

REMARKS ON TIMBER HOUSES.

BY CHARLES BAILY, ARCHITECT.

THE following notes relating to the Domestic Buildings of timber of the Middle Ages, in the South of England, exemplified by Crowhurst Place, Great Tangle, and other houses in the county of Surrey in particular, together with remarks on the furniture of the period, are the substance of papers read to the members of the Surrey Archæological Society, on October 15th, A.D. 1862, and on July 23rd, A.D. 1863.

As a general rule, when our ancestors were about to build, they adapted to their use the materials which were readiest at hand. We are, therefore, not surprised to find in this part of the country so many of the old domestic buildings constructed for the most part of wood; for in the Middle Ages the wealds of Surrey, Kent, and Sussex, were covered with vast forests of timber, chiefly of oak.

In the southern districts of England the old English manor-houses, the houses of the gentry generally, as well as those of the better class of the yeomanry, were very simple in the plan, and very often exhibited a singular uniformity of design.¹ In the centre was the hall, at the end of one side of which was the principal entrance to the house, a portion of the hall being cut off

¹ The houses of the 12th and 13th centuries, in which the lower stories were often vaulted and half under-ground, are not in this paper alluded to, these remarks applying more particularly to buildings which date subsequently to A.D. 1300.

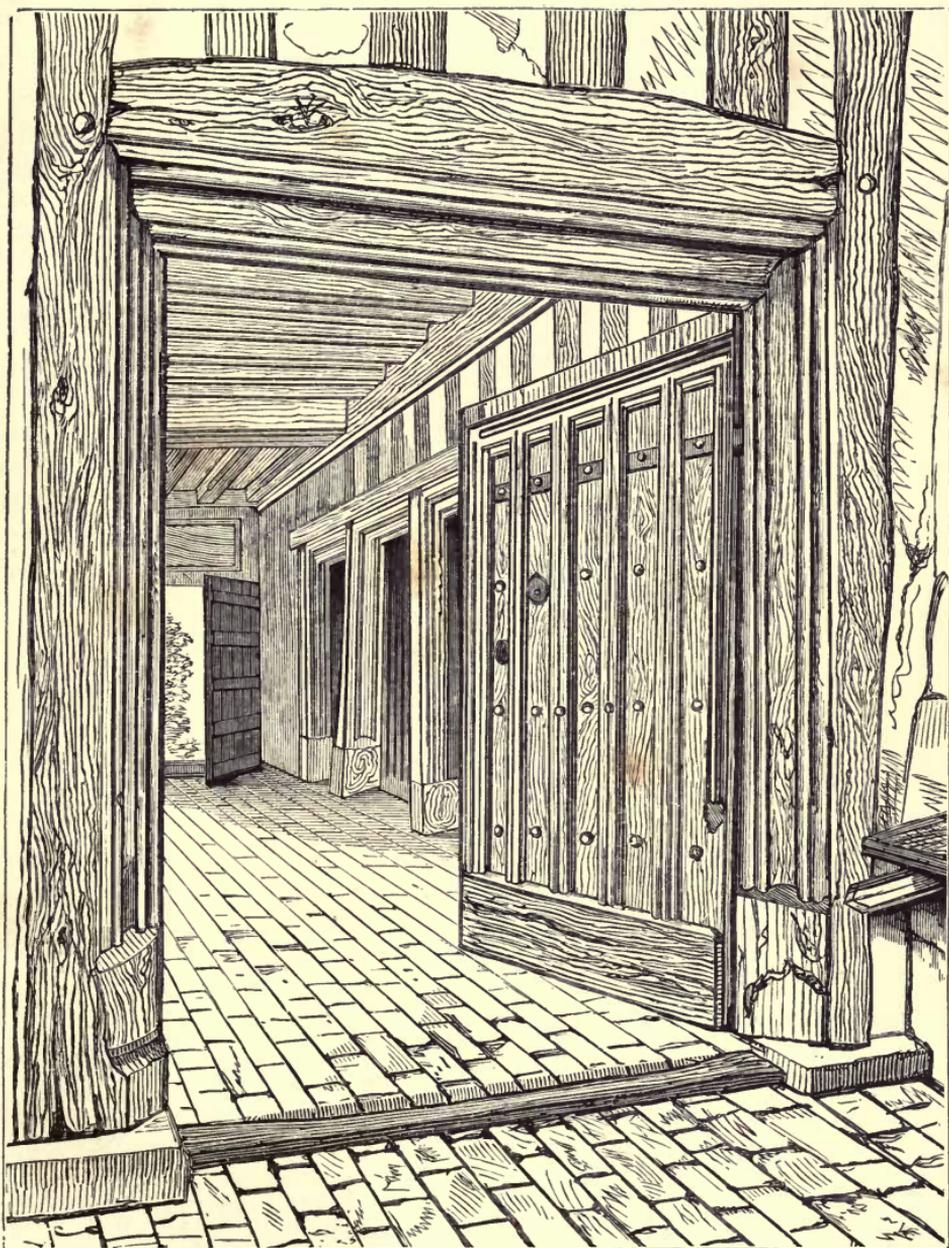
by a screen to form a passage through the house from the front entrance to that at the back, which was directly opposite.

On the side of this passage (known by the name of "the entrye," and sometimes called the "screens") and opposite to the screen, were generally three doorways, as at Crowhurst Place, the seat of the Gaynesfords; sometimes, however, there were but two, as is the case at Great Tangley, in the parish of Wonersh, in Surrey. In both these examples the first of these doors opens into a parlour; at Crowhurst the second leads to a staircase, and the third to the butteries, kitchen, and to the whole of the domestic offices.

In the screen were two openings, without doors, through which the hall was entered; beyond the upper or dais end of the hall were one or several rooms of a more private character than either the parlour or hall: the sleeping-rooms were generally in the upper stories. Externally there was usually a recess in the centre of the front, formed by one side of the hall, as we find was the case in the house of Great Tangley, as originally built. At either end of this central recess was a gabled projection, the one forming a porch over the entrance, the other a bay-window to the hall. Beyond these were two larger gabled ends, one enclosing the parlour and offices, the other the more private rooms before noticed.

The plans of houses of course somewhat varied according to circumstance or size, and importance; but the arrangement here described was in the 15th and 16th centuries a very general type. Ockwells,¹ sometimes called Ockholt, in Berkshire, is after this fashion;

¹ This interesting timber house was begun to be built by John Norreys, or Norris, Esquire, who was "master of the great wardrobe" to King Henry VI., and also "esquire of the body" to the same sovereign and to his successor King Edward IV. He did not, however, live to finish it, for by his will, made A.D. 1465, and proved in A.D. 1467, he directed that xl. li. should be paid "*to the ful building and making uppe of the chapell, with the chamber adjoining, within my mannor of Okholt, in the parish of Bray, not yet finished.*"



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THE "SCREENS" FROM THE GARDEN ENTRANCE, CROWHURST PLACE, SURREY.

and Crowhurst Place and Great Tangley are also very good examples.

Sometimes the size of a house was increased by the addition of several apartments, which surrounded a courtyard in the rear of the front buildings; in such cases the hall was often approached from the quadrangle, and formed one of its sides. This occurs at "The Mote," at Ightham, and at "Penshurst Place," both in Kent.¹

But whatever was the general plan, the peculiar arrangement of the great hall, with the screen at its lower end, the entrances to the offices behind it, and the dais at the upper end of the room, appears to be all but universal, so much so that it is found alike in the palaces of the king and of the nobles, and in the houses of the middle classes of society. We see it at Eltham and at Hampton Court, at Mayfield, at Croydon, and Lambeth, at Penshurst, and at most of the halls of the Colleges at Oxford and Cambridge, as well as in those of the Middle Temple, and Staple Inn, London; and, indeed, at many other places too numerous to notice in this paper.

In the "Archæological Journal" (vol. xxiv. p. 57) is given a translation by Mr. Joseph Burtt, assistant keeper of the Public Records, of a most valuable and interesting document from the muniments of the dean and chapter of Westminster. It is a contract for building a hall at Hammes, or Hamsey, Sussex, and is dated the 6th day of March, 14 Edward II. (A.D. 1321). This contract is between "Sir Geoffrey de Say, knight, on the one part, and John Rengwyne, of Wogham (*Offham*), mason, on the other part;" that is to say, that the aforesaid John shall make, on the said Geoffrey's manor of Hammes, four walls of stone and chalk for a hall, of the which the two side walls shall be 60 ft.

¹ It must, however, be remembered that in each of these examples the hall, with some few apartments attached to it, is of much earlier date than the rest of the house, and very probably formed the original erection, complete in itself before enlarged by the later additions. The hall at the Mote at Ightham is of the time of King Edward II., circa A.D. 1320.

long on the inside, and 24 ft. high from the ground, and the two ends shall be gables of such a length that the hall within the walls shall be 30 ft. in width, and of such height as the roof of the hall will permit. And the said John shall make in the gable towards the west, which shall be at the dais of the said hall, a fire-place which shall be 6 ft. in width within the jambs, and on the side of the said hall towards the south, another fire-place of 9 ft. in width, and the shafts of the two chimnies shall be carried 3 ft. above the roof of the hall. And the said John shall make in the side of the said hall towards the north three windows, with transoms, each 6 ft. in breadth, and of such a height as the walls will permit; and on the side towards the south there shall be the door of the hall, of convenient width and height, and two windows agreeing with the windows on the north side; and in the gable towards the east there shall be three doors, one for the pantry, another for the buttery, and the third for a passage to the kitchen."

This part of the contract has been here quoted to show that the arrangement here described exactly agrees with that given above, and proves what a very general plan it was.

The contract obliges the said John to "dig, draw, and cut all the stone that shall be required for the aforesaid walls, doors, windows, and fire-places in all the places where the said Sir Geoffrey sees it to be to his advantage, except the stone which shall be for the hearths and the backs of the said fire-places against the fire. And the said John shall dig the sand for all the aforesaid works, and shall find lime at his charge, as well as for the said works as for covering all the hall and the pent-house. And the said Sir Geoffrey shall have carried all the said stone, lime, and sand on to the place where the hall shall be made; and he shall give to the said John for his work, and all other expenses aforesaid, thirty-five marks and a quarter of wheat, and shall pay him from month to month according to the progress of his work."

It will be observed that this contract is only for the mason's work, nothing being said about the roof and the other carpenter's work, nor the works of the other tradesmen.

The great hall of the Palace of Westminster, and the Guildhall of the City of London, are the exceptions to the rule; at Westminster the chief entrance is in the north end of the building, and at Guildhall it is in the centre of the south side; in each case through a finely-designed porch; but both these cases must be considered in a different light from the hall of a manor-house, as these two halls were attached to adjoining buildings only by mere passages, and were nearly insulated on all sides.

It was a very usual arrangement to construct a gallery over the screen, to accommodate the musicians who played during dinner and on festivals, and it served as a passage to some of the upper rooms. The hall at Crowhurst Place, however, it would seem never had one, and in some cases the gallery was not quite open to the hall; at Chiddingley Place, in Sussex, the gallery front was enclosed with a range of folding shutters, which opened to obtain a view into the hall.

Very often there were small lattice windows and other openings in the walls between the hall and some of the upper rooms, from which a spectator could watch the proceedings in the hall without being himself observed; and for this purpose we find at the manor-house of Great Chalfield, in Wiltshire, stone masks of a king and a bishop inserted in the walls, through the eyes and mouths of which, the same being pierced, a full view of the interior of the hall can be obtained.

Archbishop Parker, on the occasion of entertaining Queen Elizabeth at a banquet at Lambeth, writes:—

“If her Highness will give me leave, I will kepe my bigger hall, that day, for the nobles, and the rest of her traine; and if it please her Majesty she may come in through my gallery, and see the disposition of the hall, at a window opening thereinto.”

Internally the hall was the largest and most important

room in the house, and generally extended in height from the ground-floor or pavement up to the roof, the timber construction of which was seen from the interior. It was the most useful and the chief living apartment in the building. It was occupied by the owner, his guests, his retainers, and domestics in common; the servants occupying that part of the room which was below the dais. Here the host dispensed his hospitality, alike to his invited guest and to the wayfarer, who at the period now under notice had so often to ask for aid.

Although the hall was very often provided with a regular open fireplace in the side wall, as at Crosby Hall, London, and as at the hall of the college at Cobham, in Kent; yet the most common mode of warming was by kindling a fire on a hearth of tiles or bricks, in the middle of the room, and the smoke, after well filling the apartment, escaped through a hole in the roof, over which there was an erection to keep out the rain, with open sides, which in course of time was called the *louvre*, from the old French word "*l'ouvert*."

The central hearth, together with a very curious dog, or andiron, round which the fuel was piled, is still to be seen in the hall of Penshurst Place, in Kent; and it is only a few years since that the dining-hall of the King's Scholars at Westminster was warmed in a similar manner, and where the original *louvre* on the roof is now in existence.

The hall of Richmond Palace was warmed in the same way, as we find by the description of it, made by the Commissioners of Parliament, A.D. 1649:—" *This room hath a screen in the lower end thereof; over which is a little gallery, and a fayr foot-pace in the higher end thereof; the pavement is square tile, and it is very well lighted and seeled, and adorned with eleven statues in the sides thereof; in the midst a brick hearth for a charcoal fire, having a large lanthorn in the roof of the hall fitted for that purpose, turreted and covered with lead.*"—*Vetusta Monumenta*, vol. ii.

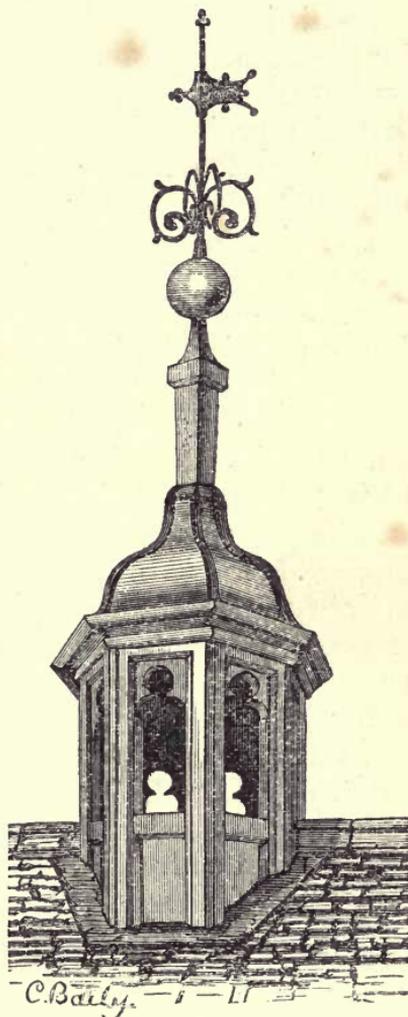
Of *louvres*, properly so called, not many examples are now to be found, and most of those which are left have

had the open sides glazed, as at Oriel and Wadham Colleges, at Oxford. There is one in its original condition, however, at Lincoln College, and another of the time of Henry VIII. formed entirely of lead, is still left on the roof of the hall of Barnard's Inn, London.

