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## CHARING CLOCKS, CLOCKMAKERS AND CLOCK-KEEPERS (PART II)

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The first half of this horological history of Charing appeared in last year's volume. This second article describes the personalities involved in clockmaking and their achievements. Evidence for the introduction of turret clocks in major houses of the parish is also examined. A review of horological developments in the twentieth century completes the story.

### *The Clockmakers 1720-1894 (Fig. 4)*

Thomas Woolley was born in 1691, the first born of Stephen and Susan Woolley of Egerton.<sup>42</sup> He married Ann West, the daughter of a Little Chart blacksmith, in 1723. Although we have no categorical evidence concerning Thomas' training he may have been the apprentice and journeyman of James Jordan of Chatham with whose work Thomas' own bears a striking similarity both in terms of style and quality.<sup>43</sup> The earliest documentary evidence of Thomas' activities as a clockmaker are recorded in the Bethersden churchwarden's accounts of 1722:

'Pd to Mr Woolley for mending ye Clock 01 - 01 - 00'.

Thomas' first appearance in the Charing churchwarden's accounts is in 1724/5:

'Paid Thomas Woolley for looking after the Clock 10 - 0'.

Thomas had taken over responsibility for daily attendance on the clock from John Wimble. The churchwarden's accounts have not survived for the 35 years after Thomas' 1724/5 debut. However between 1762 and his death in 1768 Thomas received significant annual payments; these refer to daily attendance and winding plus repairs to the clock, in addition to his duties as Parish Clerk. It is almost certain that Thomas was responsible for the Church clock between 1724 and 1768.

Thomas was a very fine clockmaker of London quality. His recorded survivals are all longcase clocks, comprising both square and arch dials.

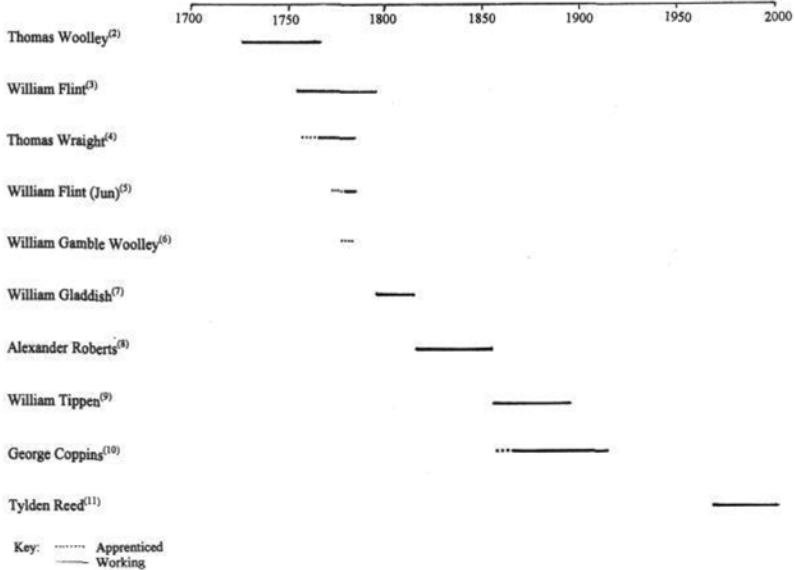


Fig. 4 Charing's Clockmakers 1720-1894.<sup>1</sup>

Notes to Fig. 4:

- <sup>1</sup> Notes give key dates and relationships only. See main text for detailed information.
- <sup>2</sup> Apprenticeship age 1705-1712. Probably in the Charing area before 1724. Recorded in Charing 1724-68.
- <sup>3</sup> Probably apprenticed to Thomas Gladdish of Yalding 1747-54. Recorded in Charing 1755-95.
- <sup>4</sup> Apprenticed to Thomas Woolley 1759-66. Took over Thomas' business in 1768. Married Thomas Woolley's niece. Left Charing in 1783. Established Wraight & Woolley of Tenterden.
- <sup>5</sup> Apprenticed to his father 1772-79. Left Charing in 1783 for Ashford where he became William Flint (snr) of Ashford. His son subsequently became William (jnr) of Ashford.
- <sup>6</sup> Nephew-in-law to Thomas Wraight. Apprenticed to Thomas 1779-86. Entered into partnership with Thomas in Tenterden (Wraight & Woolley).
- <sup>7</sup> Brother in law to William Flint. Probably apprenticed to Thomas Gladdish of Yalding. Worked in Yalding before moving to Charing c.1796/7.
- <sup>8</sup> Born in Scotland. Unknown where apprenticed or working before 1817.
- <sup>9</sup> Apprenticed to his father James Tippen of Lenham 1844-51.
- <sup>10</sup> Apprenticed to William Tippen 1858-65. Thereafter employed by Tippen.
- <sup>11</sup> Apprenticed at Maidstone branch of James Walker 1958-62. Established Tylden Reed, Charing, in 1971.

PLATE IV



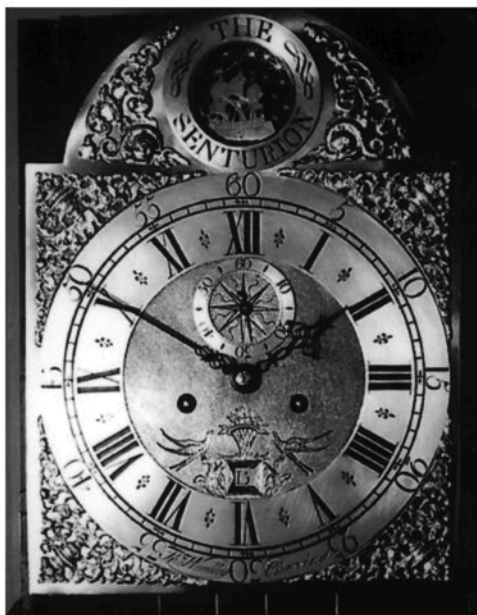
Charing's earliest recorded domestic clock. A high London quality eight-day, striking longcase clock by Thomas Woolley. Note recasing, perhaps because the original lacquer case had deteriorated. Dial dates stylistically to *c.*1700, somewhat conservative even for its earliest date of making, 1712, when apprenticeship completed

Thomas' earliest square dial clock (**Plate IV**) stylistically predates his documented arrival in Charing. It is thus possible Thomas was in the

Charing area before 1724 sometime after completing his apprenticeship in 1712.

A particularly interesting clock by Thomas is shown in **Plate V**. In the dial's arch is an engraving of the *Centurion* – curiously misspelled with an 'S'. HMS *Centurion* is a most illustrious ship from both horological and naval standpoints. Horologically, it was on the *Centurion's* voyage from Spithead to Lisbon in 1736 that John Harrison's first sea-going clock was tested. Eventually Harrison went on to develop a sea-going chronometer sufficiently accurate to enable longitude to be calculated. Accurate calcul-

PLATE V



Thomas Woolley's *Centurion* clock – of Harrison and Anson fame – c.1750. Eight-day, striking clock in original typical Kentish oak case



ation was vitally important and Parliament, by the Longitude Act of 1714, offered a reward of £20,000.<sup>44</sup> From the naval standpoint the *Centurion* was Admiral Anson's flagship for his epic 1740-44 voyage that combined successful raiding and capture of Spanish bullion with horrendous loss of life (over half the 2,000 crew died of scurvy) and a global circumnavigation.<sup>45</sup> The *Centurion* carried the biggest booty ever returned to England in a single vessel – over £400,000 (approximately £33 million in current prices). The *Centurion* was broken up at Chatham in 1769.

