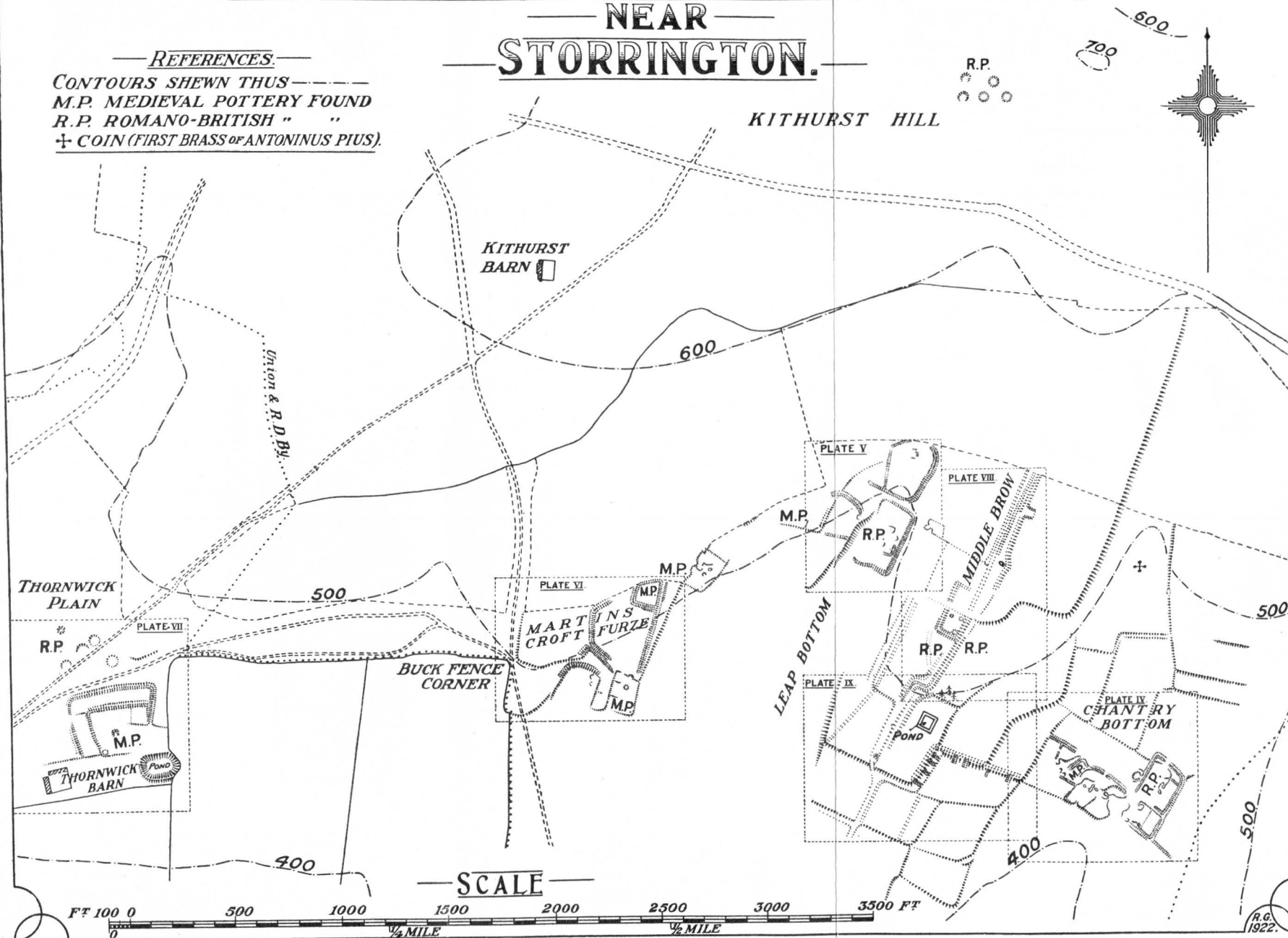


GENERAL SITE PLAN OF EARTHWORKS NEAR STORRINGTON.

REFERENCES.

CONTOURS SHOWN THUS ————
 M.P. MEDIEVAL POTTERY FOUND
 R.P. ROMANO-BRITISH " "
 + COIN (FIRST BRASS OF ANTONINUS PIUS).



Based upon the Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office.

W. HEFFER & SONS LTD.,
Cambridge.

Sussex Archaeological Society.

SUSSEX LYNCHETS AND THEIR ASSOCIATED FIELD-WAYS.

BY ELIOT CURWEN, M.A., M.B., B.CH., F.S.A.

AND

ELIOT CECIL CURWEN, M.A., B.CH., M.R.C.S.,
L.R.C.P.

IN our recent paper dealing with the area of the Downs immediately to the east of Burpham we made reference to a remarkable series of earthworks, situated on the southern slopes of Kithurst Hill, nearly two miles to the south of Storrington.¹ Since then we have had the opportunity of making a survey of this series, which is contained within an area roughly a mile long by a third of a mile in width (see general site plan, Plate I.). These earthworks will serve very well as a basis for the consideration of the question of lynchets and their associated field-ways, though some of their features have no direct bearing on it. It will be well, however, to take this opportunity of putting the whole series on record.

The term "lynchet" is commonly applied to one of a series of terraces, generally square or rectangular, which are not infrequently found situated on the gentle southern slopes of the Downs, or covering a southerly-directed tongue of the main ridge (Fig. 1). Much less frequently in Sussex they take the form of long, narrow terraces, on a steep hillside. The banks which form the terrace vary from a few inches to 10, 12, or even 18 feet in height. The subject of lynchets

¹ *S.A.C.*, LXIII., 41-44.

has been dealt with by many writers, some of whom have not failed to put forward the usual wild conjectures as to their origin. Among those who have contributed to our knowledge of the matter are Professor Seebohm,² Mr. Poulett Scrope,³ Dr. Colley March,⁴ Mr. Laurence Gomme,⁵ Mr. Walter Johnson,⁶



FIG. 1. VIEW OF LYNCHETS NEAR JEVINGTON
(Drawn from photo by the Rev. W. Budgen).

and, with special reference to Sussex, Mr. Reginald Blaker,⁷ and Mr. Herbert S. Toms.⁸

In Plate II. we show a section which was cut through two of a series of step-like lynchets on Thundersbarrow Hill, near Shoreham.⁹ It will be seen that the banks are formed by an accumulation of mould and broken

² *English Village Community*, especially pp. 3-7.

³ *Wills. Arch. Mag.*, XII., 185-192.

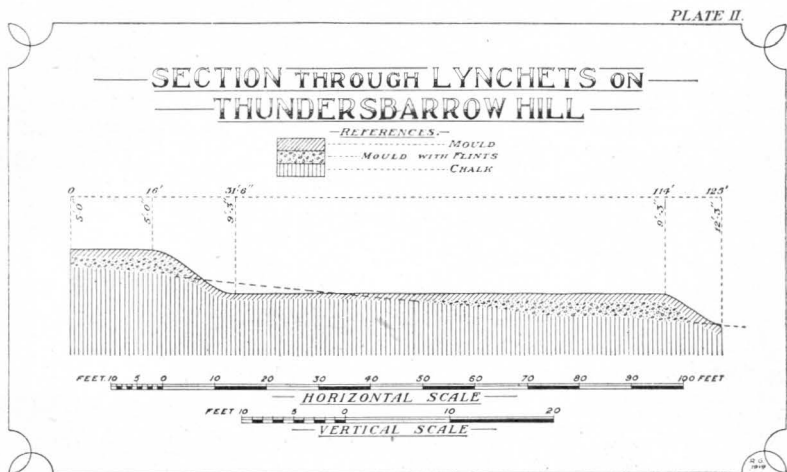
⁴ *Proc. Dorset Field Club*, XXIV., 66-92. ⁵ *Village Community*, chap. IV.

⁶ *Folk Memory*, chap. XIII. ⁷ *S.A.C.*, XLV., 198-203.

⁸ *Brighton Herald*, Apr. 9, 1910; *Antiquary*, Nov. 1911, pp. 411-417; *Trans. Eastbourne Nat. Hist. Soc.*, Jan. 1917, pp. 45-53; *Suss. County Herald*, Oct. 21, 1922.

⁹ Locally known as the "Giant's Steps" or "Thunder's Steps." 6" O.S., LXV., N.W., about 13.25"-10.75". For explanation of these map-references see *S.A.C.*, LXIII., 3n.

chalk with flints on top of the undisturbed chalk. It will also be noticed that immediately under the banks some of the undisturbed chalk has been removed, thus adding to the height of the lynchet. It is natural to conclude that the soil so removed has gone to form



the bank next in order below it. Thus the formation of each bank, or lynchet, depends upon two factors—(1) the accumulation of soil above, or, as we might call it, the positive factor; and (2) the removal of soil from below, or the negative factor. The dotted line in the figure represents the original surface line. These two factors, the positive and the negative, will come to the fore again when we consider the roads that are often to be found associated with lynchets.

Manifestly this postulates human agency. Large quantities of earth are removed from the upper half of an area of ground, and deposited in the lower half, the nett result being a partial levelling of the surface. But as most of our Sussex lynchets are situated on ground that is not unduly steep, the slight amount of levelling that results from lynchet-formation must be incidental rather than intentional, and the advantages gained by the accumulation of good soil in the lower

part of the field are counter-balanced by the disadvantages resulting from the denudation of the upper part.

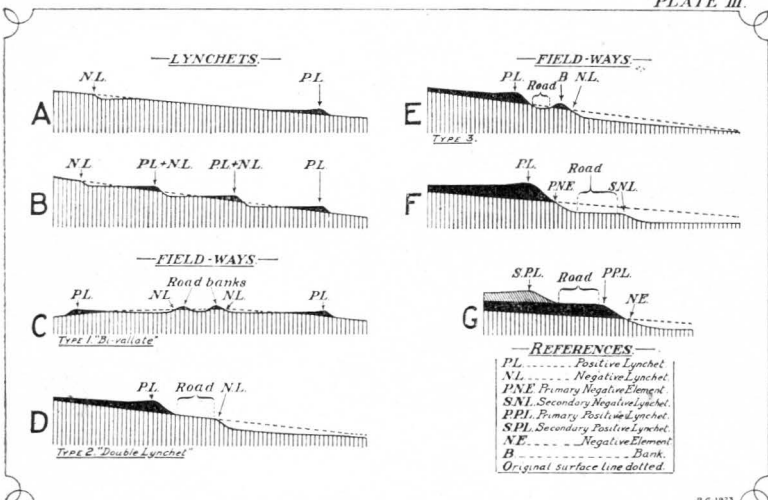
The explanation of this is not far to seek. If a hillside is ploughed with a simple type of plough, which only turns the sods over one way, and at the end of the furrow has to be taken back idle to the starting-point of the next furrow, and if the same field is ploughed in the same manner year after year, it must inevitably result in the transference of soil from one side of the field to the other. If the ploughing is done horizontally along the hillside, the sods are naturally turned downhill. It comes to this, therefore, that each year of ploughing, one sod is transferred from the upper edge of the field to the lower. This process, which is doubtless accelerated by the action of weather, results in a condition identical with that which is actually found when a section is dug through a series of lynchets.¹⁰

Now if a whole hillside is ploughed in this manner as one field, the soil will be transferred direct from the top of the hill to the bottom (Plate III., A). The removal of soil from the upper part of the hillside will make the undisturbed ground above it stand out as a bank—this is the negative factor spoken of above—and such a bank may well be called, for convenience, a *negative lynchet*. On the other hand, the soil that accumulates at the bottom of the hill will represent the positive factor in the formation of a lynchet, and such a bank, consisting solely of accumulated soil, we shall hereafter refer to as a *positive lynchet*. It will thus be seen that a negative lynchet consists solely of undisturbed soil, while a positive lynchet is formed entirely of soil accumulated by the plough. The looseness of the latter is often utilised by rabbits, whose activities so often proclaim the presence of disturbed soil.

¹⁰ Dr. Colley March seems to have been led to the conclusion that lynchets are partly of natural origin, because he failed to recognise the negative element in lynchet-formation in the sections which he dug (*Proc. Dorset Field Club*, XXIV., 66-92).

If, now, instead of being ploughed as one large field, the hillside is divided up into several smaller areas, one above the other, and separated from one another by narrow strips of unploughed ground, the downward creep of the soil will be arrested at the foot of each field, and the fields will come to be divided from one another by lynchets which consist of both positive and negative factors (Plate III., B).

PLATE III.



W.G. 1923.

In this connection it is interesting to note the derivation of the three principal words by which these cultivation terraces are known in England, viz., "lynchet" (or "lynch"), "balk," and "rein" (Yorkshire). These words are either derived from, or cognate with, respectively, the A. S. *hvinc*, the Welsh *balc*, and the German *rain*, each of which means the strip of land left unploughed between two ploughed portions. Such an unploughed strip gradually becomes a bank in the manner we have described, while the name (lynchet, balk or rein) sticks to it, and so comes to be applied to the terrace thus formed. In view of this derivation, the term "lynchet" ought probably to be applied only to the banks separating the fields,

and not to the fields themselves. It has, however, become secondarily applicable to the entire terrace, consisting of field and bank.

Professor Seebohm says that in the ancient laws of Wales an *erw*, or ploughed strip, "was divided from its neighbours by an unploughed balk of turf two



FIG. 2. SKYE CROFTER USING CASCHROM
(Drawn from photo taken in 1920).

furrows wide."¹¹ In support of this he quotes the following: "The boundary (*tervyn*) between two *erws*, two furrows, and that is called a balk (*synach*)."¹²

An excellent example of the modern formation of lynchets by the use of a one-way plough is to be seen in

¹¹ Seebohm, *English Village Community*, p. 119.

¹² *Ancient Laws of Wales*, II., p. 269.

the fields surrounding the village of Uig in the Isle of Skye. Some of the crofters of Skye still use the primitive *caschrom*, or foot-plough (Fig. 2), which consists of a curved handle about 5 feet in length, attached at an obtuse angle to a straight, iron-shod foot-piece about 3 feet long. In this wet island the furrows are made to run up and down the hill, for purposes of drainage, never along the hillside, while the fields, or, as we should call them, allotments, are long narrow strips running in the same direction. When using the *caschrom* the crofter begins his first furrow at the bottom of the field, at the left-hand corner (left-hand to an observer who is looking down at him from the top of the field). He faces downhill, that is, in the opposite direction to that in which he is going to drive his furrow. Placing his heel on a peg provided for the purpose, he presses the foot-piece of his instrument obliquely into the ground, and then, by depressing the handle, he levers up the sod; at the same time by a dextrous wrench of the handle, he turns the sod over to his *left*. This done, he takes a step backwards up the hill, and repeats the process, until, progressing backwards, he reaches the top of the field. He then picks up the *caschrom* and carries it idle down to the bottom of the field, and begins a new furrow on the right of the one he has just made.

This is the invariable method of using a *caschrom*, which is a useful instrument, and does its work quickly and skilfully in the hands of one accustomed to its use. If a *caschrom* is not used, a fork or spade usually takes its place. Horse-ploughing is quite uncommon in Skye, because of the rough nature of the land. It is not at all surprising, under these circumstances, to find the left-hand edge of the field (the observer is still looking *down* the hill) banked up at the expense of the right, since the sods are invariably turned over to the left. If it had been the habit of the Skye crofter to drive his furrows horizontally, instead of vertically, the lynchets would doubtless have formed at the lower edges of the fields, just as they have done in Sussex.

With regard to the Sussex lynchets, situated as they commonly are on gently sloping hills, the ground often falls in a direction oblique to the sides of the field, with the result that the lowest part of such a field is not one edge, but one corner. In whatever direction, therefore, the furrows lay, one or other or both of the sides adjacent to the lowest corner would tend to become positive lynchets. This would account for the side-balks, which are so characteristic of South Down lynchets. As will be suggested later, these lateral lynchets may be the result of ploughing in two different directions at right angles to one another.

FIELD-WAYS ASSOCIATED WITH LYNCHETS.

The presence of a large number of contiguous fields necessitates some means of approach to them. In its simplest form this would naturally consist of a strip of unploughed land between the fields, wide enough to accommodate the necessary traffic. As lynchet-formation progressed, the appearance of this roadway would vary according to its relation to the slope of the hill.

Type I. If it runs straight up and down the hill, without any fall of the ground across the line of its direction, such a road will present no special features, except that in such situations it is generally provided with a small bank on each side,¹³ possibly to prevent encroachment of wayfarers on the fields, and of the plough on the road.¹⁴ If the road runs along the back of a ridge, with ploughed land falling away on either hand, it will be bounded on either side by a negative lynchet, that is, a sudden slight drop of the ground-level from the edge of the road. In such situations the banks, if present, generally mask the lynchets,

¹³ The soil of which such banks are formed has probably been derived from the surface of the road itself, as there are no ditches. In some cases they may have been made up of flints removed from the fields.

