Cruck Houses in Long Wittenham

By DEREK PORTMAN, B.A.

THE cruck house is one in which the "principal trusses... supporting the roof, are not framed up in the familiar manner —a triangle of beams resting, at their two lower corners, on the top of the wooden wall (the "wall-plate"), but consist of a pair of heavy curved timbers ("blades")."[1] The preceding description, though brief, is sufficient for our purposes. Referring as it does to Monmouthshire houses it makes no mention of the type of cruck truss where the principal timbers, instead of being curved, are straight and give a shape like an inverted "V",[2] usually though not inevitably a sign of early date. Nor does it cover later derivative cruck constructions, such as the "upper cruck" as Sir Cyril Fox has termed it,[3] where the principal springs from a point at or just below wall-plate level. But the crucks in Long Wittenham are neither straight nor upper, and to that extent at least can be said to be normal.[4]

Innocent,[5] judging from his own experience, tentatively suggested that the southernmost limits of cruck-building in this country approximated to a line drawn from the Bristol Channel to the Wash. Recent research, however, has shown that the cruck-truss is to be found well below that line, and not only in those "certain secluded hilly districts" which Innocent expected in his generalization. There is an upper cruck in the parish of Bishop's Tawton in North Devon and Walton mentions records of a cruck-framed building in Suffolk.[6] But evidence for any cruck-building in the extreme south-west, the south-east and in East Anglia is still very slight and it is possible that it was never very extensive in those areas. On the other hand, it has been shown in the past few years that the cruck technique was familiar to the central part of southern England. Webster,[7] for example, mentions a cruck at Skirmett in Buckinghamshire and

[1]Fox and Raglan, *Monmouthshire Houses, Part I* (1951), p. 16.

[2]For example, in the illustration of a cottage at Didbrook, Glos. facing p. 12 in Batsford and Fry, *The English Cottage* (3rd edn. rev. 1950).

[3]Op. cit., pp. 67–72.

[4]Those wishing to pursue the subject of cruck construction further should see C. F. Innocent, *The Development of English Building Construction*, (1916); S. O. Addy, *The Evolution of the English House*, 2nd. ed., rev. Summerson, 1933; J. Walton, *The Development of the Cruck Framework*, Antiquity, vol. xxii, no. 88, 1948, pp. 179–89. More particular information about regional types is to be found in J. Walton, *Cruck-Framed Buildings in Yorkshire*, Yorks. Arch. Journ., vol. 37, 1948, pp. 49–66; J. Walton, *Cruck-Framed Buildings in Scotland*, Gwerin vol. I, no. 3, 1957, pp. 109–22; V. R. Webster, *Cruck-Framed Buildings of Leicestershire*, Transact. Leics. Arch. Soc., vol. xxx, 1954, pp. 26–58.

[5]Op. cit., p. 36.

[6]J. Walton, *The Development of the Cruck Framework*, p. 187.

[7]Webster, art. cit., p. 27.

