to adhere more firmly to the tiles. Such would be the case, but why was it thought necessary with tiles that were intended to be built *into* walls? Then the old difficulty again presents itself as to why these tiles were so elaborately decorated when they were hidden from view.

Out of the fifty examples found at Darenth there were four different designs, which the writer is disposed to think were tile-makers' marks. It may be presumed that the tiles came from one manufactory, which was probably local, then why are the patterns not all the same? Our brick-yards at the present day contain a certain number of sheds or stools (as they are called), a given number of hands being employed in each stool. The moulds used have the initials of the master in relief at the bottom, so that when the clay is cast into the mould each brick receives an impress of the stamp. The Roman tile-makers were probably also divided into gangs in a similar way, and the writer is of opinion that the moulder of each "stool" had his own method of scoring the special productions of his handiwork. The flue tiles, from their peculiar form and the important use to which they were put, evidently required great care in their manufacture, and were perhaps made by workmen more skilled than those who turned out the ordinary flat tiles. The expert in masonry adopted a mark, and why not the potter also? If the theory we have advanced be accepted it still leaves unexplained the conceit of the latter in adorning the flue tiles on all four sides. The long cylindrical drain-pipes built into the walls of No. 6 for smoke flues are very uncommon. Four similar but shorter examples were found some years since at Rochester, and are now in the Museum of that city.

The segmental tiles are also of equal rarity; four make a

circle 1 ft. 3 in. in diameter, giving us the size of columns and the material of which they were constructed in a district where stone was not available naturally.

Several tiles were found with impressions of a dog's feet upon them. One tile bore the marks of a cat's feet, and another a sandal studded with hob-nails.

POTTERY.

A few fragments of pseudo-Samian ware were met with, one piece formed part of a *mortarium*, the rim being ornamented with lions' heads in high relief. There are holes through the mouth to enable liquid to be poured off. Two bases of cups are stamped respectively with the potter's names, ALBVCIANI and AMICI.MA.

Durobrivian or Caistor ware was scarce, but the potsherds obtained are fine specimens of this class of fictilia. The design consists of white rings, $1\frac{1}{2}$ in. in diameter, enclosing a smaller ring surrounded with dots, alternating with the ring pattern are narrow white vertical slips divided in the centre and terminating at both ends with a small circular disc.

Some fragments of this ware had acquired a beautiful lustre during the process of firing, exactly resembling in colour and appearance the bronzed kid of which ladies' shoes are made.

The miscellaneous ware include fragments of *amphoræ*, *dolia*, and *mortaria* of a dun colour, red pottery decorated with a white scroll design similar to the letter *∞* placed horizontally, and Upchurch ware.

BONE.

The articles under this heading, to the number of thirty, comprise pins for fastening the hair or garments, piercers, bodkins or needles, the handle of a fan, a shuttle and bobbin, and an instrument with three hooks carved at its point, on the principle of the modern crochet hook. The pins have nearly all plain round-headed knobs at the top, two or three only being ornamented.

COINS.

Domitian 2	Helena 1
Trajan 1	Allectus 1
Hadrian 1	Constantine the Great 2
Antoninus Pius 4	Crispus 1
Phillippus 2	Constantius II. 1
Trebonianus 1	Decentius 1
Gallienus 1	Valentinianus 2
Salonina 1	Valens 2
Postumus 1	Gratian 2
Tetricus 19	Unidentified 4
Claudius II. 2	—
Constantius I. 1	53

Out of the whole number three belong to the first century, five to the second, thirty to the third, and eleven to the fourth.

BRONZE.

With the exception of the lioness's head already mentioned, the articles in this metal are of no special merit; they comprise bangle-like armlets, portions of brooches, tweezers, rings, studs, two pieces of chain and other fragments.

IRON.

Objects of this metal were fairly abundant, including nails of all kinds, pruning hooks, staples, wall-hooks, pot-hangers, knives, two or three carpenter's tools, a spear-head, and one of those curious articles which some authorities have considered to be *hippo-sandals* (see cut opposite). Although the writer is unable to offer any opinion as to their use, he cannot accept the notion that they were ever attached to horses' hoofs. Lieut.-General Pitt Rivers suggests (*Excavations in Cranborne Chase*, vol. i., pp. 76—79) that they were used in connection with a kind of sledge without wheels which had poles or shafts dragging on the ground, and when such were required to traverse hard roads the ends of the shafts would be fitted with these iron shoes to prevent

the wood wearing. In a note at the end of his remarks he says, "Notwithstanding this, however, specimens I have since seen in the Museum at Mayence are of a form to prove that they had been fitted to a horse's hoof. It has been suggested that they were used not for ordinary shoeing but as a kind of splint for broken hoofs, and the foot may have been tied up by means of the iron rings. The various forms of broken hoofs may perhaps account for the peculiar shape of some of them."



