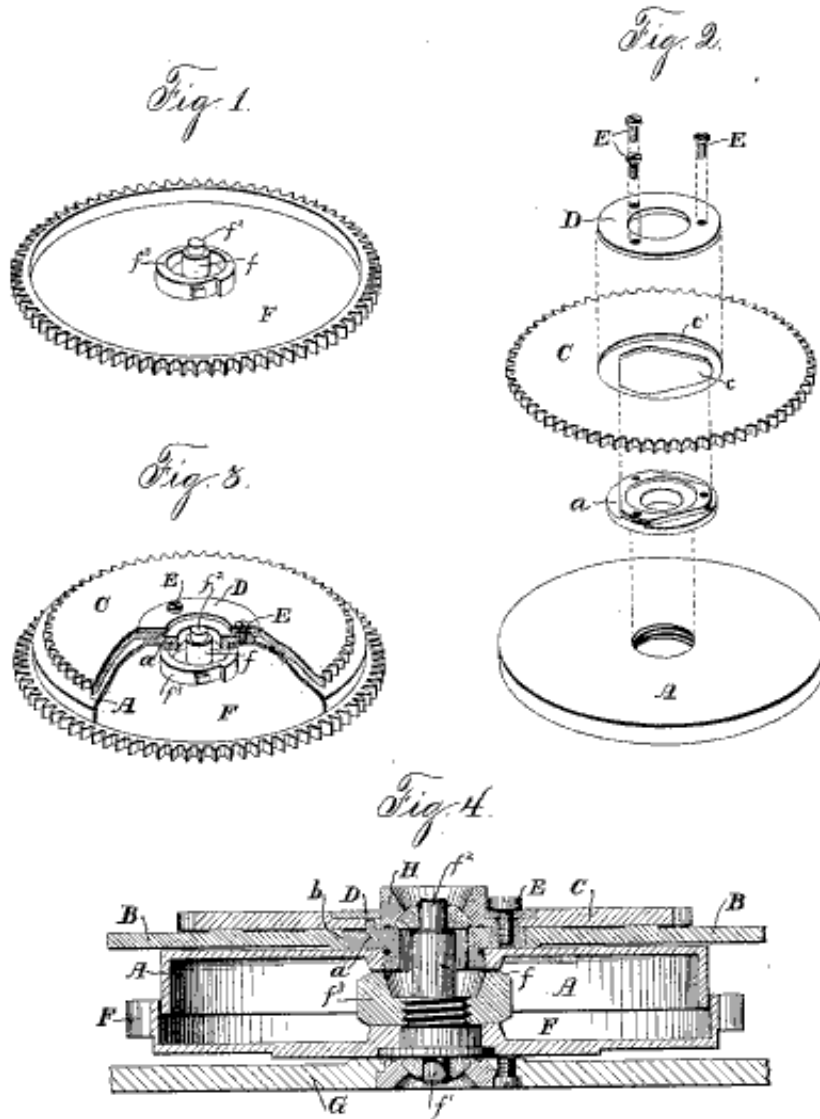


(No Model.)

G. HUNTER.
WATCH BARREL.

No. 596,408.

Patented Dec. 28, 1897.



Witnesses:
Frank P. Prindle.
Chas. Williamson.

Inventor:
George Hunter, by
Prindle & Russell, his Attys

UNITED STATES PATENT OFFICE.

GEORGE HUNTER, OF ELGIN, ILLINOIS, ASSIGNOR TO THE ELGIN NATIONAL WATCH COMPANY, OF CHICAGO, ILLINOIS.

WATCH-BARREL.

SPECIFICATION forming part of Letters Patent No. 596,408, dated December 28, 1897.

Application filed January 14, 1897. Serial No. 619,240. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HUNTER, of Elgin, in the county of Kane, and in the State of Illinois, have invented certain new and useful Improvements in Watch-Barrels; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of the main wheel and its arbor. Fig. 2 is a like view of the spring-barrel and its parts separated from each other. Fig. 3 is a perspective view of said barrel and parts combined with each other and with the main-wheel portions broken away to show the interior arrangement of parts, and Fig. 4 is a section through the axis of the main-wheel arbor.

Letters of like name and kind refer to like parts in each of the figures.

The object of my invention is to enable the main wheel and spring-barrel to be journaled effectively, so as to increase their efficiency and durability; and to such end said invention consists in the construction of said parts and in the means employed for journaling the same, substantially as and for the purpose hereinafter specified.