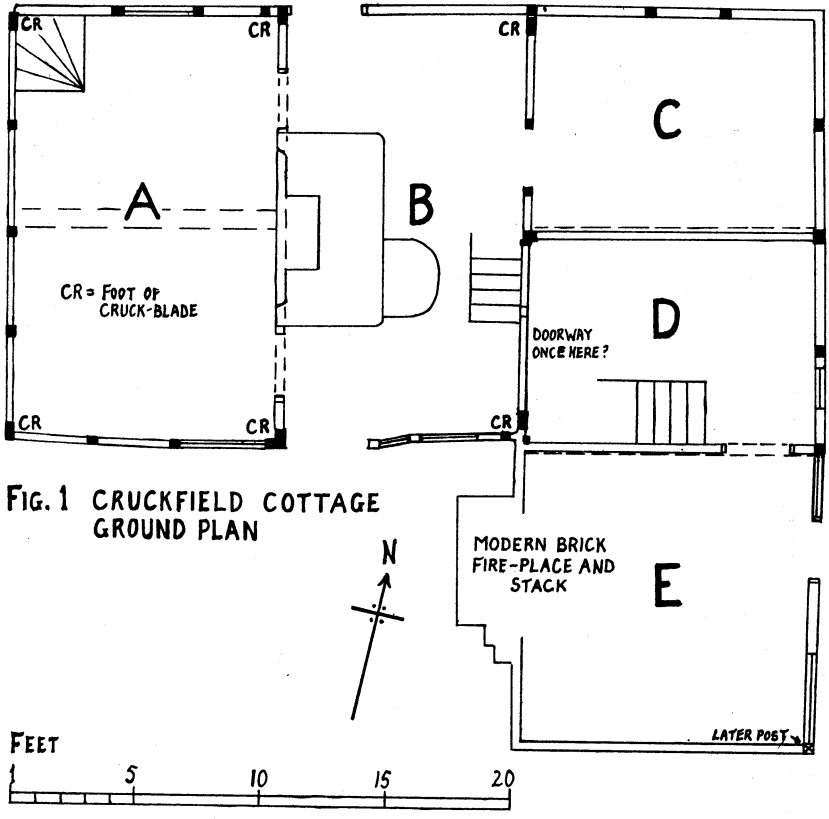
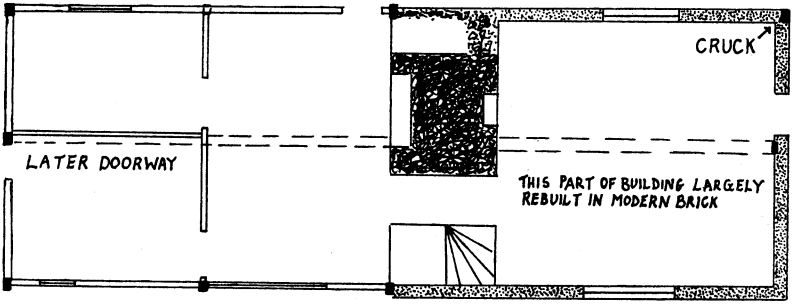


FIG. 1 CRUCKFIELD COTTAGE GROUND PLAN

FIG. 2 CHURCH FARM HOUSE – SKETCH-PLAN ABOUT TWO-THIRDS SCALE OF OTHER DRAWINGS



refers to the researches of Walton who has recorded many further examples in Wiltshire, Dorset and Hampshire.

Hitherto, Berkshire has been remarkable only for the cruck-framed "Barley Mow" which is actually in the parish of Long Wittenham, though it is popularly attributed to Clifton Hampden, an Oxfordshire village just across the river Thames. Another, less well-known, example is recorded at Inkpen in the extreme south-west of the county,[1] and my attention has been drawn to a further two at Radley, near Abingdon.[2] The Rectory barn at Letcombe Basset also contains fine cruck-trusses.[3] There must be many more scattered about, perhaps clearly visible to the passer-by or else concealed by an outer skin of later stone, or more probably brick. This is a safe assumption, if one judges by the example of Long Wittenham which, in spite of its small size, contains evidence of no fewer than five cruck buildings.

By far the most interesting and complete structure is that known as Cruckfield Cottage (Plate Ia and b) which stands near the village cross. It is L-shaped, timber-framed and of two storeys, for the greater part; thatched, and judging from the sweep of the roof must always have been so. It is built on a slight slope and this, together with a light soil, has provided a certain natural drainage system which has protected the house adequately enough from the ravages of damp. The walls rest on a horizontal wooden sill, roughly $7'' \times 6''$ in section and this in turn lies on a stone footing. Although this is no longer complete, sufficient evidence remains to indicate that this type of foundation originally continued round the whole of the house. All the windows are modern. Much of the original wattle and daub filling still remains with some later lath and plaster, and a considerable amount of modern brick occasioned rather by subsequent alteration and extension than by the need for repair. Reference to the ground plan (Fig. 1) shows that the house consists of three pairs of crucks in the main bar of the "L" amalgamating with the more common "post-and-truss" construction (i.e. with vertical walls supporting a basically triangular roof-truss) which is found in the projecting wing (Fig. 3). I have been unable to find any sign of carpenters' marks on the cruck-trusses. There is nothing to be seen in the expected place where the halved joint is made. However, as such joints occur on the western face of the principals at Cruckfield Cottage I have for convenience' sake numbered the trusses as the carpenter might have done, progressing from west to east.

