

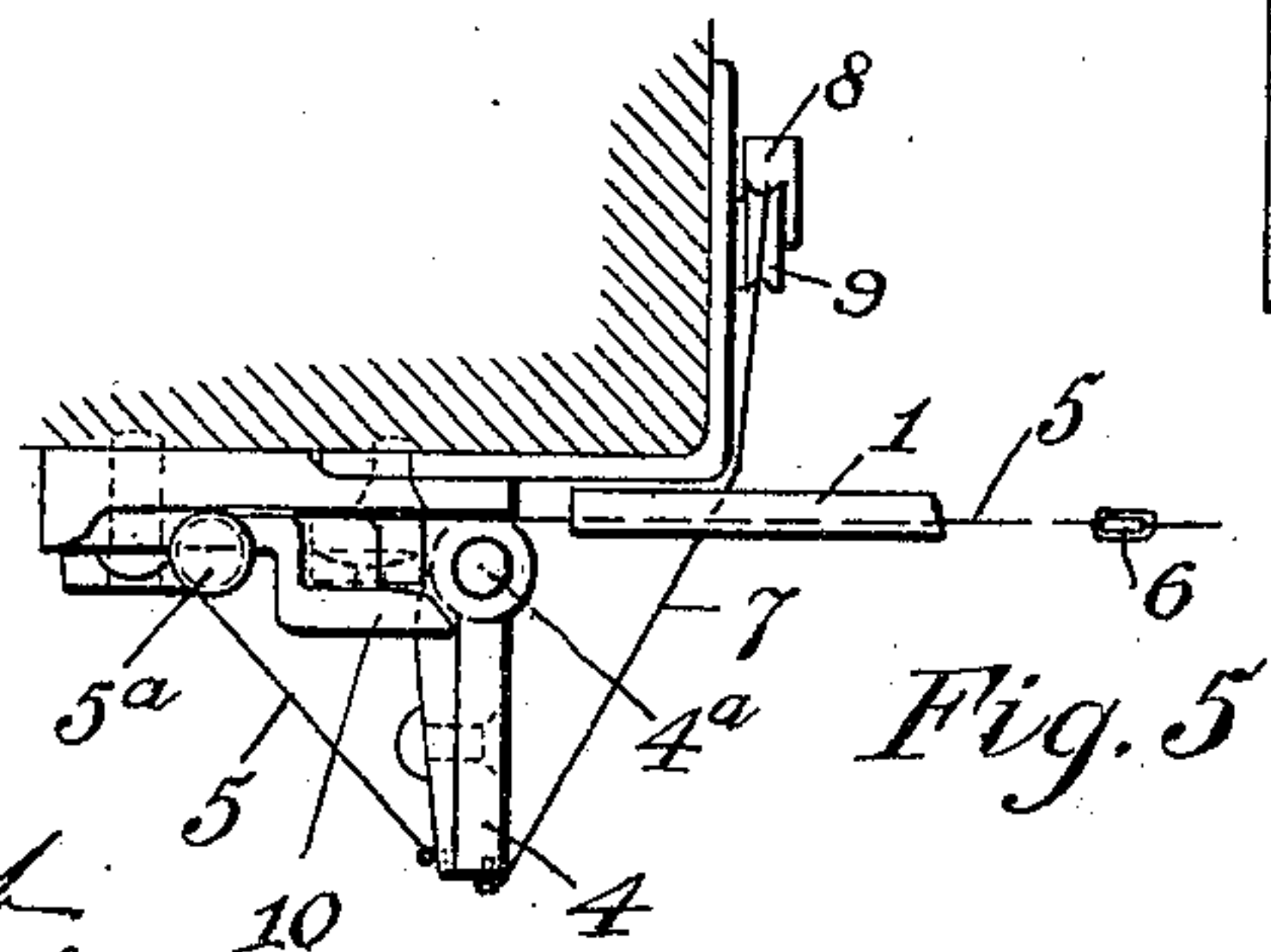
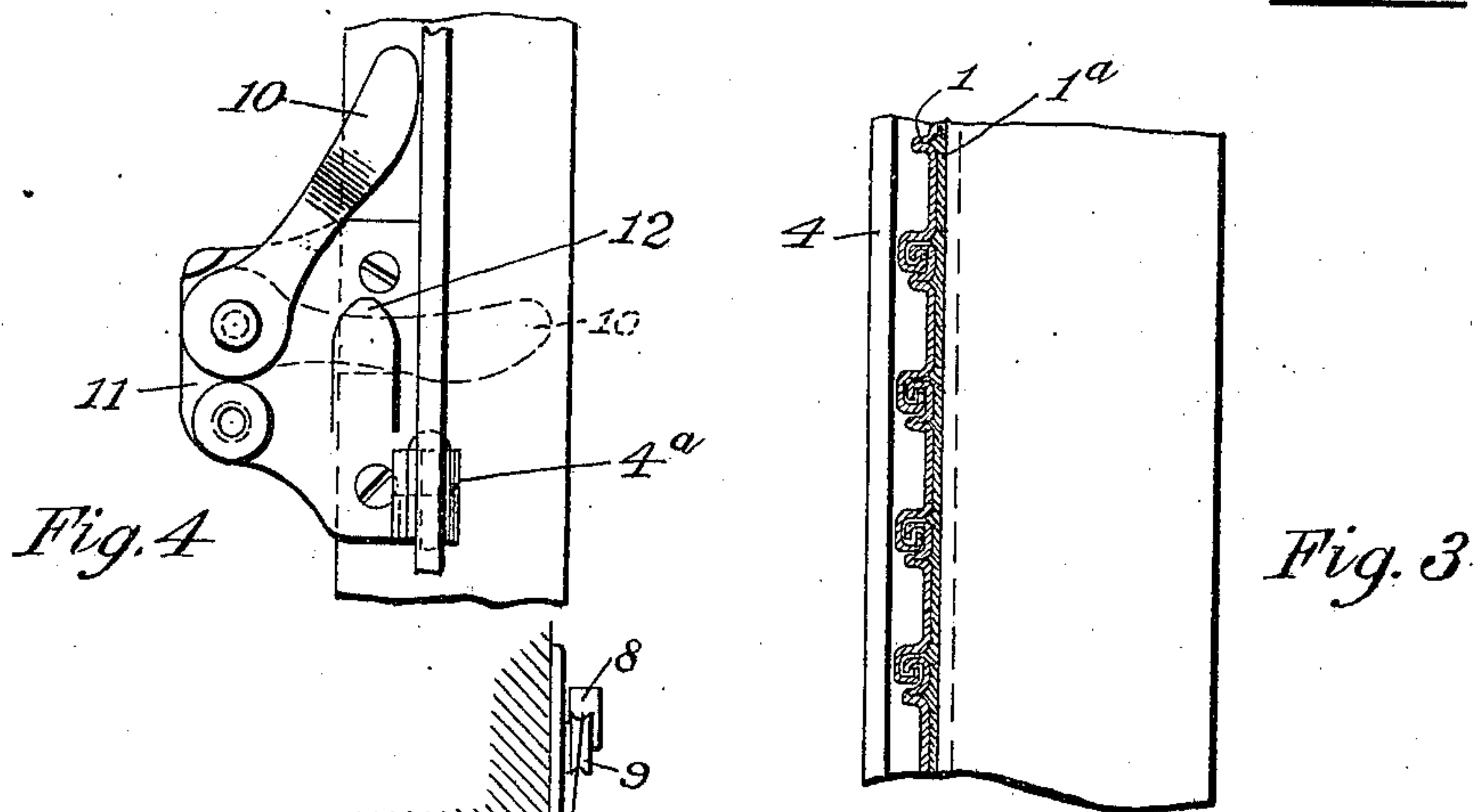
