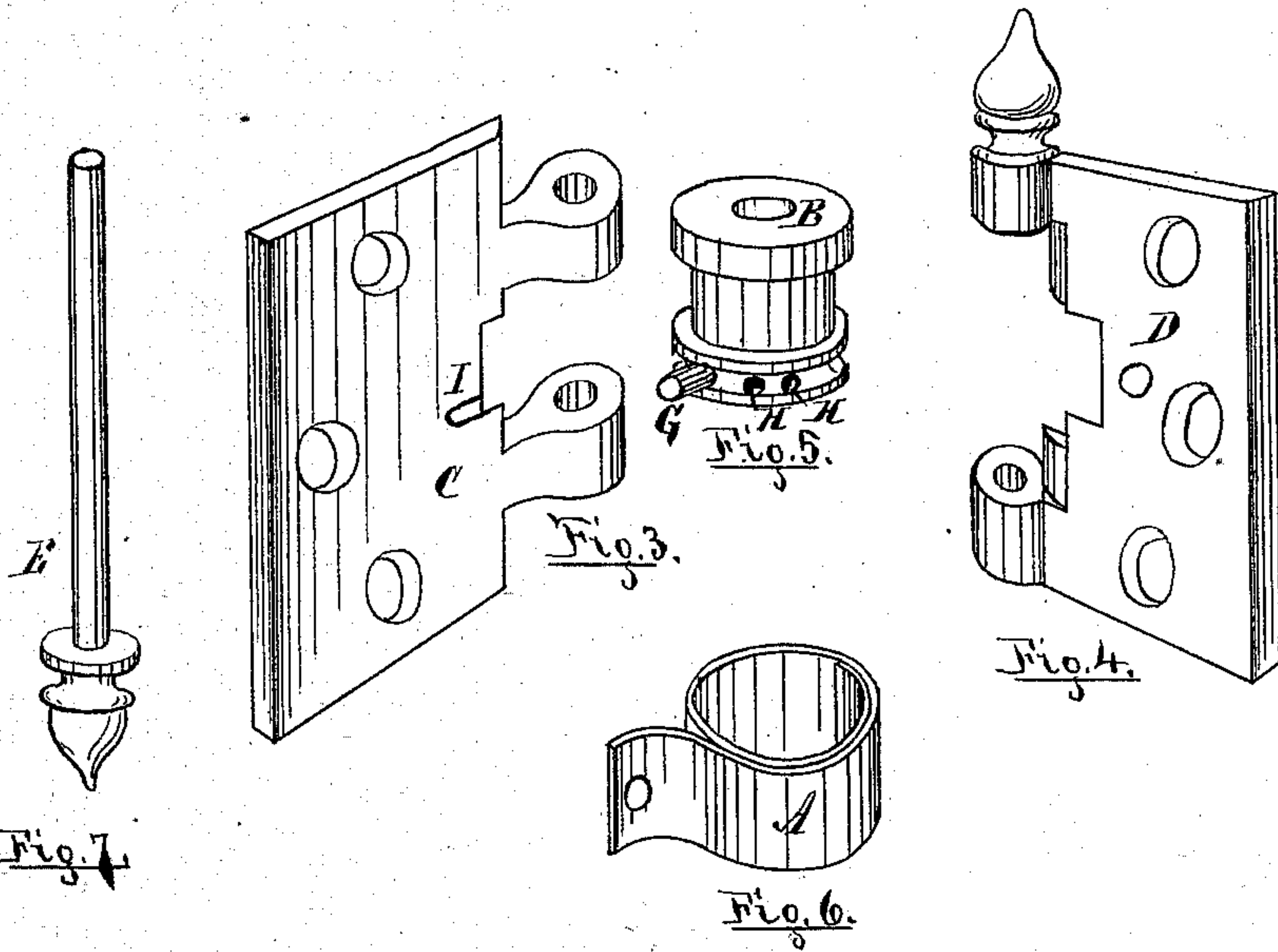
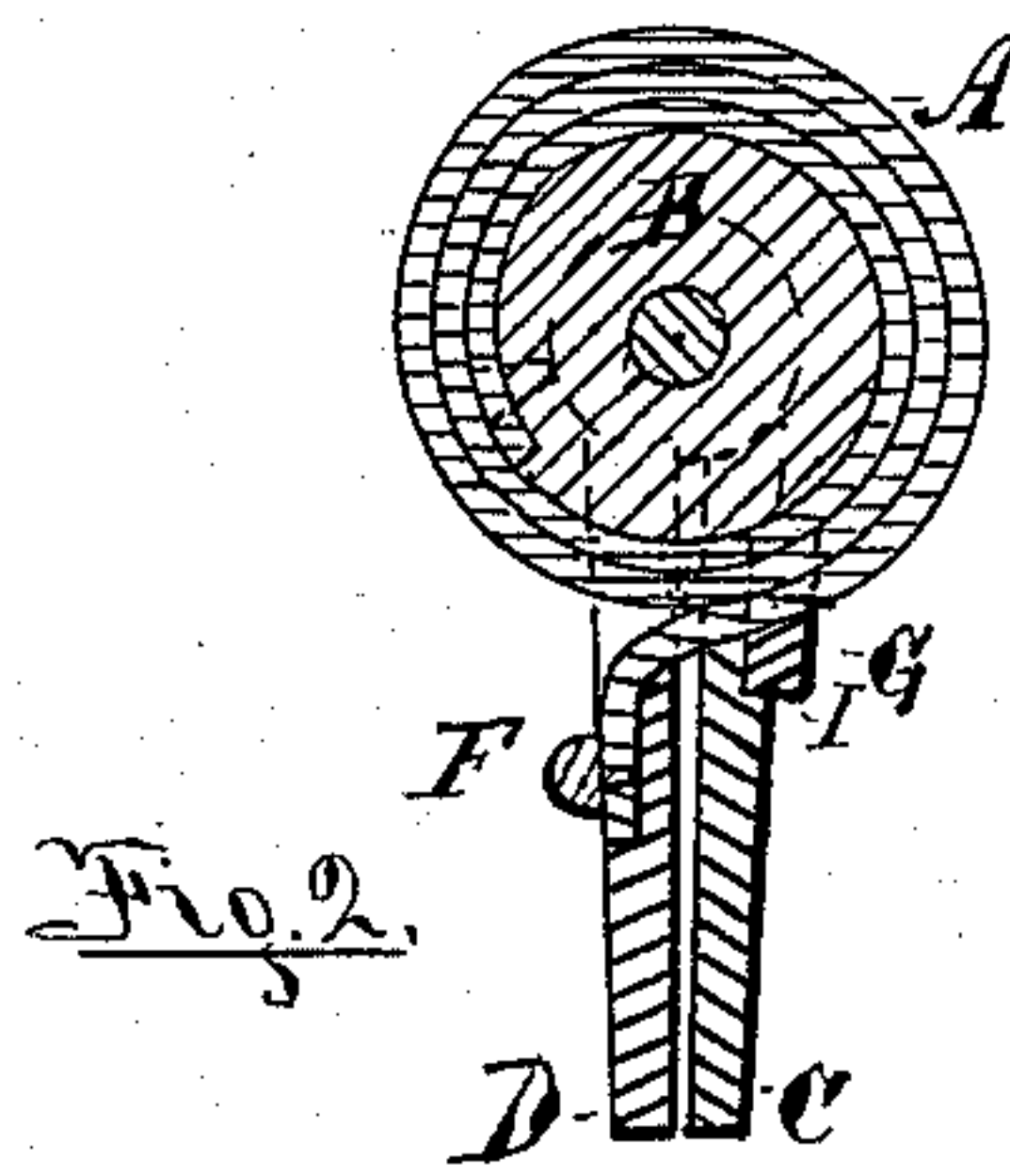
