

M. L. BOND.

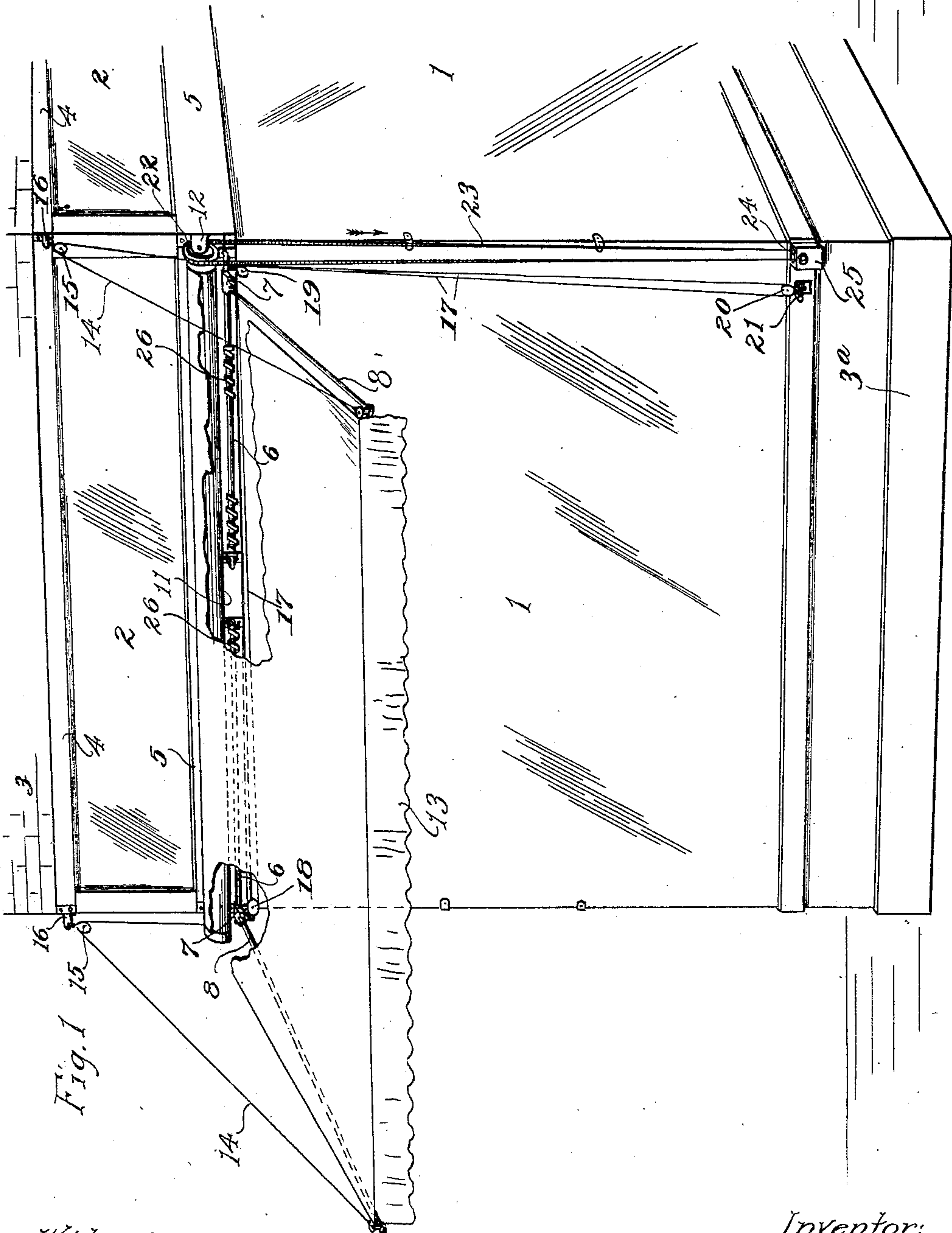
AWNING.

APPLICATION FILED FEB. 25, 1907.

931,259.

Patented Aug. 17, 1909.