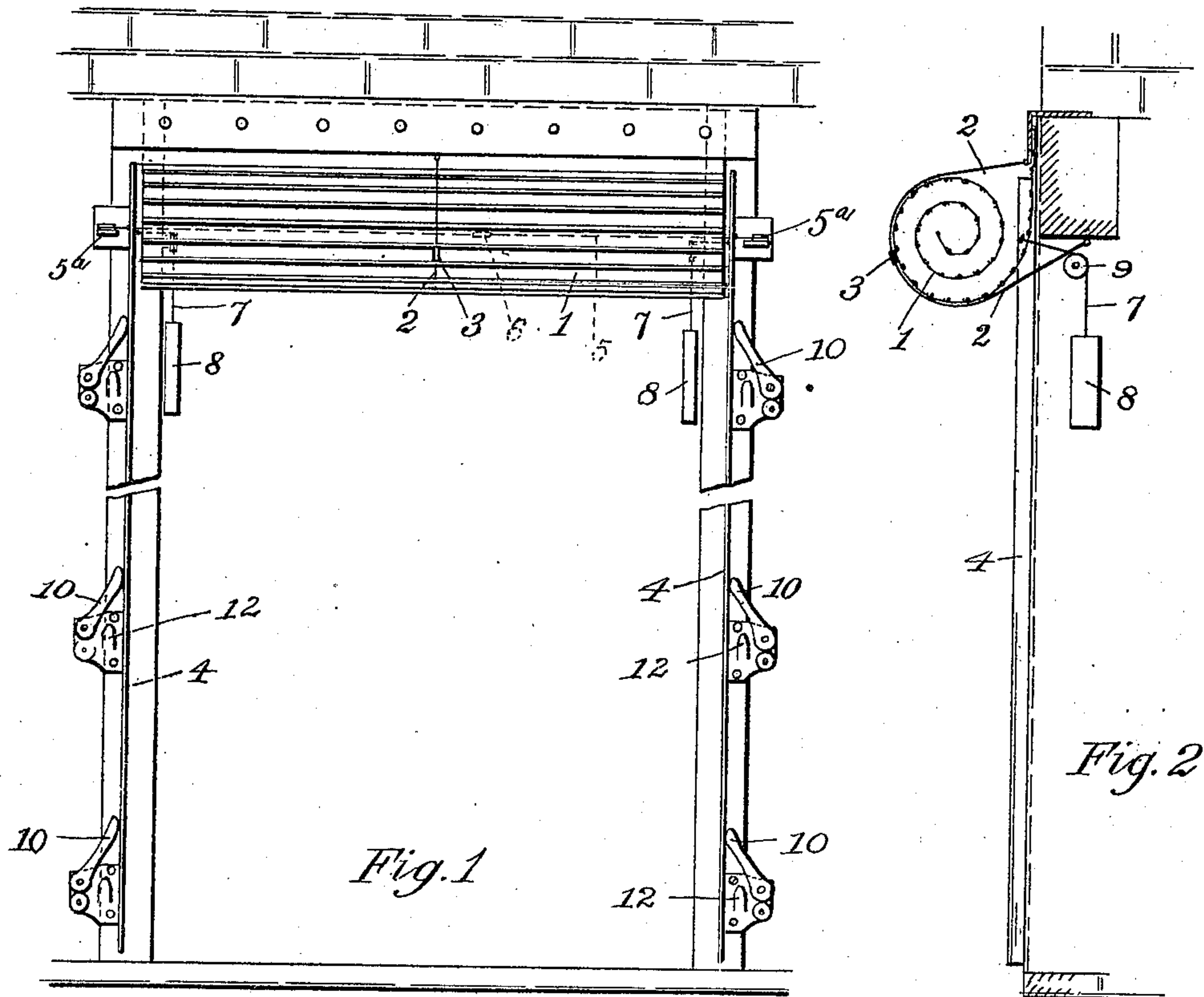
No. 685,481.