¹⁴ In the ancient Welsh laws occurs the following amusing enactment: "Sixscore pence is due to the lord for ploughing up a road, but nothing is due for sowing it nor for harrowing it, since there is no penalty for improving it."—*Ancient Laws of Wales*, II., p. 269.

which are of small size (Plate III., C). This type, if possessing banks, may be termed "bi-vallate" for convenience in description.

Type II. If, however, a road runs horizontally along a hillside, between fields, it will be bounded on one side by the accumulation of soil at the foot of the field above, and on the other by the drop caused by the excavation of soil at the top of the field below (Plate III., D, and Plate X., section B). Thus the field-way comes to have the appearance of a double lynchets in which the positive and negative halves are separated by a narrow ledge of undisturbed ground which constitutes the road. Such may be called, for convenience, a "double-lynchet" road.¹⁵

Type III. A road running in circumstances similar to those of Type II. may be bounded on its upper edge by a positive lynchets, and on its lower by an artificial bank which may, or may not, mask a negative lynchets¹⁶ (Plate III., E).

To summarise these three types, a road may be:

Type I. Bounded on both sides, either by small banks or by negative lynchets.

Type II. Bounded on its upper edge by a positive lynchets, and on its lower by a negative.

Type III. Bounded on its upper edge by a positive lynchets, and on its lower by a bank.

It is important to bear these points in mind, as with them is intimately bound up the question of the relative age of other earthworks that may be found in association with lynchets.

THE KITHURST HILL EARTHWORKS.

The ground occupied by these earthworks lies between the 400 and 600 feet contours, and is broken by two small valleys, Chantry Bottom and Leap

¹⁵ For possible anomalous forms of Type II. roads, see pp. 29 and 34, and Plate III., F, G.

¹⁶ In some cases, however, it is quite possible that the positive lynchets overlies, and so masks, the upper bank of a bivallate road; cf. the case of the west end of the south bank of the large Covered Way on Barpham Hill (*S.A.C.*, LXIII., 20). A good example of this type of road occurs in Eastwick Bottom, near Patcham.

Bottom, which run in a north-east and south-west direction. The intervening spur is known as Middle Brow.¹⁷ West of these the hill slopes gently and evenly to the south.

The earthworks comprise:

1. Two contiguous valley-entrenchments in *Chantry Bottom*.¹⁸
2. An irregular terraced and pitted area situated on the western slope of *Chantry Bottom*, and adjoining the preceding.¹⁹
3. An extensive series of lynchets on *Middle Brow*, together with roads which we shall show reason for considering to be of a Celtic, or British, type, two small barrows, a rectangular earthwork enclosing three small pits, and, finally, some small banks of obscure origin and purpose.
4. Two valley-entrenchments in *Leap Bottom*.²⁰
5. A series of lynchets in *Martin's Croft Furze*²¹ to the west of Leap Bottom, and extending along the north-west slope of that valley as far as the northern valley-entrenchment; and, superimposed upon some of these lynchets (viz., in Martin's Croft Furze and adjoining the northern valley-entrenchment in Leap Bottom), some small univallate earthworks.
6. A rectangular earthwork adjoining *Thornwick Barn*,²² about half-a-mile west of Martin's Croft Furze.
7. A series of five shallow pits in *Thornwick Plain*, 500 feet north of Thornwick Barn.²³

¹⁷ 6" O.S., L., N.E. The names, Chantry Bottom, Leap (or Lepe) Bottom, Middle Brow, Martin's Croft Furze, Buckfence Corner, Thornwick Barn, are local, and are not to be found on the maps. The head of Chantry Bottom is immediately to the south-west of Chantry Post.

¹⁸ *Ibid.*, 12·8"-0·3". ¹⁹ *Ibid.*, 12·6"-0·3". ²⁰ *Ibid.*, 11·5"-2·0" and 11·5"-1·6".

²¹ *Ibid.*, 10·0"-1·0". ²² *Ibid.*, 7·0"-0·4". ²³ *Ibid.*, 7·3"-1·2".

We will now proceed to consider each of these in detail. As far as possible topographical descriptions and measurements will be avoided, since they can most easily be appreciated by a perusal of the plans and sections, and our remarks will be confined to the salient features of the earthworks. The description of Middle Brow will be left to the last as it presents the most important features from the point of view of our subject.

1. The two contiguous entrenchments in Chantry Bottom (Plate IV.), each consist of an imperfect rectangle, and they share one side in common. The west side of the southern enclosure is wanting, as is also the western half of the common side. Each side consists of a bank, with exterior ditch. In the case of the common side the ditch is on the south of the bank, and communicates at its east end with the exterior fosse.

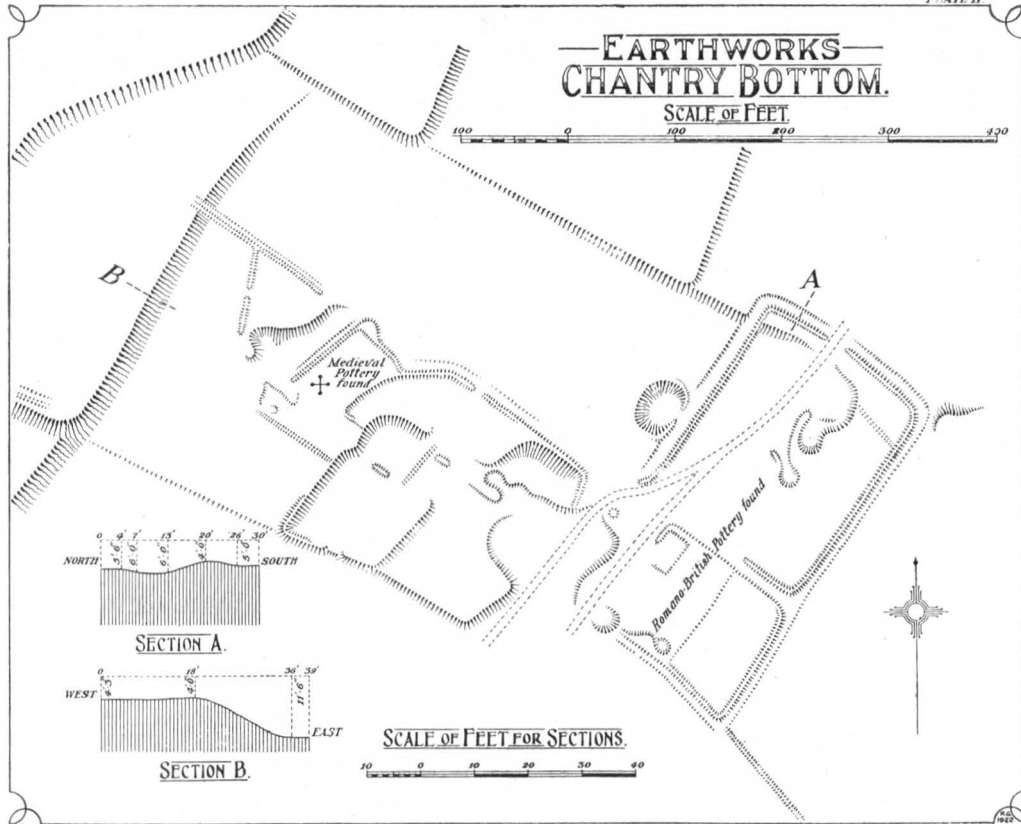
A few feet short of its northern end the northern earthwork runs up over a lynchets which crosses the bottom of the valley at this point—an outlier of the Middle Brow series. This is important as indicating that the lynchets is older than the valley-entrenchment. This lynchets is composed of, or faced with, almost pure flint, with a minimum of mould between the stones. Mr. Toms²⁴ regards this as evidence that the field was re-cultivated at some time subsequent to its original cultivation, but before the construction of the valley-entrenchment. Similar flinty lynchets are to be found on Park Brow and elsewhere (see below).

Within the enclosures are certain irregular hollows. Adjoining the west side of the northern enclosure, and outside the latter, is a circus-like structure, consisting of a circular hollow communicating with the ditch of the entrenchment. On its west side it is hollowed out of the rising ground; on its north and south it is bounded by two curved artificial banks which flank the entrance from the ditch. The floor is depressed below the level

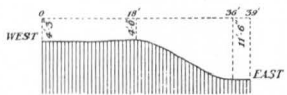
²⁴ *Suss. County Herald*, Oct. 21, 1922.

EARTHWORKS CHANTRY BOTTOM.

SCALE OF FEET



SECTION A.



SECTION B.

SCALE OF FEET FOR SECTIONS.



of the ditch, and the inner surface of the banks is shelving. The diameter is 50 feet from crest to crest.

About the middle of the northern side of the northern enclosure is an entrance, which seems likely to be original, though it affords passage for a cart-track, and there is always the possibility of the latter having been its cause.

The few shards of pottery which we have found within the area of these entrenchments are of Romano-British type.

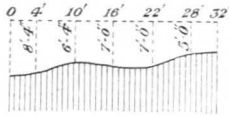
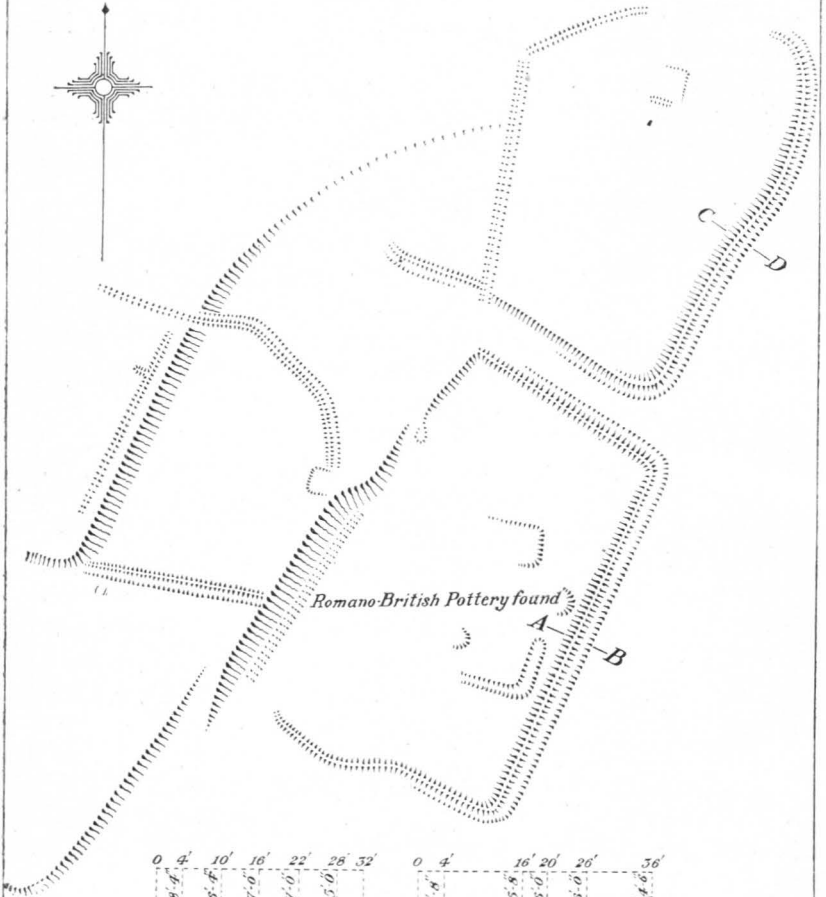
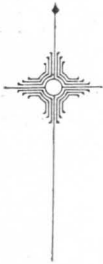
2. Closely adjoining the west side of the southern entrenchment, and situated on the western slope of the valley, is a terraced area, the surface of which is much broken with irregular, vague mounds and hollows (Plate IV.). Its northern side is bounded by a slight bank with still slighter exterior ditch, which is carried north-westwards beyond the area in question, to be lost on the crest of a large lynchet. The entrance to the area appears to have been on the south side, in the form of a break through the crest of the terrace (or lynchet) which bounds the area on that side. In one localised spot in this area (indicated on the plan by a cross) we found a considerable quantity of shards of what Mr. R. L. Hobson, of the British Museum, pronounces to be medieval pottery of the fourteenth or fifteenth centuries, and also a few oyster-shells.

At the point indicated by a cross in Plate I. a first-brass of Antoninus Pius (A.D. 139-161) was found by a rabbit-catcher in 1921 in a rabbit-burrow.

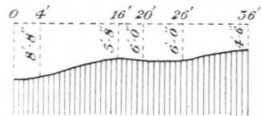
3. In Leap (or Lepe) Bottom are two more valley-entrenchments (Plate V.). The upper, or north-east, is ovoid, consisting of a bank and exterior ditch. The west side of the original earthwork is deficient, the gap being bridged across by a later and smaller bank having its ditch on the *inner* side. This latter overlies the well-nigh obliterated remains of the tail end of a large lynchet—an outlier of the Martin's Croft series. Part of the north side of this enclosure has been destroyed by cultivation; near its north end is a rectangular depression, surrounded on three sides by a

EARTHWORKS
LEAP BOTTOM.

SCALE OF FEET.



SECTION A.B.



SECTION C.D.

SCALE OF FEET FOR SECTIONS.

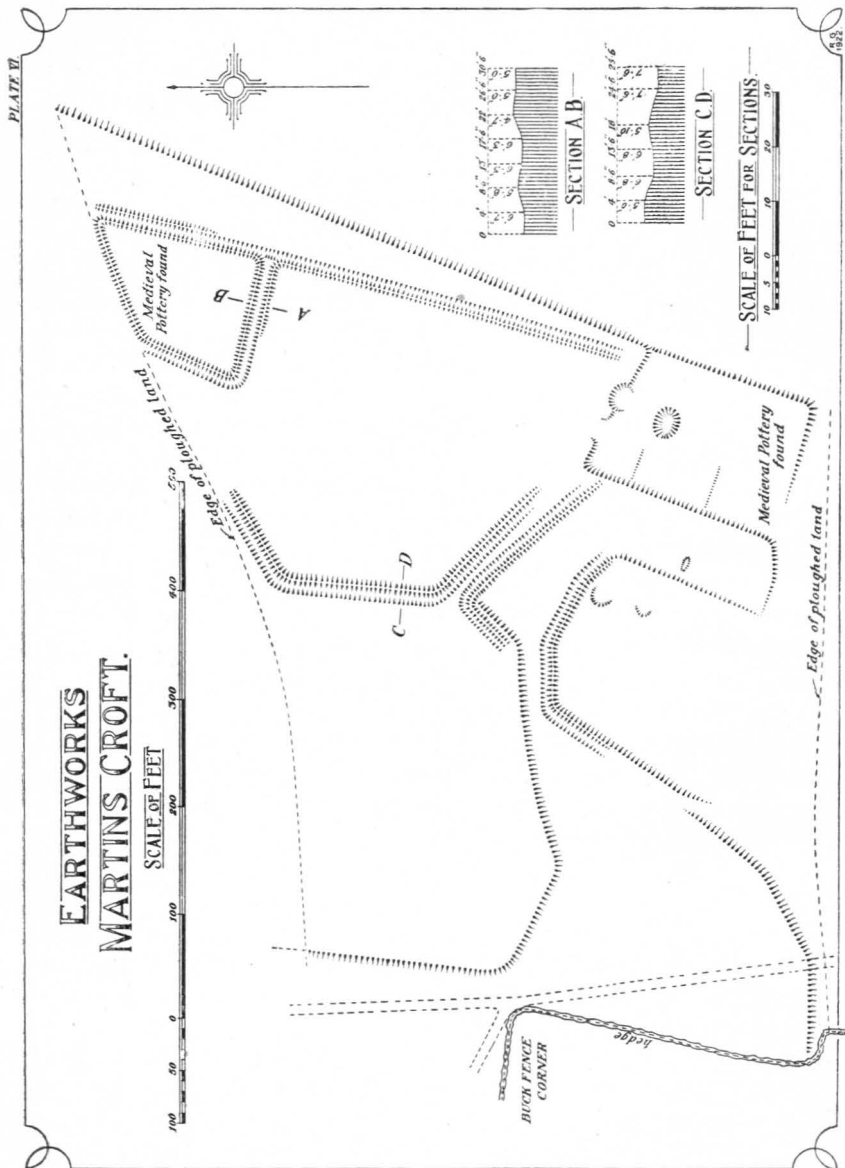


slight bank. On the south side of the enclosure both the exterior ditch and the *interior* slope of the bank disappear, leaving a terrace resembling a lynchets. There is no visible entrance to this enclosure.