Thomas' will describes him as a clocksmith, leaving his wife, Ann, as sole beneficiary and executrix.<sup>46</sup> Ann's will written in May 1771, some three years after Thomas' death, refers to:

'my Messuage or Tenement Smiths Forge Traverse<sup>47</sup> Shop Garden Backside Land and Premises thereunto...being in Charing and new in my own Occupation ...'<sup>48</sup>

Clearly Thomas' business continued beyond his death and acquired additional premises. Thomas' will makes no mention of any children and the Parish registers make no mention of any ever having been born or baptised. The sole beneficiary and executor of Ann's will was '... Thomas Wraight now living with me...'

Thomas Wraight was born in Charing in 1745, the last of nine children. The Wraights had a long lineage in Charing (see note 42). Wraight was trained by Thomas Woolley. His normal apprenticeship would have started in 1759, but it is probable the childless Woolleys looked after him before then. James Wraight died in 1750, leaving Thomas fatherless at just five years of age. That the Woolleys effectively adopted young Thomas is implicit in his status in Ann Woolley's will. There was no shortage of brothers, sisters, nieces and nephews in the extended Woolley and West families, yet Thomas preceded them all as, in effect, the Woolley's only son.

Thomas worked in Thomas Woolley's business and closely assisted him in his Parish Clerk duties. As Woolley aged, he was 77 when he died, young Thomas may well have increasingly become the mainstay. Thomas Woolley's passing is seamless in the churchwarden's accounts: 'Wraight' is merely substituted for 'Woolley'. In January 1770/1 Thomas married Anne Woolley – Thomas Woolley's niece.

In 1771 a new Clerk was appointed and responsibility for the clock reverted to the Parish Clerk, rather than reside with a clockmaker – Woolley and Wraight had, of course, combined the two (see Appendix, Table 4, in Part I). We can only speculate why this occurred; it must have involved a loss of prestige and influence. Perhaps Thomas wished to concentrate on the business, but if so, why give up the church clock? Maybe William Flint was resentful. As we shall see, William arrived in Charing, before Thomas was of apprenticeship age. After Woolley's death

William may well have seen himself as the rightful senior clockman in Charing, and objected to Thomas inheriting Woolley's mantle. Whatever the reasons between 1773 and 1783 payments in the churchwarden's accounts to Flint and Wraight were 60/40 in favour of the former (see also Appendix, Table 3). On the basis of surviving original bills only about a third was genuine clocksmith work (**Plate VI**).<sup>49</sup>

## PLATE VI

1772. Charing parish to Tho' Wraight

June 19	for maken the Clock strike riv <sup>s</sup>	0	1	0
July 8	for a new Conduktor lead from the top of the Steeple to the bottom	1	3	6
August 14	for mending the Clock wire	0	1	0
Sept 16 25	for Sharpening a madock	0	0	2
1773 Jan 7 6	for mending a lock at the Church & a key	0	8	
June 7	for maken the Clock goo	0	1	0
Sept 16 29	for mending	0	0	4
Oct 13	for mending the Clock wire	0	1	0
	for a Staple for the Church door	0	0	1
		L 1 8 9		
Octo <sup>r</sup> 31: 1775	Recd the Contents by one			
	Tho' Wraight			

A 1772 Thomas Wraight bill. Thomas had extended Woolley's business into blacksmithing. Renewing the church's lightning conductor is not an activity one normally associates with a watchmaker!

The Darells of *Calehill* personal account book for 1767-74 contain the following:<sup>50</sup>

1767	Nov 26	To a watch chain	7 - 6
	Jan 21	a watch glass	0 - 6
1769	May 27	To Wright ye Clockmakers bill	1 - 10 - 5
	July 20	Clockline	1 - 0
1772	Jan 13	Wraight ye Clockmakers	3 - 3 - 2
1773		To Thos Wraights bill	1 - 11 - 11½
		Cleaning my watch	3 - 0

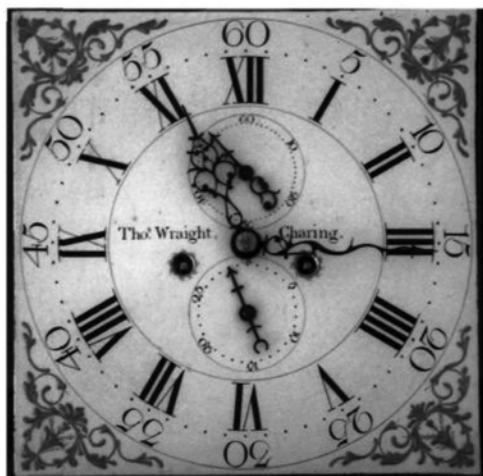
These entries are interesting on a number of counts. The Darells were one of the most prestigious potential clients in the area. As the first dated Wraight entry is just six months from Thomas Woolley's death, it can be presumed the Darells were, in the first instance, a Woolley client. Wraight, as clockmaker, serviced the Darell's house clocks.<sup>51</sup> Although 'Wraight' and 'watch' do not appear on the same line, it is probable that Thomas, and by implication Thomas Woolley before him, repaired watches,<sup>52</sup> but none have yet been recorded.

Thomas Wraight's recorded survivals comprise both wall clocks and longcases (**Plate VII**). In 1783 Thomas left Charing. Business reasons may include Charing being too small and the wrong type of market. In his will,<sup>53</sup> written in 1789, he refers to himself as 'watchmaker and silversmith', implying a transformation from his Charing business. Any perceived limitation of the Charing market would no doubt have weighed more heavily after emotional connections were lessened by Ann Woolley's death in 1782. Whatever the reasons Thomas and Anne Wraight moved to Tenterden where he entered into partnership with William Gamble Woolley, Thomas' nephew by marriage.

In 1784 Thomas rented a shop in Tenterden churchyard.<sup>54</sup> The Wraight and Woolley partnership was formed by October 1786, the earliest dated documentary evidence.<sup>55</sup> All the evidence indicates that Wraight and Woolley prospered. They took on apprentices in 1786 (James Munk for a premium of £35)<sup>56</sup> and 1790 (William Strickland for a premium of £50). So by the early 1790s Wraight and Woolley was a four-man concern. The tragedy was that Thomas had not long to live. He was buried at Tenterden in 1793, aged 48. William continued until 1803 when he disposed of the business, then described as '...Watch, Clock, and Gunmaker and Silversmith...'<sup>57</sup> to William Strickland. Thomas and Anne were childless, and in Thomas' will, everything was left, after Ann's death, to William.

Several clocks signed Wraight and Woolley of Tenterden have been recorded: these must all have been made between 1783 and 1793. These comprise painted dial longcases and small wall hung silverdial timepiece alarms. Several painted dial longcase movements in oak cases and





Early painted dial by Thomas Wraight  
c.1780. Eight-day, striking clock in  
original oak longcase with crossbanded  
door and gilded finials to hood



watches signed Woolley of Tenterden have been recorded. These must all have been made between 1794 and 1803.<sup>58</sup>