WALL PAINTING.

As far as could be judged from the fragments of plaster discovered the scheme of colouring adopted consisted of a plainly painted wall bordered with a combination of stripes of various colours and widths. After the stripes were laid on the decorator occasionally further embellished the borderings with fanciful blotches and touches, and in some instances floral designs. Yellow, brick-red, grey, white, or purple plum were the colours mainly used upon the greater part of the walls, while the bordering stripes were of black, white, umber, green, purple, yellow, red, and all shades of grey, drab, and brown.

LEAD.

The objects in lead are few but interesting; they include a bowl $2\frac{1}{2}$ in. high, $6\frac{1}{2}$ in. in diameter at the rim, diminishing to $4\frac{1}{2}$ in. at the base. Round the rim is a fluted octagonal flange projecting nearly an inch.

Another diminutive bowl-shaped cup is 1 in. in height and $3\frac{3}{8}$ in. in diameter, having a plain flange overlapping the rim a quarter of an inch.

The leaden casing of a wooden drain-box already referred to.

A fragment of pipe, similar to the modern water-tank pipe, is an example of the kind of drain-pipe used in the tanks described under Section E.

A leaden weight is $3\frac{1}{2}$ in. high and 4 in. in diameter at the bottom. It appears to have been made thus:—The molten lead was first poured into a mould, then a flint was dropped into the metal, probably for the sake of economy. On the under side of the weight the stone is visible, cracked with the heat to which it was subjected during the process of casting.

MISCELLANEOUS.

A few fragments of mill-stones were found, also portions of querns of Andernach lava.

One piece of white marble was discovered $3\frac{1}{2}$ in. by $2\frac{1}{2}$ in. and $\frac{3}{4}$ in. thick, its edges having been rubbed smooth as

well as both sides. It may have been used for a painter's palette.

A flat piece of jet, $2\frac{1}{2}$ in. by $1\frac{1}{4}$ in., polished and slightly ornamented with incised lines at the edges, also portions of armlets of Kimmeridge shale were met with. Both these substances were used by the Romans in the manufacture of personal ornaments.

GENERAL REMARKS.

Having brought to a close our description of the villa and the antiquities discovered during the excavations, we will now proceed to make a few general remarks. It is obvious that we have at Darenth an establishment which must have been owned by a person of considerable wealth and position, whose influence extended throughout the entire district both socially and commercially.

The house lacked those gorgeous mosaics and other embellishments of which some of our provincial Roman villas can boast, but it possessed to the fullest extent all things conducive to comfort, health, and enjoyment, as understood in Roman times.

From the extensive alterations to the villa, already alluded to, we infer that it may have changed hands, possibly at a period when herring-bone masonry was in vogue, as instanced in the blocking up of the doorways to Nos. 2 and 6, for it must be noted that this peculiar kind of masonry was not present in any other part of the building.

The walls of the villa throughout were of flint laid in courses, and in Section A, where they are highest, a double bonding course of tiles was inserted about 2 ft. from the ground. Here and there the angles were built of tiles, and the face of the front wall, passing Nos. 30, 31, and 34, had been pointed in the same manner as at the present day, and finished off with the aid of a straight-edge. The extra treatment of the joints was probably rendered necessary by the drain running along the outside, thus preventing the water from percolating through the wall.

Throughout the whole building only twenty pieces of tufa were introduced into the masonry. As this calcareous sub-

stance was liberally used by the Romans in Kent, it is remarkable that so little was met with at Darenth.

When working out Section D an attempt was made to discover the drain which carried off the waste water from the baths. Between Nos. 37 and 38 we found a V-shaped trench, 2 ft. wide and about 3 ft. deep, filled with large flint stones, still bearing the appearance of having been perpetually soddened with moisture, as if the water had gradually soaked away between them.

From the fragments of window-glass found during the excavations it may be safely stated that the principal rooms were lighted by means of glazed sashes. The fragments were not numerous but generally distributed, and we may presume that many panes of glass and even entire sashes were appropriated by unscrupulous hands after the villa became tenantless.

