

JOHN J. COWELL.

Door-Spring.

No. 127,311.

Patented May 28, 1872.

Fig. 3.

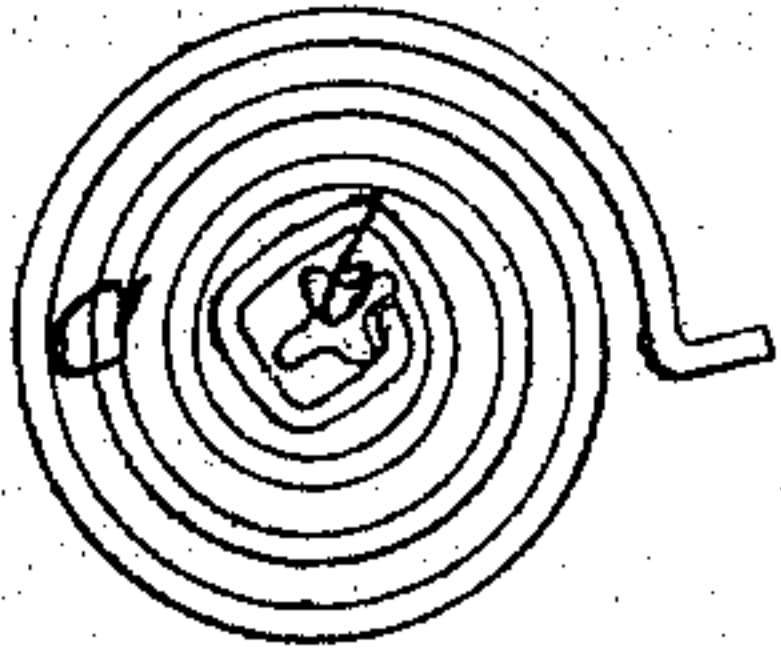


Fig. 1.

