

Scarf-joints in the North Berkshire and Oxford Area

By C. R. J. CURRIE

THE research of Mr. C. A. Hewett in Essex and East Anglia¹ has demonstrated the importance of studying joints when examining timber buildings and the roofs of stone ones. Though tying joints are often hard to investigate, scarf-joints, which integrate the ends of two longitudinal members, are often visible in purlins and, less frequently, in wallplates.

It is now clear that the types of scarf-joint used in this area, and their chronological sequence, differ notably from those found in Eastern England.² In a recent article³ Dr. J. M. Fletcher has mentioned several types of scarf found in the Oxford region, and the object of this paper is to give the results of a wider survey, including examples. A list is provided of buildings examined in the Oxford area dating from the 13th to the 18th century, with the scarfs used in them. This list can only be regarded as provisional, but the sample is large enough to suggest that it is unlikely that the picture of the frequency and date-range of the commoner joints is substantially incorrect. The dates given are in most cases approximate, based on structural typology, plan types, mouldings and other decorative details. Where a firm date is given there is good documentary or inscriptional evidence for it. In some cases (marked R in the list) radiocarbon determinations have been obtained. For the Berkshire buildings evidence from probate inventories and other historical sources makes it probable that the general typology is roughly correct. Since in most stone buildings the wallplates cannot be seen, and as in many Oxfordshire structures the purlins are butted and hence not scarfed, the list is inevitably Berkshire-oriented. Some buildings from other areas have been included for comparison.

Figure 1 gives sections through a plate and a purlin to explain the conventions used. Strictly speaking, a purlin has no soffit, and the face is the better and broader side of the timber.⁴ Since, however, purlins are often square in section, the terms have been used as shown to avoid confusion.

Building	Member	Date
1. <i>Through-Splayed on Edges</i>		
Wellshead Farm, Harwell, ⁵ north range (R)	Collar-purlin	Early 14th cent.
83-5 The Causeway, Steventon (R)	Ridge	c. 1280 or renewed
Hendred House, East Hendred, south wing	Ridge	Mid to late 14th cent.

¹ C. A. Hewett, *The Development of Carpentry, 1200-1700* (1969), and articles there cited.

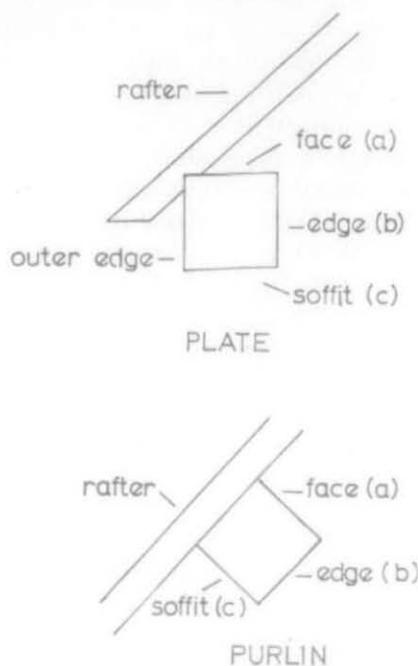
² Hewett, *op. cit.*, 171-88. See also S. E. Rigold, 'Some Major Kentish Timber Barns', *Archaeologia Cantiana*, LXXI (1966), 1-30.

³ 'Crucks in the West Berkshire and Oxford Region', *Oxoniensia*, xxxiii (1968), 73-4.

⁴ Hewett, *op. cit.*, 12.

⁵ J. M. Fletcher, 'Three Medieval Farmhouses in Harwell', *Berkshire Archaeological Journal*, 62 (1965-6), 45-66.

Building	Member	Date
Elm Close Cottage, Drayton, Berks	Wallplate	Medieval
Camoy's Court, Chiselhampton ⁶	Bridger	17th cent.
2. <i>Splayed and Tabled, Trait de Jupiter</i>		
Little Chesterford Manor, Essex, ⁷ east wing	Bridger	c. 1225
Harwell Church, Nave ⁸	Collar-purlin	13th cent.
Lime Tree House, Harwell, Hall ⁹	Collar-purlin	1297-8
Lime Tree House, Harwell, Hall	Arcade plate	? 1297-8
Merton College, Aula Custodis ¹⁰	Roofplate	1299-1300
Middle Farm, Harwell, south wing	Wallplate	Late 13th cent.
Camoy's Court, Chiselhampton	Collar-purlin	c. 1318
Manor Cottage, Sutton Courtenay	Wallplates	Early 14th cent.
42-42A High Street, Milton, Berks	Roofplate	Early 14th cent.
Old Vicarage, Steventon, west wing ¹¹	Collar-purlin	Early 14th cent.
East Hendred Church, Nave ¹²	Collar-purlin	14th cent. or renewed



CONVENTIONS

FIG. 1

⁶ *Victoria History of the County of Oxford*, vii, 7.

