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A HALL-HOUSE AT UPPER BUSH

By E. R. SWAIN

THE structure described in the following text is known as 66, 67 and 68 Upper Bush, near Cuxton, NGR. 696668. The building is basically a hall-house with storeyed ends without jetties, this part being divided at present into two cottages, numbered 66 and 67. The east end was later extended and is now known as number 68, the composite building lying on a west to east axis (Fig. 1).

The exterior of the cottages has yellow brick under-pinning up to the first-floor level and weather-boarding over the timber-framing above this as far as the eaves. The roof is now clad with corrugated asbestos (Plate IA) and the ends of the structure are gabled, this being a later alteration at the west end from the original hip. The east end of the original building was also hipped before the extension was added. There are two features only which indicate an early structure when the building is observed from outside, these being the steeply pitched roof and the central chimney stack. The latter is comprised of three separate shafts each being offset to its neighbour and the whole presenting a stepped appearance in a plan view.

THE ORIGINAL HOUSE (Fig. 1)

The hall consisted of two bays giving overall internal dimensions of length 16 ft., breadth 15 ft. The east bay was probably sub-divided by a screens passage, since a mortise is evident in the internal face of the bressumer on the north wall (marked *m* in plan). The face of the bressumer just above and below this mortise is only thinly coated with hard soot, compared with a thicker coating on adjacent surfaces, thus indicating the former existence of a cross-beam, almost certainly forming part of a screen. That this portion of the bressumer should be soot blackened was due to the later removal of the screen whilst an open fire was still in use in the hall, and this point will be more fully explained later.

The truss separating the parlour from the hall is marked *A* on the plan, and on the underside of the cross-beam at first-floor level there are continuous mortises with round ends for studs which formed the partition separating parlour from hall.

