

No. 682,164.

Patented Sept. 10, 1901.

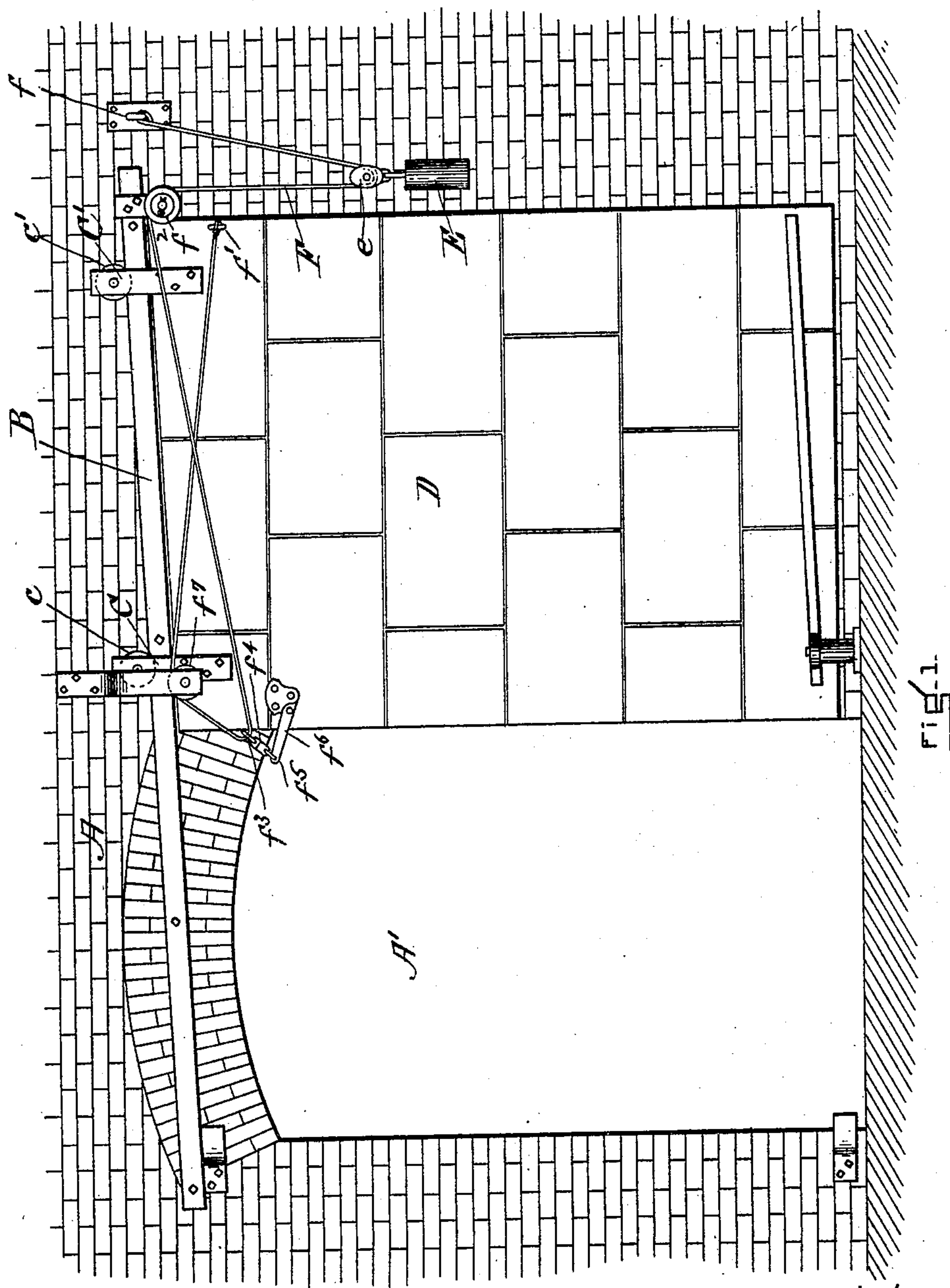
I. BESSE.

DEVICE FOR CLOSING SLIDING FIRE DOORS OR SHUTTERS.

(Application filed Feb. 18, 1901.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES.

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Saul Lippman

INVENTOR.