Section E, as before observed, consisted of workshops, but the presence of the tanks and the elaborate system of drainage through the chambers adjoining indicate that something more important existed here. What that was it is very difficult to determine, but the insignificant size of the tanks, and indeed of the whole section, seems to the writer to prove that they were employed for private rather than for trading purposes. Had the tanks been used for dyeing or tanning some trace of stain would surely have been left upon their interior, but nothing of the kind was present.

The great building between the court-yards faced the centre of the house, and was probably used as a reception room on special occasions. If so, the cistern at its southern end may have been exposed to view, and was perhaps fitted with a fountain to which the jet in the form of a lioness's head, found as before stated at the opposite end, belonged. As the walls of this apartment had been razed to the ground level it was impossible to determine if any entrances existed originally in the sides. The straight wall forming the south side of the cistern, together with its buttresses, was of more massive construction even than the rest of this building, which when complete must have presented a very imposing appearance.

The curious little detached building beyond was possibly the domestic chapel or *Lararium*, and the minute projecting structure the place where the images of the gods were kept. While upon this subject it may be mentioned that when water-cress beds were made some years since on the western side of the villa the workmen found a bronze statuette, which came into the possession of Mr. John Young of South Darent, who acted as caretaker at the villa from first to last; he gave the relic to his brother, who consigned it to the mantel-piece, the very worst place he could have selected. It is needless to say that it has disappeared.

We will now consider the extreme western wall of the villa, by the river, which seems to have served both as a boundary wall and as a protection against inundation when the river was swollen. The soil had accumulated from natural causes to so great an extent towards the river that a trench had to be excavated to a depth of 5 ft. before the foundations of this wall were reached. As the work proceeded the workmen found it difficult to remove the stiff wet earth which adhered to the spade almost like alluvium. The wall dipped considerably towards the centre, shewing that its foundations had sunk from the boggy nature of the subsoil; they were in fact on a level with the bed of the river.

The River Darent certainly presented a very different appearance in Roman times from that of to-day. Its natural course is now impeded by the numerous mill-dams and other obstructions which may be met with at intervals, extending for several miles. If all these were swept away we should find, especially in rainy seasons, the unchecked waters playing sad havoc with property which has for a lengthened period been rendered secure by the commercial requirements of modern times. The influence of the tide must also be taken into consideration. The river falls into the Thames opposite Purfleet in Essex, but how far southwards the Darent was affected by the flow of the tide in ancient days it is impossible to say. We can, however, safely assert that this formidable agent on the one hand, combined with the unimpeded flow of the Darent on the other, increased the volume of the latter

to an extent which necessitated the western boundary of the villa being secured against the periodical vagaries of the river.

We will now discuss the ways by which the villa was approached.

On the eastern side and only 132 yards distant exists a road still called the "Pack-way," which communicates with the ancient British road (Pilgrim Way) to the south. Its northern course was formerly to Dartford, but now soon after passing the villa it ends abruptly at the edge of the Darenth Grange estate; the continuation of it may, however, still be traced through the park, beyond which the bridle-path to Dartford probably marks its original line. The Pack-way has all the character of a pre-Roman track, but it was doubtless used by the Romans who dwelt about these parts.

