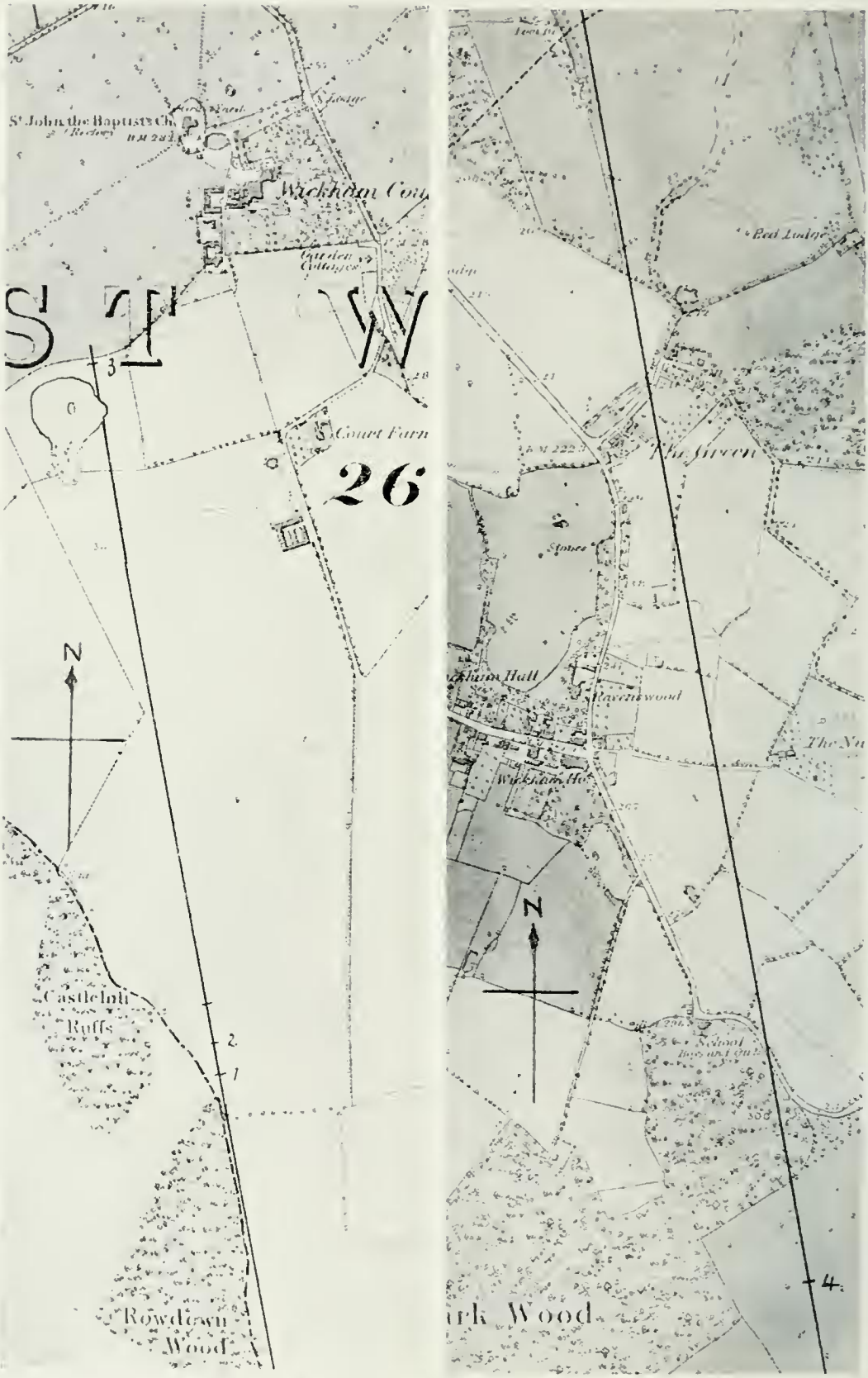
PLATE IX



Based on the Ordnance Survey Map with the Sanction of the Controller of H.M. Stationery Office.

ROAD AT WEST WICKHAM. AT WEST WICKHAM VILLAGE.

1000 500 0 1000 feet

From First 6" Ordnance Survey Map, 1872.

[facing page 61

THE ROMAN ROAD FROM WEST WICKHAM TO LONDON.

BY

BERNARD F. DAVIS.

THOSE who have read Mr. I. D. Margary's papers in the *Sussex Archæological Collections*, Vols. LXXIII and LXXIV, and Mr. James Graham's paper in the *Surrey Archæological Collections*, Vol. XL, will know the course of the Roman road from Lewes in Sussex to Chelsham in Surrey and that its further course is marked by the straight line of the Kent–Surrey boundary between Addington and West Wickham.

Along the edge of Rowdowne Wood, West Wickham (see Plate IX), on the east side, the hard causeway can be felt by probing the ground with a bar, though the plough seems to have levelled any visible ridge on the surface.

At the place where the county boundary bends westward, probing the ground reveals the hard core of the road continuing on the straight course. Normally hard bottom is felt at about 30 inches below the surface; the crown of the road being only 18 inches down, it is easily detected.

The ground here is ploughed land with chalk subsoil and rises gently for 200 yards northwards. A trench was cut 200 feet north from the corner of Rowdowne Wood and revealed at a depth of 16 inches a bed of tightly rammed chalk free from flints, curved to the form of the road. It was 17 feet wide, 2 inches thick at the sides and 7 inches in the centre, the lower side resting on a flat surface of large flints. Covering this chalk was a layer of 4–6 inches of loose gravel, which seemed to be part of the road structure. On either side of the chalk was a shallow depression filled with loose gravel which presumably represented two side ditches. They were about 4 feet wide. (See Section 1, Fig. 1.)

Another trench was cut 150 feet northward, but only halfway across. It revealed the same structure, except that the chalk foundation was 12 inches thick in the centre. The side ditch was shallow, with a few loose flints in the bottom and filled with sand and loose gravel. Except on the roadway there is none of this gravel in the immediate vicinity.

The hard roadway was followed by probing the ground to the top of the rise, but when a trench was dug there, it revealed only the natural chalk subsoil, which was here only 12 inches deep and showed no signs of having been made up or capped with gravel.

The rest of this large field was already sown, so that it was necessary to go 1,000 yards ahead to prospect. A hard surface was located at a shallow depth, on the straight line, but an excavation showed it to be, as before, the natural surface of the chalk subsoil. That this was the line of the roadway, however, was proved by exploration of the next field. Here the Thanet sands cover the chalk, and being soft and without stones, it was easy to probe the ground to a depth of 4 feet; the hard core of the road was therefore easy to locate and could be followed backward to the same place where natural chalk subsoil was found. Apparently the natural chalk had formed a sufficiently good roadway over the high ground without any dressing.

Section 3 was cut in this field with sand subsoil. The construction exposed was, a layer of large flints resting on clay, covered by a compact layer of broken flints, very tight but without clay or earth binding material. This was 15 feet wide, 6 inches thick at the sides and 10 inches in the centre, and covered with the local yellow gravel which occurs a quarter of a mile away. The hard core at the centre was only 10 inches from the ground surface, but I could detect no ridge across the field. During the very dry summer the line of the roadway was very clearly marked by the brown grass above it.

In this field there is a large depression called the Chalk Pit; it is, however, mainly a natural depression and at one place breaks across the line of the road, or where it would be if straight, but the road is brought straight up to the edge of the hollow and then curves round in a short bend and comes back again to the original line.

