

BEECHAM'S COTTAGE, PITNEY, SOMERSET

Detailed study of a jointed-cruck house during demolition.

BY LIONEL F. J. WALROND

SITUATION

300 yards west of Pitney Chapel and 520 yards north of the main Langport to Somerton road, Beecham's Cottage (O.S. 25-inch, Somerset Sheet LXXIII, 1, (2nd ed. 1903) No. 404) lay opposite the northern extremity of the central branching section of Down Lane (No. 33 C.R.B. Survey of Public Rights of Way 1950, Somerset sheet 73 N.W. Pitney). Its name is taken from the Beecham family who resided there in the mid-1930s, before which time the house had no name as far as is known.

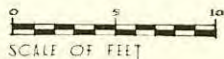
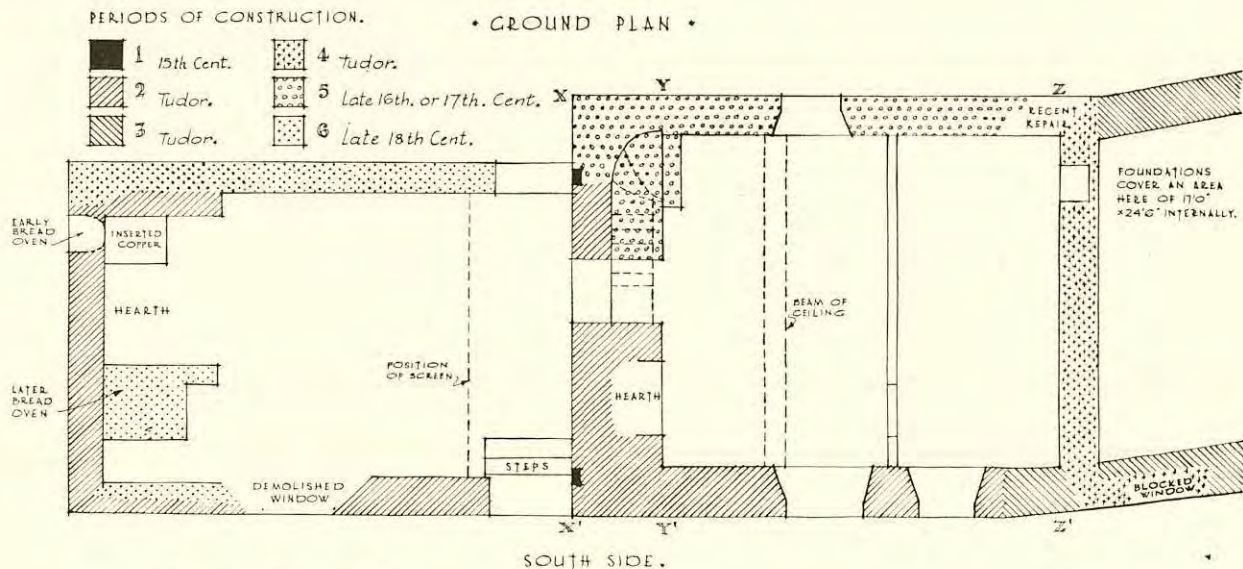
Demolition of this thatched dwelling was begun in December 1951, following its partial destruction by fire in June 1949. But it was not until the summer of 1951 that its archaeological interest was noted by the writer, and confirmed by Sir Cyril Fox and Mr. W. A. Seaby.

When last inhabited, Beecham's Cottage consisted of three downstairs rooms, the first being entered direct from the road by way of three steps. Within living memory this room was partitioned by a screen 5 ft. 10 in. high, to form a direct passage to a door opposite. This room, open to the thatch, contained the principal hearth and bread oven. To the right of the screened passage, access to the living room was by way of a brief passage between the fireplace and the stone stairs. A slight step up gave entry to a third room used some years ago as a bed-chamber. These two latter rooms were ceiled to give one large upstairs room which was divided into two during the second half of the last century, the original fireplace being retained in one portion.

HISTORY OF THE STRUCTURE

The building showed work of at least six periods in its construction with a number of additions, in the main probably of still later date. Until a considerable amount of time has been devoted to the study of the humbler houses in this region, namely those of the yeomen-farmers, no dating can be given except tentatively. Even so, it may well be regarded that the first period of building of which any trace remained was of the fifteenth century.