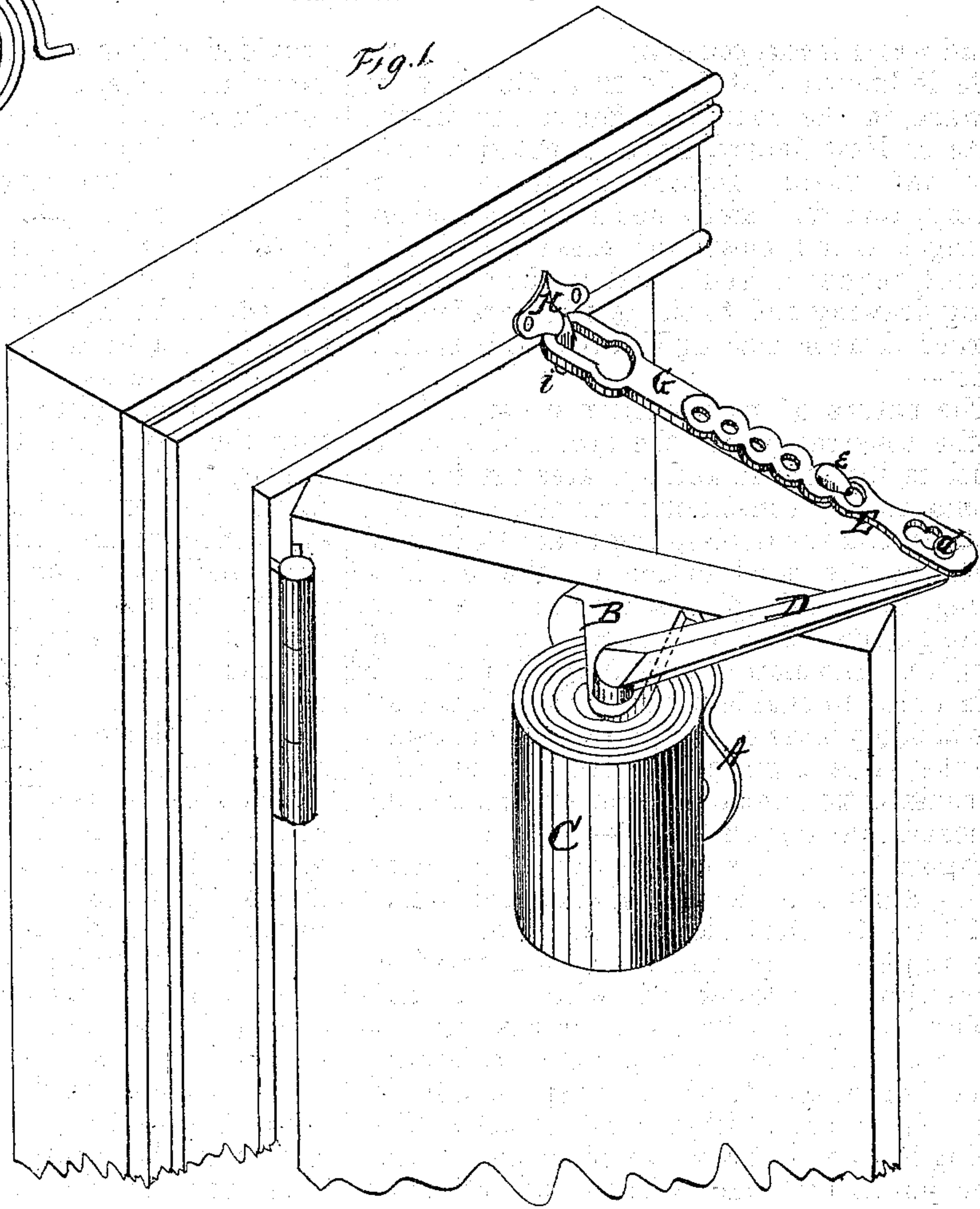
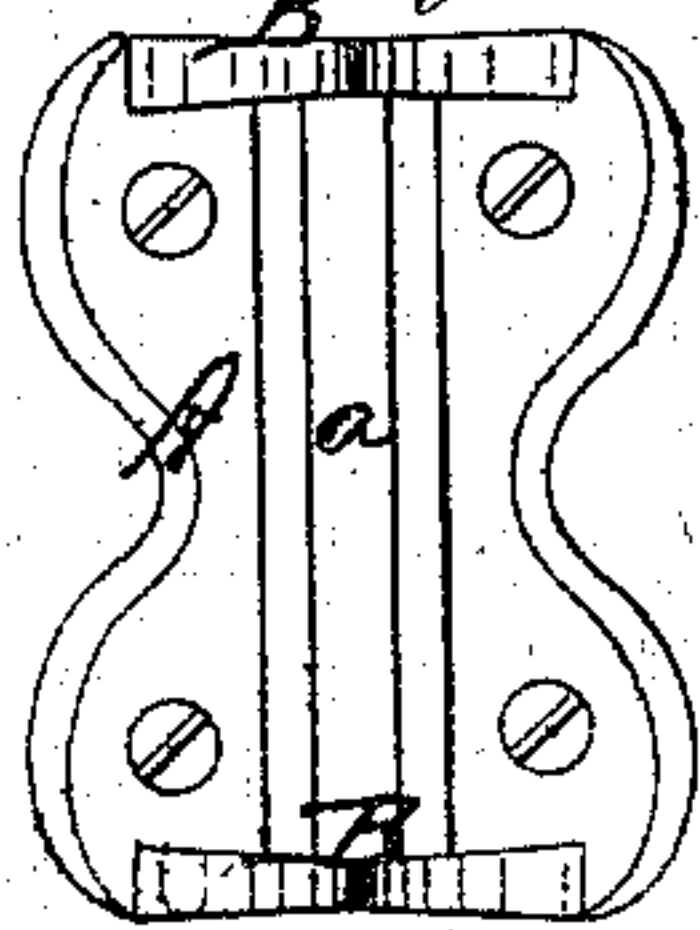


Fig. 2.