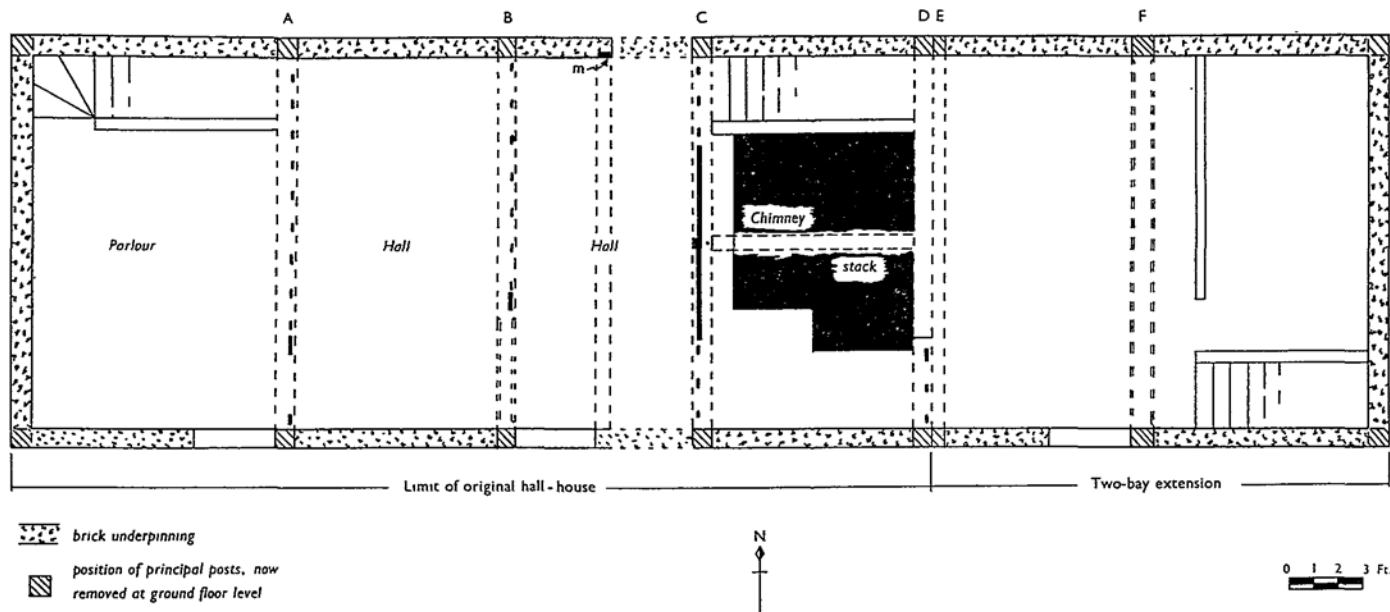


FIG. 1. Ground Floor Plan. The suggested position of a screens passage, with a door at each end, is immediately west of truss C. A modern chimney stack abuts on to the west end of the building, and rises above the apex of the gable.

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At the south end of this beam there is a gap for the original doorway leading from hall into parlour, the width of which is apparent from the square-ended large mortises which once contained the tenons of the door posts.

Truss C, marking the further end of the hall, has mortises on the underside of the cross-beam indicating stud partitioning and doorways leading into the services, the buttery presumably being on the north side, and the pantry on the south. Nothing is now left at ground-floor level of these door openings, but a reconstruction based on the extant mortises is included in the elevation shown in Fig. 2. Little can now be seen of the area once containing the services, the space being filled with

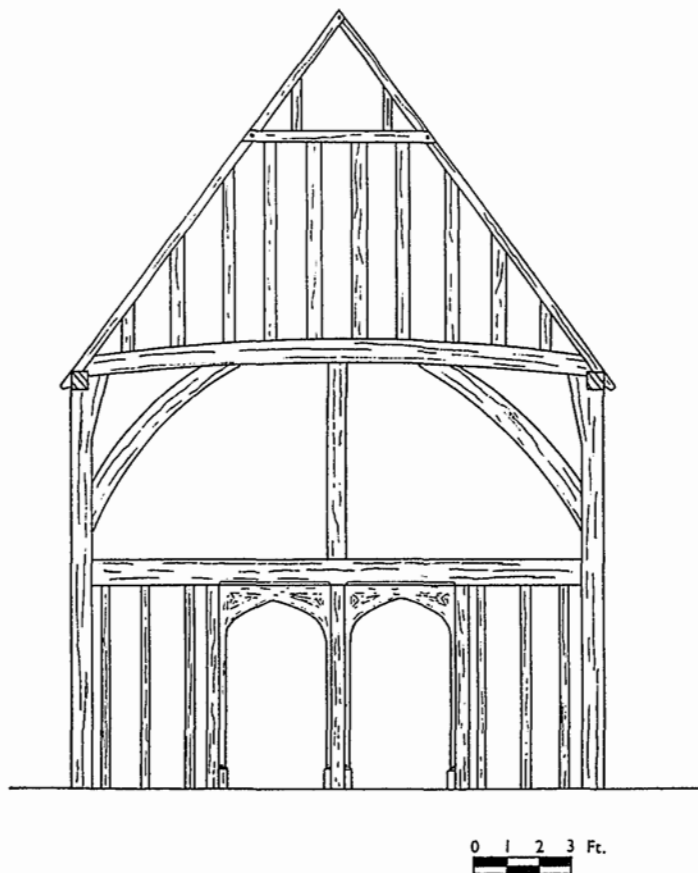


FIG. 2. Truss C, west elevation. The portion below first floor level is diagrammatically reconstructed, whilst the positions of some of the partition studs above this level remain uncertain and they are therefore omitted.

inserted stairs and chimney stack, with a passage on the south side. There is, however, evidence that the two service rooms were separated from each other by a partition, the mortise and peghole for the ceiling beam occurring in the cross-beam of truss C at a point intermediate between the service doors.

The interior of the parlour is simply the inside faces of the brick underpinning, but the solar above still has the original timber framing (Plate II).