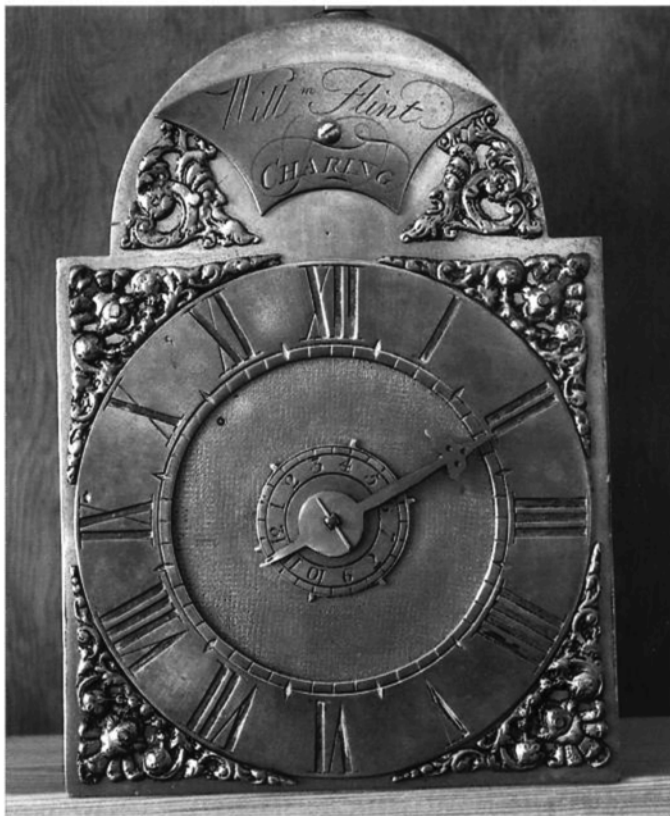
There is little hard fact on William after 1803. In the late 1820s he was in Ulcombe. It is unlikely he worked again; having inherited from the Wraights and his mother plus sold the business he was no doubt a wealthy man. William was buried in 1837, aged 72, at Ulcombe. Neither his will or inventory can be traced.

William Flint was born in Westwell in 1733, the son of Thomas, a blacksmith (see note 42). The source of William's clockmaking skills was almost certainly his in-laws, the Gladdish clockmaking family of Yalding.<sup>59</sup> William married Ann Gladdish in 1755. It is likely he met

her during his apprenticeship to Thomas Gladdish. After their marriage William and Ann settled in Charing. In 1755, Thomas Woolley would already have been in his mid 60s; perhaps William sensed a future opportunity. We have already alluded to possible tensions between William and Thomas Wraight. Certainly the evidence is not strong that William had any work on the church clock before 1771, a period in which he is recorded as working on the Bethersden clock (1764). After Thomas Wraight lost responsibility for the clock in 1771, Flint works on the church clock for the first time (Appendix, Table 3).

Numerous examples of Flint's work have survived. As an indication of prices prevailing at the time, a basic thirty hour uncased clock would sell

PLATE VIII



Thirty-hour, six-inch dial, posted brass wall clock by William Flint c.1760. Uncased, it has brass side doors. Note alarm setting disc in the centre of the dial



William Flint silver-dial, eight-day, striking clock in original oak case *c.*1775

for £2 to £2 10s., whilst an eight-day clock would cost twice as much. A basic oak case would cost £1 to £1 10s. More elaborate cases and other woods would be much more expensive – mahogany several times more.<sup>60</sup> Not surprisingly, William's early work catered for the cheaper thirty-hour end of the market (**Plate VIII**); after Woolley's death William began to supply the more costly longcased clocks (**Plate IX**).<sup>61</sup>

William and Ann had two sons. The eldest, William, left Charing to

## PLATE X



William Flint pair case, verge watch, hallmarked 1777. Best attributed perhaps to his son, William (jnr) of Charing, perhaps, as he was technically of apprenticeship age, with assistance from his uncle, William Gladdish

establish a clockmaking business in Ashford in 1783. Although his Charing clocks are indistinguishable from his father's, documentary evidence allows us to attribute watches to him (**Plate X**). After 1783, the Norwoods, Charing lawyers, sent their watches to Flint in Ashford – not, as before, Flint in Charing;<sup>62</sup> the clear implication being that William (jnr) had the watchmaking skills. The younger son Thomas died, age twenty, in 1788.

After William's death in 1795 Ann Flint stepped into the breach. She was assessed for church tax, implying she kept at least part of the business going. Between 1801-5 her brother, William Gladdish,<sup>63</sup> is recorded as repairing and overhauling the church clock (Appendix, Table 3). After 1805, the churchwarden's accounts become silent on clock repairs until 1814 when William Flint (Ann's grandson) is recorded. One is left imagining Ann as a formidable and capable elderly lady, who in her 70s and 80s was happily arranging clock repairs and taking orders for her Flint and Gladdish relations. She died in 1823, aged over 90, having outlived them all – her husband, son and brother.

Retracing our steps, when William (jnr) left Charing in 1783 he also married Elizabeth Elsted, Charing born and resident, by licence in which he is described as being of Yalding and she of Maidstone! Although William

and Elizabeth lived and worked in Ashford they were both buried together in Charing. In his will,<sup>64</sup> William styles himself as a silversmith, and it would appear that he was a wealthy man, owning considerable land both in Ashford and Shadoxhurst. William and Elizabeth's eldest son, also William (the third generation thereof), was trained by, worked with, and took over his father's business in Ashford. William (jnr) of Ashford is recorded, along with his younger brother, Thomas, as watchmakers resident at 60 High St in the 1841 and the 1851 Ashford censuses. They retired in 1858.

Numerous thirty-hour and eight-day painted dial longcase clocks and watches survive signed William Flint of Ashford – both father and son signed in like manner. These must all date between 1783 and 1858, and include a short period 1808-1813 when both would have been working. Most surviving examples are in fact by William (jnr).<sup>65</sup>

Alexander Roberts was born in 1791 in Scotland.<sup>66</sup> It is not known where in Scotland<sup>67</sup> he came from or whether he was related to other clock/watchmaking Roberts in Kent.<sup>68</sup> It is not known when he left Scotland or where he learnt his trade. He is recorded as marrying Jane Baker in 1814 at St Margaret's, Rochester. Neither Charing or St Margaret's registers record them as having any children together. Alexander's burial is recorded in Charing in 1855. His will and inventory cannot be traced.

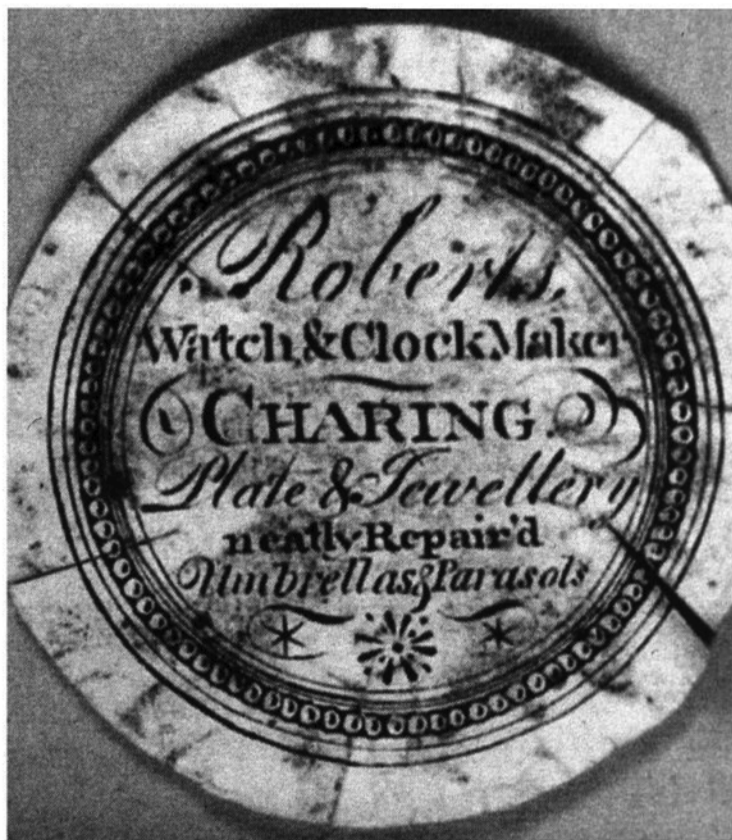
The churchwarden's accounts of 1817 record a payment of £11 13s. to Alexander Roberts. The original bill lists in detail the full extent of his work – amounting to a virtual rebuilding of the clock.<sup>69</sup> It also reveals that it was at this juncture the church clock had additional wheel work added to drive a minute hand; i.e. it was in 1817 that two hands first appeared. The churchwarden's accounts also record the clock dial was decoratively enhanced at the same time:

‘Mr Jaques a Bill for 23 feet Run of Large Husk and Bead Ornament for the outer circle of Clock front minutes and Qutrs etc etc 9 - 18 - 9’.

