No. 789,851. PATENTED MAY 16, 1905.

J. W. GIBSON.

HAIR SPRING STUD FOR WATCHES.

APPLICATION FILED DEC. 27, 1904.

Fig. 1.

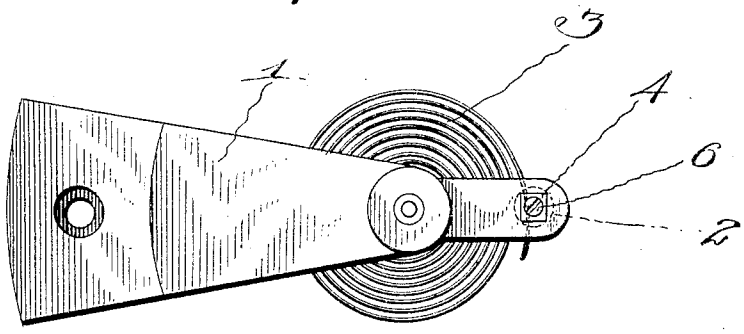


Fig. 2.

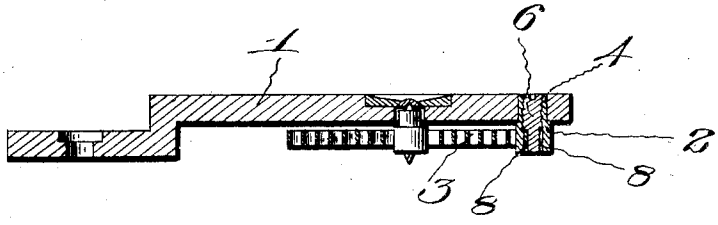


Fig. 4.

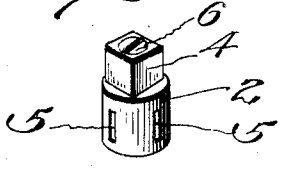


Fig. 3.

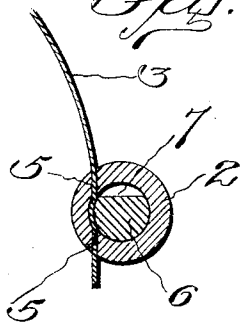
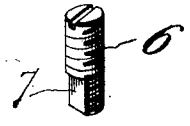


Fig. 5.



Witnesses
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No. 789,851. Patented May 16, 1905.

UNITED STATES PATENT OFFICE.

JOHN WILLIAMSON GIBSON, OF MYSTIC, IOWA.

HAIR-SPRING STUD FOR WATCHES.

SPECIFICATION forming part of Letters Patent No. 789,851, dated May 16, 1905.

Application filed December 27, 1904. Serial No. 238,448.

To all whom it may concern:

Be it known that I, JOHN WILLIAMSON GIBSON, a citizen of the United States, residing at Mystic, in the county of Appanoosa and State of Iowa, have invented certain new and useful Improvements in Hair-Spring Studs; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in hair-spring studs for watches and clocks.

The object of the invention is to provide a hair-spring stud by which the end of the spring may be securely held and which may be quickly and easily loosened to permit the adjusting of the spring without removing the balance-cock or the balance-wheel bridge or disturbing any other parts of the works.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan view of a balance-cock or balance-wheel bridge-plate, showing the application of the invention. Fig. 2 is a vertical sectional view of the same, and Fig. 3 is a horizontal sectional view through the stud and the holding-plug for securing the end of the spring. Fig. 4 is a detail perspective view of the stud, and Fig. 5 is a similar view of the plug removed from the stud.

Referring more particularly to the drawings, 1 denotes the balance-cock or balance-wheel bridge of a watch to which is secured my improved hair-spring stud 2, with which is adjustably connected the end of a hair-spring 3. The stud 2 may be attached to the balance-cock or bridge-plate 1 in any suitable manner, but is here shown as connected by providing said plate with a rectangular opening, in which is secured the squared upper end 4 of the stud.

The stud 4 preferably consists of a tubular cylindrical body portion in the lower end and at one side of which is formed two alined rectangular openings or slots 5, through which is adapted to be inserted the end of the spring 3. To hold said end of the spring in place in said slots 5, a plug 6 is arranged within said tubular stud, said plug being preferably threaded and in the form of a screw, which is adapted to be screwed into engagement with threads formed in the inner walls of the tubular stud, thereby securing said plug in the stud. The lower end of the plug is recessed or cut away at one side, as shown at 7, so that when the plug is turned in one direction after being screwed into the stud the surface of the same will be engaged with and will bind against the end of the spring within the stud, thus fastening the same in place. To release the spring, the plug is turned in the opposite direction, thus bringing the recess 7 opposite the spring, which will permit the same to be taken up or to be disengaged from the stud. By constructing the stud in this manner it is simply necessary to turn the plug to a slight degree to release the spring and permit the same to be taken up or adjusted, after which a slight turn of the plug in the opposite direction will again secure the end of the spring, the arrangement of the stud being such that the locking-plug may be turned by a screw-driver or other suitable tool without removing the balance-cock or bridge-plate or disturbing any of the works of the watch or injuring the spring in any manner.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A hollow interiorly-threaded hair-spring stud adapted to be secured in the balance-cock or balance-wheel bridge of a watch, said stud having formed therein transverse, oppositely-

disposed rectangular slots, a hair-spring inserted in said slots, a screw-plug adapted to be screwed into said hollow stud to engage and hold the end of said spring, the inner end of said plug being cut away to form a recess whereby when said plug is turned in one direction the same will be engaged with said spring and when turned in the opposite direction the recessed portion of the plug will be brought opposite the end of the spring thereby releasing the same, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN WILLIAMSON GIBSON.

Witnesses:
J. E. SCOTT,
T. F. HIGGINBOTHAM.