In later times the situation of the old louvre was occupied by a lantern, which lighted the upper part of the roof, as we find on Westminster Hall, and at the Middle Temple, and on the halls of Staple Inn and Gray's Inn, and at Lambeth Palace.

One of the most conspicuous features, even to a casual observer, of a timber-built house is certainly the projecting of the upper floors over the sides of the stories below. Writers on this subject have not sufficiently explained why such a construction was adopted.

A clever writer¹ on the subject, says, — "Whilst towns were circumscribed by fortified walls, their principal streets were much crowded with inhabitants, so that every contrivance was used to gain room for dwellings. This was one reason why fabrics framed of wood and plaster were so common ;



LOUVRE, BARNARD'S INN.

¹ Edward James Willson, Architect, F.S.A. See *Ornamental Timber Gables in England and France*. London, 1831.

as the thinness of their sides, and the gradual projection of the upper floors beyond the limits of the ground plan, made such houses more capacious than they could have been if built with walls of masonry."

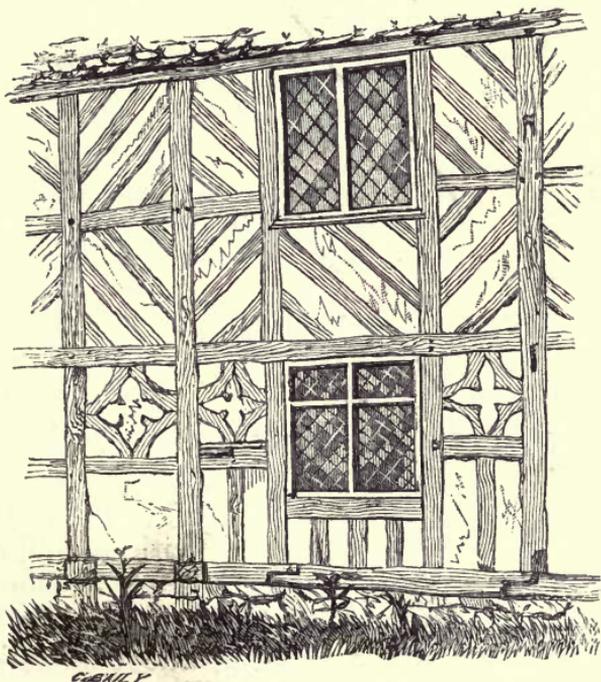
But it is quite obvious that this is not the true reason, for the same system was adopted in the country, where land was of but small value. It is far more likely that the projections were intended to protect the lower timberings from the weather as much as possible, and consequently from decay.

The sides of the timber buildings of the Middle Ages are constructed in the following manner:—Stout wooden sills are laid horizontally a foot or two above the ground-line, on underpinnings of stone or brickwork, and very large upright story-posts are placed upon the sills at the angles, and at intervals of from seven to ten feet apart; some of these at Crowhurst Place measure as much as 14 in. \times 8 in. in their sections, and where seen in the interior of the house are richly moulded: these posts support horizontal heads of timber, into which, as well as into the sills, the uprights are framed, tenoned, and secured with wooden pins. The intervening spaces are again divided by smaller timbers, sometimes by upright quarters about six inches wide and seven inches apart, as in the upper stories of Crowhurst Place; in other cases, as at Great Tangley, in Surrey, and at Boar Place and Hever Castle, in Kent; these minor timbers are placed vertically and horizontally, forming squares, round the intersections of which are timber quadrants forming circles; but this latter system of filling belongs rather to the latter half of the sixteenth century.¹ The spaces between the timbers are latticed up with wattle-

¹ It is a great mistake to suppose that Hever Castle, as we see it at the present day, is entirely an erection of the time of King Henry VIII. The front portion, of stone, and part of the old hall, with the lower walls, may be, and probably are, of that date; but the upper parts have been raised and the house much altered, most likely late in the reign of Queen Elizabeth, or in the beginning of that of her successor, and the long gallery formed in the roof of the building over the hall is of this date.

work, formed either of sticks or laths, and plastered over with clay or loam, well mixed, and held together with chopped straw; sometimes, however, the upright punchions, or quarters, have ploughed grooves in the edges, and a board, by way of a panel, introduced between each pair. This construction is by no means a common one, but it is adopted in some of the upper apartments of Crowhurst Place, particularly in the large room over the parlour at the lower end of the hall (*see* page 22); and it also occurs in a very curious old house—probably that of the parish priest—situated in the churchyard at Penshurst, in Kent.

This very interesting example of a fifteenth-century timber house has of late years been, with very bad taste, almost obscured from view by the erection of some modern cottages, intended to imitate old work, but in design a most miserable attempt and failure.



AT ROTHERFIELD.

In the midland and in some of the northern counties, particularly in Cheshire and in Lancashire, panels of

architectural figures, such as the quatrefoil, cinquefoil, and lozenge, are formed by the timbers ; but this fashion does not appear to have at any time prevailed to any great extent in the south of England. There is, however, an example of quatrefoils in lozenges and in squares in a house standing in the churchyard at Rotherfield, in Sussex ; and at Edenbridge, in Kent, is a building where



AT EDENBRIDGE.

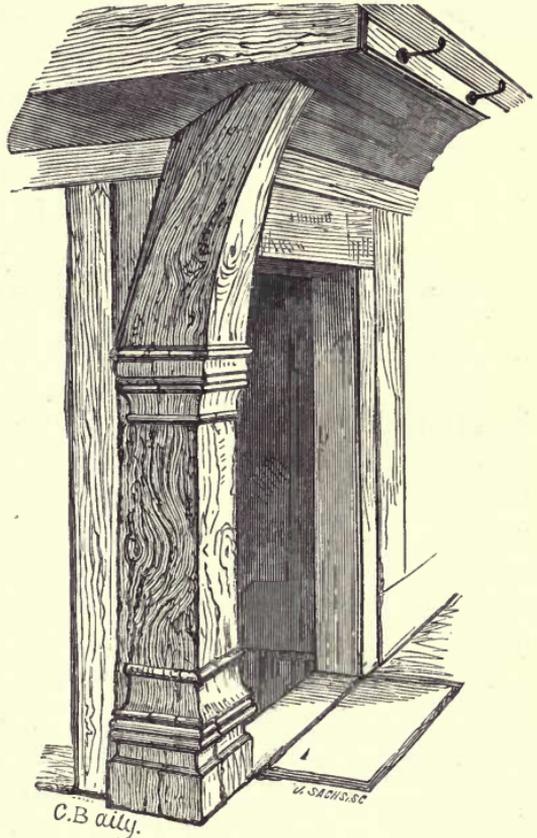
some of the timbers partake of a fantastic form. The timber-built houses of Surrey, Kent, and Sussex are generally not so rich in architectural ornament in the details as those in other counties, particularly Warwickshire, Essex, Suffolk, and Norfolk.

When the spaces between the upright quarters are wattled up and plastered over with loam, the filling is not always made flush with the timbering, but the plastering is sometimes kept back about one inch from the fronts of the wooden quarters, the edges of which in such cases are worked with a hollow moulding : this is the case at an old house in the village of Ightham, in Kent.

The plan adopted for forming the oversailing of the upper stories is worth notice. When this was required to be done to the front of the building, or on one side only, there was no great difficulty in the matter ; so long as the joists were made strong enough to support the

weight of the structure above without bending down, no great harm could happen; but it was very often requisite to carry the projections round the angles of the house, and indeed on all sides, and then a somewhat ingenious scheme was contrived. The principal upright posts of the framed sides support large girders in the floors; these often cross each other at right angles, and hang down, and are seen internally in the ceilings of the rooms; from the posts at the angles are laid, in a diagonal direction, other timbers to the cross-girders, into which they are firmly mortised and tenoned and pinned. These are technically called dragon-beams; and by this means a good and sufficient bearing is obtained for the common joists of the floor, which are laid at right angles with each other, and project over the front and sides of the building from two feet to four feet, and sometimes more.

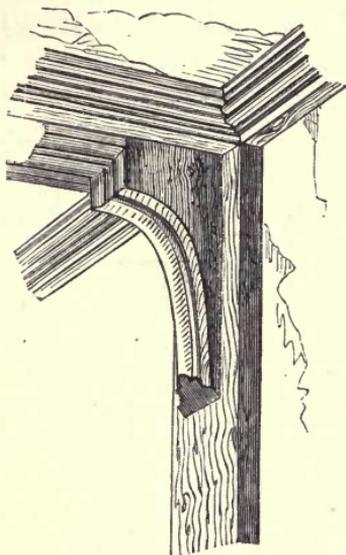
The upright posts in the sides and at the angles of the building are generally larger at the tops than at the lower ends, to give a broader and firmer bearing for the girders which they carry, and



AT SAFFRON WALDEN.

are cut into brackets both externally and internally. These, in most cases, are got out of the same solid piece of timber as the post itself, which is generally the best part of the trunk of an oak tree turned the lower end uppermost, for

the purpose of obtaining a sufficient width for the brackets: these assist greatly to support the superincumbent weight. The examples here given are from Saffron Walden, in Essex, and from the interior of the "Anchor Inn" at Basingstoke, in Hampshire.



AT BASINGSTOKE.

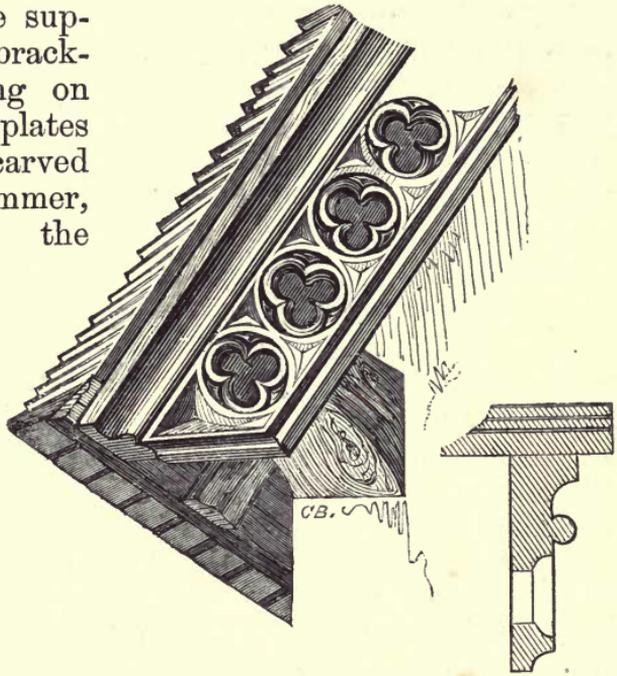
In many cases the angle-posts are very richly carved. There is a very good example at Petworth, in Sussex, and another at the "New Inn," Gloucester; but one of the most elaborate is, or was, at Bury St. Edmund's, in Suffolk: it belonged to a house just outside of the place where the East Gate formerly stood. The base and the curved bracket at the top were carved with elaborate flowing tracery, and above the pedestal was a figure of a "*Salvage Man*" holding a club. This figure, clothed in a sort of plaited dress

fitting tightly to the body, was probably intended for a masker in the character of a wild man, a favourite character in the Middle Ages, and the plaited dress possibly was intended to represent hair.

The projecting ends of the joists, when left in view, were generally rounded on the under sides; sometimes, however, these were moulded, and at other times were covered by a long fascia board either moulded, with the upper part cut into small battlements, or carved with foliage, and sometimes with a cove executed in plaster underneath the joists. The ends of the joists carried another wooden sill, which received the quarters of the framing of the upper stories.

Not only the floors but also the roofs of the old houses overhang considerably, particularly at the gabled ends, where the outside rafters, technically called barge-boards, or verge-boards, are very much larger than the others, and are moulded and cut with tracery, or carved in

foliage, with all the skill that the Middle Age workman could bestow upon them: a charming effect is thus added to the exterior of the house. These barge-boards are carried by the plates and purlins, the ends of which pass through the boards, and are pinned. Very often, and particularly as regards the later examples, the projecting ends of the plates are supported by carved brackets; and resting on the tops of the plates is a moulded or carved timber breastsummer, which receives the lower ends of the timbers of the projecting gable. There are yet remaining numerous examples of the barge-boards and gables in all those counties of England where timber was once plentiful.



AT SHERE.

Thomas Scotte, of Hawkhurst, gentleman, in his last will, dated May 8th, A.D. 1533, provides for the finishing of his timber house.

“I will that if all my goods and chattels moveable be not sufficient, that then my executors furnish out of the rents and profits of all my lands, except such as are devised to Mildred my wife, to build, set up, and finish my house, which now lyeth in frame at Congchurst.”¹

As respects the materials used for the covering of the roofs, as the roads were bad and carriage costly, it

¹ See *Testamenta Vetusta*, vol. ii. p. 664.

very much depended upon what the immediate neighbourhood produced. Many buildings of the humble class were thatched with straw, or with reeds if procurable. Throughout the county of Kent tiles of burnt earth were used, but in the lower parts of Surrey, and in Sussex, thin flakes of a stone, easily cleaved, known by the name of Horsham slates, were very generally adopted, and are still found on many of the old buildings; indeed the roof over the hall at Crowhurst Place is so covered; these make an excellent covering when carefully and properly laid, but the timbering of the roof requires to be very substantial, on account of the great weight of the stones. Another material was shingles, or square pieces of the heart of oak, each about one foot long by four or six inches wide, and half an inch thick; these are fastened on to rough boards with wooden pegs.

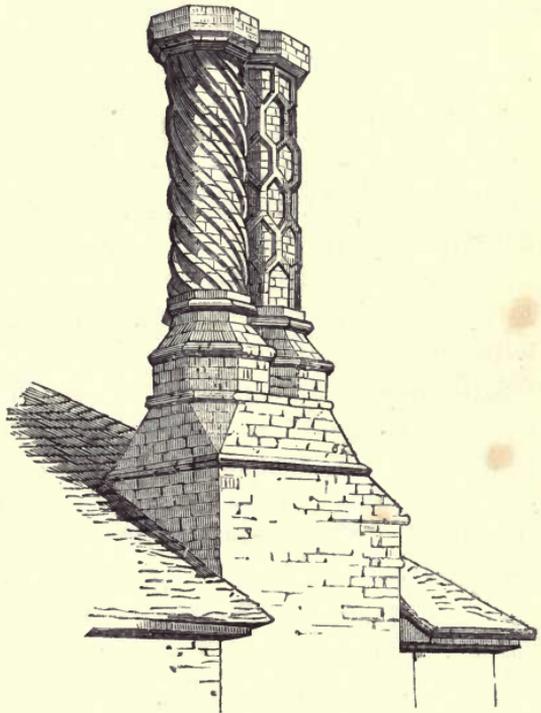
The roof of the great hall at Battle Abbey was originally covered with shingles; and at the "Mote" House at Ightham, a part of the roof over the hall is still so laid, although a more modern roof has been erected over it. Shingles, however, appear to have been disused as a covering for the roofs of houses as early as the middle of the fourteenth century, probably because the slope of the rafters required to be so very steep; for in letters patent, granted by King Edward II., in A.D. 1314, to his mother-in-law, Margaret queen dowager of England, we learn that "the king had been informed that divers manor houses and castles which she held in dower, and which were roofed with wooden shingles, were greatly in need of repair, and that they might be roofed at a less cost with slates, stone, or earthen tiles than with such wooden shingles; he therefore grants her permission to unroof those houses which needed repair and to cover them with slate or tile, and at the same time leave to cut down and sell as many oaks and other trees in the woods of the manors and castles aforesaid as may suffice to repay the reasonable expenses incurred by her for new roofing the houses in question." (See "Domestic Architecture of England," vol. ii. p. 8.)