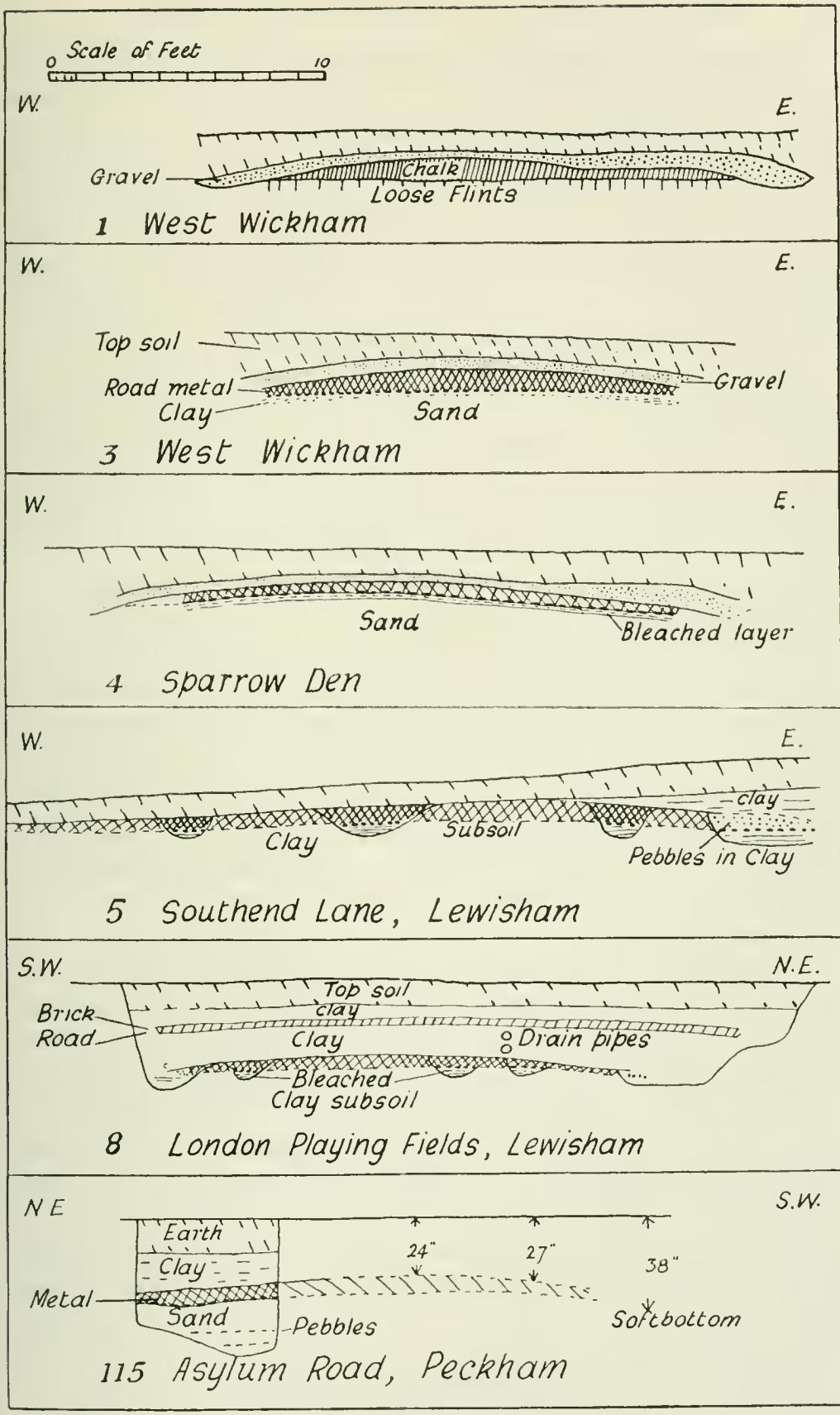

Scale of Feet
0
10
W.
E.
Gravel
Chalk
Loose Flints
1 West Wickham
W.
E.
Top soil
Road metal
Clay
Sand
Gravel
3 West Wickham
W.
E.
Sand
Bleached layer
4 Sparrow Den
W.
E.
Clay
Subsoil
clay
Pebbles in Clay
5 Southend Lane, Lewisham
S.W.
N.E.
Top soil
clay
Brick
Road
Clay
Drain pipes
Bleached
Clay subsoil
8 London Playing Fields, Lewisham
N E
S.W.
Earth
Clay
Metal
Sand
Pebbles
24"
27"
38"
Soft bottom
115 Asylum Road, Peckham

FIG. I.

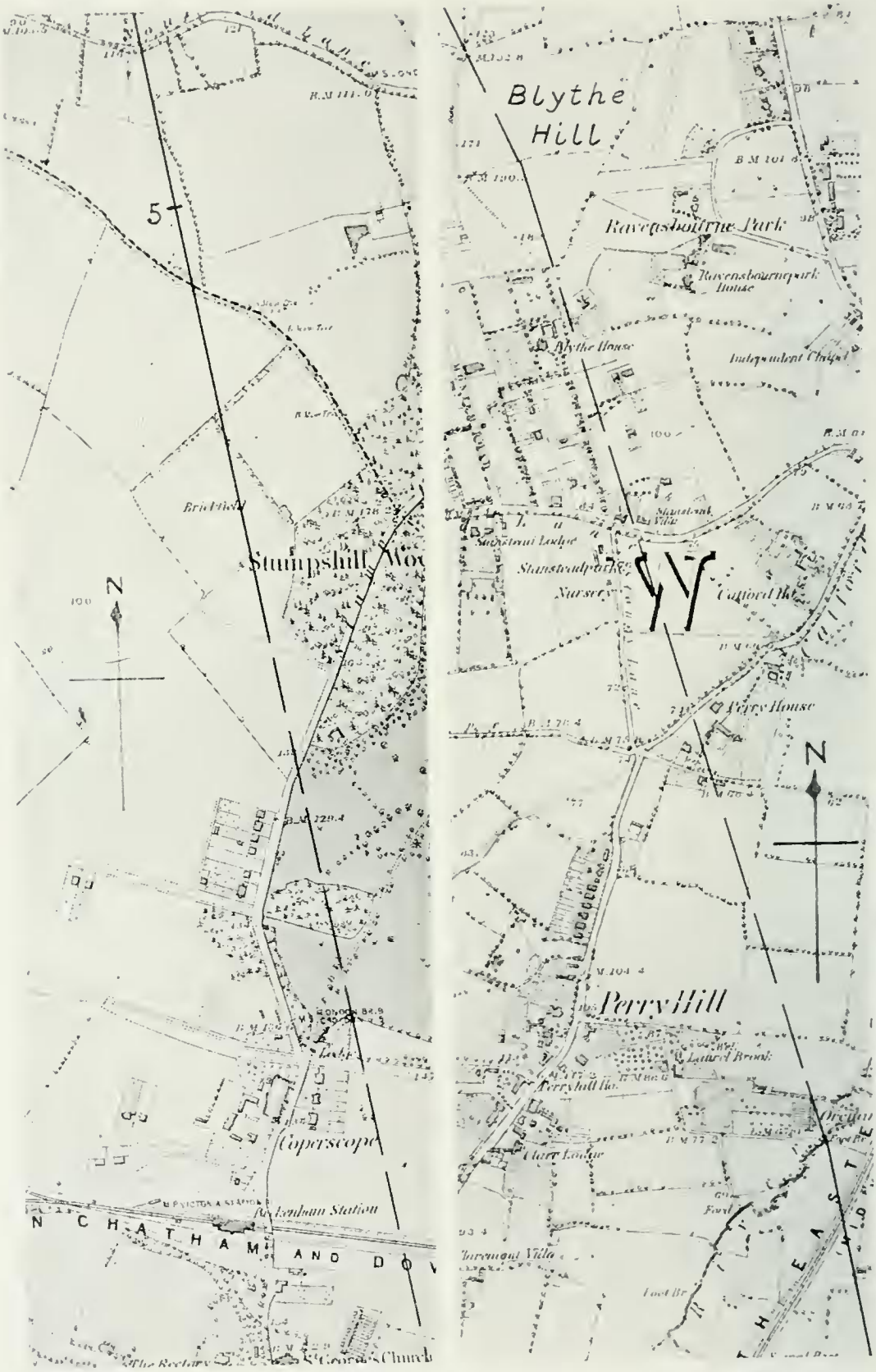
Some 100 feet beyond the last section, the hard core of the road ends abruptly; beyond is soft sandy bottom with no stones. As this break is very close to Wickham Court, I spent some time in trying to trace a bend up to the Court, but without success; however, on account of the position of an ancient hedgerow and high bank I could not satisfy myself that no roadway had ever existed. When the agger was found again on the far side of the valley and across the Addington road, it was back again on the original line.