The inserted floor above the hall is now divided into two rooms, in one of which the original (though blocked) hall window can still be seen on the north side adjacent to truss B (Plate IB). Partly mutilated by a modern window opening, this hall window still contains diamond-set mullions in fine condition. The transom to the right of the illustration carried three mullions above and below, two of the lower ones now being lost. The window opening was unglazed and shuttered with hinged or hanging shutters fitting into rebates. The framing is not grooved for sliding shutters as was the usual local practice. The shutter rebates reveal that even when the window opening was covered, a $1\frac{1}{2}$ in. gap was left at the top, no doubt to provide a little ventilation, although one cannot help wondering how effective this was in conjunction with some kind of roof opening above a smoke-filled hall, unless the shutters themselves had ventilation holes also.

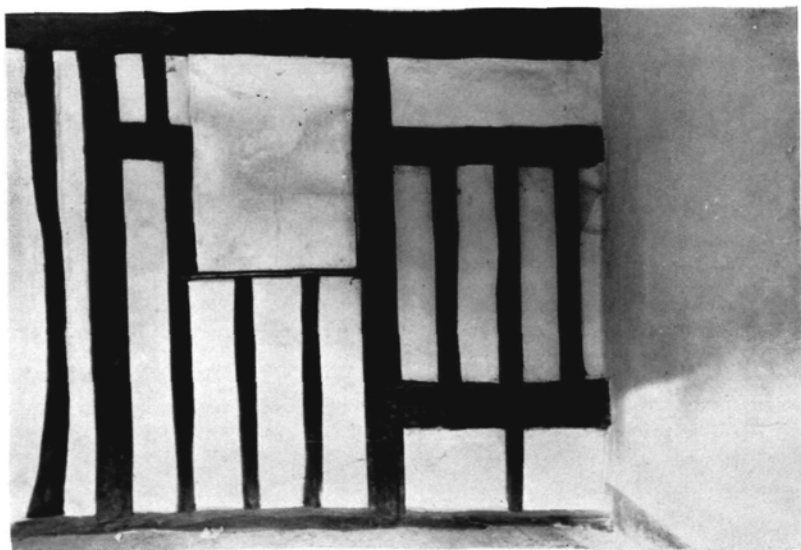
The opposite wall on the south side of the hall now shows only the main centre mullion of a similar window, but this is rebated in the same manner and can therefore be assumed to indicate the earlier presence of a second main window opening.

The cambered tie-beam of truss B (Fig. 3) has no mouldings or chamfers but is finished very carefully as befits the centre beam spanning an open hall. Near this point the wall plate is spliced, the method being of some interest, as illustrated in Fig. 4. From an exterior view this merely appears to be half-lapped, but in fact each beam continues into a longitudinal mortise and tenon and is secured with a single peg, one peg being at the top and the other nearer the bottom.

A further constructional detail is evident at the point where a stairway rises from the ground floor to the first-floor level to the north of the chimney stack. The floor above the service rooms was supported by joists resting on a ledge (Plate III) running the whole length of the cross-beam in truss C. The joists were also tenoned into the beam and pegged from above. The plate illustrating this also includes the joist ends of the inserted floor over the hall resting on the cross-beam. This has resulted in the inserted floor being some inches higher than the solar floor and the floor above the service rooms. The area above the service rooms was lighted by two small unglazed window openings with diamond-set mullions and no provision for shutters. These openings are