In later times, shingles have been used only as a

covering for the slopes of the timber spires of the churches, so common in Surrey, Sussex, and in Kent.

The chimney-shafts of the old houses are among the chief external ornaments, and it matters not whether the material is of stone or of brick. In most cases a large amount of ornament and nice execution is bestowed thereon; of stone some few examples of so early a date as the thirteenth and fourteenth centuries are still to be found. We may refer to one at Abingdon Abbey, in Berkshire, and to those at Old Woodstock and Burford, in Oxfordshire; also to that at Northborough Manor House,

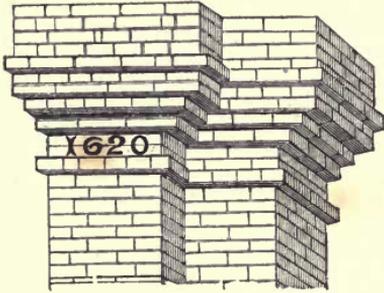
in Northamptonshire, as specimens of interest. But in many of the manor houses in Norfolk and Suffolk, and at Hampton Court Palace, in Middlesex, some of the shafts executed in red brickwork are of truly marvellous workmanship. We here give a view of two from an old house at Little Braxted, in Essex. In the county of Surrey there are some rich shafts at Beddington Manor House, and many of a plainer character at Arch-



AT LITTLE BRAXTED.

bishop Abbot's Hospital, at Guildford. In the plan the shafts are generally either circular, octagonal, or square, placed on the diagonal, several being clustered together in one stack, with narrow spaces between the shafts. The generality, however, of the Surrey and Sussex houses of the sixteenth and seventeenth centuries have plain chimney-shafts, which are rendered

sightly and picturesque by the shafts being broken in the plan and having a series of oversailing courses worked round the tops. The examples here shown are from the village of Shere, near Guildford. The date on one, 1620, very probably gives the age of the others.



Some writers upon the subject of the domestic architecture of England in the middle ages have stated that fireplaces were then but few in number; but a careful examination of the old buildings will at once show that these were more numerous

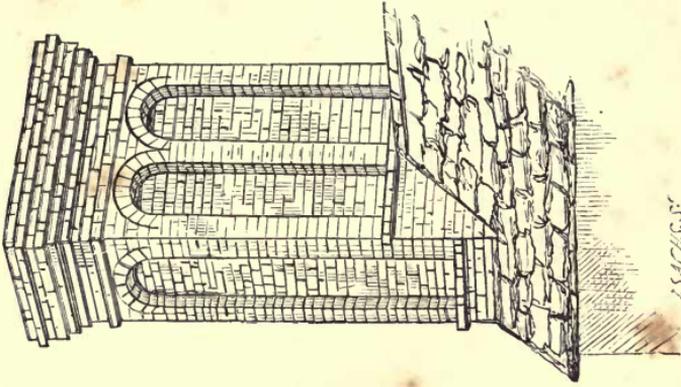
than has been supposed. At Conway Castle, in North Wales, there is one in nearly every apartment; at Bodiam Castle, in Sussex, there are between forty and fifty now remaining.

In one of the upper rooms at the George and Dragon Inn, at Ightham, an old timber house of the time of Henry VIII., is a chimney opening with plainly-chamfered jambs, and having a raised hearth of tiles, with a fixed fender of stone in front, and all of the same date as the house itself.

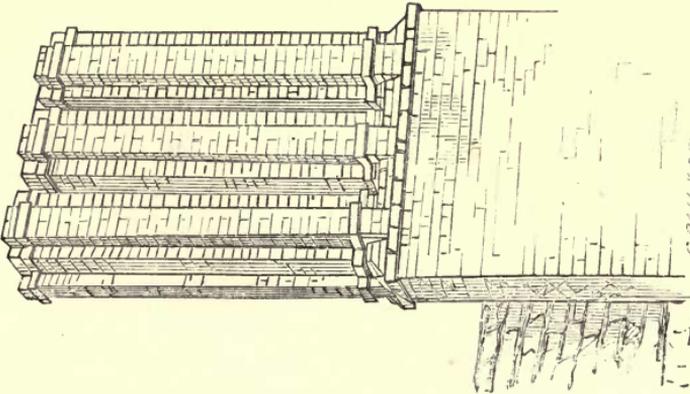
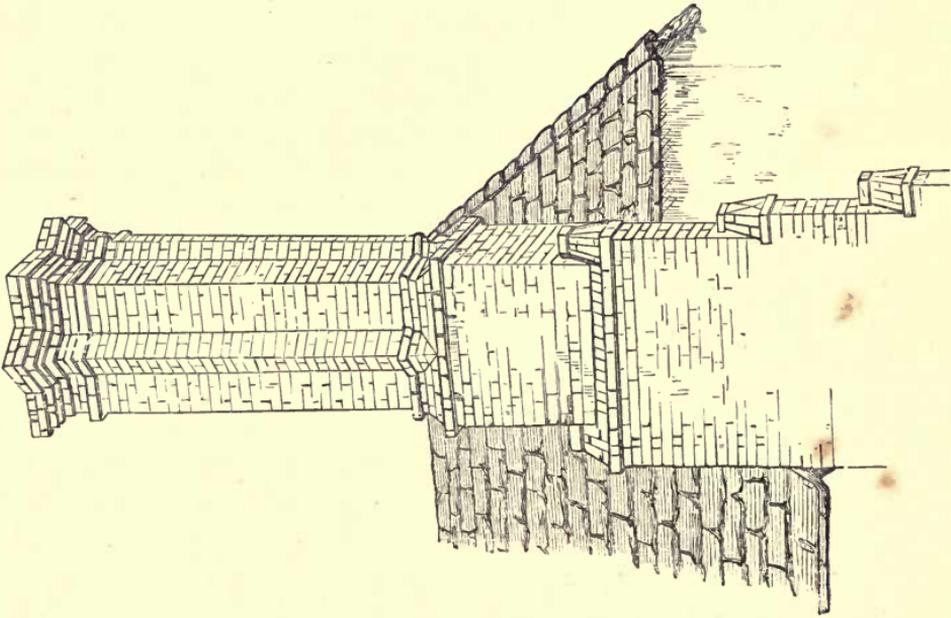
The art of staircase-building was not commonly understood in this country until the beginning of the seventeenth century; previously to that time the stairs were either contained within a turret and wound round a centre newel, or formed a steep approach between partitions, as at Crowhurst Place. But in stone buildings the stairs were very often formed within the thickness of the walls, as we see at Hever Castle, in Kent, and at the Guildhall of the city of London.¹ One chief characteristic of an ancient Gothic staircase is that the steps are



¹ The building of the present Guildhall, London, was commenced A.D. 1411.



J.S. CHASE



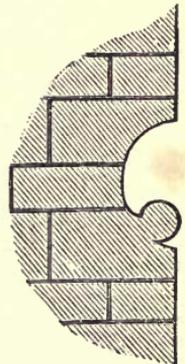
G. B. HILL

formed of solid blocks, and we find one so constructed leading from the "Entrye" to the upper rooms at Crowhurst Place; it has a short portion of the original massive handrail of oak still attached to the side.

Of turret staircases in timber houses we have fine examples at Boar Place, near Penshurst; and at a house formerly "*my Lord Chancellor's lodgings,*" attached to the Royal Palace at Eltham, in Kent. At Eastbury Hall, near Barking, in Essex, a very fine old house, built probably by Clement Sysley, who purchased the estate A.D. 1557, of John Keele, some time during the latter half of the sixteenth century, and where the walls are entirely constructed of bricks without stone dressings of any kind, there were two staircases of large size, contained in turrets: one of these has been destroyed, the other remains in a perfect state. The solid oak steps wind round a circular newel, also of oak, which measures 11 inches in diameter, and into which the narrow ends of the steps are tenoned and pinned; each step has its front lower edge rebated over the back of the step below it, the under soffits being worked off into a fair slope. The steps rise from $7\frac{1}{2}$ to 8 inches, and the treads next the walls, to which they are but slightly fixed, measure 18 inches wide, and next to the newel, 2 inches wide. This staircase measures in the going between the newel and the wall 4 feet 5 inches wide, and the brick enclosing walls are 2 feet 8 inches thick. The turret in the plan is circular internally, but on the outside it is multangular.

In the remaining walls of the destroyed turret we see the handrail, entirely formed of moulded brickwork, with great ingenuity, of two courses of bricks on edge, with a course laid flatwise between, as in the section here shown.

Sometimes we meet with examples of external staircases, and in such cases we soon discover some reason for such an arrangement. There is a good example at an outbuilding

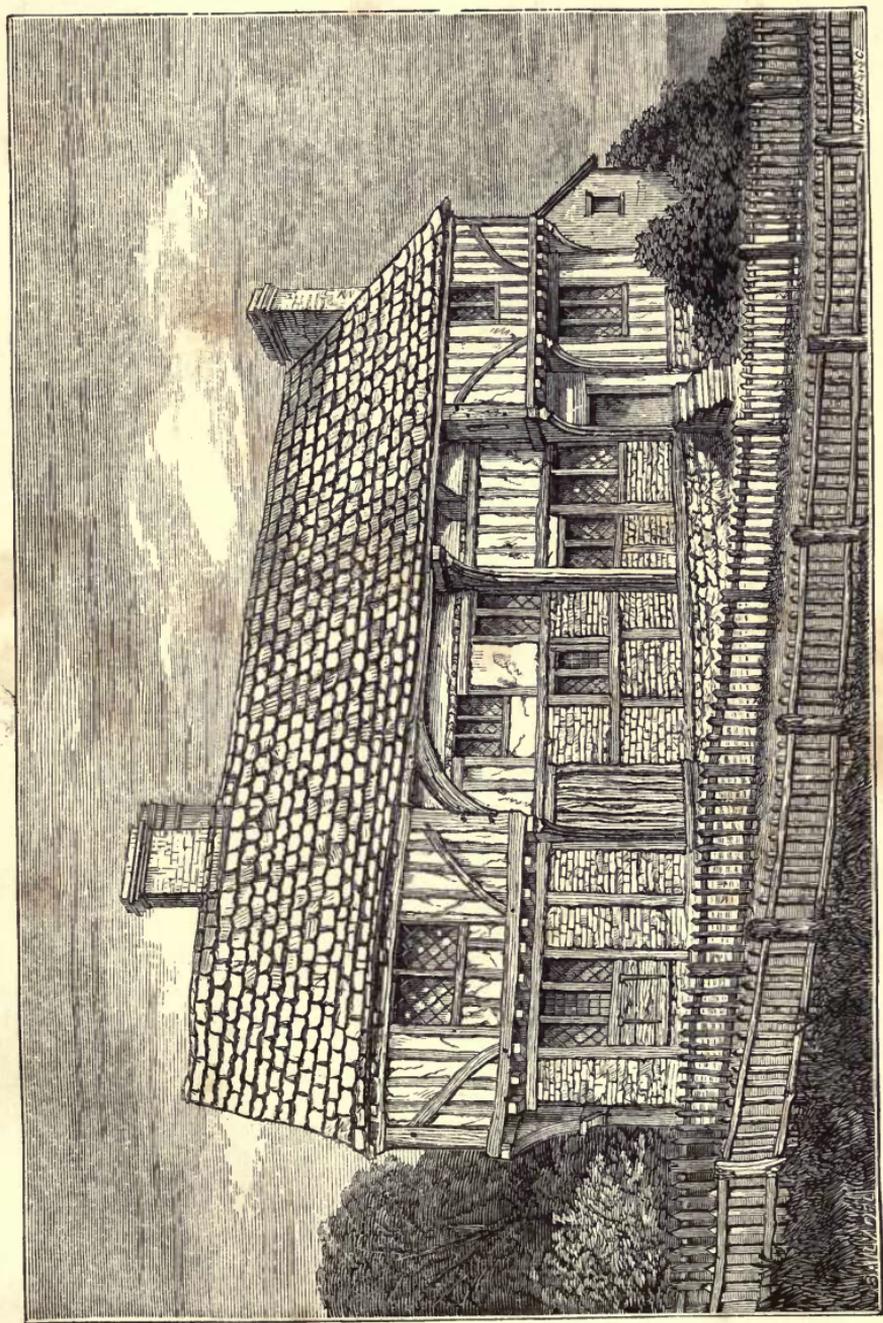


belonging to the Archbishop's palace at Maidstone, Kent. The close parapet of stone under the handrail is corbelled out on a stone foundation, and the stairs are covered with a wooden penthouse roof, supported on posts which have had tracery between. The building to which this staircase belongs is two stories high: the lower floor being the stables, and the upper was in all probability a store for corn, or a granary.