Cruck I (Fig. 5a), which forms the western end of the building, ends at the collar-beam, so producing a half-hipped gable. In addition to the tie-beam there is an interior spur-tie on the northern

[1]Batsford and Fry, op. cit., p. 16.

[2]I am indebted to Mr. David Sturdy for this information.

[3]I am indebted to Mr. P. S. Spokes for this information.

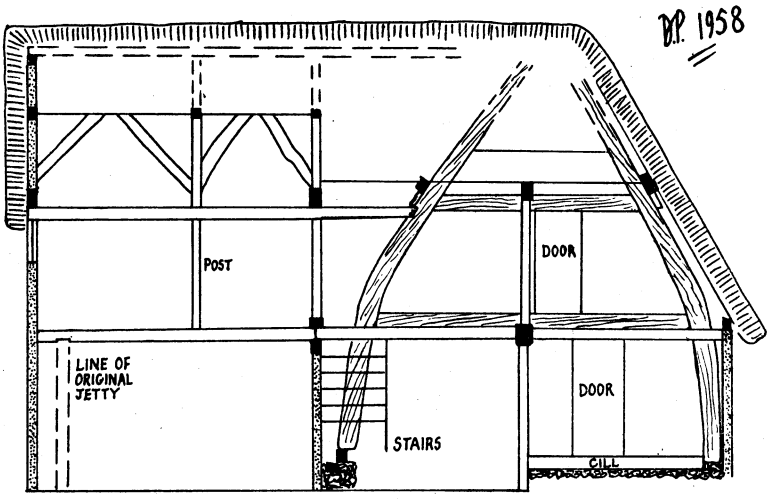
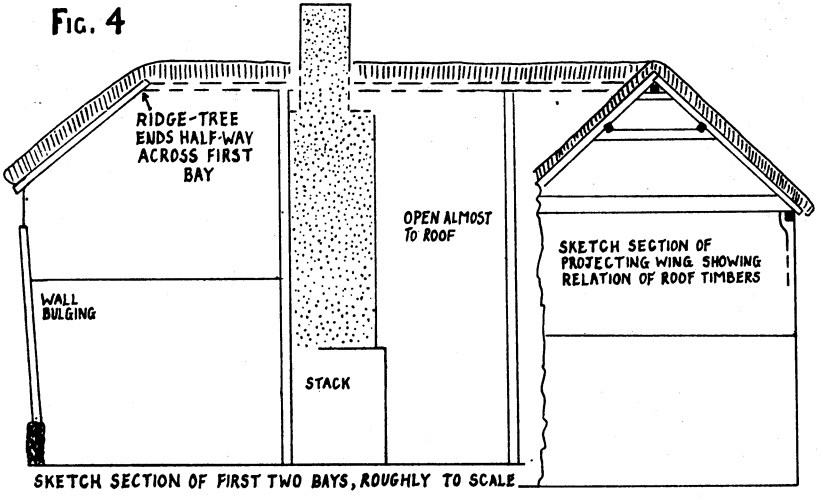


