

MANOR HOUSE FARM, DONINGTON-LE-HEATH, LEICESTERSHIRE c. 1280

By T. L. Marsden

THE thirteenth-century Manor House at Donington-Le-Heath lies about 12 miles to the west of Leicester and 2 miles south of Coalville. The house has been described by Margaret Wood in the *Archaeological Journal*¹; at the time of this investigation the house was occupied. In 1962 the building had become vacant affording an opportunity for a detailed examination of the structure. Mr. Elliott, the present owner, kindly agreed to co-operate and drawings were made by the author. The main purpose of this paper is to illustrate and comment on the timbers of the roof which can be examined from the floor of the attic over the hall. No substantial changes appear to have occurred in the main parts of this roof since the end of the thirteenth century.

ROOF STRUCTURE OF THE HALL.

Original timber roof-frames rarely survive in thirteenth-century houses. Donington-Le-Heath is unique; it has a closed truss and two open trusses remaining *in situ* over the hall which probably date from c. 1280.

The upper part of the closed truss is intact and merits careful examination; it is shown on the roof plan diagram marked "A". For structural reasons, the two open trusses in the roof have tie beams (balk-ties) of much more substantial proportions than the closed truss. Cut into the ties of the closed truss (on upper surfaces between the studs) there is a continuous groove $\frac{1}{2}$ in. deep and $\frac{1}{2}$ in. wide which formerly received the lower ends of the splints (these supported the infilling of the panels). The splints were fixed at their upper ends into auger holes which measure approximately $\frac{7}{8}$ in. diameter and are bored out about $1\frac{1}{2}$ ins. in depth. Each truss has a "face" side (sawn) and in the case of the closed truss "A" this is directed to the Hall (east of the house). Truss "B" also faces east but in truss "C", the face is on the west side.

¹ *Thirteenth Century Domestic Architecture in England* by Margaret Wood, *The Archaeological Journal*, Vol. CV. Supplement 1950.



FIG. 1. The upper part of the closed truss over the Hall.