The lower, or south-western, valley-entrenchment is rectangular, the north-western side being formed by the balk of an enormous lynchets, 13 feet high, which overhangs the earthwork like a high wall. There are two entrances to this enclosure, one at the north corner, by a terrace which descends the face of the lynchets slant-wise, and the other at the west corner, consisting of a gap between the surrounding earthwork and the lynchets. Running along under the foot of the lynchets between the west and north corners of the enclosure are faint traces of a very small bank and ditch, only from 3 to 6 inches high. It is quite clear that the lynchets must have pre-existed the entrenchment, and that use was made of it to form one side of the enclosure. Within the area of this earthwork are some very indefinite hollows, similar to those in the Chantry Bottom entrenchments. They are much more vague than it is possible to represent on the plan. In some of the hollows we have found crumbling fragments of what appears to be mortar.

The earthworks of both these valley-entrenchments present a cross-section very similar to that of the entrenchments in Chantry Bottom. The few fragments of pottery which we have found within their area are of both Romano-British and medieval types.

4. In Martin's Croft Furze, on the west of the mouth of Leap Bottom, and extending, with one interruption, along the edge of the cultivated ground on the western slopes of that valley, is a series of lynchets similar to those on Middle Brow, but far less extensive. Two of the terraces on the south edge of the Furze are pitted, as will be seen on the plan (Plate VI.), and are littered with shards of medieval pottery, much of it bearing the green glaze characteristic of the fourteenth and fifteenth centuries (Mr.



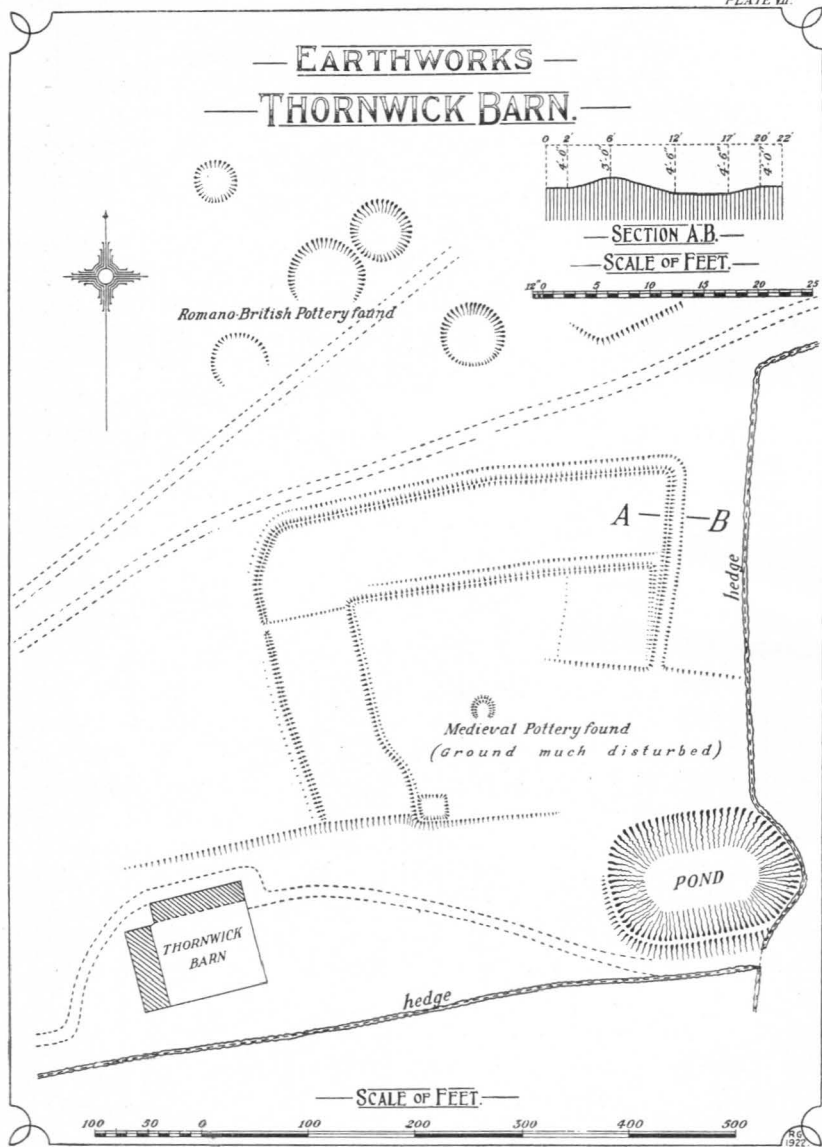
R. L. Hobson). Oyster-shells are also frequent. Immediately adjoining this pottery area are some small earthwork-enclosures forming imperfect polygons. These are superimposed upon the lynchets, and, therefore, of later date. In them we have found no pottery.

Medieval pottery has been found in fair quantity in two other localised sites on the western side of Leap Bottom, the exact situations of which are indicated on the site-plan (Plate I.). Of these two sites, the southern is marked by irregular mounds and hollows. The northern, which is situated on a lynchet close to the valley-entrenchments in the Bottom, is occupied at present as a cabbage-patch. It is fairly thickly strewn with green-glazed medieval pottery, large nodules of flint, and unhewn blocks of upper green-sand malm.

The ground immediately to the north of Martin's Croft Furze is under cultivation at the present day, and any extension of earthworks which may once have existed there has been obliterated. Since the present edition (1913) of the 6-inch Ordnance Survey Map appeared the ground immediately to the south has also come under the plough.

5. About half-a-mile west of Martin's Croft, and adjoining Thornwick Barn on its north-east side, are what appear to be the remains of two quadrilateral enclosures, placed one within the other, and sharing their south and east sides (or what remains of them) in common (Plate VII.). The earthworks are thrown up on top of pre-existing lynchets. In the south-east corner the ground has been much disturbed, perhaps by the makers of the neighbouring pond, which is modern. In the centre of the inner enclosure is a horseshoe-shaped pit, round which fragments of medieval pottery may be picked up.

6. Immediately to the north and north-west of the above-described earthwork are five shallow depressions in the ground (Plate VII.). They are situated on an open piece of downland called Thornwick Plain, which is surrounded by cultivated land and dense



furze and brambles. Probably Thornwick Plain itself has been under the plough at no very distant period, which would account for its freedom from furze and for the vague undulations on its surface, which are suggestive of ploughed-out lynchets and other features. These pits, consequently, are very vague in outline, with a vagueness difficult to represent on a plan. Their diameter is roughly from 40 to 70 feet, and they are about 2 feet deep. Over these pits, and over an area extending some distance to the west of them, fragments of Romano-British pottery may be picked up in considerable quantities, together with large numbers of calcined flints. We have also found a few small fragments of Samian ware.

Mr. de Lavis-Trafford has very kindly dug a section through two of these pits; absence abroad has, however, prevented him from preparing his report in time for this article; when it appears it will show that the pits contain much Romano-British pottery of the second century. They recall the similar series discovered by Dr. E. Wight on Kithurst Hill, a mile to the north-east.²⁵

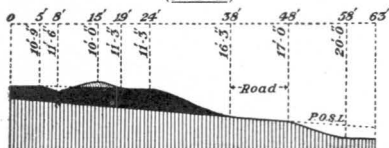
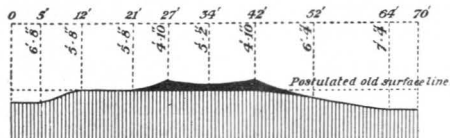
It is interesting to note that the name of the neighbouring barn is *Thornwick*. Close to *Eastwick* Barn, near Patcham, is a series of lynchets, with a field-way, and a localised area in which Romano-British pottery may be picked up. The Covered Way on Willingdon Hill, near Eastbourne, descends into *Harewick* Bottom, where also Roman pottery has been found. Near the Roman road which runs over Newmarket Hill to Kingston Hill stands *Wick* Farm. The suffix *-wick* is derived from the Latin *vicus*, a village, *via* the A. S. *wīc*.²⁶ Was this term applied only to Romano-British villages which the Saxons found on their arrival in Britain?

7. As has already been stated, Middle Brow (Plate I.) is a southerly-directed tongue of Kithurst Hill, and is bounded on the east and west respectively by Chantry

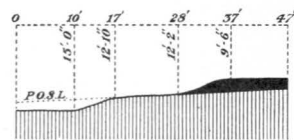
²⁵ S.A.C., LXIII., 222. 6" O.S., L., N.E., 12-0"-4-2".

²⁶ See Skeat's *The Place-names of Hertfordshire*, 53, 54.

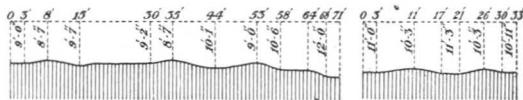
MIDDLE BROW NORTH



SECTION N°2
(PLATE IX)



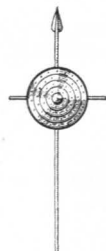
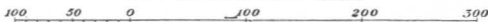
SECTION N°3
(PLATE IX)



SECTION A

SECTION B

SCALE OF FEET FOR PLAN



BARROW N°1

Sec X
Sec Y
Sec Z

Accessory bank
FIELD WAY
CARP TRACK

Sec
Accessory bank
FIELD WAY
Accessory bank
A

Bottom and Leap Bottom. Its ridge and its south and east slopes are occupied by sub-rectangular fields separated by lynchets which vary from a few inches to 12 feet in height. The shape of these fields approaches, in general, more nearly to the square than to the acre-strip (220 by 22 yards) of the medieval open-field system, in fact the measurements of these fields bear no relation to those of the medieval system. The area of the eleven fields which remain complete varies approximately from one to three acres, the commonest size being between 1.25 and 1.75 acres.

Middle Brow presents a most complex and interesting problem in field-archæology, for, besides the lynchets, it possesses a field-way, a rectangular earthwork-enclosure, two small round barrows, and several small banks which resemble boundary-banks. It is in the unravelling of the time-relationships of these that the interest lies (Plates VIII. and IX.).

The field-way runs in a north-north-east and south-south-west direction along the backbone of the ridge. Its north end is lost in land which has long been, and still is, under the plough, while its south end disappears in ground which has been ploughed in comparatively recent times, as is evidenced by the vague remnants of half-obliterated lynchets.

It will be convenient to describe this road in three sections—north, middle and south. These are separated by two prominent transverse lynchets, the more northerly of which is distinguished by a group of three conspicuous pine-trees. We shall refer to this as the "Pine-tree Lynchet." The other we shall term the "Barrow Lynchet," owing to the proximity of a small round barrow which will be described in due course.

1. *The Northern Section* (Plate VIII.).—In this the road is bi-vallate (Type I.), where it has not been obliterated. The banks are about a foot high, and 18 feet from crest to crest. They are accompanied on either side, at the north end, by a small ditch and bank, similar to a modern boundary, or hedge, bank. These banks, while following the road in a large part

of its course, do not do so slavishly, and are apparently not part of the original scheme. We shall refer to them as "accessory" banks (or ditches), for want of a better term. Like the road-banks, they are in places obliterated.

A hundred and fifty yards from the north end a small round barrow (Barrow No. 1) adjoins the road on its east side. In this part the east bank of the road has disappeared. The barrow has been rifled, the excavated material having been thrown out eastwards, and it is interesting to note that the eastern "accessory" bank makes a small detour to avoid, not only the barrow, but also the tip. This suggests that these mysterious "accessory" banks were thrown up subsequently to the rifling of the barrow. In the bottom of the excavation made in the barrow by the riflers may be seen a quantity of large calcined flints.

Almost opposite this barrow, at a point where the two western banks of the road are lost, a small lynchet runs from the road westwards. It has been all but completely obliterated, being only recognisable by the slight heave in the surface of the ground when viewed in profile. The western side of the field, of which this lynchet forms the northern limit, can be traced along the edge of the hill overlooking Leap Bottom (Plate I.).

A short distance further south a rectangular earthwork enclosure (240 feet by 120 feet),²⁷ bounded by two banks with an intervening ditch, adjoins the road on its west side, its longer dimension being parallel to the road. Opposite the middle of its length a fairly well-marked lynchet proceeds from the road eastwards. This lynchet can also be traced westwards, across the rectangular enclosure, as a steadily diminishing heave of the ground. Though at first fairly bold, it becomes so faint as to be easily overlooked, but that its existence is no figment of an over-zealous imagination is shown by the fact that at its west end

²⁷ It is interesting to note that these are the dimensions of a Roman acre (*jugerum*).

it joins up with a north-south lynchet, the alignment of which changes at the point of junction (Plate I.).

The rectangular enclosure is thus divided into two more or less equal parts by this faint lynchet. North of it the banks of the road are absent, while those of the enclosure are either absent or very much diminished in size, and the western "accessory" bank is only represented by the greener grass of its ditch. South of it, the banks of both road and enclosure are well marked, while within the enclosure three shallow pits are distinguishable. All this suggests that north of the lynchet the ground has been ploughed, resulting in the partial obliteration of the earthworks. If so, is the lynchet itself the result of this comparatively late ploughing, or did it pre-exist the rectangular earthwork?

It will be noted that this faint lynchet on the west side of the road is in direct alignment with a well-marked balk on the east side. Moreover, that on the west side has the vague, heaving contour which is characteristic of a lynchet which has been all but levelled, whether by being ploughed over, or by other human agency. This appearance differs from that of a small undisturbed lynchet in much the same way that the swell on the sea after a storm differs from a wave that is driven along by the force of the breeze, and the two are readily distinguishable.

It seems likely then, that the lynchet on the west side was originally quite a well-marked one, like that on the east—in fact, that the two formed one lynchet across the hill, like the Pine-tree Lynchet and Barrow Lynchet further south. It must have been so considerable that, if it was formed subsequently to the making of the rectangle, the northern half of that enclosure must inevitably have been completely, instead of only partially, obliterated; and its own destruction, which must have occurred at a still later period, must have involved the destruction also of the southern half of the rectangle.

The matter is a very difficult one to decide, but we

incline to the belief that the lynchet in question was levelled prior to the formation of the rectangular earthwork, and that the ground immediately north of it again underwent a limited amount of ploughing at a later period, when the enclosure and road were no longer used. Probably the ground to the south of it has also been ploughed over, but not to an extent sufficient to obliterate the earthwork.

As has already been pointed out, the rectangular enclosure is bounded by two banks with an intervening ditch.²⁸ In this respect it resembles the small quadrilateral enclosure which forms part of the north-eastern group of earthworks in Rewell Wood.²⁹ A further point of similarity is the opening leading into the ditch at the south-west corner of the Middle Brow earthwork (see plan, Plate VIII.).

On the east side the outer bank forms the west bank of the road, and the road and enclosure have every appearance of being coeval. If this is so, our belief that the enclosure is later than the lynchet which crosses it will be confirmed by the observation that the road is later than either the Pine-tree Lynchet or the Barrow Lynchet (to be discussed presently).

In the southern half of the enclosure are three shallow depressions in which we have found fragments of Roman pottery. In fact, such fragments may be found scattered all over the ground on both sides of the road between this point and the Pine-tree Lynchet. Mr. de Lavis-Trafford has been kind enough to cut a section through the south-eastern pit and the adjoining banks, and a second section through the road near by at X and Y. His report, when published, will show that the character of the pottery, and the positions in which it was found, clearly indicate that both the rectangular earthwork and the road belong to the time of the Roman occupation.

In the middle of the west side is what appears to be an entrance; whether there was one on the east side

²⁸ For dimensions see section B., Plate VIII.

²⁹ *S.A.C.*, LXL, 21, 35, 36, and Plate II. (facing p. 23).

also cannot now be determined, except, possibly, by excavation.

From near the south-west corner of the enclosure a wide, shallow ditch, appearing insidiously, sweeps southwards to fade away before reaching the Pine-tree Lynchet. Arising from nothing and ending in nothing, it looks like the remains of an older road that had become obsolete ere ever the rectangular enclosure or the Pine-tree Lynchet had come into being.

