Case 9
Telling the Time

Clocks

A very early method of measuring time was a “shadow clock” which could have been as simple as a stick in the ground which cast a shadow. This developed into a sundial, it had an indicator to cast a shadow on a calibrated dial which showed hours. Other early examples of measuring time were water clocks, Chinese incense clocks, candle clocks and sand glasses. Mechanical clocks were developed by the late 13th and early 14th centuries. In the 14th century striking clocks (using a bell but not necessarily with a dial) were more frequent in public places; these clocks were large because of the mechanical parts, using falling weights, needed to drive them. In the early 15th century the invention of the mainspring, a coiled spring, allowed the development of smaller clocks. In Western Europe in the Middle Ages clocks struck the time and clock dials showed the hours. The development of a clock using a pendulum allowed greater accuracy in measuring time and clocks could show hours, minutes and seconds, the first pendulum clock was in The Netherlands in 1656. In Elgin in the mid 1700s a town drummer had to beat a drum at 4 o’clock in the morning as he walked up the High Street, this was to waken people to get ready for work. The drum can be seen in the Museum’s People and Places “The Burgh” exhibition. The Tall-Case or Grandfather clock to the left of this display was made by WS Ferguson, silversmith and clockmaker, Elgin in the 1830s—it has a fascinating story which is explained beside the clock.

Watches

The first watches were made in the 16th century, some could be used as small table clocks or were small enough to be worn on a chain or necklace. The development of the balance spring/hair spring in 1675 increased the accuracy of watches so that they could have dials with minutes and seconds. There is reference to a watch to be worn on a bracelet on a lady's wrist in the late 16th century, men carried their watch in a pocket. In the late 19th century watches were seen as a valuable tool for the military "in the field". A watch carried in a pocket (as was usual for men) was not convenient for fighting forces so standard pocket watches began to be fitted to a leather strap and worn on the wrist. By the early 20th century watch makers were making purpose-built wristwatches. In the First World War "Trench Watches" came into use as pocket watches were not practical in combat, some of these watches had a metal grill covering the watch face to protect the glass. Before military use wristwatches were typically worn only by women but this changed after World War 1 when men adopted their use. The 20th century saw many developments of watches, automatic watches were introduced in the 1920s, battery driven watches arrived in the 1950s, the first quartz watch came in 1969. Now watches are available in many different mechanisms, styles and prices.

1. Sundial

Metal. The base is marked with the hours from 1 to 12, the sun or daylight casts a shadow from the gnomon (the indicator protruding from the base) across the dial showing the time where the shadow meets a number.

ELGNM: 1913.3

2. Sundial

Stone, engraved, iron; part of the gnomon is broken off.

ELGNM: 1978.0333

3. Astrolabe

A probable reproduction of an Astrolabe, based on an example from Iran (traditionally known as Persia). Four rotatable discs, a ruler and a pointer, engraved with Arabic script. Astrolabes are an early scientific instrument for observing relative positions of the sun, stars and planets. They were used to tell the time using the position of the sun.

ELGNM: 1978.1560

4. Sundial

Metal, brass engraved, the support is missing. 1700 – 1800. (for constructing sundials, computing the position of planets).

ELGNM: 1958.5

5. Clock

Clock and case (1826), metal. Brass, iron, oak; with an engraved face, the case is made of wood from the Old Kirk, Elgin. The clock was used by Reverend Merson until 1867. The clock's alarm dial is marked J Lunan who was a clockmaker in Aberdeen.

ELGNM: 1903.3

6. Clock

Metal, brass, incomplete having only the mechanism and face.

ELGNM: 1978.618

7. Stagecoach Clock, Inverness &Thurso No 3

A brass clock in a wooden case. It was used for the stagecoach run between Inverness and Thurso from about 1800. A stagecoach was a horse drawn, four wheeled public coach used to carry passengers and light packages on journeys long enough to need a change of horses. The clock was made by D Murray, Edinburgh. A similar clock is in Elgin Museum's Victoriana display and is dated around 1780-1800.

ELGNM: 1978.634

8. Sandglass

Wood, oak, glass, sand; two glass globes in a wooden frame, the sand moves from one glass globe to the other for a set period of time.

ELGNM: 1978.621

9. Sandglass

Small sandglass which measures 15 seconds, it could be used by physicians (eg to measure a person's pulse) before watches had a seconds hand.

ELGNM: 1891.1

10. Sandglass Case

Wooden case to hold the Sandglass.

