

Glossary

The following description of horological terms is far from exhaustive but is intended to educate and clarify the meaning of selected language.

Before beginning the descriptions it is necessary to clarify two terms. A **clock** is a device that announces the passing of time audibly at selected intervals (usually the hour, half or quarter hour) using a bell, tubular chime, coil gong or tuned rods. The majority of clocks also have a readable dial with hands and numbers. A **timepiece** has a going train and does not strike or chime but simply tells the time. To simplify the descriptions below the term clock is used to denote both clocks and timepieces unless specifically noted.

Balance Wheel: A regulator used in ships, carriage and other clocks and watches consisting of a wheel that oscillates back and forth on an axis, the forward push given by the escape wheel and the return caused by a very light spring called a hairspring. Used especially for portable timekeepers. Some balance wheel virge (archaic escapement) clocks have no hairspring but rely on high friction contact with the escape wheel to impulse and return to regulate timekeeping.

Bracket Clock: This was originally a term for a clock that stood on a wall bracket designed specifically for and complimenting the clock. It is now a general term for many clocks of a square or upright rectangular shape with a handle on top that are designed for setting on a mantle, desk, table, etc. It is recommended that these clocks not be carried by the handle.

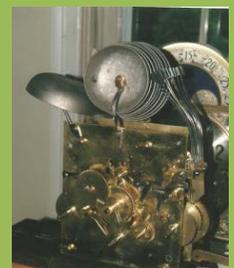
Carriage Clock: Originally designed to be a type of traveling clock, these popular clocks were in vogue in the late 19th century and are fitted with a balance wheel usually on a platform escapement that allows them to be transported in less than perfectly upright positions and continue to keep time. Case styles vary greatly and strike, strike repeat options, alarm systems and simple timepieces are all common. Many were fitted with leather cases to protect them while traveling.

Clock: From the Latin *clocca* and meaning a bell. A device that announces the passing of time audibly at selected intervals (usually the hour, half or quarter hour) using a bell, tubular chime, coil gong or tuned rod and visually with a dial or multiple dials and hands.

Chime: The playing of a tune on a nest of bells, set of rods, coil gongs or on tubular bells, usually occurring at every quarter hour. The most common being the Westminster Chime.



Antique Bracket Clock on its original bracket.



A nest of bells that will chime each quarter hour.

Dead Beat Escapement: An escapement in which the escape wheel does not recoil (move backwards) thus there is minimal friction and no wasted energy. These are used in regulators and other fine clocks.

Eight Day Clock: A clock that will run for a period of eight days on a winding. It is designed to be wound once a week with an extra day to provide a margin of time in case the winder forgets or isn't available on the usual winding day.

Escapement: A system of parts in the time train that checks the motion of the wheels and pinions so that the energy of the driving power is transferred to the pendulum or balance wheel. There are many types of escapements. The most common escapements in domestic pendulum clocks are dead beat and recoil, as well as lever escapements with a balance wheel. Fine adjustments of the escapement are vital to the correct running of a clock. The parts of the escapement provide the ticking (heartbeat) of the clock.

Fusee Clock: A clock with a conical shaped spool around which a fusee chain, gut line or modern synthetic cable is wound. As the clock's spring unwinds the chain is spooled onto the mainspring barrel. The purpose of the conical shape is to equalize the mainspring power to the gear train whether the mainspring is wound up tight or winding down, thus improving the timekeeping accuracy of the clock. Fusee movements are very heavy and as large as or larger than most long case movements. The fusee system is often found in English bracket and some types of English wall clocks of the 18th and 19th centuries.

Grandfather Clock: An eight day clock that is usually weight driven housed in a six foot or larger tall case that stands on the floor. The name came from the 1875 song by Henry Clay Work entitled "Grandfather's Clock". Often this term is used to describe clocks from 1900 to the present.

Grandmother Clock: A "Grandfather Clock" that is under six feet tall.

Hall Clock: A very large Grandfather Clock made after 1870 with tubular bells, nests of bells or coil gongs to call out the quarter hours. These were made by machinists using power driven precision machinery as opposed to being individually produced by hand.

Horology: The art and science of the construction and repair of mechanisms for measuring the passage of time and indicating the time of day.



