

(No Model.)

J. LOGAN.

DEVICE FOR HOLDING WATCH MAINSPRINGS.

No. 435,844.

Patented Sept. 2, 1890.

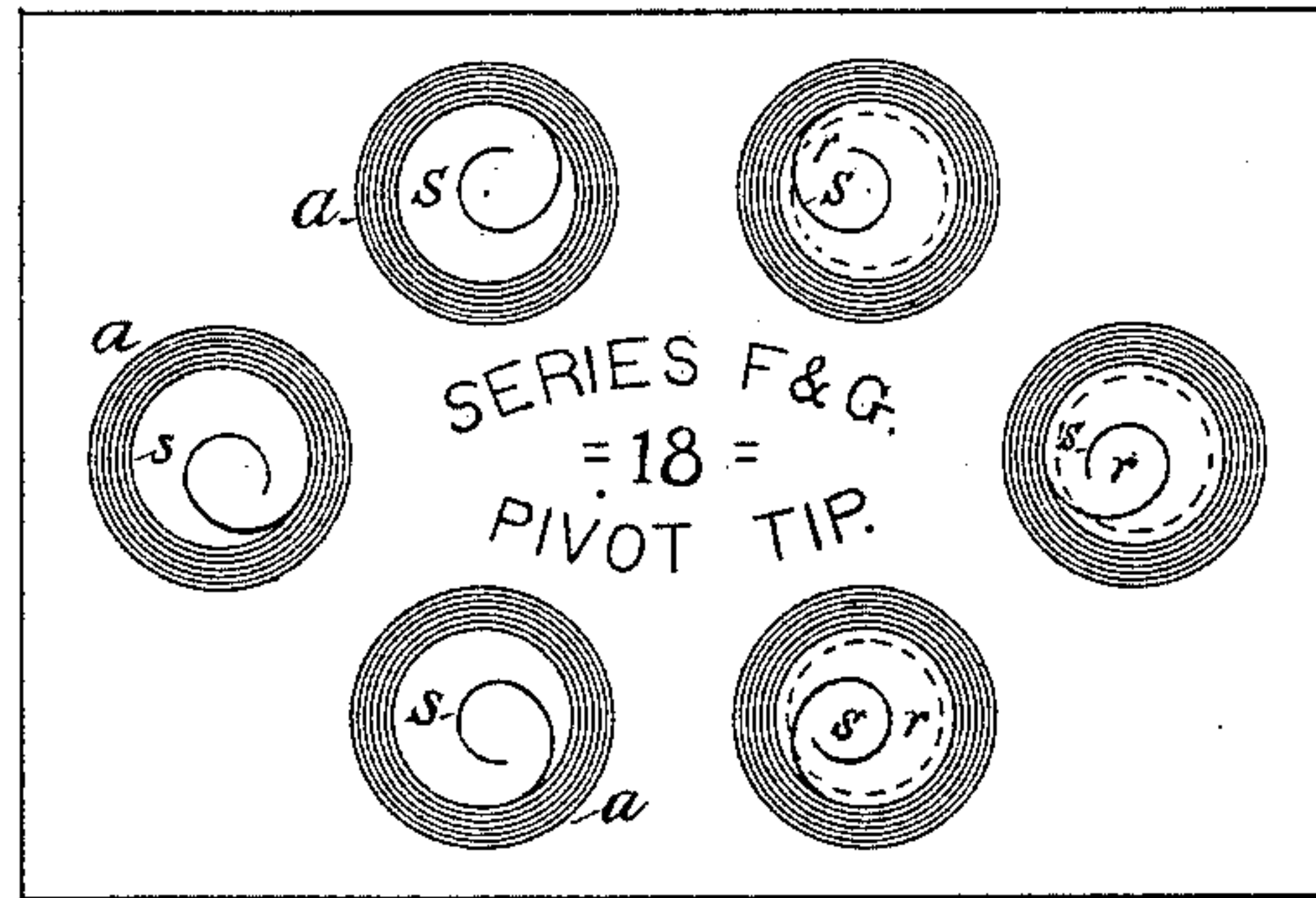


Fig. 1.