Section 4 was cut here on the north side of the valley bottom, behind Sparrow Den. The crown of the road was 17 inches deep and covered by sandy wash from the hillside, and quite intact. There were two distinct layers, the top 6 inches of yellow gravel, resting on a very tight layer of broken flints and round pebbles from which anything in the nature of fine silt or clay had been washed away, it looked as if this material had been deliberately water-washed. It was 10 inches thick in the centre and 4 inches at the sides, the whole width being 20 feet. This rested on a single layer of large flints, below which was the natural subsoil of sand and clay with scattered pebbles. Immediately below the large flints there was a layer of sandy clay bleached white to a depth of $\frac{1}{2}$ inch in the centre and 3 inches at the sides and it showed spots of dark material which looked like vegetable matter. The iron which had been bleached out was redeposited in seams of oxide, in the sand immediately below.

The surface of the sand below the large flints had practically the same curve as the road surface, *viz.* a rise of 7 inches from the sides to the centre, and as a check a hole made 14 feet to one side of the road, showed the natural subsoil to be only 16 inches down, whereas below the crown of the roadway it was 22 inches from the grass, thus it appeared as if the road had actually been laid in a slight cutting with the bottom cut out to the appropriate curve. On this was spread a layer of brushwood or some vegetable matter, to be covered by the flints and gravel. The yellow gravel itself showed a thin white layer at the base as if it had been laid on some vegetation.

There may have been ditches at the side, but the sandy filling was not easy to distinguish from the natural subsoil.

PLATE X



Based on the Ordnance Survey Map with the Sanction of the Controller of H.M. Stationery Office.

BECKENHAM TO LEWISHAM.

1000 500 0 1000 feet

[*facing page* 65

The roadway at the top of the hill ahead was more difficult to detect; apparently the centre had been scoured out by water, leaving the edges only intact. Traces of the pebbles were visible further ahead in the hedge bank beside Corkscrew Hill. We are then fairly on to hard gravel subsoil which comes so near to the surface that the difference between it and the roadway is not very marked; then as far as I have seen, the road was made up of the same yellow gravel, but the ground having been ploughed over for several centuries it is only near ancient hedgerows that the structure is likely to be intact. I found evidence of the road in several places across West Wickham parish and particularly on Langley Park Golf Links. It passes close to Langley House, always on the same line.

The opportunities for digging being now very limited, I passed over the gravel to the more promising ground which occurs first on the far side of Beckenham parish. (See Plate X.)

From the Lewisham parish boundary to Southend Lane on clay bottom, a few yards to the east of my straight line, the hard core was easily located 14 inches deep. A section showed a gravel road 30 feet wide, with very little camber but quite hard, and with no appearance of having been scattered by the plough. Loose stones above or at the sides of the metalling were notably absent, in fact if it had not been constructed in the flat form, it had been worn down by use and not recrowned. The surface showed rut-marks. The greatest depth of gravel was 11 inches; it rested on a layer of large pebbles and some rough flints. The clay below was bleached to a depth of 5 inches.

Continuing on the same line a length of the roadway is intact as it approaches the Pool River at the footbridge. From there the line bends westward and makes for the top of Blythe Hill where a cutting disclosed only the deeper edges intact, but the subsoil being clay the line of hard gravel is clearly marked out.

From the hill-top there is a clear view of the line of the roadway southward to the cap of the North Downs and, to the north-west, an uninterrupted view of London and the bridge. Here the idea at once occurred that the objective

was not the Canterbury Road at New Cross but a straight line to London.

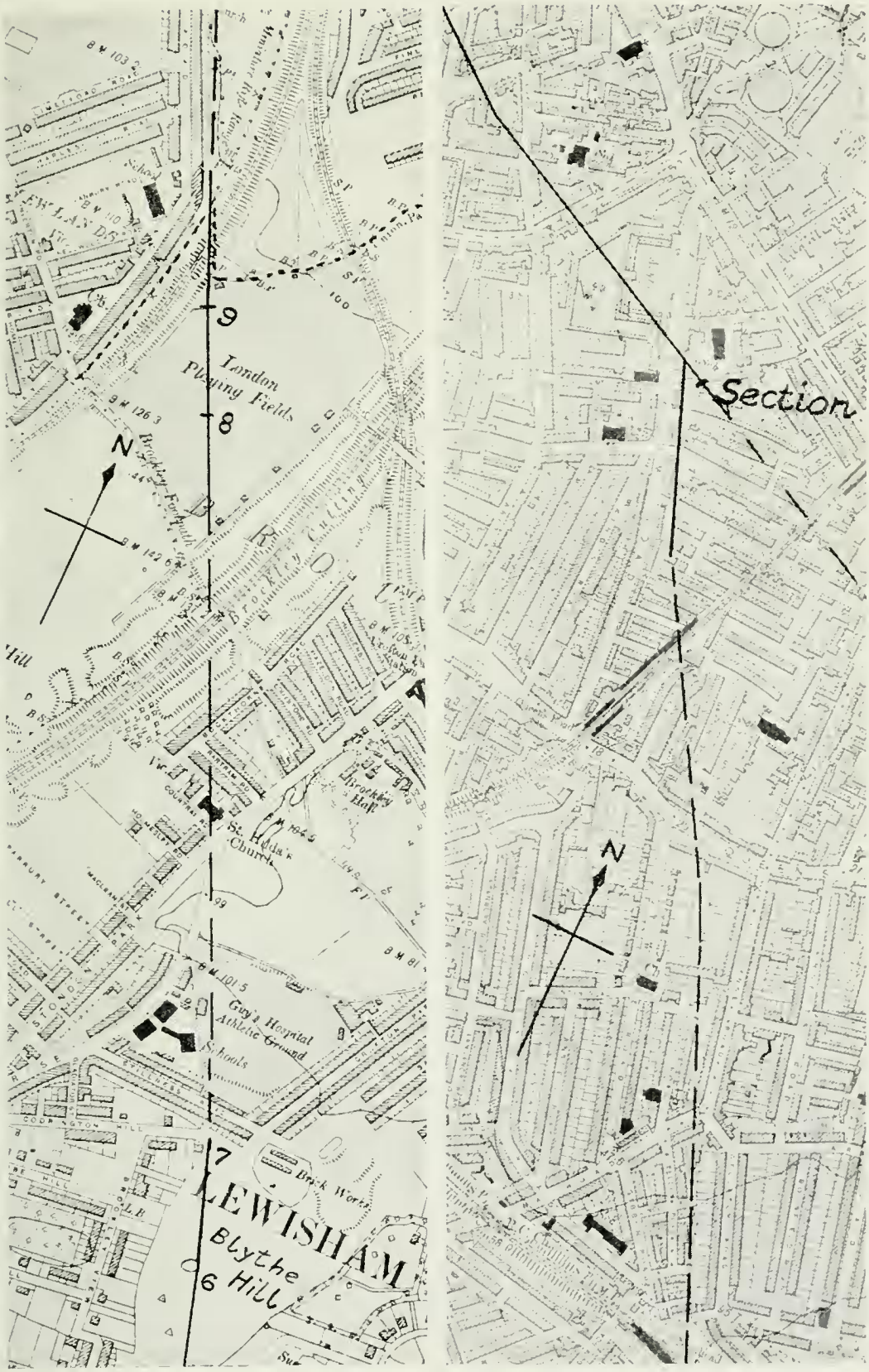
Down the north slope of Blythe Hill the roadway is marked by a slight hollow. At the bottom of the hill the agger was intact except that sliding movements in the clay had broken the even curve of the road surface and it appeared in sections at different levels.

Straight ahead was the open ground of Brockley Park; trenches cut right across for house foundations made it clear that the road did not pass that way, but was still bearing to the west. (See Plate XI.)

The direct line to London Bridge crosses the London Playing Fields just beyond the cutting of the Southern Railway, once the Croydon Canal. The excavated ground from the cutting, having been dumped at the side, had apparently washed down over a large area of the fields and caused me some trouble; for having got what appeared to be the road at the usual depth of 20 inches, on opening up it proved to be a road which was on the surface in 1800 as it contained yellow bricks in its make-up. Mr. Margary solved the problem by locating another hard surface 14 inches lower and this proved to be the true Roman Road, 20 feet wide, and formed, as usual, of 6 inches of tightly packed small flints on a layer of large flints, with white clay below. At the lower end of the field the old road was only the normal 18 inches deep, as we proved by a cut.

We had now reached the Surrey boundary again. All the older maps show a rectangular kink in the boundary here, one side of which lies along the road. It may be a coincidence but more probably represents some enclosure beside the road of Roman or earlier date.