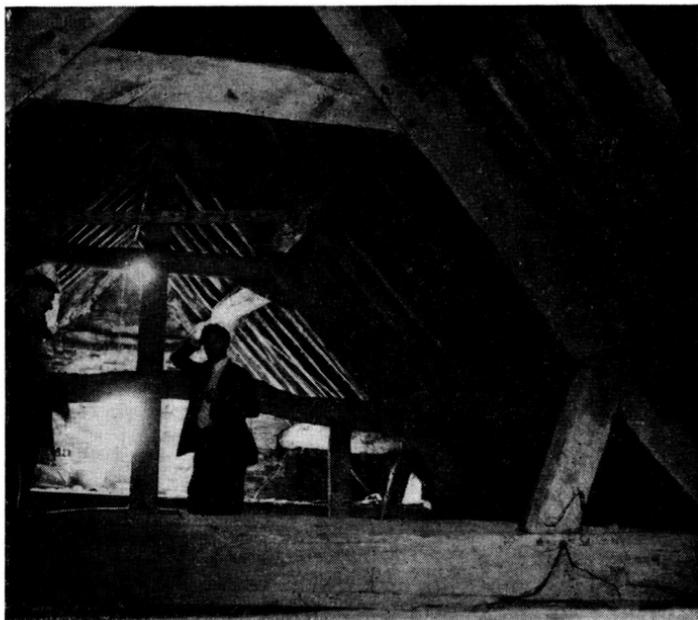


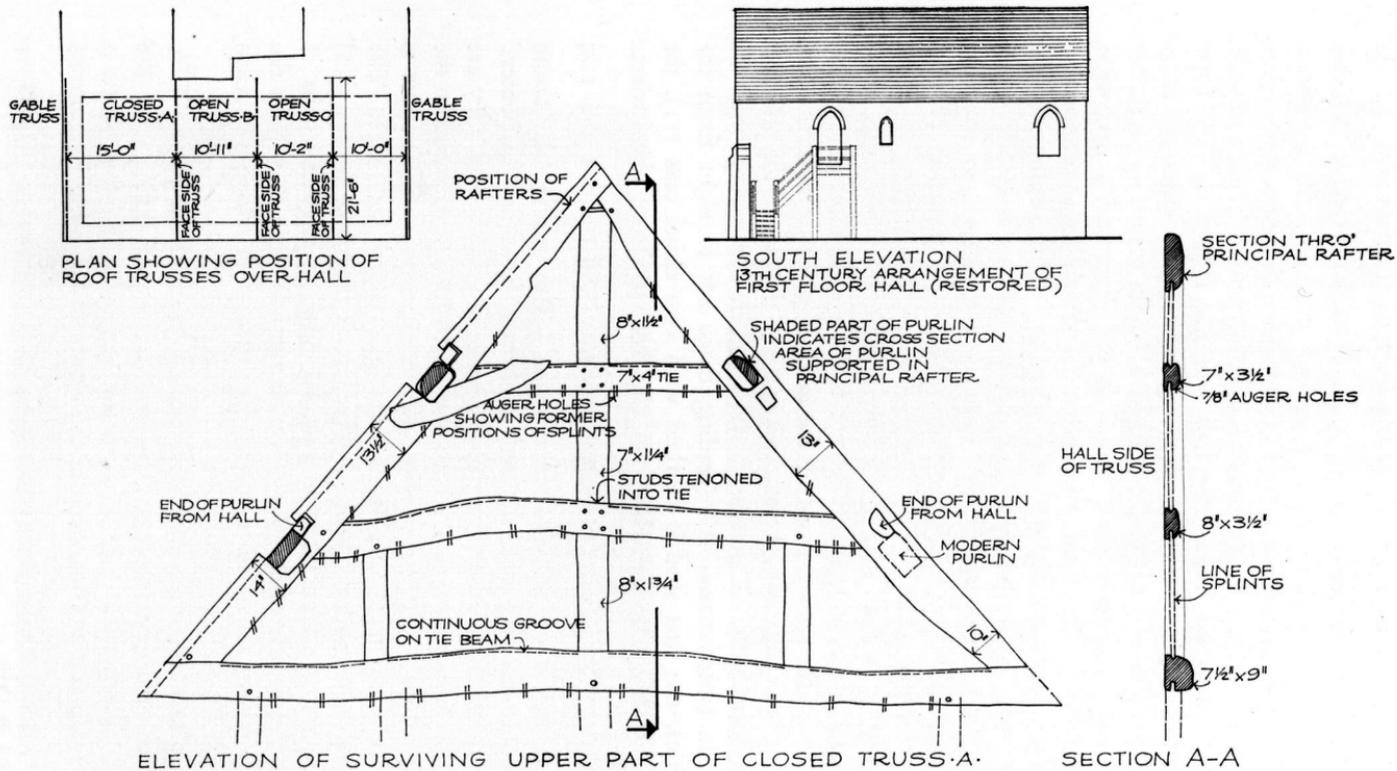
FIG. 2. Open truss in the foreground, showing massive baulk-tie.

Joints in all trusses appear to be mortise-and-tenon held by wooden pegs measuring approximately $\frac{3}{4}$ in. in diameter. A significant feature of many timbers of the roof trusses is their shape in cross section. The principal rafter on the south side of truss "A", for example, has a well-cut sawn face to the hall side and curves in "D" form on the reverse side of the truss; its opposite timber—principal rafter on the north side—has been cut from a larger scantling of timber and is rectangular in section, being 12 ins. deep and 4 ins. wide. Principal rafters in the closed truss and in the gables show a pronounced bow-shaped form on the underside (fig. 1). This swelling of the principal may be deliberately designed to give extra depth where the butt purlins penetrate their supporting member. In the roof of Ragdale Old Hall,¹ Leicestershire, there was a similar type of shaped principal rafter.

Moving to the hall side of the closed truss, the sawn faces of all timbers are in the same plane, except for the uppermost stud which connects with the apex formed by the inclined principal rafters. This upper post is set back approximately $\frac{3}{4}$ in. from the face of the principal rafters at their apex. Carpenters' marks can be seen on the main tie beams. In closed truss "A" (reading from left to right from the south side), the first stud is marked with two chisel cuts (II), the second stud three chisel marks (III), the third stud four chisel marks (II). Where the lower tie meets the centre stud there is a T cut; no other forms of numerals were seen. The mortise-and-tenon joints higher up the truss do not appear to have any carpenters' marks. In all trusses the fixing of the purlins is important; they are reduced in cross-section area where they pass through the holes in the principal rafters. The penetration beyond the point of support is usually about $2\frac{1}{2}$ ins.; some purlins are "D" shaped (half log). The existing ridge is modern (probably fixed with the modern roof tiles) and there is no evidence for an original ridge piece. The pairs of purlins on each side of the trusses are staggered where they meet the principal rafters, separate support slots being provided for each purlin.