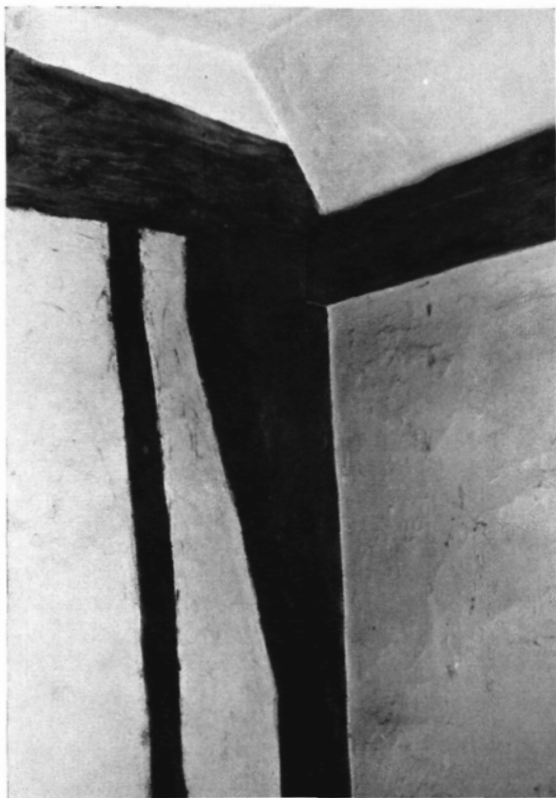


A. Upper Bush hall-house from south-west.

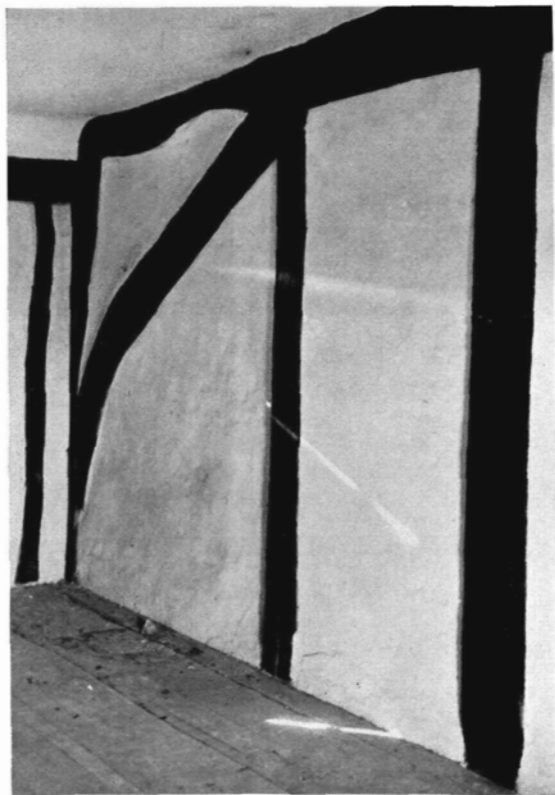


B. Hall window interior.

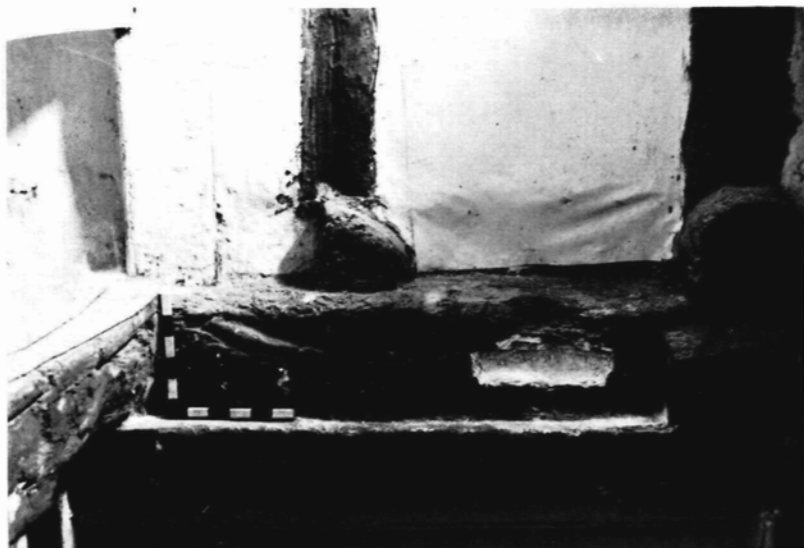
PLATE II



Timber framing within solar (tie-beam, wall-plate, principal post).



