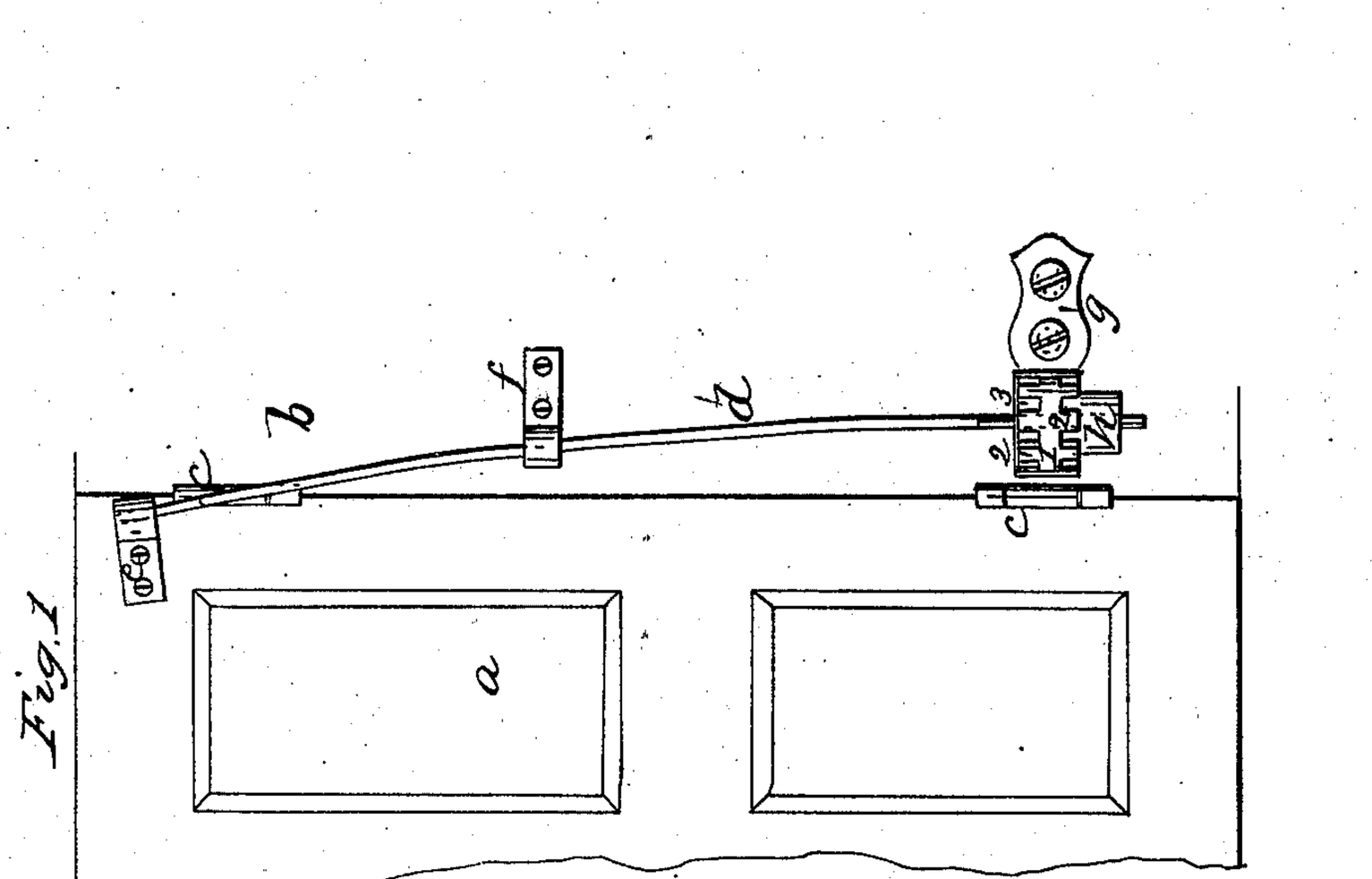
Mason & Johnson,

Door Spring.

No. 63,914. Patented Apr. 16, 1867.



Witnesses:

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JABEZ F. MASON, OF NEWARK, NEW JERSEY, AND JOB JOHNSON, OF BROOKLYN, NEW YORK.

Letters Patent No. 63,914, *dated April* 16, 1867.

IMPROVEMENT IN DOOR-SPRINGS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, JABEZ F. MASON, of Newark, in the county of Essex, and State of New Jersey, and JOB JOHNSON, of Brooklyn, in the county of Kings, and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Door-Springs; and we do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1 is an elevation of said spring with our improvement applied thereto.

Figure 2 is a plan, and

Figure 3 a side view of bracket separately.

Figure 4 is a plan, and

Figure 5 a side view of the sliding cylinder.

Similar marks of reference denote like parts.

The nature of our said invention consists in a reversible toothed bracket receiving a cylindrical ratchet that receives the end of the spring, and can be slid endwise thereon to connect or disconnect the ratchet from the toothed bracket. By this construction the toothed bracket can be applied at the top or the bottom of the spring, and pass either to the right or to the left, both sides being alike, and the cylindrical ratchet can be applied to the spring and slidden endwise to connect with the teeth of the bracket and keep the door shut, or keep it open, or not operate at all, according to the position of the ratchet cylinder in relation to the toothed bracket.

In the drawing, *a* represents a portion of a door, *b* part of the casing, *c* the hinges of any ordinary character. *d* is the torsion wire spring, made either straight or wound in any portion of its length into a helix to increase its elasticity. *e* is a bracket, receiving one end of the spring and holding it permanently in any usual manner. *f* is a guide-eye to the spring near the middle. *g* is our improved bracket, formed with a cylindrical portion, 1, into which passes the cylinder *h* that sets upon the prismatic end of the spring *d*. The prismatic portion at the end of the spring *d* is to be sufficiently long to allow the cylinder *h* to be slidden endwise on it. The said spring may be squared, but we prefer that it be formed as a triangular prism. 2 are the teeth on the bracket *g*, formed at both ends of the cylindrical portion 1, and 3, 3 are the arms or ratchets on the cylinder *h*. If, now, the cylinder *h* is raised so that the arms or ratchets 3 do not touch the teeth 2 the door-spring will be inoperative; if the cylinder is slidden endwise when the door is shut, and the spring *d* at the same time slightly twisted, the door will be closed after being opened, but if the teeth 2 and 3 are engaged when the door is open the action of the spring *d* will be to open instead of shut the door. The bracket *g* may have teeth of any desired size or shape, and said teeth, being on both sides, the bracket can be applied in any position. The cylindrical part of the ratchet *h* is formed with a screw-thread, receiving a nut, as at 4, fig. 6, so that the teeth can be held firmly together when the spring is operative. By forming the prismatic end of the spring triangular we are enabled to get a more reliable connection with the cylinder *h*, because the width of each side of the prism is greater than the diameter of the wire.

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

1. The bracket *g* formed with teeth, in combination with the cylindrical ratchet *h* and spring *d*, substantially as and for the purposes set forth.

2. We claim the nut 4, in combination with the cylinder *h*, spring *d*, and bracket *g*, substantially as and for the purposes set forth.

In witness whereof we have hereunto set our signatures this second day of October, 1866.

JABEZ F. MASON,
JOB JOHNSON.

Witnesses:

CHAS. H. SMITH,
GEO. D. WALKER.