Let us now examine the open trusses (marked "B" and "C"). One is immediately impressed by the massive dimensions of the baulk-ties which span only 16 ft. 6 ins. In truss "B" the oak tie is $10\frac{1}{2}$ ins. wide and $13\frac{1}{2}$ ins. deep at the centre of the span, by contrast

¹ National Buildings Record photograph number MLM 216; Ragdale Old Hall was demolished in 1959.



DONINGTON-LE-HEATH · LEICESTERSHIRE · MANOR HOUSE FARM · c 1280 ·

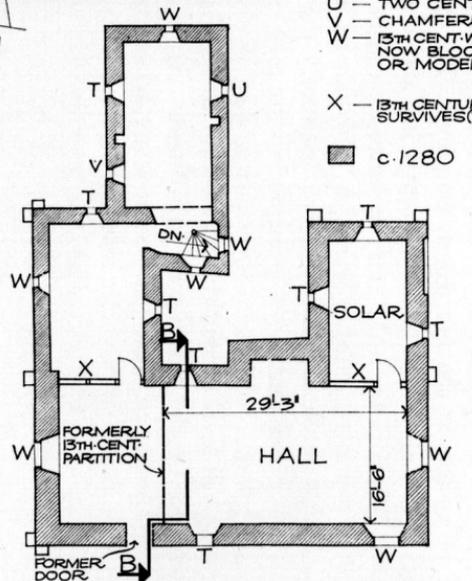
Fig. 3.



WINDOWS
 T — TREFOIL HEADS
 U — TWO CENTRED
 V — CHAMFERED LIGHTS
 W — 15TH CENT. WINDOW POSITION
 NOW BLOCKED IN
 OR MODERNISED

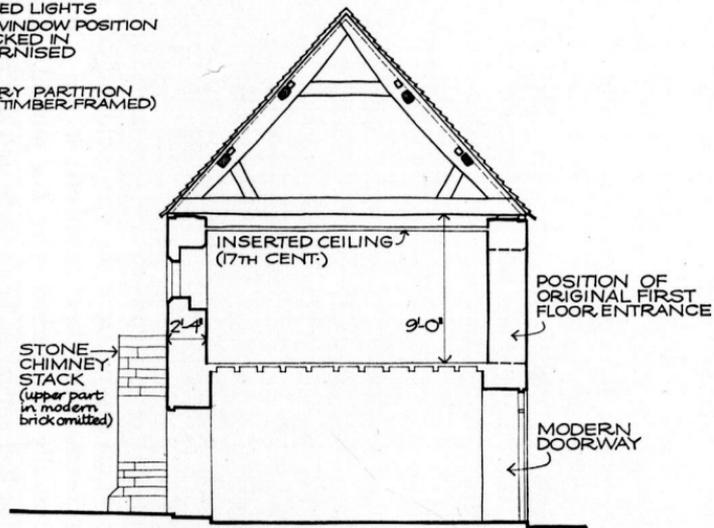
X — 15TH CENTURY PARTITION
 SURVIVES (TIMBER-FRAMED)

■ c.1280



FIRST FLOOR PLAN

0 5 10 15 20 25 30 35 40 45 FEET



CROSS SECTION B-B
 SHOWING OPEN TRUSS · B ·

DONINGTON-LE-HEATH · LEICESTERSHIRE · MANOR HOUSE FARM · c 1280 ·

FIG. 4.

the members which connect with it are like blades. For example, the principal rafter on the south side of the truss measures 13 ins. x 4 ins. at the point where it meets the baulk-tie and the inclined strut is 11 ins. x $3\frac{1}{2}$ ins. Carpenters' marks are clearly visible on the face side of this truss. They appear to number from the north side—first connection with strut and baulk-tie on the north side has two chisel marks (II) and on the south side the inclined strut has three marks (III). The principal rafter connection with the baulk tie has four chisel marks $\begin{pmatrix} \text{II} \\ \text{II} \end{pmatrix}$, two pairs of vertical cuts. Truss "B" is unusual in that the baulk-tie has a number of slots on its upper surface which appear to have been made to receive studs. There is no evidence however, of mortises on the upper tie to receive these members. The mortises on the baulk are approximately $4\frac{1}{2}$ ins. long and nearly 2 ins. deep and it is possible that they were the support points of some decorative feature which formerly stood in the centre of the hall on top of the baulk-tie.