Patented Oct. 29, 1901.

W. R. KINNEAR.  
FIREPROOF BLIND.

(Application filed Dec. 28, 1900.)

(No Model.)



Witnesses  
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# UNITED STATES PATENT OFFICE.

WILLIAM RAYMOND KINNEAR, OF COLUMBUS, OHIO.

## FIREPROOF BLIND.

SPECIFICATION forming part of Letters Patent No. 685,481, dated October 29, 1901.

Application filed December 26, 1900. Serial No. 41,125. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM RAYMOND KINNEAR, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Fireproof Blinds; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide an improved curtain that shall automatically close a window or door opening in case of fire.

The chief feature of the invention is embodied in a curtain or blind that is normally held up by a fastening severable or fusible on a dangerous rise in temperature, combined with means for automatically closing the openings between the edges of the curtain and the casing after the curtain or blind descends over the opening of the window or door.

The invention also embraces details of construction and combinations of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a front view of a window equipped with my improved fire curtain or blind, the casing and the attached parts being broken out horizontally. Fig. 2 is a vertical section through the window and curtain, taken on a plane at right angles to the illustration or view in Fig. 1. Fig. 3 is a small section of the curtain on a larger scale than used in Figs. 1 and 2. Fig. 4 is an elevation on a larger scale than that of Figs. 1 and 2 of the latch for locking the sealing-bars. Fig. 5 is a plan view looking down toward the upper end of the sealing-bar.