The work went beyond decoration – a completely new wooden dial, covered in copper sheeting, with a new mounting plate dated 1817 was made.<sup>70</sup> Prints and photographs suggest a Roman numeral chapter ring effect to the dial.<sup>71</sup>

After the major 1817 repair and enhancement Alexander undertook periodic maintenance and from 1831 became responsible for both winding and repairing the church clock – a return to the single contract approach (see Appendix, Tables 3 & 4). The 1841 and 1851 Charing censuses record Alexander as living in the High Street. The 1851 census describes Alexander as ‘Clock and Watch maker, Master’ – perhaps implying he had an apprentice or employee. No surviving work has been recorded, but a watchpaper survives (**Plate XI**).<sup>72</sup>

William Tippen (part of an extended family of watchmakers; his father,



Alexander Roberts watch paper. Note diversification into jewellery and umbrellas

two brothers and three nephews were all in the trade – see note 42) took over full responsibility for the church clock from Alexander Roberts (see Appendix, Tables 3 and 4). He began by undertaking a major overhaul of the clock in 1855. This was financed by public subscription.<sup>73</sup> Uncertainty over the clock's continued use manifests itself in the subscription being qualified with '...if practicable...'. Furthermore Tippen took on considerable contractual risk; the contract was a fixed price one with payment linked to subsequent performance of the clock. As events turned out the repair was successful and William received payment in full. But the total cost of over £19 (including redecoration of the dial) must have been close to what made economic sense. Turret clocks were increasingly

made by firms specialising in their manufacture. Prices were falling because of technical progress and competition – by the 1850s they were in the region of £100.<sup>74</sup>

The reason for continuing with the old clock, rather than purchase a new one, must be attributed to cash flow considerations rather than any admiration for the original clock. It is unlikely the clock was genuinely appreciated by many at the time. A local antiquarian writing about Charing Church in the 1880s makes no mention of the clock, a revealing omission given its historical importance.<sup>75</sup> It was also an omission shared by no less an authority than Hasted who, in a detailed discussion of the tower, likewise made no mention of the clock or dial.<sup>76</sup>

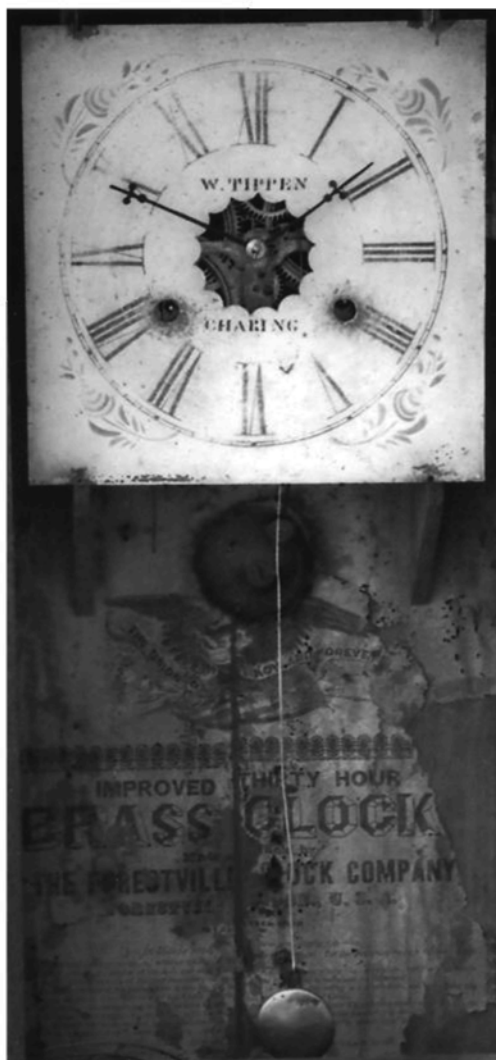
Soon after completion of the church clock's trial and receipt of his final payment William married Emily Hughes of Lenham at Charing. Their residence and shop was in 38 High Street.<sup>77</sup> We have the following description: '...[the business] was a Jewelers, Watchmaker and Photographer'.<sup>78</sup> The 1861 census records William having an apprentice, George Coppins. Subsequent censuses indicate he was employed by Tippen after his apprenticeship. **Plates XII and XIII** show two examples

## PLATE XII



William Tippen verge watch, hallmarked 1874

PLATE XIII



William Tippen retailed thirty-hour wall clock,  
manufactured by Forestville Clock Company,  
Connecticut, USA, c.1870s



of pieces retailed by William. He and Emily had no children. Both are buried at Charing. William's will survives – his estate, with a gross value of £234, was divided between his siblings and nephews.<sup>79</sup>

Earlier discussion of Charing Church's clock dial in the early nineteenth century, concluded it had roman numerals. Yet most photographs and postcards show Arabic numerals.<sup>80</sup> Arabic numerals were an unusual alteration. Most churches, to this day, continue to have Roman numerals. Although the original bills referring to the dial's 1884 redecoration make no specific mention,<sup>81</sup> it was probably then that the Arabic numerals were fitted.<sup>82</sup>

### *Secular Turret Clocks*

Turret clocks were also used by the very wealthy. No doubt a public time-keeper with hour striking assisted the smooth running and management of an estate. No secular turret clock survives *in situ* within the parish of Charing. Evidence of where they were once housed is sparse, fragmentary, circumstantial or lost. Our starting point are those estates that survived into the twentieth century.

After Cranmer ceded the *Archbishop's Palace* to the Crown, it passed through several hands before being purchased by Sir George Wheler in 1692. The Wheler's main residence (which had a turret clock) was at Otterden<sup>83</sup> and the Palace was often leased out.<sup>84</sup> Both owners and tenants no doubt took full advantage of the 'free clock' in the adjacent church tower. In the light of these circumstances the absence of any evidence of a turret clock in the former Archbishop's Palace, is only to be expected.

The history of *Pett Place* can be traced for a thousand years.<sup>85</sup> The estate was sold in 1940 by the Sayers who, with their Atwater and Honeywood ancestors, owned it for over four centuries. No evidence of any former turret clock or clock tower survives. The only indirect documentary evidence occurs in George Sayer's inventory of 1718.<sup>86</sup> This mentions no less than six clocks – 'a pendulum clock' in each of the Great Hall, Great Parlour and Dining Room, 'a short pendulum clock' in the Bed Chamber, 'a clock and case' in the Kitchen and 'an old clock' in the Trunk Room. Unfortunately inventories only list moveable goods, but does George Sayer sound like a man who would not have had a turret clock? His inventory also lists 'a weather glass', i.e. a barometer. As there were long periods when the Sayers did not reside at *Pett Place*, and the land was leased out for much of the nineteenth century, the clock may have been removed and is most unlikely to have been replaced.