Any chance of exploration beyond this point looked very unpromising. Old maps and parish boundaries gave no clues. There was nothing to do but rule a line on the map straight to London Bridge and look for gardens which offered a chance of coming upon it. I found these about St. Mary's Road, Peckham, and Mr. Margary and myself working the ground with pits and the bar satisfied ourselves that the direct line did not hold good; there was nothing but sand and clay with no stones to a depth of 40 inches. Subsequently I got the line



Based on the Ordnance Survey Map with the Sanction of the Controller of H.M. Stationery Office.

LEWISHAM TO PECKHAM.

1000 500 0 1000 feet

facing page 66]

rather to the east; the large flint layer was 26 inches deep and the roadway broken up. Across Queen's Road, Peckham, and to the East of Asylum Road, at No. 115, the road was 27 inches deep and quite intact, the ground above also undisturbed, 12 inches soil and 15 inches yellow clay. On the road surface was a thin layer of humus, which I took at the time to be decayed weeds and vegetation growing on the road after disuse, but subsequently I learnt that it was the work of modern worms working down to and along the hard surface; however it allowed the pebble surface to be cleaned very effectively from overlying clay. Unfortunately, only 6 feet of trench could be cut here, but, with the help of the spear, the centre of the road could be marked. It was 18 feet wide, made of gravel 8–10 inches thick and resting on large pebbles with a layer of white sand below. The normal subsoil is now a tight sand with thin layers of small white pebbles, usually at 50 inches in depth. The camber of the road was as before, roughly 7 inches rise from side to centre.

Now it was clear that this road was making straight for the north end of Asylum Road and that it was shortly going to disappear under the houses; also it might at any time join up with the main Canterbury road and turn westward.

A word here about the name of this main road. It is customary to call it the Watling Street, indeed the writer on Roman Kent in the *Victoria County History* says this road "since Saxon times has gone by the name of Watling Street." This is certainly contrary to documentary evidence. In Saxon charters the name is only used of the road north of the Thames. The Kent road is called "Caisincg Street," which in Norman times became Kay or Key Street, and that name was used down to Elizabethan times, when the section of the road from Dartford to Spring Head fell into disuse.[1] Boctune next Keystreet is mentioned in an early deed[2] and that name remains to-day on the ordnance map in the hamlet of Key Street, near Faversham. I also have a terrier of lands of Sir John de Cobham dated about 1360 which lands are said to be in Stone on the north side of Kaystreet. It seems a pity not to continue the use of this convenient and legitimate name

[1] P.R.O., Exchr. Commissions, 39 and 40 Eliz., Mich. 20.
[2] P.R.O., Ancient Deeds, B. 433.

when the real Watling Street from London to Shropshire has quite enough length of its own.

I traced the Lewes road as far as 85, Asylum Road, always remembering to sink pits to the east wherever ground was available, and in this way I came upon Kay Street in the garden of No. 79. The two roads meet under the next house.

Fortunately there was a good strip of waste ground to work in and I got a trench 40 feet long across the main road, which covered part of the north slope and centre and a pit or water-hole which had been sunk through the road on the south and was filled in with silt. (See Fig. 2 and Plate XI.)

The obviously artificial structure was a double layer of rough and broken flints with clay binding, 2 feet thick in the centre and thinner towards the north edge. The south slope had been cut away. Fragments of red tile or burnt clay could be seen in the matrix. This construction rested on a mass of loose shingle, whether all in situ or artificially placed I could not be sure; at 6 feet in depth there was no bottom to it.

The form of the surface was, roughly, a 20-foot slope to the north, fall 2 inches in 3 feet and a flatter crown approximately 20 feet wide; the south slope had been cut away. The surface seemed to be unbroken by wear and yet there was no sign of paving stones having been used.

Where the south slope had been cut through, the ground was excavated to 7 feet and showed grey silt; there was hard bottom at 8 feet. All the fragments of pottery found seemed to be of no assignable date and there was certainly nothing Roman in the filling of the sump hole.

Immediately north and south of this large bank of stones there was sandy subsoil, so that there was something very definite to follow, the chief trouble was finding undisturbed ground and places to dig in. Eventually a line was laid down from Downes Street to Clifton Crescent, a distance of 1,500 feet. This points eastward to New Cross Gate and westward to Westminster.

The eastward direction does not point to Deptford Bridge but almost to Lewisham Hill. This line was perhaps necessitated by a piece of soft ground, marked now by blue clay subsoil, at the north end of Pomeroy Road; the road can turn after

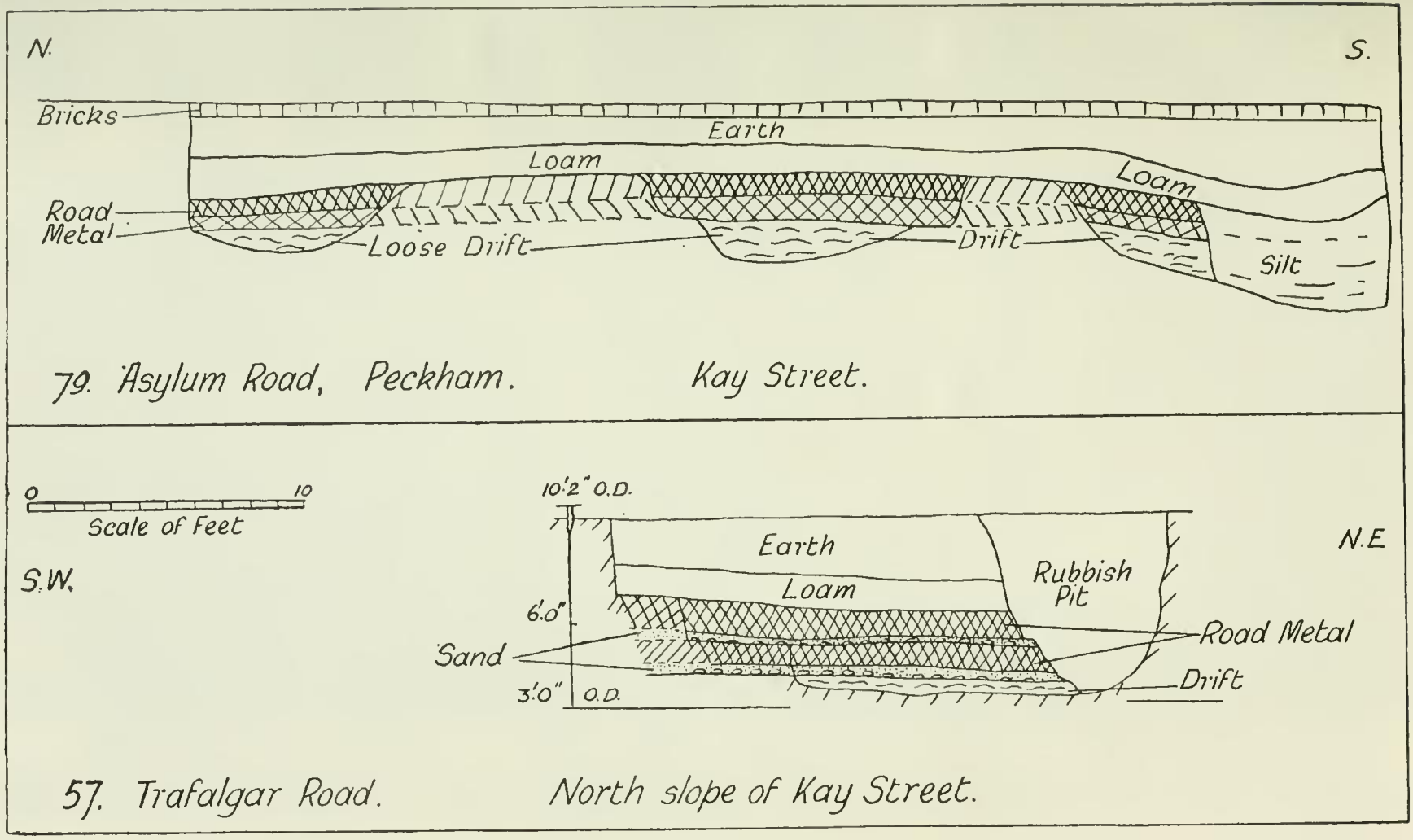

N.
S.
Bricks
Earth
Loam
Loam
Road Metal
Loose Drift
Drift
Silt
79. Asylum Road, Peckham.
Kay Street.
0
10
Scale of Feet
S.W.
10'2" O.D.
Earth
Loam
Rubbish Pit
N.E
6'0"
Road Metal
Sand
Drift
3'0" O.D.
57. Trafalgar Road.
North slope of Kay Street.

