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# Proceedings of the Cambridge Antiquarian Society

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(incorporating the Cambs and Hunts Archaeological Society)

Volume XCV  
for 2006



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**Volume XCV  
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Editor Alison Taylor

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*Plate 13. Watercolour of the Cambridge Observatory by Richard Banks Harraden, showing the landscape of west Cambridge in the 1840s. By kind permission of Prof Lord Martin Rees.*

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# Huntingdonshire Bell Frames

Robert Walker

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*This paper sets out the findings of a survey of bell frames in the county of Huntingdonshire. From that survey observations are made about the evolution of frames, and in particular the 17th century developments for which Huntingdonshire provides a number of dated and documented examples. The paper identifies those frames which should, in the context of current knowledge, be conserved. The paper includes a gazetteer intended to guide more detailed surveys in the future. The gazetteer uses the system of codes for plan form and truss type evolved by Christopher Pickford (Pickford C 1993), which should allow this survey to contribute to wider, regional and national surveys.*

## The Survey

A general introduction to bell frames can be found in the survey of frames in the (pre-1974) county of Cambridgeshire published in PCAS 90 (Walker, R 2002).

Most of the survey was undertaken between 1996 and 2002 when pressure for change in the belfries of the Ely Diocese was strong. At that time the National Lottery Fund set aside money to assist the repair and replacement of rings of bells. The survey was intended to inform judgements about proposals to alter, destroy or abandon old bell frames. The author visited all of the timber frames described in the gazetteer below, and measured, photographed and drew them. It is not a complete joint-by-joint, feature-by-feature record, but should indicate the proper foci for more detailed work and dendrochronological dating. Copies of the author's survey notes and photographs are deposited at the Cambridgeshire County Record Office.

There are a number of striking differences between belfries of Huntingdonshire and Cambridgeshire. The tentative dating of frames in Cambridgeshire was greatly assisted by comprehensive surveys of bells in the 16th, 18th and 19th centuries. The survey of church goods in the time of Edward VI is incomplete in Huntingdonshire, and we are denied a comprehensive account of the numbers, and sometimes weights, of bells in every church. The incom-

plete Huntingdonshire survey is nevertheless of great importance (Lomas C 1906). Later, in the middle of the 18th century, William Cole visited almost every Cambridgeshire church and, in many, recorded the numbers of bells and, sometimes, the inscriptions on them. Huntingdonshire churches had no such assiduous recorder in the middle of the 18th century, but the accounts of the visitations of the archdeacons and their instructions at a number of points in the century are useful, and more extensive than similar surviving Ely diocesan records (these are given in the Victoria County History accounts of churches and were not examined at source). Finally, towards the end of the 19th century the first comprehensive surveys of bells were published. In Cambridgeshire bells were surveyed by Rev JJ Raven (1869 and 1882), and, in Huntingdonshire, in 1899, by Rev TMN Owen. In this respect, Huntingdonshire has the benefit of a survey of bells which is thorough, accurate and an example to all campanologists.

Huntingdonshire is fortunate in having a great richness of surviving church records, particularly in the Huntingdonshire County Record Office. This survey was made easier by the accessibility of these records, by the help of those who keep them and by the thoroughness of the three volumes of the Victoria County History for Huntingdonshire which bring together dispersed material.

In recent years the Huntingdonshire Church Bell Restoration Society has undertaken work in the county's towers. The author had help from Chris Higgins of that society. Christopher Pickford (who has led the work on the recording of frames nationally) had made detailed surveys of the frames at Buckden and Great Gransden (see the Gazetteer), and the author is grateful for his advice on the development of this paper. (That advice was given a long time ago, before the author moved to Scotland, and inaccuracies and informalities are his responsibility alone.)

One of the more curious aspects of a study of Huntingdonshire is found in the pages of the *Archaeological Journal*, 1984 and 1992. These record a debate about the extent of the rebuilding of

Huntingdonshire churches, and particularly their towers, in the late 16th and early 17th centuries. The earlier article, by Andrew Woodger (Woodger A 1984), advanced the theory that many towers were rebuilt or altered in the decades around 1600 to advance the pursuit of bell ringing. Woodger suggested that these works were executed in a mixed style which represented a revival of Decorated and Perpendicular styles and, furthermore, that a detail of newel staircases in the form of a notch at the junction of step and newel is indicative of the so-called 'Mixed Gothic' period. The later paper by GW Bernard (Bernard G 1992) suggested that these claims were, at least, overstated in terms of the evidence advanced.

This survey has not set out to comment on these two positions but it would be difficult, during a comprehensive survey of towers, to avoid seeing evidence which has some bearing on the debate. Huntingdonshire appears to be a county marked out by substantial investment in church fabric, including bells, in the 17th century. This is in contrast to Cambridgeshire where adaptation of old bell frames or simply putting up with old kit are the observed reality. For some reason, perhaps that the two old counties were in different dioceses, or in different social and economic landscapes, there is more evidence of 17th century alterations in Huntingdonshire belfries. The author has long suspected, but never seen a quantified analysis, that this is the case for church fabric as a whole. Woodger noted the significant number of roofs with 17th century dates in Huntingdonshire, and, if we were looking for an obvious example and comparison, there is nothing in Cambridgeshire's churches to compare with the 17th century woodwork in the locality of the Giddings and Leighton Bromswold.

From Table 1 it can be seen that 76% of Huntingdonshire frames before about 1700 are of 17th century date. In Cambridgeshire the figure is 28%. The fact that the pattern of modern replacement is similar in both surveys, with 57% of all frames being modern in both, suggests that there is a real difference in the 17th century rather than different patterns of survival. There is, of course, uncertainty about the dating of 17th century frames. In Huntingdonshire, the emergence of a distinctive style around 1630 (see the detailed account of the evolution of frames below) and the presence of a number of dated frames means that the Huntingdonshire survey has a relatively high level of reliability. In Cambridgeshire, the 17th century 'Huntingdonshire style' is only seen in two places (Haslingfield and Cambridge St Benet), but it

is possible that there was a greater level of work in the 17th century which is concealed by the use of the forms and traditions of earlier centuries. The frame at Sutton in Cambridgeshire, for example, could reasonably be dated to the 16th century by its form and the correspondence of the number of pits with the number of bells in 1552, but has been dated to about 1620 by dendrochronology.

*Terms Used in the Following Descriptions.*

A *pit truss* forms the side of a pit containing a single bell.

An *end truss* closes the ends of a row of pits.

A *great truss* is continuous across the sides of more than one bell pit or the sides and ends of more than one pit.

An *A truss* is formed by two braces running from the sill to the head of the truss. They converge at the head and may be straight, curved or elbowed. No so-called A trusses have a horizontal bar like the letter.

A *brace* is a member joining two horizontal or vertical members of a truss. In an A truss they go between sill and head; in a king post truss they go between the sill and the post (and may also be joined to the head). *Corner braces* go from an end post to a sill or a head.

A *jack brace* joins a brace and another member of a truss, normally the head or the sill.

**The King Post and X Braced Frames.**

There are difficulties in proposing a chronology for king post frames in Huntingdonshire because the 1552 inventories are incomplete, and there are no dated examples before 1620 (Offord Cluny). The king posts are illustrated in Figures 1, 2 and 3 and arranged in a tentative order of date.

1a Stilton

The Stilton frame was, no doubt, the frame holding three bells in 1705 (see Gazetteer), but can be reasonably confidently dated before the 17th century by its form. It is possibly contemporary with the surviving bell by Mellours of Nottingham, a founder active in the 16th century. Single bells are not a reliable dating method, but there are other features which support an early date. The frame is of three pits (almost all early frames are of three or four pits); the trusses are very tall; the elbowed braces meet the king post well below the head of the frame; the trusses have posts with jowls and they sit on a very thin sub-sill.

1b Orton Longueville

Table 1. The numbers and relative proportions of pre-Reformation, 17th Century and modern bell frames in Cambridgeshire and Huntingdonshire.

	Huntingdonshire	Cambridgeshire
Pre-Reformation frames (number).	7	41
Pre-Reformation frames as a % of all pre-1700 frames.	24%	72%
17th century frames (number).	23	16
17th century frames as a % of all pre-1700 frames.	76%	28%
Post 17th century frames (number)	42	88
Post 17th century frames as a % of all frames.	57%	57

A single old truss remains incorporated into a later frame. There is a 15th century bell. The truss is of the simplest form of a king post with curved braces and it is tall in relation to its width.

#### 1c Little Paxton

The frame was originally of three pits. The trusses are relatively tall and heavily built. The king post is shaped to give greater contact with the head and the curved braces are unusually wide. In addition, there are straight end posts and corner braces between the posts and the head. This frame has similarities with that at Parson Drove in Cambridgeshire (Walker R 2002 p86) which was confidently given a pre-17th century date. A beam at the lowest level of the grillage is signed *IOHN ANGELL 1771*. These lower timbers pass through the tower walls and are wedged externally, and appear to be a later attempt at strengthening the tower. Structural problems persisted, and the frame is now derelict.

#### 1d King's Ripton

This frame is similar to Little Paxton but more lightly built. In this case the three pits correspond with the *iii* bells in the 1552 Survey (Lomas C 1906 p3) and may be one in date with the surviving bells of c1500. A distinguishing feature is the way the king post is notched so that the braces are housed in. The pit trusses are of king post form with end posts and corner braces

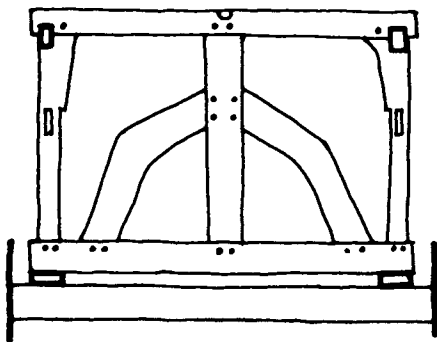
ing. The end trusses have jowled posts and curved down bracing. The end truss heads are halved over the heads of the pit trusses and jointed to the jowl of the end posts. Small assembly marks are found in these positions.

#### 2a Abbotsley

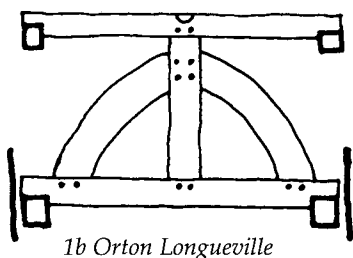
A four pit oak frame altered to add a fifth bell. The trusses are exceptionally tall (almost 5ft at maximum), which suggests an early date. The pit trusses are of king post form with curved braces and short jack braces from the main braces to the head. There are square end posts. These features suggest similarities with frames such as Whaddon in Cambridgeshire which may date from the 16th century (Walker R 2002 p86).

#### 2b Covington

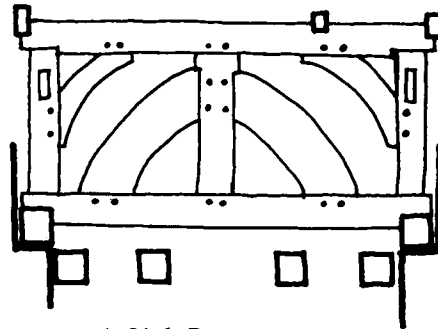
Two king post trusses survive in a three pit (four truss) frame. The king post truss illustrated here was probably reconstructed in 1710 when a bell by Henry Penn was installed. At that time the other two trusses in the frame were installed, and their appearance, with straight braces and double jack braces, clearly dates them to 1710, ie at the end of the 17th century developments described below. Both types share the moulded thickening of the head illustrated.



