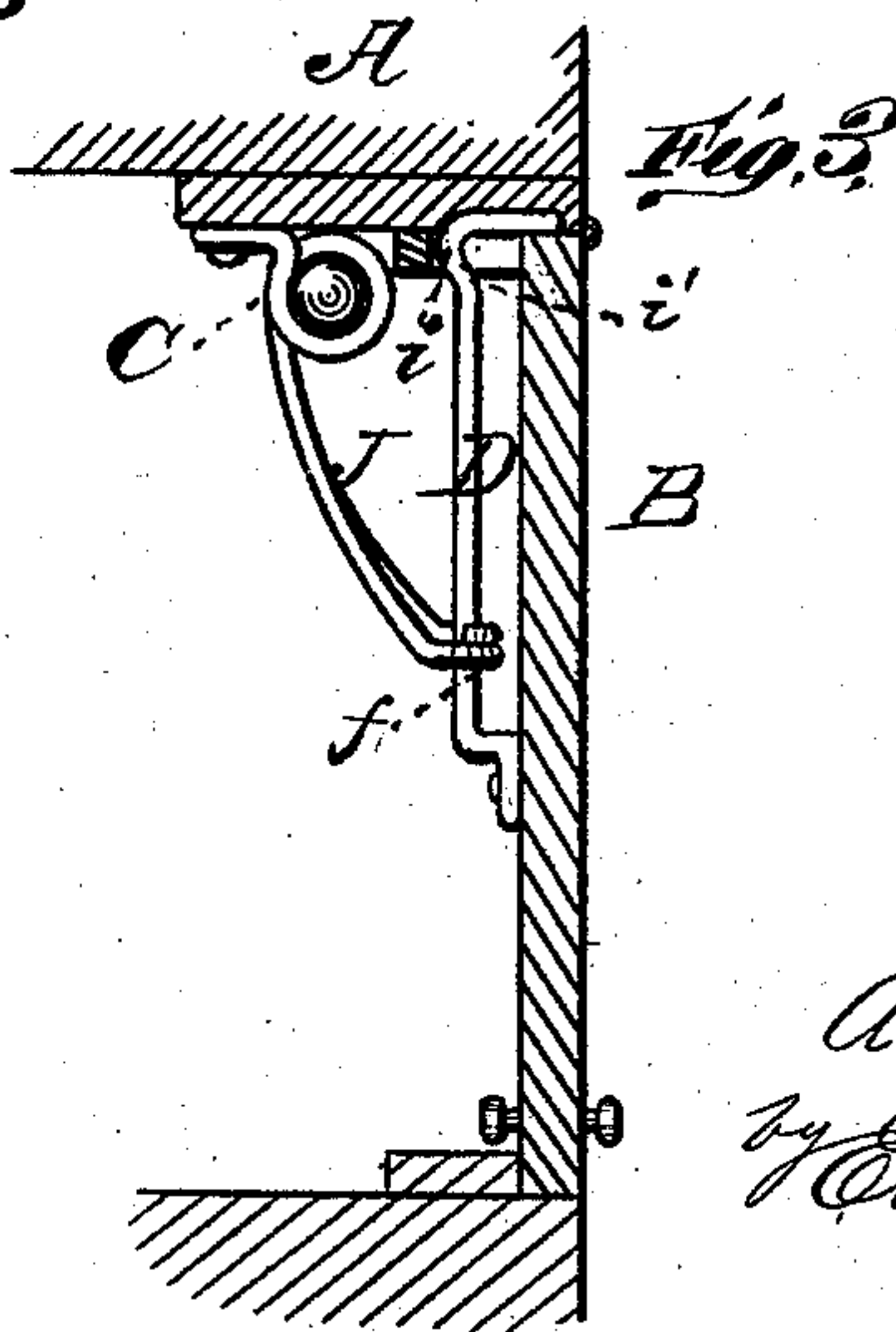