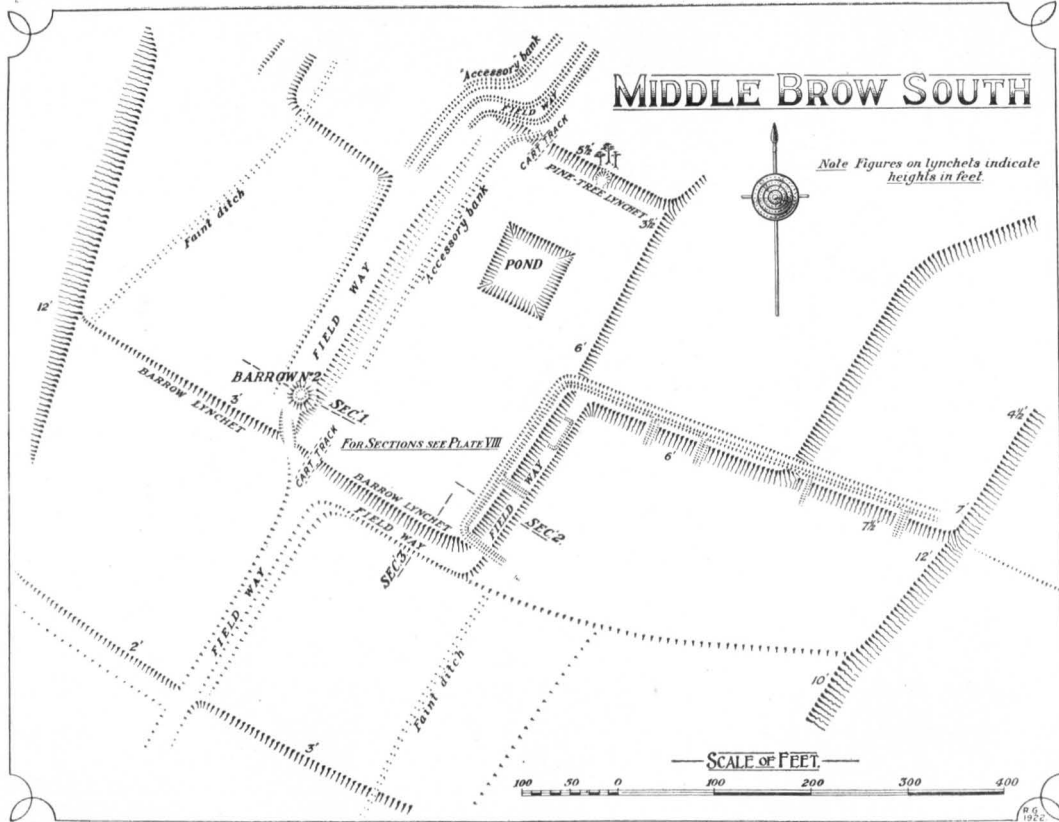
The progress of our field-way from the enclosure to the Pine-tree Lynchet is uninterrupted. The western "accessory" ditch, which is not visible over the southern half of the enclosure, reappears south of it, and accompanies the road as the latter crosses the Pine-tree Lynchet. The eastern "accessory" bank and ditch are not picked up until that lynchet is reached.

2. *The Middle Section* (Plate IX.).—According to the plan which we have adopted of describing the road, the northern and middle sections are separated by the Pine-tree Lynchet. This is a well-marked and sharply defined balk, $5\frac{1}{2}$ feet high at its highest part, but tailing away to nothing at its western end. The road, which in its northern section had maintained a comparatively straight course, now makes a double bend in order to descend the lynchet obliquely at the place where the latter tails out. It is faithfully accompanied in this manœuvre by the western "accessory" bank, or its ditch, while the eastern "accessory" bank is picked up on the crest of the lynchet in the act of doing the same thing—facts which prove two things:—(1) That the road and "accessory" banks did not come into being until the lynchet was fully formed; and (2) the so-called "accessory" banks were thrown up by some person or persons who at any rate recognised and respected the road if they did not use it.

After traversing this lynchet the field-way soon loses, first its east, and then its west, bank. The latter, together with the western "accessory" ditch, disappears at a point where a small, but well-marked

MIDDLE BROW SOUTH

Note Figures on lynchets indicate heights in feet.



lynchet runs from the west side of the road westwards. As there is no trace of this lynchets to the east of the road, both road and lynchets appear in this case to be coeval.

From here southwards the road appears as a faintly-marked causeway, evidently the ploughed-out relic of something much more definite. It is accompanied almost as far as the Barrow Lynchets by the eastern "accessory" bank, or its ditch, in a very attenuated form. Like the road, it also has suffered from the plough. The appearance of the road as a causeway is doubtless due to its being bounded on either side by negative lynchets.³⁰

Some 40 feet before reaching the crest of the Barrow Lynchets a small round barrow³¹ with a depression in its centre (Barrow No. 2) lies actually on the road itself. It does not completely block the fairway, being situated to the east of the middle line, but allows a passage about 9 feet wide on its west side (see section 1, Plate VIII.).

After passing the barrow the road immediately proceeds to pierce the Barrow Lynchets by means of an oblique cutting. The obliquity of this cutting is chiefly due to a change of alignment of the road south of the lynchets, but that at its northern end it leads directly to that part of the road which is not blocked by the barrow is evidence that the latter was there when the road was in use. In this case again the lynchets must have been fully formed before either the road or the barrow appeared.

3. *The Southern Section* (Plate IX.).—After piercing the Barrow Lynchets the alignment of the road changes. Its new course is parallel to its former, but some 60 feet further east. Owing to this change of alignment the road is no longer running along the actual backbone of the ridge, but parallel with, and slightly below, the highest part. Consequently the ground falls, though

³⁰ In the field to the east of the road is a square dewpond made by the Wiltshire pond-makers in 1893.

³¹ It is after this barrow that we have named the lynchets.

to an extremely slight degree, across the line of the road's direction. Thus it comes about that the road—though it has here also been ploughed over and almost obliterated—assumes the form characteristic of Type II., viz. that which is bounded on the upper side by a positive lynchets, and on the lower by a negative. In this case the latter seems to have been, as it were, reduplicated, as if it had been formed in two stages. On the other hand, what appears to be the lower negative lynchets of the two may in reality be the eastern "accessory" bank which has reappeared in an altered form. It had precisely this form at the extreme north end of the road, where it is lost in the cultivated land (Plate VIII.).

At the commencement of this southern section the road throws off a branch eastwards, which runs under the Barrow Lynchets in the form of a "double-lynchets" terrace-road (Type II.—section 3, Plate VIII.). This follows the lynchets as it bends northwards, to enter the corner of a large field, to which it was apparently designed to afford access. It has, unfortunately, been much mutilated here by some banks of an obviously later date, whose purpose is obscure. The chief of these banks runs along the crest of the positive lynchets (see section 2, Plate VIII.), and sends short banks down at intervals to cut up the roadway (and an adjacent lynchets) into compartments. The main bank is lost on the crest of the same lynchets as that on which vanishes the similar bank which comes up from the pitted and terraced area in Chantry Bottom, where the medieval pottery is found. This suggests that the two banks may in reality be parts of the same, and that the medieval occupant of that site may be responsible for those which mutilate the "double-lynchets" road. What relationship, if any, these banks bear to the so-called "accessory" banks is not clear. The fact that the latter respect the main field-way, while these banks mutilate its branch, suggests that the two groups do not belong to the same period.

The question naturally arises—if the main field-way

is later than the Barrow Lychet, how can it have a branch road which runs under that lychet in such a manner as to suggest that it is coeval with the lychet?—for a double-lychet road is, according to theory, coeval with the lynchets which bound it. Two possible explanations suggest themselves: (1) The main field-way south of the Barrow Lychet, together with the branch road, may be older than that part which lies north of the lychet. (2) It is quite possible that the formation of the “double-lychet” branch road may in this case be anomalous. Given a fully formed lychet between two fields—if it was then found desirable to separate off for a roadway a strip of the lower field lying under the lychet, and if subsequently ploughing were continued in the lower field as far as the lower edge of that strip, the eventual appearance of the roadway would be that of a double lychet. A section dug through it would, however, reveal that the lychet bounding its upper side was a complete one, consisting of both positive and negative elements, instead of positive only (Plate III., F). Such may have been the case in the present instance, but only excavation can settle the question.

A similar, but opposite, state of affairs seems to have occurred in the case of a branch “double-lychet” road on Park Brow (Sompting). There the destructive activity of flint-diggers has revealed that the actual roadway lies, not upon the solid chalk, as one would expect (see Plate III., D), but upon a mass of loose flints and mould, identical with the material of which is formed the positive lychet which bounds the road on its upper side. We are led, therefore, to the conclusion that, in this particular case, a strip for a road was left unploughed along the edge of a previously formed positive lychet, and that subsequent ploughing formed a fresh positive lychet on the upper side of it (Plate III., G).

Returning to the main field-way, we may trace it as far as the next transverse lychet south of the Barrow Lychet. This the road pierces, but its

manner of doing so gives no surface indication as to the relative age of road and lynchet. The further course of the road southwards is but faintly discernible, and is not clear enough to survey. Under this lynchet a branch road runs westward, of Type II. form, and seems to have descended into Leap Bottom, but its remains are too vague to allow of certainty on this point.

We have described the lynchets, road, and other structures on Middle Brow in some detail, because that hill presents us with an unusually complicated problem. Before going on to consider their significance it will be well briefly to describe two other good examples of lynchet-systems with field-ways which occur in our county, namely, those on Park Brow (Sompting) and Buckland Bank (Falmer).

THE PARK BROW LYNCHET-SYSTEM.

Park Brow³² (Plate X.) is a southerly-directed tongue of the main ridge of the Downs in the parsh of Sompting. It is bounded on the east by Heathy Bottom and on the west by Stump Bottom, both of which are wild valleys given up to thorns, furze and brambles. The hill itself is covered with lynchets and possesses a fine stretch of ancient road, and also a Circus.³³ The latter, with part of the road, is marked on the 6-inch O.S. The lynchets extend widely on to the neighbouring hills.

At its northern end the road has been lost in ground that has been recently ploughed. From this point as far as the Circus it is possessed of two fine banks, averaging 20 to 22 feet from crest to crest. The available roadway between them is 8 or 9 feet wide, being slightly depressed below the original level of the ground, as the section (A, Plate X.) shows. At the point where this section was cut the surface of the road appeared to have been paved with large nodules of flint, but this was not found to be the case in the section cut opposite the Circus by Messrs. F. T. Pullen-Burry and Garnet R. Wolseley. Our section shows that

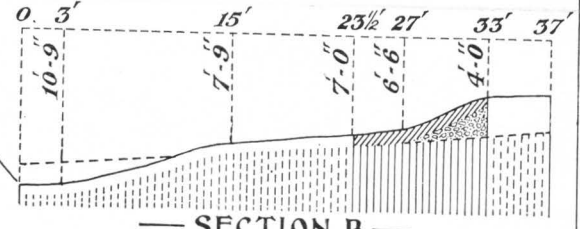
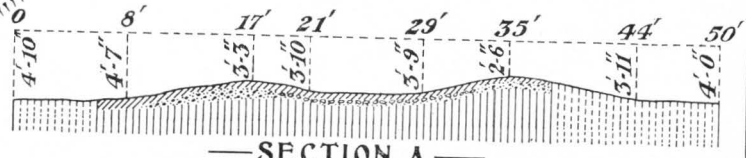
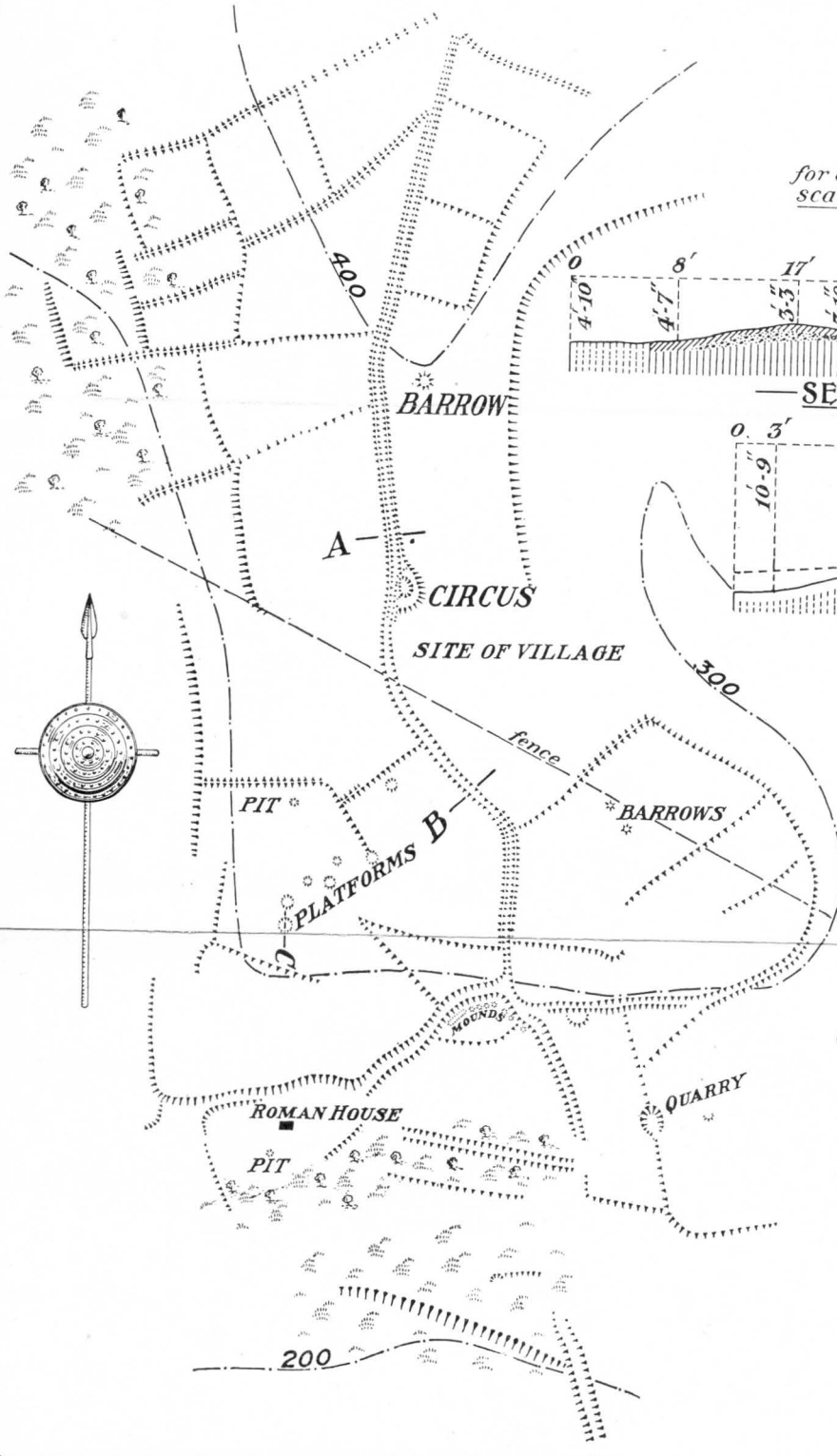
³² 6" O.S., LI., S.E.

³³ *Ibid.*, 3·2"-1·9".

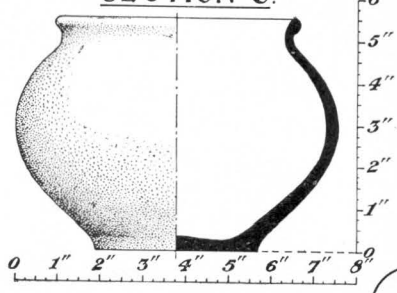
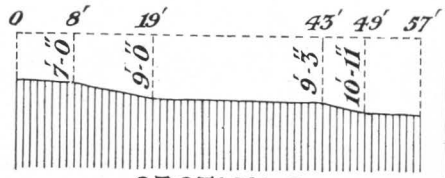
ANCIENT ROAD AND LYNCHETS PARK BROW, SOMPTING.

English	Acre.
Roman <i>Sugerum</i>	Five Crops

The above areas are given for comparison, and are the same scale as the General Plan.



- REFERENCES.**
 FOR SECTIONS A & B.
- Mould.
 - Small pieces of chalk with few Downflints
 - Large unbroken flints.
 - Undisturbed Chalk.



the banks appear to be partly composed of undisturbed chalk. The explanation of this is probably that the drop in the chalk surface-line on the outer side of each bank is in reality a slight negative lynchets formed by the ploughing of the fields on either side of the road, for the latter occupies the backbone of the ridge (cf. Plate III., C). These negative lynchets, together with the hollowing out of the roadway, have caused the remaining undisturbed chalk to stand out like banks, the height of which has been further enhanced by the addition of soil containing broken chalk and flints. In some parts of the road the banks appear to be capped with practically pure flint, which Mr. Toms³⁴ suggests was collected from the surface of the neighbouring fields.

From either side of the road in this part of its extent emanate at irregular intervals small lynchets, and in other cases banks of flint. The latter are from six to eighteen inches high and a dozen feet wide at the base. These appear to have acted as field-boundaries, and are composed of flints gathered, as Mr. Toms suggests, from the surface of the fields. Three points are specially worthy of note: (1) These lateral lynchets and field-banks run up to the road, but not across it, showing that the road and the cultivations are coeval; (2) though there are large lynchets at the lower edges of these fields, the lateral lynchets are extremely slight or replaced by field-banks—a circumstance wherein these lynchets contrast with those of Kithurst Hill and Buckland Bank; (3) the lynchets at the lower edges of the fields are in many cases composed of dry flints with the minimum of mould between them. The soil in this neighbourhood, it should be noted, is more than usually flinty, and the flint-diggers have found this out to the great detriment of the monuments of antiquity, for their happy hunting ground is in the lynchets and field-banks, and they have even removed bodily the east bank of what was a fine stretch of bivallate road further south. The

³⁴ *Sussex Co. Herald*, Oct. 21, 1922.

presence of the flinty field-banks seems to indicate that those who tilled the fields took the trouble to collect the flints off them year by year, and indeed it is a wonder how any crops could be induced to grow on such poor soil.

