

The St Augustine West Monkton Tower, or Turret Clock

The West Monkton Tower, or Turret Clock is unique. It is the only surviving three train clock made by Thomas Bayley of Bridgwater.

The clock is registered with the Antiquarian Horological Society - Turret Clock Group and is best described as an 'Ancient Wrought Iron Side by Side Three Train Quarter Striking Birdcage Clock' dating from about 1747

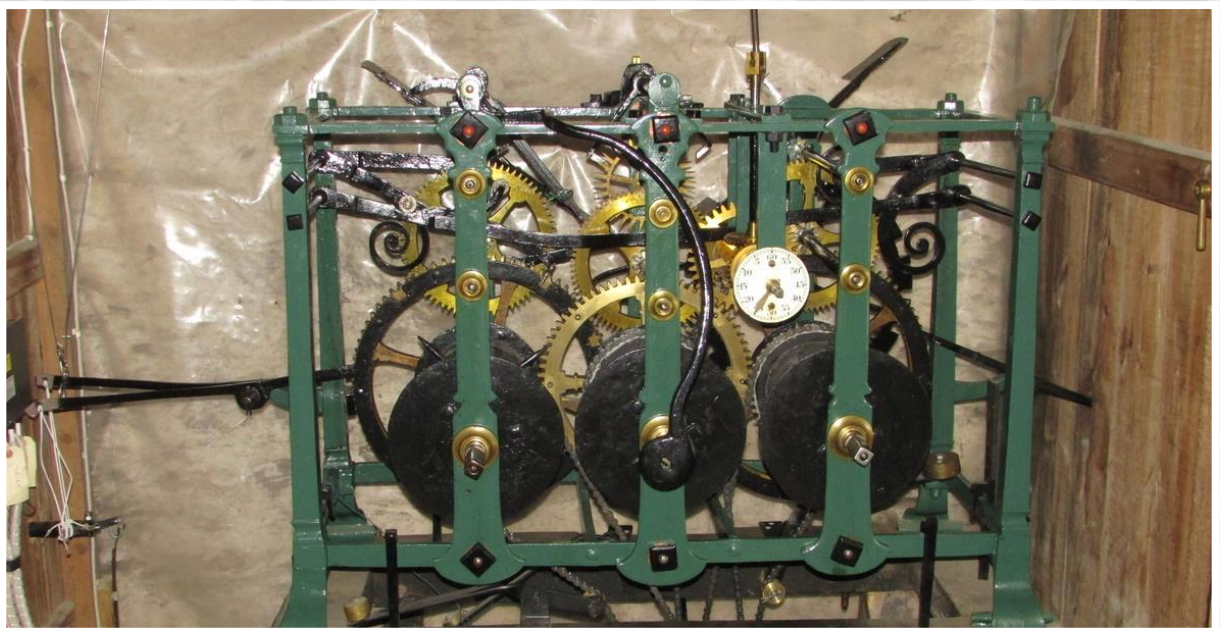
In the 18th century the primary reason for installing a church tower clock would have been to issue a 'call to prayer' by the striking of a bell, however, the soon discovered secondary benefit was the 'broadcasting' of a local time signal.

Thomas Bayley

Thomas Bayley first comes to our attention when he is admitted as a 'burgess' of Bridgwater in 1738. Working from the Dampiet Street Foundry site in Bridgwater, he is described as a Bell maker, Agricultural Implement maker and Cannon maker. In 1743 he installs his first bells, one in St John the Baptist, Pawlet and one in St Peters, Staple Fitzpaine. In 1747 he recasts three bells for St Augustine West Monkton (Originally the 1,2 and 4 of a ring of 6, today the 3, 4 and 6 of a ring of 8). Over the next 26 years he hangs over 100 bells in Somerset, Devon, Dorset and Wales. He hangs his final bell in Westonzoyland in 1773. Between 1751 and 1772 he constructs at least fifteen Turret clocks in Somerset and Devon and manufactures Brass Church candle chandeliers, examples of the chandeliers can be seen in St Andrews in Burnham on Sea (1773), St Mary's in Stogumber (1771) and Blessed Virgin Mary in Kingston St Mary (1773). Thomas Bayley died in 1774 or 1775