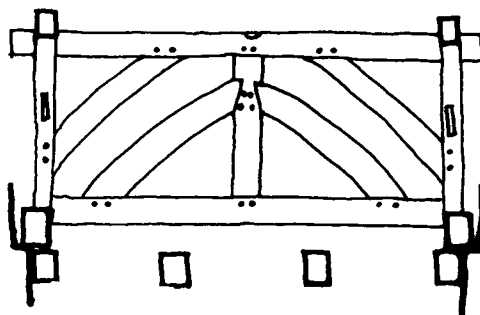
1a Stilton



1b Orton Longueville



1c Little Paxton



1d King's Ripton



Figure 1. King Post frames

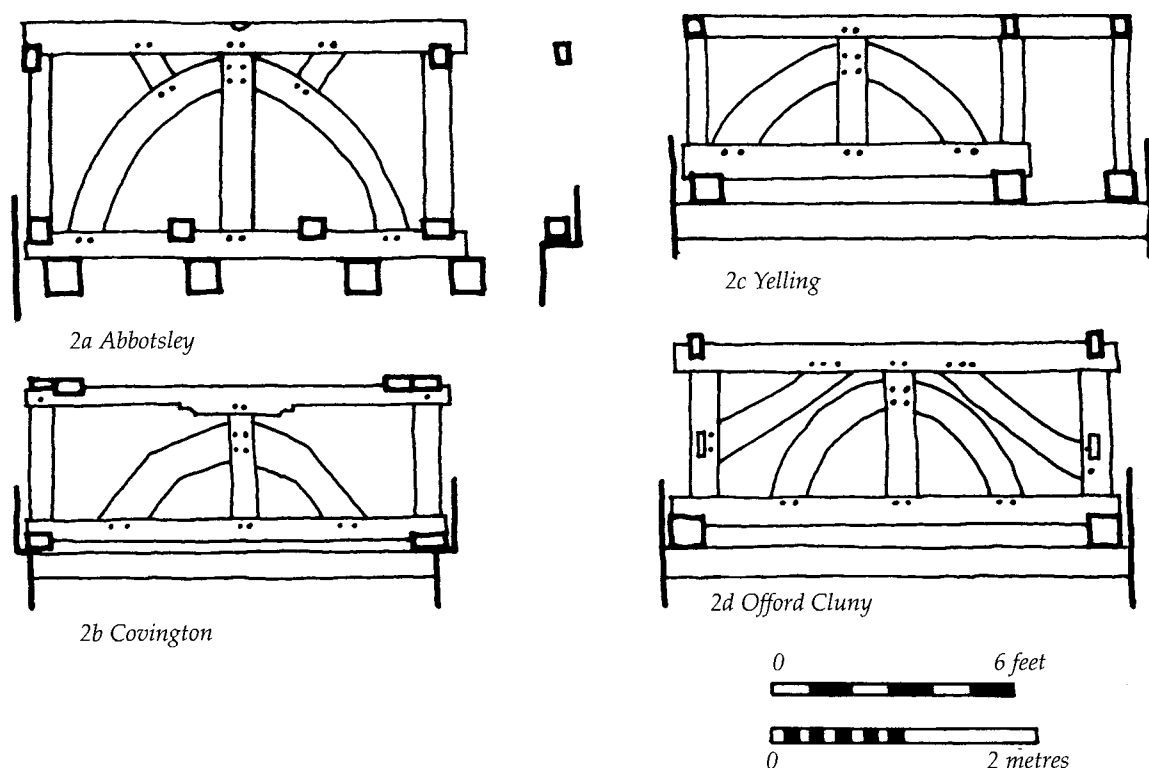


Figure 2. King Post frames

### 2c Yelling

The Yelling frame has also been greatly altered. The truss illustrated was probably part of a three pit frame which was later reconstructed and augmented to form a four pit frame.

### 2d Offord Cluny

The frame bears the initials and date, *WE ET 1620*. That date is on a head member and is accompanied by cyma mouldings to indentations which allow the mouths of the bells to pass. The uppermost member is, of course, the most easily replaced element of a frame, but it is not inconceivable that the trusses (which have similarities to Little Paxton and King's Ripton above) are wholly of that date, and represent the last flowering of the king post tradition less than 20 years before the dated examples of the new style at Great Staughton and Buckden (see below).

### 3a Offord Darcy

For the visitor to the upper reaches of church towers the discovery of a two storey oak frame is a reward and relief after time spent among the modern cast iron machines. The frame at Offord Darcy yields the additional pleasure of bearing the same cyma moulding described immediately above at Offord Cluny; making a connection and a dated one at that! The king post form appears here in the lower pit trusses and in two ties in the end trusses. The cyma moulding is a reliable dating feature to around 1620, as at Offord Cluny.

### 3b Easton

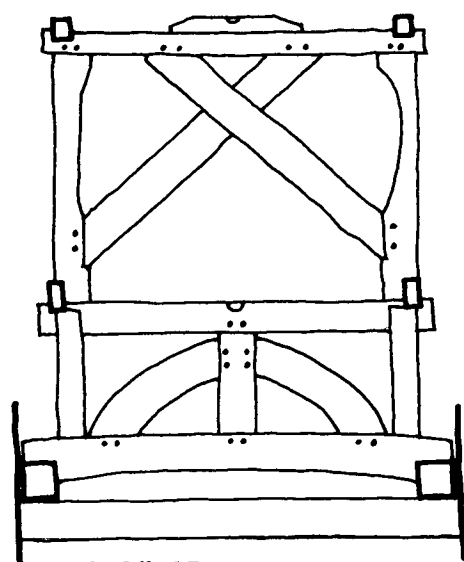
The Easton frame is unusual. It is set diagonally and has one pit formed with king post pit trusses and end trusses of simple A frames. Three other pits are formed as satellites to this pit with the outer bearings of the bells on trestles. There were four bells in 1552, but it is unlikely that this frame is of early date. It is possible that the king post pit trusses are of 16th century date, but the whole frame is otherwise re-made.

### 3c Upton

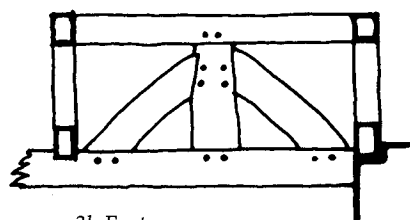
The three trusses forming two pits have been repaired and added to, but the original form is coherent. The trusses have X braces and posts with jowls. It is possible that they are medieval, since there were two bells here in the 1552 survey, but they are of modest height, and the X is a form which appears to be far less in tune with medieval carpentry than the king post or the scissor brace.

### 3d Woodhurst

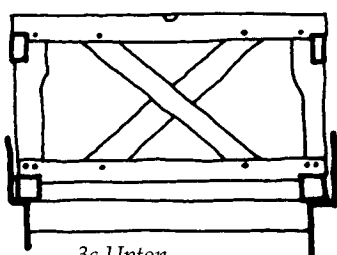
There are two truss forms with double intersecting X braces: Fig 3d and Plate 8. The outer trusses have curved braces (and look about as close to the scissor braced tradition as anything in Huntingdonshire) and the inner have straight braces. This is a unique truss form in Huntingdonshire. One example was found in Cambridgeshire at Hauxton (Walker R 2002 p97), which may date from the installation of three bells in 1666. It has straight braces but lacks the end posts with jowls which are found at Woodhurst. The



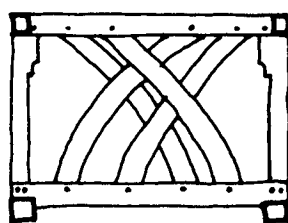
3a Offord Darcy



3b Easton



3c Upton



3d Woodhurst



bell dates at Woodhurst are also all of the 17th century and the RCHM dates the turret to the early part of that century.

### Seventeenth century development of trusses with heavy braces

The 17th century frames with wide, straight braces are not an evolution but a departure. They are so different from the frames of the king post tradition, described above, that they must have been designed (one might say invented) for their special purpose of withstanding dynamic forces. The king post tradition is clearly related to the carpentry tradition of timber framed buildings. It is easy to imagine that the first bell frames, as we know them, were the work of the village carpenters who built the local houses, barns and roofs in ways and by rules which changed little in a lifespan. Architectural fashion had changed it is true, but carpentry remained essentially Gothic underneath the dressing of style.

In the early decades of the 17th century, the period of most interest in this survey, the old tradition was being challenged. The new architecture of buildings such as the Whitehall Banqueting House (1620) demanded (or was facilitated by) a different approach to carpentry; and engineers and industrialists, as well as architects, set new problems of form and purpose. There have always been rules of thumb, craftsmen like them, but at this time the thumbs were being re-invented. That wider context of a changing carpentry tradition coincided with a time of growing interest in change ringing. It is obvious that the more that ringing was practised the more the old tall frames would have been found wanting in strength and stability. Clearly, change ringing was advanced by the meeting of the changing demands of ringing and the changing approach to carpentry seen in the adoption of new forms and methods.

It is unlikely that the wide braced A frame was invented in Huntingdonshire. That first frame of the new style is more probably to be found at a cathedral or great city church where change ringers and highly skilled carpenters came together. It is also possible that it emanated from bell foundries because solid frames, capable of taking larger numbers of heavier bells, would have been good for business. The foundries of Watts and Newcombe in Leicester were active during the early years of the century, and there is a Watts bell associated with the early 'modern' frame at Hail Weston. There are also two Watts bells of 1633 at Great Staughton (4b below) which may be the first Huntingdonshire frame in the fully developed new style.

Huntingdonshire clearly shows a development of frames through the 17th century which culminates in the low, double jack braced form which became the normal pattern throughout the 18th and 19th centuries, and continued in use, in the few cases where timber was used for frames, into the 20th..

Figure 3. King Post and X-braced frames

*The development of frames may be summarized:*

**c.1600–1630** The introduction of the wide brace at Conington. Both A and V bracing in combination with posts. No jack braces.

**1635/8** The addition of single jack braces rising vertically from low down the wide A braces.

**1658** Double jack braces to head and sill from wide A braces.

**post-1658** Frames retain double jack braces but become generally lighter and lower.

*The following list is set out in probable date order.*

#### 4a Hail Weston

The Hail Weston tower is timber framed and generally given a 16th century date. The three bells hang in a frame of three parallel pits. The pit trusses are A form with slightly concavely curved braces. Parallel, straighter and thinner brace are fixed either side of the A and there are end posts. One of the bells, from the Watts foundry in Leicester, is dated 1589. If it is accepted that this frame has a 16th century date and if that date is one with the 1585 bell then this frame clearly represents a first step towards the new style. The parallel braces are, in effect, a split form of the wide A brace, and must have been formed with the same intention of increasing the area of timber support in contact with the head and sill, and therefore the number of pegs.

#### 4b Conington

The Conington frame was built for five bells on a scale far greater than any of the surviving frames of the earlier tradition. The church was rebuilt in one long campaign, and the tower may have been finished as late as 1638 when work was done on the pinnacles, although there is doubt about whether this work was for their building or their repair (VCH Hunts III p149 suggests this was a repair. Woodger A 1984 p278 suggests that this work marks the completion of the tower). Woodger suggests that the belfry was reached at an earlier date because the belfry lights are similar to those installed at Cambridge St Mary the Great in c1598. Lack of a William Cole visit is acutely missed. It would be very interesting to know the number and text of inscriptions on the bells, which were all replaced in the 19th century.

It is tempting to select from these uncertain facts a date for the bell frame of about 1590–1600. If that were so the frame would be a precursor of the dated frames of the 1630s described below, and its particular features, or lack of them, could be construed as the characteristics of a prototype. The oak frame has a similar character of scale and mass to the frames of 1638. The simple and stout A frames in the pits are obvious relations, but there are no jack braces and the end trusses and great trusses have posts and V braces

which are not seen in any of the later frames.