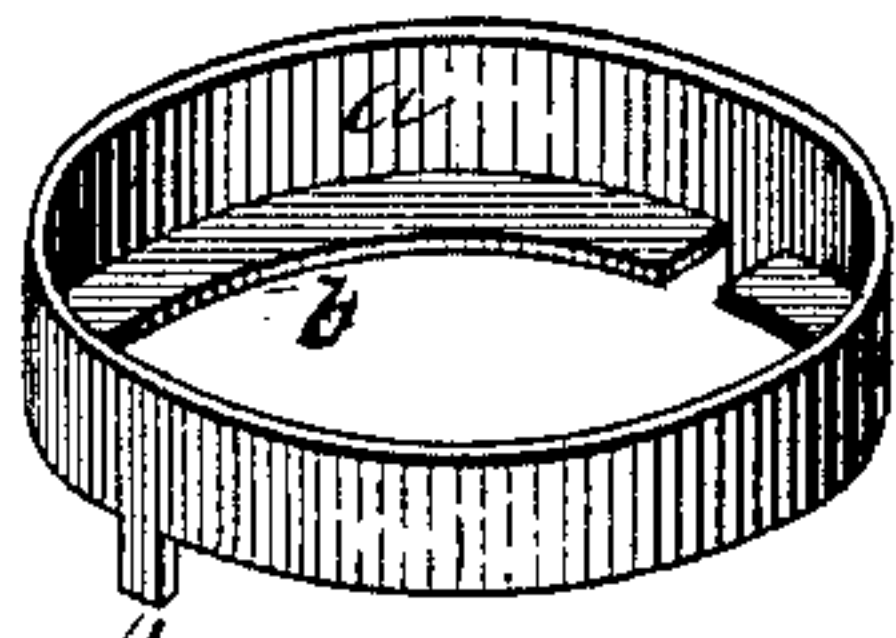
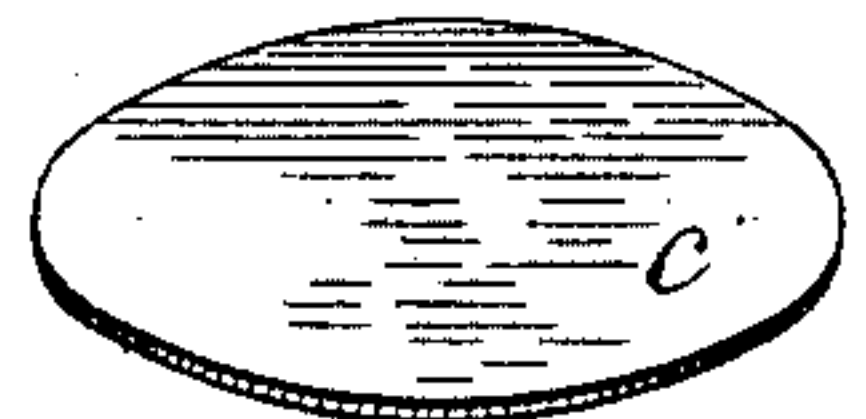


Fig. 2.