*Calehill* was the seat of the Darell family from 1410 to the 1890s.<sup>87</sup> Their estate absorbed half the parish's submanors.<sup>88</sup> The Darell estate farm accounts survive for seven years between 1705-29 and record:<sup>89</sup>

1726      January ye 14 pd for Mending the Clock      00 - 03 - 06

This is clear evidence of a turret clock by the early eighteenth century. The stables survive, are Jacobean in date, and decidedly grand.<sup>90</sup> Most probably the stables had a turret clock installed when they were built. In the 1760s the original mansion was abandoned in favour of a new one built close by.<sup>91</sup> Lower side projections housed the chapel and kitchens. These were enhanced around 1830<sup>92</sup> and captured in a watercolour of that time showing a bellcote surmounting the left (chapel) projection.<sup>93</sup> By the early twentieth century the left side projection had disappeared and the chapel was on the right side surmounted by a clocktower and bellcote. A turret clock is recorded as being sold in 1872 to *Calehill* by J. Moore of Clerkenwell.<sup>94</sup> It struck the hours, had a deadbeat escapement and a three foot dial. It is not known if this was the first or replacement clock for the chapel. If the latter then it is probable the old clock from the stables was moved to the chapel at the time of the 1830 or subsequent alterations. In the early 1950s the house was demolished and only the chapel wing survives today. The clock – known for generations by those within earshot as ‘Old Solomon’<sup>95</sup> – and dial were removed in 1955 and sold for reinstallation in Little Chart Church. The fate of the original stable clock is not known.

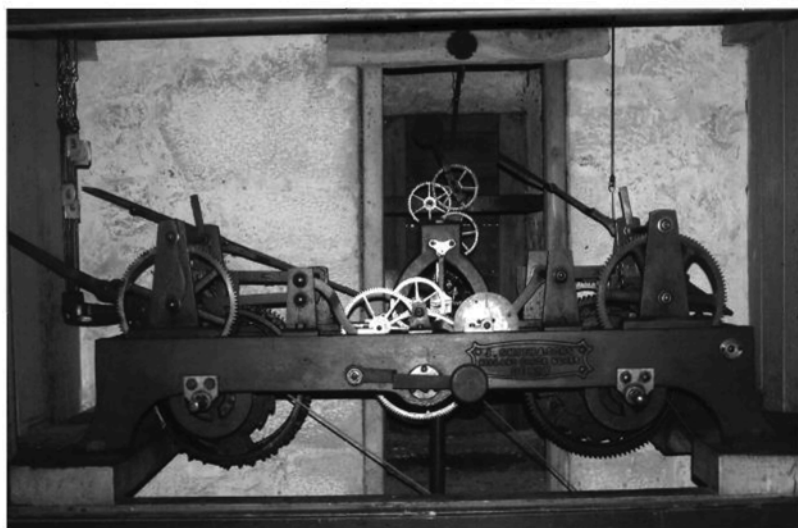
We now turn to estates that did not survive into the twentieth century. Charing was one of the sixty parishes covered in detail by the RCHME 1986-92 study into the medieval buildings of Kent. Most buildings in Charing parish were examined and surveyed.<sup>96</sup> These suggest no additional buildings (to those in the preceding paragraphs) of sufficient status to indicate they might once have been part of a complex where it would be conceivable to expect a turret clock.

Finally, there is an example of a turret clock being installed in a twentieth-century house. In the 1920s the Norwood family built a new house on Charing Hill with a turret clock in the roof tiling of a tower – a feature reflected in the naming of the house, *Clockhouse*. It became derelict and vandalised in the 1950s and the clock is presumed to have been stolen. It is not known who made the clock. All that is known is that it was a striking clock.<sup>97</sup>

### *The Twentieth Century*

Following William Tippen’s death George Coppins took over responsibility for Charing Church clock (see Appendix Part I, Tables 3 and 4), until 1912. The 1901 census records Coppins as a ‘watchmaker/shopkeeper’ in the High Street. His death in 1914 brought to an end an era lasting almost two hundred years during which Charing had its own resident clockmaker.

Earlier discussion of sundials concluded that there definitely would have been one to set and regulate the church clock, but no specific



The 'new' church clock. A three train flatbed with pin wheel escapement by John Smith & Sons, Derby. Automatic winding has since been fitted

reference to its upkeep appears in the eighteenth- and nineteenth-century churchwarden's accounts.<sup>98</sup> Early twentieth-century sources confirm for the first time the current position of the porch sundial.<sup>99</sup> It was then a square wooden sundial painted black with gilt lettering and bearing the mottoes: *Life's but a Shadow. Redeem the Time. Tempus Fugit.*

It is not known when this dial was erected or whether it replaced the clock regulating sundial. Today it is no longer wooden or gilt, but sheet metal and painted; the original mottoes have been retained.

A new church clock was installed by John Smith & Sons of Derby in 1910 (Plate XIV).<sup>100</sup> The firm's ledgers show:<sup>101</sup>

[1910]	March 24	New ch clock showing time on old 6'-6" dial which we repainted & gilt striking hours only but frame left large enough for chimes	81 - 0 - 0
[1934]	Feb 5	Addition of West Chimes to Clock	86 - 0 - 0
		Silencing apparatus	9 - 0 - 0
		Inscription plate	3 - 0 - 0

The Campbell family donated both the clock and chimes. It would appear from the churchwarden's accounts that regular preventative maintenance was neglected. After the Second World War the churchwardens needed to

act. John Smith & Sons were called in and proposed remedial work. This coincided with other pressing expenditures, most notably to the church fabric and organ. In November 1950 the clock broke down. An appeal was launched and collection boxes posted in the village. Charing was without its clock for some two months.<sup>102</sup> Thereafter John Smith & Sons were contracted to undertake annual maintenance. Between 1976-93 Ken Stocker undertook repairs not covered by the annual maintenance contract – the most significant being to the chimes and striking in 1993.<sup>103</sup>

The new clock's operating costs were considerably higher (see Appendix, Table 2) than the old clock; a factor in no way attributable to the 1910 clock itself, but to inflation. By the 1970s maintaining the fabric of the church had become a crushing burden due to the twin ravages of time and inflation. Faced also with falling revenues, the churchwardens focused cash expenditure on skills and resources that could not be sourced from parishioner volunteers. Clock winding was not immune from these pressures: the winding fee fell behind inflation, and from the 1980s was voluntary. Automatic winding gear was fitted in 2005.

Dial costs soared in the twentieth century. The clock dial was repainted and gilded by John Smith & Sons in 1910 and 1934.<sup>104</sup> By 1950 it was in a worse state than the clock and in danger of falling down. The dial was taken down in June 1951 and the clock ran and struck without a dial for some four months.<sup>105</sup> The work undertaken by John Smith & Sons was:

To repair broken mouldings, provide five new cast iron minute lozenges, clean down, apply foundation, and gild with 23 carat transfer gold leaf all mouldings, minutes, and numerals; to provide aluminium sheeting to cover wooden dial made by your local craftsmen, paint the dial with a foundation of best priming paint finished hard black enamel.<sup>106</sup> (See **Plate XV**)

The second half of the century witnessed the return to Charing of clockmakers, initially on a part-time and non-commercial basis. In the late 1940s 'Ticker' Jenkins arrived in Charing.<sup>107</sup> He attended Maidstone market as a watch repairer. He is recorded repairing the church clock in 1962 (Appendix Part I, Table 3). He left Charing in the early 1970s.

Mention has already been made of Ken Stocker restoring the original and repairing the current church clock (Appendix, Table 3). A mechanical and electrical engineer by profession, he was an enthusiastic and committed horologist, especially in retirement.<sup>108</sup> As a member of the Council for the Care of Churches Clock Committee (from 1972 to 1991) and as Hon. Church Clocks Consultant to the Diocese of Canterbury (until 1990), Ken was involved in the conservation of many church clocks. He also repaired Lord Harris' famous collection of clocks at *Belmont*, *Throwley*.<sup>109</sup>

Commercial activity returned to Charing in 1971 with the opening of Tylden Reed Watchmaker in the High Street. In the early 1960s Tylden started work for The Rolex Watch Company and he became self-

employed in 1966. A member of the British Horological Institute, he became in 1965, at 22, their youngest ever Fellow. Work comes from all parts of the UK and beyond.