ELGNM: 1978.297

11 Pocket Watch box

This box held the pocket watch owned by General Anderson, his watch and his story are on display in the People and Place display, Home and abroad, in the Museum's Main Gallery.

ELGNM: 1918.2

12. Pocket Watch plate

A flat piece of metal, the foundation for the watch movement.

ELGNM: 1969.23

13. Pocket Watch and key 1812

Metal, silver, brass, iron, enamel, glass, with a chain and key, the watchpaper is dated 1820. The donor said it had been carried by the owner at the Battle of Navarino in 1827, this naval battle involved British sailing ships and other forces at Navarino Bay on the west coast of Greece.

ELGNM: 1978.728

14. Pocket Watch and case 1817

Metal, silver, brass, enamel; with a watchpaper, dated 1831, from J Hunter, watch & clockmaker, Inverurie.

ELGNM: 1978.619

15. Pocket Watch 1864

Pocket watch (silver) with key and chain. The case is English and is dated 1864, it is of high quality from a specialised case maker who would then supply cases to watchmakers to add the movements and dial.

ELGNM: 2016.19

16. Pocket Watch 1810

Metal, iron, enamel, glass, separate shagreen (Shark skin) case. Engraved.

ELGNM: 1978.729

17. Pocket Watch Key

Early watches need a key to wind the spring in the mechanism and set the time. This was used until the 3rd quarter of the 19th century when the development of a winder /crown could wind the watch and set the hands.

ELGNM: 1977.35

18. Pocket Watch Key

With a Clear round stone.

ELGNM: 1977.202

19. Pocket Watch Fob

A “Fob” is an ornament attached to a watch chain.

White metal, in the shape of a stirrup.

ELGNM: 1977.212

20. Pocket Watch Fob

Yellow metal with a red stone.

ELGNM: 1977.209

21. Pocket Watch Fob

Yellow metal with a red stone and a white stone.

ELGNM: 1977.204

22. Pocket Watch Fob

Yellow metal chain with 3 green enamelled fobs in the shapes of a heart, anchor and cross.

ELGNM: 1977.208

23. Pocket Watch Fobs

Three fobs, gold plated, displayed on a card.

ELGNM: 1977.210

Watch Chains

Pocket watches were kept in pockets for protection, in the 17th and 18th centuries it was fashionable for men to wear their watch in a “fob pocket” in their waistcoat. A watch chain or ribbon was attached to the watch and hung across the front of the waistcoat, sometimes there was an ornament hung at one end of the fob or ribbon. “Albert Chains” were a type of watch chain named after Queen Victoria’s husband who made them fashionable, traditionally they had a bar at one end of the chain to fix it to a waistcoat buttonhole.

24. Pocket Watch chain

Yellow metal.

ELGNM: 1977.200

25. Pocket **Watch chain**

White metal.

ELGNM: 1977.196

26. Pocket Watch Alberts

Silk and other materials, plaited, displayed on a card.

ELGNM: 1977.201

27. Watchmakers Lathe

This is a machine tool from the 19th century, it was used to hold watch components for the watchmaker to make or repair watches.

ELGNM: 1992.6

28. Watchpapers

Watch papers are small round paper inserts which were placed inside the back case of pocket watches to protect the inner workings from dust. They were printed on one side with the name and address of the watchmaker, a manufacture or repair date was often written on the paper. These are some examples from Moray, eg from Buckie, Elgin, Dufftown, Aberlour, Fochabers, Dallachy and Keith.

ELGNM: 1969.13

29. Wristwatch

Metal, leather wrist strap. A metal grill protects the watch face. Wrist watches grew in popularity for men serving in World War 1 as they were more practical, in the field, than larger pocket watches. This watch was owned by James Corstorphine from Lossiemouth, he was a fisherman, then a sailor in the First World War, he died at the end of the War and is buried at Lossiemouth.

ELGNM: 1982.3.1

A memorial plaque to commemorate James Corstorphine can be found in the People and Places display, “King and Country” in the Museum’s Main Gallery.

ELGNM: 1982.3.5

30. Watch and Clock Maker’s Advertisement Elgin 1863

This advertisement was in a “Black’s Morayshire Directory” 1863. A. Alexander, Watch and Clock Maker was located at 94 High Street, Elgin.

31. Betar Time Recorder

Dating from the early 20th century, It recorded start and end times for employees at a place of work. A time-card was placed in a slot on the machine, the time of entry and exit was recorded on the card. It has a metal card slot and a clock mounted in a wooden box.

ELGNM: T2021.241