

Worcester & Jones,

Door Spring.

N^o 44,034.

Patented Aug. 30, 1864.

Fig. 1.

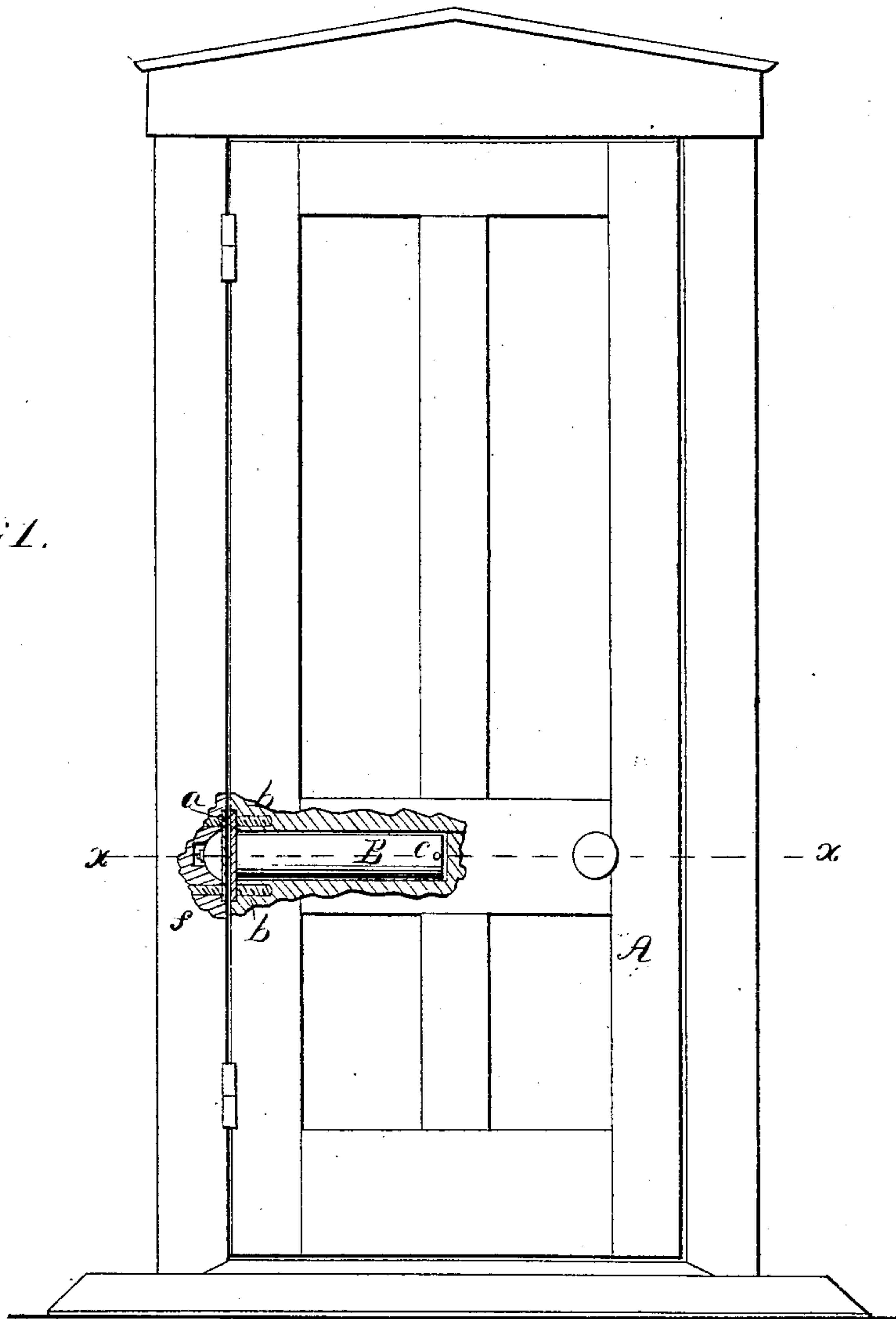
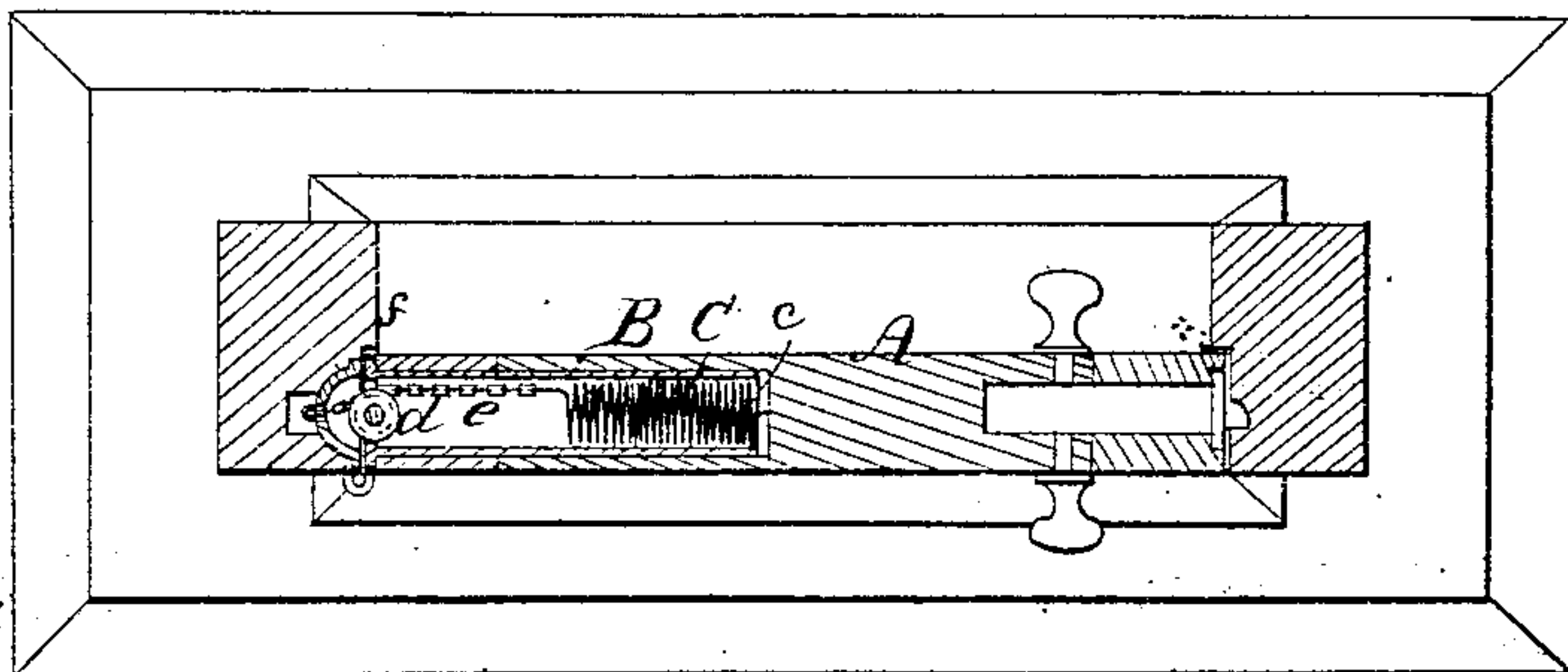