In the carrying of my invention into practice the spring-barrel A is constructed with the usual general form and is provided upon its outer face with a boss or hub *a*, which is preferably made separate from and screwed into said barrel.

The boss *a* is cylindrical and is adapted to fit into a corresponding opening *b*, provided in the back movement-plate B, with its end projecting beyond the outer face of said plate a distance slightly less than the thickness of a ratchet-wheel C.

The ratchet-wheel C has a central opening *c*, which preferably has a triangular shape, with rounded corners, and at all points has a diameter no greater but preferably less than the diameter of said hub, while the projecting portion of said hub *a* is shaped to correspond with said opening *c* and enables said wheel to be fitted over said hub, with its inner face in loose contact with the outer face of the back movement-plate B. Said barrel and wheel are combined so as to be able to

rotate simultaneously by means of a circular collar D, which fits into a correspondingly-shaped recess *c'*, provided in the outer face of said ratchet-wheel, and screws E and E, passing through said collar and ratchet-wheel, with their threaded ends contained within correspondingly-threaded openings in said hub, which screws operate to firmly bind the parts together while permitting free rotation in or upon said movement-plate.

The main wheel F has the usual form and is provided with an arbor *f*, that has such length as to adapt it for journaling within the movement-plates. The lower pivot *f'* of said arbor is journaled in any usual manner within the front movement-plate G, while the opposite pivot *f''* is journaled within the hub or boss *a* of the barrel A or within a jewel H, which is set in any usual manner and confined in place within a corresponding recess in said hub by means of the collar D, as shown in Fig. 4. The mainspring is, as usual, connected at its outer end to the barrel and at its inner end to a hub *f''*, that is secured upon the arbor *f* of the main wheel.

It will be seen that as constructed the main-wheel arbor is pivoted within the movement with the same effect and in every respect in as advantageous a manner as are the other arbors of the train, while the spring-barrel is journaled within or upon the movement-plate in such rigid and substantial manner as to render impossible that it should ever get out of perfect alignment, although perfectly free to be rotated to cause the spring to be coiled or wound. In addition to such advantages my construction enables the main-wheel arbor to be pivoted within jewels with the same ease and advantage as may be done in case of any of the train-arbors.

Having thus described my invention, what I claim is—

1. As an improvement in barrels for watches, a spring-barrel which has a hub that is journaled within a movement-plate, a jewel-setting mounted upon said hub, a collar attached to the hub, and confining said setting thereto, and a main-wheel arbor having a pivot journaled in the jewel, substantially as and for the purpose specified.

2. As an improvement in barrels for watches,

the combination of a spring-barrel which has a hub that is journaled within a movement-plate, a jewel-setting mounted on the hub, a collar engaging said setting, screws passing
5 through the collar into the hub, and a main-wheel arbor having a pivot journaled in the jewel, substantially as and for the purpose shown.

3. As an improvement in barrels for watches,
10 a spring-barrel which has a hub that is journaled within a movement-plate, a jewel-setting which is contained within such hub and a collar that is attached to the outer end of said hub and operates to confine said jewel-
15 setting within said hub and said spring-barrel in place within said movement-plate, substantially as and for the purpose specified.

4. As an improvement in barrels for watches, the combination of a spring-barrel having its
20 hub journaled within a movement-plate, a ratchet-wheel rotatively connected with the outer end of such hub and a collar that is attached to the outer end of said hub and operates to confine thereon said ratchet-wheel and
25 to hold said barrel in rotatable position, substantially as and for the purpose shown.

5. As an improvement in barrels for watches,

the combination of a spring-barrel provided with a hub that is journaled within a movement-plate, a ratchet-wheel rotatively connected with the outer end of such hub, a jewel-
30 setting contained within said hub and a collar which is secured to the outer end of the latter and operates to confine thereon and therein, respectively, said ratchet-wheel and
35 jewel-setting and to maintain the connection between said spring-barrel and movement-plate, substantially as and for the purpose shown and described.

6. As an improvement in barrels for watches,
40 the combination of a spring-barrel which has a hub journaled within a movement-plate, and having an angular projection, a ratchet-wheel overlying said plate, having an opening fitting said projection, and means for at-
45 taching the ratchet-wheel to the hub, substantially as and for the purpose shown.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of January, 1897.

GEORGE HUNTER.

Witnesses:

GEORGE E. HUNTER,
W. H. CLOUDMAN.