

No. 793,862.

PATENTED JULY 4, 1905.

A. C. VAN DOREN.
AUTOMATIC SASH CLOSER.

APPLICATION FILED JAN. 27, 1905.

Fig. 1

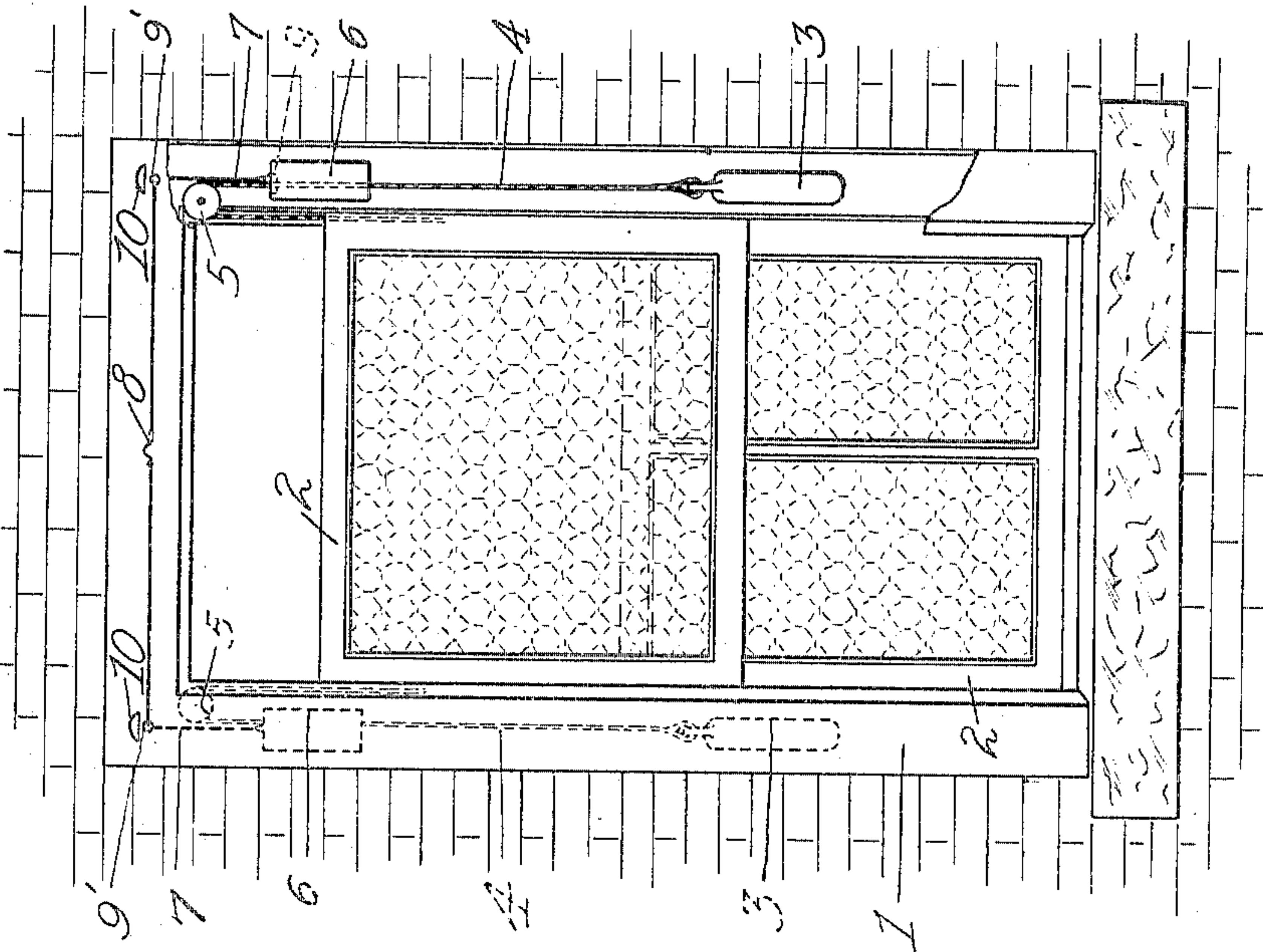


Fig. 2

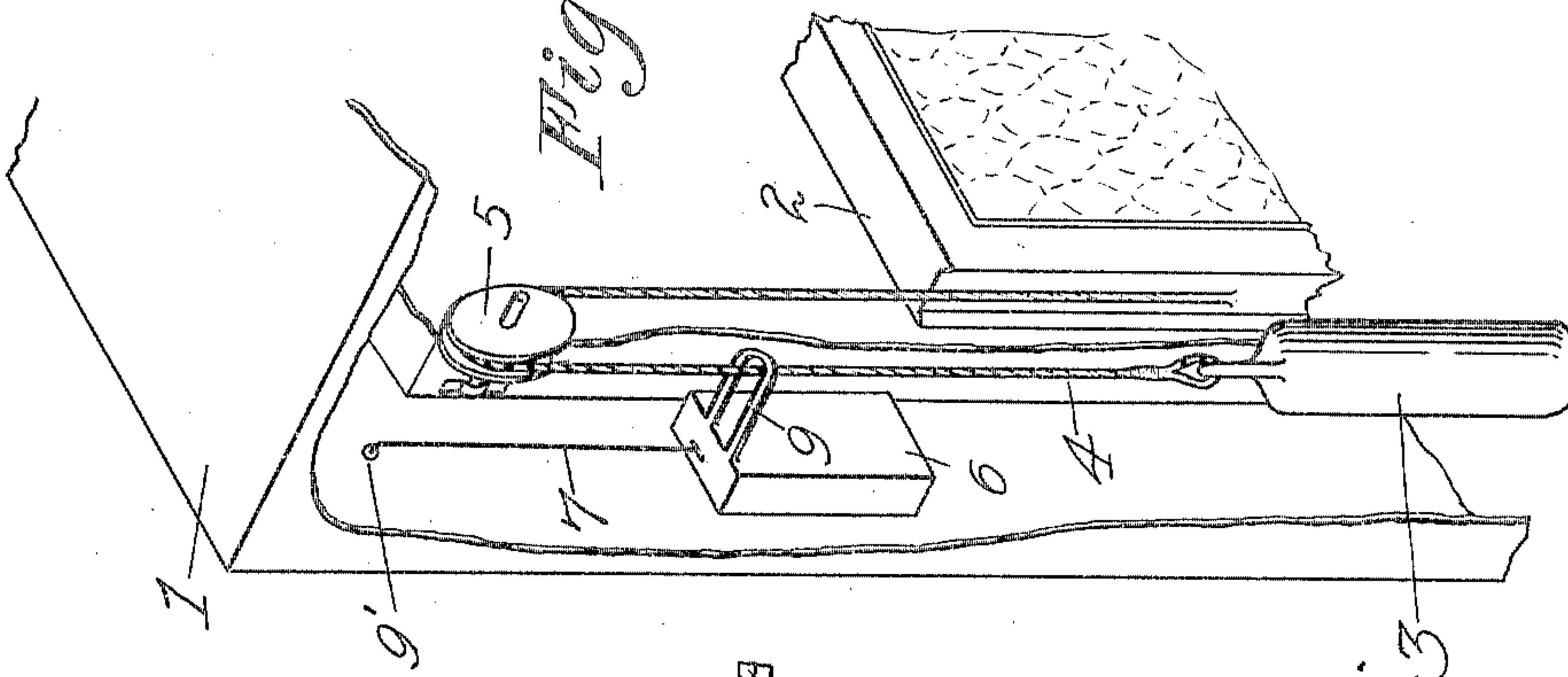
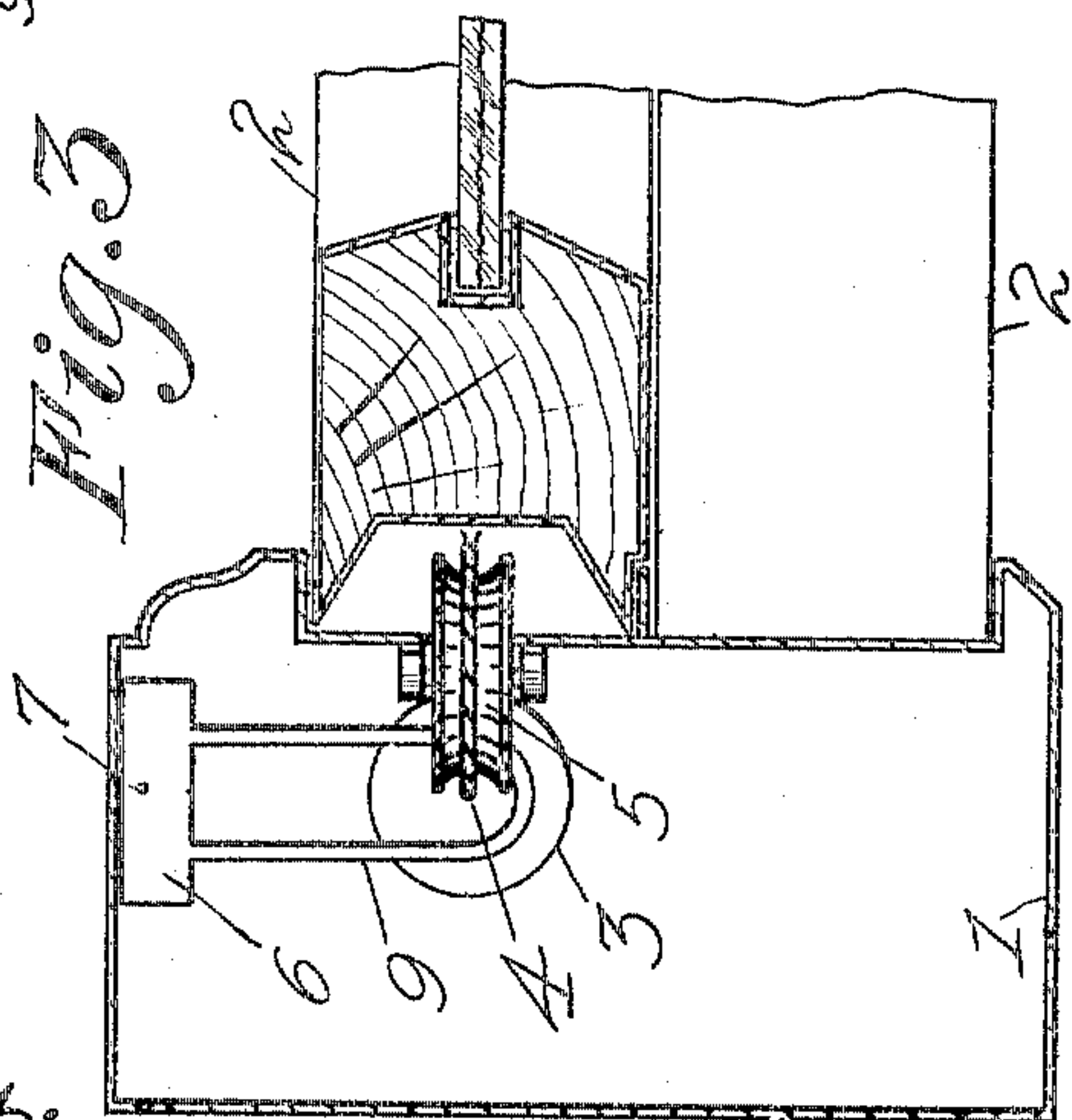


Fig. 3



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ARTHUR C. VAN DOREN, OF SEATTLE, WASHINGTON.

AUTOMATIC SASH-CLOSER.

