

R. GOVE.

Mainspring Safety-Attachments for Watches.

No. 137,437.

Patented April 1, 1873.

Fig. 1.

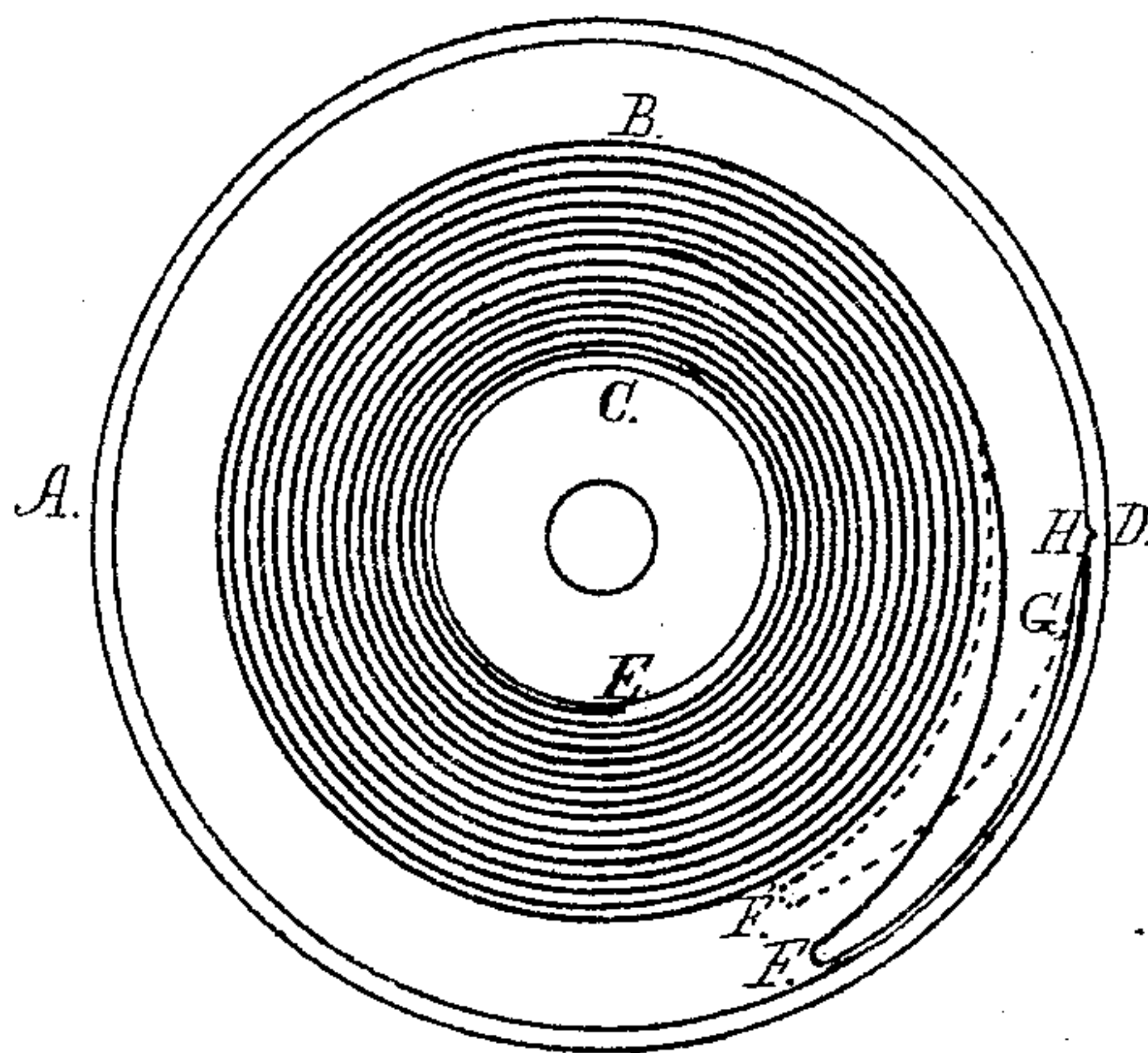
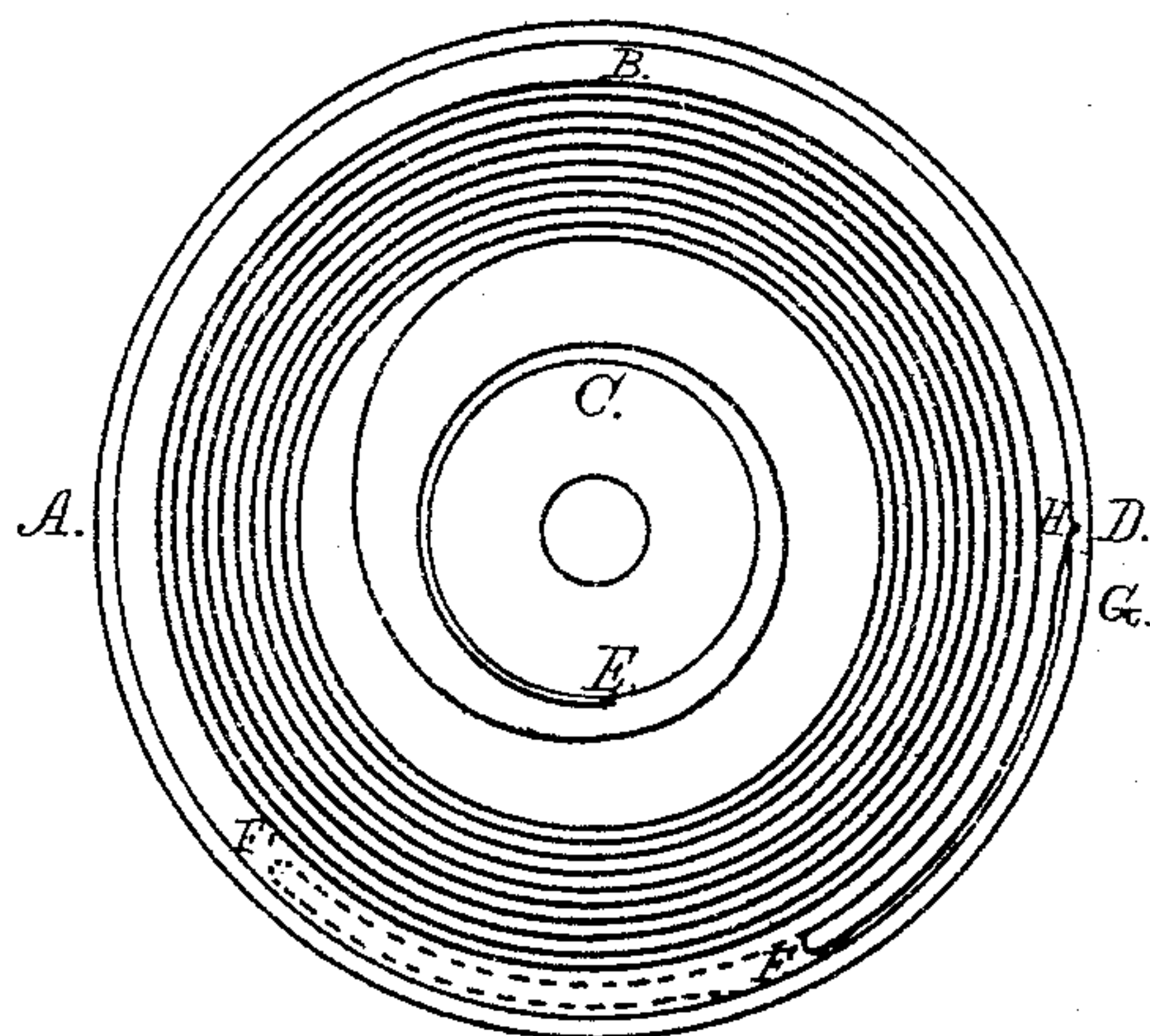


