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PATENTED JULY 31, 1906.

J. R. G. ADDINGTON.
WATCH BALANCE STAFF PROTECTOR.

APPLICATION FILED JUNE 7, 1905.

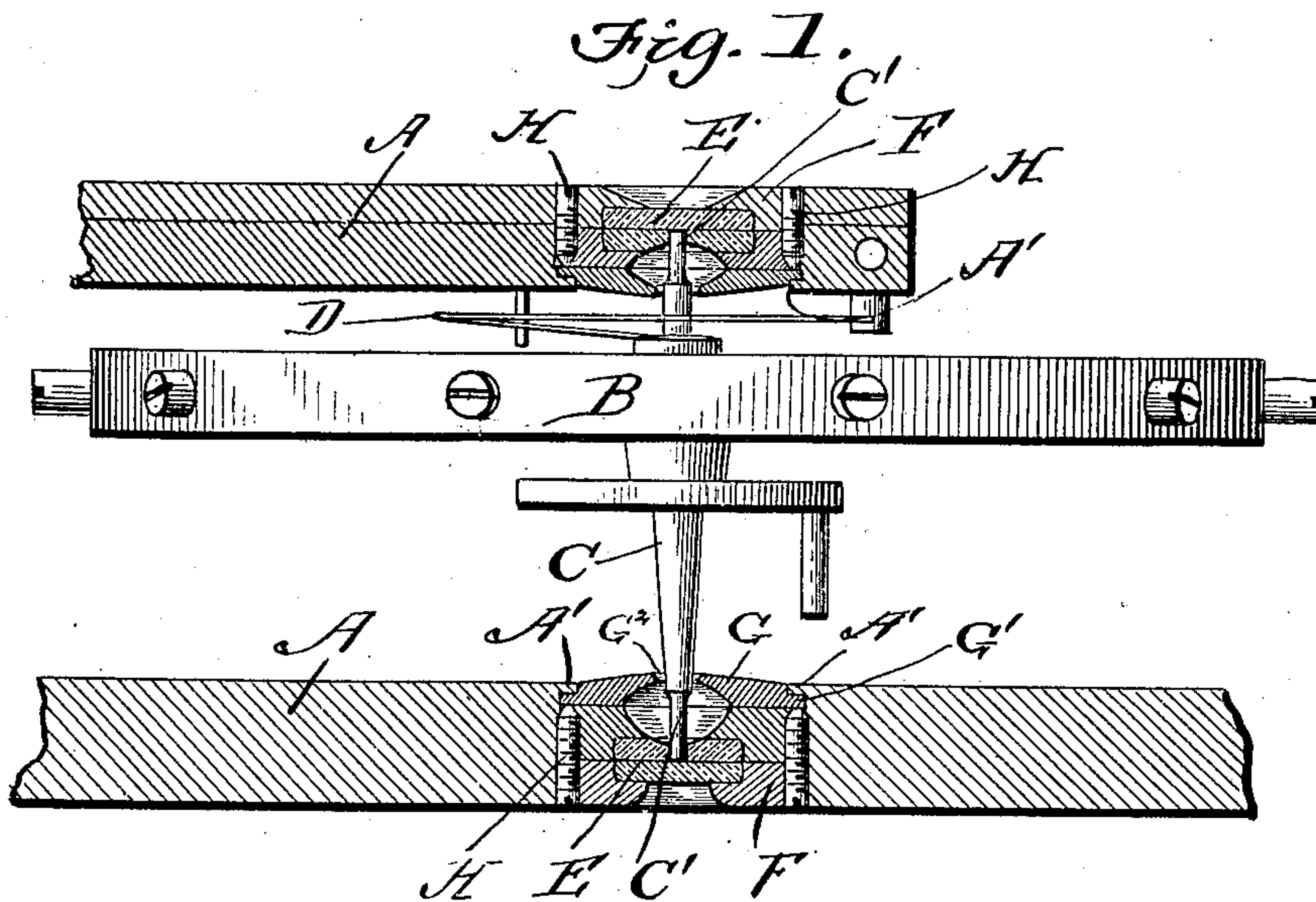


Fig. 2.