#### 4c Great Staughton

This frame was built for five bells and must post date the *iiij* bells of 1552 and pre-date the five bells already in existence by 1711 (see Gazetteer). There are two dated bells of 1633 by Watts of Leicester which probably date the frame, given that it is so close in style to Brampton of 1635 and Buckden of 1637 (below). The particular features of the trusses are the heavy braces, and the jack braces which spring from low down the A braces and stand almost vertical. Small, neat assembly marks are seen on every brace.

#### 4d Brampton

The tower at Brampton is dated 1635. The frame is so similar to the Buckden frame below that it is probably the work of the same carpenters. The four bells were hung on a hollow square plan and the form of the pit and great trusses with their vertical jack braces (all carefully marked with assembly marks) are obvious common features.

#### 4e Buckden

The dates of Conington, Great Staughton and Brampton are inferred, but the date of Buckden is certain because the churchwardens' accounts of 1637 survive. These are set out in detail in the gazetteer below. The certain dating of this frame tends to confirm the dates (all within a four year period of 1633 to 1637) of the frames above because they are so similar in detail.

The frame is massively built (Plates 2 and 3) and relatively tall, with the bells arranged on the hollow square plan. In all of the details of the trusses this frame is very similar to Brampton.

#### 5a Chesterton

The pit truss illustrated has all of the features of the Buckden group of frames but on a much smaller scale; the frame is for only three bells of modest size. One of the bells is dated 1621, which raises the possibility that this is an earlier example of the new style.

#### 5b Great Gransden

Dated 1658. The oak frame is set diagonally (see Ramsey and Eynesbury below). The pit trusses are of the simplest A form but the great trusses are of A form with the braces widely spaced and jack braces to head and sill. This appears to be the first example in the County of the doubling of jack braces, an evolution which was to become commonplace in later frames. Pickford suggests that the frame may be the work of John Baxter of Laxton, who worked at Buckden in 1660 (Pickford C 1994). The initials and date 'TB 1660' appear as graffiti on the masonry. The survival of three bells by Eldridge of Chertsey which are dated 1658, with the frame, suggest that this frame may have been built to the founder's specification. This would support suggestion, made above, that the new style of frames emanated from the foundries.

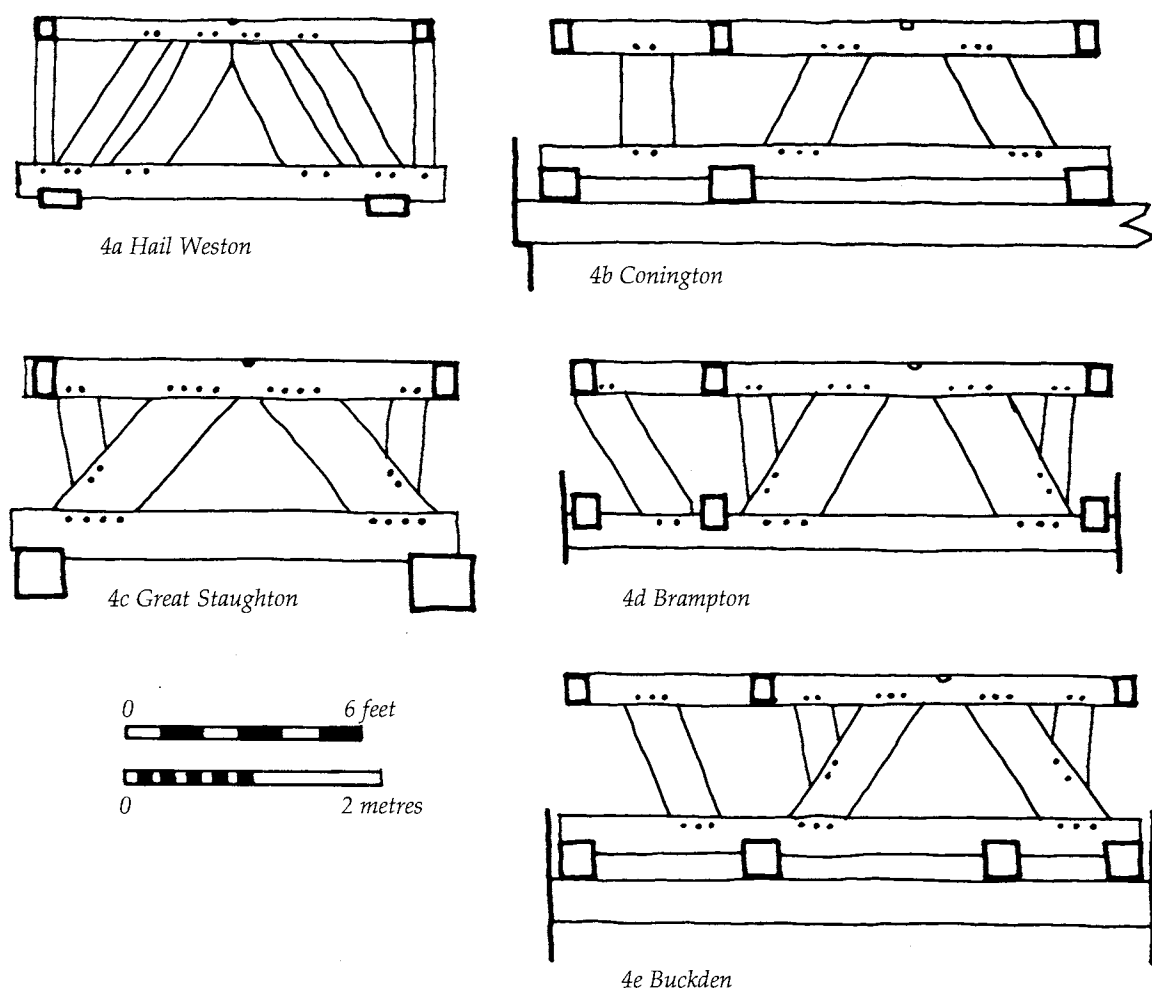


Figure 4. 17th century developments

#### 5c Little Stukeley

Dated 1659. A small oak frame of four pits of hollow square form. The pit trusses of simple A form and the great trusses of A/ form with an almost vertical jack brace to the unpaired brace only. The frame was repaired by Day of Ipswich in 1887 but appears essentially as originally built.

#### 6a Farcet

Dated 1668. This very modest three pit oak frame has end trusses with the double jack bracing first referred to at Great Gransden above. The pit trusses are of simple A form with heavy braces. The outer two trusses are canted in at their heads so that the sills avoid the heavy braces of the end trusses.

#### 6b Ramsey

Dated 1672 and inscribed, 1672 *NEVILL JONES THOMAS WALLIS*. Six bell oak frame set diagonally, but probably held only five bells until the recasting of the old five in 1810. The pit trusses have the mas-

sive A braces of earlier 17th century frames, but with single jack braces rising from relatively high up the A braces at an angle well off the vertical. The great trusses however have double jack braces in common with Great Gransden.

#### 6c Ellington

The frame has elements similar to Ramsey. The simple A trusses have heavy braces but only one has a jack brace and that rises from relatively high up the A braces at an angle well off the vertical. Two of the great trusses take a form with massive A braces with upper jack braces similar to Ramsey.

#### 6d Eynesbury

The tower is dated 1688. The oak six bell frame is set diagonally. The trusses are A form with double jack bracing throughout. The A braces are significantly lighter than the examples described above and may represent evolution away from the massive braces of earlier work in the cause of efficiency and econ-

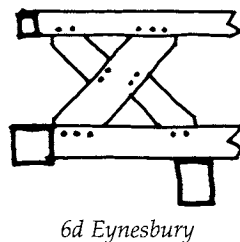
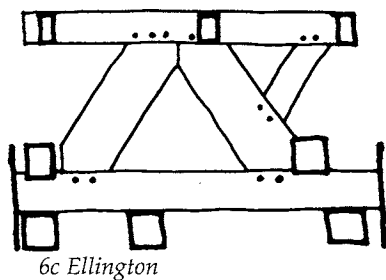
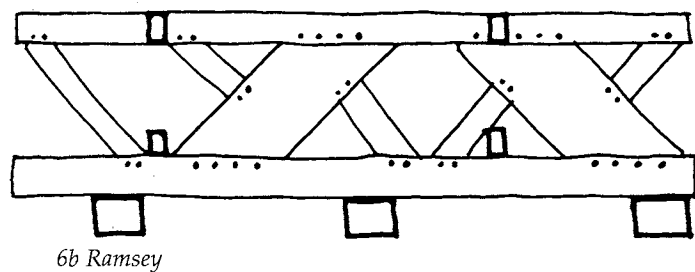
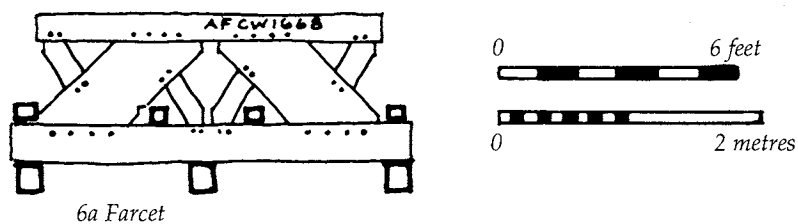
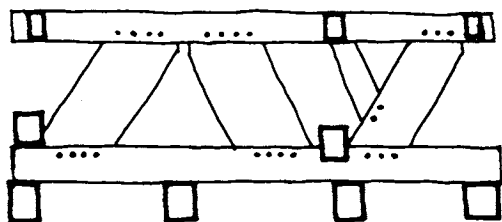
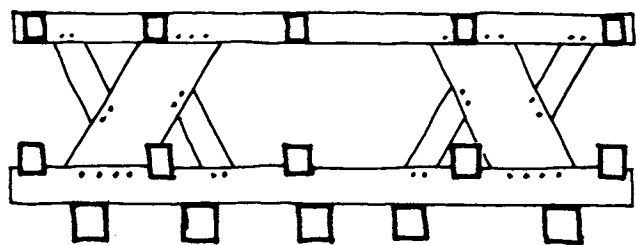
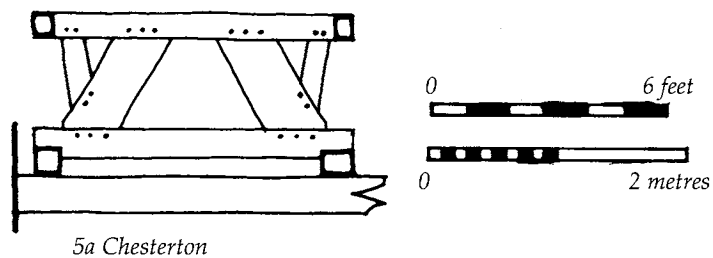