FIG. 3 SECTION OF PROJECTING WING SHOWING RELATIONSHIP TO CRUCK III

FIG. 4



blade which seems to be jointed into the wall-plate instead of into an upright post—an unusual feature. The first bay of the building between crucks I and II (A on the ground-plan) is floored over, the first floor being ceiled at about collar-beam level. There is a curving wind-brace on the northern side of the bay (Plate IIIa), apparently jointed into the back of the northern blade of cruck II. This may well have been inserted as late as the seventeenth century as a precaution against the bulging western gable. Cruck II is more striking, having no proper tie-beam. Instead it has two spur-ties and indications of a third, all again apparently jointed into the wall-plates (Plate IIIb and Fig. 5b). The collar is supported by arched braces though one of the pair is now missing or hidden. The second bay (B) contains the chimney stack, definitely a later insertion and now a confusing mixture of white-washed stone and brick. This part of the building is open to the roof, or more accurately to just above collar-beam height. Modern boarding conceals many of the roof-timbers from view. A further feature is the stair-ladder leading up to a first floor room in the third bay (Plate IVa). The ladder is modern but it is clear that some similar device was originally in operation. Perhaps an ordinary ladder was employed which was hung under the eaves when not in use. Certainly no proper enclosed staircase could ever have occupied that central position. The doorway in the southern wall may have originally been further east nearer to cruck III. Cruck III has a slightly cambered tie-beam, a substantial collar, and there is a wooden sill passing directly beneath it from the foot of the northern blade to a point halfway across the building (Fig. 3).

The third bay will be taken in conjunction with the projecting wing, as they seem to be of the same build. There are three rooms (C, D, E) on the ground floor, the two in the projecting wing being lower owing to the slope of the ground (Fig. 3). There seems to have been no communicating door between rooms C and D, though there was probably a doorway between D and the bay open to the roof. The chimney stack and the staircase in the projecting wing are both modern. In fact, there was almost certainly no original staircase, for rooms D and E seem at one time to have been completely floored over. It appears that the whole building at some date was turned into two separate cottages, the smaller one consisting of rooms D and E with the two rooms above them, and the staircase was probably inserted then.

On the upper floor there are again three rooms in all with no communication between the northernmost room and the central one. The rooms are ceiled at differing heights, with the southernmost one containing four pairs of roughly dressed wind-braces, three pairs curved and one pair straight (Plate IVb, Fig. 3). It is evident from the recesses in the undersides of the joists in room E that the gable end of the wing was originally jettied out over the ground floor and the gable-end itself discloses a skilful and

FIG. 5 TRUSSES IN LONG WITTENHAM

FEET 1 5 10 15 20

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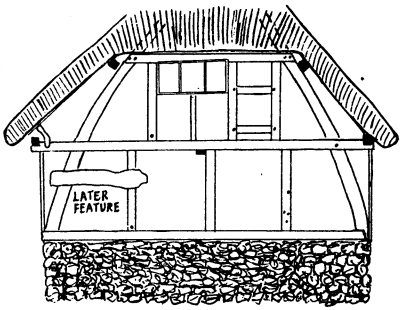
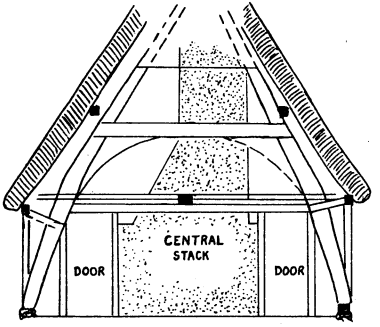
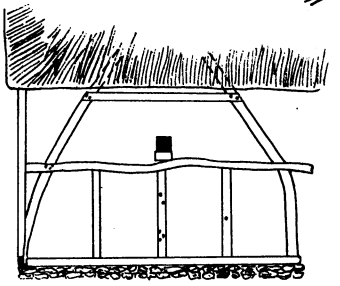