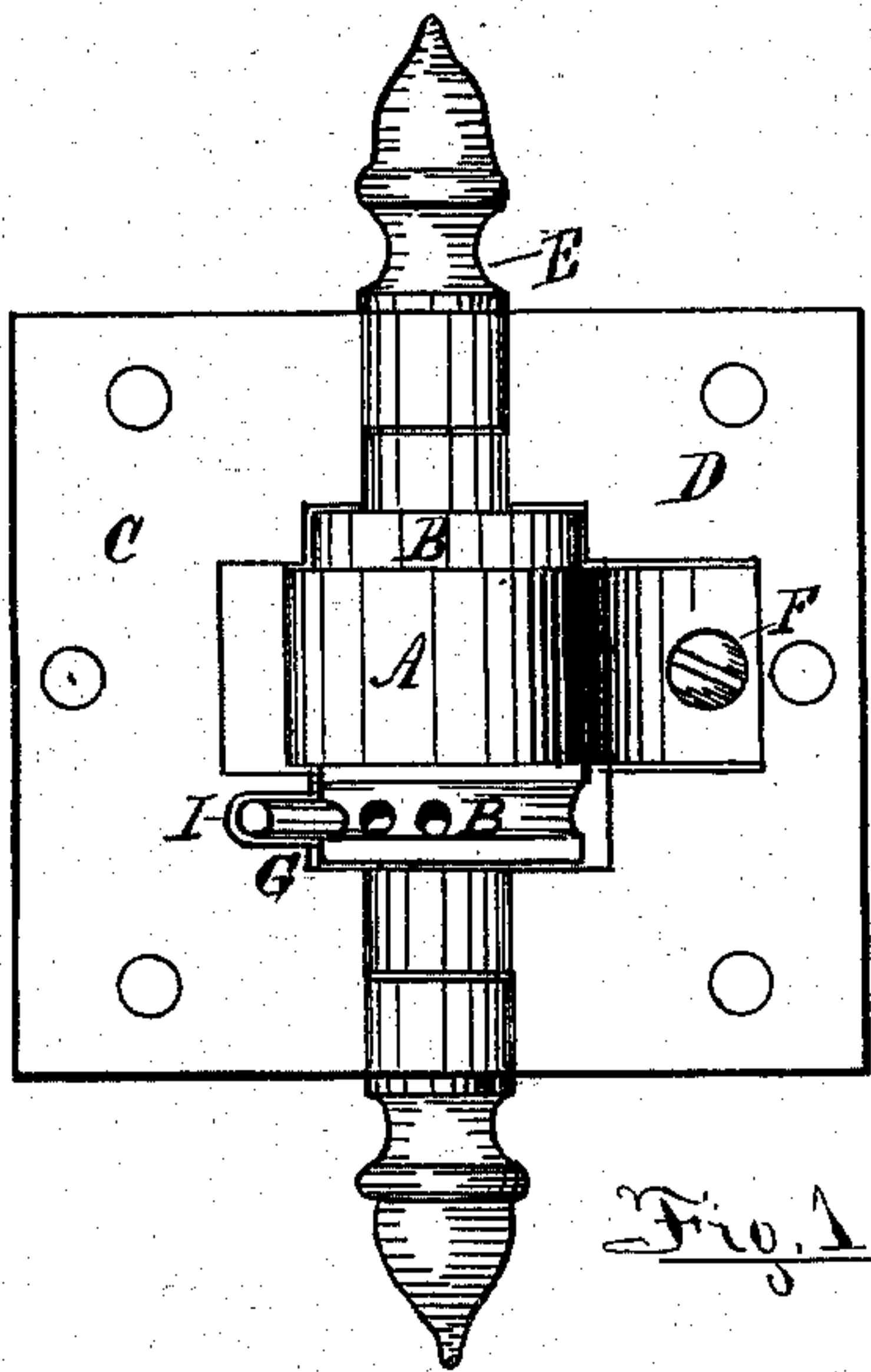