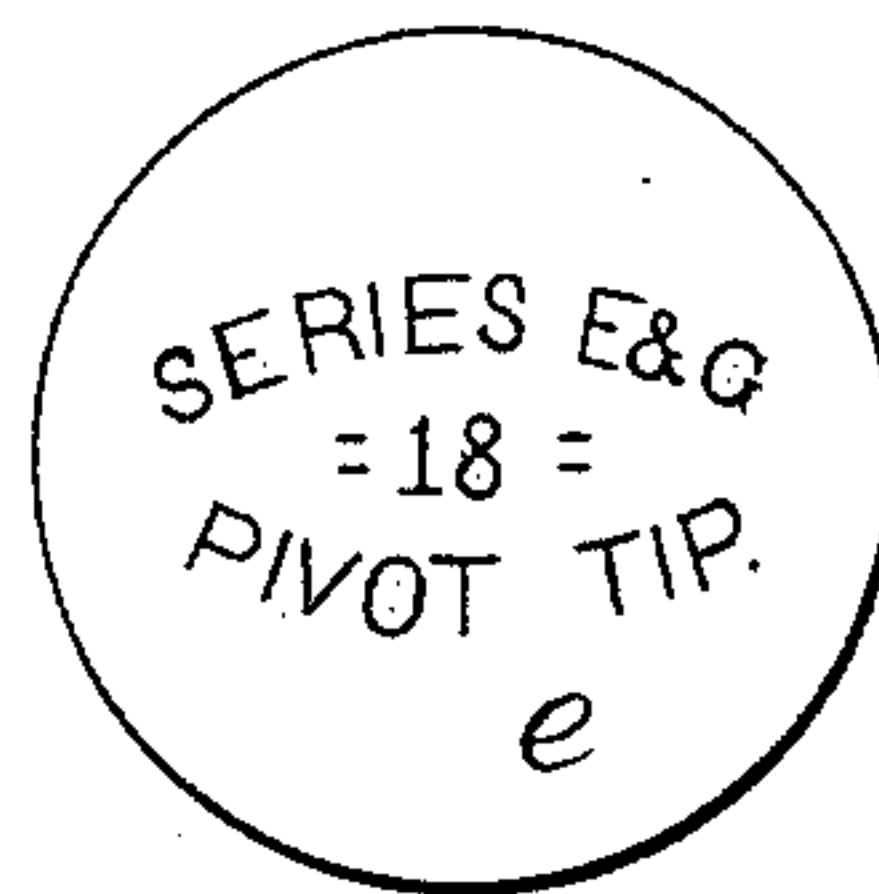


Fig. 3.