⁷ Hewett, *op. cit.*, 37; M. E. Wood, 'Thirteenth-century Domestic Architecture in England', *Archaeological Journal*, cv, Supplement (1950), 20.

⁸ J. M. Fletcher and P. S. Spokes, 'The Origin and Development of Crown-post Roofs', *Medieval Archaeology*, viii (1964), 152-83.

⁹ It is hoped that Dr. Fletcher will shortly publish a full description of this house.

¹⁰ J. R. L. Highfield, 'The Aula Custodis', *Postmaster*, 1970, 14-22.

¹¹ This was removed during alteration, 1966-7; information from J. M. Fletcher.

¹² See note 8.

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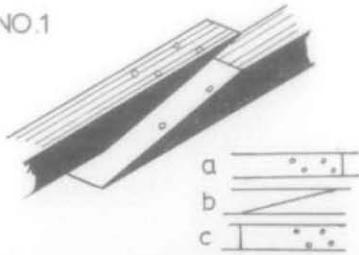
	Building	Member	Date
2.	<i>(continued). Splayed and Tabled, Trait de Jupiter</i>		
	South Moreton Manor	Roofplate	Mid 14th cent.
	Charlton-on-Otmoor Church, Nave	Ridge	Late 14th cent.
	26 Ship Street, Oxford	Collar-purlin	c. 1400
3.	<i>Through-Splayed on Face and Soffit</i>		
	Great Coxwell, Tithe Barn (R) ¹³	Purlins	13th cent.
	39 The Causeway, Steventon	Purlin	Mid 14th cent.
	Charlton-on-Otmoor Church, Nave	"	Late 14th cent.
	Hendred House, south wing	"	Mid to late 14th cent.
	Middle Farm, Harwell, Cruck Barn (R) ¹⁴	"	c. 1350
	Godfrey's Farm, East Hendred	"	c. 1400
	Sutton Courtenay Manor, Hall	"	"
	" " " "	"	"
	north wing,	"	"
	Abbey Timbers, Harwell, Hall	"	"
	Penny Green, East Hendred	"	15th cent. or later
	Old Farm, Steventon, kitchen block	"	Late 17th cent.
	87 The Causeway, Steventon, west block	"	c. 1700
4.	<i>Secret-Splayed on Face, Soffit Lip, skewed pegs</i>		
	83-5 The Causeway, Steventon	Purlin	c. 1280 or renewed
	Hickman's Cottages, East Hendred	Purlins	c. 1450
	Ewelme Almshouses (probable)	Purlin	1452
	Beam Hall, Oxford	"	c. 1500
	87 The Causeway, Steventon	Purlins	c. 1500
	Manor House, West Hendred	Purlin	Late 17th cent.
	Sparks Farm, East Hendred, south extension	Purlin	"
	Coulings, East Hendred, west range	Purlin	Late 17th cent.
5.	<i>Stop-Splayed</i>		
	Great Coxwell, Tithe Barn	Roofplates	13th cent.
	North Hinksey Church, Chancel	Tiebeam	Modern
	South Moreton Manor	Wallplate	Mid 14th cent.
	Godfrey's Farm, East Hendred	Wallplate	c. 1400 or renewed
	Old Vicarage, Steventon, west wing	Bressummer	? early 14th cent.
	46 Park Town, Oxford	Purlin	Victorian
6.	<i>Edge-Halved and Face-Pegged</i>		
	Barley Barn, Cressing Temple, Essex (R) ¹⁵	Top plates	c. 1200
	Lime Tree House, Harwell, Hall	Arcade plate	? 13th cent.
	Lime Tree, House, Harwell, south wing	Collar-purlin	14th cent.
	Hickman's Cottages, East Hendred	Wallplates	c. 1450

¹³ Hewett, *op. cit.*, 183.

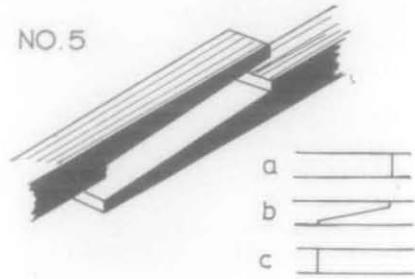
¹⁴ See note 3.