J. ANNIN.
Spring-Hinge.

No. 162,735.

Patented May 4, 1875.



Witnesses
Geo. S. Jenkins
H. D. Blake

Inventor
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UNITED STATES PATENT OFFICE.

JOSEPH ANNIN, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN SPRING-HINGES.

Specification forming part of Letters Patent No. **162,735**, dated May 4, 1875; application filed October 21, 1874.

To all whom it may concern:

Be it known that I, JOSEPH ANNIN, of the city of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Spring-Hinges, of which the following is a specification:

My invention consists in the application of a flat coiled spring to a sleeve, and of so applying said sleeve and spring to a hinge that the sleeve and spring may be readily attached or detached for repairs, or convenience in manufacturing it, my object being to make a neat convenient spring-hinge, so constructed that the spring may be taken out and repaired, or a new one put in its place, without removing the leaf of the hinge from the door, and so that the parts may be made and shipped separately, and may be put together by any person—as, for instance, if a spring gets weak, the party desiring to have it repaired has only to send to the factory, giving size of hinge, and a spring and sleeve can be sent to him, and he can readily put it in place by taking out a screw, slipping the old sleeve and spring off, and putting the new one in its place. My construction also gives me a hinge with a loose or fast joint.

My invention will be more readily understood by reference to the accompanying drawings, which form a part of this specification.

Figure 1 is a back view of the open hinge. Fig. 2 is an end view of my hinge, partly

closed. Figs. 3, 4, 5, 6, and 7 are views of the parts separate from each other.

A is the spring. B is the sleeve; C and D, the leaves; E, the spindle, that holds the parts together. F is a screw, that fastens the spring A to the leaf D of the hinge. G is a pin, which holds the tension of the spring A by being inserted in one of the holes H, and rests against the leaf C of the hinge.

The tension of the spring may be made greater or less by changing the pin G to different holes H. A ratchet and pawl might be used in place of the pin G and holes H.

A countersink or groove, I, is made in the leaf C, to receive the pin G and hold it in its place.

To remove the spring and sleeve, draw the spindle E, the screw F, and pin G, and the sleeve and spring may be slipped out, and a new one slipped in its place.

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

The movable sleeve B, having holes H, and provided with the spring A, attached in combination with the leaves C and D and pin G, all constructed and operating as and for the purpose set forth.

JOSEPH ANNIN.

Witnesses:

GEO. S. JENKINS,
H. D. BLAKE.