There seems no reason for believing that the balks were *intentionally* faced with flint in order to retain the soil. Mr. O. G. S. Crawford cites the case of the lynchets of Totterdown, in Wiltshire, along the slopes of which rows of sarsens are arranged in an obviously artificial manner, other rows running up and down the hill between the fields. He suggests that "they may have been placed there partly as bound-marks, partly to clear the area within for cultivation," and he adds, "The edge of a field is still the natural place to deposit obstructions to cultivation, both sarsens and large flints."³⁵

The Circus is situated by the east side of the road, and has an entrance from it.³⁶ Recent excavations conducted by Messrs. F. T. Pullen-Burry and Garnet R. Wolseley, have revealed that it was in use at any rate in Roman times, if not earlier. As such structures always stood at the gate of a British village,³⁷ being the meeting place of the community, it follows that there must have been such a village in the near vicinity, though up till the autumn of 1921 there existed no surface indication of it beyond scraps of ancient pottery and grain-rubbers turned up by moles over the area immediately to the south and east of the Circus. Since that date, however, this site has been assiduously excavated by Messrs. Garnet Wolseley and Pullen-Burry, who have discovered the remains of a settlement belonging to the transition period between the Hallstatt and La

³⁵ *Wilts. Arch. Mag.*, XLII., p. 57. See also Gomme, *Village Community*, pp. 89-98.

³⁶ The only other Circus of this type that we have met with is on the eastern slope of Bow Hill, in the parish of Binderton (6" O.S., XLVIII., N.W., 8.8"-3.4").

³⁷ Cf. Geoffrey of Monmouth's *History of the Britons*, VI. 17 (in the original Latin), referred to by Mr. Allercroft in *The Field*, Xmas number, 1922, p. 34.

Tène I. cultures.³⁸ That the people who occupied this settlement grew corn is evidenced by the discovery, not only of a small saddle-quern, but of charred wheat imbedded in a fragment of pottery associated with shards of Hallstatt and La Tène I. type (500 to 400 B.C.).³⁹

The road, after leaving the Circus, bears south-east, skirting the village-site, to descend the gently sloping southern end of the hill obliquely. As it does so it loses its banks and assumes the double-lynchet form (Type II.), because here the ground falls across the line of the road's direction (see section B, Plate X.). This means that the village-site is situated above a positive lynchet, but it is not clear which of the two is the older, because it is possible that the obliteration of the village-site may have been due to the ploughing which formed the lynchet.

More definite evidence with regard to the period to which the lynchets belong is afforded by seven circular platforms which have been levelled out of the hillside a short distance to the south of this part of the road (see section C, Plate X.). These platforms vary from 15 to 35 feet in diameter, and resemble miniature putting-greens on a golf course, in the way in which they have been levelled out of the hillside. Rabbits have made full use of the loose soil of which they are constructed, and have turned out of them much pottery of various kinds, mostly of coarse, flint-studded material of indeterminate period, but also some fragments of Early Iron Age, including La Tène I., and Roman vessels. Five of these platforms occupy a large part of the area of a lynchet-field, the sixth is situated at the end of the lynchet which borders the upper side of the field, while the seventh is in the field above. As these platforms are too sharply defined (albeit riddled with rabbit-holes) ever to have been ploughed over, it follows that they must have been constructed after the cessation of agricultural operations

³⁸ *Suss. Daily News*, Jan. 20, 1922, and Nov. 27, 1922.

³⁹ *Brighton Herald*, Feb. 24, 1923.

in those particular fields. Hence one is driven to the conclusion that these fields were cultivated at any rate before the end of the La Tène I. period.

Returning to the road, we find that it bears to the right again and descends the hill directly, and as there is now no longer any fall of the hill across the line of its direction, it resumes the bivallate form which it possesses on the top of the hill. Here, unfortunately, the flint-diggers have been at work, and have completely removed the east bank of the road and greatly damaged the west bank also. Much of this destruction has occurred during the last few years.

At the end of this bivallate section the road bifurcates into two branches of Type II. form. (1) The western branch is eventually lost while making in the direction of the foot of an ancient terrace-roadway which ascends Cissbury Hill in a direct line for the east gate of the Camp. (2) The eastern branch descends into the valley (Lychpole Bottom), and seems to have ascended the next hill eastwards, and to have made in the direction of the north side of Steep Down. In its course down the foot of Park Brow it throws off a double-lynchet branch eastwards and another westwards. Under the former is a platform, on which we have found a fragment of hard pottery bearing the red glaze characteristic of the Hallstatt period, and also fragments of 17th century ware. The westward branch has been much interfered with by flint-diggers, who have revealed that its construction is anomalous in that it appears to consist of two positive lynchets, one on top of the other, the upper being set back a little on the former so as to leave a space wide enough for a roadway (see p. 9 and Plate III., G). If we are right in this supposition it means that the roadway must have been made after the lower positive lynchet had been fully formed. This may point to the ground having been recultivated. An exploratory trench is needed to throw further light on the question.

Below a much mutilated fragment of Type II.

roadway at the foot of Park Brow, Messrs. Pullen-Burry and Garnet Wolseley have discovered and excavated the site of a wattle-and-daub building of the Roman period.⁴⁰ Near it is a pit which has yielded pottery of the Early Iron Age and Roman periods, and other finds.

In 1915 two urns with burnt bones were found by flint diggers to the south-east of the Circus—presumably in the barrows there situated. One of these was broken up. The other (Plate X.) is a globular vessel with wide mouth, $5\frac{1}{2}$ inches high, of fine grained, lathe-turned pottery, with beaded rim; it is of a dark grey paste, burnt slightly reddish both on the inner and outer surfaces. It is not hard enough to be Roman, and is unlike anything either earlier or later than La Tène III. or IV.

The following year three urns with burnt bones were found when flints were being dug some two hundred yards east of Stump Barn. These also were broken up, but from the rough descriptions we have received, they seem to have belonged to either the late La Tène or the Romano-British period.

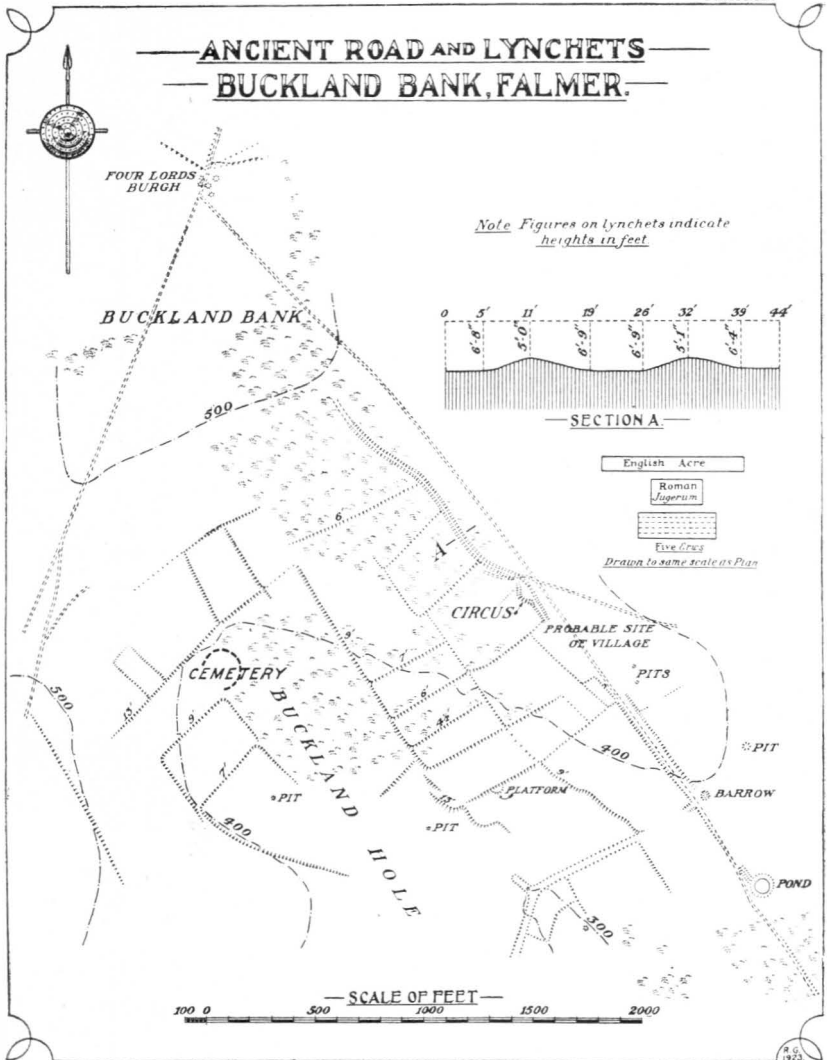
The expanded southern portion of the Circus itself has the appearance of being a barrow—an appearance much more apparent in the Circus of like type under Bow Hill (Binderton)—and in 1914, after flint diggers had opened a trial trench through its southern part, a portion of an Early Bronze-Age beaker, or drinking cup, was found on the excavated material.

THE BUCKLAND BANK LYNCHET-SYSTEM.

Buckland Bank⁴¹ (Plate XI.) is a spur of Balmer Down, in the parish of Falmer. It is directed south-eastwards, and lies between Ashcombe Bottom on the east, and a valley called Buckland Hole (or Buckman's Hole) on the west. Like Park Brow, it possesses a

⁴⁰ *Suss. Daily News*, Jan. 20, 1922.

⁴¹ 6^o O.S., LIIL., S.E.



Circus⁴² and a bivallate road, which runs up the backbone of the ridge. The transverse section (Plate XI., A) of that part of the road which lies north of the Circus very closely resembles that of the corresponding part of the road on Park Brow. Further south the road is broader, measuring 33 feet from crest to crest, and the banks are less massive—so much so that they may easily be missed altogether. Some 400 yards south of the Circus a platform barrow lies close to the east bank of the road. Immediately opposite this point a branch road strikes westwards. Its course between the first pair of fields has been practically obliterated except for the first twenty or thirty feet. Thereafter it can be traced across Buckland Hole and across the next hill west of that valley, as a clearly defined “double-lynchet” road.

Though the main road up the ridge appears to-day to go through the Circus, Mr. Allcroft believes that such was not the original arrangement, but that it skirted the west side of the Circus. South of the latter the continuity of the road is lost in ground that has evidently been much disturbed. On its line we have found late La Tène-type pottery and calcined flints, while within the Circus shards of the same and of Bronze-Age-type pottery have been picked up.

As at Park Brow the presence of a Circus implies the former existence of a British village in the near vicinity. Of this there are at present no traces on Buckland Bank, unless it be to the east and south-east of the Circus, where the ground, which is fairly flat, and has evidently been ploughed, shows vague inequalities of the surface which are foreign to the virgin turf of the Downs. One or two shallow pits can even be distinguished. The turf being unbroken by moles or rabbits, we have not found any pottery over this area.

The road which runs up the ridge of Buckland Bank is part of the Romano-British road described by Mr.

⁴² *Ibid.*, 11·8”–8·2”. Described by Mr. Hadrian Allcroft, M.A., in the *Brighton Gazette*, Mar. 30, 1918.

Allcroft⁴³ as being the continuation of the Roman road which came from Chichester, *via* Ford, the Old Shoreham Road (Brighton), Viaduct Road, Elm Grove, Brighton Race-Course, Wick Farm, Newmarket Hill, the Newmarket Inn (on the Brighton-Lewes road), Ashcombe Bottom, Buckland Bank, and so on *via* Streat Hill, to Streat. When one speaks of it as a Romano-British road, one means that it was a British road which was linked up by the Romans with their road-system. As far as Buckland Bank is concerned, the road fades out (at its north end) while making direct for a group of bowl-barrows called the Four Lords' Burghs.⁴⁴

The most conspicuous feature about Buckland Bank is the series of lynchets which covers its south-western slopes and the sides of Buckland Hole. They attracted Horsfield's attention, and stimulated him to surmise that they were the entrenchments of a British village.⁴⁵ The series extends, indeed, much further than we have represented on our plan, covering, as it does, the next hill and valley to the west of Buckland Hole, and extending eastwards into Ashcombe Bottom and beyond.

The balks are bold and clearly defined, and of height varying up to 13 feet, as indicated by the figures on the plan. Under one of the lynchets in the southern part of the accompanying survey is a small platform comparable to the one described as situated in a similar position on Park Brow.

In 1849, when workmen were digging flints in the head of Buckland Hole (or, as it was then called, Buckman's Hole) a considerable number of urns containing human remains were discovered, together with small vases, a glass lachrymatory, and fragments of

⁴³ *Ibid.*

⁴⁴ This name may be a corruption of "Four Laws," i.e., "four hillocks," the additional "Burghs" being redundant. Cf. the Four Laws, near Ridsdale, Northumberland. There are five mounds at the present day, one of which is probably a tip from a neighbouring flint-digging. Four parishes meet here.

⁴⁵ Horsfield, *Hist. and Antiq. of Lewes*, I., 35n.

iron.⁴⁶ Notes made on the spot by the late Mr. Figg include the following items of interest:

“The cemetery was very slightly elevated above the surrounding land, and was of circular form, about forty-five yards in diameter, the circumference being distinctly marked by a narrow boundary, two or three feet wide, upon which common fern (brakes) grew abundantly, while neither inside the circle, nor within a great distance in any direction, were any ferns observable. . . . The objects discovered were nearly or quite all found in the southern half of the circle; about 2 feet 6 inches below the surface, and surrounded by a quantity of large flints which had evidently been brought to the spot when the interments took place. In exploring the northern portion of the circle few flints were found.”⁴⁷

Judging from this description the “cemetery” was in reality a large platform barrow, of which the southern half was crowded with secondary interments.⁴⁸ Three-fifths of the circle of bracken of which Mr. Figg speaks are still to be seen, though the belt has grown to a width of about 25 feet in the last 70 years. The barrow, if such it was, was completely destroyed by the flint-diggers, leaving nothing but the bracken to mark the spot.⁴⁹

⁴⁶ *S.A.C.*, XVIII., 65, 67.

⁴⁷ *Ibid.*

⁴⁸ Mr. Walter Johnson (*Byways in British Archaeology*, p. 356) draws attention to the fact that Canon Greenwell, Mr. J. R. Mortimer, and Canon Atkinson all testify to the rarity with which secondary interments are met with in the northern half of barrows (W. Greenwell, *British Barrows*, pp. 12, 13). Mr. Johnson connects this with the prejudice that still exists in country parts against burial on the north side of a churchyard—a point which bears out Mr. Alleroft's contention that many of our old churchyards were originally large barrows—often pre-Christian—and that burials in churchyards are consequently in the nature of secondary interments (Johnson, *op. cit.*, 341–357; cf. Rice Holmes, *Ancient Britain*, p. 188).

⁴⁹ The mystery of the presence of this isolated circle of bracken is still unsolved. The only comparable instance that has come before our notice is a stone circle in Westmorland, the centre of which is covered thickly with bracken, there being none else around except a strip 100 yards away on one side (Cockpit Stone Circle, between Askham and Pooley Bridge; for which see *Trans. Cumb. and West. Ant. Soc.*, XXI., 273. For other examples see Heywood Sumner, *Ancient Earthworks of the New Forest*, p. 61).

With regard to the ecology of bracken (*Pteris*), the following is the conclusion of a memorandum sent to us by the Director of Kew Gardens: “The spread of

Nine of the vessels removed from this "cemetery" have been in the Museum of the Society at Lewes for many years. Five are large cinerary urns, three of which are quite definitely of the type of the Early Iron Age. One, equally certainly, is Roman, and the fifth is perhaps Roman in its texture and shape, but La Tène in its ornamentation. The four smaller vessels are all Roman, and consist of a small hard, grey urn, a flanged saucer, a vase of Castor ware, and a "thumb-pot" of New Forest ware of the third century. Of the relative positions of these vessels in the "cemetery" we have no knowledge, but the fact that they range from the first century B.C. to the third century A.D. lends support to the suggestion that they are all secondary interments within a primary flat-topped barrow. If this is the case, it is more than likely that the primary interment has never been disturbed.

THE AGE OF LYNCHETS AND FIELD-WAYS.