Figure 5. 17th century developments

Figure 6. Later 17th century developments

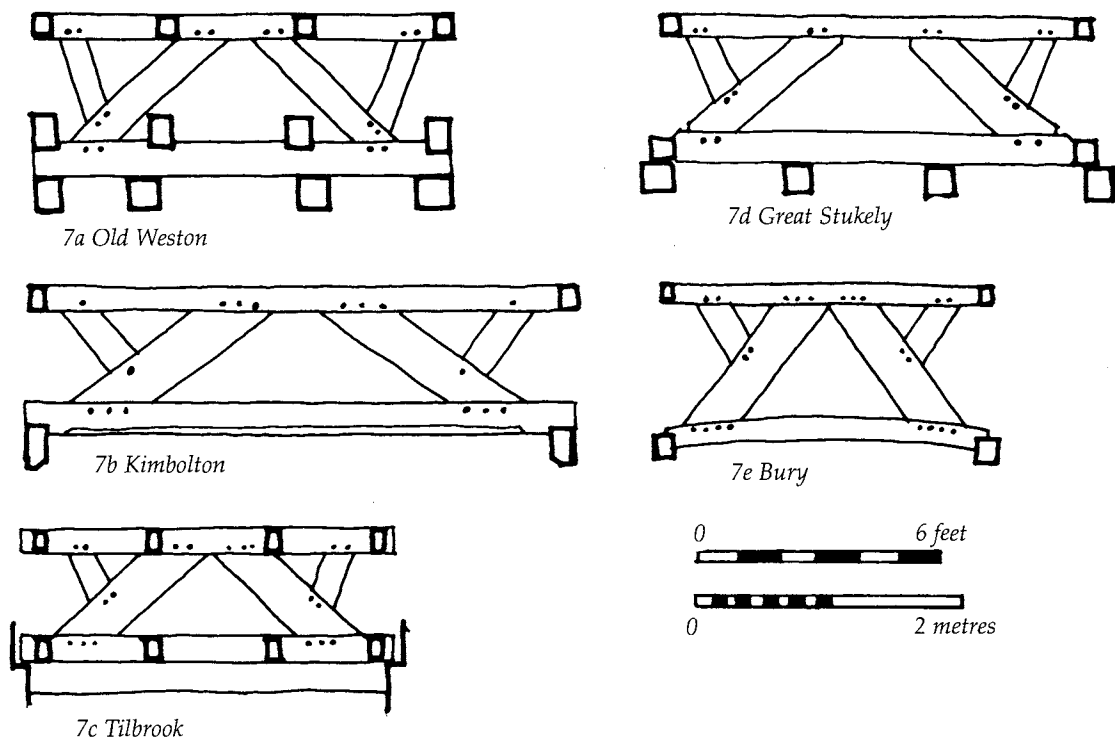


Figure 7. 17th century forms with lighter bracing

omy. It should however also be considered that the Eynesbury bells are lighter than most of the examples given above, and a lighter frame should not be unexpected when carpenters are being credited with a degree of calculation.

#### 7a–e Trusses with Lighter Braces: Old Weston, Kimbolton, Tilbrook, Great Stukeley, Bury

The frames in this group are very similar and take the form of those of the mid to late 17th century described above. They have trusses of A form with upper jack braces at an angle well off the vertical. They are however of much lighter construction and appear to be an extrapolation of the lightening of braces which appeared at Eynesbury in 1688. This is to some extent explained by the fact that these frames are of modest scale, for three or four relatively light bells, but there are examples above of small frames with heavy bracing. This group has yielded no reliable documentary evidence of construction date, and bell dates are scattered and relate entirely to single bells.

If the massively braced frames of the 17th century are joined to the flimsy frames of the 19th by a line of progression (or decline) then that line is clearly one of ever lighter framing and more economical use of timber. The lighter frames in this group are probably on that line and span the later years of the 17th century and at least the first half of the 18th century.

The frames at Graffham and Abbots Ripton might

be attached to the end of this series. At Graffham the A trusses have extremely thin jack braces and at Abbots Ripton they are dispensed with altogether.

#### The Eighteenth Century

##### 8a Somersham

Dated 1782. Oak frame with simple A trusses. All of the timber members are thin compared to A trusses of the previous century. It is likely that the frame was reassembled in 1902 and, at that time, provided with a good deal of iron reinforcement.

##### 8b Bluntisham

A very flimsy frame with simple A trusses with a mixture of straight and curved braces. The frame was built for five bells which dates it between the iij bells of 1552 and the 5 in Owen's survey.

#### *The Eatons of Titchmarsh and other modern frame makers*

Titchmarsh is in Northamptonshire, close to the western border of Huntingdonshire. The Eatons built a number of frames in the county between 1845 and 1885. They were prolific, and appear to have worked throughout the East Midlands, for example at Langtoft in Lincolnshire where John Eaton carried out work in 1860 (Ketteringham J 2000 p298) and Annesley in Nottinghamshire where John Eaton worked in 1876. (George Dawson, Erratum to *The Church Bells of*

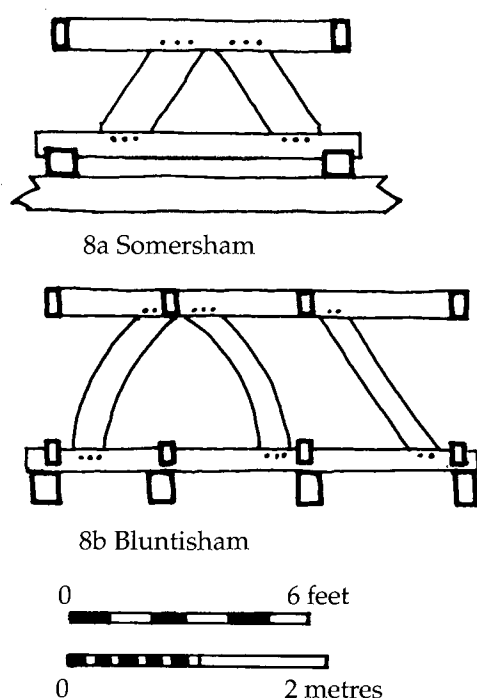


Figure 8. 18th century frames

Nottinghamshire, accessed via the Internet. Their complete frames in Huntingdonshire are as follows, but it is likely that this is a small part of their total work which included repair and rehanging as well as new frames:

1845	John Eaton	Brington
1861	John Eaton	Molesworth
1862	John Eaton	Catworth
1876	George Eaton	Alconbury
1880	George Eaton	Keyston
1885	George Eaton	Buckworth

The Cambridgeshire survey found no complete frames by the Eatons. That may be considered to be Cambridgeshire's good luck since their work is generally flimsy. At Catworth, John Eaton hollowed out the masonry of the tower to an alarming extent to make room for his frame, and it is significant that none of their frames supports thriving ringing today. In general their work continues the earlier tradition of A frames with single or double jack braces. Plate 4 illustrates the Keyston frame.

Three modern frames are of interest. At Waresley there is an early example (1857) of a cast iron frame, possibly Taylor's first. There are two composite frames made in 1902; at Leighton Bromswold by Barwell of Birmingham, and at Water Newton by Carrs of Smethwick.

### Gazetteer of Huntingdonshire Bell Frames

The contents of the brackets at the beginning of the descriptions are as follows:

First row: (bell dates).

The second row shows the numbers or bells in (1552 inventory)(18th century from various sources) (Owens survey of 1899). 'NG' means that the number of bells in the church is not given or has not been found in the inventories/sources.

The third row is dimensions in feet and inches (north-south, east-west) (height of frame). Imperial measurements are used because they are the units which applied when the frames were made.

The fourth row shows the codes in C Pickford's national system of recording: (plan code) (truss code).

\* indicates frames which the author considers to merit preservation based on current knowledge and understanding.

#### Abbotsley\*

(c1450, 1575, 1653, 1748)

(NG)(NG)(5)

(12/4, 13/6)(4/11)

(4.3, 5.3)(5.D).

(c.1450, 1575, 1653, 1748)

(NG)(NG)(5)

(12/4, 13/6)(4/11)

(4.3, 5.3)(5.D).

An oak frame with the bells arranged anticlockwise. The trusses are exceptionally tall (almost 5ft at maximum), which suggests an early date (Fig. 1). The pit trusses are of king post form with curved braces and short jack braces from the main braces to the head. There are square end posts. These features suggest similarities with frames such as Whaddon in Cambridgeshire and a date in the 16th century.

The frame was originally a four bell frame to which an additional pit was added on the south side, probably in 1748. In that year the repair of the treble was ordered by the Archdeacon of Huntingdon and Joseph Eayre subsequently recast that bell (VCH Hunts, Vol. II, p259, fn. 64). The fifth is also by Eayre, and dated 1748, and may have been an additional bell requiring an extension to the frame. Its inscription is, however, in the style of Norris and may therefore be a recasting of a 17th century bell, in which case the fifth pit would predate 1748

#### Abbots Ripton\*

(c1400, c1550, 1622, 1671, 1875)

(ijj + s)(NG)(3)

(11/4, 11/6)(3/6)

(4.2)(6.A).

Oak frame probably of the 17th century; perhaps of 1671 when Norris provided the second bell. Four pits arranged round a central hollow square, one of which appears to have never contained a bell. Pit trusses and great trusses of simple A form with relatively light braces and posts where the frame heads intersect on plan.

#### Alconbury

(1673, C18, 1812, 1876)

(NG)(5)(6)

(13/0, 13/9)(3/4)

(6.9) (6.A and 6.L)

Timber frame by George Eaton of Titchmarsh dated 1876.

Simple A and V trusses with end posts, small Roman assembly marks and vertical tie rods. The east great truss inscribed *J. H. POTTLE* and one of the foundations *IRO*.

Alwalton  
(1661, 1672, 1722)  
(NG)(NG)(5)  
(12/2, 11/0)  
(5.4)(8.3.C.e)

Iron H trusses on a steel grillage by John Taylor & Co. of Loughborough. Completed 1904. The parish records contain an estimate of August 1902 in the sum of £150 from John Taylor & Co. of Loughborough. It is on sumptuous letter paper with an engraving of the Foundry. A traced construction drawing of the frame is attached to the letter (CRO2716/6/8)

Owen (Owen, T p64) and the RCHM record that the old frame was inscribed in two places:

On the top: H + K. 1790.

On the side: WI. MI. IO. CH {} CHWA 1674.

The 1790 inscription refers to Henry Knighton who was warden at that date.

Barham  
Western bell cote added in c1850 (VCH Hunts III, p11).  
(truss 9.A).

Bluntisham  
(1632, 1716, 1717, 1801, 1832, 1910)  
(ij)(NG)(5)  
(12/6, 10/5)(3/10)  
(5.V or 6.6)(6.A)

Tall and flimsy oak frame for five or six bells. The pit trusses of A form with thin curved braces. The great trusses of AA form and A \ form. In the latter the \ is straight. The frame is post C16, since there were only three bells in 1552 and five bells would be unusual, but is not like the distinctive group of 17th century frames in the county. This perhaps suggests an 18th century date associated with bells of 1716 and 1717.

This frame was never good for ringing. It damaged the tower and when the ring was augmented in 1912 the bells were hung dead (that is fixed in place and unable to swing).

New frame installed lower in the tower in 2004.

Brampton\*  
(c1500, 1600, 1619, 1630, 1741, 1934, 1910)  
(v)(NG)(5)  
(13/10, 13/9)(3/10)  
(4.2 altered to 6.unclassified)(6.B).

Tower dated 1635.

A four pit, hollow square plan (see Fig. 4d), oak frame of heavy construction. The great trusses of \A form and the pit trusses of A form. In each case there are jack braces which spring from the bottom of the heavy A braces (Fig 4d). The frame has common features other 17th century frames such as the dated Buckden frame of 1637 (see Figs 4c and 4e) and it is possible that it dates to 1635, when the tower was rebuilt. A fifth bell was added which required the treble to be set diagonally in the hollow square, possibly in 1741. In 1962 a new treble was hung in a pit cut into the southwest corner and framed with metal sections. The Sanctus bell hangs at the northeast corner at the end of the pit of the 5th.

Brington\*  
(1845)  
(iii)(1796:4 – VCH Hunts III p21)(4)  
(8/10, 8/10)(2/3)  
(4.2)(6.B)

A four pit, hollow square plan, oak frame inscribed:

JONATHAN LEWIN  
CHURCHWARDEN  
JOHN EATON FECIT  
TITCHMARSH 1845

Great trusses of AX form and pit trusses of A form. In each case the A has jack braces. This frame is considered worthy of conservation as a complete installation of one date. The bells are by Mears of Whitechapel and the frame by a member of a local dynasty of hangers.

