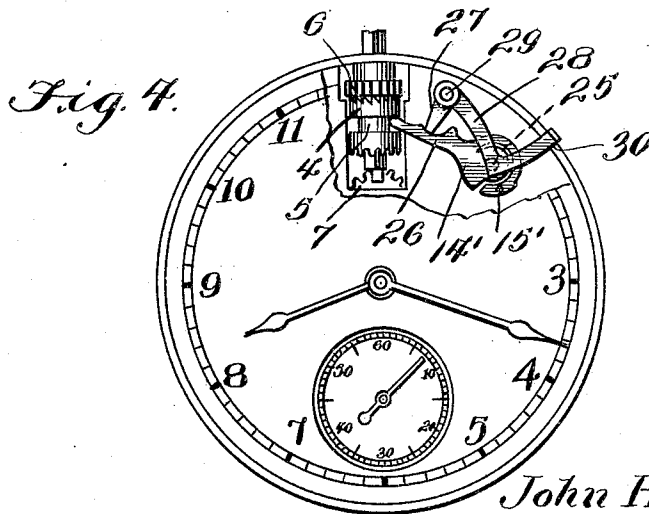
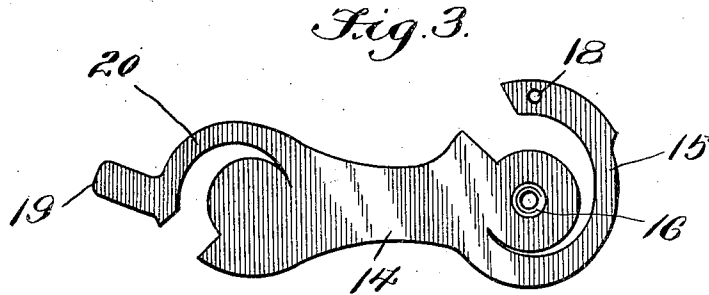
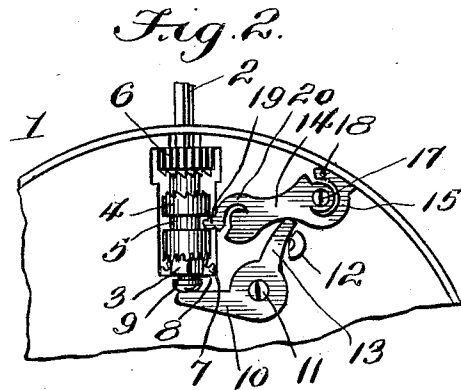
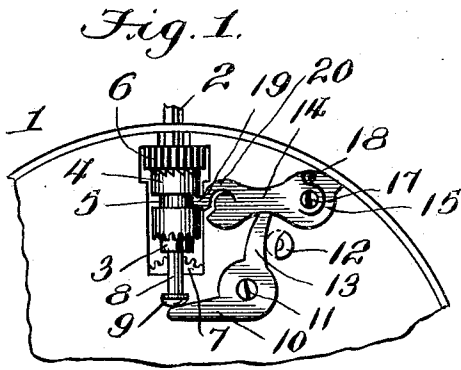


J. H. GORMAN.
 SETTING DEVICE FOR WATCHES.
 APPLICATION FILED NOV. 17, 1908.

939,009.

Patented Nov. 2, 1909.



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UNITED STATES PATENT OFFICE.

JOHN H. GORMAN, OF SALISBURY, NORTH CAROLINA.

SETTING DEVICE FOR WATCHES.

939,009.

Specification of Letters Patent.

Patented Nov. 2, 1909.

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To all whom it may concern:

Be it known that I, JOHN H. GORMAN, a citizen of the United States, residing at Salisbury, in the county of Rowan and State of North Carolina, have invented new and useful Improvements in Setting Devices for Watches, of which the following is a specification.

This invention relates to setting devices for watches, and the object of the invention is to provide a device of this character which is extremely simple in construction, cheap to manufacture, and the parts of which are so combined as to accomplish the purposes for which it is intended efficiently and with certainty.

With the above, and other objects in view which will appear as the description progresses, the invention resides in the novel construction and arrangement of parts hereinafter fully described and claimed.

In the accompanying drawing there has been illustrated a simple and preferred embodiment of the invention, and in which:

Figure 1 is a side elevation of a watch having parts broken away to illustrate the application of my invention, the parts being arranged to illustrate the sliding toothed collar engaging the winding pinion of the watch. Fig. 2 is a similar view showing the toothed collar lowered to engage the setting wheel of the watch. Fig. 3 represents the resilient sliding collar operating member employed with the device. Fig. 4 is a detail elevation illustrating the device when applied to a lever set.

In the accompanying drawings the numeral 1 designates an ordinary watch casing, which in Figs. 1 and 2 is provided with a stem winding and setting mechanism. This mechanism is of the ordinary type comprising a stem 2 mounted within a squared sleeve 3, while on this sleeve 3 is a sliding collar member 4. The member 4 is centrally provided with an annular groove 5 while both its upper and lower faces are provided with suitable teeth. The teeth upon the upper face of the member 4 are adapted to engage with similar teeth secured upon the underface of the winding pinion 6, while the teeth upon the lower face of the sliding collar are adapted to engage with the hand setting wheel or pinion 7, when the collar is forced downwardly in a manner herein-
after to be described.