Smoke-blackened framing at west end of hall.



A. Method of supporting original floor over services, and inserted floor over hall.



B. Smoke-blackened west face of truss C, with collars and gablet.

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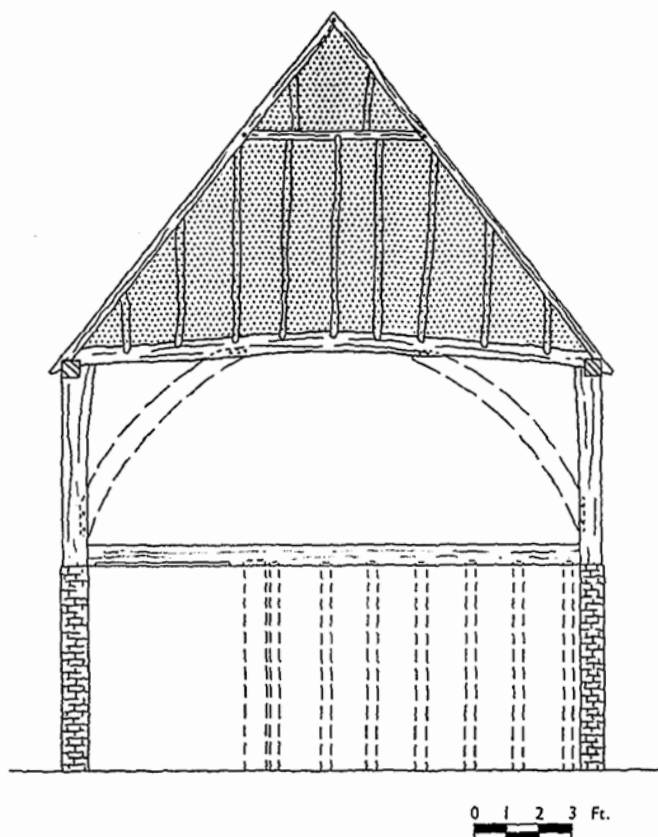


FIG. 3. Truss B, east elevation. The stippled area represents the extant portion of the inserted partition dividing the hall. The positions of the studs between the tie-beam and inserted floor were not ascertainable and are omitted from the drawing.

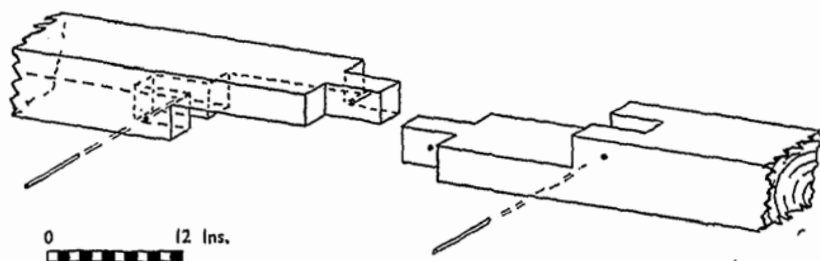


FIG. 4. Method of splicing the wall-plate.

placed in the angle between wall-plate and the principal posts of truss D, one on each of the north and south sides.

All faces of the timber framing inside the hall are smoke blackened (Plate III) and contrast with the comparative cleanness of similar faces inside the solar and service wings. The chimney stack of three flues has one fireplace opening only in this original building, facing into the hall at ground-floor level, the other two openings serving the extension as later described.