• BEECHAM'S COTTAGE • PITNEY • SOMERSET •



L.W. mens. }
F.H. del. } 1951-2

Fig. 1. Plan

PERIOD 1

Very little remained of this wooden structure, and that almost entirely visible in the elevation XX', consisting only of the large principals which illustrate jointed-cruck construction.

At first glance, jointed-crucks closely resemble true crucks which are, broadly speaking, now only to be found north and west of an imaginary line running from the Wash to the Bristol Channel.¹ But examination shows that they consist not of one but of two timbers scarf-jointed together. The joint is usually strengthened by a pegged mortise and tenon running the length of the scarf.

It is unfortunate that at Beecham's Cottage only one of these jointed principals remained complete,² extending to within 3 in. of the top step of the entrance, or 22 in. of the floor, and resting direct upon the plain stone walling with no trace whatsoever of a 'cushion' stone to help distribute the weight. A possible reason for this will be discussed below.

The principal at this point was only $9\frac{1}{2}$ in. wide and $3\frac{3}{4}$ in. thick (we may assume this as correct in spite of some decay by weather on the exposed face) giving an area of rather less than $34\frac{1}{2}$ sq. in. in section. The upper end of this timber, 95 in. high, was neatly 'scarfed' into the lower end of the roof-truss, mortised and held by four wooden pegs, just below which the timber was found to be only 9 in. wide. Other wooden pegs were also noticed; the nature of these will be dealt with later. A corresponding portion of timber was found on the north side but structural alterations and decay had left little more than the scarfed blade. On the inner edge of the latter was found a pierced iron pin, driven in at a very steep angle.

The two roof truss beams carried by the verticals were each almost 14 ft. in length, halved and V-notched at the top to carry the ridge piece, giving a height of little more than 18 ft. This notch and the wooden plate which strengthened the joint may or may not date from Period 2, when the number of purlin notches was apparently increased to carry the roof of the extension to the dwelling. These notches were badly decayed and numbered four on the north side, but only three on the south side, plus a notch of different character

¹ C.F. Innocent, *The Development of English Building Construction*, 35-6.

² As far as is known to the writer, this was the third example of such construction to be noted, the others being at Maes-y-bidiau, Abergorleth, Carmarthenshire and Burrow, Wootton Courtney, Somerset (*Proc. Arch. Soc.* xciv (1950) 58-9 Pl.III, IV). Several others have since been located.

at the base of the truss. They varied greatly, being from 6 to $9\frac{1}{2}$ in. in length, and 3 to $4\frac{1}{2}$ in. in depth. The stumps of some of the original purlins were retained, in order to tie the truss into the stonework of the ensuing reconstruction. Measuring 12 by $4\frac{1}{2}$ in. in section, the truss was laterally strengthened by a 10 in. wide tenoned collar-beam, $3\frac{3}{4}$ in. thick. All three of these timbers bore on their lower surfaces holes to carry the sails¹ or vertical rods of wattle-work. On the collar-beam these were set 9 in. apart.

Beyond those of the-scarf-joint, no peg-holes were found near the base of the cruck-truss on the north side, probably because of its decayed condition; but on the south side were two, $\frac{1}{2}$ in. in diameter and 2 in. apart,² whilst a foot away occurred another, $\frac{7}{8}$ in. in diameter as were all other pegs noted. The latter one was partly cut away by the roughly hewn terminal notch, the surfaces of which were not at right-angles to the principal timber face. Plainly not of Period 1, this notch³ may well have carried the lintel of the doorway into the extension of the following period. As in practically all old houses in central Somerset, the timbers were of elm.

Two straight joints in the stonework which were in line on both sides of the wall give good reason for regarding the length of the fifteenth century structure as $21\frac{1}{2}$ ft. and the width, measured from the outsides of the cruck wall-posts, as $16\frac{1}{2}$ ft.

