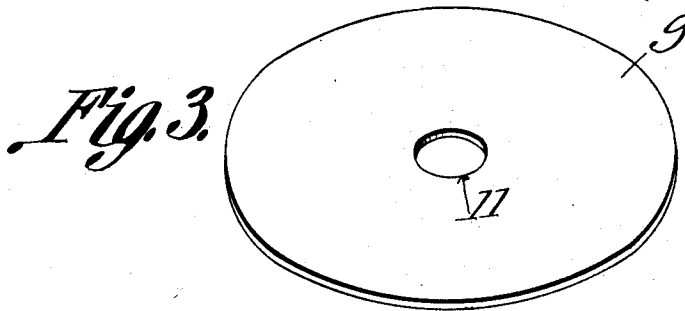
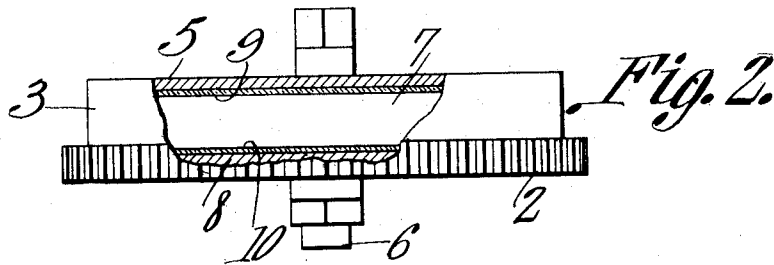
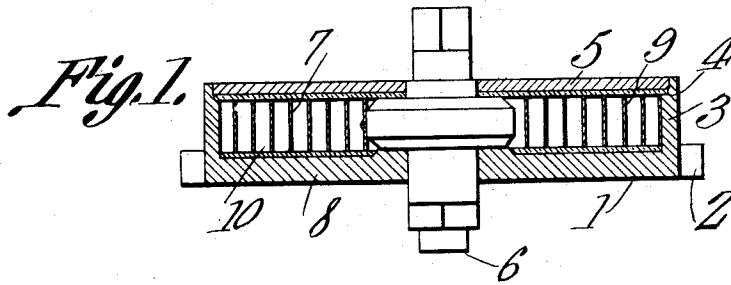


J. AUSTIN.
 MAINSPRING BARREL.
 APPLICATION FILED APR. 20, 1910.

977,994.

Patented Dec. 6, 1910.



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UNITED STATES PATENT OFFICE.

JOHN AUSTIN, OF GENEVA, OHIO.

MAINSRING-BARREL.

977,994.

Specification of Letters Patent.

Patented Dec. 6, 1910.

Application filed April 20, 1910. Serial No. 556,496.

To all whom it may concern:

Be it known that I, JOHN AUSTIN, a citizen of the United States, residing at Geneva, in the county of Ashtabula and State of Ohio, have invented a new and useful Mainspring-Barrel, of which the following is a specification.

It is the object of this invention to provide a main spring barrel for a watch, so constructed that, as the main spring works to and fro in the barrel, the barrel will not be injured by the friction of the spring.

Specifically, it is the object of the invention to provide an anti-friction device, of novel and improved form, adapted to be mounted in a main spring barrel of a time-piece, to prevent the main spring from wearing the barrel in which it is contained.

In the drawings,—Figure 1 is a transverse section of a main spring barrel, showing the device of my invention mounted therein, parts being shown in elevation; Fig. 2 is a side elevation of a main spring barrel equipped with my invention, parts being broken away; and Fig. 3 is a detail perspective view of one of the anti-friction plates which are mounted in the main spring barrel.

In the drawings, the body of the main spring barrel is denoted generally by the numeral 1. The base 8 of the body 1 is surrounded peripherally by the usual gear teeth 2, and in the side walls 3 of the body 1 there are shoulders 4, adapted to receive the closure 5. Through the base 8 of the body 1, and through the closure 5, extends the arbor 6, the spring being denoted by the numeral 7.

At this place it may be profitably stated, that after a considerable period of use, the main spring 7 wears into the adjacent faces of the closure 5 and the base 8, commonly fashioning therein, ridges or indentations. In these indentations, the main spring not infrequently lodges, the result being that the main spring does not uncoil readily. Thus the power of the main spring in uncoiling, is uneven and variable, the main spring thereby, often becoming broken, and, in any event, making the rate of the time piece, an uncertain element. In order to obviate this wearing of the main spring

barrel by the main spring, I provide a pair of anti-friction plates, denoted in the drawings, by the numerals 9 and 10, the plates being ordinarily circular in outline, and alike in construction, with the exception that the upper plate 9 is slightly greater in diameter than the lower plate 10, in order that the said upper plate 9 may extend outwardly upon the shoulder 4, to be held thereon by the closure 5. In these plates 9 and 10, there are openings 11, adapted to receive the arbor 6. The material from which these plates 9 and 10 are fashioned, may be varied greatly; I have used mica, ivory, celluloid and enamel to good advantage. One of these plates is placed against the inner face of the closure 5, the other of said plates being placed against the inner face of the base 8 of the body 1 of the main spring barrel, the main spring 7 operating between the two plates 9 and 10. These plates will provide smooth, anti-friction surfaces, over which the main spring will slide evenly, without friction, and without wearing ridges into the main spring barrel. The plate may be manufactured at a trifling expense, and may readily be renewed.

It is to be understood that the drawings show typical embodiments merely, and that changes, properly falling within the scope of what is claimed, may be made without jeopardizing the utility of the invention.

Having thus described the invention, what I claim as new and desire to protect by Letters Patent is:—

In combination, a main spring barrel provided in its interior with a shoulder, and having an integrally formed base spaced from the shoulder; an anti-friction plate resting upon the base; an anti-friction plate resting upon the shoulder; and a closure fitting within the barrel and resting upon the last named plate to bind the same against the shoulder.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN AUSTIN.

Witnesses:

A. J. BOLLOW,
E. J. MORGAN.