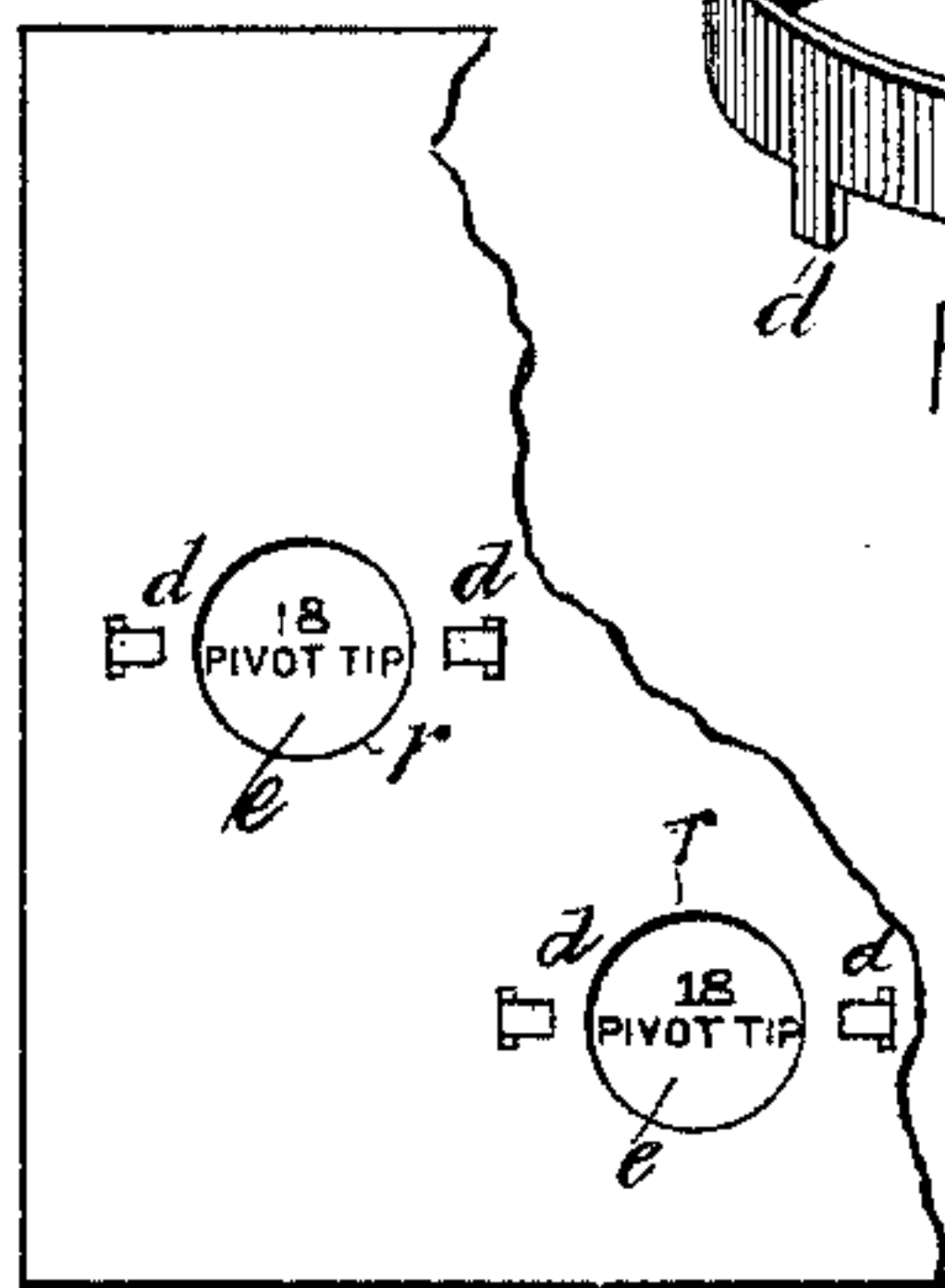


Fig. 8.

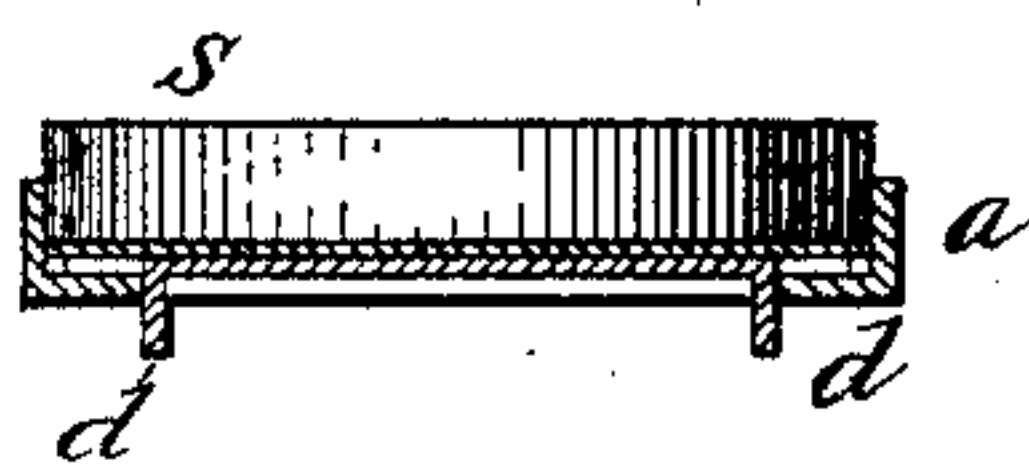


Fig. 4.