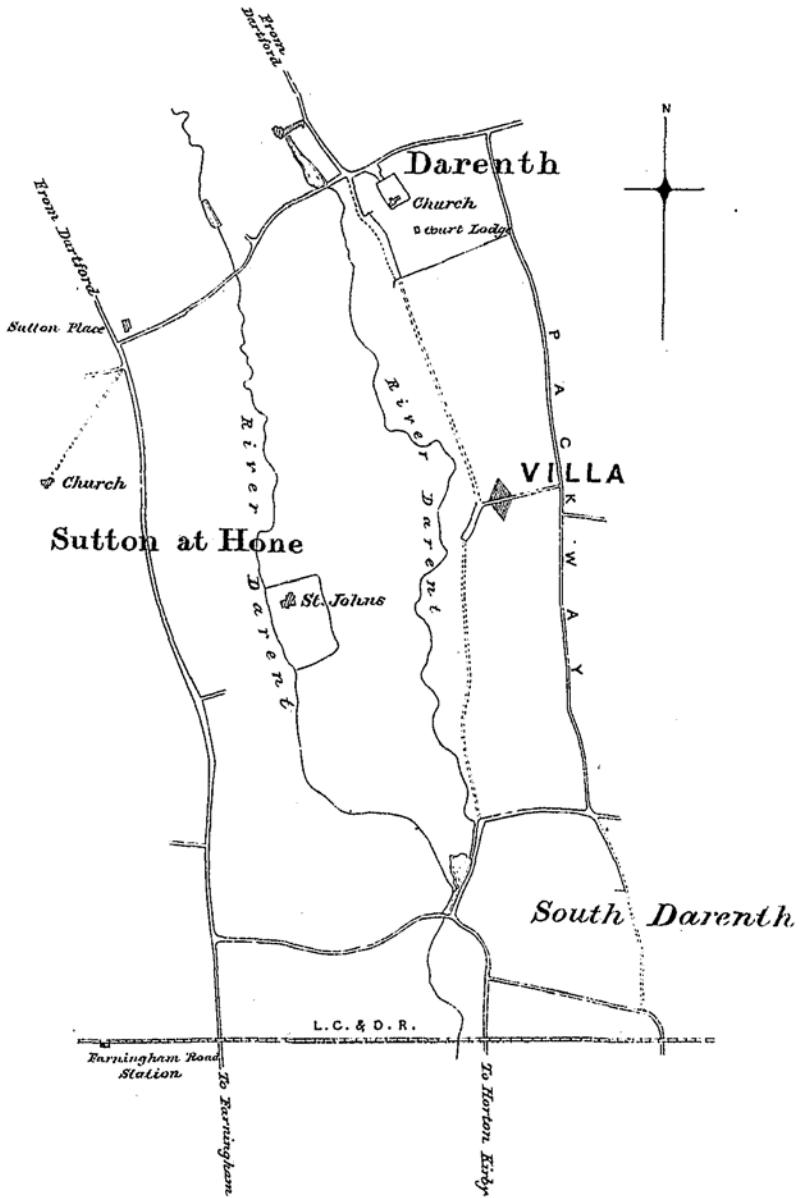
A more direct road to the villa is that which comes from the great Roman highway at the east end of Dartford to Darenth; after passing through the latter hamlet it terminates at the gate leading to Court Lodge Farm.

From this gate the villa is only a quarter of a mile off and in a straight line, 150 paces of the distance being still preserved as a private road past the farm buildings, while the rest of the way is used as a public foot-path. We have no hesitation in saying that this fine straight road from Dartford to Darenth is the principal one by which the villa was reached from the north, as at the Dartford end the Roman cemetery discovered on East Hill was by the side of the road, and a little beyond, a few yards to the west of it, are the Roman foundations near the Powder Mills, before alluded to.

Sufficient evidence having been brought forward to establish the antiquity of this road as far as it at present exists, we may go a step farther by suggesting that it originally continued from the farm gate, past the villa, to the main road at South Darenth.

A map copied from the 6-inch Ordnance Survey is herewith given, whereon the supposed connection between the important roads at North and South Darenth is shewn by dotted lines, also the curiously inconvenient way by which

Site of
ROMAN VILLA, DARENTH
and its environs, 1896



the two are now brought into contact by road. This peculiarity induced the writer to consider the cause more carefully, the conclusion arrived at being that it was due to a direct way past the villa having been abandoned in consequence of its liability to become occasionally inundated by the river.

This will be more clearly understood by the reader bearing in mind that the great depth of earth which has accumulated over the western foundations of the villa covers also any road that may exist between it and the river.

On referring to the Plan a lane marked "Ancient Way" will be seen going from the Pack-way to the river. This lane was made at some period after the villa was deserted, as it cut through the southern end of the outbuildings, the walls of which continue, as ascertained by probing, into the field opposite. As further foundations are known to exist over a considerable area in this adjoining land, called "Marsh" Field, it is hoped that the owner, Mr. Tristram, will permit them to be uncovered. In all probability they are the remains of farm buildings, walled cattle yards, and other enclosures, such as one would expect to find associated with the huge establishment we have described.

The extent of these foundations in both South Field and Marsh Field were apparently known to the late Mr. A. J. Dunkin of Dartford, and the late Mr. Seager of Darenth, the parish sexton, for on their authority the words "Site of Roman Village" were inserted on the large scale Ordnance Maps across the two fields. They were also responsible for the insertion of the words "Site of Roman Mill," by the river bank opposite. The Ordnance Survey Department has obligingly supplied the writer with a copy of the entry in the original Note Book of 1867, as follows:—"This village stood between the modern villages of Darenth and South Darenth near the river, and from the number of remains, coins, pottery, and hewn stone, constantly turned up by the plough, must have been of large extent. On a small water course which then led from the river to the village stood a mill, two mill-stones of which were dug up some time since at the edge of the wood; a portion of this water course is now stopped up."

