

Identifying a Missing Repeat Pull

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One of the tasks required of a clockmaker when restoring a clock is to be able to identify when something is missing. This is made more difficult when the missing part has no bearing on the overall run ability of the piece but is instead an “extra” feature. One example that came across my bench lately was that of a missing repeat pull.

A repeat pull is nothing more than a string and a brass bobble that, when pulled, releases the strike and/or quarter strike trains. This pull is often missing from older European mantel clocks since the string breaks and is lost along with the bobble. And, since it was an “extra”, the owner has little incentive to have it replaced if the clock is otherwise functioning properly.

There are several tell-tale signs to help determine whether a clock originally had a pull repeat and, if these signs are present, the repeat function should be restored.

Snail Attached to a Star Wheel: One of the easiest things to spot is a snail arrangement that, at the hour, advances the snail at the last minute. This arrangement makes it possible for the movement to strike the most recent hour, every time the repeat is pulled, until just before the next hour. At one or two minutes before the hour, the snail snaps quickly ahead so as to be ready when the strike train is released at the hour and then stays in that position for the next 58 minutes. This arrangement avoids any possibility of the snail being in a position where the rack tail falls inbetween steps and gives an erroneous strike count. (Fig. 1)



Fig. 1- A good indication of a repeat function is having the snail attached to a star wheel (shown at arrow).

Dedicated Release Lever: In order for the movement to have a repeat function, it must be equipped with a lever which, when pulled, will release the strike train(s). This lever is most often attached to a stud and has the sole purpose of raising the strike levers. It will also have a hole for attaching the repeat pull string. (Fig. 2)

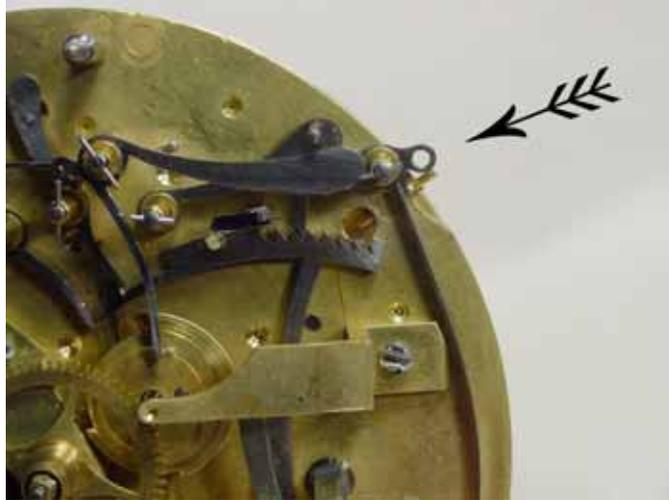


Fig. 2- Movements with pull repeat will have a dedicated repeat lever and a place to attach the pull (shown at arrow).

Hole in the Case: A final indication that a clock is supposed to have a repeat pull is a hole in the case for the pull cord to pass. This hole can sometimes be hidden in the nooks and crannies of a statue or in the bottom of the clock case. It will generally be on the same side as the repeat lever, but one should always consider that the case may have been taken apart and not reassembled properly if the hole is out of position. (Fig. 3)



Fig. 3- Clocks with a repeat pull will generally have a hole in the case for the pull to pass through. This hole will also act as a guide and prevent the cord from becoming tangled in the movement (shown at arrow).

If it can be determined that a movement is designed to have a repeat function, but the pull is missing, it should certainly be restored. It is a simple matter to tie a string or cord onto the repeat lever and tie a brass bobble onto the end of the cord. The bobble can be easily made on the lathe and need not be fancy. (Fig. 4) The hole in the end of the bobble can be made a larger diameter than the through hole in order to hide the knot, giving a very professional result.



Fig. 4- The repeat function is fully restored with the installation of the pull cord and bobble.

Related Information:

Tardy. *French Clocks, Clocks the World Over*. Parts 1 – 4. Tardy, 6, rue Milton, 75009, Paris, 1949

Goodrich, Ward L. *The Modern Clock*. Fox River Grove, IL: North American Watch Tool and Supply Company, 1970, pp. 332 -333.

Smith, Eric. *Striking and Chiming Clocks*. Buttler & Tanner Ltd. for David & Charles Brunel House, Newton Abbot, Devon. 1995. pp. 27 – 29.