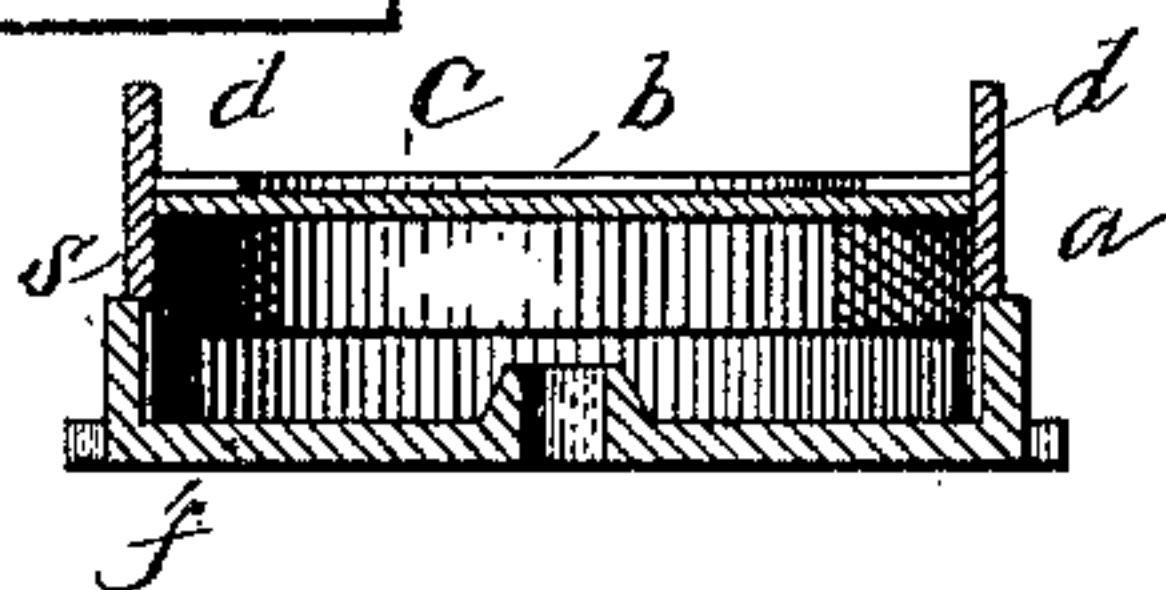


Fig. 5.

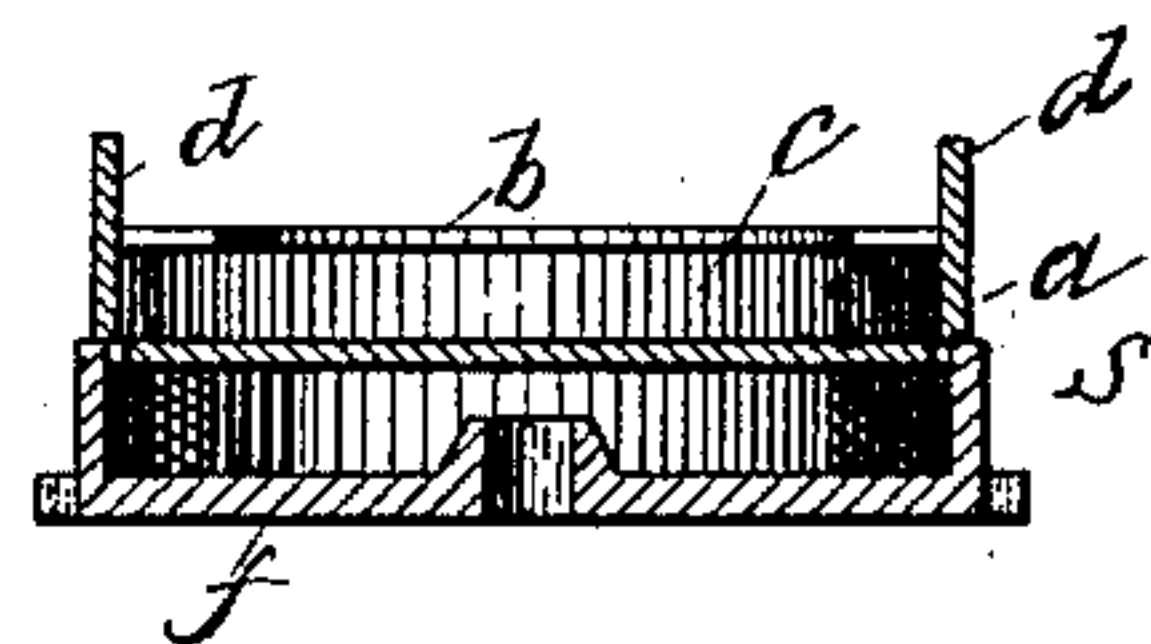


Fig. 6.

