

*J Bidwell,*

*Spring Hinge.*

No. 104,252.

*Patented June 14, 1870.*

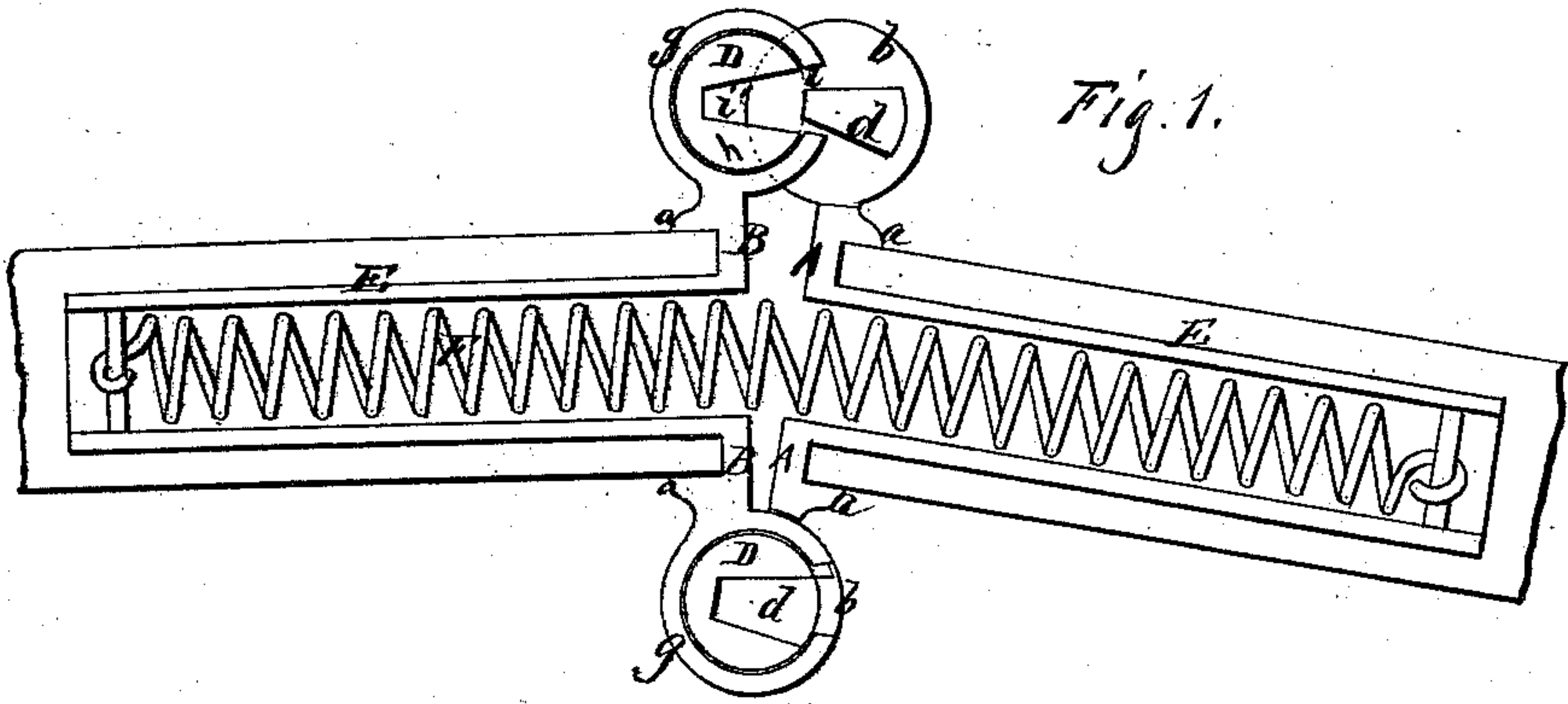
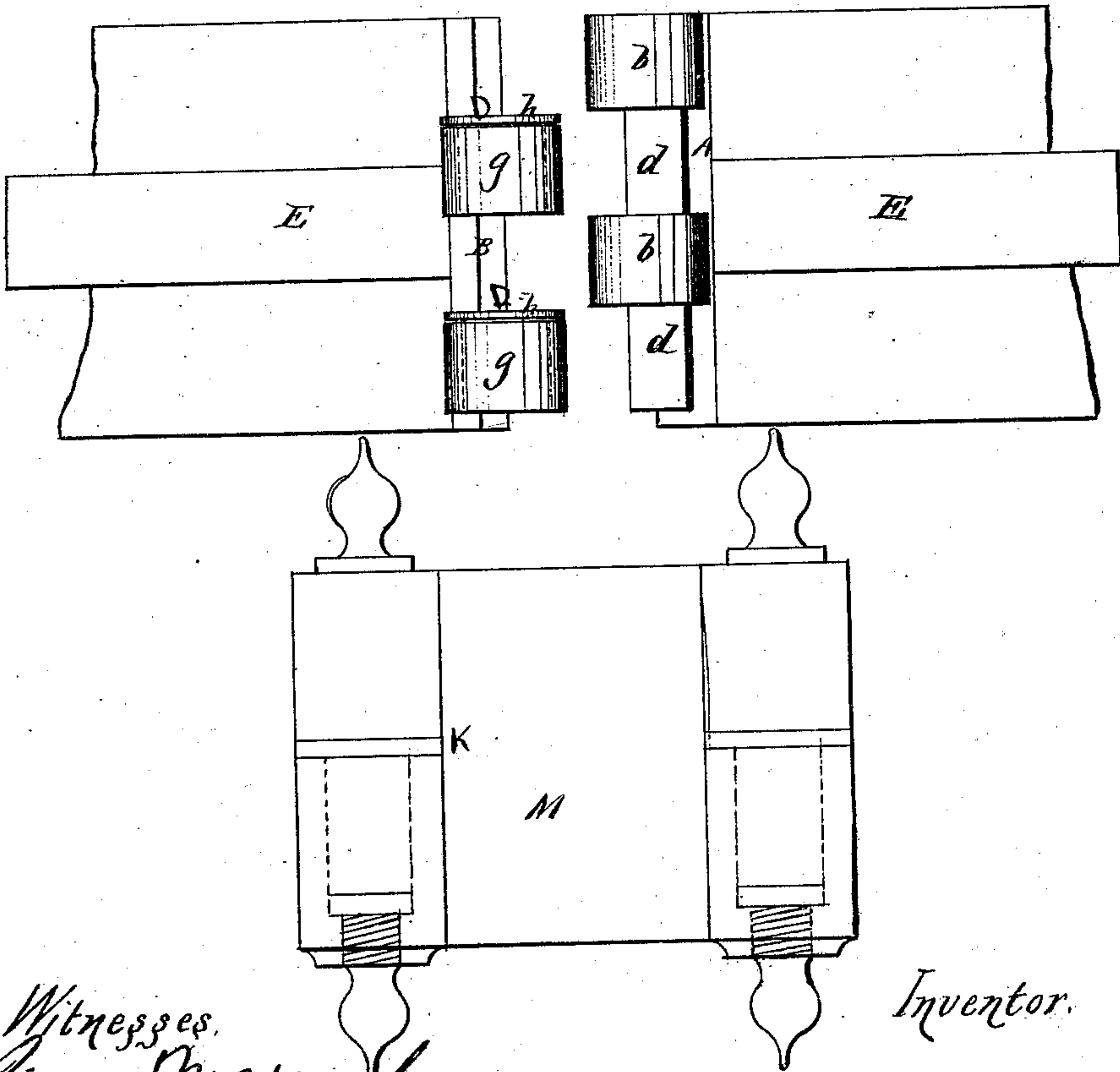