Witnesses:

Jas. O. Hutchinson
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Inventor

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 per Alexander Massie
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UNITED STATES PATENT OFFICE.

JOHN J. COWELL, OF NEWARK, NEW JERSEY, ASSIGNOR TO JAMES H. WHITE, OF SAME PLACE.

IMPROVEMENT IN DOOR-SPRINGS.

Specification forming part of Letters Patent No. 127,311, dated May 28, 1872; antedated May 11, 1872.

To all whom it may concern:

Be it known that I, JOHN J. COWELL, of Newark, in the county of Essex and in the State of New Jersey, have invented certain new and useful Improvements in Door-Spring; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification—

The nature of my invention consists, first, in the construction of the arm and spindle, which is inserted in and operates the spring; second, in the construction of the couplings for adjusting the door-spring to any door; and third, in the combination of the bracket, spring, arm, and spindle, couplings, and attaching-plate, all constructed and arranged as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view of my door-spring applied to the casing side, and Figs. 2 and 3 are detached views of the same.

A represents the bed or casting, provided at its upper and lower ends with an outward-projecting ear, B. The bed or casting A is also provided with a vertical slot, *a*, forming a double groove, into which the spring C hooks from either side, either right or left. This spring is made of brass, coiled, as shown, and provided at both ends with hooks; or rather the ends are bent to form hooks, as shown in Fig. 3. D represents an arm, having a spindle, *b*, at one end extending at right angles from the arm, said spindle being provided with four projections, in which the spring is hooked, the spindle passing through the ears B B and the center of the spring, so that the hook, on its inner end, can catch on either of the four projections. On the other end of the arm D is a pin, *d*, which is inserted in a hole or slot in the coupling E, said coupling being

provided with a series of holes for the insertion of a hook, *e*, upon the outer end of another coupling-rod, G. The other end of this latter coupling G is provided with a slot to catch on a pin, *i*, extending downward from a casting, H. The slots in the couplings E and G are key-hole shaped, so as to be securely fastened to the headed pins *d* and *i*. The bracket A is placed, for casing-side application, on the top rail of the door, as close to the hinge end as will allow the arm D to swing around when the door is at right angles with the frame, letting the top of the bracket come even with the top of the door. Screw the attachment H fast to the head-casing, with pin *i* downward, two inches further from the hinge-edge than the spindle of the arm D; attach couplings E and G and take up just enough to keep the latter from striking the shoulder of the arm D when the door is closed. When the door opens the arm D swings over the top of the door. For jamb-side application the bracket A is placed on the rail of the door as close to the head-jamb as will admit the free passage of the arm D under the jamb when the door opens or closes, and as far from the hinge edge as will allow the end of the arm D to project beyond the edge of the door one-half inch. Attach the coupling E to it as the door stands open, and make the attachment H fast to the side of the jamb, with the pin upward, and as far from the door as the couplings E and G will allow, and let the door swing open.

In all cases it will be found more convenient to remove the spring while applying the castings; but care should be taken not to injure the spring by unwinding it. To tighten the spring, lift out the arm D and turn the spindle back one square in the socket of the spring.

The couplings E and G can be lengthened or shortened at will. To change from right to left, lift out the spring and turn it end for end. This spring may also be applied to gates.

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

1. The arm D, provided with spindle *b*, hav-

ing four projections, substantially as shown and described, and for the purposes herein set forth.

2. The couplings E and G, constructed as shown and described, with hook *e* and slots and holes, substantially as and for the purposes herein set forth.

3. The combination, with the bracket A B, of the hooked spring C, flanged spindle *b*, arm D, adjustable and detachable couplings E and

G, and the attaching-plate H *i*, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 13th day of March, 1871.

JOHN J. COWELL.

Witnesses:

DANIEL LAUCK,
OTTO H. LAUCK.