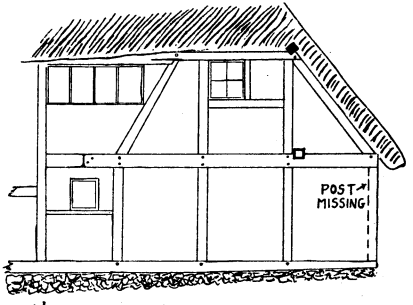
(a) CRUCKFIELD COTTAGE – WEST GABLE



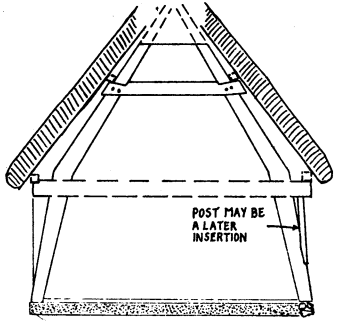
(b) CRUCKFIELD – TRUSS II



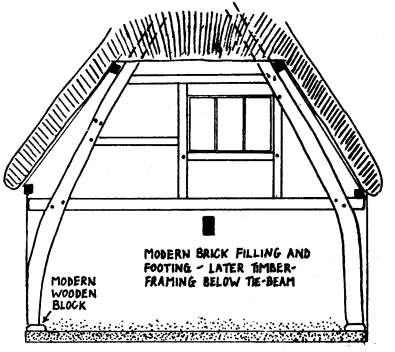
(c) NO. 33



(d) CRUCKFIELD – EAST END



(e) TRACTOR – SHED CENTRE TRUSS



(f) THE BARLEY MOW – EAST GABLE

uncommon method of supporting the roof-timbers (Fig. 4). The rafters meet above the ridge-tree which rests on a very high collar-beam that is virtually a saddle, and the upper purlins are couched in the angle made by a lower collar-beam and the principal rafters. The eastern face of the building is notable for its great curving braces on the first floor (Plate Ib) and for the manner in which a different technique of timber-framing echoes the cruck construction of the western gable (Fig. 5, *cf.* a and d).

That is a bald description of the building as it now stands. What of its history and evolution? Let us begin again at the eastern gable. It is unusual in that it is half-hipped, a form of construction that is not commonly found associated with the cruck-truss. Whether it was originally conceived like this or whether the blades at one time were extended to meet at the apex of the roof it is impossible to determine. Walton mentions two Yorkshire barns[1] having a gable cruck-truss sawn off just above the lower collar-beam and suggests that the resultant half-hip is a later improvisation introduced because the top of the cruck had perished through long exposure to the weather. This may have been the case at Cruckfield Cottage. Whatever the reason, I am inclined to believe that the western gable was not originally half-hipped but continued sheer to the ridge-tree. The sketch elevation (Fig. 4) shows how insecure the present method of construction is. The ridge-tree, instead of ending safely at the apex of a cruck-truss, terminates about halfway across the western bay, and is then made to support no fewer than eight rafters fanning out to form the half-hip. As the apex of the building is nowhere apparent from inside due to later ceiling it is not known if the end of the ridge-tree in the western bay is supported by rafters connected to the wall-plates, as Walton describes at Little Thorpe, but if it was the construction would still have its faults. To a certain extent the stresses in the building are operating as in "the arch that never sleeps". The weight of the roof tends to thrust outwards at the gable ends. A comparison of the bulge in the western gable with the regular vertical of the eastern wall which was conceived as a hip, adds further support to the suggestion that the former was a subsequent improvisation. Moreover the spur-tie and an additional interior rafter at the northern blade may well have been introduced as strengthening features when the improvisation was effected.

It is evident that the central chimney stack and the floor in the western bay are later, and perhaps contemporaneous insertions, and that the whole of the space (A) between crucks I and II was originally open to the roof. The present tie-beam of cruck II is in fact not a tie-beam at all for it is not jointed into the blades (Plate IIIb, Fig. 5b). Instead, it is set into and supported by the chimney stack which also carries the floor of the first bay. This accounts for the slenderness of the central "tie" compared with the others. Nor has there ever been a tie-beam to cruck II. The necessary stability was supplied by

[1]Walton, article in Yorks. Arch. Journ., p. 60.

the spur-ties joining the cruck blade to the wall-plate, a device which also gave plenty of head-room in the centre of the original open hall. And there is some significance, perhaps, in the arched braces to the collar of the central cruck (Plate IIIb). It is, of course, essentially practical in purpose, but it seems to have an additional decorative value and may well have been inserted to give the open hall a touch of splendour. Furthermore, the curving wind-brace in the first bay (Plate IIIa) which could be as late as the seventeenth century, seems to come through the floor and therefore the floor must be a later feature. The combination of stopped chamfered beam and rough joists in the first bay suggests that the floor was inserted some time in the seventeenth or early eighteenth century. The central stack was probably inserted at the same time.