SPECIFICATION forming part of Letters Patent No. 793,862, dated July 4, 1905.

Application filed January 27, 1905. Serial No. 242,973.

To all whom it may concern:

Be it known that I, ARTHUR C. VAN DOREN, a citizen of the United States of America, and a resident of the city of Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Automatic Sash-Closers, of which the following is a specification.

The present invention has for its primary object the production of means for automatically closing a window-sash when subjected to any unusual heat—as, for example, in the event of fire.

A further object is to provide an improvement of this nature which will be simple in construction and positive in operation.

Further objects and advantages will be set forth in the following description and those features of construction upon which I desire protection defined in the appended claims.

In the accompanying drawings, in which like numerals indicate like parts throughout the several views, Figure 1 is an exterior elevation of a window provided with my improvement, a portion of the frame being broken away. Fig. 2 is a fragmentary view in perspective, showing the relation of one of the overbalance-weights to the sash-cord and balance-weight therefor. Fig. 3 is a cross-section through one side of the frame and the adjacent portion of the upper sash.

The window-frame 1 and the slidable sash-frames 2 are preferably of fireproof construction, being formed of sheet metal, as shown, and in the sides of the frame the usual sash-balance weights 3 are arranged, the same being connected by cords or chains 4, which pass over pulleys 5 to the upper sash. This construction is well known in the art and has merely been introduced to more clearly disclose my improvement. This consists of overbalance-weights 6, secured to the ends of a flexible connection 7, to which a fuse 8 is connected. Catches 9, of yoke form, are secured to the overbalance-weights, and the weight chains or cords 4 pass through these catches, so that when the flexible connection 7 is severed by the fusing of fuse 8, thereby allowing the overbalance-weights 6 to fall, said catches will catch on the sash-weights 3. The

force with which the catches of the overbalance-weights strike the sash-weights will be sufficient to start the upper sash in its elevation, and the combined weight of both sash and overbalance weights will obviously be sufficient to overcome the weight of the sash, and consequently the upper sash will be automatically closed.

The flexible connection 7, which is preferably a chain or wire rope, passes through suitable apertures, as 9', in the frame 1 and extends across the outer face of the upper portion of the window-frame, thereby exposing the fuse 8, so that it will be readily affected by any unusual rise in the temperature. The apertures 9' are provided with suitable weather-shields 10. In the construction shown the fuse is arranged on the exterior of the window-frame, so as to close the open sash when fire occurs in an adjoining building. It will be obvious, however, that the fuse could be placed at the inner side of the window-frame and thereby be affected by any undue rise of the temperature in the building without departing from the spirit of my invention.

My improvement can be readily mounted in the window-frames of the type now in common usage and will not interfere with the operation of the sash in the usual manner.

In the foregoing description and in the drawings I have shown and described a construction which will carry out the various functions assigned thereto. It is apparent, however, that minor changes can be made in the details of construction, and I therefore reserve the right to make such changes as fall within the scope of the appended claims.

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

1. In a sash-closing device, the combination with the window-frame, a sash slidable therein, the sash-balance weights, and the flexible connections between the weights and sash, of overbalance-weights arranged above the first-named weights, catches secured to the last-named weights and having a sliding engagement with said flexible connections, flexible means extending along the exterior of

the frame for a portion of its length and extending through apertures in said frame and having its ends connected to the overbalance-weights, and a fusible means connected to the
5 exposed portion of the last-named flexible means.

2. In a sash-closing device, the combination with the window-frame, a sash slidable therein, the sash-weights, and the flexible connections between the weights and sash, of
10 overbalance-weights having a sliding connection with said flexible connections, flexible

means arranged on the exterior of the window-frame for a portion of its length and extending through apertures in said frame and
15 having its ends connected to the overbalance-weights, and a fusible means connected to the exposed portion of the last-named means.

Signed at Seattle, Washington, this 10th day of January, 1905.

ARTHUR C. VAN DOREN

Witnesses:

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