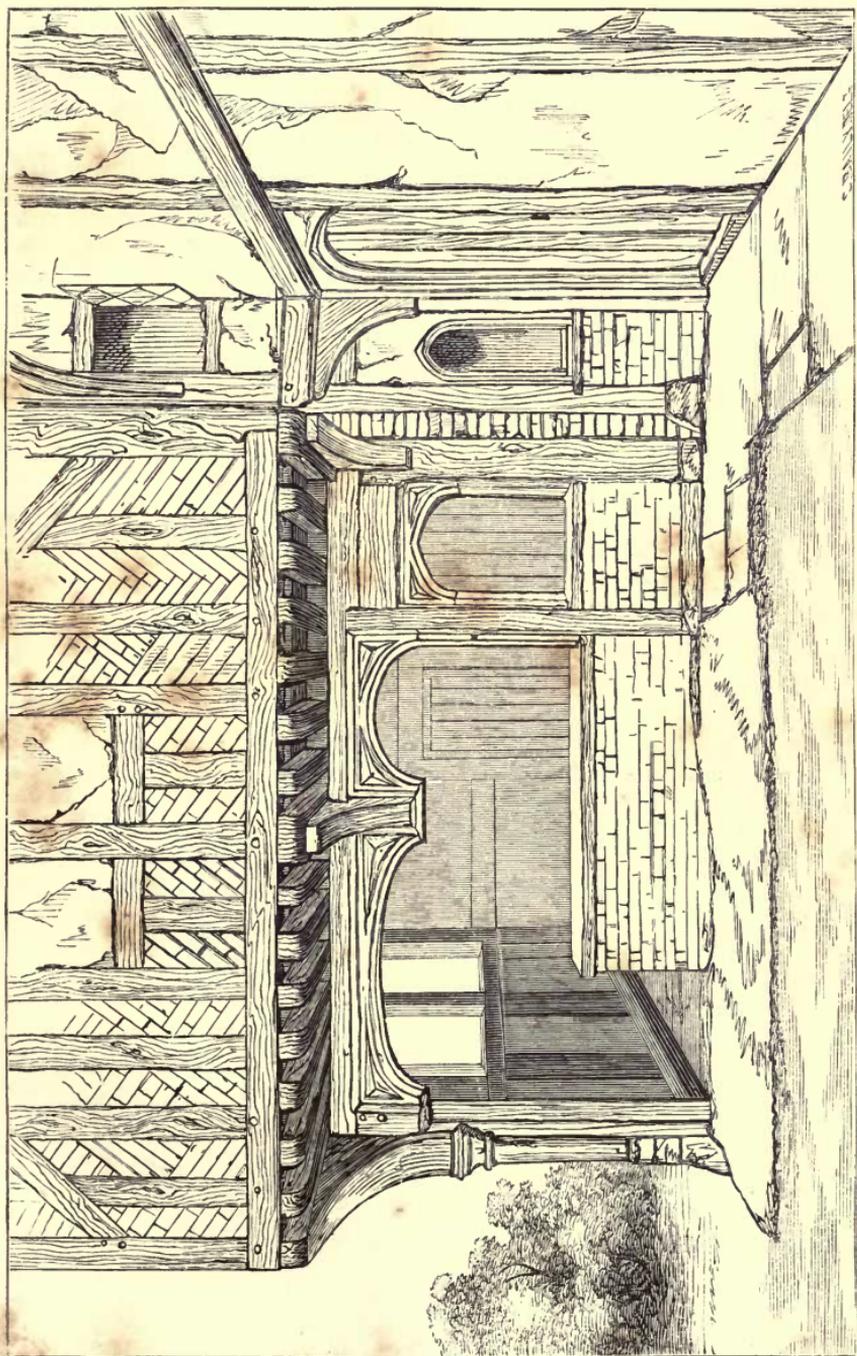
There is another external staircase constructed of timber, with a roof over it, on the east side of the hall of the Abbot's house at Westminster, now the dining-hall of the king's scholars of Westminster School. This staircase is not of so old a date as the hall to which it is an approach. The hall was built in the reign of King Richard II., by Abbot Nicholas Litlington. The present staircase perhaps replaced one of older date, or it may have been added when the school was founded by the king after the dissolution of the monastery, and the reason of placing it on the outside was to obviate the necessity of the scholars passing through the house.

In the village of Lingfield, in Surrey, are several timber-built houses, every one of which is worthy of the most careful examination and attentive study. Two of these houses in particular illustrate very fully the features of the construction referred to. One of these houses stands on the north side of the churchyard, and belongs to a more humble class of dwellings than Crowhurst Place; but, nevertheless, it was formerly a house of some importance. In the external design we still see the recess in the centre of the front, with the projecting side wings and the overhanging stories; but in this case the side projections are not gabled, the roof being carried straight over the whole of the building in one continued span. The curved braces, one of which now alone remains, from the side projections to support the plate of the roof, is a feature which is very common to this class of house.

The other house at Lingfield, which has been alluded to, is situated in the village street, nearly opposite to



AT LINGFIELD, SURREY.



SHOP AT LINGFIELD, SURREY.

the Star Inn.¹ Like the example last mentioned, it has the central recess, with the braces to support the roof-plate; and this house is a most valuable example, inasmuch as one part of its ground story was evidently built for a shop, and to which use it has always remained.²

The two arches on the left hand formed, the open shop front; these do not seem to have been at any time glazed, but were most probably enclosed with wooden shutters hinged at the bottom to the sills, on the tops of the stall-boards, and which could be turned down in the daytime at right angles with the front, and used for the display of wares. The opening to the right is the original door of entrance.

The corner and intermediate upright posts, with their projecting brackets, and the ends of the girders and joists, standing out and supporting the upright quartered sides of the upper story, with the spaces between in this case not plastered, but nogged up with bricks placed in a variety of forms, are here all plainly to be seen; and in the interior of the same shop we see the diagonal dragon-beam with the joists, the ends of which are framed into it, and which lie at right angles with each other, as before stated, in all those houses where the over-sailing or jetty story continues round the angle of the building. These two houses are both of the same date, and must have been erected about A.D. 1520.

Crowhurst Place³ was late in the last century much modernized and injured by removing some of the timbering of the sides of the lower story, and by building up walls of brick in place thereof; but there remains

¹ It may not be out of place here to remark, that the Star Inn at Lingfield is probably of very old foundation: without doubt the sign alludes to the estoiles in the coat armour of the Cobhams. Sterborough Castle, near Lingfield (the residence of the family), the plan of which may still be traced within the moat, is in the form of a star.

² Owing to the continual alterations to the ground floors of the houses in towns, to adapt them for modern use, the shops have nearly all been destroyed, and it is very seldom we find one in so genuine a condition as that noticed above.

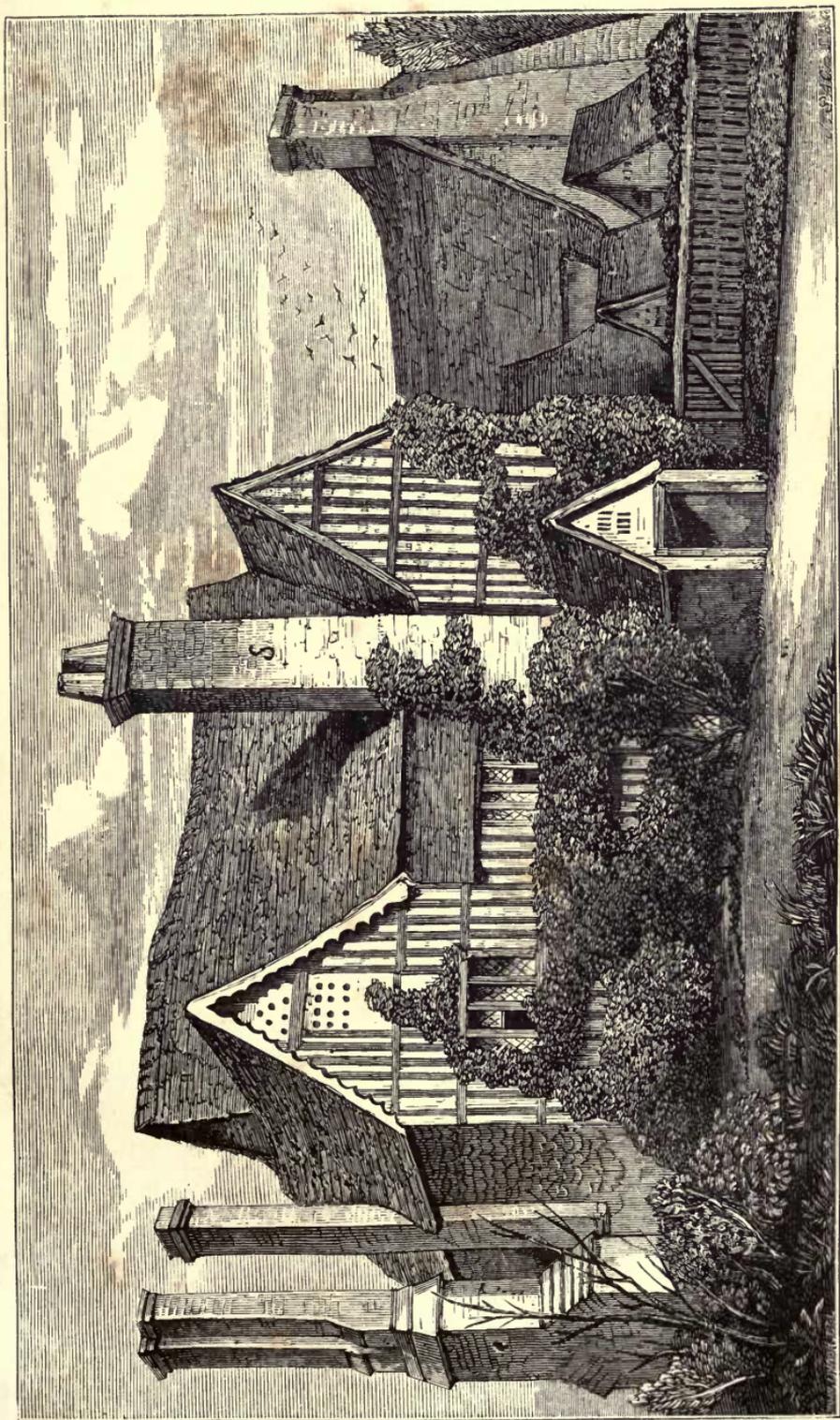
³ We are indebted to John Livock, Esq., architect, for the loan of the original drawing from which the view opposite page 1 is engraved.

evidence to prove that the house in some parts had the oversailing or jetty floors, particularly to the front wing over the large room at the upper end of the hall, where there still remains in the interior of the room the old oak ground sill, measuring eleven inches wide and eight inches high, just within the modern front wall. This sill is mortised to receive a double row of upright studs, a somewhat unusual arrangement; but which was no doubt so done, not only for additional strength, but to form a hollow space in the outer wall for the purpose of keeping the room perfectly free from damp, although this mode of construction does not appear in any other part of the house. It is very likely that at the same time the destruction of the original window-frames of the hall took place, as well as the covering of the outside of the upper stories with the present weather tiling.

The situations of the original windows of the hall can be with tolerable certainty made out. They appear to have ranged along the whole length of the upper parts of the sides, between the main posts of the framed walls, and probably were divided into many lights in width by mullions, and into two lights in height by a transom. One such original window, six lights wide and two lights high, still remains in the end wall of the house, at the top of the stairs from the entry. It is shown in the illustration on the opposite page.

There is no evidence to show that the hall at Crowhurst ever had a projecting bay window—very probably it had not. But this sort of window was a very usual although not a universal feature. Some large halls had two, as at Hampton Court, and at Christ Church, Oxford; and at Eltham, in Kent. And these windows were generally situated at the upper end of the room, one on each side of the dais; and the sills were sufficiently near to the floor to enable any person in the room to get a view of the outside.

Except as to the bay windows, the sills were generally placed at a high level, and the great hall of Croydon Palace has a range of windows on each side, the sills of which are as much as seventeen feet above the floor



CROWHURST PLACE, SURREY.—GARDEN FRONT.



STAIRS AS SEEN FROM THE UPPER STORY, CROWHURST PLACE.

of the hall; but the uppermost bay of the room has also other windows at a lower level, the sills being only three feet and three inches from the floor of the dais. Such "low windows" in this situation appear to have been very usual.

Geoffrey Chaucer, in the "Miller's Tale," says:—

*"So mote I thryve, I schul at cockes crowe
Ful pryvely go knoke at his windowe,
That stant ful lowe upon his boures wal."*

And again:

*"He cometh to the carpenters hous,
And stille he stant under the schot windowe,
Unto his brest raught, it was so lowe."*

Notwithstanding the many alterations and partial destructions which the house of Crowhurst Place has undergone at different times, yet some of the apartments contain much of the original work, and afford us many very valuable examples of the carpentry of the fifteenth century. The roof of the old hall is perfect, with the sole exception of the destruction of the louvre. The timber, a very large quantity of which is used in the construction, is in a very sound state; the amount of manual labour bestowed upon its finish is immense; and perhaps, for its size and date, it is as good an example as we have now remaining. It has three heavily-framed principals, one at each end, and the third crossing from side to side in about the centre of the hall, thus dividing the room into two bays, but of somewhat unequal widths. These principals are constructed with tie-beams, as is mostly the case in buildings with timber sides, beneath which are large curved braces forming four-centred arches across the hall, and which are very firmly framed into the tie-beams, and into the stout upright supporting story-posts of the sides, and well secured with wooden pins.¹ Upon each of the tie beams stands a large timber

¹ The most usual mode with the carpenters of the middle ages of fastening together of timbers was by mortise and tenon, and wooden pins. Iron bolts and straps were introduced at a comparatively late period,

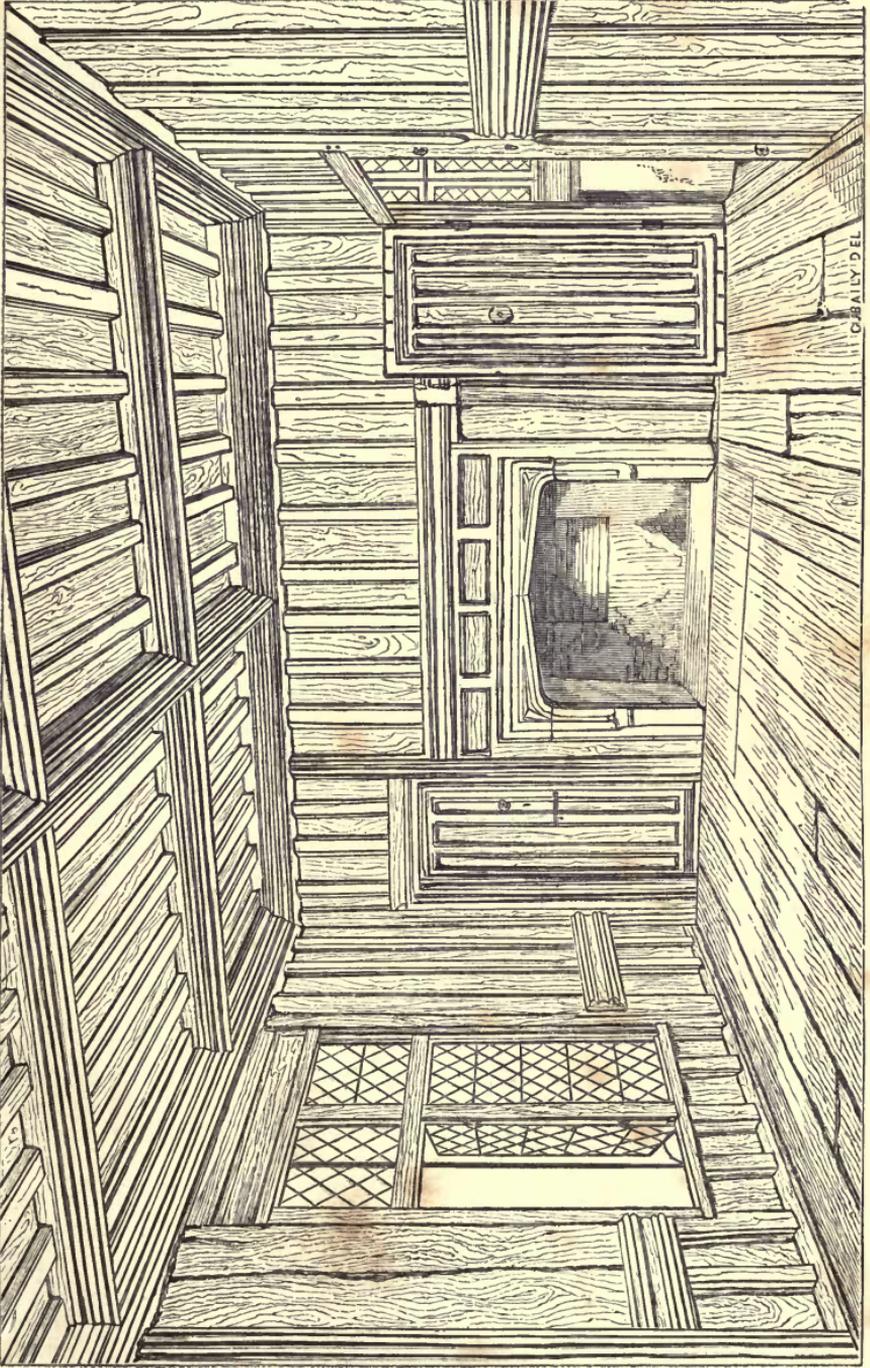
arch, which again supports a collar-beam, and which, with the principal rafters, completes the truss of each principal.