### Synthesis and Discussion

Charing's horological timeline (Fig. 5) shows that over half Charing's horological history is that of the scratch dial. Of the numerous scratch dials cut over the centuries, only one disappearing example survives. Its successor, the scientific sundial, was essential to set and regulate clocks for three centuries. Only with the establishment of railway time, telegraphic and then radio time signals did the sundial become technically obsolete: ornamentally it lives on.

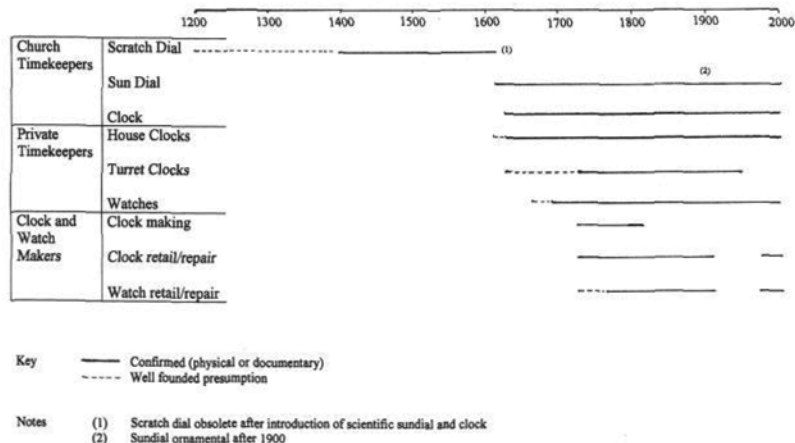


Fig. 5 The Horological History of Charing.

For a total perspective we must not lose sight of primitive forms of time measurement, those measuring the passage of a fixed time unit. These include simple water clocks, hour glasses (in each case a vessel emptying or filling and then being reset) and marked candles. Their use would have been widespread; but given their low value, fragility or perishability, evidence, physical or documentary, is very scarce.<sup>110</sup> The only Charing evidence yet found is seventeenth-century hour glasses in inventories.<sup>111</sup>

The church clock has been the continuous and central theme, reflecting both its physical survival and its detailed documentation. In fact, the first mechanical timekeeper in Charing was not the church clock, but one of the early lantern clocks owned by the wealthy. Nor is the church clock

unrivalled as a turret clock. It is highly likely *Catehill's* was contemporary with the original church clock. However, nothing can detract from the church clock's central role. It was *the* timekeeper: people without clocks would rely on it alone; those with clocks would tend to set theirs by it. In a sense, too, the church clock embodied civic pride and identity – reflected in the tradition of public subscription and private donation. Civic pride is also reflected in the expenditure on decorative dials. Yet eighteenth- and nineteenth-century antiquarians ignored the clock.

Clockmaking came to Charing in the 1720s, a century after the local use of clocks began. By then about 1 in 3 of Charing households had clocks and 1 in 10 had watches. Outside Kent's major towns Charing's clockmakers are beyond compare in terms of number and continuity. Genuine clockmaking lasted barely 100 years, thereafter it was retail and repair only (Fig. 5). Watchmaking was always retail and repair only. Genuine clockmaking in Charing covered the latter half of the period during which clocks were being made outside the factory system for the public at large. It's two founding fathers, Thomas Woolley and William Flint, each established a clockmaking dynasty lasting three generations, spreading to Tenterden and Ashford respectively. The Woolley and Flint experience shows clockmaking to be a powerful source of economic and social mobility: compare the successful businesses of William Gamble Woolley of Tenterden and William Flint (jnr) of Ashford to their great grandfathers having been an Egerton tailor and a Westwell blacksmith respectively.

As far as Charing clockmakers' work is concerned, two types of clock are absent, lantern and bracket clocks. By the 1720s lantern clocks were out of fashion. Whilst some Kentish examples are known to have been made as late as the 1750s, no Charing example has (yet) been recorded. Bracket clocks were spring, rather than weight, driven, housed in wooden cases, and portable with a carrying handle. Some were originally provided with a matching bracket for wall mounting – hence the term bracket clock. Most however simply stood on a suitable piece of furniture. Many had a repeating mechanism allowing the last hour and quarter to be struck – useful in the dark! Bracket clocks were the most expensive clocks on the market, prices being at least £8 - 9.<sup>112</sup> Bracket clocks were thus a rich man's possession: George Sayer of *Pett Place* had one in the early eighteenth century.<sup>113</sup> Surviving Kentish bracket clocks are extremely rare.

The distribution of Kentish clockmakers<sup>114</sup> shows several parishes were required to ensure an economic level of demand. There can be no doubt, given the location of other eighteenth-century clockmakers, that the effective market for Charing clockmakers extended beyond Charing. For Pluckley, Little Chart, Stalisfield and Eastling they were the nearest clockmakers and can be expected to have captured nearly all demand. For Egerton, Otterden, Bethersden, Westwell and Throwley another

clockmaker was as conveniently placed as the Charing one, suggesting they captured about half of these parishes' demand. The annual demand for new clocks and watches enjoyed by Charing's clockmakers from these parishes is estimated to be:<sup>115</sup>

	1720-1750	1750-1780
Clocks	16	18
Watches	6	16

Making allowance for repairs and his clerkship, Thomas Woolley's total income when he was Charing's sole clockmaker (*c.* 1720-55) was some £50 p.a.<sup>116</sup> The combined clock and watch market probably fell a little on the short side of keeping Thomas fully occupied. Clearly he had the time to be, or felt the need for the income of, Parish Clerk. As Charing's sole clock/watchmaker and Parish Clerk, Thomas would have been a respected and influential member of the community. Only local gentry would have surpassed him. Thomas was probably less severely affected by William Flint's arrival than might be supposed. William did not serve the watch trade; as this segment of the market was growing rapidly, it provided an offset for the share of the clock market taken by William. Thomas' total income might have declined by only 10 per cent. Whilst Thomas remained a more or less full-time clock/watchmaker, William was very much a part-time clockmaker; it is probable blacksmithing provided the greater part of his income especially in his early years.<sup>117</sup>

Such accommodation became increasingly less stable after Woolley's death. Thomas Wraight began undertaking blacksmithing work. By the late 1770s William's elder son, William Flint (jnr), had reached working age and entered the watch trade. Two further familial apprentices were in the pipeline – Thomas Flint and William Gamble Woolley. There was no way Charing could support four or five clockmakers and 1783 witnessed an exodus leaving the Charing market to William Flint (snr).

The nineteenth century saw genuine clockmaking progressively displaced by the factory system: 'clockmakers' increasingly became assemblers, and then retailers and repairers only. William Gladdish's death in 1814 marked the end of Charing's genuine clockmakers. No Charing-signed work by him has been recorded: perhaps he continued the Gladdish family tradition of signing 'of Yalding' even though not actually resident there (see note 59). Few nineteenth-century Charing clocks or watches have been recorded – suggesting many consumers purchased outside of Charing. The economic viability of village-based retailers and repairers was progressively eroded. The initial response was diversification; in Charing this has included umbrellas, jewellery and photography. But the end was inevitable, Charing succumbing in 1914. A restoration occurred with the arrival of Tylden Reed in 1971 but his business would be unrecognisable to his predecessors.