Fig. 2.



Witnesses,  
James McMichael  
John. L. Boone

 Inventor.  
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# UNITED STATES PATENT OFFICE.

JAMES BIDWELL, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO HIMSELF  
AND JAMES McMEEHAN, OF SAME PLACE.

## IMPROVEMENT IN SPRING-HINGES.

Specification forming part of Letters Patent No. 104,252, dated June 14, 1870.

*To all whom it may concern:*

Be it known that I, JAMES BIDWELL, of the city and county of San Francisco, State of California, have invented an Improved Double Reversible Door-Butt; and I do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements without further invention or experiment.

My invention relates to a double door-butt, allowing the door to open either way; and it consists in combining upon each edge of one plate recessed flanged thimbles with hollow slotted knuckles, and these again with solid knuckles and bars on the opposite plate, said bars entering the aforesaid knuckles and thimbles, as will be fully set forth below.

In order to more fully illustrate my invention, reference is had to the accompanying drawing, forming a part of this specification, in which—

A represents one of the leaves or plates of my door-butt, which is secured to the edge of the door. This plate is of sufficient width to extend across from side to side of the door, and has small flanges *a*, extending at right angles to it, and which clasp the door upon each side when the butt is in place. On each side of this plate are formed one or more solid cylindrical knuckles, *b b*, placed a short distance apart along the side, and having a connecting-bar, *d*, uniting them together at about their centers. This bar, as shown in the present drawing, is wedge-shaped; but it is evident that other shapes would answer the same purpose. The plate or leaf B is secured to the door-casing opposite the plate A and in the same manner. The knuckles *g g* on the opposite ends of this plate are made of the same form as the knuckles *b* on the plate A, but are hollow, and have a bushing, D, placed loosely in them. This bushing has a small flange, *h*, around its upper rim, which rests upon the hollow knuckle, and prevents its falling out. It can also, if desired, be secured at the opposite end by some suitable device. The knuckles *g* have each an opening, *i*, cut out from one side, and the bushings D have also a wedge-shaped recess, *i'*, cut in them, so that when the bushing stands in such a position that the cut *i'* is opposite the cut *i* in the

cylinder the wedge-shaped bars *d* of the plate A will enter the cut, and thus form a continuous knuckle or hinge-joint and bring the two plates close together.

A hollow barrel or cylinder, E, is cast with each of the plates standing at right angles with it and upon the outside or side next the wood-work, so as to be sunk both in the casing and in the door. A circular hole is also left in the center of the leaves. A strong spiral or other spring, F, is secured at the outer end of each of these barrels, and passes through the two plates, and thus serves to keep the door closed.

When the door is opened to either side the knuckles on the opposite side open, while the bars *d* in the bushing D on the swinging side turn in their sockets, locking the bars and holding the door the instant the bars are carried around past the opening in the circular lug or knuckle. The bushing will always be left when the two knuckles separate in a position to receive the bars again when the door closes.

One knuckle and one bushing may be used, the lower end of the bushing forming an ornament, as shown at M, and having a screw and nut. A rubber or other elastic washer is held by this nut and prevents the bushings being easily turned.

A double reversible door-butt constructed in this manner will be quite effective for the purpose for which it is intended, and will present a neat appearance, as the door-spring and butt are both connected in a compact manner.

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

1. In combination with the hollow slotted knuckles *g*, the loose flanged bushing or thimble D, provided with a recess, *i*, substantially as and for the purpose set forth.

2. The combination, with the elements of the above claim, of the knuckles *b* and bars *d*, constructed and arranged to operate substantially as described.

In witness whereof I have hereunto set my hand and seal.

JAMES BIDWELL. [L. S.]

Witnesses:

JAMES McMEEHAN,  
J. L. BOONE.