The roof of the original building presents one of the most important aspects of the whole structure. It is constructed in the normal manner of rafters halved together at the apex with no ridge piece. The rafters are collared in pairs but there is no evidence of longitudinal strutting of any kind. There are no crown-posts, purlins nor windbraces. A collar-purlin with crown-posts is usual in this type of building in Kent, but the non-existence of a collar-purlin in this particular roof is proved by the uniformity of smoke-blackening and carbon deposit on the underside of the collars (Plate IVB) which show no signs of a scar which would be apparent had a collar-purlin been removed. The gablets of the original hipped roof still exist at either end, the one at the east end still containing the small horizontal cross-piece forming a triangle near the apex, with smoke-blackening within the rafters (Plate IVB) while the one at the west end has lost its cross-piece but still shows the notched joints in the appropriate rafters, with no smoke-blackening within the rafters. Also at the west end the necessary additional rafter work in the roof to facilitate the erection of a brick gable is obviously of a later date. There is no sign of the earlier existence of a louvre, and smoke was probably allowed to escape by means of specially shaped tiles, or through the east gablet.

The composite mass of three chimney shafts passes through the space formerly occupied by the hip, which is now extended into a later addition. There are, within the original roof, three partitions, the condition of which is of the utmost importance in considering the later development and modifications of the original building. The partition contained within truss A consists of studs with mud and straw infilling, and has a thick black smoke deposit on the east face towards the hall, and is clean on the west face away from the hall. The corresponding partition at the other end of the hall is contained within truss C and is again blackened on that side facing inwards towards the hall, i.e. the west face, and clean on the east face. The remaining partition in the roof is that contained within truss B, and is proved to be a later addition by the fact that its studs are not mortised into the main tie-beam, but are merely notched and nailed to its east face (Fig. 3). The infilling of this partition is again constructed of laths supporting mud mixed with straw and is smoke-blackened on the east face but clean on the west

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face. Furthermore that part of the roof contained in the east half of the hall, between trusses B and C, shows a greater degree of blackening than the west end of the hall.

These extant features within the roof are a clear indication of subdivision of the hall as a developmental stage preceding the insertion of the chimney stack.¹ Such division has been recorded elsewhere² and a further example has recently been found by the writer in a house near Upchurch, as yet unpublished.

This division of the hall was contemporary with the insertion of a floor over its west end and the mortises in the cross-beam enable this truss to be reconstructed showing the inserted lower partition and doorway (Fig. 3). The shortened hall between trusses B and C, acting as a vast open flue, necessitated removal of the screens and allowed smoke deposits to collect upon the face of the bressumer formerly covered by the butt end of the screens cross-beam as described earlier.

(The early stage of restoration of the house by the new owners Mr. and Mrs. D. G. Knott, in the latter half of 1964, has revealed evidence of the former existence of a gallery at first floor level. This connected the inserted floor and the western end of the hall with the floor above the services. This also included a short screen at ground floor level giving entry into the reduced open hall via a passage from the western half. The gallery eventually became part of the inserted floor of the second stage described hereafter.)

The second stage of alteration to the original hall-house was the insertion of a floor over the remaining part of the hall, and the construction of the chimney stack. The erection of a two-bay extension to the east can be assumed to be contemporary with this event, since two of the fireplace openings within the stack serve this extension.

THE EAST EXTENSION

This comprises two bays and was constructed as a separate framed building abutting on to the earlier hall house, and at the junction there are two immediately adjacent principal posts which can be clearly seen. The scantling of timbers in the extension is very large, that of the principal posts exceeding that of the original structure. The method of bracing here is of interest too, the posts being braced down to the bressumers whereas in the earlier building the wall-plates were braced down to the principal posts. The workmanship and finish of the timbers

¹ The implications of the evidence were first pointed out by Mr. J. T. Smith who also provided references for three parallel examples.

² Mancetter Manor House *V.C.H. Warwickshire*, iv, 117-119. Manor Farm, Wasperton, *V.C.H. Warwickshire*, v, 187-8. Re-assessed by S. R. Jones and J. T. Smith, *Trans. Birmingham Arch. Soc.*, 76 (1958), 19-28. Littywood, Bradley, *V.C.H. Staffs.*, iv, 74-6.

