A. A. STIMSON & C. T. SABIN.

DOOR-SPRING.

No. 187,678. Patented Feb. 20, 1877.

Fig. 1.

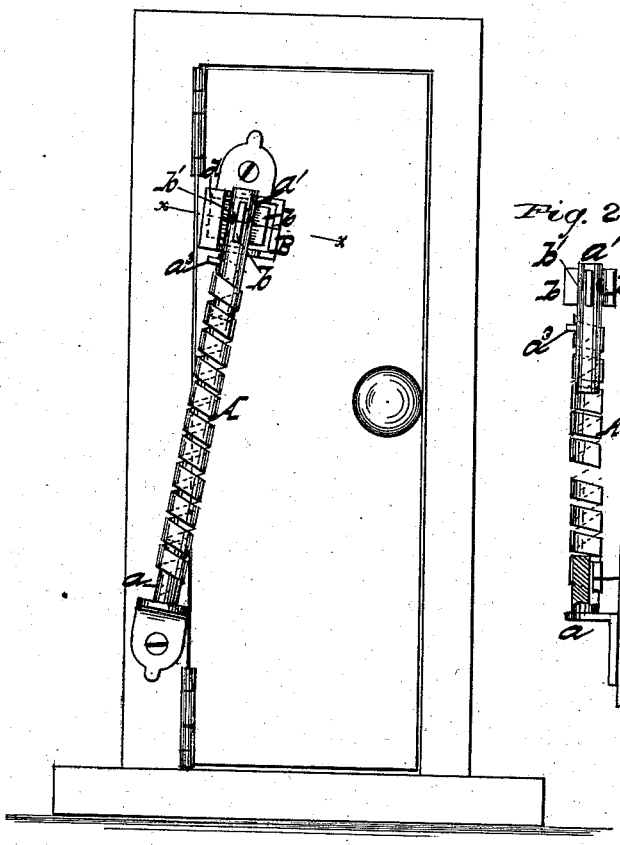


Fig. 2.

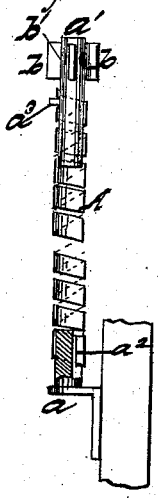
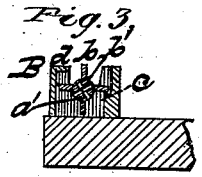


Fig. 3.



Witnesses
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J. H. Meister.

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Charles T. Sabin
by Edson Bros.

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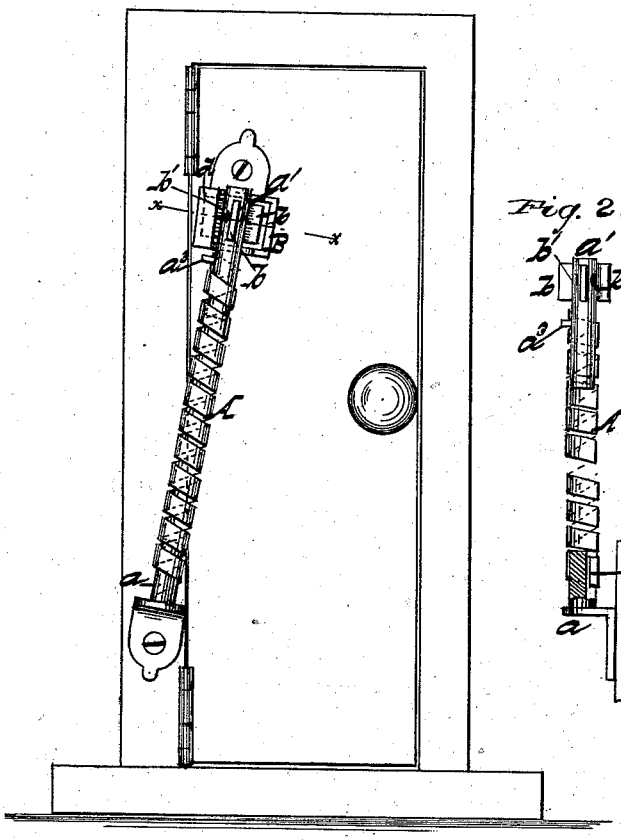
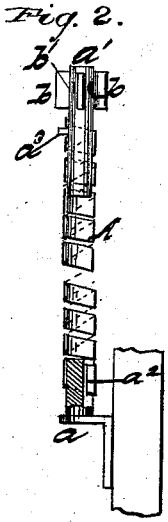


Fig. 2.



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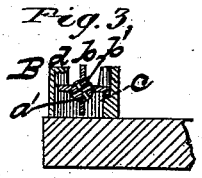

Witnesses
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UNITED STATES PATENT OFFICE.

ASHBEL A. STIMSON AND CHARLES T. SABIN, OF MONTPELIER, VERMONT.

IMPROVEMENT IN DOOR-SPRINGS.

Specification forming part of Letters Patent No. **187,678**, dated February 20, 1877; application filed December 9, 1876.

To all whom it may concern:

Be it known that we, ASHBEL A. STIMSON and CHARLES T. SABIN, of Montpelier, in the county of Washington and State of Vermont, have invented certain new and useful Improvements in Door-Springs; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a view, in elevation, of our improved door-spring in position upon a door. Fig. 2 is a similar view thereof detached from the door, and Fig. 3 a section through the dotted line *x x* of Fig. 1.

Corresponding parts in the several figures are denoted by like letters.

This invention relates to a certain improvement in door-springs of that class in which the door is closed by the recoil of the spring, wound up by the opening of the same; and it consists of novel mechanism for regulating the tension of the spring, and its adjustment to the door, substantially as hereinafter more fully set forth and definitely claimed.

In the annexed drawing, A refers to a spring, made from sheet or flat metal, and coiled into a tubular or cylindrical form, to receive studs or short cylinders *a* a^1, one fastened to the door-frame, and having a slot, a^2, or other suitable means, to receive and secure that end of spring, as seen in Fig. 2. The other or upper stud, a^1, which has a projection, a^3, or other suitable means, engaging the spring to secure it in position, is provided with radial arms or plates *b b* and orifices or holes b' b', and is let into a receptacle or boss, B, fastened to the door in any known way. In the receptacle or boss B is a seat, *c*, upon which one of the radial arms or plates *b b* rests and is held in place when under pressure, while the opposite arm or plate *b* is kept in position by the plate *d* of the said receptacle.

To put the spring under tension, insert a rod or pin in one of the holes b' b' of the stud a^1, and lift it out of the receptacle or boss B; after which, turn the said stud, which will twist the spring, and insert one of its arms or plates *b b* under the plate *d* of the boss B, which, with the seat *c* in the latter, will hold it firmly in place, and enable the spring to retain its tension.

The same end may be attained, without departing from the spirit of our invention, by making the end of the stud a^1 angular instead of with the radial arms or plates *b b*, and recessing or notching the slots *c* of the boss or receptacle B, which receive the said stud.

When the spring is under tension, the stud a^1 is inserted into the said slots, with one of its angles resting in the recess or recesses thereof, holding the said stud firmly in place.

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

The spring A, having the studs *a* and a^1, the latter provided with radial arms or plates *b b*, and adjusted in a seated flanged boss or receptacle, B *c d*, substantially as and for the purpose set forth.

In testimony that we claim the foregoing as our own we hereunto affix our signatures in presence of two witnesses.

ASHBEL A. STIMSON.
CHARLES T. SABIN.

Witnesses:
HIRAM CARLETON,
ALDEN N. NORCROSS.