Some purlins in this roof have been replaced since the thirteenth century but those which survive from the first build indicate that split logs were not uncommon for these members; it was a method of using trees economically and purlins were not jointed. The rafters in the roof over the hall appear to be modern and the roof tiles they support could be as late as the nineteenth century. The baulk-tie beams in trusses "B" and "C" now stand about 7 ins. above a plaster floor which probably dates from the early seventeenth century when the first floor hall was partitioned. Truss "A" also has its main tie standing a few inches above the plaster floor. Formerly the underside of this truss was closed and the drawing shows the pattern of the original studs and splints. The location of a doorway on the north side of this truss at hall level provided a connection to the first floor doorway which led to the north-west apartment. Although the first floor part of the closed truss was swept away when the early seventeenth-century modifications were made to the house, the ground floor section appears to survive; unfortunately it is now covered with plaster and the original position of openings cannot be established.

STAGES IN THE STRUCTURAL HISTORY OF THE HOUSE.

Turning now to the architectural evidence for stages in the structural history of the house, the building is remarkable for it contains so much evidence of surviving thirteenth-century work. The probable pattern of change is outlined on page 41.

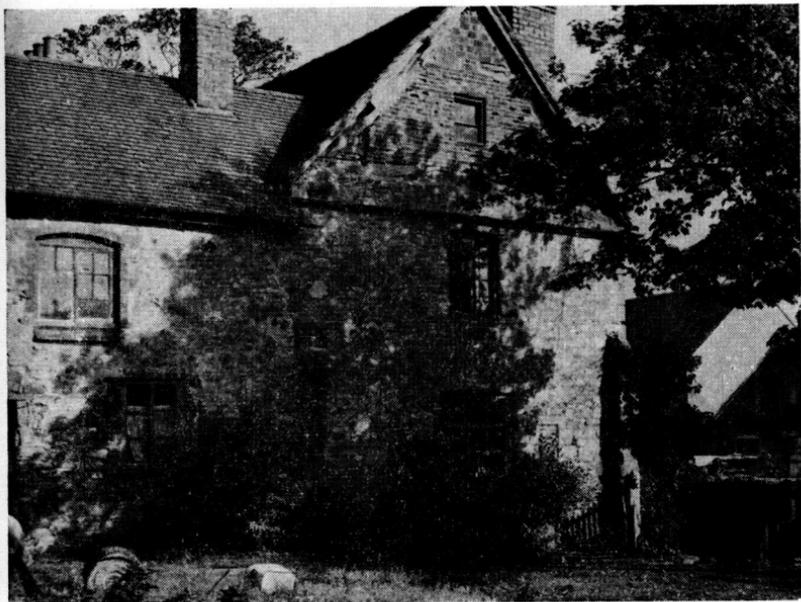


FIG. 5. South-west end of the Hall, showing bow-shaped principal rafters.



FIG. 6. South-east view of Manor Farm. (Photograph taken in 1962.)
MANOR HOUSE FARM, DONINGTON-LE-HEATH.