As we proceed further east beyond the present crucks other questions arise. Was the building originally L-shaped? If so, is the post-and-truss section incorporating the projecting wing contemporary with the crucks or was it built at a later date, replacing some earlier structure? If the building was originally L-shaped, then we can be sure that it was not cruck-framed throughout. Webster records an L-shaped cruck building at Rothley,[1] but such examples are very rare. Cruck-trusses cannot easily negotiate right-angled corners. Besides, the span of the projecting wing in Cruckfield Cottage, some twelve feet, is too narrow to accommodate a cruck permitting two storeys of building. It seems furthermore that the present post-and-truss section is not contemporary with the crucks. The manner in which the eastern face of the building echoes the western gable suggests that it was built when the latter was remodelled; and the northern purlin of the eastern bay is independent of the cruck purlin (Fig. 3), lying on top of it and thus apparently later. The continuation of the tie-beam in the eastern face of the building into the projecting wing implies that that part of Cruckfield Cottage is all of one build.

I do not think, then, that the house was originally L-shaped. But did it once extend beyond cruck III, with perhaps one further bay of cruck building? It is impossible to say definitely whether or not this was the case, but my own feeling is that it did not, that the original house consisted of two bays open to the roof. The sill which still extends halfway across cruck III may well have supported the original end wall.

It is not easy to date cruck buildings with any great degree of accuracy, though one can say with some certainty that a true, as opposed to a derived, cruck construction is not likely to be later than the second half of the sixteenth century. In the case of Cruckfield Cottage, the projecting wing with its jettied gable and heavy curving wind-braces both in the walls and in the roof probably dates back to the first half of the sixteenth century at the latest and may

[1]Art. cit., p. 40.

well go back to before 1500. As this end of the building is later than the rest, then the original cruck-framed part may conservatively be assigned to the early fifteenth century, with the possibility that it belongs to a still earlier time.

It would seem that Cruckfield Cottage evolved in the following manner:—

Stage I: 15th Century

Either (a) a cruck building of two bays making a hall open to the roof,

or (b) a cruck building of three bays, two forming an open hall and the third consisting of a service room, a buttery for example, on the ground floor, with a chamber above reached by a ladder.

If there was a third bay the tie-beam in cruck III would suggest that it consisted of two storeys, but I favour alternative (a).

Stage II: Late 15th or early 16th Century

Transformation of the house to an L-shape.

Either (a) by the addition of a complete eastern limb to an open hall of two bays,

or (b) by the alteration and extension southward of an existing bay.

This gives an open hall plus an east wing of six rooms, comprising perhaps a buttery, a lower chamber and a parlour on the ground floor, with three chambers above.

Stage III: 17th or early 18th Century

Chimney stack inserted in open hall and western bay floored over.

Stage IV:

Then or later, the house was turned into two separate cottages.

Cruckfield Cottage is of a sufficient rarity and interest to merit such a detailed examination of its structure and evolution. Limitations of space, however, preclude an equally exhaustive study of the other cruck-framed houses in Long Wittenham and, on the whole, only the salient features of their construction can be noted here.

In some cases, only part of the original cruck building remains, as in the case of No. 33 (Plate IIb, Fig. 5c). Here the cruck embedded in the wall of the house has been cut short at the collar-beam to accommodate the later building, which also houses another single, heavier cruck-blade at a distance of 12 ft. from the truss shown in the photograph. It is impossible to say if the latter truss was originally in the centre or at the end of the original cruck house. A map of the village and open fields, dated 1809, in the possession of St. John's College, Oxford, shows that there was no westward extension to the house at that time.

