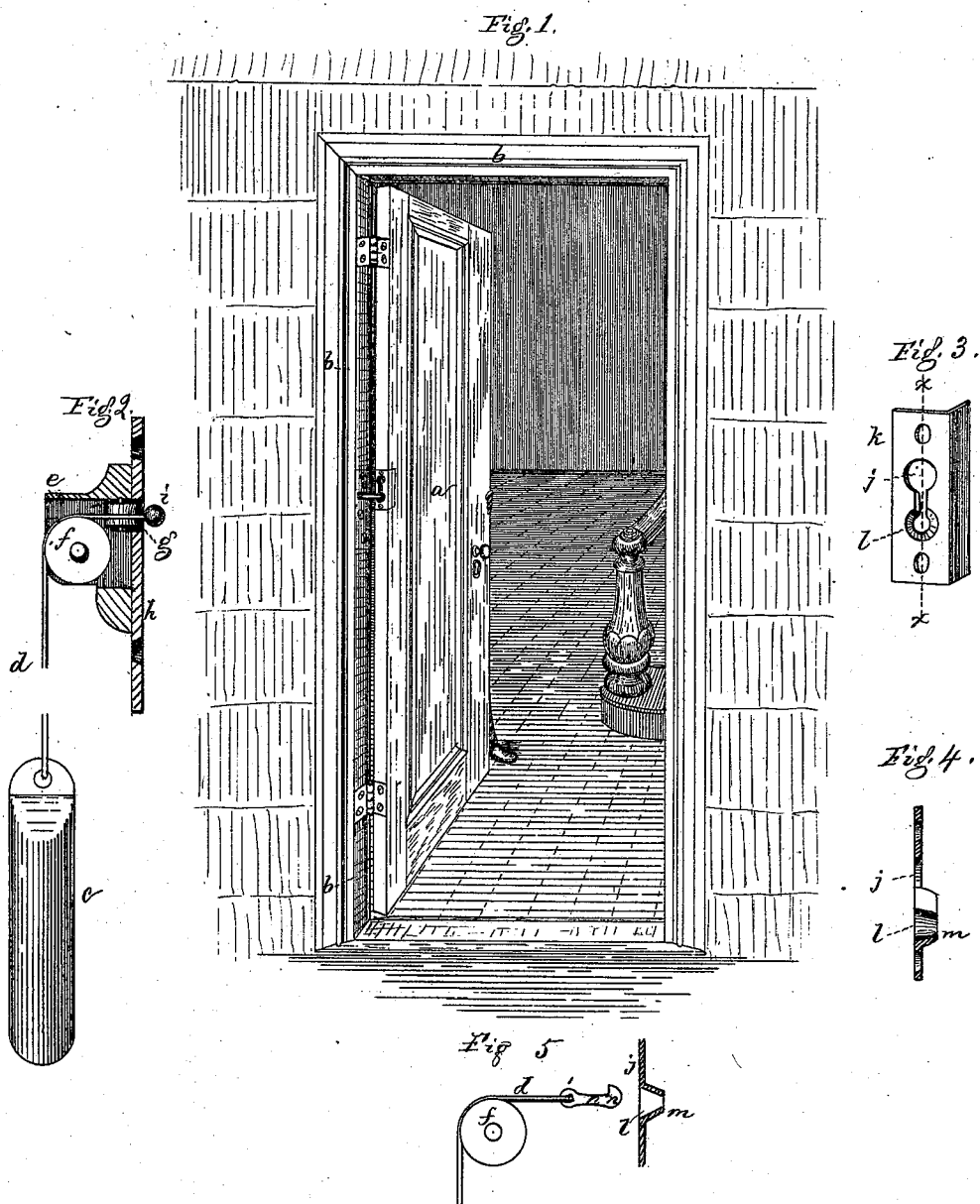


J. STEVENS.
DOOR-CLOSER.

No. 174,165.

Patented Feb. 29, 1876.



Witnesses,

S. B. Kidder
W. J. Pratt

Inventor.

John Stevens
per Crosby Gregory Attys.

UNITED STATES PATENT OFFICE.

JOHN STEVENS, OF WAKEFIELD, MASSACHUSETTS.

IMPROVEMENT IN DOOR-CLOSERS.

Specification forming part of Letters Patent No. **174,165**, dated February 29, 1876; application filed January 29, 1876.

To all whom it may concern :

Be it known that I, JOHN STEVENS, of Wakefield, in the county of Middlesex and State of Massachusetts, have invented an Improved Door-Closer, of which the following is a specification :

This invention relates to improvements in devices for closing doors, and is especially adapted for dwellings. The springs and the appliances commonly applied to doors to close them are placed on the outsides of the doors or door-casings, and are unsightly, and for that reason people of taste will not employ them; and then, too, the ordinary door-springs work with an unequal force, not steadily, and the doors close with a slam, which is very objectionable to the majority of people.

In my device, the door is closed by the action of a weight raised by opening the door, the weight is concealed, and when the door is closed none of the closing devices are visible; and when the door is opened only the cord connecting the weight and door edge is visible; and when opening the door the force to be overcome is an equal one, and the force can be regulated to a degree just sufficient to close the door slowly but surely when released.

Figure 1 represents an open door provided with my improvement. Fig. 2 represents the weight and pulley and pulley-frame removed. Fig. 3 represents the slotted attaching-plate; and Fig. 4 a vertical section thereof on lines *x x*; and Fig. 5 is a modification.

The door *a* is hung by means of hinges to the door-casing *b*, in any well-known manner, and within the casing *b* is a space to contain the weight *c*, its sustaining cord or connection *d*, and to receive the frame *e* and pulleys *f g*, only the plate *g* of the frame being visible when the door is opened. The connection *d* is provided with a knob, *i*, or knot, or hook, or equivalent, adapted to enter the opening *j*, in the slotted attaching-plate *k*, and pass downward therein, the width of the slot being contracted to hold the knob and prevent it drawing out from the slot of the plate. The plate at the lower end of the slot is recessed at front, as at *l*, and the knob or knot rests on the projecting portions *m* of the plate.

This recess is provided in order that, when it is not desired to have the weight operate, the knob may be removed from the slot of the plate, and in such case the knob, projecting from the plate, as shown in Fig. 2, when the door is closed will enter the recess *l* and allow the door to close, which it could not do if the recess for the knob was not provided. When it is desired to again bring the weight into operation, it is only necessary to place the knob in the slit of the plate. The small pulley *g* prevents friction of the connection *d* on the frame. When the door is completely open, having turned a little beyond one hundred and eighty degrees, the weight and connection then act to hold the door open. The weight will preferably be just sufficient to close the door gently.

I am aware that it is not new to close a door by means of a weight, but I am not aware that a concealed weight has ever been connected by a cord passed through the door-casing at the jam and connected with the edge of the door.

In Fig. 5 I show a hook, *n*, attached to the end of the connector *d*, and adapted to operate as the knob, but to insert or remove the hook its end *1* must be elevated.

I claim—

1. The attaching-plate *k*, adapted to be connected with the edge of the door, as described, in combination with the frame-pulleys *f g* mounted thereon, and with concealed weight and connection, adapted to be applied to the casing opposite the attaching-plate, all substantially as described.

2. The slotted attaching-plate *k*, provided with recess *l*, in combination with the connection *d* and knob *i*, to permit the door to be closed when the knob is removed from its connection with the plate of the door, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN STEVENS.

Witnesses :

G. W. GREGORY,
S. B. KIDDER.