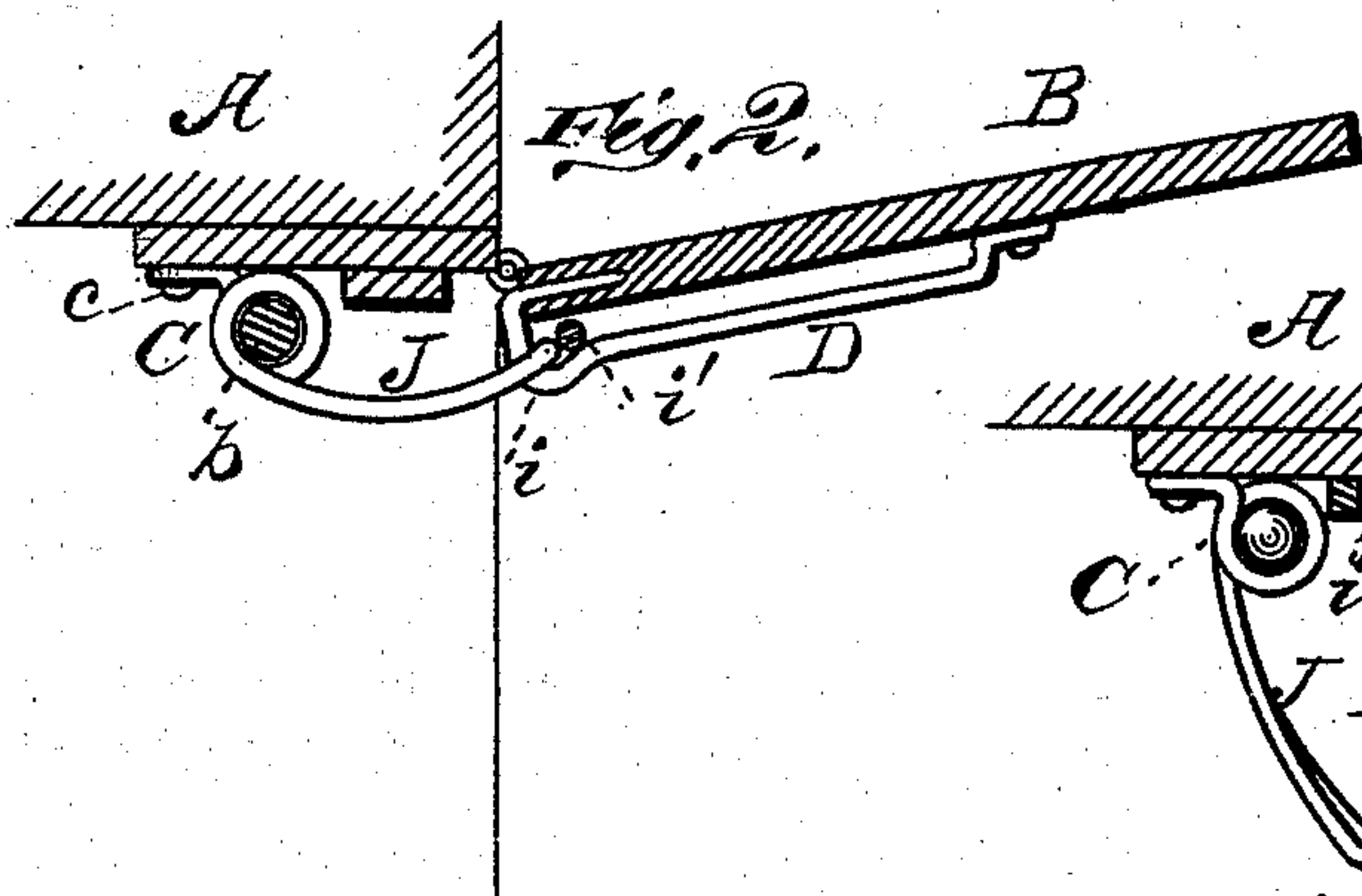
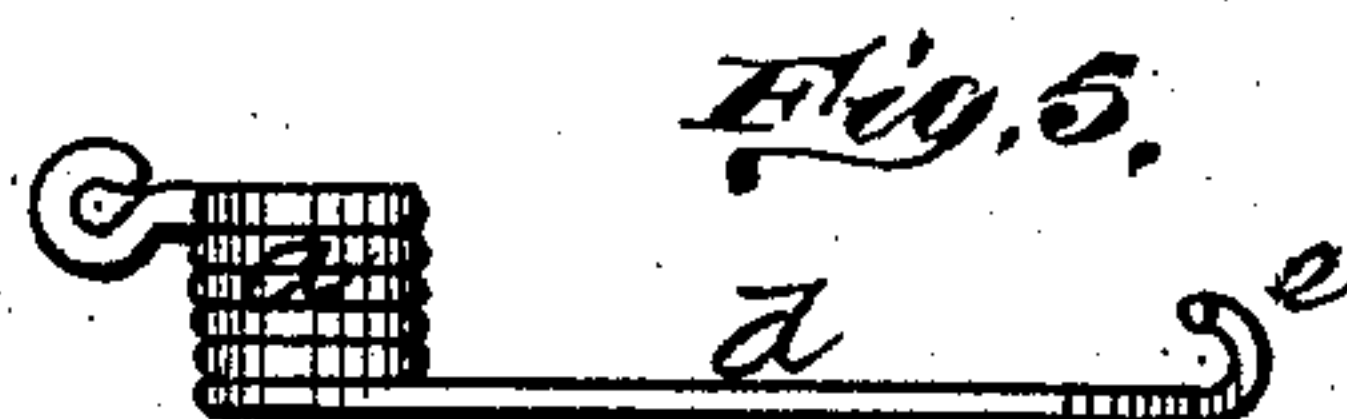