This fusee movement shows the conical shaped drum that is unique to this type of movement



Because it was made before 1900, this would be called a Tall Case Clock or Long Case Clock rather than a Grandfather Clock.

Horologist: A person who practices horology.

Long Case Clock: The technical name for a Grandfather Clock. Usually hand made prior to 1860.

Main Spring: A piece of metal, usually spring steel, of a specific length, width and thickness wound into a coil, the unwinding of which powers the clock for a duration of a day, week, month, or year depending on the design of the clock. Some very early American spring clocks were powered by brass mainsprings.

Movement: The technical name for the working part of the clock. It includes the assembled plates, wheels and pinions, escapement, levers, and other internal parts needed for the clock to function.

Pendulum: An assembly usually consisting of a suspension, rod, bob and rating (adjusting) nut. It is driven by the gear train to the escape wheel that pushes the pallets and pendulum while gravity controls the return to center and the amplitude of the swing.

Pendulum Bob: A heavy mass, usually the center of gravity on a pendulum that is adjusted up or down on the rod to speed up or slow down the clock.

Perpetual Calendar Clock: A clock showing the month, day and date on a separate calendar dial behind which is a calendar mechanism that is designed to take into account the specific number of days in each month including Leap Year's 29 days in February. Amazingly this was done using levers, cams and springs.

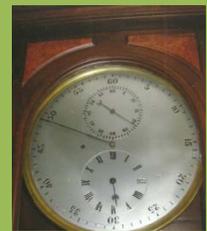
Regulator: A precision mechanical clock designed to be extremely accurate (within seconds a month). It is usually a timepiece, weight driven, with a temperature compensated pendulum and a dead beat escapement. Often a regulator will have a special dial. The second, minute and hour hands will each have separate dial tracks. These were frequently used in observatories to help with star, planet and other astrological sightings.

Spring Barrel: The round housing enclosing the main springs of most clock and watch movements. They are usually made of brass with teeth along one edge.

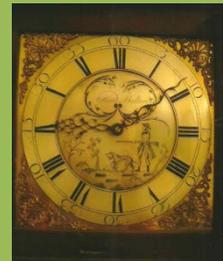
Spring Driven Clock: A clock in which timekeeping as well as any striking or chiming is powered by the unwinding of mainsprings.



Two uniquely decorated pendulum bobs. When in use they would be hidden inside a wooden case.



A regulator dial showing separate second, minute and hour dial tracks.



The dial of this Thirty Hour Long Case Clock has no winding holes as both time and strike are powered by a continuous chain and one weight.

Strike: The counting on bells, rods, etc. the time indicated. A strike may also occur once on the half hour and on the quarter, occasionally every five minutes or on demand. A clock is a clock because it strikes. It does not strike if it is a timepiece.

Tall Case Clock: Term occasionally used in the United States for Long Case Clock. Also known as a Tall Clock.

Thirty Hour Clock: A clock that needs to be wound daily. A thirty hour spring driven clock may actually run several days between winding due to the length of the springs. In a weight driven 30 hour clock there is an approximate 6 hour margin to prevent too frequent stopping if the clock is not wound at exactly the same time each day.

Timepiece: A timekeeper that has only a going train and does not strike or chime.

Train: The technical term for the interconnected series of wheels and pinions that perform a particular function in a clock such as the going (i.e. timekeeping), striking, and chiming trains.

Wag -on-Wall: Basically a long case clock without the case. The movement is usually less refined and often with wooden parts. It hangs high on the wall with a decorated painted dial and exposed pendulum and weights

Weight Driven Clock: A clock that is powered through the downward gravitational pull of a weight suspended by a rope, chain, gut, or cable. Weight driven clocks tend to be more accurate than spring driven clocks due to the consistently even supply of power.

Wooden Works: A term usually used to describe pre 1830 industrial American shelf clocks with quarter sawn oak plates and cherry pinions and wheels. They are usually found in shelf clocks but also occasionally in American tall case clocks, German Wag-on-Wall or Cuckoo clocks



A German Wag-on-Wall. The single weight indicates that this is a timepiece



A Weight Driven shelf clock. Each of the two weight cables (time and strike) ride on a pulley at the top of the case and drop along the side of the inside of the case. This clock has a wooden works movement.