In the several views, 1 designates the curtain or blind, preferably constructed of metallic slats. In Figs. 1 and 2 this curtain is shown to be attached to the upper part of the window-frame and rolled up and held or tied in this condition by means of a wire or cord 2, passed in the form of a loop around the roll and attached to the window-casing. The wire 2 has a fusible link 3, that will melt upon a dangerous rise of temperature, permitting the curtain to unroll and fall, thus closing the opening of the window or door;

but if allowed to hang loosely the curtain might not be entirely efficient as a protection against the ingress of fire, there being more or less opening between each edge of the curtain and the adjacent part of the casing. To close these openings, I hinge at 4<sup>a</sup> to each side of the casing what I shall term "sealing-bars" 4. When the curtain is up, these bars are held out by means of a wire fastened to the outer sides of the bars and passing around pulleys 5<sup>a</sup>. The wire 5 contains a fusible link 6, which being behind the rolled-up curtain does not melt until after the link 3 has melted and the curtain has fallen. Attached to the inner sides of each of the bars 4 is a cord 7, that is passed through a small hole in one of the slats at the upper end of the curtain and has attached to its free end a weight 8. The cord 7 is passed over a small pulley 9 on the side of the window-casing. When the fusible link 6 melts and the sealing-bars are thus released, the weight 8 pulls said bars inward against the edges of the curtain, thus pressing them against the faces of the window opening or casing and sealing the openings between them and the curtain. To securely lock the sealing-bars after they have been closed inward against the edges of the curtain, I provide for each bar one or more latches 10, pivoted on brackets 11 beyond the sealing-bars. When the sealing-bars are standing outward, the latches simply rest against the outer sides thereof; but when the sealing-bars close in on the curtain these latches drop by gravity in front of the bars and hold them against the curtain. Tongues or hooks 12 can be cast on the brackets 11, and behind these the latches can drop to further secure them against possible movement. Obviously the inner sides of these hooks or projections can be inclined toward their bases, so that as the latch descends its free end shall tend to press the sealing-bar more tightly inward. This inclination of the inner sides of the hooks or tongues is not shown; but it is readily understood.

I propose to line the inner side of the curtain with asbestos or other fire-resisting fabric, as indicated at 1<sup>a</sup>. This lining can be cemented to the slats of the curtain. This lining not only thickens and improves the fire-resisting character of the curtain, but also af-



fords along the edges a sort of packing to thoroughly seal the openings between the edges of the curtain and the face of the building or window-opening. A further and very  
 5 important advantage of this sheathing or lining is that when cemented to the slats in a continuous sheet it locks the slats together and prevents their movement longitudinally with respect to each other without interfering  
 10 materially with the flexibility of the curtain in rolling.

What I claim, and desire to secure by Letters Patent, is—

1. In a window-opening or door-opening,  
 15 the combination of a fire-resisting blind or curtain, means for automatically releasing the curtain to close the window or door opening upon a dangerous rise in temperature, and movable means for automatically closing the  
 20 opening along the edges of the curtain or blind when the same has been released to close the opening, substantially as described.

2. In a window or door opening, a fire-resisting blind or curtain, means for holding  
 25 said curtain or blind from over said opening, fusible means for releasing said blind or curtain to close the opening upon a dangerous rise in temperature, combined with hinged sealing-bars to close openings along the edges  
 30 of the curtain or blind, fusible means for holding said bars out of sealing position, and means for closing said bars upon said edges

after the curtain or blind has been released to close the window or door opening substantially as described. 35

3. In combination with a fire-resisting curtain, substantially as described, hinged sealing-bars for the edges thereof, and automatically-operative latches for holding said bars  
 40 when closed upon the edges of the curtain. 40

4. In combination with a fire-resisting curtain substantially as described, hinged sealing-bars for the edges thereof, automatically-operative latches for holding said bars when  
 45 closed upon the edges of the curtain, and hooks or projections for holding said latches, substantially as described. 45

5. A fire-resisting curtain composed of hinged slats, and a continuous sheathing or backing of asbestos or other fire-resisting fabric secured to said slats and closing the joints  
 50 between them, substantially as described. 50

6. A fireproof curtain or blind composed of slats hinged together, and a continuous sheet or strip of fire-resistant material secured  
 55 to the several slats preventing longitudinal movement or separation of the slats with respect to each other substantially as described. 55

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM RAYMOND KINNEAR.

Witnesses:

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