¹⁵ Hewett, *op. cit.*, 171.

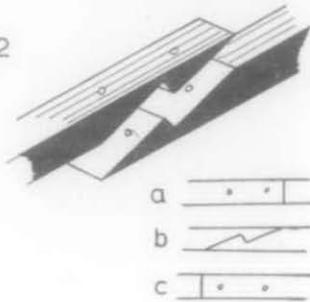
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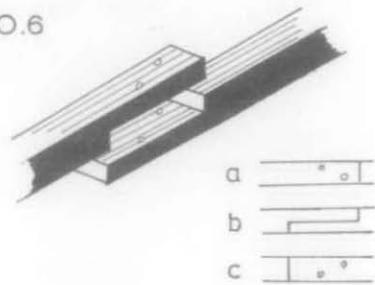
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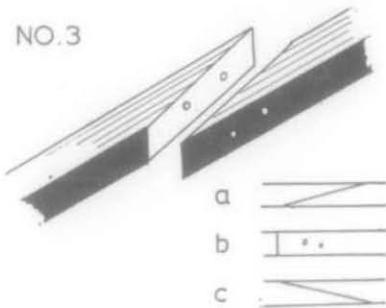
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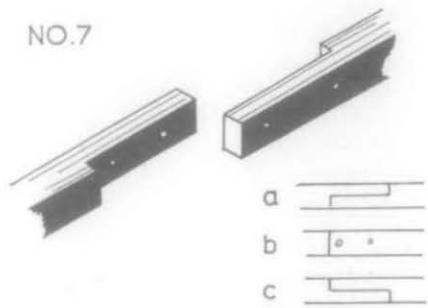
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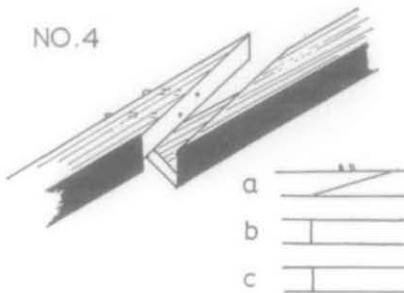
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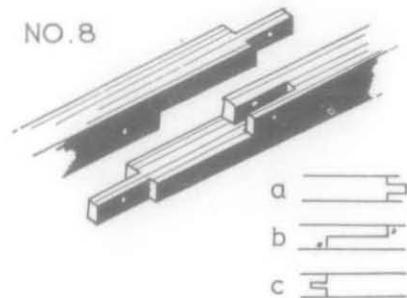


FIG. 2

SCARF-JOINTS IN NORTH BERKS. AND OXFORD AREA 181

6. (continued). *Edge-Halved and Face-Pegged*

Building	Member	Date
Briar Cottages, Cat Street, East Hendred	Wallplates	15th cent.
Church Street Cottage, East Hendred	"	c. 1550
Holywell Manor, Oxford	Purlin	1516
11 Pettiwell, Garsington	Bridger, over post	Late 17th cent.
Spark's Farm, East Hendred, south extension	Wallplate	Late 17th cent.
? The Priory, Steventon, Prior's Chamber	Wallplate	? before 1337

7. *Face-Halved and Edge-Pegged*

Causeway Farm, Steventon	Purlin	Late 17th cent.
11 Pettiwell, Garsington	Purlin	Late 17th cent.

8. *Edge-Halved and Doubly Bridled*

Old Vicarage, Steventon, west wing	Wallplate	Early 14th cent. or renewed
Barn, Cherhill, Wilts ¹⁶	Plate	Early 14th cent.
Abbey Timbers, Harwell, Hall	Ridge	c. 1400
" " " "	Wallplate	"

9. *Secret-Bridled, with edge-pegs*

(i) With vertical butts		
(ii) Squint-butted		
(iii) Squint-butted and Face-Splayed		
New College, Oxford, Long Room (i)	Collar-purlin	c. 1402
New College, Oxford, Barn (i)	"	"
Old Rectory, Coningsby, Lincs. (ii) ¹⁷	"	c. 1400
28 Cornmarket, Oxford (i)	Bressummer	15th cent.
Middle Farm, Harwell, thatched outhouse (i)	Wallplates	15th cent.
Uptown Farm, Sutton Courtenay, barn (i)	Purlin	15th cent.
83-5 The Causeway, Steventon (i)	Wallplate	? 15th cent.
The Stores, East Hendred (i)	Wallplates	c. 1500
" " " " (i)	Purlins	"
Windyridge, East Hendred (i)	Wallplates	c. 1520
Abingdon Abbey, Long Gallery (i)	Purlin	Early 16th cent.
Green Farm, Steventon (i)	Purlin	c. 1540
77-81 The Causeway, Steventon (i)	Purlins & Plates	c. 1540
Wellshead Farm, Harwell (ii) (R)	Wallplate	c. 1550