FIG. 2.

passing that and make for Deptford Creek at the Bridge; but that line brings it along the present roadway in front of the Deptford Town Hall; recent excavations there show nothing but sand. It seems to me likely that the crossing of the Ravensbourne was higher up the stream than the bridge.

Westward from Downes Street the line points to Newington Butts and Lambeth Palace. As far as the Surrey Canal there is no sound ground to explore, this area having been occupied by sand pits less than a century ago. Curiously enough no sand or gravel pits are marked on any maps. Some were open within the memory of old inhabitants; many others it has been my misfortune to discover by digging and they have been the chief hindrance to progress.

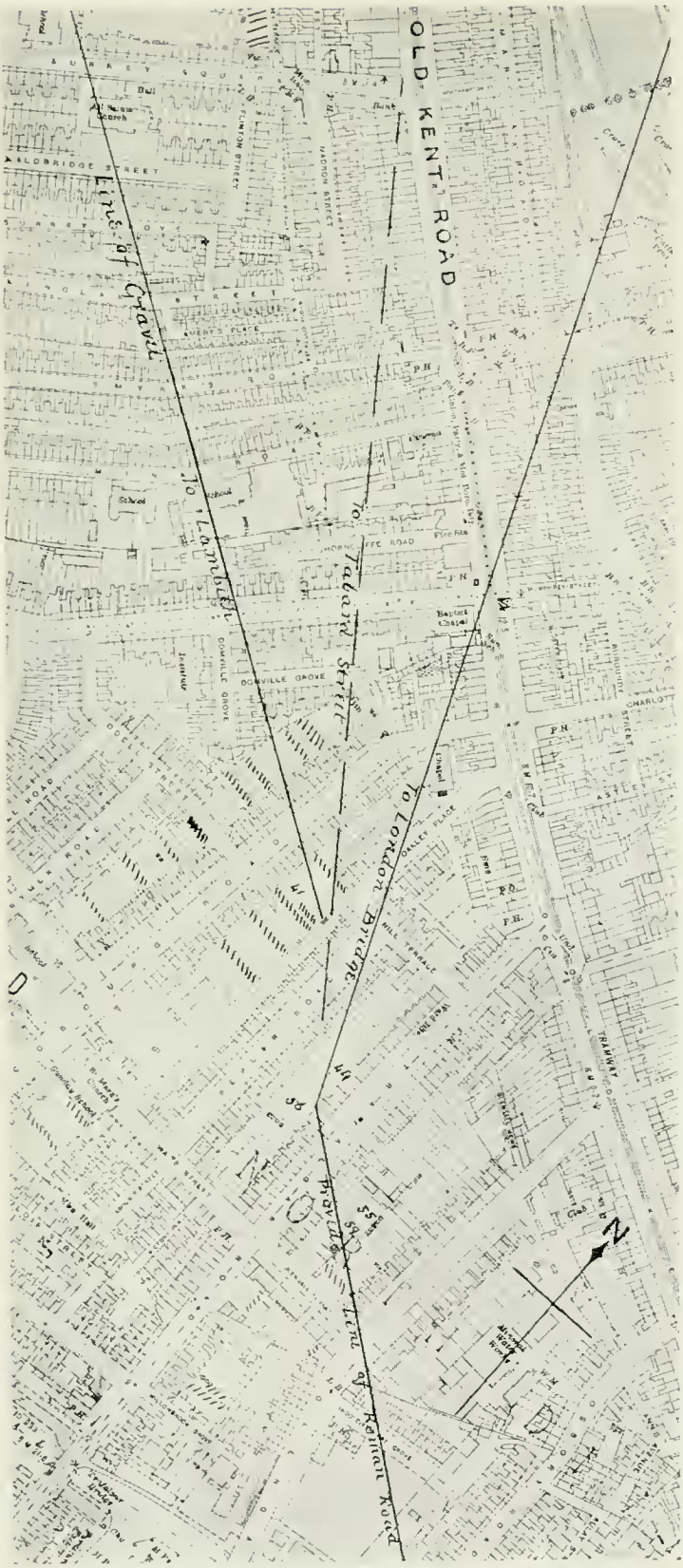
The neighbourhood of the Surrey Canal had to be avoided and undisturbed ground on my line first occurs again in Cobourg Road, Camberwell; besides the district beyond seemed to offer few possibilities, so that great attention was necessarily paid to Cobourg and Trafalgar Roads (Plate XII).

The perfectly straight line to Newington Butts I could not trace and thought at the time that it was disproved, but there is a possible line covered by buildings where I might have missed it; the point is that it would agree in alignment with a section of road said to have been found just north of Newington Church.

Having failed to pick up a straight line I worked northward, always with sandy subsoil, until the gravel was found again at 59, Trafalgar Road.

Here there have also been excavations for gravel and sand, but between several gardens I got sufficient evidence to give a true alignment and the width of the road, as well as a section from near the centre, 18 feet across one side; unfortunately a former rubbish pit prevented a complete cut out to the road edge and the ditch in this place. In another garden, where only small shallow pits were possible, the road surface was found right across and the camber could be measured by sounding with a bar and also the sharp drop at the road edges, into soft ground.

The whole width here was 60 feet, with 20 feet nearly level in the centre, the two sloping sides having a fall of 1 inch in 2 feet. There was again no sign of any paving. (See Fig. 2.)



Based on the Ordnance Survey Map with the Sanction of the Controller of H.M. Stationery Office.

COBOURG ROAD, CAMBERWELL.

500 400 300 200 100 0 500 feet

facing page 70]

A trench cut 7 feet deep exposed, near the centre of the road, and from the ground level, 16 inches of vegetable mould and 12 inches of sandy loam to the road surface which was covered with a thin layer of humus. A section showed 14 inches of broken flints, mixed with round pebbles and rough flint drift, in a matrix of sandy clay, which carried also some surface soil and a few pieces of bright red earthenware. All this was very firm ; it rested on 2–4 inches of yellow sand which was slightly bleached at the base while the sand rested on a layer of large rough flints. Underneath lay an older roadway formed of 9 inches of compact drift, carrying some broken flints resting on 3 inches of loose brown sand free from pebbles. At the base there were some very large rough flints. The surface on which these lay seemed to have been levelled off with coarse screened grit $\frac{1}{4}$ inch mesh and shaped to the curve of the road surface, the fall towards the road-side being $1\frac{1}{2}$ inches in 3 feet. The lower sand layer, about 1 inch in thickness, is everywhere bleached grey at the base and has the corresponding iron cemented layer below, with loose drift under this which I take to be the surface on which the road was constructed.

The level of the road bottom, measured from the centre of Trafalgar Road, was 4 feet 1 inch O.D. under the centre and the total thickness of the construction 2 feet 8 inches. At the side of the road the basal sand layer is about 3 feet O.D.

Other pits sunk in this area, but off the line of the road, gave a subsoil of firm sand and thin seams of fine gravel at about 5 feet, that is, 12 inches higher than the base of the road structure, so that one must apparently think of the original road as being started by cutting out the camber in the ground and laying the first materials in a cutting. The section at West Wickham showed the same feature.

The constant appearance of a basal bleached layer I imagine implies the use of brushwood for the foundation.

The road seems to have been remade and raised using the same sequence of materials even to the large stones. One may also note that the lowest layer is at least 16 feet below the present-day High Tide mark, giving further evidence, if any were needed, that the surface has sunk somewhat more than that amount since Roman times.

On the west side of Trafalgar Road I got the undisturbed

edge of gravel on the former alignment, but most of the ground had been disturbed and the evidence was rather that the road had turned away north.

Peplar Road is built on an old sand pit and one has to return again to Cobourg Road for sound ground. Here it could be proved that the last alignment was not holding, there had been a bend.

There are two possible lines which it may have taken; either straight to Tabard Street, in which case it would have to cross gardens in Cobourg Road, or straight for London Bridge, wherever that was.