Irvin Besse
by his atty.
Charles A. Raymond

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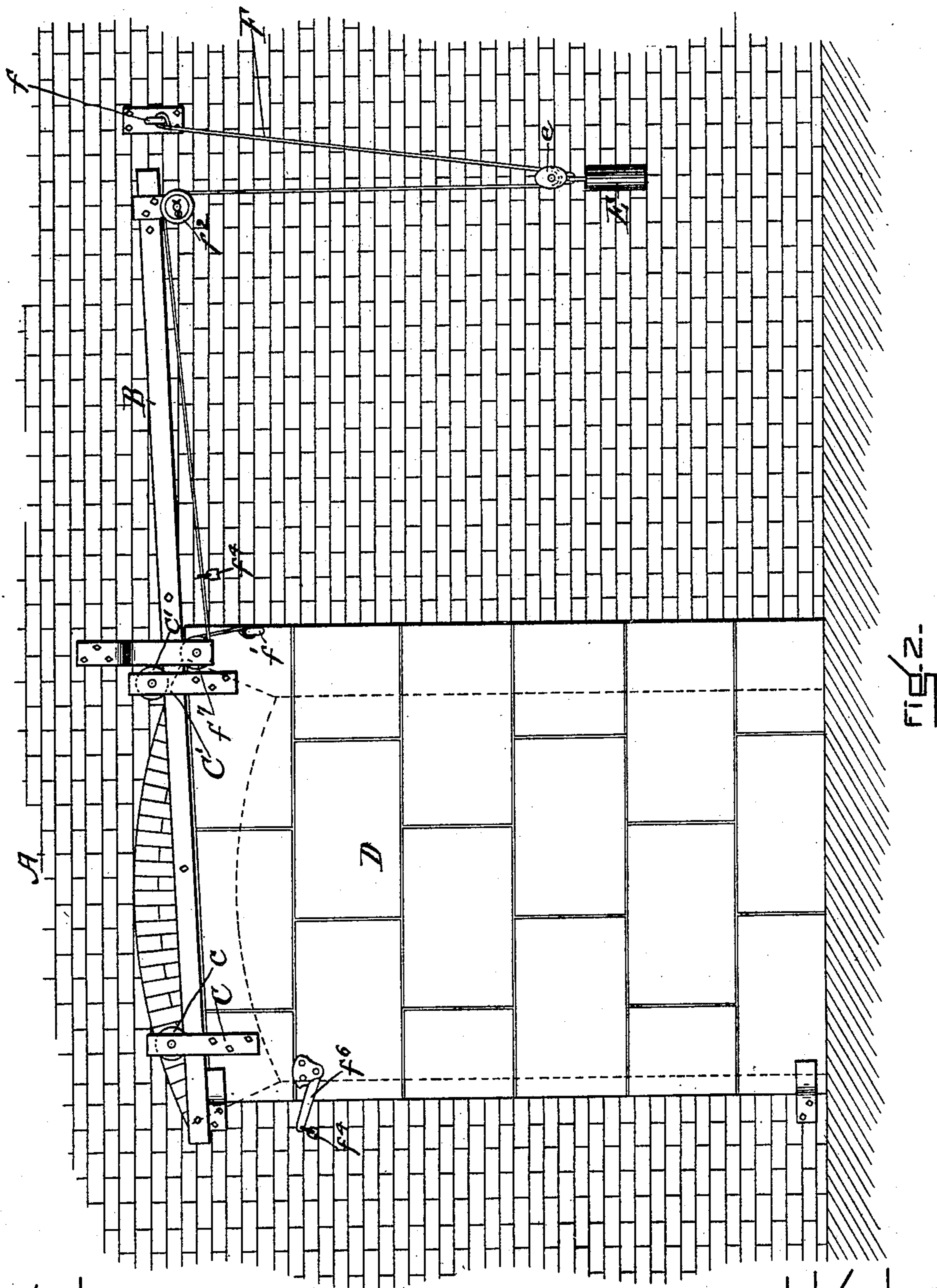
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UNITED STATES PATENT OFFICE.

IRVIN BESSE, OF NEWBURYPORT, MASSACHUSETTS, ASSIGNOR TO VICTOR MANUFACTURING COMPANY, OF SAME PLACE.

DEVICE FOR CLOSING SLIDING FIRE DOORS OR SHUTTERS.

SPECIFICATION forming part of Letters Patent No. 682,164, dated September 10, 1901.

Application filed February 18, 1901. Serial No. 47,838. (No model.)

To all whom it may concern:

Be it known that I, IRVIN BESSE, a citizen of the United States, residing at Newburyport, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Devices for Closing Sliding Fire and other Doors or Shutters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

The invention relates to the herein-described means for closing a sliding fire or other door or shutter; and it comprises a weight and means for attaching it to the door and for leading it over pulleys in a manner to hold the weight normally inactive and balanced until its connection with the door is destroyed by variation in temperature.

I will describe the invention in detail in connection with the drawings, wherein—

Figure 1 is a view in elevation, representing a portion of a wall, a doorway in it, and a sliding door and my improved means for closing it, the door being represented as wide open. Fig. 2 is a view in elevation of the same parts, the door being represented as having been closed by the door-closing devices.

In the drawings, A represents the wall; A', the opening therein; B, an inclined rail or track fastened to the wall, upon which the door is mounted and runs.

C C' are hangers attached to the door-car-rying rolls *c c'*, mounted upon the rail or track.

D is the door. E is its counterbalancing or closing weight. It has a pulley *e*, which is mounted upon the balancing and draft rope or chain F, one end of which is fastened to an eye *f*, secured to the wall, and the other end to an eye *f'*, attached to the door. The rope or chain passes through the pulley-block, over the sheave *f*², attached to the track or rail, through the loop *f*³, attached by a fusi-

ble link or connection *f*⁴ to the outer end *f*⁵ of an arm *f*⁶, attached to the forward edge of the door to project into the doorway when the door is open, thence over the sheave *f*⁷, secured to the wall, to the point of its attachment to the door.

As the door is normally used—that is, opened and closed by hand—the rope or chain will render through the loop *f*³, and the weight will serve to balance the door and prevent its closing by gravity. If, however, the fusible connection between the loop and the door is destroyed, the connection of the rope or chain with the door by means of the loop is broken, and the rope or chain then renders about the forward sheave *f*⁷ and the sheave *f*². This transfers the entire stress of the weight to the point *f*'. The balancing-weight is thus converted into a door-closing weight. Of course the sheave *f*⁷ must be located adjacent to the door-opening.

In lieu of the loop *f*³ a sheave or roll may be substituted.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

The combination of a sliding door or shutter, an inclined rail or track upon which it is mounted, a weight, a rope supporting the weight attached at one end to the rear of the door or shutter, and at the other end to the wall beyond the same, stationary sheaves about which the rope passes from its point of attachment, and a fusible connection attached to the forward end of the door or shutter through which said rope renders whereby the weight is combined with the door as a balancing device while the release of the rope by the fusible connection converts the balancing-weight, by means of one of the sheaves, into an overbalancing and door-closing means.

IRVIN BESSE.

In presence of—

F. F. RAYMOND, 2d,
SAUL SEPPERSTEIN.