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Turret clocks have 'trains of gears'. Two 'train' clocks would have a 'Going' train to regulate the time and a 'Striking' train, to ring a bell on the hour. The West Monkton Clock has the addition of a 'Chiming' train to strike the quarter hours, hence the term 'Three train clock'. As the broadcast time signal was the striking of a bell originally the clock had no dial. The cast iron 5 feet diameter skeleton dial on the West side of the tower was only added in 1955. A skeleton dial was fitted due to the shortage of 'rolled' copper of the correct size at the time. The original plans for the dial installation are held in the Somerset Archives in Taunton.



Looking at the above picture of the clock movement the 'three trains' can easily be seen. At the front of each train is a black winding drum located at the bottom of the frame. On the front of each drum is a square spigot which would have originally been used to hand wind the clock, each train would require winding and has its own individual weight to provide the 'power'. The Quarter striking train or Chiming train is on the left, the Chiming train operates the two bell levers on the far left, these levers are attached by wires that operate the hammers on the Three and Four bells to chime the quarter hours. The speed of the striking is controlled by the fly mechanism at the rear of the chiming train, this has 'large' vanes attached which create air resistance to regulate the speed of the striking.

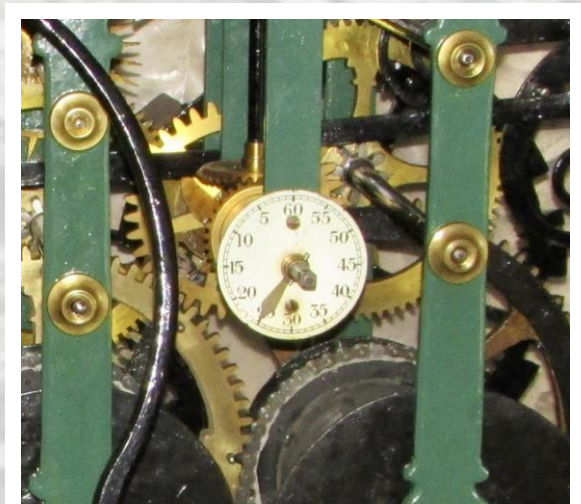
The Going train, regulating the clocks time, is in the centre and behind the Going train the clock Escapement, this type is known as a 'Recoil' Escapement (picture right) producing the steady 'Tick-Tock' of the clock, behind the Escapement is the clock Pendulum.



Just to the right and above the Going train is the white faced 'Clock Setting Dial' this allows adjustment of the clock. By turning the centre spindle on the dial this adjusts, not only the time of the clock but also, via a 'leading off rod' and four sets of bevel gears, the minute hand on the external clock.

On the right of the Going train is the Striking train, similar to the Chiming train, this operates a hammer on the Six bell to strike the hour. It has a similar fly mechanism to the Chiming train to regulate the speed of the striking.

The clock 'Warns', that it is about to strike (the fly mechanism makes one rotation) four minutes before each Quarter and Hour striking.



In 1999 the clock was converted to automatic winding by Andrew Nicholls of Taunton.



The three 'new' train weights (lower right) are contained within the 'wooden tower' to the right of the clock. The three original weights (below) can be seen outside by the church entrance door.



The clocks most recent overhaul was by Peter Watkinson of Chard in 1987 and for a clock of over 270 years of age it keeps remarkably good time.



Acknowledgements

My thanks to Julian Parr of West Wiltshire clocks for his in depth knowledge of the West Monkton Clock and Thomas Bayley's other Church installations of Chandeliers, Clocks and Bells.

References

Julian Parr "Church Clocks of the Somerset Levels"

Chris McKay "The Turret Clock Keepers Handbook"

George Massey "Church Bells of Somerset"

Reverend Roynon "Church of St Augustine of Canterbury, West Monkton"

Andrew Beckerson

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