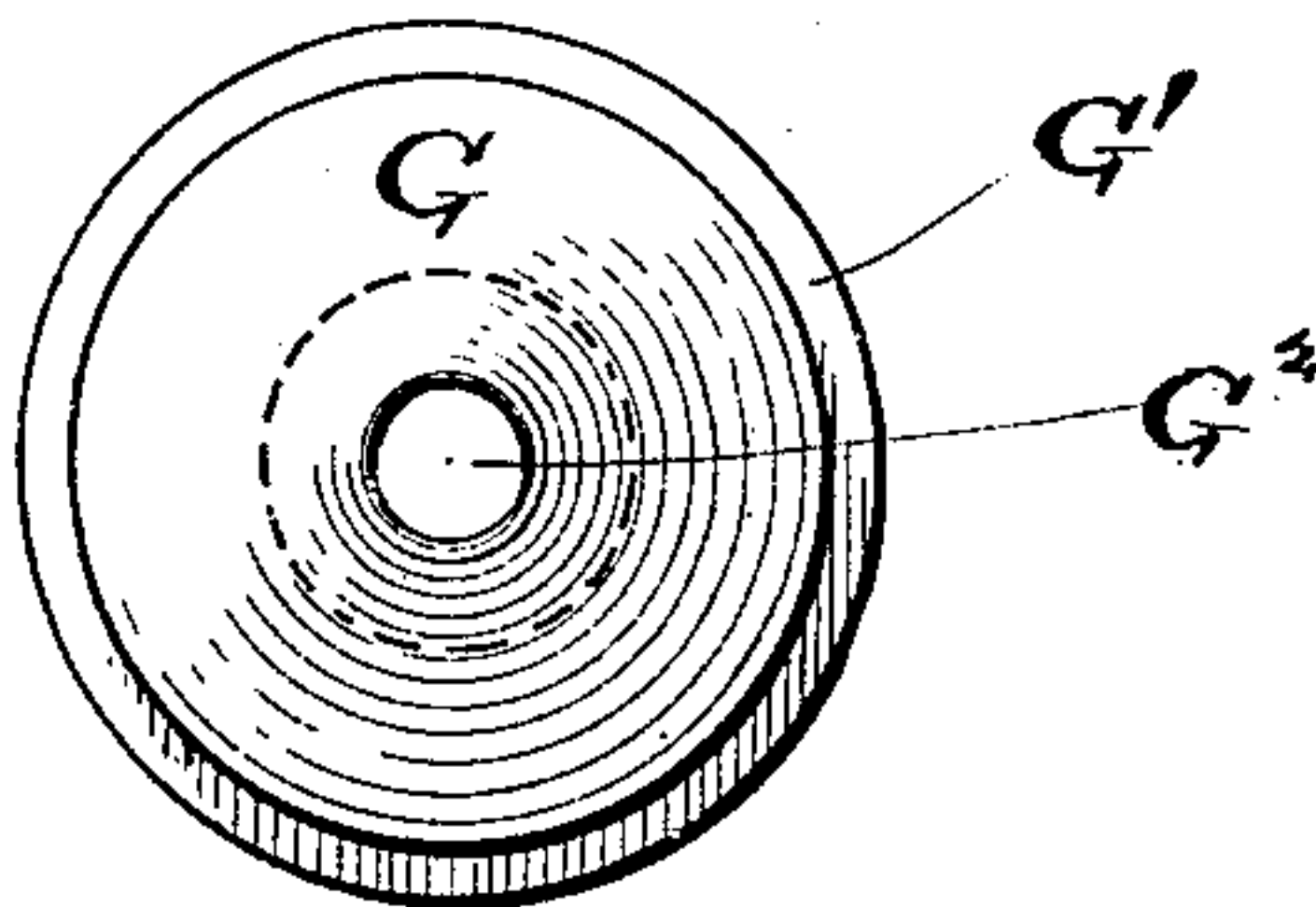


Fig. 3.