The village having now been reduced to a villa, the revised Ordnance Map will contain the necessary correction, together with a minute plan of what had been discovered at the time the Revising Officer was passing through the district.

As far as the Roman mill is concerned, the evidence brought forward by Mr. Dunkin in support of it is too insignificant to warrant the assertion that it ever existed. Since he furnished the information to the Surveyors the site of the supposed mill has been excavated at a great depth for water-cress beds, but nothing was found in the shape of foundations. The writer examined the beds and the earth thrown out during their construction, likewise every portion of the river bank on both sides, but saw no trace of the remains of buildings of any kind. Here and there a fragment or two of tile may be seen, but such one would expect to find for some distance around the villa.*

It is very remarkable that so little débris of masonry of this gigantic structure could be detected upon the surface of its site, and the quantity met with during the excavations was notably small. A partial and interesting explanation of this is that one, if not two, of the neighbouring churches were built with Roman materials. Darenth Church possesses a nave and chancel of Saxon date, with an additional Norman chancel. The older portion contains numerous Roman tiles, which, together with the flints, we may presume to have come from the ruined villa close at hand. The ancient Church of St. Margaret's has totally disappeared, but it stood about the same distance from the villa. An old engraving of what remained of the fabric in the last century distinctly shews its round-headed arches and windows turned with tiles.

We may conclude therefore that the villa formed a stone

* In the Survey Note Book the words "*Lambardes Antiquities*" are inserted below the names of Messrs. Dunkin and Seager, as supporting their statements. The Kentish historian never wrote a book bearing that title, and he, moreover, does not allude to any Roman remains at Darenth in either of his works. In the *Perambulation of Kent*, which was written in 1570 and printed in 1576, he says, in referring to the river, "Upon this Derent also have been lately erected two milles of rare devise (or rather singular, within our Realme), the one employed for the making of all sortes of Paper: the other exercised for the drawing of Iron into Wyres, and bigger lengthes and fashions, as well for the readier making of Nailes of all kindes as for the easier dispatch of Barres for windowes and other Services."

and tile quarry for builders in the immediate locality for a considerable period of time. The same argument is applicable throughout the country, as wherever Roman tiles occur in the walls of churches it is a sure sign that Roman foundations are near by.

In Kent several instances could be enumerated where blocks of Roman concrete mixed with roughly broken tile have also been built into later walls.

Our account of the Darenth villa and its surroundings would be incomplete without some reference to the Roman station called *Vagniacæ*, the site of which is on the line of the great military way at Springhead, about $3\frac{1}{2}$ miles north-east from the villa. It may be imagined that the dwellers at these two places were well known to each other, and that communication was kept up between them. We may even go so far as to say that perhaps agricultural or other supplies were obtained from the owner of the villa for the use of the military station, which was a temporary halting-place for troops on the march, where refreshment for man and beast and relays of horses could be secured.

The possessors of houses such as has been unearthed at Darenth must have owned a large tract of land, which consisted, as now, of arable, pasture, and woodland, necessitating the breeding of horses, cattle, sheep, swine, and other animals. These latter and the produce of the farms would not all be required for home use; a market must therefore have been found for the surplus in the neighbourhood.

It is perhaps necessary to remind the ordinary observer that in order to fully appreciate the great homestead in the Darenth Valley, the changes wrought by Nature and the hand of man upon the surrounding landscape during a period of some seventeen centuries must be taken into consideration. A vast accumulation of soil which has been ceaselessly moving downwards from the high ground would, in imagination, have to be removed from the valley, likewise the alluvial deposit along the banks of the river. On the other hand the face of the country would have to be clothed with luxurious forests which spread over the greater part of our fertile county in Roman times. These gigantic forests

not only sheltered the homes of the colonists from the blasts of winter, but they provided them with most of the necessaries incidental to human existence. From them they obtained wood for fuel and all other purposes to which it could be applied.

The numerous wild animals that roamed the forest provided them with meat, and the bones were turned to account by being fashioned into various articles for daily use. Then again the fine antlers of the Old Red Deer (*Cervus elaphus*) were judiciously sawn up so that the tines would serve as picks, and single or double-pronged hoes, handles for knives, tools, etc.