Broughton  
(1616, 1624, 1661, 1748, 1902)  
(NG)(NG)(4)  
(13/8, 7/1)  
(4.1)(8.3.C.e)

Iron frame of 1902 by John Taylor & Co of Loughborough with the four bells hung side by side. Trusses of H form.

Buckden (Plates 9 and 10)  
*Upper Frame\**  
(1510, 1627, 1654, 1779)  
(vj)(1709:5 – Pickford, C 1994a)(5)  
(14/3, 14/8)(4/3)  
(4.2 to 6.unclassified))(6.B)

The churchwardens' accounts (CRO 2661/5) record that a new bell frame was built in 1637. This frame survives in remarkably good condition but no longer carries the bells. It is an oak frame of majestic scale with four pits on the hollow square plan. This may be an unusual case of bells being reduced in number between the 16th and 17th centuries. The great trusses are of \A form with heavy main braces and almost vertical jack braces springing from low down (Fig. 4e and Fig 11). The pit trusses are of A form with jack braces. John Crane and Rowland Longland were engaged in 1634 to carry out extensive repairs to the old frame:

*Spent upon John Crane when he  
came to peruse the bells viijd  
Laid out for a planke to John xxd  
Twigdin  
Laid out to John Crane for foure  
daies worke viis  
Laid out to Rowland Longland for  
foure daies worke to helpe Crane  
about the belles vs iiijd  
Laid out for wood for the belles ijs jd*

There are numerous sums for *ironworke*, wheels and hanging in the same year, and payments to masons who came to view the tower. All this suggests that the old frame was beginning to cause serious concerns. In the following year further work was required:

*Layd out to John Langland for  
frameworke and nayles and wood 2s 6d*

In addition further sums of 5s 6d and 2s 8d were spent with Langland and John Smyth. In 1636 work began on the new frame:

*It laid out to Robert Jaym for  
making of a bill for ye Bellman js  
It laid out to ye Bellhanger for  
ernist js*

*It laid out when ye man cam to  
take ye worke about the Belles  
& when we had bargened*      *iiijs iiijd*  
*It laid out when ye men brought  
the bell frames*      *xs vid*  
*It laid out for wrighting*      *iijs*  
In 1637 the work was brought to a conclusion:  
*Spent when the belframes were  
brought*      0-3-0  
*for helpe to drawe up the timber  
& to enter it*      0-4-6  
*In drinke for the workemen*      0-1-0  
*To willi Lawrence for worke  
aboute the steeple when the bells  
were hunge*      0-6-8  
*For lime about the same work*      0-3-4  
*To Rob<sup>t</sup> Parnell for Carriing the  
brasses to Stamforde with his  
expences*      0-6-6  
*For castinge the brasses & for  
new mettle*      2-2-10  
*For a horse to John Lawmant &  
his expences*      0-5-4  
*To Thom Parnell for drillinge 2  
hooles in the second bell & for  
fittinge the booltes*      0-7-0  
*For putting a piece of timber over  
the steple*      0-1-8  
*Spent when the bells were first  
Runge*      0-3-0  
*given to the bellhangers man*      0-2-0  
*To Thom Parnell for the  
belframes*      38-0-0  
*To James Tawyer for Ironworke  
about the bells*      5-11-4  
*To John Longlande for Ironworke  
about the beles*      6-11-6  
*To John Longland for fitinge of  
ould Ironworke and for spikes for  
the bells*      0-10-0  
*Spent when the workemen went  
away*      0-3-0  
*For Oyle for the bells*      0-0-9  
*To the Ringers when My lord  
[The Bishop of Lincoln] came at  
Whitsontide*      0-3-4  
*For a piece of timber to lye over  
the steple to drawe up the frames  
& bells*      0-3-4

The Parnells have not been associated with other frames, but it is possible that they built the frame at Brampton, two years earlier. The two frames are of similar plan form, share the characteristic broad main braces and the almost vertical jack braces springing from far down on the main braces.

There may be a connection with the Norris foundry in Stamford. Robert Parnell took the brasses (bearings) to be recast there, probably to the Norris foundry, but this does not firmly place these able carpenters in that town.

A fifth bell was inserted diagonally across the central square possibly for either the bell cast by Arnold or Taylor in 1779. In 1930 the bells were rehung and the bell in the centre set to swing E-W.

#### Lower Frame

Iron frame of 1997. Standard low side trusses by the Whitechapel Bell Foundry assembled by Whites of

Appleton  
(plan 6.1)(truss 8.3.A.h).

Buckworth  
(1526, c1590, 1884, 1885)  
(iiij + s)(4 – VCH Hunts III p25)(5)  
(11/8, 11/5)(2/9)  
(5.3)(6.B and 6.B + half of 6.D)  
Wooden frame of 1885 inscribed:  
WILLIAM SISMAN  
CHURCHWARDEN      1885  
G. EATON FECIT  
and:  
H W MOSTYN  
RECTOR.

The four smaller bells side by side in pit trusses of A form with jack braces. End and great truss similar but with offset X braces to one side (i.e. AX).

Bury\*  
(c1390, 1700, 1700)  
(iiij)(NG)(3)  
(8/0, 9/11)(3/9)  
(3.1)(6.B)  
Oak frame of three parallel pits. The pit trusses are of A form with jack braces (Fig 7e) but of various weights, some of which are flimsy, and with a mixture of straight and curved A braces. There were three bells in 1552, but it is unlikely that the trusses are that old. They are more likely to be part of a restoration which included a new bell by Charles Newman in 1700.

The frame is supported on modern steelwork.

Bythorn\* (Plate 11)  
(1620, 1674, 1682, 1711)  
(iiij + s)(NG)(4)  
(7/9, 7/9)(9/9)  
(2)(6.S unclassified)  
Two tier oak frame. Lower pit trusses of simple A form with wide braces. The upper truss is formed by an X frame with a post rising from the intersection of the X to the head (Fig. 10). The ends trusses at upper level have curved braces from the centre post down to an intermediate sill. Probably 17th century date. This frame is similar to the frame at Little Downham in Cambridgeshire which was dated 1659 or earlier on bell dates, but the small number of two tier frames, and the consequent difficulty of comparison make the date uncertain.

Caldecote  
Modern stone bell cote at west end with two niches.  
(truss 9.A)  
Church converted to a house and bells removed.

Catworth  
(1585, C17, 1863)  
(NG)(1709: 4)(4)  
(10/0, 10/0)(3/6)  
(4.7)(6.B).  
Wooden frame of 1862 by John Eaton of Titchmarsh. The frame is a very tight fit in the tower and masonry has been scooped out to a startling degree. Four pit, hollow square plan frame with metal bars at the outer ends of the pits. The central square very small. Pit trusses of simple A form with jack braces.

## Chesterton\*

(1450, c15, 1621)

(NG)(1712: 3 + s - VCH Hunts III p143)(3)

(8/0, 10/8)(2/10)

(3.1)(6.B)

Oak frame with three parallel pits. Simple pit trusses of A form with almost vertical jack braces (Fig. 5a) springing from low down the main braces. Large assembly marks. Similar to Brampton and Buckden and therefore probably early 17th century, perhaps 1621 with the Norris bell. End truss similar but the main braces slightly curved and set far apart.

## Colne

(1607, 1654, 1700)

(NG)(NG)(4)

(truss 1.D)

Tower rebuilt in 1895 following a spectacular collapse. The bells are hung dead.

## Conington\*

(1827, 1834)

(NG)(1709:4 VCH Hunts III p150)(6)

(13/8, 15/9)(3/7)

(Plan type 5.3 but full width pit added across the ends of the parallel pits, plan type now 6.1)(6.A)

Oak frame of impressive scale with massively wide braces in all trusses (Fig. 4b). Probably built 1600; see discussion above. Pit trusses of simple A form without jack braces. Great and end trusses with A or V arrangements with one or more wide posts. See Figs. 4 and 5 for comparison with similar frames.

Adapted in 1834 to fit two bells into the large pit on the west side.

## Covington\*

(1585, 1710, 1841)

(NG)(1709:3 - VCH Hunts III p41)(3)

(9/9, 9/9)(3/4)

(3.1)(5.A, 6D)

An oak frame with three parallel pits formed by trusses of two distinctively different types. The outer trusses of king post form with curved braces and rather thin sills (Fig. 2b), whilst the inner two are have A braces with jack braces to the head and sill forming a pair of Xs. Both types have end posts and both share an unusual (for Hunts and Cambs) detail in the form of a moulded thickening of the head below the bell bearing. It is likely that this is a 16th century frame rebuilt in 1710 when the treble was recast.

## Denton

(C16, 1671)

(NG)(1709: 2 - VCH Hunts III, p. 154)(2)

Church in ruins. Possible remains of the wooden frame, which held two bells in 1936 (VCH Hunts III, p. 154), but access appears too risky. How could this ruination happen in less than half a century of the modern age?

## Diddington

(1688, 1748, 1865)

(NG)(NG)(3)

(7/6, 9/10)(3/2)

(3.3)(5.A)

Wooden frame probably of 1865, at which time Mears and Stainbank recast the second bell. Trusses of king post form

with straight braces.

## Easton\*

(C16, 1718, 1821)

(iiiij + S)(NG)(4)

(11/6, 11/0)(3/3)

(4.3)(5.A, 6.A, 3A)

A four pit frame which is set diagonally in the cramped space of a small tower. The frame, which is of oak, appears to be of 17th century date with trusses of simple A form and king post form, but the assembly is unique in this survey (Fig. 3b). The frame is three pits wide (SW to NE) with the central pit formed by king post trusses with end posts. The outer trusses are simple braced posts with the bells bearing directly into the tops of the posts. At the NW end of the central pit there is an A truss and a pit is formed beyond that again with a simple braced post.

## Ellington\*

(C15, 1699, 1788)

(iiiij + S)(NG)(4)

(10/2, 12/0)(3/10)

(4.3)(6.A, 6B)

Fine 17th century oak frame. Pit trusses of A form with heavy straight braces (some of which have a very slight elbowed curve on the intrados). End and great truss of A/ form (Fig. 6c) and A form with jack braces. A simple but very pleasing example.

## Elton

(1631, 1746, 1864)

(NG)(1708: 5 - VCH Hunts III, p. 164)(5)

(14/0) (12/6)

(6.1)(8.3.A.h)

Iron low side frame after 1896 by John Taylor & Co of Loughborough. Taylor & Co gave an estimate dated 31 March 1896 for strengthening the old frame and recasting the cracked fourth bell (CRO 2668/6/6), but the project appears to have been expanded to include a whole new frame. There is a vacant pit.

## Eynesbury\*

(1810)

(NG)(NG)(6)

(16/6)(16/6)

(6.12)(6.A, 6D)

Oak frame set diagonally with the ring arranged anticlockwise. Clearly in the Huntingdonshire tradition of simple A trusses with broad straight braces, but includes trusses with jack braces to both sill and head (Fig. 6a). Probably dates from the reconstruction of the tower in 1688.

## Farcet\*

(1621, 1673, 1854)

(NG)(NG)(3)

(6/0, 7/9)(2/8)

(3.1)(6.A, 6D)

Small oak frame inscribed AF CW 1668. Simple form with three parallel pits. The pit trusses of A form with broad, straight braces. The outer trusses are unique in that they lean inwards at the top so that the sills can sit outside the feet of the end truss braces (see Fig. 6a). The end trusses of A form with broad straight braces and jack braces to head and sill; see Eynesbury above.