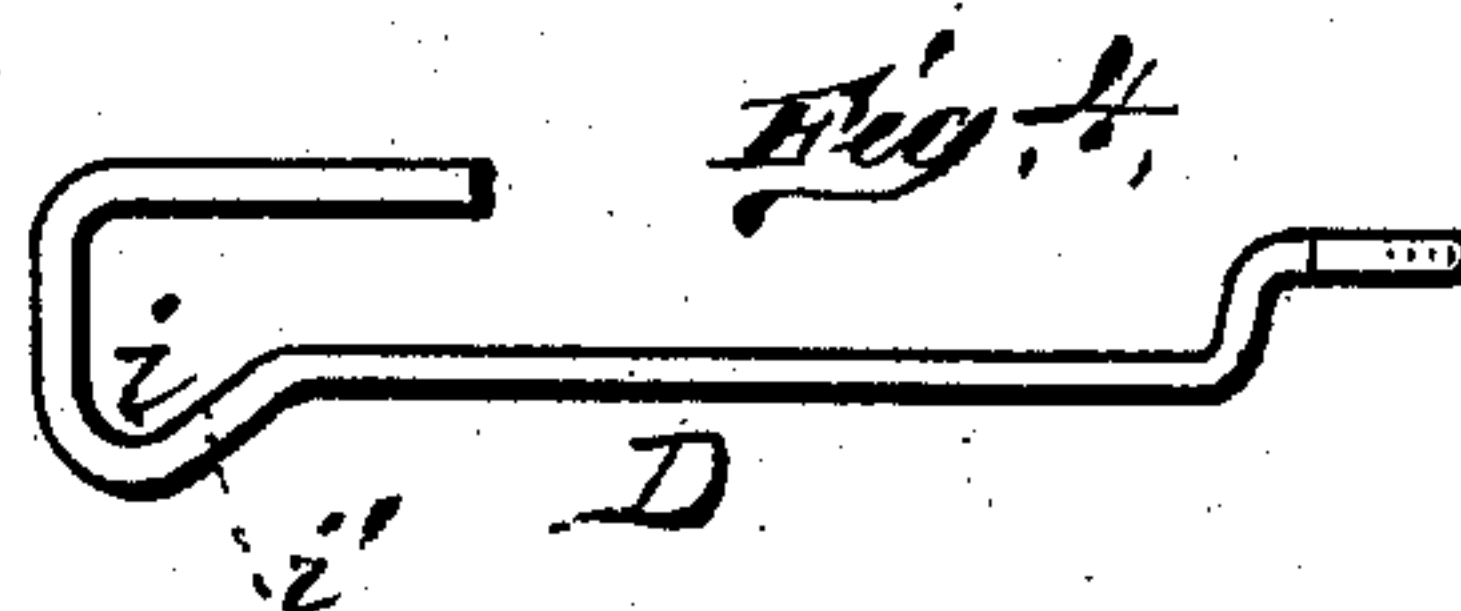