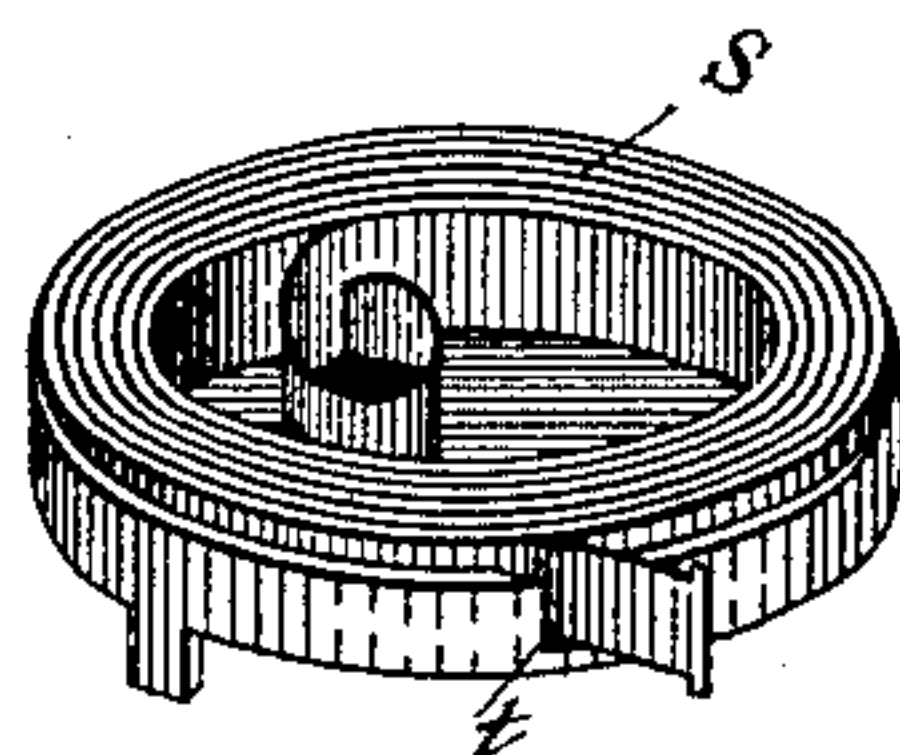


Fig. 7.

WITNESSES.

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UNITED STATES PATENT OFFICE.

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DEVICE FOR HOLDING WATCH-MAINSPRINGS.

SPECIFICATION forming part of Letters Patent No. 435,844, dated September 2, 1890.

Application filed February 15, 1888. Serial No. 264,069. (No model.)

To all whom it may concern:

Be it known that I, JOHN LOGAN, of Waltham, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Devices for Holding Watch-Mainsprings, of which the following is a specification.

My invention relates to devices for holding watch-mainsprings between the time of the completion of their manufacture and their use in watches.

The large and increasing number of watch-mainsprings demanded to replace those broken in watches in use necessitates the carrying of large numbers of mainsprings in stock by watch dealers and repairers. As springs are made of varying sizes and lengths, it is desirable to provide some means of indicating the size or number of each individual spring. The form of a coiled spring is such as to preclude the marking of the spring itself.

One method of preparing watch-mainsprings for the market is to coil each one tightly on itself and hold it in such coiled condition by an encircling band of wire twisted thereon to form a tie. Another method is to wire or tie the springs together in bunches of a dozen and inclose them in a suitably-marked wrapper. The objection to the first-mentioned plan is the absence of any designating-marks or description, and the second-noted plan is open to the objection that all the springs in the bunch must be handled together in order to remove a single spring, with the liability of damaging the entire lot from rusting occasioned by dampness from the hands and fingers. To overcome these and other unmentioned objections, and to provide a means for protecting each individual spring and to accompany it with a proper and accurate description or label indicating its size, structural character, &c., and, further, to furnish a ready and convenient means for placing the spring in the barrel of the watch, is the object of my invention, which I will now proceed to describe and claim, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming a part of this specification, in which—

Figure 1 represents a plan view of a half-

dozen mainsprings in holders attached to a card. Fig. 2 represents a perspective view of a retaining-capsule and its false bottom separated. Fig. 3 represents a plan view of the label, which may be arranged on the false bottom under the spring. Fig. 4 represents a sectional view through the coiled spring, holder, &c. Fig. 5 represents a sectional view through a barrel and a spring and its retaining device or holder with the parts in position preparatory to transferring the spring from its holder to the barrel. Fig. 6 represents a view similar to Fig. 5, showing the position of the parts after the spring has been transferred from its holder to the barrel. Fig. 7 represents a perspective view of a modified form of the invention. Fig. 8 is a view of the back or reverse side of a portion of a card of springs.

