(No Model.)

T. SMITH & M. P. McKOON.

BALANCE SPRING HOLDER FOR WATCHES.

No. 266,396. Patented Oct. 24, 1882.

Fig. 1

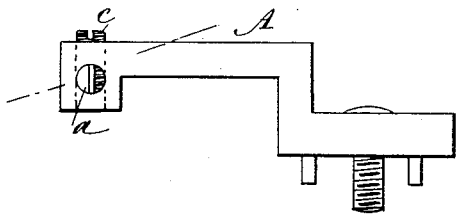


Fig. 2

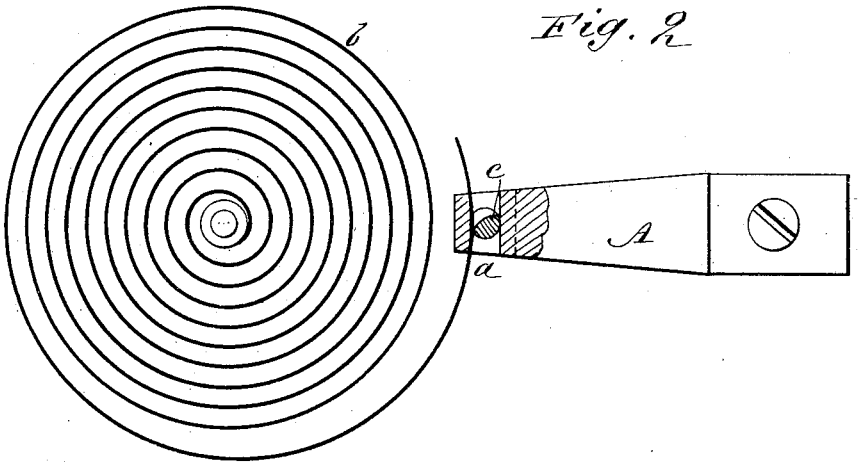
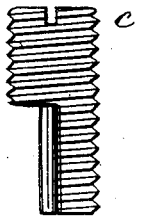


Fig. 3



WITNESSES:

C. Neveux

C. Sedgwick

INVENTOR:

T. Smith

M. P. McKoon

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

THEODORE SMITH AND MERRITT P. McKOON, OF FRANKLIN, NEW YORK.

BALANCE-SPRING HOLDER FOR WATCHES.

SPECIFICATION forming part of Letters Patent No. 266,396, dated October 24, 1882.

Application filed April 28, 1882. (No model.)

To all whom it may concern:

Be it known that we, THEODORE SMITH and MERRITT P. McKOON, both of Franklin, in the county of Delaware and State of New York, have invented certain new and useful Improvements in Fastenings for Hair-Springs of Watches, of which the following is a full, clear, and exact desription.

Our invention consists in a novel device for securing the hair-springs of watches to the hair-spring stud, the object being to obviate the difficulties heretofore connected with the attachment and detachment of such springs, as hereinafter more particularly set forth.

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 all the figures.

Figure 1 is a side elevation of a hair-spring stud or holder, showing the fastening device in position for receiving the end of the spring. Fig. 2 is a sectional plan view, showing the spring as attached. Fig. 3 shows the fastening device detached. These figures are larger than natural size in order to show the parts clearly.

A is the hair-spring stud or holder, that may be of any usual character or form, provided at its outer end with a transverse slot or aperture, *a*, through which the end of the spring *b* passes, and fitted with the screw-pin *c*, by which the end of the spring is clamped. The screw *c* is cut out for about half its length, (more or less,) as shown most clearly in Fig. 3, and the face of this cut-out portion is made in rounded or convex form. By thus cutting out the screw it forms an eccentric that may be turned to close the side aperture, *a*, in the stud, or by a quarter-rotation the aperture *a* is uncovered, so that the end of the spring may be inserted, and in this latter position the rounded surface of the screw will be next to the aperture, so as to bear upon the spring. To clamp the spring its end will be inserted through the aperture, with the screw in position, as shown in Fig. 1, and the screw then being turned clamps or binds the end of the spring securely, and the spring may be disconnected at any time by giving a slight turn to the screw.

This device obviates all danger of bending or breaking the hair-spring in taking it up or lengthening it. Usually hair-springs are secured by a pin, which is put in place by using a pair of pliers for forcing the pin in and out, and in that case there is always danger of injuring the spring. Our device obviates this trouble, as it can be moved by a screw-driver, and it is not necessary to take it from the stud. The rounded surface of the screw by which the spring is clamped touches the entire width of the spring, so that it holds it firmly and in its natural position, so that the springs cannot be set sidewise or become loose.

Our device also gives a finer and more tasty finish to the watch. Preferably the head will be countersunk in the stud. The screw may be applied either horizontally or vertically, and is adapted to any style of hair-spring stud in ordinary use.

With our improved fastening the regulator of the watch may be turned close to the stud, or even against it, without danger of loosening the hair-spring.

We are aware that it is old to employ a fastening device for hair-springs of watches, consisting of a bracket or plate with an up-turned or flanged end and an eccentric or cam binding the end of the spring against the said flange; but we make no claim broadly to such combination of parts.

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

The fastening device for hair-springs of watches, consisting of the stud A, having the horizontal transverse aperture *a* through one end, one side of said aperture being rounded or convexed, and of the partly cut-away or reduced screw *c*, working in a screw-threaded aperture intersecting the horizontal or transverse aperture *a*, and having an overhanging portion arranged above the transverse aperture *a*, the said reduced or cut-away side of the screw being also rounded or convexed, as shown and described, and for the purpose set forth.

THEODORE SMITH.
MERRITT PECK McKOON.

Witnesses:
HENRY A. PHELPS,
GEO. D. CHAMBERLIN.