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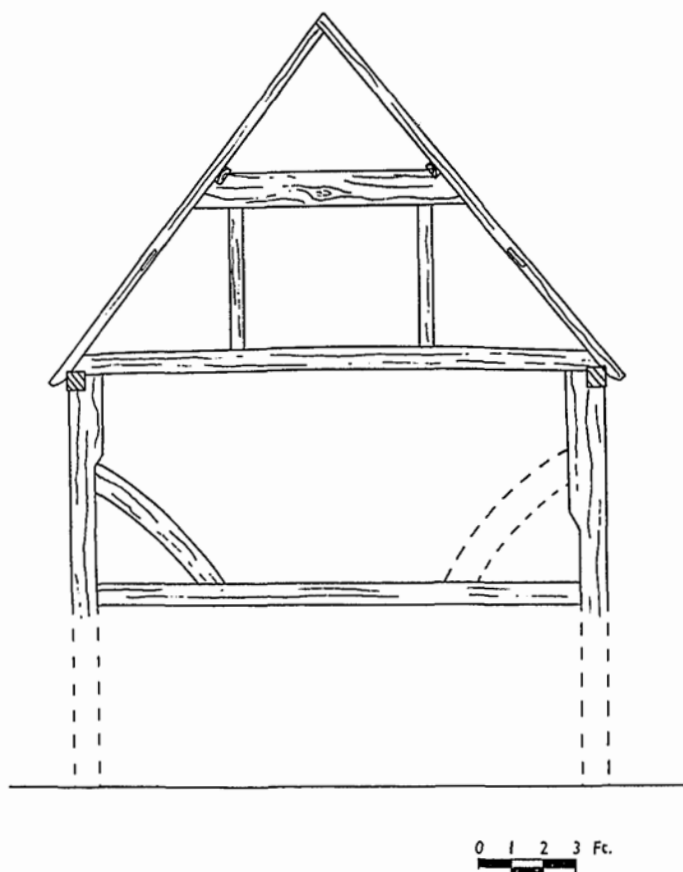


FIG. 5. Truss E, east elevation.

in the extension are noticeably less fine than in the original hall-house, but most of the interior is concealed by plaster and wallpaper, and features such as original window openings are not ascertainable.

The roof of the extension, together with the roof of the original building, form an instructive comparison since they illustrate a developmental trend from the early, simple type of construction over the original building, to a queen-post structure over the extension (Fig. 5). In addition to side purlins, curved windbraces were fitted at the four corners of the roof, and some of the rafters appear to have been re-used from elsewhere.

The roof above the complete building, both hall-house and extension, now forms a contiguous whole containing two well-preserved and stylistically differing methods of construction.

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CONCLUSIONS

There remains the ever-difficult problem of dating, but there are reasons for considering the hall-house to be an early example, pre-dating the better known 'Wealden-type', a fine specimen of which stands a few yards away.³

The features which seem to support this theory are:

(1) The simple form of roof-construction without benefit of any wind-bracing or vertical support must precede, on developmental grounds, the more common form of roof with collar-purlin and crown-posts.

(2) The evidence of the hall being divided presupposes a lengthy period during which this stage was effected, before complete flooring over of the hall. In the three published examples of divided halls referred to, all were probably constructed before 1400, and the Upper Bush house is probably late c. 14th.

The insertion of the chimney stack and erection of the two-bay extension can be assumed to have taken place by c. 1600 on the basis of the type of roof in the extension, and what is generally known regarding the insertion of floors over halls.⁴

ACKNOWLEDGMENTS

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³ Recorded by Mr. P. J. Tester (unpublished).

⁴ H. Forrester, *The Timber-Framed Houses of Essex*, 30-31, 75. M. W. Barley, *The English Farmhouse and Cottage*, 43, 63.