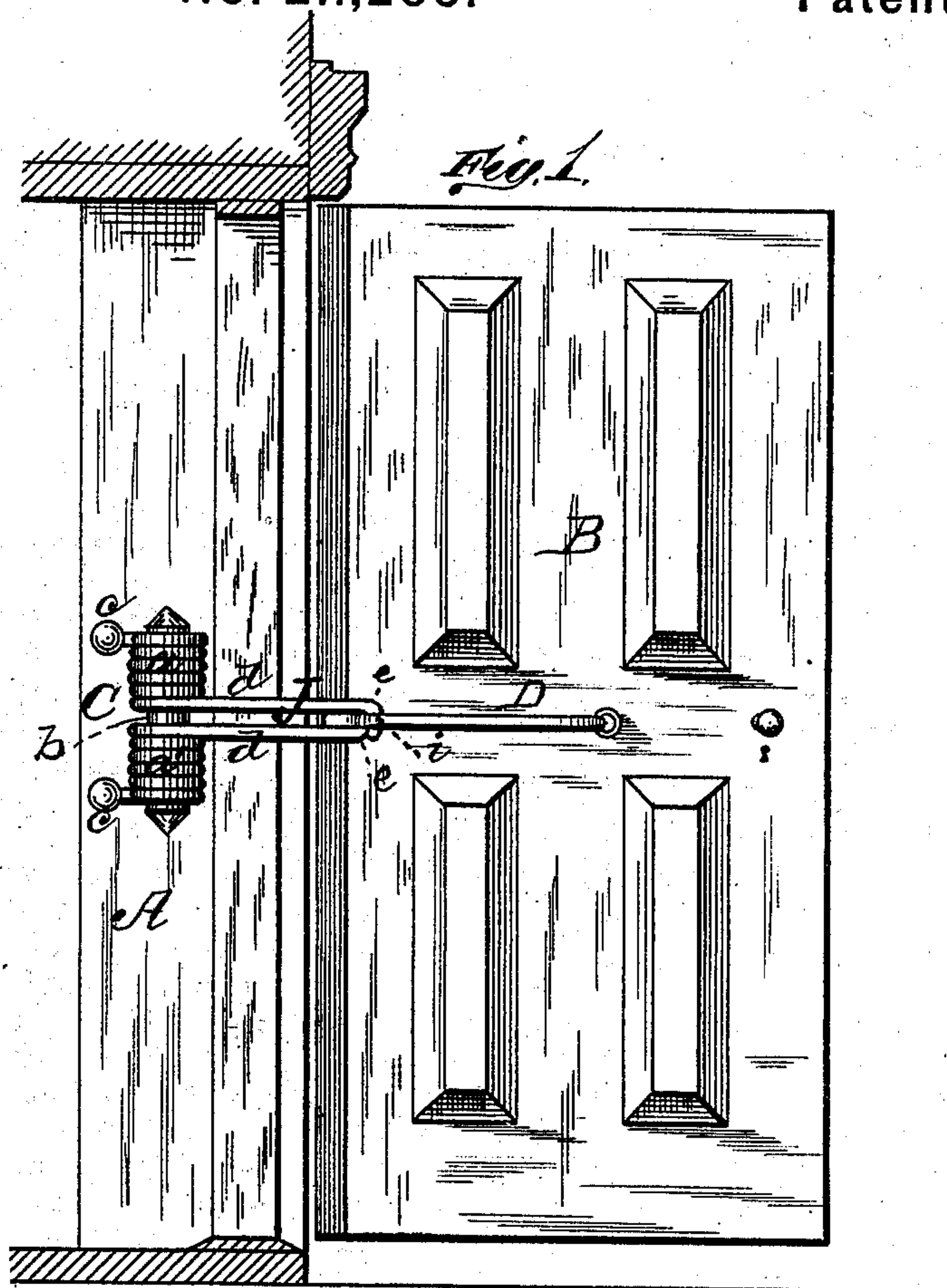