The bells were hung for swing chiming in 1976 when two I

beams were placed below the foundations of the old frame.

#### Fenstanton

(1603, 1620, 1636, 1771, 1991)  
(NG)(5 in 1724 - VCH Hunts II, p.284) (5)  
(plan 6.1)(8.3.C.e)

Iron H frames by John Taylor & Co of Loughborough, installed shortly before Owen's survey in 1899.

#### Fletton

(c.1550, 1590, 1620, 1953)  
(NG)(NG)(3)  
(Plan upper: two parallel pits)  
(Plan lower: 4.3)  
(truss 8.3.A.h)

Iron frame by John Taylor & Co. of Loughborough dedicated on 19 March 1953. In two tiers with two pits over four.

#### Folkesworth

Single bell of 1936 by Gillett and Johnston in a western bell cote erected in 1850.  
(9.A)

#### Glatton

(1595, 1736, 1863)  
(NG)(1709: 4, 1778: 4 - VCH Hunts III, p.181)(4)  
(Plan 4.1)(Truss 8.3.C.e)

Iron Frame of 1904 by John Taylor & Co of Loughborough. Standard H trusses (CRO 4684/6. The old frame was sold for 15 shillings. Taylors were paid £127 for the new frame.)

#### Godmanchester

(1794, 1870)  
(NG)(NG)(8)  
(Plan 8.1)(truss 8.3.A.h)

Iron frame by John Taylor & Co of Loughborough installed in 1953.

Owen (Owen, T 1899 p86) describes the old frame as being substantial with the treble and second raised above the others. This frame was a replacement or reconstruction carried out by George Thackray in 1870 (CRO 2703/5/11). That work was not up to the job and an architect's report on the bells in 1902 found that '*When the bells are rung the frames oscillate very considerably. The bells should no longer be rung.*' (CRO 3915)

#### Grafham\*

(C15, C16)  
(iij + S)(1724: 3 VCH Hunts III, p.65)(3)  
(10/0, 10/0)(3/5)  
(3.3)(6B and 6 unclassified)

Wooden frame probably c1700 with a narrow empty 'pit' between the two parallel pits. Great trusses of A form with jack braces, and pit trusses of asymmetrical form with one raking brace with a jack brace and one internal post.

#### Great Gidding

(1670, 1756, 1839, 1873)  
(NG)(NG)(5)  
(11/1, 10/2)(2/11)  
(5.1)(6.A)

Wooden frame of 1873 by John Taylor & Co of Loughborough. Pit trusses of A form, great and end trusses of VV and AA form.

#### Great Gransden

##### *Upper frame\**

(1658, 1767, 1854, 1883, 1895)  
(NG)(NG)(6)  
(16/0, 15/3)(3/10)  
(6.12)(6.A, 6D)

Dated 1658. Oak frame set diagonally (Fig. 5b). Great trusses of A form with the braces widely spaced and jack braces to head and sill. The pit trusses of simple A form. The main braces are of massive scale in each case.

Pickford (Pickford, C 1994) suggests that the frame may be the work of John Baxter of Laxton (who worked at Buckden in 1660). The initials and date 'IB 1660' appear on the masonry.

##### *Lower frame*

New frame installed in 2000.

#### Great Paxton

(c.1400, 1721, 1756, 1758, 1896)  
(NG)(NG)(5)  
(9/8, 13/1)(2/10)  
(5.1)(6.A)

Timber frame of 1896 by Mears and Stainbank, of Whitechapel. Simple A trusses. Gallows ends to the tenor pits.

#### Great Staughton\*

(1420, 1600, 1633, 1787, 1919)  
(iiiij)(1711: 5)(5)  
(15/2, 16/3)(3/8)  
(5.3 altered to 6.1)(6.B)

Majestic oak five bell frame, probably of 1633 when at least two bells were provided. Pit trusses of A form with jack braces springing from low down on the heavy A braces (Fig. 4c). Great trusses of similar form.

A sixth pit was added in steel sections by Alfred Bowell of Ipswich c1900.

#### Great Stukeley\*

(c.1590, 1626, 1635, 1797)  
(NG)(NG)(4)  
(10/6, 11/5)(3/2)  
(4.3)(6.B, unclassified)

17th century oak frame (possibly of 1626 or 1635) which appears from empty mortices in the tenor pit to have been reassembled. The smaller pit trusses of A form with jack braces. So too the pit trusses of the tenor pit which lies across the north ends of the three small pits, and the end truss at the south side of the three small pits. The great trusses to east and west of /A form with a jack brace at each end (Fig. 7d). The braces are not particularly wide but they have the full thickness of the head.

#### Haddon

(c1450, 1568, 1900)  
(NG)(NG)(3)  
(not measured)  
(3.1)(8.3.A.h)

Iron frame by John Taylor & Co of Loughborough installed in 1900.

#### Hail Weston\* (Figure 9)

(1589, 1655, 1884)  
(NG)(1709: 3 - VCH Hunts II, p.307)(3)  
(10/0, 11/10)(3/8)  
(3.1)(6.F variant).

The whole tower might be considered to be a bell frame, this being the only timber framed tower in the County. The three bells hang in a frame of three parallel pits. The pit trusses are of A form with slightly concavely curved braces. Parallel, straighter and thinner brace are fixed either side of the A (see Fig. 4a) and there are end posts. The end trusses consist of irregular X bracing between the end posts of the pit trusses and a head member. The pit truss heads are tenoned into this head and further connected with a unique arrangement of notched battens (see Fig. 4a).

The frame, as the tower, has been repaired and probably reassembled a number of times. It probably predates 1709 and might well be of a time with the 1589 bell by Watts.

#### Hamerton

(1628, 1706, 1728, 1854)

(NG)(1709: 4 - VCH Hunts III, p69)(4)

(10/1)(12/7)(2/8)

(6.1)(6.A)

Timber frame installed in 1933 by John Taylor & Co of Loughborough. Great trusses of simple AA form and pit trusses of simple A form. Steel connections and tension bracing.

#### Hartford

(1796, 1950)

(v + S)(NG)(6)

(11/6, 10/3)

(6.1)(8.1.A.b)

An unusual single grillage of RSJs installed by Warner of Cripplegate in 1895.

#### Hemingford Abbots

(1754, 1897)

(NG)(NG)(6)

(approx. 12/0 square)

(6.1)(8.3.C.e)

Frame by John Taylor & Co of Loughborough installed in 1897. Iron H trusses.

#### Hemingford Grey

(1724, 1988)

(NG)(NG)(6)

(approx. 13/0 square)

(8.3)(8.3.A.m)

Frame by Eayre and Smith installed in 1988 when the ring augmented to 8.

#### Hilton

(1604, 1637, 1744, 1767, 1898, 1987)

(NG)(NG)(4)

(no plan class)(8.3.C.e and 8.3.A.h).

Iron H frames of 1898 by John Taylor & Co of Loughborough. In 1987 the frame was rearranged by Taylor and Co and the bells increased in number to six. The third bell sits in a low-sided iron frame on top of the H frames.

#### Holme

(1670, 1885)

(NG)(1709: 2 )(2)

(9.A)

A western masonry bell cote with two niches. Church rebuilt in 1862.

#### Holywell

(1625, 1915,)

(iij greate belles + s + ijhande belles)(NG)(4)

(Not surveyed)

()(8.3.C.e)

Five pit frame of 1915 with iron H trusses by John Taylor and Co of Loughborough. Altered to take a sixth bell. (CRO HP44/6/4/1 and HP44/18/3/14 includes correspondence with Taylors about a suspicion that the new frame was harming the tower, following a similar suggestion at Hemingford Abbots. Taylors' letter refers to 'the old four bell frame of 1625' - pity there is no drawing of that.)

#### Houghton

(c1590, 1662, 1967)

(iij + S)(NG)(6)

(Not surveyed)

(plan unclassified)(8.3.C.e, 8.3.A.h)

Two tier frame by the Whitechapel Bell Foundry installed in 1967. Iron H trusses below with two bells in iron low side frames above.

#### Huntingdon All Saints

(1606, 1616, 1904)

(NG)(NG)(4)

(9/6, 10/6)(2/8)

(6.4)(8.3.A.e)

Iron plate frame installed by the Whitechapel Bell Foundry in 1904. The pits all have gallows ends.

#### Huntingdon St Mary

(C15, 1659, 1737, 1876)

(iiij + S)(1607:4, 1824: 5 )(8)

(15/0, 14/3)(3/6)

(8.3)(6.A)

Timber frame with steel connections and rods installed by John Taylor & Co of Loughborough in 1876. Trusses of simple A, AA and VV form. Remains of the foundations of an older frame survive below the Taylor frame.

#### Keyston (Plate 12)

(1592, 1733, 1743)

(iiij + S)(1709: 5 )(5)

(12/7, 14/11)(2/10)

(5.6)(6.B)

Timber frame with steel tie rods by George Eaton of Titchmarsh installed c.1880 (Fig. 9). The frame is set diagonally with the tenor in the centre. Pit trusses of A form with jack braces. Great trusses of A\ form, each brace with a jack brace.

#### Kimbolton

(1571, 1634, 1660, 1702, 1713)

(v)(1709: 5 - VCH Hunts III, p84)(5)

Upper frame:

(13/0)(approx. 3/0)

(no plan class)(6.B)

A singular arrangement with a single pit formed by two timber trusses spanning E-W right across the tower. These are of a stretched A form with jack braces (Fig. 7b). The supporting beams have chamfers with ogee stops.

Lower frame:

Iron frame by John Taylor & Co of Loughborough installed in 1964.

(6.14)(8.3.A.h)

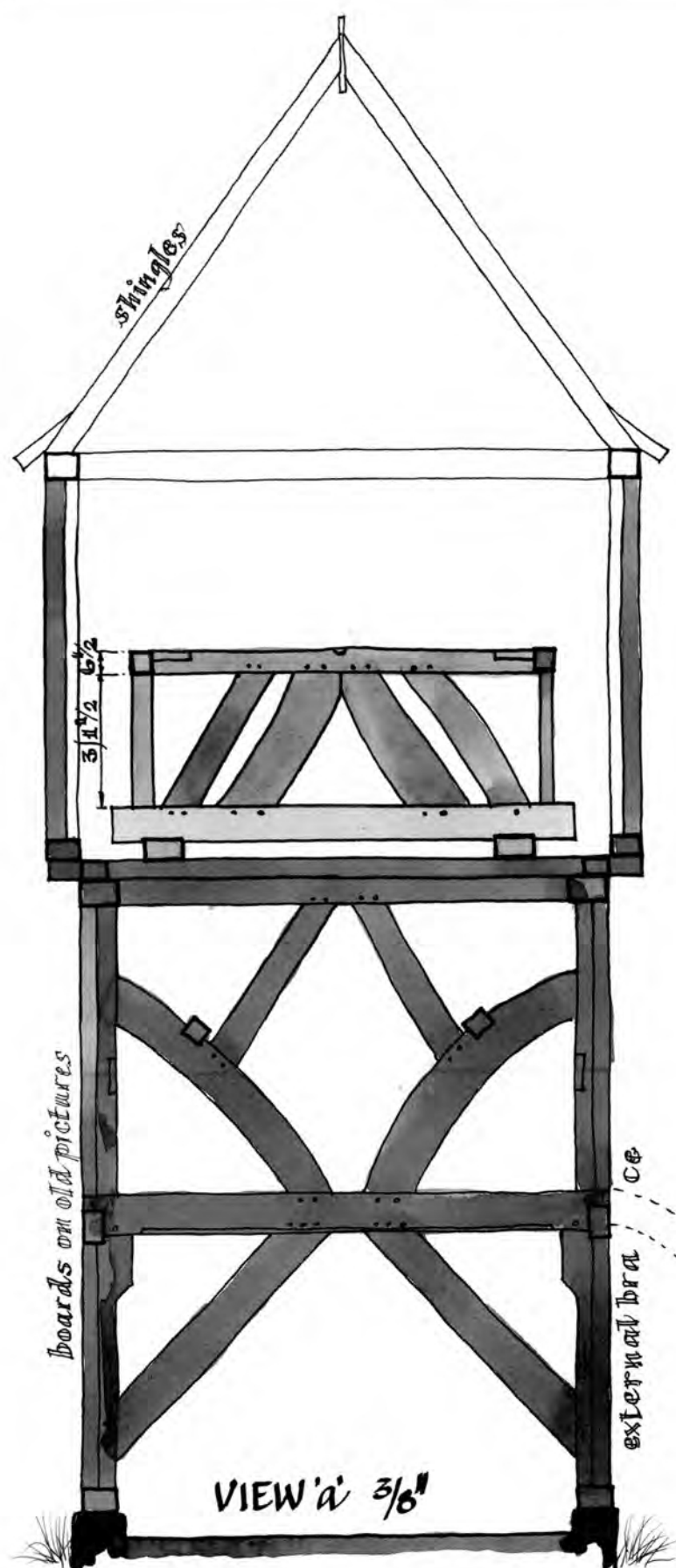


Figure 9. Hail Weston: The bell frame shown in position in the detached, timber belfry.