¹⁶ S. E. Rigold, 'The Cherhill Barn', *Wiltshire Archaeological and Natural History Magazine*, LXIII (1967), 63.

¹⁷ M. W. Barley, A. Rogers, P. Strange, 'The Medieval Parsonage House, Coningsby, Lincolnshire', *The Antiquaries Journal*, XLIX (1969), 346-67.

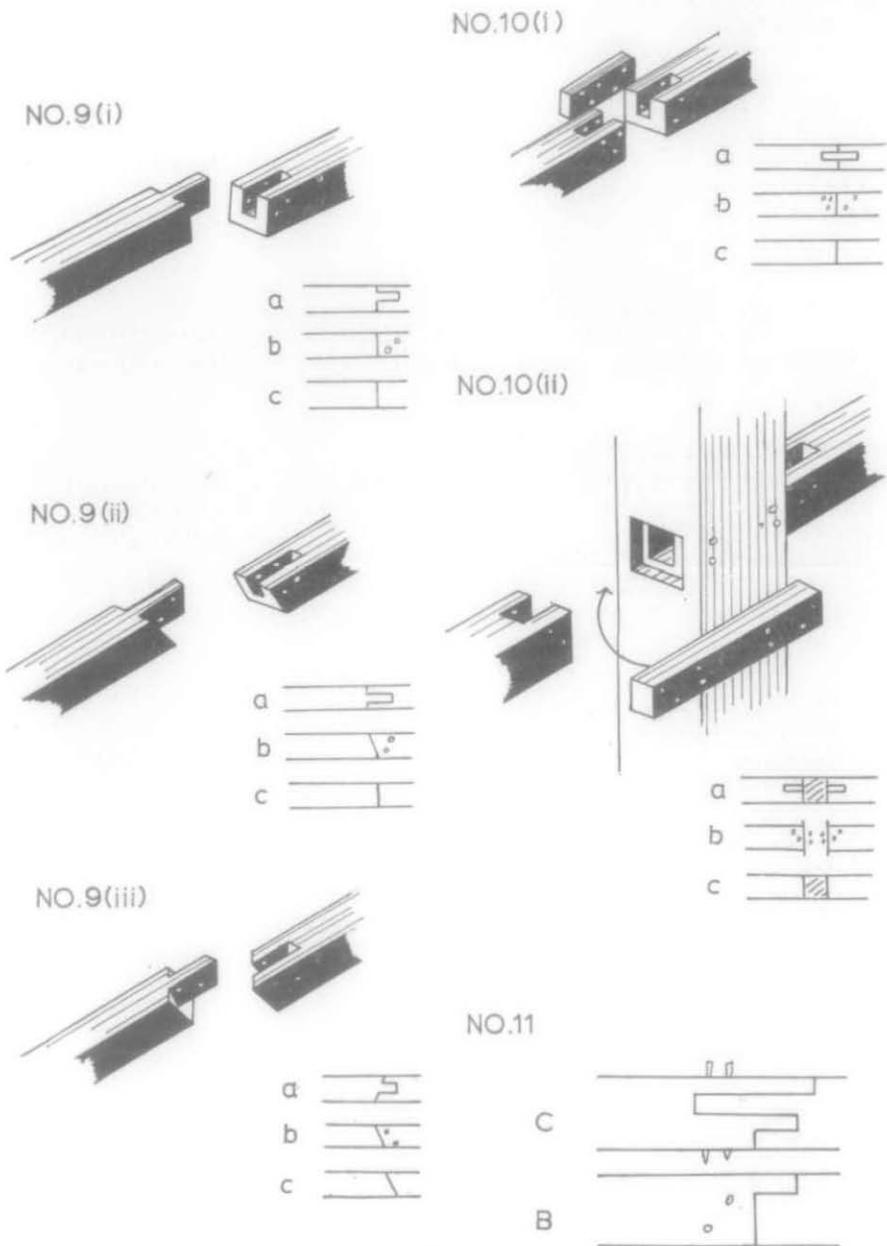


FIG. 3

Building	Member	Date
9. (continued). <i>Secret-Bridled, with edge-pegs</i>		
Old Vicarage, Steventon, Hall (i)	Wallplates	c. 1560-70
The Priory, Steventon, east courtyard wing (i)	Purlins	c. 1500 or 1551
King's Manor, East Hendred, gatehouse (ii)	Purlin	c. 1530 or later
99 The Causeway, Steventon (ii)	Plates	c. 1570
Coulings, East Hendred, east wing (i) and (iii)	Purlins	c. 1570
The Priory, Steventon, north-east range (i)	Purlins & Plates	c. 1580
Colts Close, Steventon, wing (ii)	Purlin	c. 1580
Corner House, Allins Lane, East Hendred (i)	Purlin	c. 1590
Abbey Manor, East Hendred (ii)	Wallplate	Late 16th cent.
57 The Causeway, Steventon (i)	Purlin, Wallplate	c. 1600
Colts Close, Steventon, Hall block (i)	Wallplate	c. 1610
Pound House, Steventon (i)	Purlins & Plates	c. 1600
Wellshead, East Hendred (i)	Wallplate	c. 1600
Sparks Farm, East Hendred (ii)	Wallplate	c. 1620
Jasmine Cottage, Kennington (i)	Purlin	1627
Church Lane Cottage, East Hendred (ii)	Purlin	c. 1630
King's Manor, East Hendred, house (i)	Wallplate	c. 1630
King's Manor, East Hendred, house (ii)	Purlin	c. 1630
12, Milton Lane, Steventon (ii)	Purlin	c. 1640
Home Farm, Culham, large barns (i)	Groundsill	c. 1664
" " " " " (ii)	Purlins	"
Stocks Lane Farm, Steventon, barn (ii)	Purlin	1680
Stocks Lane Farm, Steventon, barn (ii)	Wallplate	"
West Hendred Manor (ii)	Wallplate	Late 17th cent.
Laburnum Cottage, Steventon (ii)	Wallplate	c. 1700
" " " " (ii) (iii)	Purlins	"
Home Farm, Steventon, north range	Purlin	c. 1730
Home Farm, Culham, small barn (iii)	Purlin	18th cent.