The precise nature of the upper walling is not so simple. Had the walls been of stone, the presence of pegs would have been pointless. Their position, two near the top of the wall-post and three near the centre, also preclude cob, in which case they would have been evenly distributed. Clap boards would have left their mark on the outside edge of the timber unless this was protected by a 'stud' as is very common in cruck-built houses of England and Wales. But had this been so, many of the pegs would again be rendered pointless in so far as they would then have been situated in the stud.

¹ The word 'sail' is probably a Mid-Somerset pronunciation of *sile*, a Teutonic word meaning 'a column'. *Sile* has often been used when referring to crucks or roof principals.

² These may date from Period 2, serving a timber which helped to carry the weight of the roof at a point of weakness—a doorway in an unbonded corner. ³ Similar notches occur in a false cruck barn at Steart, four miles S.W. of Taunton (700 yds. west of Cutsey House). Here they carry the roof members of a contemporary outshut for stalling cattle around all four sides. The slope of the ground would not have permitted such treatment at Beecham's Cottage.

We are thus obliged to regard the walls as being of wattle-work¹ which we know was used in the upper part of the gable.

Although no 'sill' beams remained, a $3\frac{1}{2}$ in. deep dowel-hole, diameter $1\frac{1}{2}$ in. bored into the inner edge of the south wall-post at a height of 5 in. from its base, indicated their one-time presence, resting no doubt upon a low stone footing. This feature would then have been found on all four sides of the house with (assuming all timbers to be of approximately the same size) those of the gable walls, notched as well as dowelled, and resting at the corners upon those of the side walls. The group of three pegs some 3 ft higher up might well indicate 'rails', both in the side and gable walls, the former being above the latter, and simply notched into each other at the corners for added support. These rails would be timbers fixed on edge but not mortised into the vertical beam.

The next two pegs would hold a flat beam corresponding to a wall-plate, upon which must have rested the edge of another rail crossing the gable, and pegged at the terminal notch and the two lowest holes of the scarf-point. Although in a position where the term 'tie-beam' might seem applicable, its presence here would be incidental rather than functional. The resulting panels would have been filled with wattle and plastered over with some form of daub.

Whether a house $21\frac{1}{2}$ ft. in length would have had another pair of jointed-crucks in the middle as well as at the gables, we cannot prove. If we accept this, it would mean that the weight of the timbers plus the thatched roof, must have been borne by the six legs having a combined supporting area of only six times $34\frac{1}{2}$ sq. in.² The placing of further vertical timbers along the side walls, at the sides of the principals and at regular intervals, would give appreciably more support to the rails and wall-plate and at the same time more than double the supporting area.

In houses of true cruck type, the rafters rest upon the wall-plate which is supported by elongations of the tie beams (or by spur ties); these in their turn place the weight upon the cruck legs. Here at Beecham's Cottage the wall-plate was borne, if the above deductions be taken as correct, entirely by the vertical studs (as are also the rails),

¹ The digging of foundation trenches nearby has brought to light many fragments of burnt wattle and daub, together with pottery dating from the fifteenth to nineteenth centuries, and some of the twelfth century.

² Examples of cruck feet, mortised into the sill beams, having an area of only 5 in. square have been noted by Sir Cyril Fox and Lord Raglan in *Monmouthshire Houses*, Part I, 39.

the false crucks giving, by way of the pegs, only lateral support. This advance in constructional detail is of considerable import.

The nail with an eye-hole instead of an ordinary head found in the north vertical timber does not lend itself to an easy explanation unless a window was situated at this point. Glass would not be found in cottages of such an early period. Instead a hole, covered when so desired by a shutter or board or wattle, served this purpose. Thus a projection from two corners of a shutter of this nature, fitting into two such iron staples, would form a simple but effective hinge.

It is probable that the present doorway is on the site of the original entrance.

PERIOD 2

The change from a timber building to one of stone was done by easy stages, the first being to replace the south and west walls and add a further 25 ft. to the length of the house.

The low stone walls upon which the sill beams of these two sides had rested must have been replaced wholly or in part, and any stone or timber which may have acted as a cushion under the ends of the uprights of the jointed-cruck removed. Sills, rails, wattle-work, etc. were torn out and the jointed-cruck itself retained¹ only to support the ends of the roof-beams of the new extension. Although encased on three sides in its lower half, this was achieved by allowing the upper portion to project slightly from the face of the wall into which the ends of the purlins of Period 1 were built for added strength.

