E. D. HARBOUR.

MAINSPRING RELEASING DEVICE.

APPLICATION FILED MAR. 6, 1915.

1,165,249. Patented Dec. 21, 1915.

Fig. 1.

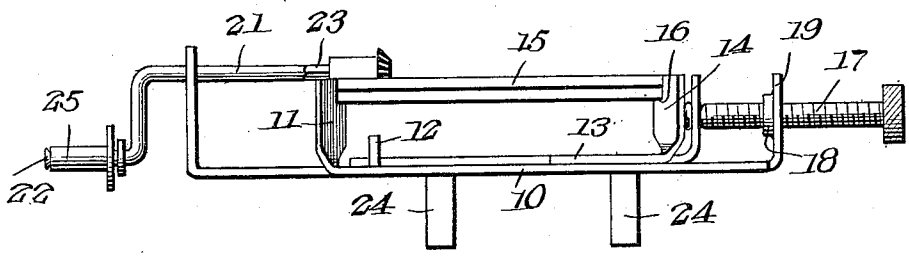


Fig. 2.

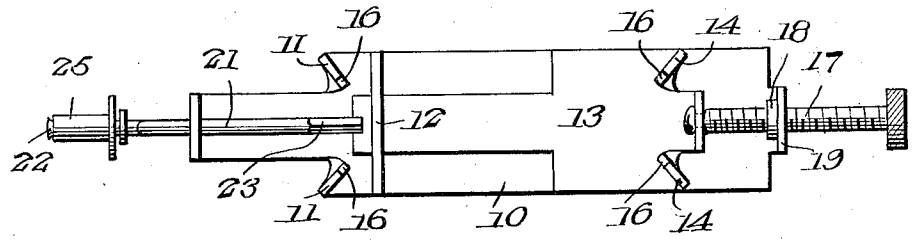


Fig. 3.

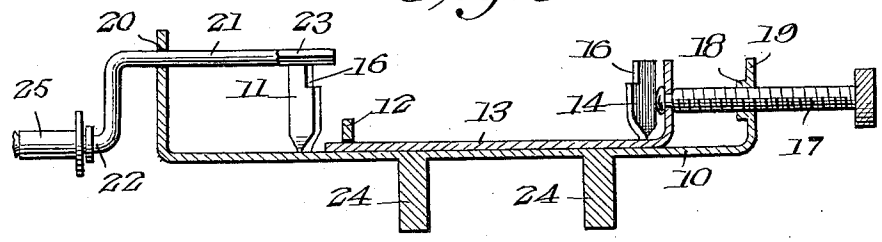


Fig. 4.

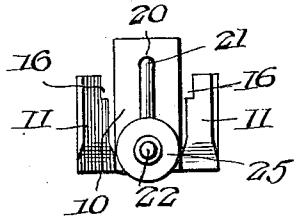
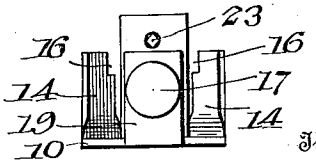


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

ERNEST D. HARBOUR, OF ROCKFORD, NORTH CAROLINA.

MAINSPRING-RELEASING DEVICE.

1,165,249. Specification of Letters Patent. Patented Dec. 21, 1915.

Application filed March 6, 1915. Serial No. 12,596.

To all whom it may concern:

Be it known that I, ERNEST D. HARBOUR, a citizen of the United States, residing at Rockford, in the county of Surry and State of North Carolina, have invented new and useful Improvements in Mainspring-Releasing Devices, of which the following is a specification.

The invention relates to watch gear frame clamps, and more particularly to the class of main spring releasing devices.

The primary object of the invention is the provision of a device of this character wherein the main spring in a watch, clock, or the like can be readily and easily released in a novel and convenient manner, the gear frame of the timepiece being rigidly held to accomplish this purpose.

Another object of the invention is the provision of a device of this character which is easily and quickly adjusted to accommodate different sizes of timepieces.

A further object of the invention is the provision of a device of this character which is simple in construction, reliable and efficient in its use, and inexpensive in manufacture.

With these and other objects in view, the invention consists in the construction, combination and arrangement of parts as will be hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claim hereunto appended.

In the drawing: Figure 1 is a side elevation of a device constructed in accordance with the invention, showing a watch frame clamped therein. Fig. 2 is a top plan view with the watch frame removed. Fig. 3 is a vertical longitudinal sectional view therethrough. Fig. 4 is an end view. Fig. 5 is a similar view looking toward the opposite end.

Similar reference characters indicate corresponding parts throughout the several views in the drawing.

Referring to the drawing in detail, the device comprises a substantially U-shaped frame 10, preferably made from flat metal, and is cut and bent to form spaced upstanding stationary jaws 11, while mounted upon the said frame is a transversely disposed guide piece 12 through which works a slide 13, the same being formed with upstanding jaws 14 arranged in spaced relation to each other and which coöperate with the jaws 11 for the clamping of the gear frame 15 of a timepiece, the jaws being formed with notches 16 providing seats for the frame 15 so that the same can be firmly clamped by the jaws, the slide 13 having the jaws 14 being adjustable in a manner presently described.

In one limb of the frame 10 is swiveled an adjusting screw 17 which is threaded in a boss 18 formed on an upturned ear 19 of the slide 13, and on the adjustment of the said screw 17 the slide can be moved to vary the position of the jaws thereon relatively to the jaws 11 on the frame for the clamping or unclamping of the frame 15 of the timepiece as the occasion may require. The other limb of the frame 10 is formed with a hole 20 through which is passed the shank 21 of a hand crank 22, the shank being formed with a reduced squared end 23 which is adapted to engage in a correspondingly shaped socket formed in the winding stem of the timepiece for the winding or unwinding of the main spring of its time mechanism, which is of the usual well-known construction, and forms no part of the present invention. Integral with and depending from the frame 10 are spaced lugs 24 which serve as legs so that the said frame can be fixedly supported in a vise or other holding device when the main spring releasing device is in use. On the crank 22 in alinement with the crank 21 is a hand knob 25 to permit the shank to be pushed inwardly for shifting the winding stem in a watch for the unwinding of its mainspring.

It is of course understood that when watches or the like are to be repaired, or the parts disassembled, it is necessary to have the main spring released before this can be done, and therefore the device hereinbefore described will serve this purpose.

From the foregoing description, taken in connection with the accompanying drawing, the construction and manner of use of the device will be clearly understood, and therefore a more extended explanation has been omitted.

What is claimed is:—

A device of the class described comprising a substantially U-shaped frame having upstanding jaws cut therefrom, a guide piece on said frame, a slide working through the guide piece and having upstanding jaws cut therefrom and adapted to coöperate with the

first-named jaws for the clamping of a time-piece gear frame therebetween, a feed screw threaded in one arm of the frame and swiveled in the slide, a rotary stem journaled in the other arm of the frame and having a squared inner end, and a crank handle formed on the shaft at the outer end thereof.

In testimony whereof I affix my signature in presence of two witnesses.

ERNEST D. HARBOUR.

Witnesses:
W. T. CRISSMAN,
CORA B. HILL.