

(Model.)

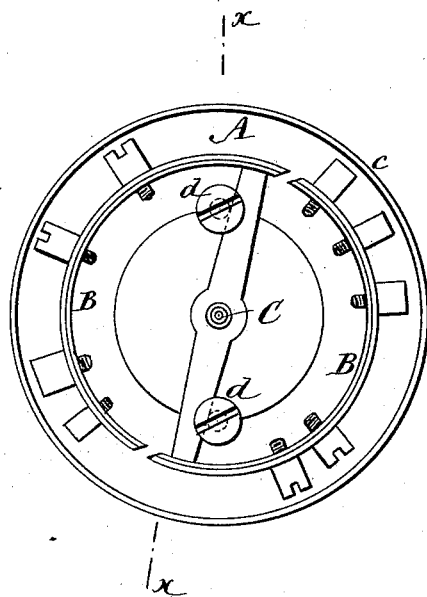
E. J. ARRICK.

DEVICE FOR PROTECTING BALANCE WHEELS OF WATCHES.

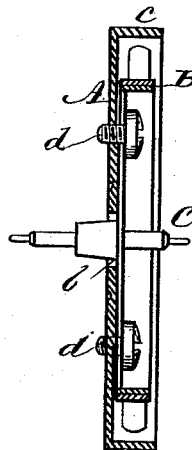
No. 302,700.

Patented July 29, 1884.

*Fig. 1*



*Fig. 2*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

EVERTON J. ARRICK, OF McCONNELSVILLE, OHIO.

## DEVICE FOR PROTECTING BALANCE-WHEELS OF WATCHES.

SPECIFICATION forming part of Letters Patent No. 302,700, dated July 29, 1884.

Application filed October 17, 1883. (Model.)

*To all whom it may concern:*

Be it known that I, EVERTON J. ARRICK, of McConnelsville, in the county of Morgan and State of Ohio, have invented certain new and useful Improvements in Devices for Protecting Balance-Wheels of Watches while in the Lathe, of which the following is a full, clear, and exact description.

This invention is mainly designed for use at the watch-repairing bench; and it consists in a flanged holder for the balance-wheels of watches, substantially as hereinafter described, which will admit of the necessary work or repair being done without removing the staff from the wheel, and of the wheel being chucked in the lathe at either end of the staff, free from all risk of damage to the rim of the wheel while in the lathe, or when taken out to "try," the flanged holder protecting the work until the job is completed, either in or out of the lathe.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both figures.

Figure 1 represents a face view, upon an enlarged scale, of my balance-wheel protector, with a balance-wheel and its staff in place therein; and Fig. 2 a transverse section of the same on the line *x x* in Fig. 1.

A indicates the balance-wheel holder or protector, which is preferably of circular form, as here shown, and consists of a dished face-plate—that is, a plate having a hole, *b*, in its center, and a flange, *c*, on its face; also screws *d d* therein, arranged on opposite sides of its center, and formed with projecting heads in front.

B indicates the balance-wheel of a watch in place within the protector, and C its staff. Said wheel is placed within the protector without removing its staff, and is slid or adjusted therein until the arms of the wheel come around under the heads of the screws *d d*, which are then tightened down to hold the rim of the wheel under cover of the flanged protector. The wheel being chucked by the staff and carrying the protector, the centering of the staff does not depend upon the protector running true. It therefore is not absolutely necessary

that the wheel should be central within the protector, but only desirable for appearance sake; and this may be done, either by observation before introducing the device to the lathe, or by running and adjusting the same in the lathe till the protector is true, and then slightly turning the screws *d d* to hold the protector. The staff C of the balance-wheel projects both in front and in rear of the flanged protector A, so that a balance-wheel can be chucked at either end of the staff which carries it, the hole *b* in the protector serving for the hub of the wheel, or enlarged portion of the staff forming the hub, to pass through. This hole may be large enough to receive the largest-sized like hub through it, and the protector generally be sufficiently large to take in the largest-sized balance-wheel of watches of ordinary or certain descriptions, whereby the same protector will answer for all smaller and intermediate sized balance-wheels. If desired, however, protectors of different sizes may be used for different-sized balance-wheels. By means of this device the rim of the balance-wheel while on the staff in the lathe will be perfectly protected from the usual risks of damage by the tool in the hand of the workman, by his hands, or by his eyeglass, and from other risks and exposures.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The protector A, for balance-wheels of watches while on their staffs, the same consisting of a dish-shaped or facially-flanged wheel-holder having a hole, *b*, in its center and provided with screws *d d* at any suitable distance from the center of the holder, with heads arranged to receive the arms of the wheel beneath and on the one side of them, on the free side of the holder, substantially as and for the purposes herein set forth.

2. The flanged guard or protector A *c*, for balance-wheels of watches, which is adapted for application to said wheels and to travel therewith while being rotated in a lathe, as hereinbefore specified.

EVERTON J. ARRICK.

Witnesses:

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