I was able to dig pits across the line to Tabard Street; the ground was quite undisturbed and showed the usual sandy clay without a pebble down to 5 feet. The only possible line of approach to Tabard Street from my position in Trafalgar Road is therefore straight to the Old Kent Road and up the centre of the road, that requires two bends and is a most improbable line of approach to London; besides, I have seen a 3-foottrench cut across Tabard Street and it exposed nothing but loose yellow gravel which looked like normal repair material of later times.

The line of Kay Street then must cross the Old Kent Road somewhere between Tabard Street and Trafalgar Road, with a strong probability in favour of the neighbourhood of Albany Road.

Early this year (1934) a pipe line was laid under the pavement on the north side of the Old Kent Road and the trench cut, 4–5 feet deep from Tabard Street to Humphrey Street and under the Main Road to Albany Road. It showed light sandy subsoil all the way except in the position which I had marked as the probable crossing; there was gravel, large blocks of chalk and pieces of stone, not of local origin, a mixture of materials which probably represented part of the structure or approach to a bridge; in fact, the tops of three arches of a culvert were also exposed. This is the site where the medieval road crossed a stream at St. Thomas Watering. Further, the pipe line was taken under the tram line in a tunnel, exposing 4 or 5 feet of flint road metal under the tram lines opposite Albany Road. Some time later a large hole was cut in the main road just east of Humphrey Street and almost touching

the tram line; it was 6 feet deep and showed clearly that there was no heavy mass of road metal under the tram lines, except in one place, which was next to the line of my assumed crossing. The thick layer of flints which I saw in the tunnel was therefore either an isolated patch or on a line crossing diagonally and moreover the various excavations had narrowed its position down to a width of 60 feet.

Joining this position to my last position in Trafalgar Road and extending the line, brings one to a point about 500 feet from the river bank opposite St. Olave's Church, Southwark. The Roman bridge might be on either side of the church, but considering the probable line of Stane Street and that the junction of the two roads would probably be at the bridge head, a position on the west side of the church seems more likely. Unfortunately I have found no place on my line where a pit could be dug. It passes close to the "Dun Cow" and should cross Page's Walk near its junction with Willow Walk; that seems the most likely place to get confirmation when the roadway is opened up. I have myself seen that there is gravel in that position.

The Road to Westminster Ferry.

Stukeley, writing in 1722, says: "It went from Stangate ferry across St. George's Fields, so south of the Lock Hospital to Deptford and Blackheath, a small portion of the ancient way, pointing to Westminster Abbey, is now common road on this side of the nearest turnpike." [1]

Allen, in his *History of London*, writes of this road as going "from St. Thomas Watering to Stangate."

South of the Lock Hospital was all fields in 1722; could these writers see the raised surface of the causeway across the fields? They do not say.

There was a stream running along this line from about Newington Butts to St. Thomas Watering; to the north of it is sandy subsoil; about 100 yards to the south is the line of highest ground and on this is a narrow strip of gravel. This should be the natural position of any trackway to the river opposite Westminster.

I found this gravel at 41, Cobourg Road, but was not able

[1] *Itin. Cur.*, p. 119.

to dig on it. Holes at the side showed that it was sharply defined and not much over 20 feet wide. When probed with a bar it feels like a raised gravel ridge, that is, the depth over the centre was 27 inches sloping gently to the north and south. It crosses to 39, Cobourg Road, and I was able to get its position in East Street just north of Alvey Street. The line points just north of the Elephant and Castle, that is to the old turnpike, and crosses the site of the Lock fields.

There is only one position where a complete cut across this gravel could be made, *viz.* behind All Saints' Church, Surrey Square. Unfortunately the ground is not only covered with recent brick rubbish to a depth of 3 feet or more, but the greater part has been dug out and filled with builders' waste. I got no bottom at 7 feet. However, one piece of the original ground was undisturbed.

The section read, 43 inches of recent brick waste over the original ground level, then the bottom courses of a brick wall, which had been built about 1860, the base being 5 feet below the present surface. Below the wall, 9 inches of earth, then 12 inches of gravel and earth (disturbed ground), to a hard gravel surface, which I cleaned up for a length of 4 feet. This was like the normal road surface I had been finding all along the line. The gravel was 3–4 inches thick, hard to the pick, breaking away in lumps, which however had no cementing material; when placed in water, the gravel fell to pieces immediately, disclosing water-worn pebbles and some rough broken flints in sandy matrix with a little vegetable mould. Below was 2 inches of white sand and then the usual yellow sand with small white pebbles. I noted at the time that this gravel was certainly a made pathway, too deep below the old cultivation soil to be anything modern, but whether it was the thin edge of a wide road of Roman date there was nothing to show, except the similarity of structure.

Following the line westward, it passes no other open space, but runs close by the vicarage garden of Lady Margaret's Church, Walworth. I trenched this ground to a depth of 6 feet and found it to be off the line, with sandy subsoil, except for a bed of gravel shaped like a roadway, over which I spent some days' work. Whatever this was the direction was across my line and pointing to London Bridge.

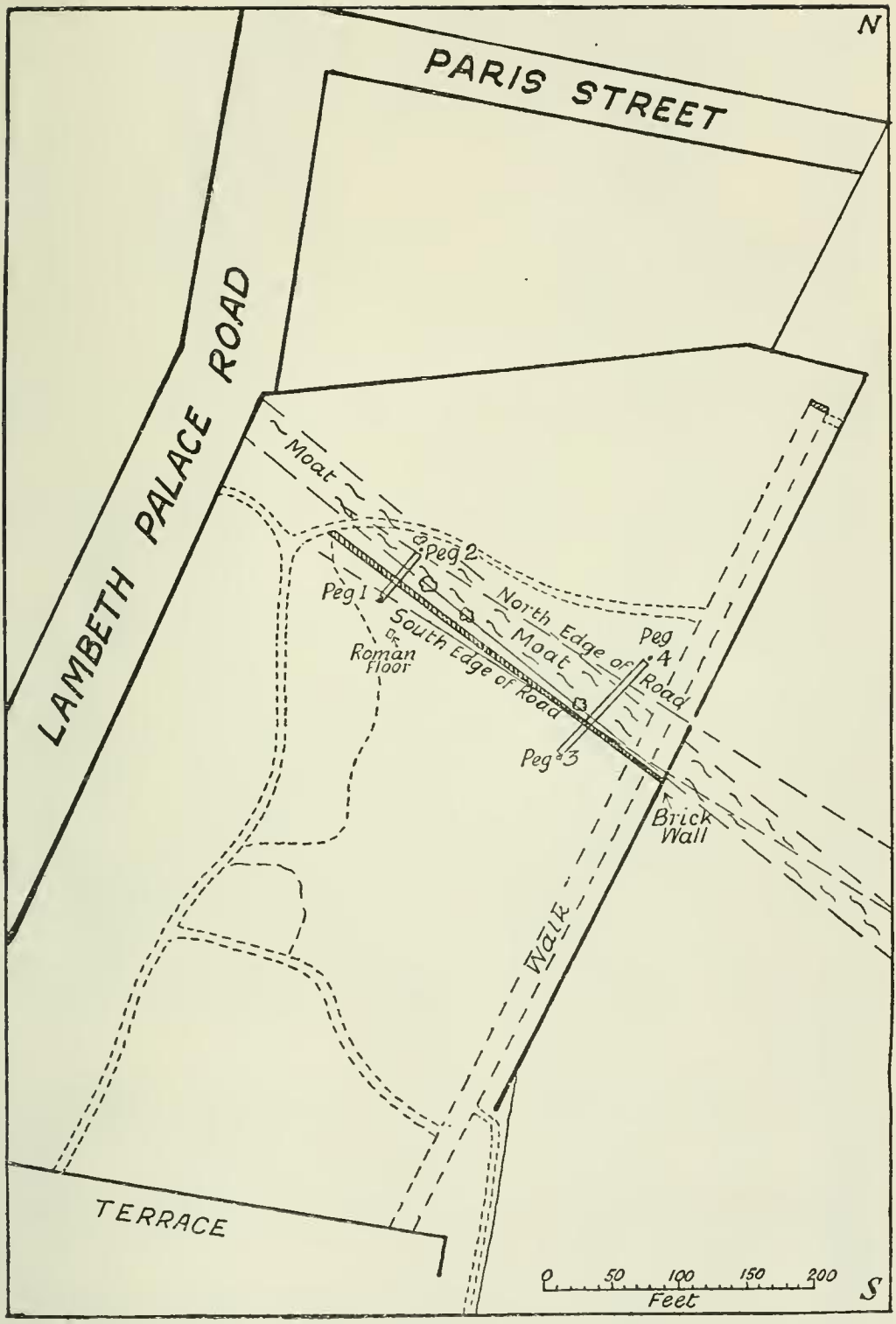

N
PARIS STREET
LAMBETH PALACE ROAD
Moat
Peg 2
Peg 1
North Edge of Moat
South Edge of Road
Roman Floor
Peg 4
Road
Peg 3
Brick Wall
Walk
TERRACE
0 50 100 150 200
Feet
S

FIG. 3.