Fig. 2.



Witnesses,

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UNITED STATES PATENT OFFICE.

WILLIAM H. WORCESTER AND E. F. JONES, OF FARMINGTON, N. H.

IMPROVED DOOR-SPRING.

Specification forming part of Letters Patent No. 44,034, dated August 30, 1864.

To all whom it may concern:

Be it known that we, W. H. WORCESTER and E. F. JONES, both of Farmington, in the county of Strafford and State of New Hampshire, have invented a new and useful Improvement in Door-Springs; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a view of a door, partly in section, having a spring applied to it according to our invention. Fig. 2 is a horizontal section of the same, taken in the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

This is an improvement in that class of springs which are inserted within a door so as to be concealed from view and connected with the door-post by a chain or other suitable means.

The present invention consists in an improved device constituting a complete spring adapted for ready application to a door or gate, (independently of the hinges,) and affording convenient means for throwing the spring on or off, as required.

To enable those skilled in the art to fully understand and construct our invention, we will proceed to describe it.

A represents a door, which may be constructed and hung in the usual or in any proper way.

B represents a tube, which is inserted horizontally into the door at the edge, which is connected by hinges to the door-frame. This tube B has a flange, *a*, at its outer end, which abuts against the edge of the door and is secured to it by screws *b*. (See Fig. 1.) Within the tube B there is placed a spiral spring, C, the inner end of which is attached by a pin, *c*, to the tube B. In the outer end of the tube B there is fitted horizontally a small pulley, *d*, around which a chain, *e*, which is attached to the outer end of the spring C, passes. This chain *e* passes through a plate, D, which is fitted in the jamb *f* of the door-frame to which the door A is hung. The plate D is of concave form at its outer side, in order to prevent the pulley *d* in the tube B from coming in contact with it when the door is closed, and also to give room for a suitable hook or catch, by which the spring may be readily attached or detached.

From the above description it will be seen that the spring C will act upon and close the door equally as well as if it were attached to the outer side of the same, and the spring is entirely concealed from view and fully protected from injury, either from moisture of the weather or any other external cause. Springs would be more generally applied to doors were it not for the unsightly appearance they present, especially when put on inside doors of houses of a superior class. Our invention obviates this. It may be applied to any door whatever and at a moderate cost, and in case of repairs being needed it may be very readily detached from the door and replaced.

We do not confine ourselves to a spiral spring, for india-rubber or other springs may be applied in the same manner. Neither do we confine ourselves to the chain for connecting the spring to the jamb of the door, for a jointed rod or other equivalent of the chain might be used and answer equally as good a purpose.

We are aware that a spring operating on the same general principle as ours, but used in connection with a hinge, is described in Letters Patent granted to Sabin and Drew on the 25th of February, 1851. Our spring is superior, in being an article complete in itself, adapted for ready application to any door or gate in use, and, further than this, the external concavity of the plate D affords space for any suitable fastening by which the spring may be adapted to be thrown on or off at will.

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

As a new article of manufacture, the door-spring hereinbefore described, consisting of the casing B, spring C, chain *e*, and roller *d*, and concave plate D, all constructed and arranged as herein specified, and constituting a complete device adapted for ready application (independently of the hinges) to a door or gate already in use.

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Witnesses:

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