These trusses support the longitudinal timbers, the purlins, and the leon beams, which in their turn carry the common rafters and all the minor timbers. The seat of the old louvre remains in the upper part of the roof; in the plan it is a hexagon.

The room over the parlour at the lower end of the hall, as may be seen by reference to the plate opposite and that at page 20, is in a very genuine and original state; the only thing which is wanting being the original window. All the other features appear to be very much in the state as when left in the fifteenth century by the builders. In the sides of this room is to be seen the wooden construction of the walls of the house, the whole of which is internally moulded and finished in such a manner as to prove that it was intended to be seen without any further finish, except as regards the hangings of arras or tapestry. The construction of these timber sides has been already noticed, but it is necessary here to give some further description. On a level with the floor generally, but in the outer side wall at about four inches above it, is the top surface of the sill of the framing, into which the lower ends of stud-quarters or puncheons are tenoned: these quarters rise to about half the height of the sides of the room, where a horizontal moulded entertie is introduced, from which another range of quarters rise, and support a head or plate, which, overhanging on the inside, is moulded so as to form a cornice

and it is very doubtful if the older system is not the better in many respects. Where the old joinings have given way, we seldom see that the wooden pins have been broken, the mischief has more often happened from the end of the tenon between the pin-hole and the end of the timber splitting out.

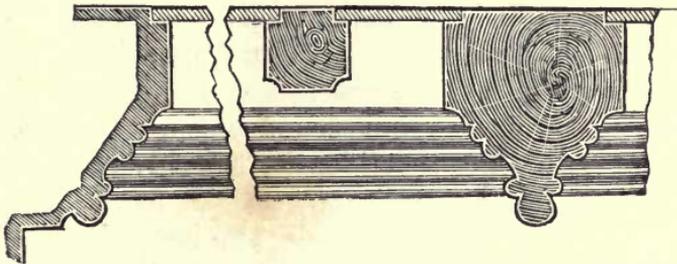
When iron bolts and straps are used in connection with oak timber, the sap in the oak is very apt to occasion a corrosion on the surface of the iron. This causes a decay of the wood, and the bolts become loose; and thus, in all those cases where there is not sufficient strain to break the tenons, the ancient mode of joining the timbers appears to be the better of the two plans, particularly in outside works, where the space occasioned by the slight decay of the iron and the wood lets in the wet.



ROOM OVER PARLOUR, CROWHURST PLACE, SURREY.

round the room : between these quarters or puncheons boards are introduced, and form two ranges of long upright panels. The puncheons measure about $5\frac{1}{4}$ inches wide by $3\frac{1}{2}$ inches thick, and are about $6\frac{1}{2}$ inches apart ; and the panels are about 1 to $1\frac{1}{2}$ inch thick.

The framing of the floor above, the under side of which forms the ceiling of the chamber, has principal and secondary girders, the whole of which are moulded and united with and framed into the plates or solid cornices. By these girders the ceiling of the room is divided into eight large panels. The ends of the joists, which measure 6 inches wide by 6 inches deep, are tenoned into the sides of these main timbers, and are hollowed on the lower edges. The large girders measure 13 inches wide and 15 inches deep. The floor-boards of the room above



AT CROWHURST PLACE.

are laid in a direction parallel with the joists, the upper angles of which are rebated, to receive the edges of the boards. This mode of laying the floors was the most usual one adopted by the carpenters in the Middle Ages, and it has some advantages over the modern system. It economizes the quantity of boarding, inasmuch as the tops of the girders and joists form parts of the floor-surfaces ; and as the under sides of the boards are exposed to view in the lower rooms, there are but few transverse joints to shrink and open, whereas in the modern plan, where the boards are laid across on the tops of the timbers, the joints are numerous. The old system has, however, its disadvantage ; for the boards being nailed and fastened on the edges only, are very apt to warp and cast, and thus to render the floor very

uneven; and when the oak timber is used in an unseasoned state, the centres of the boards are likely to split. In some cases, which have been found in old houses, of floor-boards laid transversely with the joists, the edges are rebated together, to break the joints.

The large apartment at the upper end of the hall has also a finely-framed timber ceiling, with girders and plates; and here the joists are moulded to a much greater extent than in the last-described room, and are also of larger dimensions. A large amount of the original painted decoration is still to be seen on the under sides of the boards, between the joists: these are coloured in lozenges, alternately of red and white, perhaps the livery colours of the Gaynesfords.

This room measures 29 feet long by 17 feet wide, and it is 9 feet high in the clear, beneath the girders.

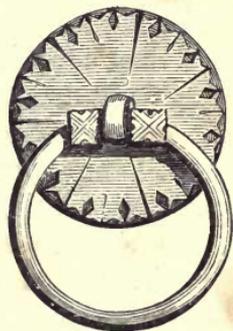
The chimney-piece in this room is not of so early a date as the original house. It most probably replaced one of older date, early in the reign of Queen Elizabeth.

In this room we do not see the timbers of the construction of the walls; the sides are roughly plastered, and a quantity of framed wainscotings is fixed over some parts. This is also the case in the rooms in the upper floors of this wing of the house. Some of these wainscotings have the panels worked with the linen fold or drapery pattern, and are of a later date than the original house. Independently framed and panelled wainscotings did not come into fashion before the end of the reign of Henry VII., and we very often find that these do not exactly fit the buildings in which they are placed. The fact is, that the wainscot and the window-glass, and other fittings, were often the property of the occupier, and were formerly treated as we now treat tenant's fixtures, and were removed from house to house.

“Item, I geve, will, and devise unto my said weif, the use and occupation of all my wainescott and glasse in and about my mancion and dwellinge howse in Melford afore-said, to be and remayne as they nowe are, and by noe meanes to be removed or altered; and alsoe the occupyinge of the hanginges of tapestry whiche serve for my great

chamber of my saide house, for forty yeres, yf the said Mary shall so longe live; and after that tyme I give the same waineskott, glasse, and hanginges to the said William my soune, his executors and assignes; but yf the sayde William dye within his sayde age and without yssue male, then I geve and devise the same, after the same tyme, whollie to the said Walter my soune, at the said age of one and twentie yeres”—See the Will of Thomas Clopton, A.D. 1598, printed in “The Visitation of the County of Suffolk,” vol. ii. p. 65.

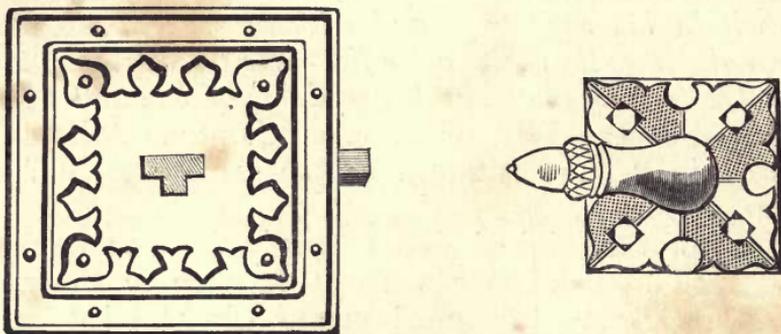
Many of the original doors remain in use: these are all formed of oak boards about $1\frac{1}{2}$ inch in thickness, placed upright, and fastened on to horizontal ledges five or six in number, the ends of which are framed into side styles; on the fronts of the upright boards are nailed moulded fillets so as to cover the joinings, and mitred, with others to match at the tops and bottoms of the fronts, giving the effect of long upright panels. These doors, both externally and internally, are all hung in the openings with very strong hook hinges, the straps of which pass across the fronts of the doors beneath the moulded fillets. There is one peculiarity in all these doors; it matters not whether they are three, four, or five panels wide, in all cases the side panels are much narrower than those between them; the jambs and heads of the openings are not independent frames, but are the timbers of the construction of the framed walls, and moulded in a conspicuous degree to form the door-openings. The fastenings are latches, lifted on one side by a ring handle on a plate: one of the best of these is shown in the adjoining woodcut. There are bolts of a rude character on the insides.



The woodcuts show a plate for latch and handle of a later date—it is on a door of the time of King James I., in a room at the back of the house.

It is somewhat remarkable that the plain or ledged

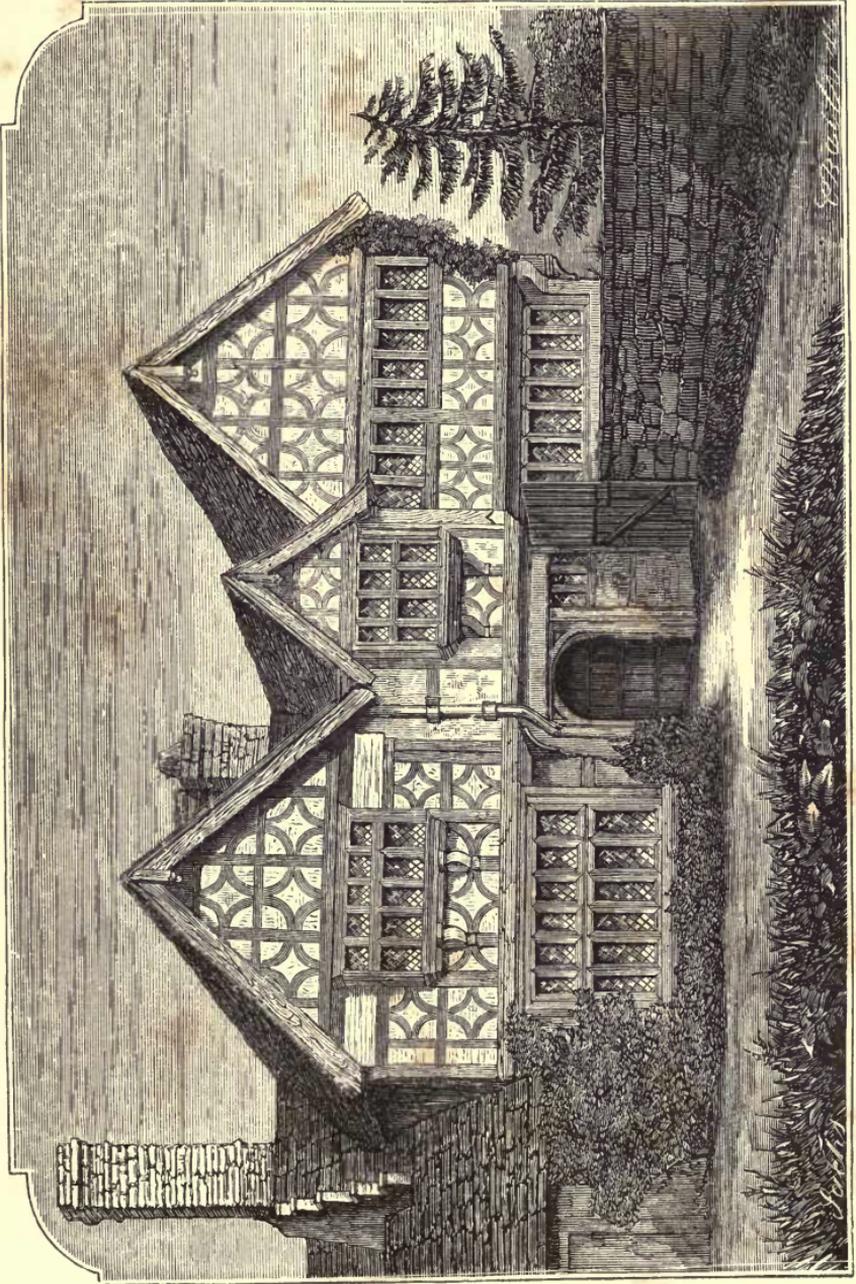
sides of the doors are placed next the rooms, and have a very rude appearance, the moulded fronts being on the outsides. The doors, however, on the insides were



probably always covered with hangings, which, in such situations, would be of more real use than in the other parts of the room.

GREAT TANGLEY, near Guildford, is a house which, from the external appearance of its timber-framed front, we should expect must have been built near to the end of the sixteenth century; indeed, the date, 1582, more than once appears on the trusses, under the sill of the window of the room over the porch, and again on the gable to the left of the same. With the exception of the arched opening of the porch, and that of the entrance to the house beneath it, the whole of the front is certainly of this date, and the design, with its long ranges of narrow lights of square-headed windows, extending quite across the two gables from side to side, is quite in accordance with other works of the same time.

By a reference to the view of the front, it will be observed that the windows, one above the porch and those in the gable end to the left, project from the framed front, those to the upper story being supported on brackets carved with foliage. A space now plastered over on each side of the projecting window, which lights the upper floor in the left gable, will also be noticed, beneath this plastering; window lights also exist, but of a shorter proportion, the sills being on a level with the



GREAT TANGLEY MANOR, SURREY.

transomes of the centre window : this is a feature often seen in the houses of the time of Queen Elizabeth.

