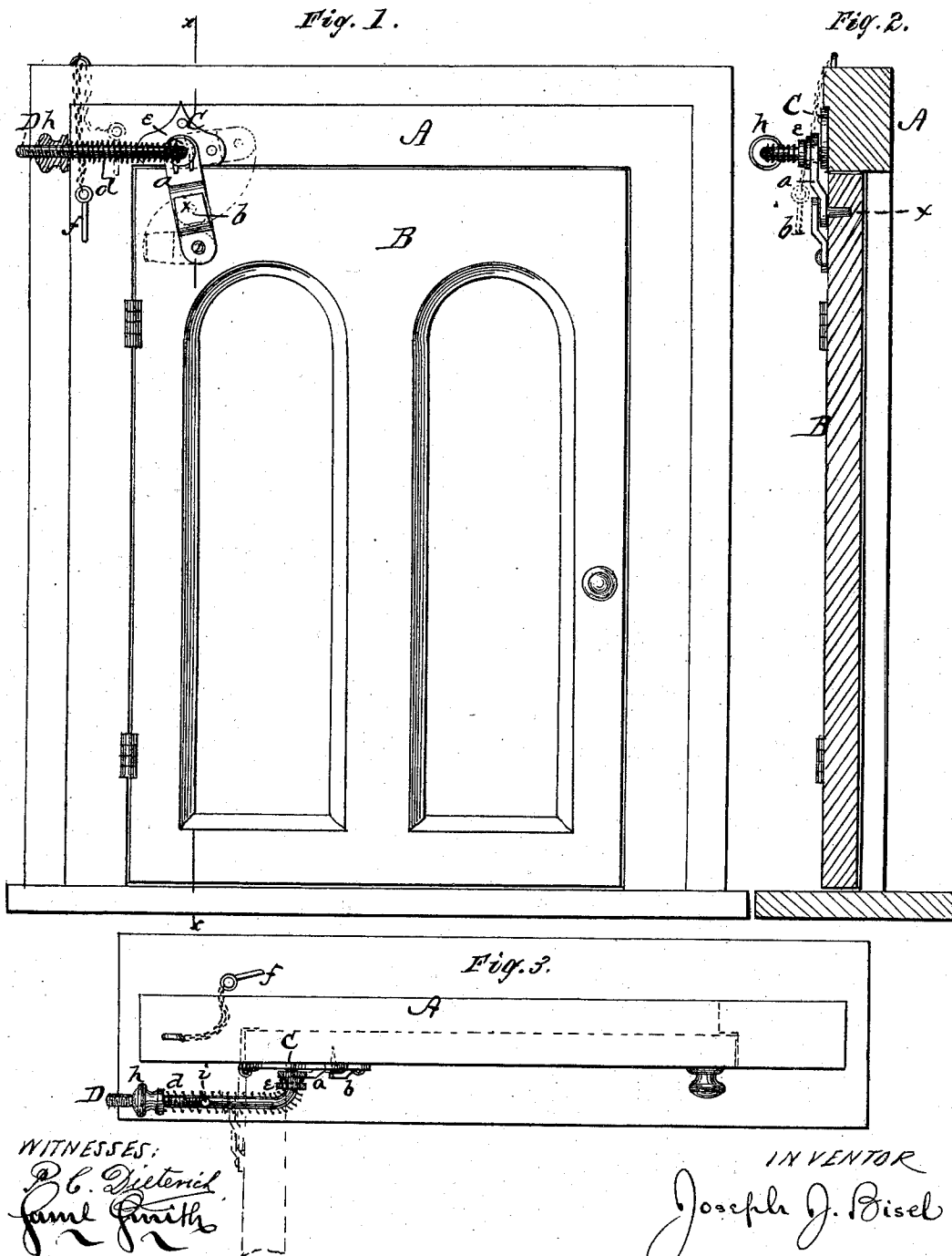


J. J. BISEL.
Door-Springs.

No. 147,892.

Patented Feb. 24, 1874.



UNITED STATES PATENT OFFICE.

JOSEPH J. BISEL, OF MONTANDON, PENNSYLVANIA.

IMPROVEMENT IN DOOR-SPRINGS.

Specification forming part of Letters Patent No. **147,892**, dated February 24, 1874; application filed February 12, 1874.

To all whom it may concern:

Be it known that I, JOSEPH J. BISEL, of Montandon, in the county of Northumberland and State of Pennsylvania, have invented certain new and useful Improvements in Door-Springs; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a door-spring in such a manner that the tension of the spring can be easily regulated, and the door readily released from the action of the spring when desired, 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 drawings, in which—

Figure 1 is a front view of a door and door-frame with my spring arranged on the same. Fig. 2 is a transverse vertical section of the same through the line *x x*, Fig. 1; and Fig. 3 is a plan view of the same.

A represents a door-frame, with a door, B, hinged thereto in any of the known and usual ways. To the door-frame A, above the door and near the inner edge of the same, is secured a plate, C, from which projects a rod, D, provided with screw-threads for a suitable distance inward from its outer end. The rod D is curved at its inner end from the plate C toward the inner edge of the door, and then extends straight on a line parallel with the door when closed. Upon the rod D, nearest to the plate C, is placed a short bar or plate, *a*, which has an elongated slot to pass over the rod, and is at its outer end provided with a pin, *x*, to be inserted in a hole in the door B, as shown in Fig. 2, and the bar *a* held in this place by means of a button, *b*, pivoted to the door and turned over the end of said bar. Next to the bar *a*, on the rod D, is placed a washer, *e*, and then a spiral spring, *d*, after which a knob or head, *h*, is screwed on the

end of the rod to hold the spring *d* against the bar *a*.

When the door is being opened, after the parts have been arranged in the manner just described, the plate or bar *a* will move with the door, and its upper end slide upon the rod, so as to compress the spring against the knob *h*, and as soon as the pressure is removed from the door, the spring will expand and close the door.

The tension of the spring *d* is easily regulated by simply turning the knob *h* out or in upon the rod D.

By turning the button *b* to one side, the plate or bar *a* may be turned at an angle on the rod D by means of the elongated slot in its upper end, so that the pin *x*, upon its lower end may slip out of the hole in the door, and the bar *a* be then turned to one side, as shown by dotted lines in Fig. 1, thereby releasing the door from the action of the spring; and allowing it to be opened clear back to the wall and remain so, if desired.

The tension of the spring *d* may be further regulated by inserting a pin, *f*, through any of the coils of the spring, and through a hole, *i*, in the rod D.

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

1. The combination, with a door-frame, A, and door B, of the plate C, rod D, spring *d*, screw-knob *h*, and a plate or bar, *a*, placed upon the rod and connected to the door, all substantially as and for the purposes herein set forth.

2. The combination, with the rod D and spring *d*, of the plate or bar *a*, provided with an elongated slot at its upper end, and the pin *x* at its lower end, and the pivoted button *b*, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOSEPH J. BISEL.

Witnesses:

S. P. FANSOLD,
M. J. INGLER.