It cannot be maintained that all lynchets belong to one period, or that there are no such things as modern lynchets. At the same time it should be possible to determine how far back into the past these relics of cultivation go, and also to recognise the characteristics by which lynchets of different periods may be distinguished. We must frankly admit that we are not able to do this fully in the present state of our knowledge. There is much work to be done on this subject, especially in excavation, and the present paper is only a very small contribution towards the elucidation of these problems.

bracken is usually limited by, or dependent upon, either the chemical or the physical nature of the subsoil. It may be suggested that the peculiar distribution of the bracken on the sites of ancient burial-grounds is due either to different materials being used in the construction of different parts of the burial-ground, earthwork, etc., or to artificial or natural drainage, or to the presence of paths or hardened portions of ground. Field observations would be necessary to decide the question. It is unlikely that the presence or absence of animal charcoal would influence the growth of bracken." Professor Seward, of the Cambridge Botanical Laboratories, tells us that bracken is a difficult plant to cultivate. (For the ecology of bracken see *Journ. Ecol.*, II. 13, 224; IV. 181; V. 135, 147.)

A series of lynchets complete with field-ways, such as we have described, forms a perfectly definite entity among the earthworks of the Sussex Downs, and it is with such series as these that we are primarily concerned in this paper. Examples are to be seen in Charlton Forest⁵⁰ (north of East Dean near Singleton), in Arundel Park,⁵¹ Lowsdean (Burpham),⁵² Truleigh Hill (Upper Beeding),⁵³ Eastwick Bottom (Patcham),⁵⁴ Saxon Down (near Lewes),⁵⁵ and elsewhere. Numerous fragmentary examples of characteristic fieldways, especially of the "double-lynchet" form (Type II.), are found associated with lynchets, scattered all over the area of the Sussex Downs. Many of these will be found to throw valuable light on the period, or periods, to which these agricultural systems belong.

It seems quite clear that, generally speaking, the roads are coeval with the lynchets, and form one system with them, for their *raison d'être* is the access which they afford to the fields. The road which we have described as traversing pre-existing lynchets on Middle Brow seems an apparent exception, but it only means that in this particular case pre-existing large fields were broken up into smaller ones, for which a new road was found necessary, so that the latter is a late contemporary of the lynchet-system.

We propose to approach the subject under four heads, viz. (1) the question of the type of plough used; (2) the evidence afforded by the size and shape of the fields; (3) the evidence afforded by associated structures and finds of known period; and (4) historical evidence.

(1) THE QUESTION OF THE TYPE OF PLOUGH USED.

We have already suggested that lynchet-formation is largely due to the use of a one-way plough, by which the sods are turned downhill year after year, resulting in the transference of soil from the upper to the lower

⁵⁰ 6" O.S., XXXV., S.W., 5.5"-5.6".

⁵¹ 6" O.S., L., S.W., 5.9"-2.5".

⁵² 6" O.S., L., S.E., about 4.5"-4.5".

⁵³ 6" O.S., LII., S.W., 14.6"-3.5".

⁵⁴ 6" O.S., LIII., S.W., 10.7"-3.2".

⁵⁵ 6" O.S., LIV., S.E., 1.5"-3.5".

These references give one point on the field-way in each case.

side of the field. Naturally, a similar, though less rapid, effect might be expected to take place under the combined influence of rain and gravitation, wherever the turf is removed and the surface soil disturbed. Nowadays we have no one-way ploughs operating in Sussex, but we still have the forces of nature, and so we must not expect to be able to date lynchets strictly by the use of the former. At the same time, that the action of gravitation, aided by weather, is not alone responsible is indicated by the fact that frequently the crest of a lynchet is appreciably higher than the ground immediately on the upper side of it.⁵⁶ This shows that the lynchet must have been formed, not merely by the drifting of soil downhill, but by the persistent *heaping up*, as by the ploughshare, of the soil which has accumulated at the lower edge of the field. Modern methods of ploughing would not be expected to favour the formation of such a raised crest to a lynchet. Nowadays the field to be ploughed is divided up into a number of rectangular strips, towards the centre of each of which the sods are turned by the plough, which works backwards and forwards on either side of the strip alternately.⁵⁷ Thus the modern ploughman turns the sods *away* from the edges of the field and towards the centre, and this results in a marked tendency to the formation of negative lynchets, but retards that of positive lynchets. We are persuaded that the above-described modern methods of ploughing tend to check, rather than augment, the natural downward drift of the soil. The fact of a large balk marking the lower edge of a field at present under cultivation does not prove the balk to be modern.

⁵⁶ This is illustrated in the diagram, Plate III., D.

⁵⁷ The farmer takes good care that the arrangement of these areas shall not coincide with that of the previous year, otherwise the sods would accumulate in the form of ridges across the fields. That such has actually occurred in the past under the open-field system is evidenced by the ridges which are so conspicuous a feature in the fields of the Midlands. In such cases it has probably been done intentionally for purposes of drainage; cf. Meitzen, *Siedelung und Agrarwesen der Germanen*, I., p. 84, and Maitland, *Domesday Book and Beyond*, pp. 383, 384.

That a one-way plough was actually used in ancient times we have on the authority of Professor Seebohm, who says: "In ploughing, the custom for ages was always to turn the sod of the furrow downhill, the plough consequently always returning one way idle"; and again: "In more recent times a plough called a 'turn-wrist' plough came into use, which by reversing its share could be used both ways, to the great saving of time."⁵⁸ Mr. Poulett Scrope,⁵⁹ writing as late as 1869, tells how he has watched lynchets form on a steep hillside to a height of two or three feet in ten years, under the influence of one-way ploughing. As we have described above, the use of the *caschrom* in the Isle of Skye has produced lynchets, which, running as they do up and down hill, are not at all dependent on the action of the weather for their formation.

The only conclusion, therefore, that we can come to under this head, is that lynchets formation is more favoured by ancient methods of cultivation than by modern.

(2) THE EVIDENCE AFFORDED BY THE SIZE AND SHAPE OF THE FIELDS.

In his article on ancient cultivations,⁶⁰ Mr. Blaker has published a carefully prepared plan of the series of lynchets which occupies the southern slopes of Saxon Down, above Oxteddle Bottom, near Lewes.⁶¹ After describing the main features of the English open-field system he draws attention to the fact that the shape and size of the fields on Saxon Down bear no relation to those which are characteristic of that system of agriculture which prevailed from Saxon times down to the beginning of last century.

The main characteristics of the English open-field system, so far as they concern our present subject, are as follows.⁶² The fields were acre, or half-acre, strips 220 yards long (i.e., 40 rods), and 22 or 11 yards

⁵⁸ *English Village Community*, pp. 5, 6n.

⁵⁹ *Wilts. Archæol. Mag.*, XII., 186, 188. ⁶⁰ *S.A.C.*, XLV., 198-203.

⁶¹ 6" O.S., LIV., S.E., 1-5"-3-5". ⁶² Seebohm, *Eng. Vill. Com.*, pp. 1-7.

wide (4 or 2 rods), as the case may be. They were grouped, a dozen or more together, into large fields called "shots." Access was had to the individual strips from another strip at right angles to them, called a "headland." The individual strips were separated from one another by turf balks, and when situated on a hillside each strip tended to form its own lynchets, producing a terrace which was roughly 22 or 11 yards wide. This arrangement of strips and "shots" was, we are told, invariable.

Now in olden times the acre⁶³ implied not merely area, but shape, and it was defined as being 40 rods in length and 4 rods in breadth. This form of acre continued to be statutory throughout the Middle Ages. Any variation from it depended upon one of two causes—(1) differences in the length of rod used—in which case the ratio of length to breadth is still ten to one; (2) local peculiarities of the ground.⁶⁴

The acre itself originally represented the area which a team of oxen could plough in a day.⁶⁵ The actual shape of the acre depended on the length of furrow deemed to be suitable—neither so short that the team of oxen would have to turn with unnecessary frequency, nor yet so long as to be too great a strain on them.⁶⁶ It follows that the more animals employed in the team, the greater would be the optimum length of the furrow. This is well illustrated by the German word *Gewende*, which may mean "length of furrow," "team," or "acre" (literally, "turning").⁶⁷

The earliest instance we have of the shape of the English acre is in Bavaria in the seventh century,⁶⁸ and it seems likely that this form of acre was introduced to this country by the Saxons, who, using a larger team of oxen than the Romans, found a furrow

⁶³ Maitland, *Domesday Book and Beyond*, pp. 362–399.

⁶⁴ In Sussex the acre varied between 107 and 212 square perches, instead of 160 (*Ibid.*, 374).

⁶⁵ *Ibid.*, p. 377.

⁶⁶ Meitzen, *Siedelung und Agrarwesen der Germanen*, I., 277.

⁶⁷ *Cassell's New German-English Dictionary* (1906).

⁶⁸ Seebohm, *op. cit.*, 385.

of 40 rods more convenient than the Roman furrow of 12 rods. Thus 40 rods came to be the English furrow-length, or *furlong*.⁶⁹

What then may the shape of the acre (or its equivalent) have been in this country in pre-Saxon times? The Roman furrow was 12 Roman rods, or 120 feet, as opposed to the 660 feet of the English furrow, and the Romans used only two oxen in the team.⁷⁰ Consequently their acre (*jugerum*), which, like the English acre, represented a day's ploughing,⁷¹ was twice as broad as it was long, viz. 120 by 240 feet. Similarly the Greek *πλέθρον* was 100 feet square, and the Egyptian *άρουρα* was 100 Samian cubits, or 171 feet, square.⁷² Thus we see that with smaller teams and shorter furrows the "acre" approaches more nearly to the square than the strip.

A further reason is adduced by Meitzen⁷³ for the square shape of the Roman *actus* (i.e. half a *jugerum*), and that is the desirability, alleged by Pliny,⁷⁴ of ploughing a field obliquely or transversely as well as longitudinally. Such methods would obviously tend to the production of lateral lynchets much more readily than if the ploughing is done in one direction only.

In Gaul the unit of area seems to have been the *arepennis*, which was 120 feet square, containing about a third of an English acre, and was equivalent to the Roman *actus quadratus*, or *semi-jugerum*.⁷⁵ From the word *arepennis* is derived the old French *arpent*,⁷⁶ a measure which varied between 0·8 and 1·2 acres.

⁶⁹ As to all this see Seebohm, *op. cit.*, 384-388.

⁷⁰ Cf. illustration of bronze representing a Roman ploughman, found in Yorkshire.—Wright, *Celt, Roman and Saxon*, p. 209.

⁷¹ Pliny, *Nat. Hist.*, XVIII., 49.

⁷² Herod. ii. 168. The Samian cubit = 20½ inches.

⁷³ Meitzen, *op. cit.*, I., 276, 277.

⁷⁴ XVIII., 49. "Omne arvum rectis sulcis, mox et obliquis subigi debet." Cf. also Vergil, *Georg.* i., 97, 98.

⁷⁵ Columella, V. i. 6. Prof. Wilkins says: "This could only be an approximate identification, for the *actus quadratus* is somewhat smaller than the great French *arpent*, and is much larger than the small *arpent*."—Smith's *Dict. Class. Antiq.*, under *ACTUS*.

⁷⁶ See Littré's *Dictionnaire de la Langue Française* (Paris, 1885), under *ARPEMENT*.

In Ireland the *aircenn* corresponds to the *arepennis*, in name, but not in size, both words being etymologically identical.⁷⁷ This suggests that there may have been originally this unit common to the Celtic peoples. The size of the *aircenn* is impossible to determine with certainty, owing to the vague and conflicting accounts of it given in the Irish laws, but it seems with them to have become a large measure of, perhaps, $8\frac{1}{2}$ or 17 acres.⁷⁸

Evidently we can look for no correspondence between units of such widely differing dimensions to help us to arrive at those employed by the Celtic peoples of Britain. But since the people of the south of Britain were closely allied to those of Gaul, as Caesar tells us,⁷⁹ we should expect to find that their methods of land-measuring corresponded with the Gallic rather than the Irish.

Maitland⁸⁰ refers to a charter "professing to come from Athelstan," which speaks of land measured by the *arpent* in Cornwall, and he says that if it has not been "forged by French clerks after the Norman Conquest, it may tell us that this old Celtic measure has been continuously used in the Celtic west." Mr. Heywood Sumner describes four square earthworks⁸¹ existing in the New Forest, which are remarkable in being identical with one another in size, each being 120 feet square and enclosing about a third of an acre. He believes them to be cattle-pens of the Roman period. It seems scarcely credible that this similarity in size should be a mere coincidence; it suggests rather that a definite unit was employed in their plan, and, if so, the unit must have been the *actus quadratus* or *arepennis*.⁸²

⁷⁷ Meitzen, *op. cit.*, I., 278n.

⁷⁸ *Ancient Laws of Ireland*, III., 335; IV., 126n, 139, 277; see also Meitzen, *op. cit.*, I., 278n.

⁷⁹ *De Bell. Gall.*, V. 12. ⁸⁰ Maitland, *Domesday Book and Beyond*, p. 467.

⁸¹ Viz., "Church Yard" (Sloden Wood), "Studley Castle," "Church Place" (Denny Wait), and "Church Place" (Ashurst).—*Ancient Earthworks of the New Forest*, pp. 61–66.

⁸² In this connection it is interesting to recall that the rectangular earthwork on Middle Brow measures 240 by 120 feet, as noted above.

On the other hand, if we may place reliance on the laws of Dvynwal Moelmud, who reigned "before the crown of London and the supremacy of this island were seized by the Saxons,"⁸³ and if we interpret his picturesque definitions aright, the Ancient British *erw* was an area which measured 480 by 32 Welsh (British) feet, that is, 360 by 24 English feet.⁸⁴ Now we are told that every freeman had the right to five *erws*.⁸⁵ If these five *erws* lay side by side they would form a field which would measure 360 by 120 English feet, an area which, singularly enough, is almost exactly an acre (0.9917 acre), and is equivalent to three *actus quadrati* or *arepennes*, placed in a line.

Now Meitzen⁸⁶ shows that the words "arepennis" (*ar y pen*) and "aircenn" are etymologically identical, both words meaning "on the head," and the probable significance of this is that they meant very much what we mean by the term "headland" in speaking of the English open-field system. In fact, "aircenn" is

⁸³ *Ancient Laws of Wales*, I., pp. 183, 185. See also Prof. Flinders Petrie's "Neglected British History," *Proc. Brit. Academy*, VIII. (1917).

⁸⁴ *Ancient Laws of Wales*, I., pp. 185, 187: "And then they made the measure of the legal erw by the barley corn: three lengths of a barley corn in an inch; three inches in the palm breadth; three palm breadths in the foot; four feet in the short yoke; and eight in the field yoke; and twelve in the lateral yoke; and sixteen in the long yoke; and a rod, equal in length to that long yoke, in the hand of the driver, with the middle spike of that long yoke in the other hand of the driver, and as far as he can reach with that rod, stretching out his arm, are the two skirts of the erw, that is to say the breadth of a legal erw; and thirty of that is the length of the erw."—We infer from this that the erw measured 30 rods by 2 rods, of 16 feet, each foot being equivalent to 27 barley-corn-lengths. We find by experiment that 27 barley corns of average size measure just 9 inches when placed end to end, while 27 of the largest size measure nearly 10 inches. Hence the Welsh (British) foot was equivalent to about 9 English inches. The later *erws* of the Dimetian and Gwentian Codes are expressly stated to have measured 16 by 2 rods and 18 by 2 rods, respectively, the rod in the former case being 16 feet, and in the latter 18 feet.—*Anc. Laws of Wales*, I., 539, 769.

(The above definition of the *erw* is only rivalled in picturesqueness by that of the ancient Irish measures of capacity, which we cannot refrain from quoting: "Twelve times the full of a hen-egg is in a 'meisrin'-measure, twelve 'meisrin'-measures in an 'ollderbh'-measure, twelve 'ollderbh'-measures in an 'oilmedhach'-measure, or in an 'olpatraic'-measure which contains two 'olfeine'-measures. Four and twenty clerics sit down about it, and twelve laymen. They get an equal quantity of food, but double ale is allowed to the laymen, in order that the clerics may not be drunk, and that their canonical hours may not be set astray on them."—*Ancient Laws of Ireland*, III., pp. 335, 337.)

⁸⁵ *Ancient Laws of Wales*, II., pp. 511, 513. ⁸⁶ Meitzen, *op. cit.*, I., 278n.

translated "headland" in the Irish Laws, and it apparently represented a strip across the end, or head, of a larger area called a *tir-cumaile*, of which it formed, it seems, a quarter of the area. In the same way it seems reasonable to infer that the *arepennis* formed, originally, the headland, and, perhaps, the third part, of a larger area, and in view of what has been said above, one wonders whether this larger area may not have been the parcel of five *erws* which belonged to every freeman in King Dvynwal's time.