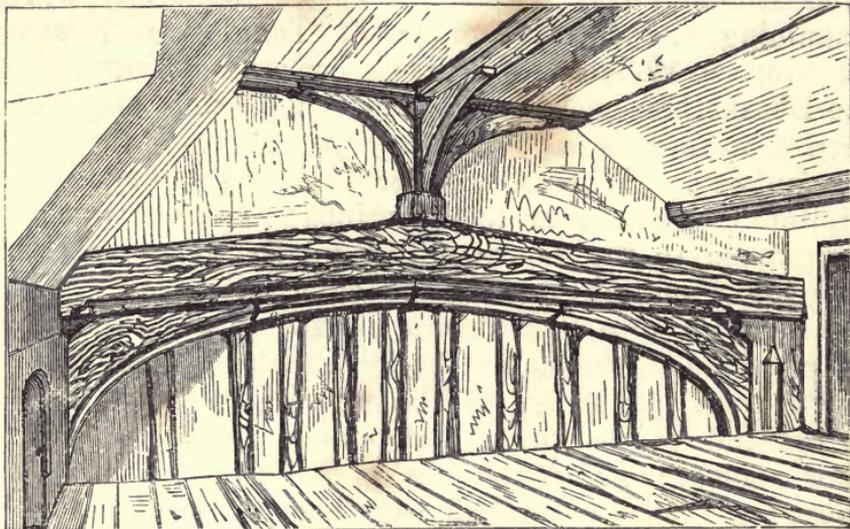
The barge-boards of this time, as seen in this example, are not cut with tracery, but are moulded, and sometimes carved with foliage and ornaments derived from Italian forms. But the careful observer, when examining the interior of Great Tangle, will soon discover the skeleton of a much earlier building within the Elizabethan enclosure, and which perhaps may have been a work finished a century before the date upon the outside. When the later front was erected, an addition of about four feet six inches appears to have been made to the house, filling up the recess noticed on page 2, and the hall of the older house was divided in its height into two stories, by the introduction of a floor. This older hall on the ground-level extended in length from the screen at the side of the *entrye*, quite to the end of the present structure. In the ground-floor rooms, most of the finishings belong to the later house ; the large room, being the lower part of the hall, has its sides lined with wainscoting, framed in small-sized panels, and the division between this room and the *entrye* appears to be the remains of the screen, but which is of a very plain character. It consists of seven round posts or columns framed into a sill at the bottom, and into a head at top. Of the two doors, one is now stopped up. The two doorways leading from the *entrye* to the parlour and to the offices, are square-headed openings, and the mouldings of these, as well as of the screen, and of the wainscoting, are the quarter-rounds and ogees, so often met with in the works of the time of Queen Elizabeth and King James I.

An older doorway, with a flat four-centred arch, exactly corresponding with the work of the porch, and evidently belonging to the original house, is still left in a closet at the back of the *entrye*, and in a line with the two other doors.

The parlour on the opposite side of the *entrye* to the hall, with the exception of the fireplace, retains its sixteenth century character. It is wainscoted through-

out; and the internal effect of the square bay window, with its small glazing, is highly picturesque.

But it is in the uppermost rooms that we find the fullest evidence of the older house remaining. We here see the roof of the old hall in a nearly perfect state.



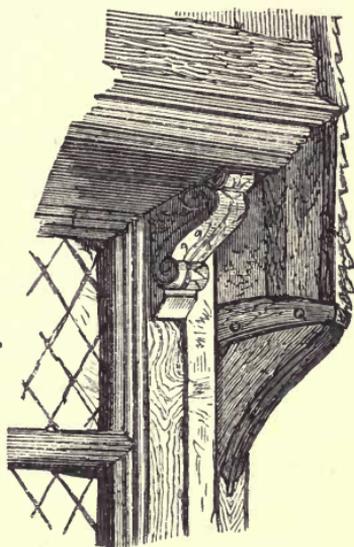
C. BAILY

ROOF OF THE HALL, GREAT TANGLEY, SURREY.

It is in four bays, of unequal widths, formed by three framed principals, with very massive tie-beams supported on the upright story-posts of the old outside framed back and front walls, with curved braces underneath, and supporting short king-pieces, with arched struts to collar and leon beams. This will be better understood by a reference to the above woodcut, showing the most perfect of the framed principals.

The large scantlings of the timbers we may here notice. The tie-beams in the centres measure 1 foot 8 inches deep, by 10 inches thick; these are cambered to a great extent, the natural bend of the tree being taken advantage of for this purpose. The braces beneath the ties are 4 inches thick. The king-posts are 9 inches square, and the arched struts measure 3 inches in thickness. The story-posts, which carry the ends of the tie-beams, measure 10 inches wide, by 9 inches thick, and are hollowed on the internal angles.

The upper part of the original hall extended over the *entrye*, where was the music-gallery, making the length in this part 29 feet, the width between the story-posts being 20 feet. That the original house extended in the length of the front beyond the upper end of the hall, there is positive proof; for the older timber-plate, with the circular bracket beneath it, which carried the jetty or overhanging floor of the upper story of the gable end, is left: it is shown in the wood-cut, as also the carved bracket, and the window-jamb adjoining to it, belonging to the front, erected A.D. 1582.



We have still remaining in the county of Surrey, two important examples of domestic chapels: the earlier is at Lambeth, and is the work of the first half of the thirteenth century. The windows, which consist of triplets of lancets, and the entrance, which has a semi-circular arch over a double doorway, are interesting in their way.

The later example is attached to the Archiepiscopal Palace at Croydon. Externally it is a plain building, principally of red brickwork: the badge of the cross keys and some figures of crosses are worked in black-headed bricks on the western gable. This room, which is raised on a basement, has for very many years been used as a schoolroom, and the interior is still kept in a very perfect state. It is divided by an open screen into two parts—the anti-chapel, with its gallery, and the chancel or choir, with the original desks and seats. This chapel, which is five bays in length, has a panelled ceiling in wood, slightly raised in the centre; beneath the tie-beams are arched timber braces, the mouldings of which are continued down the side walls, between the windows to the floor. The mouldings of the ceiling

and screen are bold in the sections, and the whole is a valuable example of the time of its erection, which was probably about the middle of the sixteenth century. There can be little doubt that the room in a manor-house which was fitted up for a chapel, was also very frequently used for domestic purposes.

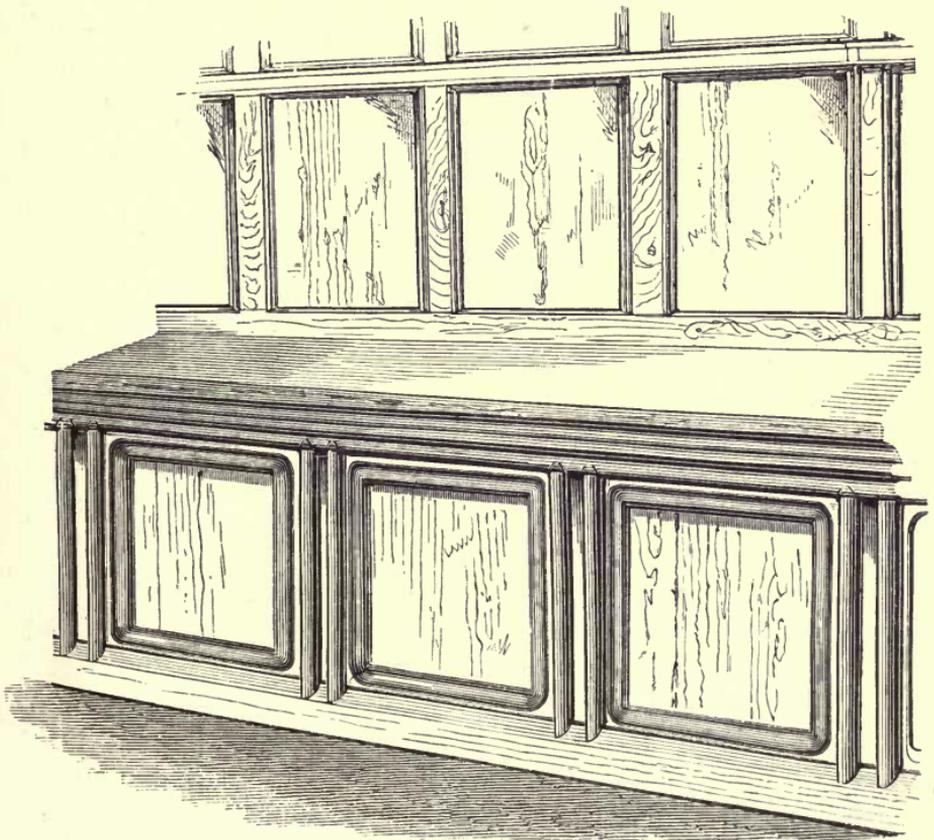
It is hardly necessary to state that manor-houses, as well as other establishments of importance, were nearly always surrounded with moats; not exactly as a fortification against military attacks, but more as a defence against ordinary vagrants and thieves. At Great Tangley, as well as at Crowhurst Place, the moat remains in a very perfect condition. At the latter house, the side of the building which contains the kitchen and offices rises directly out of the water. A great number of moats are to be seen round the old farm-houses in the counties of Surrey, Kent, and Sussex. At Hever Castle there were two moats, one outside the other; and situated between these is a very curious building of timber, of two stories, which appears to have been erected for a barracks, with a range of rooms above, over the stables below. The details show it to be a work of the first half of the sixteenth century, and it is not unlikely to have been erected for the accommodation of the attendants of King Henry VIII., when upon his visits to the Lady Anne Boleyn.

Towards the end of the reign of King Henry VIII., many timber-built houses were finished externally with a coat of stucco, either between the timbers in panels or entirely covering over the whole of the surface, and ornamented with bas-reliefs of foliage and other figured work. Examples of this kind of work, called pargetting, appear to have been more common in towns than in the country. Numerous specimens are to be seen at Maidstone, Ashford, Ipswich, St. Alban's, Saffron Walden, and Waltham Abbey, and at many other places; and throughout the county of Essex it was the practice even as late as the middle of the eighteenth century to cover the fronts of the wooden houses with a rough cast, and to score the surface with scrolls or wavy

lines, with smooth borders or styles round the outsides of the panels.

Judging from the few examples of the furniture of the fourteenth and the fifteenth centuries, which have been preserved to our own times, we are persuaded that it never could have been very plentiful; but we gain much information on this subject from the wills of persons who lived at the period now under consideration, and from the very curious inventories of their goods and chattels taken for the purposes of the probate duty, as well as from other old documents.

Much of the furniture, no doubt, was fixed to the building—such as the seats and benches; and we find at Crowhurst a long settee fixed to the upper end of the hall. This seat is quite as old as any part of the house;



DAIS SEAT AT CROWHURST PLACE.

the details of the mouldings agree exactly with those of the original doors, both of the external and of the internal entrances; and this is without doubt the seat belonging to the dais, the floor of which at Crowhurst appears not to have been raised above that of the other part of the hall, as was usually the case in the halls of most ancient houses. This seat is 1 foot 10 inches high from the floor of the hall, which is level with that of the *entrye*; and it is not likely that the floors of the *entrye* and of the lower part of the hall have been raised; and the short length of this apartment appears to be a good reason for keeping the whole floor on one level. The hall measures from the screen to the upper end 23 feet 5 inches, and from front to back 25 feet 8 inches in the clear.

Tables appear to have been of two kinds; those in the hall, and perhaps in the other large apartments, had the tops formed of long planks of timber, laid loose on massively-framed supports, or on trestles, and were probably so constructed to allow of being easily removed on occasions when great space was required.

In "Romeo and Juliet," old Capulet, at the masqued ball in his house in Verona, is made to say—

"You are welcome, gentlemen! Come, musicians, play.
A hall, a hall! give room, and foot it, girls.
More light, ye knaves; and turn the tables up."

Act i., scene 5.

In the will of Robert Tyrrold, of Hogbourne, dated January 16th, 1545, (see "Testamenta Vetusta," vol. ii. p. 786), is a curious bequest:—

Item. "To Davi vi pewet'r platters, a planke to make a table-bord w'h a payer of trostels."

We also read of joined tables and folding tables, which were most likely of a smaller size.

Fine tables on heavily-cut upright supports are to be seen in the old hall at Penshurst Place, in the dining-hall of Archbishop Abbot's Hospital at Guildford, and in the dining-hall of the king's scholars at Westminster.

These latter are of elm timber, and the tradition is that they were made of some of the ship timber from the Spanish Armada.

Previously to the sixteenth century, when at meals, the company appear to have been seated on long benches on one side of the tables only, and that side being next the wall, the side next the middle of the room was left unoccupied to the attendants for the purpose of serving. Several representations are still extant, showing this arrangement; that engraved on the brass of Robert Braunche and his two wives, in St. Margaret's Chapel, at King's Lynn, in Norfolk, dated A.D. 1364, is of the greatest possible interest; it represents a feast. A party of twelve, three of whom are ladies, is seated on one side of a long table spread with a cloth, and well covered with cups, bowls, dishes, and ewers, and in front of each guest is a knife. The seat, which has a high back with returns at the ends, is much ornamented with pinnacles and tracery, and appears to be placed close against the wall of the apartment, the decoration of which is a powdering of stars. The attendants are four females, two of whom serve dishes of birds, and a man, who appears to be in armour, kneels on one knee in front of the table, and is about to offer a choice dish. In attendance there are also five male musicians; three blow trumpets and two play on stringed instruments. The females, ladies as well as attendants, all wear dresses which fit tight to the body and arms, with long ample skirts, which train on the ground and cover the feet. The ladies wear also the sleeveless coat of the time of Edward III., and have their hair dressed in the style of the fourteenth century, with a veil or kerchief over the same. The male figures at the table appear to be in armour, and wear the tight surcoat over the same, the lower part of the shirt of mail appearing below the surcoat; the guests have long cloaks, and on their heads some wear the round top hats with the broad turned-up brims of the period: in costume these figures very closely resemble the brass of Ralph de Knevyngton, who died A.D. 1370, in Aveley church, Essex. One of the twelve

figures at the table is that of a man without a cloak, sitting in a very extraordinary manner astride the end of the table; he is receiving a dish from one of the servers, and may be intended for one of the attendants, or perhaps the fool or "jestour." The subject probably represents an important entertainment in which Robert Braunche himself took an active part. It appears he was twice mayor of Lynn.

Soon after the commencement of the sixteenth century the fashion of the guests occupying only one side of the table was changed, and in a carved medallion on a very fine ivory tankard now in the collection of Lord Londesborough, and marked with the letters D.M.L. and the date MDXXIII., is a representation of the Last Supper, in which the apostles sit on all sides of a square table.

This beautiful work, which is mounted in silver gilt, is traditionally said to have belonged to Dr. Martin Luther. It was purchased by the late Lord Londesborough of the late W. Elkington, of Birmingham. The initials and date are engraved on the lid. See "*Miscellanea Graphica*," plate 2, fig. 4.

Chairs, now so common and so necessary for our comfort, appear to have been articles of greater rarity in houses than in monasteries and churches, and it is very seldom we find mention made of more than one in any apartment, and that only for the use of the principal person.

In the inventory (see the "*Archæologia*," vol. xxi. p. 234) of the effects formerly belonging to Sir John Fastolfe, knight, in his house at Caistor, in Norfolk, there appear but eleven chairs altogether, whilst at the same time the knight possessed, in the same house, as much as 33,400 ounces of silver plate, besides some gold plate, and 5,500 ounces more which had been deposited in the Abbey of St. Bennet's-at-Hulme, and at the residence of Sir John at Bermondsey. Two of these chairs were in the old knight's own chamber:—

"Item, j longe Chayre.—Item, j grene Chayre."