With no trace of a damp course, the walls varied between 2 ft. and 2 ft. 7 in. in thickness.

The two earth-hearths dated from this period. The one within the early building (elevation Y'Y) had an opening 4½ ft. high and almost 6 ft. wide, at the base of which were two hobs. The sides of the opening and the lower edge of the wooden bressummer above were crudely rounded. This suggests a vague imitation in humble material of some of the finely worked stone fireplaces seen in wealthier

¹ Combination of differing principals are not uncommon. In *Monmouthshire Houses* several are recorded, and a late Danish example at Hernig has been noted by C. F. Innocent (*The Development of English Building Construction*) who has observed numerous varieties of the same principle under the same roof covering in South Yorkshire.

establishments—a view borne out by the presence of a wooden mantel shelf 6 ft. above the floor.

The other hearth, at the gable of the new extension was $5\frac{1}{2}$ ft. deep and 9 ft. wide. Both hearths had suffered 'improvements' by alterations and the addition of a grate and a copper. In the larger, its original width was shown by the chamfer on the bresummer with right-angled stops originally built flush with the walls.

The same form of stop occurred in the blocked upper doorway seen in elevation XX'. In the absence of a staircase, the loft (for it could have been no more) now built into the earlier structure, would have been reached by way of a ladder situated in the newly added room.

Access from the road was by a flight of three stone steps within the room, evidencing the slope of the ground upon which the house was built.

The walls of this period, and of Periods 3 and 4, were of blue lias stone with a filling of red sandy loam. They were in all probability erected within a very short time of each other, possibly within the life of one person, the stones being probably cut and laid by the occupier in addition to his normal daily task. This practice was until recently times not uncommon in the district. The marly bedding material contained a fairly considerable quantity of finely-chopped straw. Although in universal use in the mixing of daub, cob, etc. the presence of straw in stone-built walls appears to be rare.¹ We may note that wet sandy mud (without any addition of lime) was in quite common use as mortar in 1641 in the East Riding of Yorkshire,² and probably was still in use in central Somerset as late as the eighteenth century in very humble dwellings. The walls here in question are, however, probably of the latter half of the sixteenth century.

PERIOD 3

The next major addition constituted the building of a chamber some 32 ft. in length, and of slightly greater width than hitherto at the east end of the existing structure. At the time of examination this had reached a state of acute dereliction, the footings being barely discernible on the north side. No internal features were noted, and

¹ Messrs. Hughes and North in *Old Cottages of Snowdonia*, 13, record one stone house there as having the interspaces of the walls filled with bran.

² *Farming Book*, published by the Surtees Society, 145.

there were no dividing walls of stone. Only one window, blocked in the next period of construction, was to be traced.

It is probable that this chamber was used for working purposes—perhaps a combined cow stall and barn.

The material used in the construction of the 2 ft. 4 in. walls was very similar to that of Period 2, but with slightly less straw.

PERIOD 4

In the next period the east wall of the original house was pulled down. The window mentioned above was blocked and the portion of wall between it and the Period 1 house rebuilt. A wall was then erected across the Period 3 addition, thus giving a straight joint near Z' even though the two walls were contemporary. At the north end of this wall were two recesses, one on each side.

Upstairs, was a good fireplace in the Tudor style, finished with a continuous chamfer partly in stone, partly in wood. There was no mantel shelf, but at one end was a ledge upon which originally may have stood the tinder box and rush-light. In the side of the base of the chimney, behind the wooden beam of the fireplace, was a low recess for which no purpose can be given except the drying of herbs.

The wall in-filling was of sandy loam of a deeper red hue than hitherto.

PERIOD 5

We are no longer able to state whether the wall on the north side of the house erected at this stage was to replace the timber-built wall of the fifteenth century, or a stone wall which in its turn replaced the original. We do know, however, that although its length was that of the above house, it lay several feet outside it. A stone stair with the upper four steps of wood replaced the ladder approach to the upper chamber, and the inside appearance of the structure was considerably improved.

The wall was the first of lime construction but loam was still used in the stair.