In carrying out my invention I provide a capsule or circular cup *a*, of any suitable metal or material, preferably of a depth equal to or a little less than the width of the spring *s* to be held, though it may be of greater depth and of such internal diameter as shall correspond to that of the barrel of the watch for which the spring is designed, or slightly less than the internal diameter of the barrel. A portion of the bottom of the cup or holder *a* is removed, so as to leave a flange *b* projecting inward from the bottom, as best shown in Fig. 2. Into this cup so formed is dropped a false bottom or ejector *c*, of a diameter nearly equal to the internal diameter of the cup or holder, so as to make a free fit, and ears or clips *d d* are formed on the flange-bottom of the cup or holder, as shown in Fig. 2; or it may be on false bottom *c*, as shown in Fig. 4, to constitute means whereby the cup or holder and its contained spring may be attached to a card. (See Fig. 1.) If desired, a card or label *e*, having the size, number, &c., of the spring marked or printed thereon, may be placed on the bottom *c*, or data giving information as to the size and structural character of the spring may be printed on the card to which the cup or holder is attached, as shown in Fig. 1, or such data may be stamped or printed on the false bottom *c*. The spring *s* may be transferred from the cup or holder *a* to a watch-barrel *f* by placing the holder with its

contained mainspring over the barrel, as shown in Fig. 5, and pressing on the false bottom *c*, by which operation the spring will be crowded in properly-coiled position into the barrel, as represented in Fig. 6, thus saving the time and trouble usually occasioned in placing the spring in the barrel.

In Fig. 7 I have shown a modified form of the invention, where the capsule is provided with a slit or opening *t* in its side, through which the outer end of the coiled spring may be drawn from the cup, if desired, for the purpose of examination, measurement, &c.

To attach the cup or holder to the card, the latter is punctured, and the ears or clips *d d* are passed through the holes or punctures and clinched on the back side of the card. It is not essential, however, that this should be done, as my invention may be advantageously employed, as will be readily understood, without being attached to a card.

To avoid the necessity for removing the cup from the retaining-card in transferring the spring from the holder to a watch-barrel, I provide the card with a series of holes or perforations *r* directly beneath the cups, as shown at the right in Figs. 1 and 8, through which the descriptive tags or labels may be read, and which will permit the ejection of the spring by pressure of the finger or other means.

Although I have been particular to describe my invention as represented in the drawings, it is obvious that the form and arrangement of the parts may be varied without departing from the nature or spirit of the improvements.

Having thus described my invention, what I claim is—

1. As a new article of manufacture, a holder for watch-mainsprings, &c., consisting of a capsule or cup having an open bottom and adapted to contain a coiled spring, and an

independent false bottom loosely placed in said capsule, whereby the spring may be held for manipulation or transmission in the market and be ejected and inserted in a barrel, as set forth.

2. As a new article of manufacture, a holder for watch-mainsprings, &c., consisting of a capsule or cup having an open bottom, and an independent false bottom arranged loosely in the capsule, said holder being provided with ears or clips whereby it may be attached to a card, substantially as set forth.

3. As a new article of manufacture, a holder for watch-mainsprings, &c., consisting of a capsule or cup provided with ears or clips, and an independent false bottom loosely arranged in said capsule or cup, as set forth.

4. As a new article of manufacture, a holder for watch-mainsprings, &c., consisting of a capsule or cup having an open bottom and an independent false bottom arranged loosely in the capsule or cup, said holder being provided with ears or clips, in combination with a perforated retaining-card, substantially as set forth.

5. As a new article of manufacture, a holder for watch-mainsprings, &c., consisting of a capsule or cup adapted to receive a coiled mainspring, and an ejector between the spring and the bottom of the capsule or cup, adapted to be engaged by the fingers of the user and thus eject the spring from the holder, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 14th day of February, A. D. 1888.

JOHN LOGAN.

Witnesses:

C. F. BROWN,

D. W. ELDREDGE.