WITNESSES:

Mr. Blandel.
E. B. M. P. Bath.

INVENTOR

J. R. G. Addington

BY

BT
O'neal & Brock
ATTORNEYS

ATTORNEYS

UNITED STATES PATENT OFFICE.

JAMES R. G. ADDINGTON, OF GATE CITY, VIRGINIA, ASSIGNOR OF ONE-HALF TO HUGH J. ADDINGTON, OF GATE CITY, VIRGINIA.

WATCH-BALANCE-STAFF PROTECTOR.

No. 827,137.

Specification of Letters Patent.

Patented July 31, 1906.

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To all whom it may concern:

Be it known that I, JAMES R. G. ADDINGTON, a citizen of the United States, residing at Gate City, in the county of Scott and State of Virginia, have invented a new and useful Improvement in Watch-Balance-Staff Protectors, of which the following is a specification.

This invention relates generally to watches, and more particularly to a protector for the staff of the balance-wheel, the object being to provide a protective means which will prevent the pivot ends of the balance-wheel staff breaking or bending in case the watch should receive a sudden jar or shock. The protective means also will prevent damage to the jewels in which the pivots are journaled.

With these objects in view the invention consists in the details of construction herein-after fully described, and pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a view showing the balance-wheel and staff in elevation and the jewels and jewel-setting and protector in section. Fig. 2 is a plan view of the protector. Fig. 3 is a sectional view of the same.

Referring to the drawings, A indicates the plates of the works of the watch; B, the balance-wheel; C, the staff thereof, and D the hair-spring connecting the plate and balance-wheel. The jewels E are held in the settings F, and it will be noted that each plate is formed with an annular shoulder A', against which fits the flange G' of the protector G, said protector having a central opening G², through which the staff passes, said opening being a trifle larger than the cross-section area of the staff, so that it will not interfere with the movement of the staff; but in case the watch should receive any sudden jar or shock the staff will contact with the sides of the opening, and this will prevent breaking of the pivots C', and it will be noted that the pivots are of substantially the same diameter throughout, and this construction adds considerably to the elasticity of the staff and prevents breakage of the pivot and also injury to the jewels. The protector G may be made of any desirable material, and it is held in place against the annular shoulder A' by

means of the balance and cap jewels without the use of additional screws.

A protector constructed as herein shown and described will effectively perform the object for which it is intended, and this protector can also be quickly and easily attached to the watch-movements now in use.

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

1. In a balance-wheel-staff protector the combination with the plates having the jewel-settings and jewels arranged in the opening thereof and a protector held in the openings in the plate and having a central opening through which the staff is adapted to pass, said central opening being a diameter slightly greater than the diameter of the staff.

2. In a balance-wheel-staff protector, the combination with the plates, having the openings provided with inwardly-projecting shoulders, of the protector-disks having annular flanges adapted to engage the said shoulders, the jewels and jewel-settings and the screws for securing the jewel-settings and protector-disks in the openings of the plates, substantially as described.

3. In a watch, the combination with the balance-staff of a hole jewel-setting formed to receive and retain such jewel, and having an extension upon one side consisting of an annular device presenting a central opening of slightly greater diameter than and encircling the staff adjacent to its pivot, and such extension diminishing in cross-section toward its center, for the purpose set forth.

4. In a watch, the combination with the balance-staff of a hole jewel-setting formed to receive and retain such jewel, and having an extension upon one side consisting of an externally-convex and internally-concave annular device presenting a central opening of slightly greater diameter than and encircling the staff adjacent to its pivot, and such extension diminishing in cross-section toward its center, for the purpose set forth.

JAMES R. G. ADDINGTON.

Witnesses:

H. J. ADDINGTON,
J. W. CARTER.