A. A. SCHRODER.
Door-Spring.

No. 211,266.

Patented Jan. 7, 1879.



WITNESSES
E. H. Bates
J. J. Hasi

INVENTOR
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ATTORNEY.

UNITED STATES PATENT OFFICE.

ANSON A. SCHRODER, OF WARREN, ILLINOIS.

IMPROVEMENT IN DOOR-SPRINGS.

Specification forming part of Letters Patent No. 211,266, dated January 7, 1879; application filed July 6, 1878.

To all whom it may concern:

Be it known that I, ANSON AUGUSTUS SCHRODER, of Warren, in the county of Jo Daviess and State of Illinois, have invented a new and valuable Improvement in Door-Springs; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a side view of my improved door-spring in position. Figs. 2 and 3 are sections of the door and frame, showing, respectively, a section and a top view of the spring; and Figs. 4 and 5 are details.

This invention has relation to improvements in door-springs.

The object of the invention is to devise a door-spring that will not only close the door automatically, but will also keep it open when the said door is opened to its full extent.

The nature of the invention consists in the combination of a loop or staple secured to the door in a transverse position, and provided with a recess or notch at its end adjacent to the door-casing, with a coil-spring upon the door-frame, having an arm projecting therefrom that engages the said loop and slides thereon, whereby, when the door is partially opened, the recoil of the spring causes it to close automatically, but when opened entirely holds it in this position by reason of the engagement of the said arm with the notch or recess aforesaid, as will be hereinafter more fully set forth.

In the annexed drawings, the letter A designates a door-casing, to which is hinged in the usual mode a door, B. C represents a coiled spring, composed of two branches, *a a'*, coiled around a rod, *b*, secured to the under face of the door-jamb. The ends of sections *a a'* are secured by suitable means to the jamb of the door-frame, as shown at *c*, their coiled portions being carried around rod *b*. The re-

maining ends of said spring-sections are carried out in parallel lines, as shown at *d*, turned back at their extremities, so as to form hooks *e*, that, being turned in opposite directions and in symmetrical bends, form a closed end, *f*, that engages a metallic staple, D, rigidly secured to the door in line with the projecting arm J, formed by the parts *d* of the spring. This spring, it may be readily conceived, may be made in one piece.

The staple D is usually formed of wire of suitable rigidity to resist the contraction of the spring, and is provided at its end adjacent to the door-frame with a bend, *i*, extending outward, as shown in Fig. 2. The door being only partially swung open, the arm J simply slides upon the staple D, not becoming engaged with the bend *i*, so that when it is released the door closes automatically; but if the door be opened fully, the closed end of the said arm J enters this notch or bend and bears hard against its outer wall or shoulder, *i'*, in such manner that the door is prevented from closing until its disengagement therefrom is effected, when it will swing to automatically.

I am well aware that many differently-constructed springs have been used for closing doors, and I consequently make no broad claim to such springs; but

What I do claim, and desire to secure by Letters Patent, is—

The combination, with a frame and a door hinged thereto, of the spring C, secured to the frame, and provided with a closed arm, J, and the staple D, provided with bend *i* adjacent to the frame, all arranged and operating as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ANSON AUGUSTUS SCHRODER.

Witnesses:

J. H. PHILLIPS,
J. M. PHELPS.