PERIOD 6

This was the last of the major alterations to take place and concerned the major part of the Period 2 extension.

An inserted bread oven of crude stabbed tiles of unusual pattern, dating probably from the second quarter of the eighteenth century,

and the buttress-like projection which housed it were swept away and its debris used in the entire reconstruction of the north wall in which a doorway was placed.

The width of the hearth was reduced slightly, and a new bread oven inserted at one side. The thickness of the wall in the south-west corner¹ and possibly at the back of the hearth was reduced by the rebuilding of the inner face only.

By this time, probably about 1850 or 1860, good mortar was being used.

We do not know the date of the insertion of the copper under the original bread oven and the grate in the inner room, or the replacement by brick of the wooden screen, except that these were late innovations.

FLOORS

The floors of the building in its final form were entirely of blue lias flagstones, but the ruin at the east end appears to have had an earth floor.

The largest room (Period 2) lay 1 in. below that of the central room and this in turn 3 in. below that of the inner room or 'cellar'. With the removal of the screen sill-beam dividing these two latter rooms it was found that the flagstones, of exceptionally poor quality in the cellar, were laid in lime mortar but in the central chamber direct upon the earth, suggesting the insertion of additional stone flooring in Period 5.

SCREENS AND CEILING BEAMS

As has already been stated, the screen between the front and back doors was of modern construction, likewise the division between the bedrooms.

In the case of the screen between the rooms, dealt with in the previous chapter, only the two long horizontal beams remained but these were of a structure prior to Period 5. The wooden partition itself had been replaced by brick, but on the evidence of a line of pegged mortise-holes we may regard it as having been of 'stud

¹ From a comparison with other old houses, it is very likely that prior to this alteration there was at this point a small chamber which connected above into the chimney. It is said locally that these chambers were used for brewing purposes although this household industry has long since died out in the district.

and panel' style. 'Wheelrights' stops' were used to terminate the chamfers on this beam.

The principal beam, actually two shorter timbers scarfed and held together by two iron pins, crossing the middle room and the half-beam over the fireplace and stair doorway, bore 'scroll tops' and were of Period 5. The chamfer on the half-beam had been slightly arched to make the stair doorway higher and more imposing. The three old doors within were hung, not with hinges but on hooks.

The floor rested direct upon a large number of subsidiary beams lying parallel with the line of the house, and notched in at right angles to the above—a style seen in almost all old cottages.

ROOF

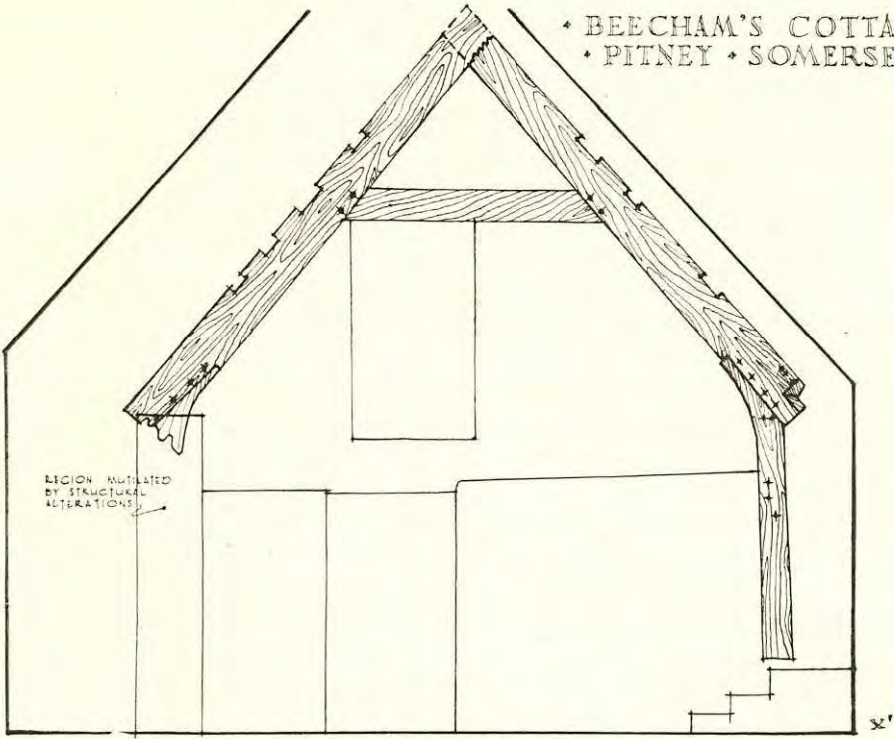
Typical of the locality, the roof was thatched with wheat straw, but the timbers used are worthy of more detail.