In "Magna Aula" there were also two:—

"Item, j grene Chayre.—Item, j red Chayre."

And in "Aula Yemalis" were three more:—

"Item, ij Chayrys ffraungyd.—Item, j rede Chayre."

"Junyd Stoles" are more frequently met with, and these, with fixed settles and benches, probably formed the ordinary seats.

Previously to the Reformation chairs were of a very heavy and massive description, and partook more of the character of the throne, and very often had a head or canopy on the top: the term "*dais*" was often applied to such seats. With the exception of the Purbeck marble seat of the Archbishop at Canterbury Cathedral, the oldest chair in England is perhaps that of wood in the Chapel of St. Edward the Confessor at Westminster Abbey, executed by order of King Edward I., when that monarch brought the stone from Scone, in Scotland, upon which the early kings of Scotland had been crowned. This chair is ornamented with tracery, and decorated with gilding in the very highest style of art.

A fine fixed chair or seat of oak, with arms and a canopy, is still to be seen in a room called the heretic's chamber, in the roof of Chichester Cathedral: it is of the time of King Henry VIII.

A very important article of furniture was the cupboard. In early times it appears to have been simply a board on legs, and spread with a cloth, for the purpose of displaying the gold and silver cups, hanaps, and other plate, and articles of value; afterwards a locker became attached to it, as a safe depository for the property when out of use. In later times it was called a buffet, and it certainly was the original of our modern sideboard. The cupboard was not to be found in the hall only, but in some houses in many other rooms. For the better display of the plate and other valuables, the upper part was formed with stepped shelves, and the higher the rank of the owner the greater the number of the steps. In

France and Burgundy the court etiquette was, in the fifteenth century, that a dresser of five stages should be reserved for queens, of four for princesses and duchesses, three steps for countesses, two for ladies of bannerets, and one only for all other gentlewomen; but it is doubtful if such a rule ever prevailed in England.

In France it was called a *dressouer*, or *dressoir*, and afterwards a *crédence*, which word, as well as the Italian *credenza*, is derived from the Latin verb *credo*. The shelf on which are placed the sacred vessels used at mass, still to be seen in churches, is called the credence.

In later times the locker became the depository not only of the plate, but of all sorts of property. Many of these cupboards are still to be found in the old houses. Till within the last few years, there was a fine example at Clark's Farm, in the parish of Leigh, in Kent.¹ The upper parts were always covered with a cloth.

But of all the fittings of the interior, particularly of a timber-built house, the hangings of tapestry and cloths of arras must have been of very great importance; for whilst it gave a most furnished effect, it must have added the greatest amount of comfort to the apartments. The loam and clay stopping of the walls could have formed but a sorry defence against a north-east winter's blast; and the draughts which at times must have blown through the rooms can perhaps be better imagined than described.

Shakespeare alludes to the continual repair of the panels made of loam:—

“Imperious Cæsar, dead, and turn'd to clay,
Might stop a hole to keep the wind away;
O, that that earth, which kept the world in awe,
Should patch a wall to expel the winter's flaw.”

Hamlet, Act v., scene 1.

Tapestry was used to a very great extent, and most of the rooms and chambers had hangings of some sort or

¹ It is of the time of King James I., and is now in the possession of Charles F. Gregory, Esq., of Leigh.

other, which, if not covering the whole surface of the sides, at least hung on some part or other, and probably always covered the doors.

The subjects pictured on these hangings were taken from Scripture, from ancient or modern history, the writings of the classic poets, or from the Middle-Age romances. But sometimes these were figured with the coat armour and mottoes of the proprietors and of such families as were in any way connected with them.

The "*Clothis of Arras and of Tapstre warke*," enumerated in the inventory of the goods of Sir John Fastolfe,¹ before noticed, are numerous, and the descriptions very expressive. Amongst others there are—

"Imprimis, j Clothe of arras clyped the Schipherd's clothe.

Item, j of the Assumption of Oure Lady.

Item, j newe Banker of arras with a bere holdyng j spere in the middys of the clothe.

Item, j Tester of arras withe ij gentlewomen, and ij gentlemen, and one holdyng an hawke in his honde.

Item, j Clothe of ix conquerouris.

Item, j Cover for a bedde, of newe arras, and a gentlewoman beyng ther in the corner with a whelp in hir honde, and an Agnus Day [*Agnus Dei*] about hir nec.

Item, j Clothe, for the nether hall, of arras, with a geyaunt in the myddell beryng a legge of a bere in his honde.

Item, j Clothe of arras for the dese [*dais*] in the same halle, with j wodewose [*a wild man*]² and j chylde in his armys. [Perhaps the legend of St. Christopher.]

Item, j Clothe of the sege of Faleys³ for the west side of the halle.

Item, j Clothe of arras with iij archowrys on scheting a doke in the water with a crosse bowe.

Item, j Clothe of arras with a gentlewoman harpyng by j castell in myddys of the clothe. [This is from the Romance of Tristan de Leonnois, a favourite volume in the middle ages.]

¹ See *Archæologia*, vol. xxi. p. 257.

² The ancient family of Woodhouse of Norfolk bore for their crest a wild man, or "*Salvage Man*;" may not such have been called a "*Wodewose*" in consequence? We may easily imagine Woodhouse pronounced in country dialect as Wodeouse or Wodewose.

³ The town of Falaise surrendered to Henry V. in December, A.D. 1417, but the castle held out until the following February. Sir John Fastolfe was a commander in the king's army, and appears to have caused the siege to be commemorated by the tapestry here described.—See *Archæologia*, vol. xxi. p. 257.

- Item, j Clothe of arras withe a lady crowned, and j rolle about her hedde with A.N. lynyd with gray canvas.
 Item, j Banker of rede with iij white rosys and the armys of Fastolf.
 Item, j nothyr clothe of rede with v rosys sutly.
 Item, j Hallyng of blewe worstet, contayning in lenthe xiiij yerds, and in bredthe iij yerds.¹
 Item, j Hallyng of rede worstet, contayning xiiij yerds.
 Item, ij Clothis of arras for the chamboure over the nether halle, of huntyng & of haukyng.
 Item, a Coveryng of a Bedde of Aras, with hontyng of the bore a man in blewe with a jagged hoode, white and rede."

In "Magna Camera ultra aulam Estevallem"—

- "Item, j Tester withe one gentlewoman in grene, taking a mallard in hir hondes.
 Item, j Covering with j geyaunt smytyng a wild bore withe a spere.
 Item, j Clothe of arras of the Schipherds.
 In the Chamboure sumtyme for Stephen Scrope, hangyng clothys portrayed with the Schipherds.
 Item, j Clothe hangyng of Schovelers." (Probably a representation of the game of shovel-board.)

In "Aula Yemalis"—

- "Item, j clothe of arras of the morysch daunce." (This was probably the Moorish or morris dance.)

Tapestry has been in use from very early times; but with the exception of that highly valuable monument of the eleventh century, the Bayeux tapestry, we know of no examples of an earlier date than the time of King Henry VI. In the long gallery at Hardwick Hall, in Derbyshire, and within the "entrie" of the great hall of Hampton Court, in Middlesex, there are still hangings which may be of this time. And on the north end of St. Mary's Hall, Coventry, above the dais, is some very fine and interesting tapestry, which occupies the space below the window-sills, and which measures 30 feet long by 10 feet high. The compartment in the middle, now much defaced, appears to represent the Almighty, with other sacred objects. To the left of this is seen King Henry VI., with his court, occupied in prayer. Behind

¹ The Hall at Caister, according to William of Worcester, was 59 feet in length and 28 feet in breadth.

the king stand several figures ; one a nobleman, who is, without doubt, intended for the king's uncle, Humphrey, the good duke of Gloucester ; and another for Cardinal Beaufort, in his scarlet hat and robes. Over the heads of these are saints (their patrons) and some emblematical figures.

On the other side of the central compartment is the queen, Margaret of Anjou, with the ladies of her court, also praying. The figure behind the Queen tradition says represents the Duchess of Buckingham.

It appears that most of the habitable rooms of a good house had hangings of some sort or other, although sometimes these were of a common description. In "AN INVENTORY INDENTID of the goddes and cattals of Robert Brent esquier late of Willisborough in the countye of Kent deceased taken the xxixth daie of January Anno dni 1566,"¹ we find, in a house of thirty rooms, including eight offices, that many of those rooms had hangings, and that those "IN THE GREATE PARLOR" were "*the hangings of the Plo^r of redd and grene Saye and a Storye of Adam and Eve.*" The hangings in the other rooms of the same house are described as "*Steyned hangings,*" as "*olde hangings of redd and yellow,*" and as "*hangings of grene Saye,*" which is supposed to mean serge, from Ghent, or Flanders. In the *Second Part of King Henry VI.*, Jack Cade taunts the Lord Say, taken prisoner by the rebels :— "Ah, thou say, thou serge, nay, thou buckram lord ! now art thou within point blank of our jurisdiction regal" (act iv. sc. 7).

In the decoration of their houses our ancestors were certainly fond of ornament. The whole of the furniture was of the very richest materials, and all the ornament which the talent of the architect could design, and the crafty skill of the workman could execute, was bestowed upon it ; and yet with all this love of ornament there was nothing of a meretricious character about it. In the furniture, as in the architecture, a grand conventionality

¹ This is a very curious and interesting document ; the original parchment roll belongs to Mr. Deputy Charles Reed, F.S.A., &c., who kindly lent it to me.—C. B.

of feeling appears to have governed all. In the buildings themselves the construction was ornamented, and not the ornament constructed. In the old inventories we seldom find articles enumerated which were ornamental without being useful, except in the instance of the ornamental gold and silver plate. It was in this that great ostentation amongst the upper grades of society was displayed. Amongst the effects of Sir John Fastolfe, at Caistor, however, we find in the chamber of the Lady Milicent Fastolfe,¹ "Item, ij lyttyll ewers of blew glasses powdered withe golde;" and "in the lyttle parlor" in the house of "Robert Brent, esquier, late of Willisboroughe," the furniture is all of the ordinary description, except as to the last item, which is very amusing. It consists of—

"Imprimis, a joynd bedstead with an old tester, one fether-bedd, a payre of blanquetts two bolsters two pillowes, a cupboard, two old stayned hangings, a chamber pott, one andyron a payre of tongs with certain *trumpery* iiij^{li}."

Previous to the reign of King Henry VIII., pictures, except paintings executed on the walls, are rarely met with; afterwards they appear more frequently; but even as late as the time of Elizabeth the pictures were principally portraits, and were rarely found except in the houses of the wealthy. Robert Brent possessed—

"In the Chamber ov^r the greate parlor.

"Two small tables thone conteyninge the picture of Quene Mary thother the picture of our sov^eigne ladie the Quenes ma^{ti} that nowe is"—

which with the furniture of the room were valued at vij^{li}.

Of mural paintings probably the most extensive instance was at the palace of Westminster, where the very name given to the apartment, "The Painted Chamber," proves the great rarity of such pictures.

¹ She was second daughter and co-heiress of Robert Tibetoft, and was first married to Sir Stephen Scroope, and afterwards to Sir John Fastolfe, in whose lifetime she died without issue by him.

In the feudal times, before the wealth of commerce had asserted its pretensions against the claim of our old nobility and gentry to exclusive homage, every advantage was taken of the opportunity afforded by the glazing of the windows to display in stained and painted glass the heraldic insignia of the family of the founder, and of his connections. Shakespeare makes Bolingbroke reproach King Richard's minions:—

————— “ You have fed upon my signories,
 Dispark'd my parks, and fell'd my forest woods ;
From my own windows torn my household coat,
 Raz'd out my impress, leaving me no sign,—
 Save men's opinions, and my living blood—
 To show the world I am a gentleman.”—

King Richard II., Act iii., scene 1.

The windows of the old hall of Ockwells manor-house were, to within a few years of the present time, glazed with many coats of arms, coeval with the original building, the colours of the glass being distinct and vivid. Among which were the arms of King Henry VI., with the antelopes, his supporters, and the motto *Dieu et mon droit*; of his queen, Margaret of Anjou, with her supporters, the antelope and the eagle, and motto *Humble et loyall*; of Norreys, with beavers for supporters, and motto *Ffeythfully serve*; of the Abbey of Westminster; of Beaufort, Duke of Somerset; of Edmund, Earl of March; of Henry, Duke of Warwick; of De la Pole, Duke of Suffolk; of Sir William Beauchamp; of Lord of St. Amand; of Sir William Lacon, of Bray, Chief Justice of the King's Bench; of the Lord Wenlock; of Sir Richard Nanfan, captain of Calais; of Sir John Pury Kent, of Chamberhouse Castle, in the parish of Thatcham, Berks; and of Bulstrode, quartering Shobingdon. The last was probably intended for Richard Bulstrode, esq., one of the builder's executors. The royal arms were surmounted by highly bowed crowns, the others by crests and lamberskins. The mottoes were several times repeated in old text character, in diagonal lines across the window-lights, the quarries of the back-ground being powdered with yellow flowers.

This interesting glass was removed a few years ago to another house.

Much painted glass—consisting of coats of arms, badges, and other figures—is still preserved in many of the windows at Sutton Place, near Guildford. Amongst which is the curious rebus of the Weston family, which was interpreted and explained for the first time by Mr. William Henry Black, F.S.A., upon the occasion of the visit of the members of the Surrey Archæological Society on July 7th, A.D. 1864. It appears also on many parts of the exterior executed in terra cotta. It is a vine-leaf with a bunch of grapes, in conjunction with a barrel or tun. Mr. Black reads it in Norman French. The grapes as UVES; the UV in which is equal to double V, or W. UVES thus becomes WES, and the tonne or tun completes the name WESTON.

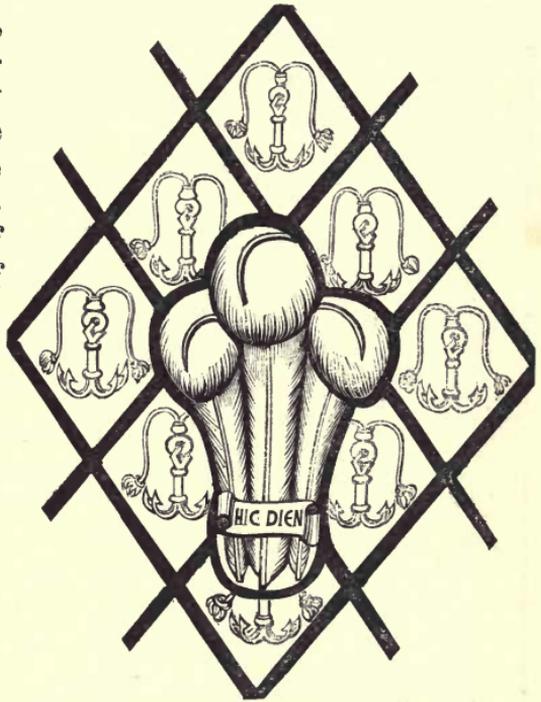
A ridiculous story is told respecting these figures. The people in the neighbourhood of Sutton Place say that Sir Richard Weston was brewer to King Henry VIII., and that the grapes, which they call a bunch of hops, and the tun, are allusive to the fact; but the truth is that Sir Richard Weston held a higher position: he was Lord Chamberlain to the king.