99 The Causeway, Steventon, barn (iii)	Purlin	18th cent.
West Hendred Manor, outhouses (iii)	Purlins	Late 18th or 19 cent.
9a. <i>Visibly Bridled</i> (not illustrated ; soffit as face of 9)		
1, Gravel Lane, Drayton, Berks, outhouse (i)	Purlins & Wallplate	c. 1500
Home Farm, Culham, large barns (ii)	Purlins	c. 1664
10. <i>Fished-Scarfs</i>		
The Priory, Steventon, east courtyard wing (i)	Purlin	c. 1500 or 1551

	Building	Member	Date
10.	(continued) <i>Fished-Scarfs</i>		
	12, Milton Lane, Steventon (i)	Purlin	c. 1640
	Black Horse Inn, Standlake (ii)	Purlin	16th or 17th cent.
11.	<i>Pseudo-Bladed Scarf</i>		
	Appleford Manor, outhouse	Purlins	? c. 1700

CONCLUSIONS

The first joint found in this area is the horizontal through-splayed type (no. 1), which continued in use until about 1400. For much the same period the more sophisticated Trait de Jupiter (no. 2) was used. The last example is at 26 Ship Street, Oxford, which has a wealth of Perpendicular detail.

With the appearance in the area of double-framed roofs, whose purlins were set in the plane of the roof, the 'vertical' through-splayed scarf (no. 3) was adopted. It is a variant of no. 1 turned through 45 to 60 degrees. Though not a good scarf, it is often found placed at the truss in clasped-purlin roofs, and was thus protected from most stresses. The list shows that it is often found in purlins where types 1 and 2 were used in the wallplates. No examples known to me survive here between 1400 and 1650, that at Penny Green being probably post-medieval, though the joint is found in other areas. In the late 17th century this joint reappears, along with no. 1, owing to the decline of carpentry and the re-use of timber: its use might enable the carpenter to save wood by not cutting a new scarf. The purlins at the Old Farm are re-used, one from a cruck hall which formerly stood on the site.