The accompanying table gives the mean dimensions (sometimes very approximate) of some of the fields belonging to six groups of lynchets in Sussex. It also shows their acreage as calculated from the dimensions given, and likewise the ratio of the breadth to the length of each field, expressed as a decimal.⁸⁷ In the case of the English statute acre, which is believed to be of Germanic origin, the ratio of breadth to length is 0.10. A study of the table will show that, with the exception of the Jevington series, there is not the slightest resemblance between the dimensions of the English acre and those of the lynchet-fields under discussion.⁸⁸ The actual difference in area is not important, because we know that the English acre varied between very wide limits, as in the instance of Sussex (cited above), where it might be anything between 107 and 212 square perches, instead of 160. But the difference in the proportion of the breadth to the length of the fields is very striking. In only ten of the

⁸⁷ The data of Saxon Down are from Mr. Reginald Blaker's plan, *S.A.C.*, XLV. 200. The areas given by Mr. Blaker are slightly larger than those given here, probably because he seems to have included the areas of the balks between the fields. There is a field-way (Type II.) on Saxon Down which he has not noted. Those of Thundersbarrow Hill are from Mr. Toms' survey which he kindly allows us to use.

⁸⁸ See also Plates X. and XI., and Fig. 3, where an English acre and a Roman *jugerum* are drawn to the same scale for comparison with the lynchet-fields. There is also drawn to the same scale the portion which was the right of every freeman under Moelmud. It is divided longitudinally (by broken lines) into 5 *erws*, and transversely into 3 *arepennes*. It will thus be seen from these plans that many of the fields bear a very close resemblance in size and shape to this five-erw plot, and when one considers the vague and picturesque methods adopted by the Britons in land-measuring it will readily be understood that a considerable variation in the dimensions of the fields would result.

seventy-five fields whose dimensions are given in the table is this proportion anything like that of the English acre; four of these occur on Saxon Down, but

Field No.	MIDDLE BROW			PARK BROW			BUCKLAND BANK		
	Approx. mean dimensions in feet.	Approx. Acre-age.	B'dth divid'd by l'gth	Approx. mean dimensions in feet.	Approx. Acre-age.	B'dth divid'd by l'gth	Approx. mean dimensions in feet.	Approx. Acre-age.	B'dth divid'd by l'gth
1	300×250	1.72	0.83	250×220	1.26	0.88	400×120	1.10	0.30
2	250×220	1.26	0.88	300×120	0.83	0.40	400×140	1.28	0.35
3	400×220	2.02	0.55	260×130	0.78	0.50	400×170	1.56	0.42
4	300×250	1.72	0.83	300×250	1.72	0.83	700×330	5.30	0.47
5	300×200	1.38	0.67	380×240	2.09	0.63	380×200	1.74	0.53
6	300×300	2.06	1.00	250×250	1.43	1.00	380×270	2.35	0.71
7	350×200	1.60	0.57	220×180	0.91	0.82	380×380	3.31	1.00
8	400×180	1.65	0.45	420×240	2.32	0.57	350×300	2.41	0.86
9	300×160	1.10	0.53	450×360	3.72	0.80	300×186	1.24	0.60
10	500×250	2.87	0.50	500×400	4.59	0.80	400×200	1.84	0.50
11	260×240	1.43	0.92	500×180	2.06	0.36	550×330	4.16	0.60
12				irregular	0.69	—	300×200	1.37	0.67
13				irregular	0.34	—	350×220	1.77	0.63
14							230×90	0.47	0.39
15							400×260	2.39	0.65
16							300×110	0.76	0.37

Field No.	SAXON DOWN			THUNDERSBARROW			JEVINGTON		
	Approx. mean dimensions in feet.	Approx. Acre-age.	B'dth divid'd by l'gth	Approx. mean dimensions in feet.	Approx. acre-age.	B'dth divid'd by l'gth	Approx. mean dimensions in feet.	Approx. acre-age.	B'dth divid'd by l'gth
1	250×120	0.69	0.48	400×280	2.57	0.70	900×130	2.68	0.14
2	260×110	0.66	0.42	360×100	0.83	0.28	930×120	2.56	0.13
3	210×70	0.34	0.33	360×100	0.83	0.28	800×120	2.20	0.15
4	210×70	0.34	0.33	340×100	0.78	0.29	440×150	1.51	0.34
5	irregular	0.75	—	320×80	0.59	0.25	330×250	1.89	0.76
6	210×130	0.63	0.62	290×150	1.00	0.52	360×180	1.49	0.50
7	240×130	0.72	0.54	420×260	2.51	0.62	600×120	1.65	0.20
8	120×70	0.19	0.58	170×130	0.51	0.76	600×120	1.65	0.20
9	100×50	0.11	0.50				600×120	1.65	0.20
10	240×40	0.22	0.17				400×160	1.47	0.40
11	240×40	0.22	0.17				300×240	1.65	0.80
12	275×50	0.31	0.18				400×230	2.11	0.57
13	320×35	0.26	0.11				220×140	0.71	0.64
14							300×200	1.38	0.67

in these the area of each field is less than a third of an acre, and in two of them it is less than a quarter. The remaining six occur in the Jevington series, and are unusually large, their areas ranging from 1.65 to 2.68 acres.

As regards area, it will be noticed that there is a close similarity between the fields on Middle Brow and those on Buckland Bank. In each case the commonest area lies between one and two acres. In the case of Buckland Bank, those fields which greatly exceed this size (such as Nos. 4, 6, 7, 8, and 11), in all probability represent, each of them, two or more fields in the original scheme, the dividing balks having been levelled by subsequent ploughing. A glance at the plan (Plate XI.) will make this clear.

It is interesting to note that the dimensions of the first three fields on the list of Buckland Bank bear a resemblance to those of a field containing five *erws* of Moelmud, alluded to above. The same applies to fields Nos. 2, 3 and 4 of the Thundersbarrow series.

Saxon Down and Thundersbarrow Hill are alike in having fields which are for the most part relatively small and narrow. Field No. 13 on Saxon Down has almost exactly the dimensions of an *erw* of the Gwentian code (10th century), viz., 324 by 36 feet.⁸⁹

Park Brow stands in a class by itself on account of the irregularity of the fields, both in size and shape, and on account of their incompleteness. The comparatively small size, or absence, of the lateral lynchets is also peculiar, and especially so is their replacement by small field-banks in so many cases.

The Jevington series (Fig. 3) is peculiar in that six of its fourteen measureable fields are not only long and narrow, but are considerably larger even than the English acre.⁹⁰ The remaining eight fields are

⁸⁹ *Ancient Laws of Wales*, I., p. 769.

⁹⁰ The only other instance we know, where fields of such shape and size exist, is on the southern slopes of Wepham Down (6" O.S., L., S.E.). There are five fields there averaging 1200 by 240 feet, but there are also signs that they were divided up into smaller pieces by transverse divisions. In association with these are many fields of squarer shape, and typical field-ways.

comparable with those on Middle Brow and Buckland Bank. There is no sign of a field-way in this series, nor have we found anything to date it beyond two small fragments of coarse, flint-studded pottery of indeterminate period. The prevailing breadth of 120 feet suggests a connection with the five-*erw* plot of Moelmud.

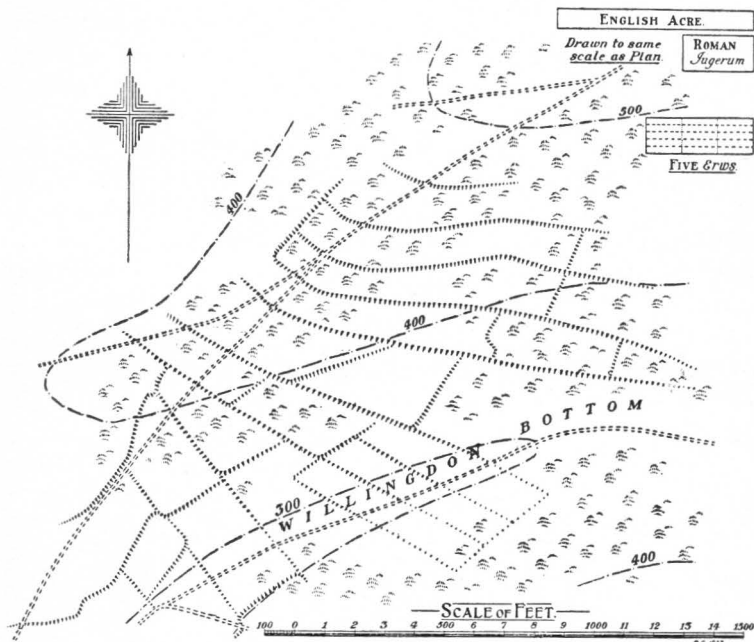


FIG. 3. PLAN OF THE JEVINGTON LYNCHETS.

With the possible exception of the last-named series, the dimensions given in this table are typical of South Down lynchets, and they seem to point definitely to a pre-Germanic origin. More than that it would be impossible to say, but further researches may yet reveal superficial characteristics by which such lynchetsystems may be assigned to the different epochs of pre-history.

Fields which are of the typical dimensions of the English acre are not common on the Downs, which supports the belief that the Downs were left very much

to themselves after the expulsion of the Britons by the Saxons. Two typical half-acre lynchets-fields (nominally 220 yards by 11 yards) may be seen, still under the plough, on the steep western slope of Fulking Hill, a few hundred yards south of the Isolation Hospital. They are separated by a balk 11 feet high. What appears to be the site of the cottage of the man who tilled them is to be seen close to their south end, near Perching Hill Barn. Wherever lynchets-fields of such dimensions are found the inference is that they are of English origin. At the time of the Enclosure Acts in the early part of last century, the "shots," which previously had contained ten to fifteen acre-strips under the open-field system, now became converted into single fields, and thus many of our large modern fields are still known to the farmers as the "ten-acre," "fifteen-acre," and so on. A perusal of any six-inch map of the Weald district will reveal that a very large proportion of the fields have one of their dimensions about a furlong, which was the length of the original acre-strip.⁹¹

(3) THE EVIDENCE AFFORDED BY ASSOCIATED STRUCTURES AND FINDS OF KNOWN PERIOD.

(a) *The Kithurst Hill group.*—It seems probable that the valley-entrenchments in Chantry Bottom and Leap Bottom are not older than medieval, and are connected with the various medieval settlements which appear to have existed in the neighbourhood, judging from the distribution of the pottery of that period. The same applies, in all probability, to the enclosure

⁹¹ Portions of the woods which lie to the west and south-west of Angmering Park (6" O.S., LXIII., N.W. and N.E.) in the parishes of Angmering, Poling, Warningcamp, and Burpham, bear such names as the following: South Fields, Old Field Copse, Plantedfields Copse, Drillsfield Copse, Tenantry Copse. None of the timber appears to be more than 100 years old, if as much. This suggests that some of the arable land was planted at the time of the Enclosure Acts, and the arrangement of the acre-strips seems to have been to a large extent perpetuated by the drives which in many parts divide the copses up into series of rectangles, measuring a furlong in length, by about 8 rods (132 feet) in breadth, and thus containing two acres each. It is noteworthy that the longer dimension of these strips generally lies at right angles to the contour lines, and hence there are no lynchets between them.

by Thornwick Barn, but whether these entrenchments are medieval or older, they are at any rate later than the lynchets with which they come into contact, as has been pointed out in the description of each. The terraced and pitted area in Chantry Bottom seems to have been the site of a medieval farm built upon pre-existing lynchets. The same may be said of the similar sites in Martin's Croft Furze and along the west side of Leap Bottom, where medieval pottery is found—in fact, the name of the Furze probably perpetuates that of the one-time farmer who lived there. All these sites exist on top of pre-existing lynchets, which shows that the lynchets in this neighbourhood are at any rate older than the fourteenth century.

With regard to Middle Brow, it has been emphasised that some of the lynchets are older than the field-way, while others must be coeval with it. We have also given our reasons for believing that one of the lynchets was levelled to make way for the construction of the rectangular earthwork. Now the shape and size (240 by 120 feet) of this earthwork, and the presence of an abundance of Roman pottery in the molecasts over and around it, and especially in the bottom of the ditch, prove that this enclosure belongs to the Roman period. The road, too, has every appearance of being coeval with the enclosure. If so, then the Pine-tree Lynchet and Barrow Lynchet were formed in pre-Roman times, but continued to be tilled, as smaller fields, during the Roman occupation. If this was so with these two lynchets, one may say that the fields in this area were tilled both before and during the Roman period.

The position of Barrow No. 2 with relation to the Barrow Lynchet shows that the former must have been constructed after the latter had reached its full size; and as barrows were commonly placed by the side of roads, it follows that in this case the road probably preceded the barrow. That the latter was constructed before the road fell into disuse is shown by the direction of the oblique cutting by which the field-way pierces

the lynchet. Thus their chronological order is—first the lynchet, then the road, then the barrow. It would be interesting to learn the date of the last, but unfortunately we have not had an opportunity of opening it.

(b) *Park Brow*.—Here the road and lynchets are obviously coeval, because the latter take origin from the sides of the road and do not run across it. The Circus is also coeval with the road—in point of use, if not of construction—because its entrance opens from the road. In Mr. Pullen-Burry's exploratory trench Roman pottery was found two feet below the centre of the present bottom of the Circus, showing that that structure was used in the Roman period, if not before. Therefore the road and lynchets are at least as old as that period.

The seven platforms which we have described as existing in the area of two lynchet-fields on the southern slope of the hill are in all probability pre-Roman, because the pottery found on them belongs to the Early Iron Age, from La Tène I. to the Roman period, and also comprises much coarse, flint-studded ware of "Bronze-Age type," but of indeterminate date. The position of these platforms proves that they are later than the lynchets, otherwise they would have been ploughed out. Therefore agricultural operations must have ceased in these particular fields before that period of the Early Iron Age in which these platforms were constructed. That corn was actually grown in the neighbourhood as early as the time of the transition from the Hallstatt to the La Tène I. cultures is evidenced by the discovery, alluded to above, of a saddle quern and parched corn in the village-site adjoining the Circus.

The late La Tène urn figured in Plate X. seems to have come from one of the two barrows which are situated to the south-east of the Circus. These barrows lie in the middle of a lynchet-field, and consequently that field must have gone out of cultivation before the construction of the barrows.

The position of the site of the wattle and daub

building of the Roman period at the foot of Park Brow is inconclusive as to the age of the neighbouring lynchets, for the field in which it is situated might equally well have been ploughed after that period as before it, since there was, before excavation, no surface indication of the site of the building except the distribution of Roman pottery in the rabbit-holes.

Thus the evidence afforded by Park Brow goes to show that the lynchets there were formed prior to the Roman period, and probably during, or even before, the beginning of the Early Iron Age (say, 500 to 400 B.C.).

(c) *Buckland Bank*.—Here we have a road which is almost exactly similar in section to that on Park Brow, and which is evidently coeval with the lynchets and with the Circus. In the latter, late La Tène-type, and coarse, flint-studded pottery have been found, together with calcined flints. Mr. Allcroft has expressed his belief that the road was used in the Roman period.⁹² It makes straight for a group of four or five bowl-barrows called the Four Lords' Burghs, while, exactly opposite the point where its branch-road goes off westwards to reach the fields on the neighbouring ridge and valley, stands a fine platform barrow. It is well known that burial mounds were often placed by the side of existing roads, especially at points where two or more roads met; indeed, Dr. Sophus Müller avers that ancient roads may be traced by the presence of barrows in clusters or in series.⁹³

The presence of the Circus implies the former existence of a village near by. Down in the valley, surrounded by bracken, is the site of the local cemetery, yielding urns belonging to the Early Iron Age and Roman periods, while all around are the lynchets of the fields which were presumably tilled by the people of the village.

There is thus plenty of evidence that these fields were cultivated both before and during the Roman

⁹² *Brighton Gazette*, Mar. 30, 1918.

⁹³ *Routes et Lieux habités à l'Age de la Pierre et à l'Age du Bronze* (Copenhagen).

period, but so far there is no positive evidence of any greater antiquity.

(d) *Highden Hill*.—In our article on Covered Ways, in a recent volume of these Collections,⁹⁴ we described one of these curious earthworks which crosses Highden Hill (Washington),⁹⁵ and we drew attention to the fact that at its southern end the Covered Way is continued as a terrace which descends the hill obliquely till it reaches the bottom of the valley. Since then we

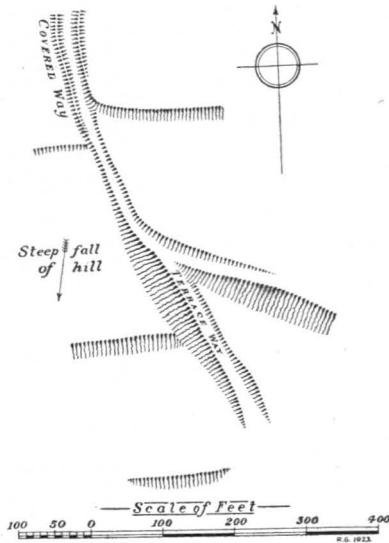


FIG. 4. Terrace-way and Lynchets connected with Covered-Way on Highden Hill.

have noticed that lynchets take origin from the sides of this terrace at irregular intervals, in such a manner as to show that the lynchets, terrace and Covered Way are all coeval (Fig. 4). Moreover, the terrace gives off a branch eastwards, which enters the corner of a lynchet-field.