It is almost needless to say that the skins of both wild and domestic animals were also utilized to the utmost extent, after having been dressed and converted into leather. There are specimens of Roman shoes or sandals extant, but at Darenth we were only favoured by finding a cluster of hob-nails which had dropped from a pair of shoes left behind in one of the corridors.

We cannot conclude our remarks without referring to the Jutish cemetery that was cut through when the London, Chatham, and Dover Railway was in process of construction. The hill on which the "Home for Little Boys" stands, near Horton Kirby, may be taken as the site, but the interments were met with in the railway cutting to the north of the Home, barely a mile from the villa. The Rev. R. P. Coates, becoming aware of the discoveries, explored some of the graves, being assisted in the work by a grant from the funds of our Society. The results of his researches are recorded in the *Archæological Journal*, xxiv., 281. Among the objects found with the skeletons was one of those saucer-shaped bronze brooches of the highest rarity in Kent.

The presence of this cemetery in the vicinity of Darenth proves that some of the Teutonic tribes which swarmed into the country after the Roman legions were withdrawn, in the first decade of the fifth century, took up their abode in the locality. When that event occurred it was fraught for a long time with danger and disaster to the Romano-British population, furnishing in itself a sufficient reason for the

abandonment of the villa. We have, at present, very slight evidence that the Anglo-Saxons occupied the dwellings of the Romans, some of which were undoubtedly rendered tenantless by their unwelcome presence. That in-born fear of the Evil Eye and strong superstitious belief in charms and magic, so characteristic of the Teutonic race, caused them to shun the Roman houses and build homes for themselves elsewhere after their own fashion, with materials which have not stood the test of time. Although we are unaware to what extent this aversion was carried, instances could be quoted of the Anglo-Saxons having used the cemeteries of their predecessors. This was not accidental, because their sites must have been well known, and the graves, moreover, marked by mounds and other memorials which have long since been swept away by the cultivation of the soil.

At Lullingstone Castle, the Kentish seat of Sir William Hart-Dyke, Bart., M.P., are preserved objects obtained from both Roman and Jutish interments that were discovered in its environs. Some of the graves were found to the north of Lullingstone, near the railway cutting, and others occurred a mile and a quarter distant, in the cutting by Eynsford Station, to the east of the Castle. Although we have only a bare account of a portion of these discoveries (*Archæologia Cantiana*, III., pp. 36-44), it is an important link in the historic chain. The Roman remains have hitherto escaped being recorded, they therefore shed new light on the early occupation of this exceedingly picturesque locality.

There is nothing in the fields about Darenth to indicate where the burying-place is of those who dwelt within the walls of the villa from first to last. It is certainly close at hand, and the archæologist of the future may look for it by the side of the ancient Pack-way above the villa.

In conclusion, the writer feels that every one interested in the antiquities of our country would desire him to express their gratitude to the Ecclesiastical Commissioners and Mr. Burtenshaw for allowing the exploration on Court Lodge Farm to be made, also to Mrs. Rolls Hoare and Mr. E. Arnott Clowes for their public spirit in prosecuting the extensive researches at all risks. Fortunately the money

taken at the gates covered the heavy expenditure, hence no loss was sustained.

To Mr. Robert Marchant of Cedar Lawn, Sutton-at-Hone, who was a pupil of the eminent architect Sir Arthur Blomfield, A.R.A., we are indebted for the admirably executed Plan which accompanies this report.

It is not often that an architect at the outset of his professional career is called upon to undertake such a task as that which Mr. Marchant carried out so skilfully at Darenth. He has since joined our Society, and we may therefore hope to be favoured with future contributions to *Archæologia Cantiana* from his pen.

To Mr. E. C. Youens of Dartford, who is also a member of the Society, our warmest thanks are due for his kindness in acting as Honorary Photographer throughout the operations. Our illustrations are reproductions from the excellent photographs taken by him.

The writer eagerly takes advantage of this opportunity to record his grateful thanks to Mr. and Mrs. Clowes, Mr. and Mrs. T. B. Marchant, the Rev. and Mrs. Bingham Stevens, Mr. Lewis Hassell, Mrs. Marchant of Cedar Lawn, and Mr. and Mrs. Percy Hassell, for their unbounded hospitality which enabled him to survive the Arctic winter of 1894 to which he was daily exposed.