The next scarf (no. 4) is a sophistication of no. 3, and again used for purlins. It is mechanically somewhat better than its predecessor, and looks neater; since the pegs are driven in from the outside edge, and are not perpendicular to the length of the timber, they cannot be seen from inside, and the joint is virtually undetectable except where it has withdrawn. It is probable, therefore, that more examples will be found on close examination. The first one listed may be as early as the 13th century, but it is probable on other grounds that the purlins have been replaced. Three examples are 15th or early 16th century, and three much later ones are poorly cut. The Ewelme example is not certain, as only three sides could be seen.

Though stop-splayed scarfs (no. 5) are found early in Kent and Essex, only the ones at Coxwell and South Moreton are free of suspicion in our list. That at North Hinksey, which has under-squinted butts without bridling or sallying, is certainly modern, as it occurs only in renewed timber. That at Godfrey's Farm, East Hendred, has vertical butts, and could be original; but the section of the wallplate to the north of the scarf is renewed. The scarf at the Old Vicarage, Steventon, is in the oldest section of a much-renewed bressummer. It seems to lack bridles, and has vertical butts as shown, as has the South Moreton example. The details of pegging in the three latter joints could not be ascertained.

The plain edge-halved scarf (No. 6) represents a different type of joint from the splayed scarfs discussed so far. Though it was used in the Barley Barn at Cressing, the only example in the Oxford area of comparable antiquity is at Lime Tree House, Harwell, all the others being much later. The joint was going out of use for wallplates after 1500, though there is a late example at East Hendred, but it is not unusual in bridgers over a post in the 17th century, as at Garsington. Sometimes it is the result of recent repairs.

Both the examples of the face-halved scarf, which stands in the same relation to no. 5 as no. 3 does to no. 1, are late; it is another sign of the revival of inferior joints in the later 17th century.

The edge-halved and doubly bridled scarf (no. 8), like no. 5, is common elsewhere but seems to be rare near Oxford. In Essex it was most usual from 1400 to 1600, but S. E. Rigold has found an early 14th century example in Wiltshire.¹⁸ The Steventon joint might be as early as 1320: yet the building has been much altered. The two joints at Abbey Timbers, Harwell, are likely to be later.

Scarfs of the secret-bridled type (no. 9) are far the commonest in purlins and plates in the 16th and 17th centuries. There are three common varieties: the type with straight butts (i), that with squint-butts (ii), and that with squint-butts and splay on face and soffit (iii). There are usually two edge-pegs, aligned diagonally as shown, but sometimes one above the other, as in the plate at Colt's Close, Steventon. The two early examples at New College have only one central edge-peg. Such scarfs are apparently not found in Essex, except in ground-sills,¹⁹ but they have a wide distribution. I have seen them in Worcestershire and Lincolnshire. The 15th century examples near Oxford are of type (i); in the Elizabethan period type (ii) is found, and both types are used thereafter. The ingenious type (iii) seems to be mainly late: the joint at Coulings is only slightly splayed, but in 18th century buildings the splay is often pronounced. Occasionally bridled scarfs were assembled upside-down, so that the bridle was visible from below. Such joints are otherwise the same as those of type no. 9, and are therefore not illustrated. The feature is of no value for dating buildings.

Two of the three examples of fished-scarfs (no. 10) were mistakes on the part of the carpenter. In both buildings the other scarfs have secret bridles, and the carpenter has clearly cut two matrices instead of a matrix and a bridle, inserting the fishplate as a makeshift. The joint at Standlake (no. 10, ii) appears to be deliberate; as far as is known it is unique, and would in any case be restricted to butt-purlin roofs. There is room for doubt whether it is a scarf-joint at all, though it serves the same purpose.

Only two sides of the 'pseudo-bladed' scarf (no. 11) could be examined, so that an exploded drawing could not be provided. It appears to be an attempt to imitate the bladed scarfs of East Anglia, but is not truly bladed, as the timbers are not halved over one another. The joint is a late one; other examples may appear in Queen Anne houses after further investigation.

¹⁸ See note 16.

¹⁹ Hewett, *op. cit.*, 185. Ground-sills were often replaced in the medieval period.

To sum up : the earliest scarfs in the Oxford area are splayed, of types nos. 1, 2 and 3, which were normal up to about 1400. 15th century scarfs are of three types : secret face-splay (4) for purlins only, edge-halved and pegged (6) chiefly for plates, and finally secret-bridled ; these last replaced all other types in the 16th and early 17th centuries. In the late 17th century types 1, 3, 4 and 6 are found occasionally. Bladed scarfs have not been reported, and edge-halved and bridled joints are rare.