Of the 1,200 clocks estimated to have been made by Charing's eighteenth-century makers, only 24, some 2 per cent, are recorded survivals. For watches the survival rate is even lower – just 2 out of 700-900. Of course, we only know of recorded survivals: how many unrecorded survivals might there be? It has been estimated that perhaps 10-15 per cent of 1750-1800 clocks have survived.<sup>118</sup> Although difficult to establish, it is certain that only a fraction – perhaps 1 in 6 – of surviving Charing clocks have to date been recorded.

As active research by the author continues, he would be most interested in being made aware of any clocks or watches by any of the makers listed in Fig. 4 and its notes. (All information will be treated in the strictest confidence and will not be stored such that clocks and owners are identifiable.)

#### ACKNOWLEDGEMENTS

Inspiration can be traced to Pat Winzar and Mike Pearson. Mike for arousing and nurturing my interest in clocks; Pat for feeding my interest in Charing's history. Their advice and assistance has been exceedingly generous. This research benefits from the help of scores of people, either in their official or private capacities. The author offers his apologies, and a private thank you, to all those whom it is not practicable or possible to name individually.

Perhaps the most rewarding and exciting aspect of this research has been the discovery of hitherto unrecorded Charing clocks and watches. The author is particularly grateful to Mike Pearson, Mike Bundock, John Moon, Tylden Reed, Peter Green, Alan White, and Tony Russel for helping him track them down. Countless man-months were spent occupying the Centre for Kentish Studies (Maidstone) and Canterbury Cathedral Archives. A very special debt of gratitude is due to the archivists and staff for their expertise and patience. Thanks also to the staff of Ashford Library and the Medway Archives (Strood). The author is grateful to Canon Brian Chalmers for granting him permission to consult the twentieth-century archive of St Peter and St Paul, Charing, and to Janet MacIntyre for facilitating access thereto. Numerous members, past and present, of Charing and District Local History Society have shown particular interest in, and helped, his researches – Brian Easton, Jackie Grebby, John Hosking, Kevin Moon, Sarah Pearson, Ron Laws, Tylden Reed, Margaret Stocker, Harold Trill and Pat Winzar. Special thanks are also due to Mike Bundock, Chris Erwin, Alec Lawrence, Arthur Ruderman and Nicholas Smith.

Last, but by no means least, the author thanks his daughters, Fiona and Philippa, for so competently, diligently and patiently managing the production of these papers through several drafts and countless amendments.



## ENDNOTES (continued from Part I)

<sup>42</sup> Detailed pedigrees of Woolley, Wraight, Flint, Gladdish and Tippen are available on request from the author.

<sup>43</sup> *Kent Clocks*, pp. 175-7.

<sup>44</sup> Longitude can be calculated from the difference between local time and time at a point of known longitude. Each 1° is four minutes of time difference. Local time can be accurately measured at sea from the sun. The challenge was to make a timepiece sufficiently accurate in the hostile marine environment to know the time at the reference point of longitude. Each second of inaccuracy translates into a positional error of up to a quarter of a mile (on the equator). For a very readable account of longitude, Harrison, his clocks and chronometers, and his pursuit of the £20,000 reward, see D. Sobel, *Longitude*, 1996.

<sup>45</sup> S.W.C. Pack, *Admiral Lord Anson*, 1960 and L. Heaps, *Log of the Centurion*, 1973. The *Centurion* was also part of Anson's fleet that decisively defeated the French navy at Finisterre in 1747. Additionally the *Centurion* was part of the fleets that took Quebec in 1759 and captured Havana in 1762.

<sup>46</sup> CKS: PRC 32/65/305.

<sup>47</sup> A traverse is the place adjoining a blacksmith's shop where horses are shod.

<sup>48</sup> CKS: PRC 32/66/330.

<sup>49</sup> Between 1771 and 1795 there are 27 Wraight or Flint entries in the churchwarden's accounts. 19 are at least part associated with their original bills. CKS: P78/5/8-25.

<sup>50</sup> CKS: U386 A3.

<sup>51</sup> There would have been several clocks. An inventory of goods for Henry Darell in 1824 (CKS: U386 E5) lists four clocks: a 'Chimney clock' in the dining room, 'an 8 day clock' in the passage, 'a Dial clock' in the kitchen and 'a clock' in the 'No. 1 servants room'.

<sup>52</sup> That this is not too fanciful, note 'Wraight' is not associated with 'clockline'.

<sup>53</sup> CKS: PRC 17/102/294.

<sup>54</sup> Tenterden churchwarden's accounts record rental receipts commencing in the year to Michaelmas 1785 from Thomas Wraight 'For his Tenement in the Church Yard'.

<sup>55</sup> D. Moore, *British Clockmakers and Watchmakers Apprentice Records 1710-1810*, 2003.

<sup>56</sup> James Munk subsequently set up on his own in Tenterden. *Kent Clocks*, pp. 195-6.

<sup>57</sup> *Kentish Gazette*, 4 January 1803.

<sup>58</sup> See *Kent Clocks*, pp. 250-1, for examples of their work.

<sup>59</sup> *Kent Clocks* lists Thomas (c.1720) and William (1788-94). Parish records show that both Thomas and William were also resident in Sutton Valence (Thomas) and Harrietsham and Charing (William) for much of their working lives, yet all their recorded clocks are signed 'of Yalding'.

<sup>60</sup> *Country Clocks and their London Origins* (see note 13).

<sup>61</sup> See *Kent Clocks*, p. 138 for further examples of his work.

<sup>62</sup> CKS: U442 B1/1-2.

<sup>63</sup> William left Yalding after April 1796 and before March 1798 (annual cess data). It is not known whether he first returned to Harrietsham or moved direct to Charing at this stage.

<sup>64</sup> PRO: Prob 11/1552/146.

<sup>65</sup> See *Kent Clocks*, pp. 126 and 138-9 and Tyler, *op. cit.*, for more information on, and examples of, the work of the Ashford Flints.

<sup>66</sup> Charing census returns for 1841 and 1851.

<sup>67</sup> B. Loomes, *Watchmakers and Clockmakers of the World*, Vol. 2, 2002, lists a William Roberts as a clockmaker in Dunbar c.1790-1800. Could this be Alexander's father?

## CHARING CLOCKS, CLOCKMAKERS AND CLOCK-KEEPERS (PART II)

<sup>68</sup> *Ibid.* lists a James Roberts as a watchmaker in Ashford in 1778. *Kent Clocks* records him as bankrupt in 1803. Loomes also lists a Robert Edward Roberts (1874) and an A. Roberts (1888) both in Canterbury.

<sup>69</sup> CKS: P78/5/37.

<sup>70</sup> Noted when the dial was taken down in 1951. *Charing and Little Chart Parish Magazine*, June 1951.

<sup>71</sup> H. Smith 1829 engraving of a George Shepherd drawing of Charing Church and Market Place plus a postcard of Charing Church held in the CKS photographic archive (CHR40).

<sup>72</sup> Watchpapers were placed in the backs of the outer case of pair-case watches. They prevented the back of the inner case (to which the dial and movement were attached) becoming scratched and also took up any slackness between the two (i.e. inner and outer) cases.

<sup>73</sup> CKS: P78/6/5.

<sup>74</sup> *Clockmaking in Oxfordshire* records the full (i.e. clock, dial and installation) cost of four turret clocks: 1795, £150 (Twaites and Reed); 1820, £125; 1831, £110 (Moore and Son, Clerkenwell); 1857, £105 (Frederick Dent, London).

<sup>75</sup> J. Sayer, 'Charing Church', *Archaeologia Cantiana*, 1885. The Victorians had little regard for earlier mechanical achievements. As a consequence, the movements of many fine domestic clocks underwent radical modernisation, often much to their detriment.