COAT OF WAKEHURST.

There are still remaining at Crowhurst Place some old shields of arms in stained glass, which were once part of the glazing of the old windows. On one of these shields is the coat of Gaynesford, Argent, a chevron gules between three greyhounds, statant sable; and also of Poyle, Argent, a saltire gules, within a bordure of pellets Or impaling Wakehurst, Gules, a chevron engrailed argent between three falcons argent, and relates to Sir John Gaynesford, whose mother was Margaret Poyle, and who married Anne Wakehurst. He died A.D. 1460, and is buried on the south side of the chancel of Crowhurst Church. In another shield the coats of Gaynsford and Poyle impale Covert, gules, a fess ermine

between three martlets Or, and refers to another Sir John Gaynesford, the sixth of the name, whose first wife was Katherine Covert, and who dying A.D. 1543, was buried at Guildford. In a window on the staircase at the back of the hall are the three ostrich feathers of the Prince of Wales, on the quills of which are the words, HIC DIEN, intended for ICH DIENE; and on each quarry of the glazing is the badge of the Gaynesfords, the grapnel with double flukes.



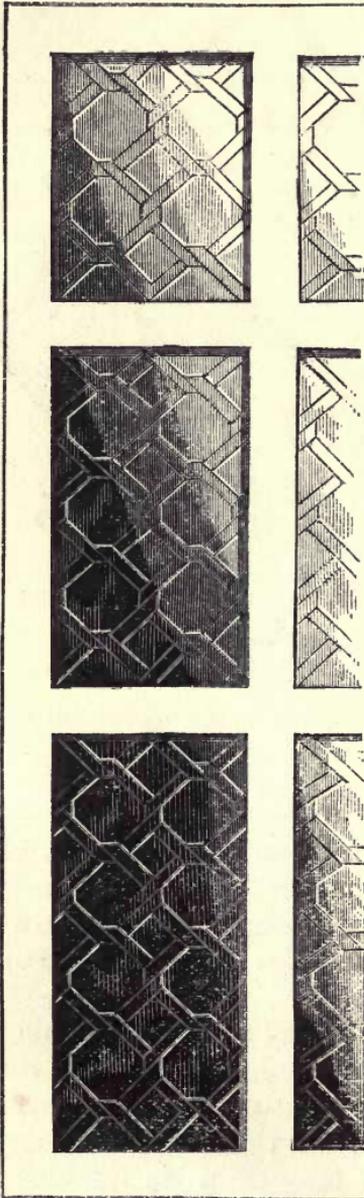
PAINTED GLASS QUARRIES, CROWHURST PLACE, SURREY.

Except the plain lozenge-work, it is not often that we find in the south of England an original glazing of plain glass remaining. We are enabled, however, to give an example from an old house at Salisbury, from a sketch made in the year 1843; and it may not be out of place here to remark that the original glazing of the windows of the room over the Temple Bar, London, still remains.

In Lancashire and in Cheshire many of the old timber houses still retain much of the original glazing of the windows. At Little Moreton Hall, situated about three miles to the south of Congleton, in the latter county, the several windows give us no less than six different patterns of glazing in leaded lights.

In the cornice over the great bow-windows of the hall, and of the withdrawing-room, each of which in the plan is enclosed by five sides of an octagon, are the

following inscriptions, carved in the woodwork, together with the arms and crest of Moreton :—



GLAZING AT SALISBURY.

“God is al in al thing.—This windows whire made by William Moreton in the yeare of oure Lorde MDLIX.

Rycharde Dale Carpeder made thies windows by the grac of God.”

Until of late years, glass has at all times been a very costly material, and it has often been asserted that many of the windows of the houses of the twelfth, thirteenth, and even of the beginning of the fourteenth centuries were left unglazed, and closed against the wind and the weather only by wooden shutters. The existence, however, of the iron hooks, of the hinges, or of the shutters themselves, is not sufficient evidence that the windows were not glazed or filled with some other material which would let in light; and it is somewhat strange that it is often the windows of the principal rooms in very important buildings where these shutters are still to be found; such as the hall of the Bishop's Palace at Lincoln, and the hall of Winchester Palace; and if any portion of a window, for the sake of economy, was left unglazed, that part would more likely be the

upper lights rather than the lower, inasmuch as the inclemency of the weather would be in that case less

felt than if the lower lights were open. It is however quite certain that sometimes other material than glass was used.

In an old account among the MSS. preserved at Loseley House, in Surrey, of the time of Henry VIII., we have the entry for two hundred of horn "occupied at Cobham Park, in reparynge of wyndowes at the settinge up of the kyngs majesties howses ther, at 3s. 10d. the hundred, 7s. 8d." Another item is for "a thousand of lantern horns for the windows of timber houses;" but the timber houses here mentioned appear to refer rather to temporary edifices in the field, prepared under the direction of Sir Thomas Cawarden, master of the king's revels, tents, hales (halls), and toyles. Another for "gilding the lead or lattice-work of the horn windows." These notices prove that horn was a material much employed for the transmission of light through the windows of our ancient houses. See Kempe's Loseley MSS., pp. 15, 103.

We conclude these notes with schedules of the prices of materials, and the accounts paid to the different classes of artisans for wages, at three periods of English history, and which throw much light on the subject of building in the middle ages.

First, in the years 1367-8-9 certain works were performed at the Royal Castle of Rochester, and we learn from the fabric-roll, printed in the "Archæologia Cantiana," vol. ii. p. 3, that—

Beer freestone cost from 9s. to 10s. per ton; Caine (*Caen, in Normandy*) freestone, 9s. per ton; and that Henry de Yeflee¹ received for 13 tons of Stapleton freestone, 8s. per ton. Reygat (*Reigate*) freestone cost 6s. per ton, and freestone from Farlegh (*said to be Fairlight, in Sussex*), 3s. 4d. per ton. Large pieces of stone from Bocton (*Boughton Monchelsea*), for lintels, cost

¹ This Henry de Yeflee or Yeveley was one of the architects for rebuilding the walls and stonework of Westminster Hall, and with his partner Stephen Lote was contractor for the marble tomb erected by King Richard II. in Westminster Abbey. See *Transactions of the London and Middlesex Archæological Society*, vol. ii. p. 259, &c.

3s. 6d. the piece. Stones called nowel (*newels for winding-stairs*), 2s. and 2s. 6d. each. Stones called crests (*coping-stones*), 12d. to 16d. per foot. Stones called Lermer (*stones worked with a projecting moulding to form a drip*), 12d. per foot. Stones called spaces (*coping-stones for the intervals, or spaces between the battlements*), 8d. per foot. Stones called tablement (*strings, cornices, and plinths*), 6d. per foot. Stone called "Parpeincoins" (*squared stones, extending across the face of a buttress, so as to form the coin at each angle*), 5½d. per foot. Stones called "Senassheler" (*squared stones with one face worked sloping, or askew, such as the set-off of a buttress*), 20s. per 100 feet. Stone called "Paas" (*the landing of a stairs, or flat paving-stones*), 20s. per 100 feet. Stone called "Squarassheler" (*square-ashler, worked stone for facings*), 16s. per 100 feet. Stone called "Pavement" (*paving stones*), 8s. per 100 feet. Rag-stone cost 3½d. per cart-load. Squared chalk, 10s. per yard (*probably per cubic yard*). Block chalk, 3d. per ton. Tiles (*query, plain tiles*), 3s. 8d. per 1,000.

It is worth noticing that the lime was burnt with sea coal,—10s. 6d. per hundred was paid for the labour of burning the same, and the coals cost 20d. per quarter.

All articles of metal appear to have been very costly. The ironwork is charged at 2d. per lb., steel, 8d. per sheaf. "Wrest laches" of tinned iron, with their furniture, for the doors of the castle, 5½d. each, and tinned iron rings, with their furniture (*probably for the latches*), 4d. each. The locks for the castle doors cost 17d. to 24d. each. Tin for making the joints in the lead pipes is charged at 3d. per lb., whilst that for tinning ironwork, &c., cost 4½d. per lb. (*the former at 3d. per lb. was probably mixed with lead for solder, and that at 4½d. per lb. was probably pure tin, which will account for this great difference in the price*); but the nails of all the ironwork are perhaps the most costly articles; they are charged from 5d. to 18d. per hundred, these latter being "*great iron nails, called spyking*;" 1,000 tinned iron nails for the doors of the castle cost 8s., and 2,000 for the windows, 9s. 6d.

With respect to the wages of artisans, we learn from the same document that the director of masons received 8*d.* per day, and the ordinary masons 5*d.* to 6*d.* per day. Setters, 3*d.* to 6*d.* per day. Carpenters had 3*d.*, 4½*d.*, 5*d.*, and 6*d.* per day. Smiths, 6*d.*, and plumbers 4*d.* and 6*d.* per day. For the carriage of material, carters, with their own carts, had 8*d.* to 10*d.* per day, and labourers 2*d.* to 4*d.* per day.

In the Rochester city records we have a few entries which show that in about two centuries after the date of the before-mentioned charges—viz., in A.D. 1578—the wages of workmen had increased very considerably; in fact, more than one hundred per cent.

“Charges bestowed upon the ascehowse.

“Item, P^d to Thomas Sabine and his fellowe, for j dayes worke for to saw rafters for the same howse ij^s.

Item, for iij dayes work to John Nicholles iij^s.

Item, P^d to Thomas Ffoule, masone, for ij dayes worke upon y^e towne keaye ij^s. iiij^d.”

Iron-work still remained at twopence per lb.

“Item, P^d to Thomas Waller, for iij ringells and iij thimbles of iorne, wayeing xlviij^{lb}, at ij of the pownde.”

Oak timber is charged at about 2¾*d.* per foot.

“Item, for xxvii^{te} foote of oaken timber, for two susters for the stayers belonginge to the Towne Keaye and for a plank for the foote vij^s. vi^d.”

On the 28th day of April, A.D. 1610, the rates of wages were assessed at Okeham, in the county of Rutland,¹ by the Justices of the Peace, and from which it appears that—

					With Meat.	Without Meat.
A chief joiner was to receive by the day—						
Before Michaelmas	...	...	...	6 <i>d.</i>	12 <i>d.</i>
And from Michaelmas to Easter	...	...	...	4	8
A joiner's apprentice which hath not served four years, his wages—before Michaelmas				
From Michaelmas to Easter	...	...	...	4	8
				3	6	

¹ See *Archæologia*, vol. xi. p. 202.

				With Meat.	Without Meat.
A master sawyer—before Michaelmas	...	...	...	6d.	12d.
After Michaelmas	...	...	...	4	8
A plowwright—before Michaelmas	...	...	...	5	10
After Michaelmas	...	...	...	4	8
A thatcher—before Michaelmas	...	...	...	5	9
After Michaelmas	...	...	...	4	8
A freemason, which can draw his plot, work, and set accordingly, having charge over others—					
Before Michaelmas	...	...	...	8	12
After Michaelmas	...	...	...	6	10
A rough mason, which can take charge over others—					
Before Michaelmas	...	...	...	5	10
After Michaelmas	...	...	...	4	8
A master carpenter, being able to draw his plot, and to be master of work over others—					
Before Michaelmas	...	...	...	8	14
After Michaelmas	...	...	...	6	10
An expert carpenter—before Michaelmas	...	...	...	5	10
After Michaelmas	...	...	...	4	8
A bricklayer—before Michaelmas	...	...	...	5	9
After Michaelmas	...	...	...	4	8
A tyler or slater—before Michaelmas	...	...	...	5	10
After Michaelmas	...	...	...	4	8
A tyler's, or slater's, or bricklayer's apprentice—					
Before Michaelmas	...	...	...	3	7
After Michaelmas	...	...	...	2	6

It appears, by the high constable's catalogues of persons hired at the statutes from 1626 to 1634, that the rate of wages above set down was then complied with.

By the statute made in the fifth year of the reign of Queen Elizabeth, chapter the fourth, these following rules are enacted:—

“That refusors to serve for the wages appointed are to be imprisoned.

“That all artificers and labourers, being hired by the day or week, shall, betwixt the middle of the months of March and September, be, and continue, at their work att or before five of the clock in the morning, and continue at worke, and not depart vntil betwixt seuen and eight of the clocke att night, except it be in the times of breakfast, dinner, or drinkinge; the which times at the most shall not excede above two houres and a halfe in the day; that is to say, att euery drinkinge an half hour; for his dinner an hour; and for his sleepe, when he is allowed to sleepe, the which is from the midst of May to the midst of August, halfe an houre at the moste; and at every breakfast an halfe hour; and all the saide artificers and labourers, between the midst of September and the midst of March, shall be, and continue, att their worke from the springe of the day in the morninge untill the night of the same day,

except it be in the time above appointed for breakfast and dinner, uppon to looss and forfeit on penny for every hour's absence; to be deducted and dealt out of his wages that shall soo offend.

“That euery person giuinge above the wages appointed, shall suffer ten days imprisonment, and forfeit five pounds.

“That every person taking above the wages appointed, shall suffer on-and-twenty days imprisonment.

“That every retainer, promise, gift, and payment of wages contrary to the statutes, is utterly voide, and of none effect.”

The question has often been raised as to the kind of timber which was used in these old wooden buildings. It is a common opinion, even with practical men, that it is chestnut; but it is much more likely to be oak. There is great difficulty in distinguishing between these two sorts of timber, particularly after they have been a long time in use, and especially where oak imported from the Continent has been employed. There are two rules, however, which may infallibly be relied on. The one, whenever the feather appears on the surface we may be sure that the timber is oak: this figure is occasioned by cutting through longitudinally what is technically known as the quarter-grain, and which appears in the transverse section of an oak-tree in thin lines radiating from the centre pith; and the quarter-grain does not exist in chestnut. The other rule is, whenever iron bolts or nails have been inserted into oak timber, in anything like a green or unseasoned state, the sap of the oak acting upon the iron occasions a black stain in the wood; this is never the case with chestnut.

It is, however, very probable that chestnut, as well as all other sorts of native timber, was sometimes used, but not in large quantities, for there are few districts of England where chestnut timber grows in anything like a natural state, but oak is indigenous to our soil. Chestnut is seldom mentioned in old documents; and in the fabric roll of Rochester Castle, as well as in the Rochester city records, the timber mentioned is chiefly oak and “*oken timber*,” with small quantities of “*estrichboards called wainscot*,” and twenty-eight “poplar boards,” which latter cost 3s.