Prior to 1964 there was a four bell oak frame dated 1619 (VCH III, p84). Unfortunately no record appears to have been made of this frame when it was destroyed.

#### King's Ripton\*

(c.1500)

(iij + S)(NG)(2)

(10/10, 10/4)(4/3)

(3.1)(5.H)

Oak frame with three parallel pits which appears to date from c1500 with the surviving bells. The pit trusses of king post form with end posts and corner bracing. The end trusses have jowled posts and curved down bracing (Fig. 1d). The head is halved over the heads of the pit trusses and jointed to the jowl of the end posts. Small assembly marks are found in these positions. The bells are now hung for swing chiming on two RSJs below the old frame. (truss 1.A)

#### Leighton Bromswold

(1641, 1720)

(iij + S)(NG)(5)

(14/7, 11/11)(3/3)

(6.1)(7.C.d)

Composite iron and timber frame by James Barwell of Birmingham installed in 1902. (Built with a vacant pit for a possible new treble.)

#### Little Gidding

Western stone bell cote over façade dated 1714.

(9.A)

#### Little Paxton\*

(1610, 1669, 1713, 1791)

(NG)(NG)(4)

(10/9, 12/1)(4/3)

(3.1 to 4.4)(5.H)

Oak three pit frame altered to take a fourth bell. The original frame probably pre-17th century judging by the pit trusses which are of king post form with end posts and corner braces (Fig. 1c). There are however two distinctly different interpretations of the form as illustrated in Fig. 1c. The end trusses are formed into three bays by the end posts of the pit trusses. In the outer bays there is curved X bracing except in SW corner where the extra pit was added. That pit has a truss with doubled straight corner bracing in the top corners. A beam at the lowest level of the grillage is signed *JOHN ANGELL 1771*. These lower timbers pass through the tower walls and are wedged externally. The frame is derelict.

#### Little Raveley

(9.D)

Two empty recesses in the west wall. There was a single bell of 1771 in Owen's survey.

Church now converted to a house.

#### Little Stukeley\*

(c1590, 1607, 1759, 1899)

(NG)(NG)(4)

(11/3, 11/6)(3/4)

(4.2)(6.A)

Dated 1659. Oak frame of four pits arranged around a hollow square (Fig. 5c). Pit trusses of simple form with massive A braces. Great trusses of A/ form; the / with a jack brace springing from low down. Inscribed *R.O. I.G CW 1659* on the

north side of the hollow square.

There is a further inscription below that noted above *W. Pye 1887*

The frame repaired and altered by Day of Eye in 1891. They replaced the north and south great trusses with A/ braces with double jack braces.

(truss 6.D)

#### Molesworth

(1636, 1710, 1861)

(NG)(1709: 3)(3)

(7/2, 8/2)(2/6)

(3.1)(6.B)

Timber frame by John Eaton of Titchmarsh installed in 1861.

Pit trusses of flimsy A form with jack braces. End trusses of A\ form; the \ with a jack brace.

#### Morborne

(1614, 1712)

(NG)(NG)(2)

Not a shred of timber survives in the brick tower of c1600.

The four bell frame noted by Owen (Owen, T 1899 p106) has been removed without consent or record.

#### Offord Cluny\*

(1624, 1630, 1842)

(NG)(NG)(4)

(11/2, 10/6)(3/8)

(3.1)(5.H)

Dated 1620. Frame of three parallel pits of king post form with end posts and corner bracing (Fig 2d). The end trusses have jowled and moulded end posts and upward curving top corner braces in the outer bays. The heads of the trusses are distinguished by careful mouldings to the indents designed to allow the bells mouths to pass.

Treble set in a rough trestle at the south end of the central pit.

#### Offord Darcy\*

(1618, 1620, 1676)

(NG)(1724: 4 - VCH Hunts II, p327)(3)

(9/0, 8/7)(9/11)

(unclassified)(6.S.4)

Magnificent two tier oak frame for four bells. Lower pit trusses of king post form; upper trusses of X form (Fig. 3a). The end trusses are of king post form at both levels. The principal posts are not continuous and the upper parts are carefully shaped. The central parts of the lower truss heads are thickened and moulded with a cyma moulding very similar to that used at Offord Cluny on a frame dated 1620. Given the bell dates here, 1620 would appear to be a possible date for this frame too.

#### Oldhurst

(1630, 1705)

(ij)(NG)(2)

(9.D)

Two modern recesses in the 13th century west wall (VCH Hunts II, p183. Prior to 1868 there was a wooden bell turret on the roof).

#### Old Weston\*

(C16, 1612)

(iij)(NG)(4)

(10/3, 10/6)(2/6)

(4.3)(6.B)

Oak frame probably of the 17th century. The pit trusses of A form with jack braces springing from low down (Fig 7a). The braces have the same thickness as the heads. The western great truss of \A form with jack braces to the A and the truss between the three parallel pit ends and the perpendicular pit of the treble of stretched A form with jack braces. The end truss has two raking braces but takes no symmetrical form.

Orton Longueville\*

(C15)

(NG)(NG)(1 + s)

(3/7, 8/0)(3/8)

(single pit)(5A)

Modern frame using an old king post truss (Fig. 1b). This truss, judging by its height, probably pre-dates the 17th century.

Orton Waterville\*

(1606, 1650, 1755)

(NG)(1709: 4 - VCH Hunts III, p201)(4)

(10/2, 10/5)(3/8)

(4.3)(6.A)

Oak frame probably pre-dating the 1709 account of four bells. The pit trusses of simple A form with slightly curved braces. The end truss with a horizontal mid rail butted and tennoned into the posts.

Pidley\*

(1675)

(NG)(NG)(3)

(9/5, 10/4)(4/5)

(3.1)(6.A, 6.H)

Church rebuilt in 1864 but the old frame appears to have been reused along with the three bells by Christopher Gray. The oak three pit frame appears to be contemporary with them or earlier. It is exceptionally tall and has pit trusses of simple A form with curved braces and of X form. The end trusses are of A form with straight braces.

Pondersbridge

Built 1869. Single bell in a turret at the northwest corner of the nave.

(9.B)

Ramsey\*

(1810)

(only one handebell and ij sacring belles)(before 1672: 4, 1672-1810: 5 - VCH Hunts II, p197)(6)

(15/9, 15/6)(3/6)

(6.12)(6.B)

Tower rebuilt in 1672 and a new frame provided at that date. The frame is dated and inscribed, 1672 NEVILL JONES THOMAS WALLIS (Fig. 6b). It is a six bell frame set diagonally, but probably held only five bells until the recasting on the old five in 1810. The 'new' treble sits in a modern frame within the old tenor pit. The pit and great trusses are all based on an A form with massively wide braces and jack braces. The great trusses are extended to one side with a relatively flimsy single brace.

Ramsey St Mary

(1858)

dimensions (9/9, 9/10)(4/1)

(3.1)(5.A)

Church built 1858. The frame of that date also, given that the Mears bell is also dated thus. Three pit frame of softwood with king post pit trusses with straight braces. The end truss has an X at the end of each pit.

St Ives

(1723, 1796, 1930)

(NG)(NG)(8)

(approx. 13/0 square)(2/6)

(8.3)(6.A)

Timber frame with metal X plate bracing across some pits and steel ties. Installed in 1931 by the Whitechapel Bell Foundry. All trusses based on multiples of a simple A form. The old ring was demolished when an RAF plane felled the spire in 1919 (CRO HP72/5/6 and HP72/6/1/7). (CRO HP72/8/1/3 records that 'the bell wheels and frames were smashed, the bells were thrown on the floor of the belfry.')

St Neots

(1753, 1832, 1984)

(NG)(NG)(8)

(Not surveyed)

(No plan code)(8.3.A.h)

Eight bell iron frame of 1919 by John Taylor & Co of Loughborough which was altered and extended in 1984 to carry ten bells.

Sawtry

Church built 1881. Single bell in an elaborate western stone bell cote.

(9.A)

Sibson cum Stibbington

(1848)

(NG)(1707: 3)(2)

(9.F)

Single bell hung in an iron gibbet at the east end of the nave.

On the west wall of the north transept a projecting beam which probably held a sanctus bell. (VCH Hunts III, p221; the old tower is illustrated. It was pulled down in 1848 and a timber bell turret with a tiled broach spire placed over the nave. This turret was removed about thirty years ago.)

Somersham

(1782)

(iiij + S)(1712: 5 - VCH Hunts II, p229)(6)

(12/6, 11/3)(2/10)

(6.6)(6.A)

Dated 1782 and contemporary with the Edward Arnold bells. Much ironwork added in 1902 when the bells were re-hung by John Taylor & Co of Loughborough. Pit and great trusses based on simple A and AA forms.

Southoe

(1794, 1828)

(NG)(1709: 4 - VCH Hunts II, p353)(4)

(9/0, 9/9)(1/9)

(5.1)(6.A)

Timber frame of 1829. Five pits. The pit trusses very low and of simple A form. The great trusses and end truss of VV and A/ form.