As noted, the roof lay at two levels, and of these the upper was apparently the older of the two, and may date from Period 5. The timbers consisted of two mesial principal trusses of adzed workmanship with collar beams, a ridge piece set lozengewise and two lines of purlins on each side. Numeration was very evident on these timbers, showing that they had been 'set up' on the carpenter's premises to ensure correct fitting.

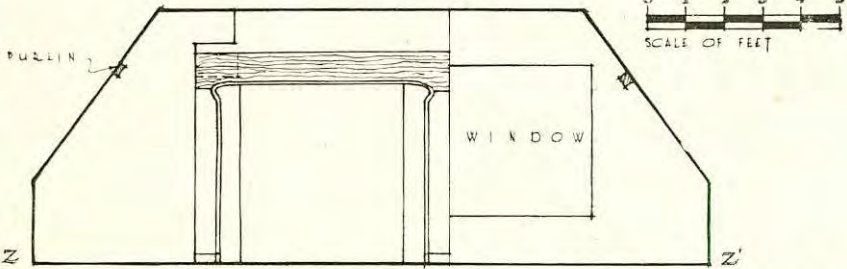
The tops of the principals were halved into each other and notched for the ridge-piece, the junction being strengthened by a wooden plate. By combining the principles of dove-tailing and halving, the collar beams were let in and held by one large nail at each end. At the gable ends the purlins were let into the stone walls and appeared at first sight to be of one piece, passing through the mortise-holes in the principals. Demolition proved otherwise. Shorter pieces had been used and their ends had been steeply sharpened on one face, and fitted into small wedge-shaped mortises in the above where they were held individually by wooden pegs. Although the two mortise-holes lay opposite each other, they were separated by a thin section of uncut wood. No wall-plate was noted except where a dormer window had been inserted on the north side. The rafters consisted of a multitude of crude straightish sticks, unworked, and laid haphazardly into position.

An inexplicable 1 in. deep horizontal notch occurred 4 ft. 4 in. above floor level in the principal nearest the front entrance. These

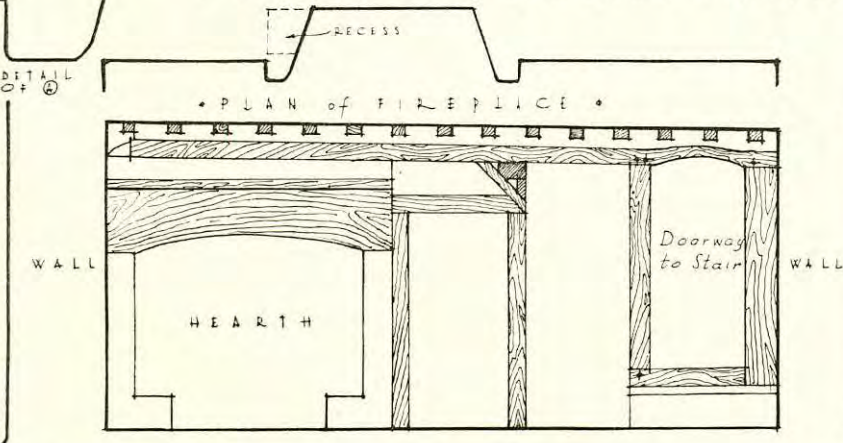
• BEECHAM'S COTTAGE •
• PITNEY • SOMERSET •