We arrive then at the Elephant and Castle with the rather meagre evidence of the section in Surrey Square, but the certainty that a raised ridge with gravel capping exists in a straight line pointing towards Westminster and in agreement with the direction of the road given by eighteenth-century writers. For existing evidence of a road across St. George's fields I can find none. The subsoil seems to be mainly gravel and suitable for a road in any direction. The river above London Bridge should have been fordable anywhere in Roman times between low and half tides; but the approaching road has been pointing to Westminster, the raised land on the north bank there suggests a suitable landing and that line points directly to the Watling Street at Tyburn. If, as Higden [1] says, the road passed to the west of Westminster Abbey, the ford can hardly have been further north than Lambeth Palace grounds, that stretch of the river bank was therefore obviously the ground to explore. (See Fig. 3.)

I sounded the ground with a bar every three paces from the terrace to the bottom of the lawn and found an even hard bottom at about 42 inches, except across the lower part of the lawn, where hard gravel occurs at 27 inches in many places. Here there is also a raised ridge marking an old hedge line and also a line of bricks immediately under the turf which indicate the position of the old garden wall. This wall was standing in 1750, and as far as old records and sounding of the ground show, it stands on the same ground as a wall which had been there in the thirteenth century. To the north was the moat and, beyond, there seems to be sandy ground, perhaps originally lower ground since filled in.

A trench was cut 150 feet from the present west garden wall, which represents very nearly the line of the river bank as it was in early times. This trench was 40 feet long, at right angles to the raised ridge and disclosed the remnants of the old garden wall, half the moat, and ground 30 feet to the south. (See Fig. 4, 1.)

The wall had been pulled down to the foundations and the bricks left on the site; they were mainly eighteenth-century bricks, but there were some of earlier date. They were lying in vegetable mould. Sixteen inches below the base of the wall

[1] *Polychronicon* (1344).

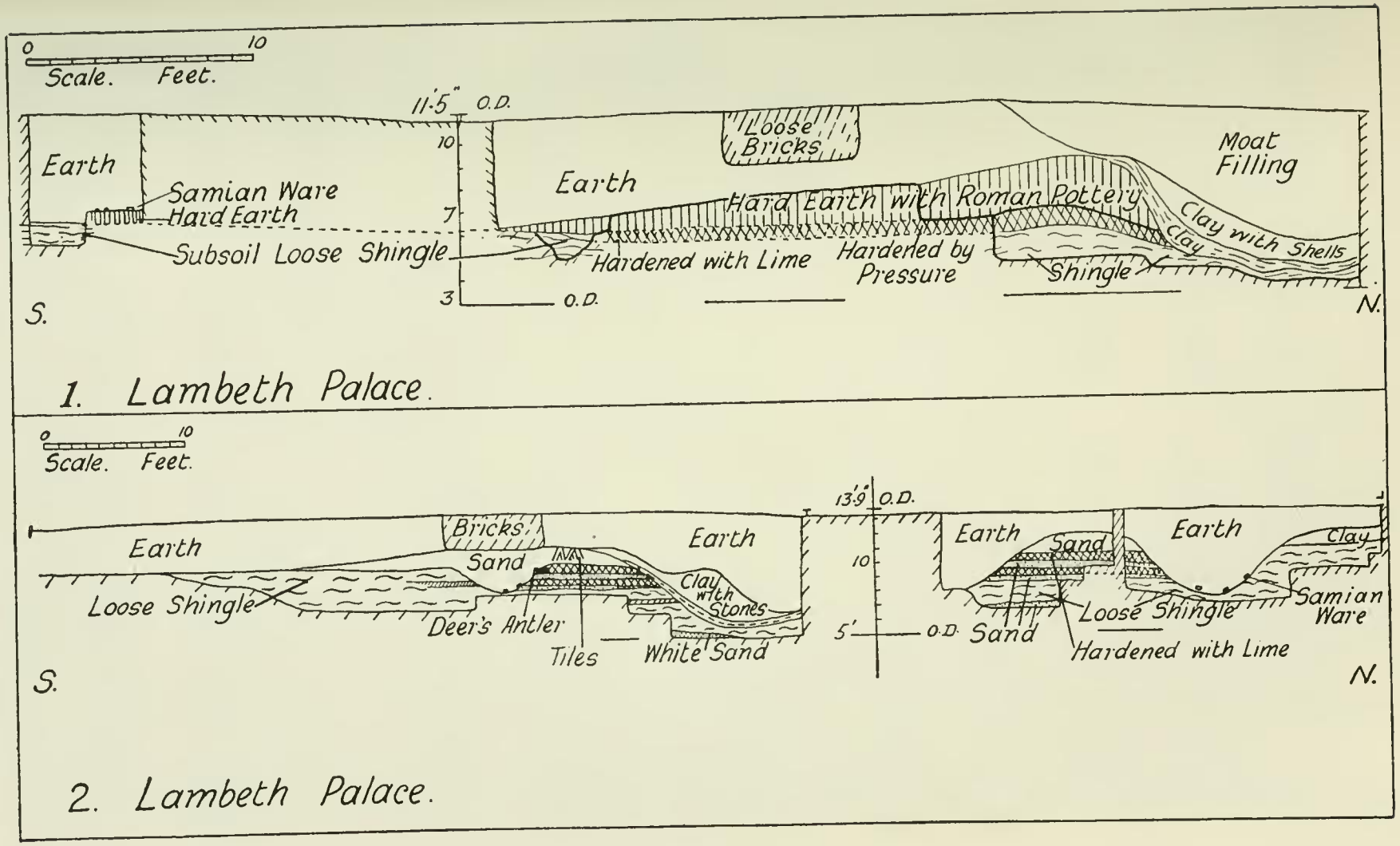

0 10
Scale. Feet.
11·5" O.D.
10
7
3
O.D.
Earth
Samian Ware
Hard Earth
Subsoil Loose Shingle
Loose Bricks
Earth
Hard Earth with Roman Pottery
Hardened with Lime
Hardened by Pressure
Moat Filling
Clay with Shells
Clay
Shingle
S.
N.
1. Lambeth Palace.
0 10
Scale. Feet.
13·9" O.D.
10
5'
O.D.
Earth
Bricks
Sand
Earth
Loose Shingle
Deer's Antler
Tiles
Clay with Stones
White Sand
Earth
Sand
Earth
Clay
Loose Shingle
Sand
Samian Ware
Hardened with Lime
S.
N.
2. Lambeth Palace.

FIG. 4.

and 3 feet below the grass level was a layer of hard earth, the even surface of which dipped southward 8 inches in 12 feet. The thickness of this hard earth varied from 6 inches at the south to 24 inches near the moat and it contained from top to bottom numerous fragments of Roman roofing tiles, pieces of rough pottery and Samian ware. Underneath this earth was a layer of compact gravel irregular in thickness, in places 10 inches, generally 4 inches. This gravel layer extended from the moat southward for 25 feet and sloped southward 11 inches in 20 feet to a sharply defined edge. The highest part was about 4 feet from the moat edge and the northern slope was cut off sharply and diagonally by the moat and covered with the clay lining of the ditch; possibly the extension would be found on the north bank of the moat, but the ground could not be excavated so far.

The hard earth layer with Roman remains extended south of the hard gravel and rested, at a depth of 5 feet, on loose shingle which was everywhere the natural bottom.

The hard gravel layer was composed of the local shingle and sand, but contained a number of fragments of burnt flint and some broken flints. At the north end it was merely compacted by pressure, that is, lumps of it, if laid in water, fell to pieces immediately. At the south end there was a considerable admixture of lime and soil, which remained hard in water and effervesced freely in acid.