Fig. 2.



WITNESSES

L. J. Thomas
W. S. Thomas

INVENTOR

Richard Gove

UNITED STATES PATENT OFFICE.

RICHARD GOVE, OF LACONIA, NEW HAMPSHIRE.

IMPROVEMENT IN MAINSPRING SAFETY ATTACHMENTS FOR WATCHES.

Specification forming part of Letters Patent No. **137,437**, dated April 1, 1873; application filed April 1, 1872.

To all whom it may concern:

Be it known that I, RICHARD GOVE, of Laconia, in the county of Belknap and State of New Hampshire, have invented certain Improvements in the Attachment and Arrangement of the Mainsprings of Watches, of which the following is a specification:

Figure 1 is a plan of the barrel of a watch, showing my improved mainspring wound up. Figure 2 is a plan of the barrel of a watch with the mainspring unwound.

A is the rim of the barrel of the watch. B is the mainspring. C is the center stud, around which the mainspring is coiled in winding. D is a notch or groove in the side of the rim of the barrel made with an engraving-tool. The mainspring is hooked at the inner end E to a pin in the side of the center stud in the usual manner, and the outer end is bent back at F, thereby reversing the spring, which is also slightly bent at G, so that the extreme end H shall bear against the rim of the barrel and drop into the notch D.

By this means, when the spring is wound up, it does not come to a fixed stop, but to an elastic stop, and if strained the outer end springs down on the coil, as shown by the dotted lines F', Fig. 1. If the mainspring breaks the outer end immediately recoils from the notch D, as shown by the dotted lines F', Fig. 2, thereby relieving the barrel from all strain, and, consequently, the train of the watch immediately stops, producing no injury whatever.

By the old methods of putting in the mainspring, if the spring breaks it recoils and injures the watch, sometimes bending or breaking out the teeth of the wheels; and when the spring is wound up it comes to a full stop, and sometimes sticks so that the watch will not run, and, if strained too hard, breaks the connection with the barrel.

To overcome these disadvantages various devices have been invented—viz., stop-works

to prevent injury from overwinding, and devices to prevent injury to the train when the spring breaks and recoils.

My improvement consists in bending the outer end of the mainspring, as described above, and engaging it in a notch or against a projection in the barrel, the advantages of which are as follows, viz: First, the attachment of the mainspring to the barrel is such that when the spring breaks it immediately detaches itself from the barrel, thereby relieving the train from all strain; second, when the spring is wound up it is quite elastic, and cannot be overwound or strained to stop the watch, or strained with any key hard enough to break the spring or detach it from the barrel; third, it does away with all stop-works and devices to prevent injury to the train when the spring breaks and recoils; fourth, taking the barrel from the manufacturer all smooth inside, with no hole except the center hole and its stud, and without any pin, rivet, screw, or stud, and the spring in its natural state, they may be fitted together in a superior manner, ready to run inside of two minutes; fifth, the free action of the spring in the barrel is superior to any other; the outer end not being permanently attached to the barrel, it adjusts itself to it; sixth, the spring can be attached and detached in less time and at less expense than any other known method.

I claim—

A detached watch-spring, made and bent back at its outer end, as described, its extreme tip being lodged in a slight notch in the inner face of the rim of the barrel and held by the mere force of the spring, and slipping from the notch in case of breakage of the spring, as and for the purpose described.

RICHARD GOVE.

Witnesses:

W. S. THOMAS,
J. E. COLLIN.