The numeral 8 designates a sliding pin adapted to be contacted by the stem 2 or to be directly connected therewith if desired. The stem 8 has its lower extremity provided with a head 9 which is adapted to normally contact one of the fingers 10 of a pivoted L-shaped lever 11. The casing of the watch is provided with a cam face screw 12 which is adapted to limit the rearward movement of the L-shaped lever 11 and which may also be turned to serve as a stop to prevent the rearward movement of the said lever. This feature being desirable when the watch is being timed to ascertain the accuracy of its movements.

The numeral 13 designates the normal approximately vertical arm of the L-shaped lever 11. This arm 13 has its upper extremity rounded and adapted to engage the arcuate lower edge of a resilient collar operating member 14. This member 14 is constructed of a single piece of suitable spring material and is provided upon one of its edges or ends with what may be termed a spring proper 15. This spring 15 is formed by cutting the member inwardly and then in the line of a circle so as to provide an arbor 16 which is surrounded by the spring member 15. The arbor 16 is provided with a suitable opening 17 adapted for the reception of a suitable pintle upon which the member may be revolved when connected with the plates of the watch. The integrally formed spring member 15 is also provided with a suitable pin or other retaining element 18 through the medium of which this element is also secured to the plates of the watch.

As illustrated in the figures of the drawing the member 14 has its opposite end provided with a reduced extending finger 19, and this finger is formed upon an auxiliary spring section 20. The end provided with the finger 19 is cut inwardly, as plainly illustrated in Fig. 3 of the drawing and then in the form of an arc where it is connected with the body of the member 14. By this arrangement it will be noted that the springs 15 and 20 are so arranged as to exert pressure in an opposite direction from each other and that the said springs have their ends provided with offsets corresponding with similar offsets upon the member 14, so that when excessive pressure is exerted upon the springs the latter will lie snugly against the

offsets and the arcuate or curved slitted portions of the said member 14 and thereby relieving the springs from strain.

When the stem is at its normal winding position, as illustrated in Fig. 1 of the drawing, the finger 19 being engaged in the groove 5 of the collar 4 and the spring 20 exerting upward pressure so as to securely retain the upper teeth of the collar into engagement with the teeth of the winding pinion 6, the upward pressure upon the stem 2 will draw the head 9 of the pin 10 away from contact with the arm 8 of the L-shaped lever 11, thus allowing the spring 15 to exert downward pressure upon the collar 4 and to force the lower teeth carried by said collar into engagement with the teeth 7 of the setting mechanism.

In Fig. 4 I have illustrated the device applied to a lever set. In this figure the member 14 is provided with the usual spring 15' formed integrally with the body of the member and pivoted to the plates of the watch as indicated by the numeral 25. The body of the member 14' is reduced and is provided with a rounded end adapted to engage within the groove 5 of the sliding collar 4. The upper face of the body of the member 14 is provided with an arcuate cut away portion 26 which is adapted for the reception of an offset finger 27 of a lever operating member 28. This lever 28 is pivoted as at 29 and has its end opposite to that of the offset 28 extending in an opposite direction from said offset and projecting through the side of the watch casing. By this arrangement it will be noted that as the projecting portion 30 provided upon the outer offset arm of the member 28 is rotated outwardly from the side of the watch, the finger or offset 27 will travel in the groove 26 of the member 14' until the same rests upon the shoulder formed by the arcuate cut away portion and the upper face of the said member 14' when the lower teeth of the sliding collar 4 may be brought into engagement with the setting mechanism of the watch. When the projecting portion 30 is forced rearwardly within the casing the offset finger 27 will resume its normal position and the spring 15' will force the sliding collar 4 upwardly until the same is brought into engagement with the teeth of the winding mechanism of the watch.

From the foregoing description, taken in connection with the accompanying drawing it will be noted that I have provided an extremely simple, cheap and durable setting device for watches, one wherein the sliding collar operating member is constructed from a single piece of resilient

material wherein the yielding spring members are formed by simply slitting or cutting the body of the member, one wherein the parts are so constructed and arranged as to perform their functions effectively and with surety.

Having thus fully described the invention what is claimed as new is:

1. In a setting device for watches, a sliding collar having its ends provided with teeth adapted to engage with the winding or setting wheels of the watch, of a collar operating member provided with integrally formed oppositely disposed spring ends pivotally connected to the plates of the watch and one of said spring ends engaging the sliding collar.

2. A sliding collar for watches having two faces adapted to be engaged by a winding or a setting mechanism, of a collar operating device comprising a pivoted member having integrally formed oppositely disposed arcuate spring ends, one of said ends contacting with the sliding collar, and an L-shaped lever adapted to be contacted by the stem of the watch and to have one of its arms engage the operating device to wind the same upon its pivot and to force the toothed collar into engagement with the winding mechanism of the watch.

3. A toothed collar sliding mechanism for watches comprising a member having curved sides, said member being constructed of resilient material, and having its end slit to provide a spring member and its opposite end adapted to engage with the sliding collar.

4. A clutch operating device for the purpose set forth comprising a flat rectangular member having curved sides, said member having both of its ends incut to provide shoulders and being also provided with curved slits whereby the ends of the device are provided with spring extensions adapted to exert pressure in opposite directions.

5. An operating member of the character set forth constructed of resilient material and having its ends provided with arcuate integrally formed spring sections, one of said sections having a perforation adapted for the reception of a securing element, the opposite section having an extending finger and the said spring sections adapted when under pressure to contact with the body of the member.

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

JOHN H. GORMAN.

Witnesses:

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O. P. DAVIS.