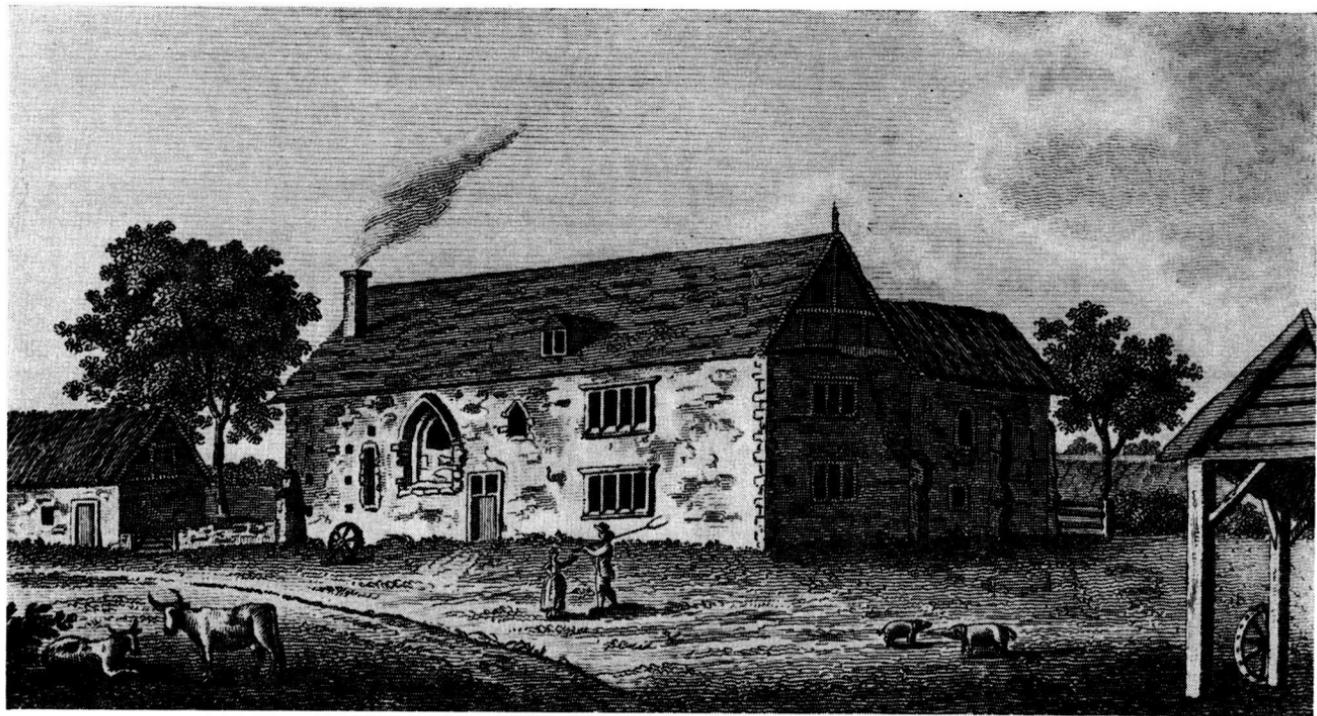


FIG. 7. South-east view of Manor Farm at Donington-le-Heath, shown in Vol. 2 of the *Gentleman's Magazine*, 1818.

PHASE 1.

c. 1280. The original build with first floor hall approached from an external stair on the south front. An illustration shown in the *Gentleman's Magazine* of 1818, fig. 7, shows the holes in the external wall where the former stair was supported. The extent of the first floor plan in the thirteenth century is shown in fig. 4. Note the thirteenth-century timber framed partitions which separate the apartments of the north wings from the main hall block.

PHASE 2.

c. 1610. A reconstruction about 1610 when the mullion windows were inserted. At the time of this alteration to provide more natural light and subdivision of the hall, partitions were erected (not shown on the plan), and a new attic floor was formed in plaster. This appears to have been the period when several parts of the upper floors in addition to the hall, were remade using gypsum plaster. In the sixteenth and seventeenth centuries in Leicestershire, such floors were common; the plaster (usually about $2\frac{1}{2}$ ins. thick) was laid on reeds supported on joists.

PHASE 3.

Minor changes seem to have occurred about the third quarter of the nineteenth century. The upper part of the great chimney stack has new brickwork in place of stone. It is postulated that the original chimney stalks were stone—similar to Stokesay Castle. The roof covering was probably replaced about this time.

In spite of the fact that the first floor hall was modernised in the early part of the seventeenth century, the original disposition of windows and doors can be established. The first floor entrance by external stairs is now partly blocked and contains a small inserted window. The rear arch of an original light on the south front is located inside and can be examined at the top of the modern stair which leads to the attic. Taking account of these factors and other evidence on site, the drawing shown in fig. 4, illustrates the probable arrangement of the first floor plan c. 1280. A restored south front elevation is also shown with an external staircase following the pattern of the period.

Before concluding this brief description of Manor House Farm, one cannot omit a further reference to the two thirteenth century timber-framed partitions on the north side of the hall at first floor level, (marked X in fig. 4). The better example which shows the method

of framing the timber and has exposed members, separates the hall block from the north-west wing. The studs and posts are of substantial construction; a post on the west side of the door for example, is cut from 11 ins. x 8 ins. oak and has a shoulder or splay at the head to carry a wall plate which runs across the top of the partition. This upper member is approximately 12 ins. wide on plan and 8 ins. deep; it now carries a panel of modern brickwork. Some of the original plaster infilling between the lower studs seems to have survived. The thirteenth-century doorway through this partition (two-centre arch) is 5 ft. 10 ins. at the highest point in the centre, and its width is 2 ft. 9 ins. between oak door jambs.

I am indebted to Mr. John Daniell for drawing my attention to the significance of this building, and for his assistance in this study.