CRO HP78/5/1. The churchwardens accounts for 1829 record:

*Rbt Painter for materials for bell frames* 8.12.1

<i>Richard Hayes for sawing the oak beams</i>	19.0	Toseland	
<i>Mr Joyce</i>	20.6.0	(1840)	
<i>Mr Peach bellhanger</i>	4.0.6	(NG)(NG)(1)	
		(9.A)	
Spaldwick			Single bell in a western stone bell cote built in 1873.
(1635, 1921)			
(iii) + S)(NG)(5)		Upton*	
(approx 10/0, 12/0)(approx 2/0)		(1671, 1778)	
(6.1)(8.2.C.b)		(ij)(1707: 2)(2)	
Iron and steel frame by Alfred Bowell of Ipswich installed in 1921.		(7/8, 6/5)(3/7)	
		(two parallel pits)(6.H)	
			Oak frame of two parallel pits. The pit trusses of X form with jowled end posts. The frame is possibly of 1671 but it may be the frame which held the 'ij' bells in the 16th century inventory of church goods. The X form is relatively unusual and therefore difficult to date, but the presence of jowls on the posts would be consistent with the 16th century.
Stanground		Upwood	
(1588, 1617, 1622, 1832, 1935)		(C16, 1615, 1709)	
(NG)(1709: 4)(4)		(NG)(NG)(3)	
(10/7, 11/2)(2/9)		(Not surveyed)	
(5.1)(6.A)(8.3.A.h)			Tower rebuilt in 1890. The bells hung anti-clockwise in a new wooden frame of simple A trusses.
Five bells in a timber frame of simple A trusses with iron ties by the Whitechapel Bell Foundry. The treble in a single pit above made of standard iron frames by Gillett and Johnston and installed in 1948.			(There were probably three bells in 1552 since the inventory records that the middle bell had been sold (Lomas, C 1906 p31)).
		Warboys	
Steeple Gidding		(1765)	
(C15, 1748)		(NG)(NG)(5)	
(NG)(1708: 3 - VCH Hunts III, p59)(3)		(Not surveyed)	
(6/6, 5/11)(2/6)		(truss 6A)	
(no plan code)(6A)			In 1765 Joseph Eayre cast five bells and provided a six bell frame at a cost of £25 (Owen, T 1899 p140). A new oak frame was provided c1930 (VCH Hunts II, p246). Simple A frames with iron reinforcements.
Owen found the frame to be <i>much decayed</i> (Owen T 1899 p84). In 1899 the tower was restored and a two pit oak frame installed. The three bells are hung dead with 1 and 2 sharing a pit. The trusses are simple A frames with iron reinforcement.		Waresley*	
		(1857)	
Stilton*		(Church rebuilt 1857)	
(C16, 1639)		(Not measured)	
(NG)(1709: 3)(2, pits for 3)		(no plan code)(8.3.C)	
(11/7, 9/9)(5/11)			Early iron frame by John Taylor & Co of Loughborough. The three bells hang in two tiers; the treble above 2 and 3. The trusses are tall castings of X form supported on oak timbers.
(3.1)(5.A)			
Important three pit frame of exceptional height. The trusses of king post type with jowled end posts and a mixture of curved and elbowed braces (Fig. 1a). The frame probably contemporary with the 16th century bell by Mellours of Nottingham.		Water Newton	
		(C14, C15, 1667)	
Stow Longa		(NG)(NG)(3)	
(1440)			Composite iron and wood frame of three parallel pits installed in 1902 by Charles Carr of Smethwick. The heads and sills wood with iron A frames and cylindrical end posts.
(iii) + S)(NG)(1)			(3.1)(7.B.b)
(3/6, 11/6)(3/6)		Winwick	
(unclassified)(5.T but with braces to king post too)		(1590, 1716, 1756, 1864)(iii)(1709: 5 - VCH Hunts III, p124)(5)	
A single pit. King post trusses with end posts and corner bracing in the bottom corner. This frame probably after 1820 when two bells were removed from the medieval ring of three (VCH Hunts III, p103).		(10/7, 9/10)(2/6)	
			Wooden frame with iron connections and ties installed in 1864 by John Taylor & Co of Loughborough. Pit trusses of simple A form and great trusses of V/ form.
Tilbrook*		(5.1)(6.A)	
(1625, 1682, 1763)			
(NG)(NG)(1883: 3 - North, T 1883 p 199)			
(8/8, 7/6)(2/8)			
(3.2)(6.A, 6.B)			
Oak frame with three parallel pits. The pit trusses of simple A form, the end trusses of A form with jack braces (Fig. 7c). The frame was probably made in 1682 when a new bell was installed.			

**Wistow**

(1628, 1658, 1756, 1905)

(ijj + S + ijh)(NG)(4)

(11/7, 8/0)(2/6)

(4.unclassified)(7.C.d)

Composite iron and timber frame by James Barwell of Birmingham installed in 1905.

**Woodhurst\***

(1621, 1624, 1695)

(NG)(NG)(3)

(6/10, 10/2)(4/3)

(3.1)(6.R)

Oak frame of three parallel pits housed within a timber framed turret. There are two truss forms with double intersecting X braces. The outer trusses have curved braces and the inner have straight braces (Fig. 3d and Fig 12) This is a unique truss form in Huntingdonshire. One example was found in Cambridgeshire at Hauxton (Walker R 2002 p97), which may date from the installation of three bells in 1666. It has straight braces but lacks the end posts with jowls which are found at Woodhurst. The bell dates here are also all of the 17th century and the RCHM dates the turret to the early part of that century (RCHM p 296).

**Woodston**

(1608, 1636, 1749, 1914)

(NG)(NG)(3)

(Not measured)

(3.1 two tiers)(8.3.A.m and 8.3.C.e)

Two tier iron frame of 1914 by Gillett and Johnston of Croydon. H frames on lower tier and low A frames above.

**Wood Walton**

Redundant church which was rebuilt in 1859. The tower is now inaccessible. The four pit frame with the ring of bells arranged anti-clockwise dates from the rebuilding of the church.

**Woolley**

Demolished

**Wyton**

Tower built in 1866. Nothing of the bell installation remains in the church which is being converted to a house.

**Yaxley**

(1721, 1881, 1931)

(NG)(1709: 4)(6)

(14/0, 11/1)(2/8)

(6.1)(6.A)

Wooden frame with iron tie rods installed in 1931 by Gillett and Johnston of Croydon. The pit trusses of A form and the great and end trusses of AA form.

**Yelling\***

(1666, 1700, 1739)

(NG)(NG)(4)

(10/2, 10/9)(3/2)

(4.3)(5.A)

Oak frame probably of 1666 or earlier but much rebuilt. King post trusses to pit, great and end trusses but of a variety of builds (Fig. 2c).

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My thanks to Chris Clare and Mike Davies for their company, and to the dozens of ringers and wardens who opened their towers to me.

I am grateful to Oliver Rackham for pointing out that the bell frame at the church of St Botolph, Cambridge is made of oak, not chestnut.

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Plate 8. (left) The frame at Woodhurst, Huntingdonshire.

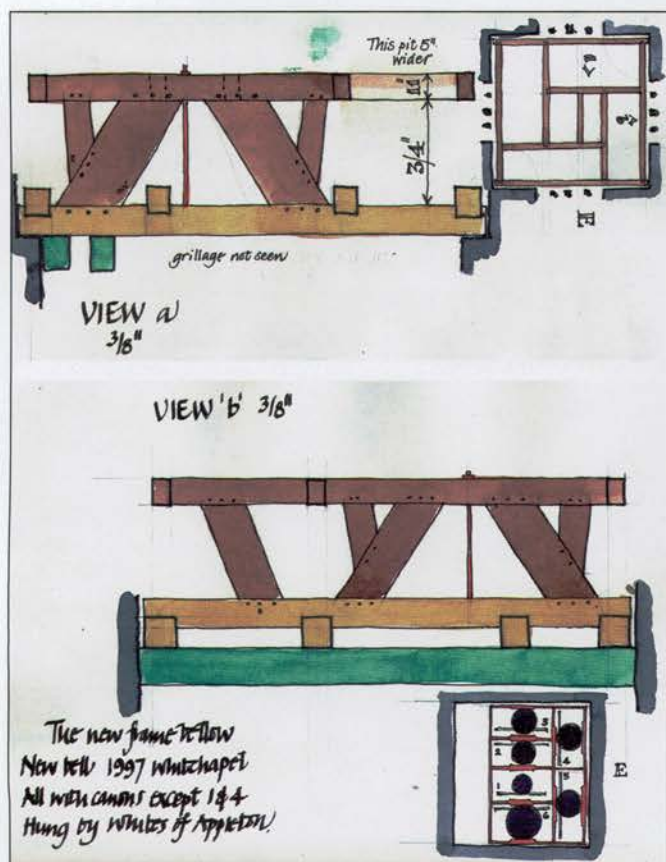


Plate 9. Plan of the bells and frames at Buckden, Huntingdonshire from the author's survey book.



Plate 10. Inspection of the frame at Buckden, Huntingdonshire.

4.60 BYTHORN St. Lawrence 15/5/99

Visit for DAC. The 1 chimeable, 2 out on top of the frame. Others derelict. Notes 2.2

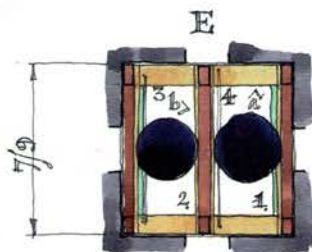
11/15

Now as then.

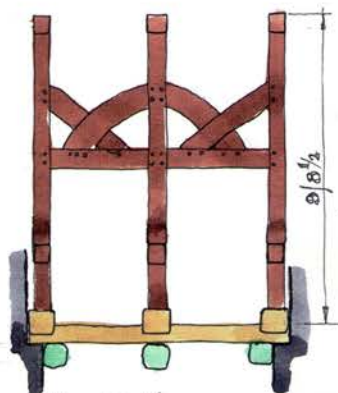
1. Henry Bagley 1682
2. Henry Penn 1711
3. Toby Norris 1620
4. Thomas Norris 1674

All the bells retain their anons, finally re-hung by John Eton

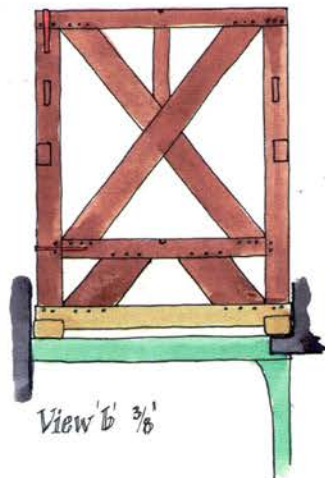
4.61



Plan 3/4



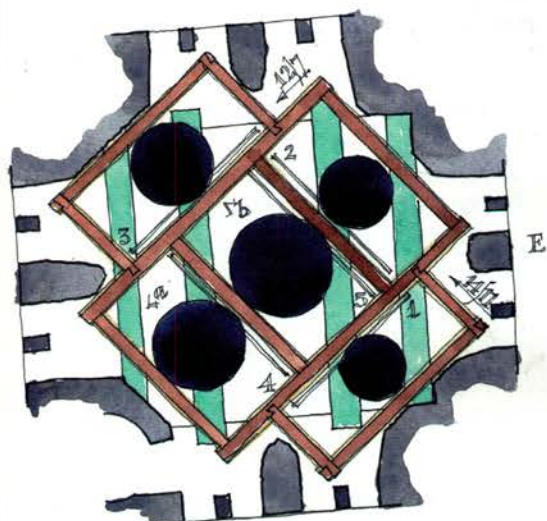
View 'a' 3/8



View 'b' 3/8

No notch

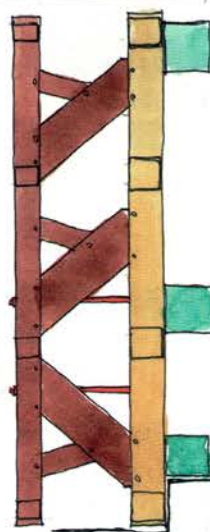
Plate 11. Plan of the bells and frames at Bythorn, Huntingdonshire from the author's survey book.



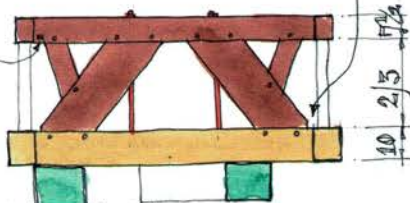
Plan 3/4

Unringable but last peel ring as recently as 1988

In the chamber below the bells are old chiming ball hammers.



View 'b' 3/8



View 'a' 3/8

all trusses of similar depth.  
No floor  
No notch

Slides 11, 796-801

Small  
Romans

Plate 12. Plan of the bells and frames at Keyston, Huntingdonshire from the author's survey book.