• ELEVATION X-X •



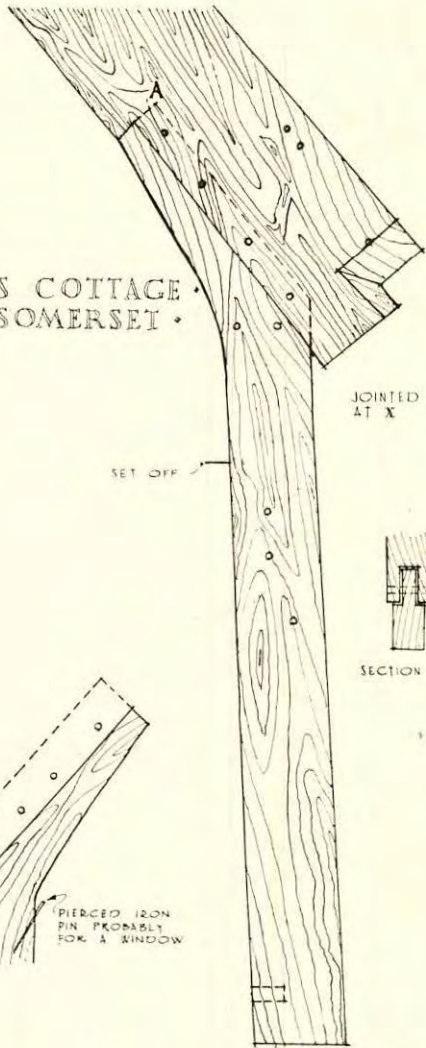
• ELEVATION of BEDROOM FIREPLACE •



• PLAN of FIREPLACE •

Plate III

• BEECHAM'S COTTAGE •
• PITNEY • SOMERSET •



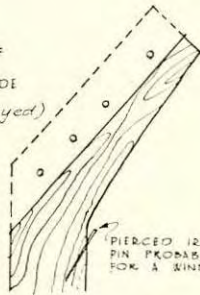
JOINTED CRUCK
AT X

SET OFF

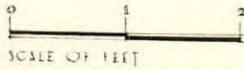


SECTION AT A

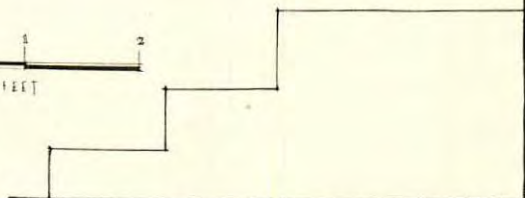
JUNCTION OF
TIMBERS ON
OPPOSITE SIDE
(Much Decayed)



PIERCED IRON
PIN PROBABLY
FOR A WINDOW



L.W. mens. }
F.H. del. } 1951-2



notches have been noted elsewhere in the district, but only a few are likely to have contained the framing of a doorway.

The lower burnt-out roof was almost certainly of Period 6. As above, it consisted of two free-standing principal trusses with collar-beams, ridge-piece and two purlins. Principles of the joinery could not be noted, but here a wall-plate was used. The purlins fitted at one end into the jointed-cruck (retained from the primary structure as explained above) and at the other into the masonry.

SMALL FINDS

The majority of the small finds which came to light during the demolition of the house were from the upper parts of the walls whence they had fallen through scotches in the stone-work, and consisted of two clay pipes, several nails and fragments of leather, cloth, glass and pottery, all being of fairly recent date.

From a lower level was obtained an iron 'key' terminating in a broad curved hook by means of which it would be possible to slide the bolt on a door. Part of a brass buckle and an iron knife may also be of early date.

Further items may still be found as, at the time of writing, the footings and a foot or so of walling still remained to be removed.

CONCLUSION

This survey has shown how a wooden structure only 16½ ft. by 21½ ft. dating from the fifteenth century grew into a stone building 80 feet long, and the vicissitudes through which it passed before it became derelict. Of the several phases, the first is the most important archaeologically.

We do not know from whence came the constructional principles of this wattle-walled house, combining features of post-and-truss as well as cruck styles, and yet having the appearance of neither. For an answer, further work on such houses in different parts of Somerset is needed.

Grateful acknowledgement is made of the co-operation given by the owners, Mr. and Mrs. E. J. Cox of Butterwell Farm, Pitney, and assistance given by Sir Cyril Fox, Mr. W. A. Seaby, F.S.A. and numerous local residents.