The tractor-shed (Plate IIa, Fig. 5c) belonging to Church Farm contains two bays of cruck building, one and perhaps both of which were divided into two storeys from the beginning. The centre collar-beam is notched though the other two are not. No original footings remain. The most striking feature of all is the cruck blades, heavy, beautifully angled at the "elbow", and tapering at the foot, reminiscent of those recorded by Fox and Raglan in Monmouthshire. But in this building, too, later ceiling makes it impossible to see how the blades are joined together at the top.

Church Farm house itself (Fig. 2) is a most interesting structure containing the remains of one well-finished blade 11″ by a minimum of 4″ at its topmost point with two peg holes, apparently for a tie-beam, at a height of 6′ 9″ from the present ground-floor level. It would seem that in this building sometime in the sixteenth century a more sophisticated post-and-truss dwelling having two full storeys and an attic was added to the end of an earlier cruck house, both sharing a common stack and staircase. The cruck house was later drastically altered and largely rebuilt in modern brick, but the surviving blade must be of fifteenth century date.

The "Barley Mow" is the longest building of the five, containing three bays varying from about 14′ to 16′ in length, and there was probably at one time yet another bay. The structure is of two storeys but has been subjected to so much later alteration and extension that it is now virtually impossible to ascertain which part, if any, was originally open to the roof. The half-hip at the eastern end of the building (Fig. 5f) is a feature which may be compared with that at Cruckfield Cottage. Here it is clearly deliberate, for though the central trusses are several feet higher than the gable truss, and though the apex of the latter is concealed by thatch, it is clear from the angle of the blades that they are joined together at the top, and supporting rafters lead up to a ridge-tree which, in this case too, projects clear of the neighbouring cruck. This is no case of later improvisation.

What does this short study of cruck houses in Long Wittenham reveal? It shows that there was a strong tradition of cruck building in North Berkshire which probably persisted into the latter half of the sixteenth century, when it was generally and finally supplanted by the post-and-truss method which allowed larger and more comfortable houses to be built. It has been impossible to examine the apex of any of the crucks, so we do not know what method or methods were employed to support the ridge-tree, whether the blades were halved and crossed or whether a saddle or yoke was introduced. But other evidence indicates that cruck techniques in Long Wittenham were simple and straightforward. The blades rested on some form of footing, usually a wooden sill, and wall-plates were carried on extending tie-beams. Tie-beams, collar-beams and spur-ties were secured with halved rather than with notched

joints. But despite the example of the tractor-shed with its fine elbow crucks tapering at the foot, the crucks at Long Wittenham on the whole have none of the massive sophistication of those found in Monmouthshire. Houses tended to be small, usually of two bays.

In his book "The Evolution of the English House", S. O. Addy defines the bay, the basic unit of smaller domestic architecture, as being the space needed to house four oxen standing side by side and states that this stemmed from a time when man and beast lived under the same roof. Old houses in Yorkshire supported his estimate of 16′ as the normal width of the bay, and Webster's researches in Leicestershire reveal that the most common width among cruck buildings there is from 14′ to 16′. The bay in Monmouthshire cruck houses, however, is usually between 10′ 6″ and 12′ 6″ wide, and the most common in Long Wittenham, between 10′ and 12′. The "Barley Mow" is a definite exception. If Addy's theory is correct then it seems to obtain principally in the north and north midlands. The significance of the 16′ bay was either never recognised in the west and south or was forgotten long ago. Why there should be this regional difference in the width of the bay is a problem which has yet to be solved. Could it be that the practice of man and beast living under the same roof persisted longer in the north than in the more advanced south? But how does one explain Monmouthshire?

It is unusual for a village the size of Long Wittenham to have evidence of as many as five cruck-framed houses. It is possible, moreover, that the remains of others persisted into the last century. Many half-timbered houses in the village were destroyed by fire in 1868[1] and there may have been crucks among them. This last point is a salutary one. If there is a moral to this study of cruck houses in Long Wittenham, it is that the smaller and therefore the more valuable examples of old domestic architecture, not only in Berkshire but throughout the whole country, should be recorded in detail before they finally disintegrate or are swept away.

[1]V.C.H. Berks., iv, 385.