A pit sunk 14 feet to the south of my trench to check the natural sequence of deposits, showed 57 inches of earth, which could be dug with a spade, resting on loose shingle. Over half the bottom of this pit there was a hard earth layer 7 inches thick with some fragments of Samian ware, some burnt flints and sherds of pottery on the top. Dr. Wheeler and others saw some of these fragments and I gathered that their impression was that they were likely to be of the later Roman period. The level at which these sherds lay was 7 feet 6 inches O.D.

The moat was excavated to the bottom, the level being 3 feet 4 inches O.D. Nothing in particular was found; but fragments of seventeenth-century pottery occurred down to the bottom. A great part of the moat must have been dug out of the shingle subsoil, and this was certainly not thrown

out on the sides and was not the cause of the raised ridge on the south side.

The hard earth layer, 2 feet thick near the moat, can hardly have been a gradual accumulation; one may suppose that it was a bank made to keep out flood water at high tide in later times, but at least the sherds of pottery and tiles show clearly that there was some occupation of the site in Roman times.

The hard gravel layer was artificial, for it contained burnt and broken flints and was mixed with lime in parts. It might be a floor, but the slope is against that. It might also be the end of a roadway thinning out on the river bank, in which case it would be found extending eastward.

Another trench was cut as far east as possible, that was 260 feet, and made so long as to show both banks of the moat and undisturbed ground on either side; it was 95 feet long and generally 6 feet deep. (See Fig. 4, 2.)

The south end of the cutting, for 20 feet in length, disclosed 2 feet of vegetable mould passing gradually to sand which rested at 42–5 inches on loose gravel or shingle. Down to a depth of 6 feet this gravel showed no hard layers and only irregular seams of sand in places.

From 20 feet the gravel was covered with a soft yellow sand and some signs of a hard layer appeared at the top of the gravel. From 29–36 feet was the debris of the garden wall with bricks of various ages and some grey stone at the base, which was 32 inches down. The base of the wall was on a flat surface of yellow sand. In this sand beside the wall and below the level of the base was a stack of unused roofing tiles, roughly glazed on one side. They stood on a surface which was 2 inches above the gravel.

Manor account rolls mention the use of roofing tiles for walls about 1420; before this time rushes were used for the same purpose. Perhaps the yellow sand represented the debris of the early wall, the first construction of brick being in the fifteenth century; this would account for the tiles being buried in the sand.

Underneath the wall there was a ditch cut in the gravel, which was 7 feet wide and 20 inches deep. It was filled with the same yellow sand, and on the bottom were some sheep bones and a few pieces of charcoal; on the north side and

partially imbedded in a hard gravel layer was a straight piece of a deer's antler 8 inches long.

From the ditch northward for 6 feet, to the edge of the moat, the gravel was compacted into two hard layers with a parting of clean sand, also very tight and layered as if it had been rammed tight. I could find no fragments of brick or pottery in these layers, but there were broken flints with fractures slightly weathered. The top of the gravel was almost level, only slightly higher than the normal level southward.

The moat cut across the hard gravel and down into normal loose drift. At the deepest part it was 8 feet below the grass level. The filling as before showed very little of interest. The width at the top of the gravel subsoil was 27 feet.

On the north bank of the moat, the top surface of the gravel was only 3 feet below the grass compared with 42 inches on the south side. There were two hard layers with a sand parting 2–4 inches thick. This sand was very tight and layered.

The top gravel layer was mixed with lime, so much so as to show white. The lower layer had vegetable mould through it and underneath it. Both layers contained broken flints with partially weathered fractures. The total thickness of sand and hard ground was 18 inches.

These layers continued northward for 10 feet, dipping slightly to the edge of a second ditch, which was 9 feet wide and 3 feet deep. The hard gravel was not found to the north of this ditch. My trench was cut out 6 feet further to a depth of 6 feet and showed in section at the end, 21 inches of top soil, 12 inches of yellow sand and clay on loose gravel.

This second ditch was filled with earth; a few pieces of bone and a piece of Samian ware lying on the bottom.

These artificially constructed gravel layers, lying between the two ditches, seem inexplicable if considered as part of the moat construction; besides, the moat does not lie parallel to the edges. In the first trench there was a length of 25 feet from moat to gravel edge compared with 6 feet in the second trench.

It seems to me to be more reasonable to see here a roadway through which the moat has been subsequently cut. It would have been more satisfactory to have got a section farther east, clear of the moat, but there was no ground available.

There are several puzzling features about this section. The hard layers are almost flat and very slightly higher than the general level of the shingle subsoil.

The stack of unused roofing tiles, which can hardly be older than the fifteenth century, are standing on a surface only one inch above the hard gravel and firmly imbedded in the sand which forms the ground on which the garden wall was built.

The important point to decide is whether the hard gravel layers are artificial, and that I think is decided by the local admixture of Lime, by the appearance of vegetable mould amongst the stones in places and underneath the lower layer in one place, also there were a number of broken flints, the fractures showing partial weathering. There is no natural cementing material amongst the stones and the sand partings are tight and layered as if compacted by pressure. There is nothing similar in structure deeper down in the subsoil.

Granted, then, that the layers are artificial, can they have anything to do with the moat construction? This does not seem to me very likely; besides, the line of the moat is not parallel with the edge of the gravel layers and in the first trench the moat cutting diagonally across them. The moat was there in the thirteenth century, as the manor account rolls show, and probably considerably earlier, which places an earlier construction of this character as certainly Roman, and how can one account for the overlying hard earth with Roman remains in any other way? We have then 300 feet in length and roughly 40 feet in width end on to the river bank, the best explanation of which is that it is the end of a roadway to a crossing.

The direction of the road, indicated by the two sections, is more in a line for Newington Butts than towards the Elephant and Castle, but a crossing of the Stane Street in either position would answer to the alignment of Kay Street across Peckham.

Summary.

The line of the road from West Wickham is straight in the direction of New Cross Gate as far as the Lewisham parish boundary, and then soon bears west and joins Kay Street just east of Asylum Road, Peckham, and 800 feet south of the Old Kent Road.

The direction of Kay Street from this point eastward suggests that it may not have crossed the Ravensbourne at Deptford Bridge, but farther south. Westward it points towards Westminster and continues on that line as far as Trafalgar Road, Camberwell, when there is a sharp turn northward. A straight line from there to Tabard Street was disproved and all the evidence is that it crosses the Old Kent Road at its junction with Albany Road. This line would bring it to the Thames near the site of St. Olave's Church, Southwark, and considered in conjunction with the line of Stane Street, the two would meet, without bends, at a point which makes the most likely position for London Bridge to be just west of St. Olave's Church.

Opportunities for exploring a possible line of road to the Thames opposite Westminster are very limited. There is a narrow belt of gravel across Walworth, on a slight ridge, which leads towards the Elephant and Castle from the bend in Kay Street. In one place it showed evidence of being a constructed roadway; it corresponds also with the line indicated by eighteenth-century historians for a road from Westminster to St. Thomas Watering and may be, as a whole, the remains of a road. The direction points to Lambeth Palace grounds as a possible site for the terminus on the river bank.

Excavations in the Palace grounds showed that the site was occupied in Roman times, and although the evidence for a roadway to it was confused by the later construction of the Palace moat, I think that what was uncovered there can best be explained by taking it for the end of a roadway to the river. The place was suitable for a ford across the river, both on account of the firm gravel subsoil and the shallowness of the water from low to half tide as it must have been in dry weather, with the ground level 16–20 feet higher than it is to-day.

The illustration by maps of all the details explained in this paper has not been possible as it would require a series of the largest scale. I hope the details given will be sufficient to enable others who may wish to explore further, to pick up the line.

I should like to call attention to one point which is largely obscured on the present-day maps by house-building, and that

is, that nowhere along the line have I been able to trace any correspondence between the Roman road and the oldest field boundaries, trackways, or even parish boundaries, except in the case of the Kent–Surrey boundary, and a suspicion that Wickham Court, which stands beside the road, is on Roman foundations.

Many friends I have to thank for help in digging and the more tedious work of filling in excavations, and for continuous interest and advice. Especially my thanks are due to the many in South London who have made it possible to dig, and with great kindness helped me from house to house. Without their help, what could I have done?