It thus appears that some lynchets are at any rate as old as some Covered Ways, and this is, after all, what one would expect, for the relationship between a

⁹⁴ S.A.C., LIX., 38.

⁹⁵ 6" O.S., LI., N.W., 5-3"-1-25".

Covered Way and a bivallate field-way is intimate, the differences being in detail—depth of road-way and height of banks—rather than in character.

(e) *Willingdon Hill*.—Some few years ago Mr. H. S. Toms⁹⁶ described a Covered Way⁹⁷ on Willingdon Hill, near Eastbourne. As may be seen from his plan the southern end of this earthwork has its west bank replaced by a lynchets, from which two other lynchets go off at right angles westwards in such a manner as to make it evident that the lynchets and Covered Way are coeval. Thus the latter is continued as a Type III. field-way. This corroborates the evidence of Highden Hill.⁹⁸

In our paper on Covered Ways,⁹⁹ alluded to above, we gave reasons for believing that the Covered Way on Glatting Down¹⁰⁰ is pre-Roman, and that it may even date back to a late period of the Bronze Age. The latter finding depends very largely on Lord Abercrombie's classification of the Bronze-Age-type pottery found in the ditch.¹⁰¹ We have since noticed that the general line of this Covered Way, if continued southwards along Slindon Down, is carried on, after a gap of some hundreds of yards, by a field-way of Type II., surrounded by lynchets. It is tempting to connect the two, but the gap between them is too large to permit of more than the suggestion. However, in view of the association of lynchets with Covered Ways on Highden Hill and Willingdon Hill, it seems not unlikely that the double-lynchet field-way on Slindon Down may have formed the southward continuation of the Glatting Down Covered Way.

⁹⁶ *Trans. Eastbourne Nat. Hist. Soc.*, Jan., 1917, pp. 45-53.

⁹⁷ 6" O.S., LXXIX., N.E., 16.0"-3.8".

⁹⁸ The north-west end of the Covered Way leads down to the head of a valley that bears the significant name of *Harewick Bottom*. (Cf. *Thornwick and Eastwick*, p. 19.) Roman pottery has been found on the north side of this valley.

⁹⁹ *S.A.C.*, LIX., 60-65.

¹⁰⁰ 6" O.S., XLIX., N.E., extending from 6.3"-7.4" to 6.75"-5.57".

¹⁰¹ Mrs. B. H. Cunnington informs us that she has found pottery of the same type and ornamentation which was certainly used in the Early Iron Age.

(f) *Arundel Park*.—In that part of Arundel Park which was formerly known as Offham Down—the part which lies north of Swanbourne Lake and east of Pugh Dene—are many lynchets, with field-ways and scattered fragments of Romano-British and coarse, flint-studded pottery. In one place a small, low round-barrow, surrounded by a ditch, lies right athwart a small lateral lynchet¹⁰² (Fig. 5). Evidently the barrow was constructed at a time when the field

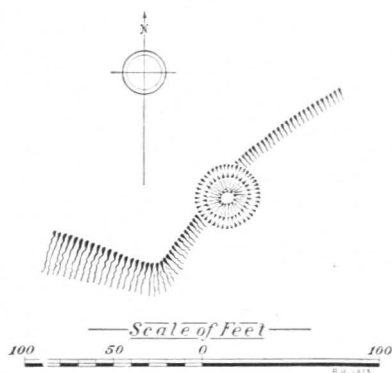


FIG. 5. Barrow overlying Lynchet in Arundel Park.

had gone out of cultivation. It would be interesting to discover the date of this barrow; it is not likely to be later than the seventh century, and is probably very much earlier.

(g) *Ancient Road near Hangleton*.—A conspicuous feature on the Brighton and Hove Golf Links is a very fine turf-covered road of double-lynchet form and massive dimensions, which runs the length of the golf-links, parallel with the Dyke Railway.¹⁰³ It is first picked up in this form a few hundred yards south of the Golf House, and it can be traced as far as the broken ground which is said to mark the site of old Hangleton village, on the *east* side of the railway.¹⁰⁴

¹⁰² 6" O.S., L., S.W., 5.0"-2.2".

¹⁰³ 6" O.S., extending from LII., S.E., 9.8"-0.2" to LXV., N.E., 10.8"-9.3".

¹⁰⁴ For this see *S.A.C.*, XXXIV., p. 182

When we first examined this road we thought it could be nothing more than a medieval coach-road, leading northwards from old Hangleton.¹⁰⁵ But we were soon forced to change our minds, for, at a point about half-way along its extent, and near the tool-hut belonging to the keeper of the greens,¹⁰⁶ is a bowl-barrow constructed upon the edge of the massive positive lynchets which forms the eastern boundary

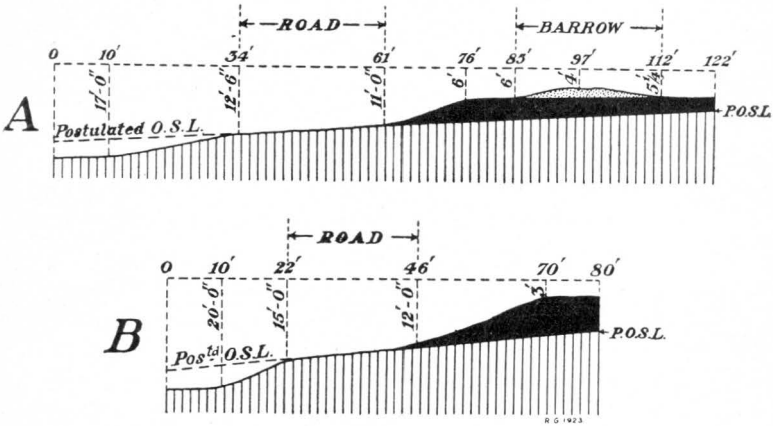


FIG. 6. Sections through Ancient Road near Hangleton.
 A, Showing barrow surmounting positive lynchet;
 B, typical section of road.
 P.O.S.L., postulated original surface line.

of the road (Fig. 6). The road, therefore, is earlier than the barrow.

There is no surface indication of this road further north than a point 300 yards south of the Skeleton Hovel, but its line is continued as a bridle-road and Parish (and Union) boundary across the Dyke Road and over Pond Brow and Summer Down to emerge on the edge of the Dyke Valley exactly opposite the eastern head of Mr. Allcroft's Roman terrace. The manner in

¹⁰⁵ That it was actually used as a highway in the 17th century is shown by "A Terrier of Gleabe Lands and Buildings belonging unto the Parsonage of Hangleton. . . ." (dated Mar. 21, 1635, and cited *S.A.C.*, XXXIV., p 181), which says: "We have . . . a Parsonage Howse . . . having the Church on the south, the highway on the East . . ."

¹⁰⁶ 6" O S., LXV., N E., 9.7"-11.2"

which this parish boundary crosses the Dyke Road—it strikes it at an acute angle, follows it for 150 yards, and then leaves it at a similar acute angle—may afford a hint that the track followed by the Dyke Road itself is as old as, or even older than, the road we have been describing. To such a suggestion further point is lent by the existence, by the side of the Dyke Road, of a barrow called the Black Burgh,¹⁰⁷ for, as has been pointed out before, barrows were commonly placed by the side of roads. Moreover, the line of the Dyke Road makes direct for the head of the terrace-way which descends the escarpment from near the Dyke to Fulking. This terrace-way appears to have been a pre-Roman track which was straightened and improved by the Romans.

(h) *Park Bottom (Brighton)*.—In 1911 Mr. Toms described the discovery of pottery in a section through a lynchets in Park Bottom. He says: “Capping the balk was a seam of pure mould . . . lying along the bottom of the pure mould capping were found small fragments of coarse hand-made pottery—of British or Romano-British origin—with cooking stones and flint flakes. These objects were lying on the old crest of the balk in a kind of stratum, and it is evident that they were dropped on the balk *after* its formation in Roman or pre-Roman times.”¹⁰⁸

(4) HISTORICAL EVIDENCE.

To complete the picture it is only necessary to note that there is plenty of documentary evidence that corn was grown in Britain in ancient times in considerable quantity, and hence we should expect to find the traces of such cultivations in conjunction with the other relics of the distant past.

The Massilian explorer, Pytheas, who visited Britain in 325 B.C. (i.e. probably in the La Tène II. period), observed in the southern districts an abundance of wheat in the fields, and noted that it had to be threshed

¹⁰⁷ 6" O.S., LII., S.E., 10-5"-3-65". ¹⁰⁸ *Antiquary*, Nov., 1911, p. 412.

in covered barns owing to the inclemency of the climate.¹⁰⁹

Hecataeus of Abdera (about 330 B.C.) is quoted by Diodorus Siculus as saying: "There is on the ocean, in the parts over against Celtica, an island not less than Sicily; . . . it is of a rich and all-productive soil, and, moreover, through the excellence of its climate, it bears two harvests a year."¹¹⁰

Caesar (B.C. 55) tells us that the Belgae, who inhabited the south coast of Britain, practised agriculture, their population being immense and their dwellings crowded together. The Britons of the interior were, however, for the most part not agricultural, but lived on animal flesh and milk.¹¹¹ Caesar himself was able to keep his army of 12,000 men for a fortnight on wheat reaped in the neighbourhood of Walmer in Kent, while the following year he obtained enough in Essex for four legions and their auxiliaries and 1700 cavalry.¹¹²

Diodorus Siculus (B.C. 44) writes of the Britons: "They gather in the harvest by cutting off the ears of corn and storing them in subterranean repositories (*καταγείους οικήσας, horreis subterraneis*); they cull therefrom daily such as are old, and dressing them, have thence their sustenance."¹¹³

Tacitus (A.D. 90) writes: "The soil is suitable for cultivation, and is fertile. . . . The crops are early in starting and late in ripening, and in both cases from the same cause, viz., the extreme wetness of the soil and climate."¹¹⁴

Pliny, writing in the first century, says that the Britons marled their fields with chalk dug from pits 100 feet deep,¹¹⁵ thus revealing quite an advanced state of agriculture—so that it would not surprise us

¹⁰⁹ Strabo, IV. v., 5; see Elton, *Origins of English Hist.*, p. 30.

¹¹⁰ Diodorus Siculus, II. 47. Celtica was a name commonly applied to Gaul.

¹¹¹ Caesar, *De Bell. Gall.*, V., 12, 14; cf. Strabo, IV. v., 2.

¹¹² *De Bell. Gall.*, IV. 31, 32; V. 20; see Rice Holmes, *Ancient Britain*, p. 253.

¹¹³ Diodorus Siculus, V., 21. ¹¹⁴ Tacitus, *Agricola*, xii.

¹¹⁵ Pliny, *Nat. Hist.*, XVII., 4 (6) and (8).

to learn that they took the trouble to collect the flints from their fields.

Zosimus¹¹⁶ describes how in 358 A.D. the Emperor Julian built a fleet of 600 or 800 corn-ships which made several voyages, carrying corn from Britain for the devastated Rhine provinces. Gibbon estimates the capacity of each ship at least 70 tons, in which case, he calculates, the whole fleet of 600 ships would carry 120,000 quarters of wheat at each voyage. He adds: "The country which could bear so large an exportation must already have attained an improved state of agriculture."¹¹⁷

Although the distinction made by Caesar between the maritime and inland Britons may not have held strictly true in the fourth century A.D., yet most of this vast quantity of corn must have been grown on the chalk hills of the south-east of Britain. Indeed, there was little else where it could be grown. The centre of the country was mainly forest, and the numerous rivers being unbanked kept their valleys perpetually swampy. It is believed that in Roman and pre-Roman times the rainfall was much greater than it is at present, and even in historic times springs broke out on the chalk Downs 50 to 60 feet above their present level. This means that what are now occasional streams were permanent rivers, while small brooks were swollen streams; all the low lying districts were swampy marshes covered by a thick impenetrable tangle of trees and scrub, and consequently were not possible places for the habitation of men in any numbers, or the cultivation of grain in any quantity. Here in Sussex, south of the Downs, the condition of affairs was not much better, for surprisingly large areas of land along the coast are to-day below high watermark. Even as late as Saxon and Norman times, before the sea defences and river banks were constructed, Selsey was practically an island, and at high tide the sea

¹¹⁶ Zosimus, III., 5.

¹¹⁷ Gibbon, *Decline and Fall of the Roman Empire*, Vol. II. (chap. xix.), p. 284n. Zosimus describes the ships as *μείζονα λέμβων*.

filled what are now the river valleys and spread right and left inland, flowing past Barnham Church, and Arundel, and reaching Poling, Angmering Church and Broadwater,¹¹⁸ and so covering what are now large corn-growing districts, and converting the valleys of Adur and Ouse and the Marshes of Pevensy and Romney into great inlets of the sea. It is to evidence of this kind, as well as to that of the presence on the Chalk Downs of traces of their former occupation by men, that is attributed the belief not only that the chalk hills were thickly populated and cultivated, but that, as Mr. Clement Reid puts it, "the areas occupied by the chalk were probably in prehistoric times, and even much later, the most settled and highly civilised parts of Britain."¹¹⁹

So much for the evidence that corn was extensively grown in Britain in, and before, the Roman period. There yet remains one interesting piece of documentary evidence with regard to the lynchets themselves. Dr. Colley March draws attention to the innumerable references to lynchets in the Anglo-Saxon Delimitation Charters,¹²⁰ chiefly occurring in Wiltshire and Hampshire. He premises that "the boundaries there assigned usually follow pre-existing and easily recognised features of the country." Among many references to natural features occur a very large number of references to lynchets, such as the following: *stan hlinc*, *stenihte hlinc*, "the stone, or stony, lynchet"; *gate hlinc*, "the road lynchet"¹²¹; *hlinc andlang drafæ*, "the lynchet along the cattle drive," and so on. After citing a considerable number of these, Dr. March says: "On the whole, the impression made upon one's mind after going through all these charters—hundreds of them—is that lynchets were not, as a rule, in those days tillage terraces." He goes on to say that though there is abundant evidence of agriculture in the charters, there seems to be only one reference to a cultivated lynchet—on

¹¹⁸ A. Ballard, *S.A.C.*, LIII., 5-25. ¹¹⁹ *Vict. County Hist. Sussex*, I., 10.

¹²⁰ *Proc. Dorset Field Club*, XXIV., 70-72; Birch's *Cartularium Saxonicum*.

¹²¹ Is this a "double lynchet" road?

þyrð hlinc, "to the ploughed lynchet."¹²² Such a phrase seems to be intended to distinguish it from all others, because all the epithets applied to lynchets in these charters are applied by way of distinction, and if, therefore, this particular lynchet was ploughed, it was something out of the common.

The obvious inference seems to be that the lynchets referred to were those of the Ancient British fields which by the tenth century had long since ceased to be cultivated, but which were sufficiently numerous and obvious to merit such frequent mention as land marks.

CONCLUSION.

In view of all this evidence we feel justified in referring to Ancient British times the lynchets of the type with which we have been dealing, though we cannot at present distinguish with certainty between those of the Roman and pre-Roman period. In the same way we feel it justifiable to refer to the fieldways as Celtic—or British—roads, a term which does not commit one to any particular period prior to the coming of the Saxons. At the same time we wish to emphasise the necessity of distinguishing carefully between the lynchet-fields which are broad in comparison with their length and those which are in the form of long narrow strips measuring approximately 220 yards by 22 or 11 yards. The latter we maintain are medieval or comparatively modern.

From the evidence furnished by the Swiss Lake Dwellings it is clear that corn was cultivated in Central Europe in late Neolithic times; it does not follow from this fact, however, that corn was grown in Britain so early. There is a general belief that corn was cultivated in these Islands during at any rate the latter part of the Bronze Age, and we share in the view that this was probable. In this paper, however, we have dealt only with the evidence as to the age of those lynchets which have come under our own observation in our

¹²² *Worcestershire Charter*, A.D. 972

County of Sussex, and while we think we have found, and adduced, conclusive evidence of agricultural operations on a large scale from the Early Iron Age downwards, we have not been able to find definite proof of such activities during the age that preceded it.

We cannot close without putting on record our indebtedness to Mr. Robert Gurd for the great pains he has taken in the preparations of our illustrations, both in this and preceding articles, and also for the valuable help he gave us in surveying the earthworks of Chantry Bottom, Leap Bottom, and Middle Brow. We are also indebted to Mr. Reginald Williamson for very valuable assistance rendered in surveying.

[Since going to press an article has appeared by Mr. O. G. S. Crawford on "Air Survey and Archæology" (*Geograph. Journal*, Vol. LXI., No. 5 (May, 1923), pp. 342-366). In it he deals largely with the question of lynchets, and we are gratified to find how closely our conclusions agree with his, although arrived at quite independently.]