<sup>76</sup> E. Hasted, *The History and Topographical Survey of the County of Kent*, VII, 1798. His persistent failure to recognise horological achievement is all the more surprising as clocks and watches were, in the centuries before the industrial age, arguably the most complicated machines made by man. Moreover, from the mid seventeenth to the end of the eighteenth century Britain was the world leader in clock and watch making. Serious study of Britain's horological history only began in the 1890s.

<sup>77</sup> Inferred from H. Ward, *My Early Recollections of Charing Since 1868*, 2002. He describes Tippen's shop as having been 'where now stands the Post Office'. At the time of his writing, 1933, the Post Office was in what is now No. 38. Today the building is a domestic residence and bears a Charing and District Local History Society plaque commemorating the wide range of former village tradesmen.

<sup>78</sup> Ward, *op. cit.* Ward was a keen photographer.

<sup>79</sup> Supplied by Probate Registry, Court Service, York. It was proved 16 Feb 1895.

<sup>80</sup> Charing and District Local History Society, *Charing – a Pictorial Past*, 2005.

<sup>81</sup> CKS: P78/5/68.

<sup>82</sup> If it were later, the weight of photographic evidence would not be so overwhelmingly 'Arabic'. If earlier, i.e. sometime after the 1855 redecoration, then both the alteration and 1884 work appear unduly sudden.

<sup>83</sup> Otterden Place had a clock by the early eighteenth century. On 30 June 1729 a Mr Gray recorded, 'I went to Otterden Place...from the clock turret to the ground, which was 34 feet'. Rev. T. Rackett, *Description of Otterden Place and the Palace of Charing, Kent and Genealogical Memories of the Family Wheler*, 1832.

<sup>84</sup> S. Pearson, 'The Archbishops Palace at Charing in the Middle Ages', *Archaeologia Cantiana*, CXXI, 2001, 315-350.

<sup>85</sup> J. Hosking, 'The People of Pett Place', in *About Charing*; P. Winzar, *Pett Place, Charing, Kent*, c.1980, unpublished, Charing and District History Society.

<sup>86</sup> PRO 3/18/70.

<sup>87</sup> P. Winzar, *The Darell Family of Calehill, Little Chart, Kent*, c.1980, unpublished, Charing and District Local History Society.

<sup>88</sup> The manor of Charing was held by the Archbishop. Sudinfuedation took place very early. The sub manors of Burleigh, Newland, Stilley and Tramhatch were all absorbed by the Darells. The other sub manors were Acton, Brockton, Eversley, Newcourt and Pett.

<sup>89</sup> CKS: U386 A2.

<sup>90</sup> J. Newman, *The Buildings of England: West Kent and the Weald*, 1991. The (converted) stables are the present *Calehill House*.

<sup>91</sup> The plans of which survive. CKS: U386 E3/1.

<sup>92</sup> Inferred from CKS: U386 E2.

<sup>93</sup> By H. Barwick. Private ownership.

<sup>94</sup> C. Pickford, *Turret Clocks: Lists of Clocks from Makers' Catalogues and Publicity Materials*, 1995.

<sup>95</sup> *Charing and Little Chart Parish Magazine*, August 1956.

<sup>96</sup> CKS holds a copy of all original building reports and drawings by the Royal Commission.

<sup>97</sup> H. Trill, *Clockhouse School, Memories of the 1930s and 1940s*, 2003, unpublished, Charing and District Local History Society.

<sup>98</sup> The costs were subsumed in other blacksmith and carpentry work and 'lost' as the accounts became less detailed naming the payee only. Surviving original bills for 1828 and 1883 (CKS: P78/5/49 and 68) show sundial maintenance.

<sup>99</sup> Fotheringham (1915) *op. cit.* and C. Iggesden, *A Saunter Through Kent with Pen and Pencil*, 5th ed., 1942.

<sup>100</sup> The firm was founded by John Smith in 1856. It is widely recognized as the leading specialist in public clocks retaining both traditional skills as well as producing modern electric clocks.

<sup>101</sup> Unpublished. The author is grateful to the Chairman, Nicholas Smith, for making this available.

<sup>102</sup> *Charing and Little Chart Parish Magazine*, Nov 1950, Dec 1950 and Jan 1951.

<sup>103</sup> Work was put out to Appledore Forge for a new hammer. Ken was helped by John Cavell and Brian Easton in undertaking the repair work.

<sup>104</sup> In 1910 this was paid by the Campbell family. In 1934 the churchwardens paid. Churchwarden's accounts and Parochial Church Council minutes in Charing Church.

<sup>105</sup> *Charing and Little Chart Parish Magazine*, Nov 1950, Jan 1951, Feb 1951, Jun 1951 and Oct 1951.

<sup>106</sup> John Smith & Sons 16 June 1951 letter and estimate. The local craftsman was Bert Coppins, a carpenter. This subdivision of work may account for the eccentric mounting of the dial numerals: 10 to 2 are mounted radially, whilst 3 to 9 are mounted vertically.

<sup>107</sup> Somewhat endearingly so-called by locals for obvious reasons. The author is grateful to Ron Laws and Martin Harvey for providing information on Mr Jenkins.

<sup>108</sup> The author is grateful to Margaret Stocker for providing information on her father.

<sup>109</sup> J. Betts, *Belmont, Faversham, Kent – Clocks and Watches*, 1998.

<sup>110</sup> See R. Ovens and S. Sleath, *Time in Rutland*, 2002, for details of a Saxon water clock – a simple bowl with a hole that sinks in an average time of 63 minutes.

<sup>111</sup> CKS: 27/32/3 and CKS: 27/34/105.

<sup>112</sup> See C.R. Barder, *The Georgian Bracket Clock*, 2001. Their expense is attributable to the spring drive, the fusee (to offset variable drive as the spring unwinds) and the generally compact, intricate, works including the repeating mechanism.

<sup>113</sup> George Sayer's 1718 inventory (PRO 3/18/70) lists a 'short pendulum clock', i.e. a bracket clock in the 'Bed Chamber'. Bracket clocks were often to be found in bedrooms because of their repeating mechanisms, allowing the time to be heard, rather than seen, during the night.

<sup>114</sup> See *Kent Clocks*.

## CHARING CLOCKS, CLOCKMAKERS AND CLOCK-KEEPERS (PART II)

<sup>115</sup> In essence, it is based on population figures, clock and watch ownership (Fig. 3 and Part 1 discussion) and a methodology for converting the level of ownership into an annual flow of new orders. See C.H.K. Williams 'Seventeenth and Eighteenth Century Clock Demand, Production and Survival: An Economic and Statistical Analysis', *Antiquarian Horology* 28/5, March 2005, pp. 571-83.

<sup>116</sup> *Ibid.*, p. 578.

<sup>117</sup> Interestingly, both his tombstone and will (PRO: Prob 11/1273/271) commemorate him as a blacksmith.

<sup>118</sup> *Ibid.*, pp. 581-2.

### *Addenda to Appendix in Part I*

Table 2.

Period	Mechanism	Dial
1762-1829	11s. 1d.	5s. 8d.
1830-1909	11s. 8d.	2s. 5d.

#### NOTES

<sup>a</sup> Source ... Plus original bills (CKS: P78/5/8-68).

Table 3.

#### NOTES

<sup>h</sup> [add]George Foster, watchmaker, 28 North St., Ashford is listed in 1909; George John Foster, watchmaker, 26 North St., Ashford is listed 1911-38 (*Kelly's Directory of Kent*).



Charing Church dial restored to original 1951 splendour in 2005.  
Note eccentric mounting of numerals (see note 106)