3 SHEETS—SHEET 1.



Witnesses:

L. L. Simpson.

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Inventor:

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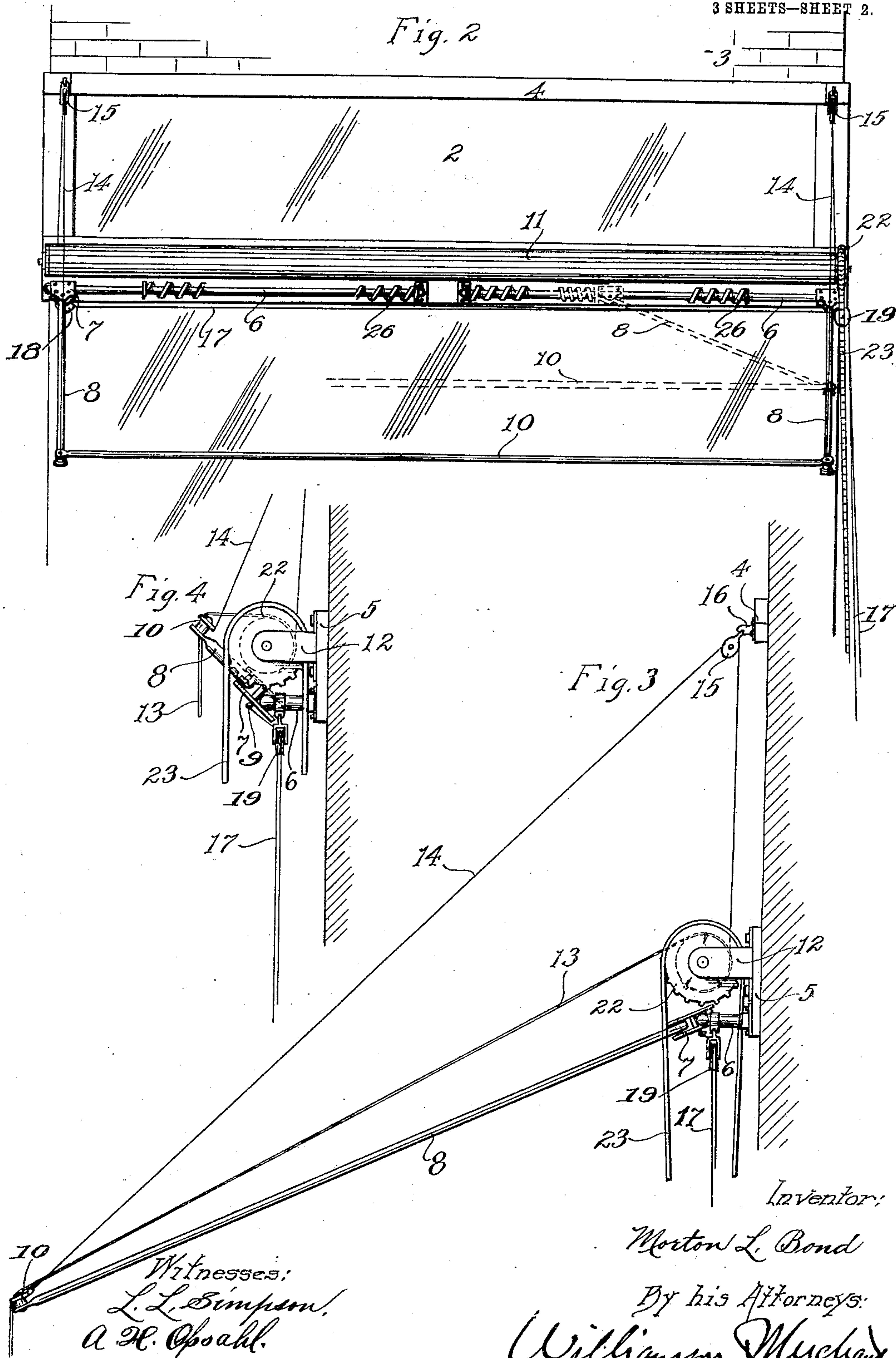
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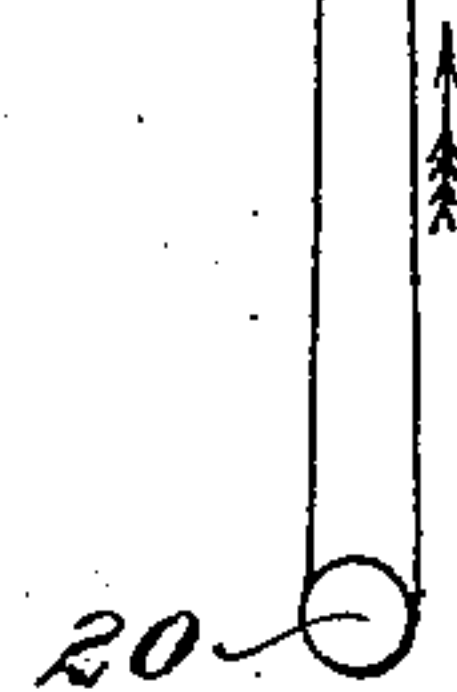
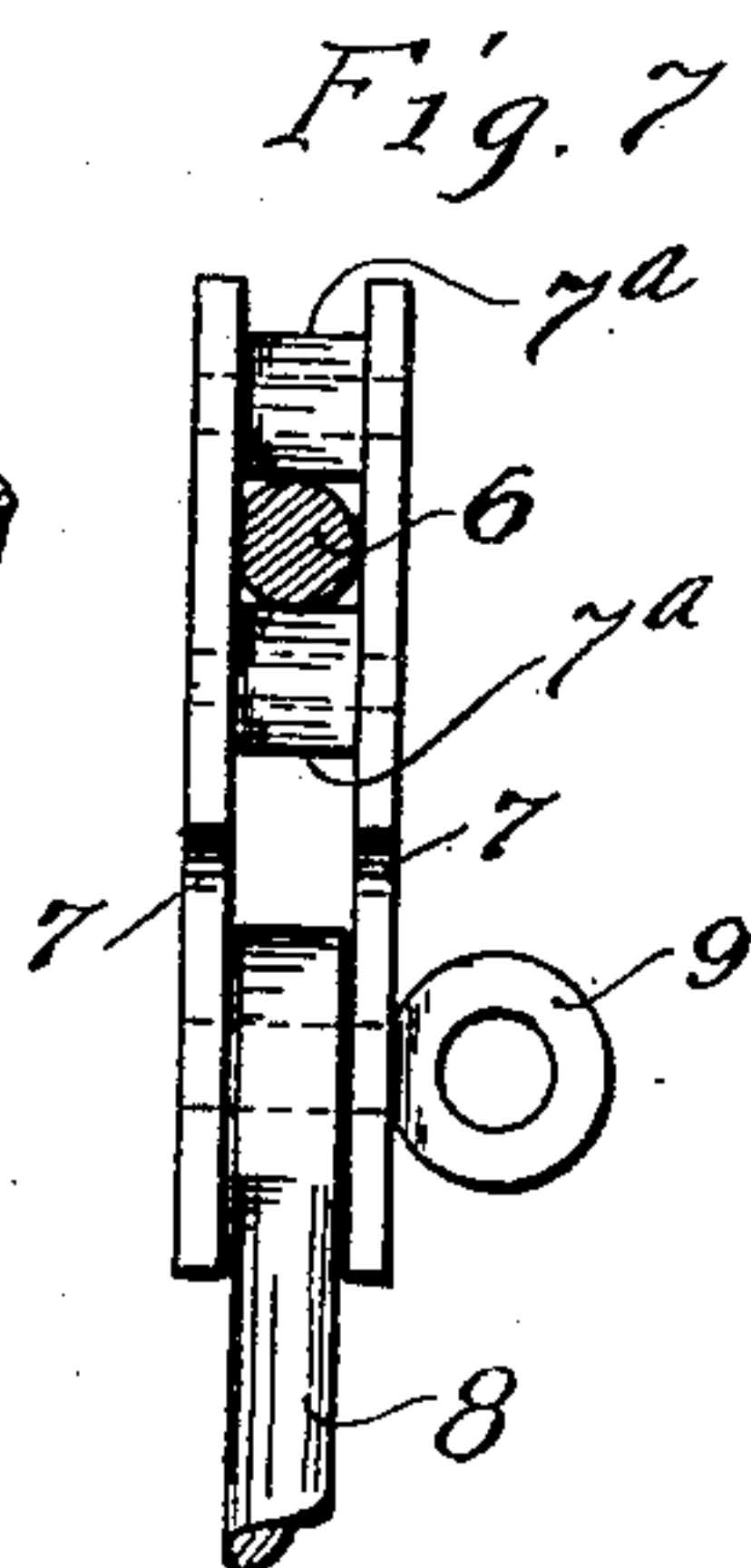
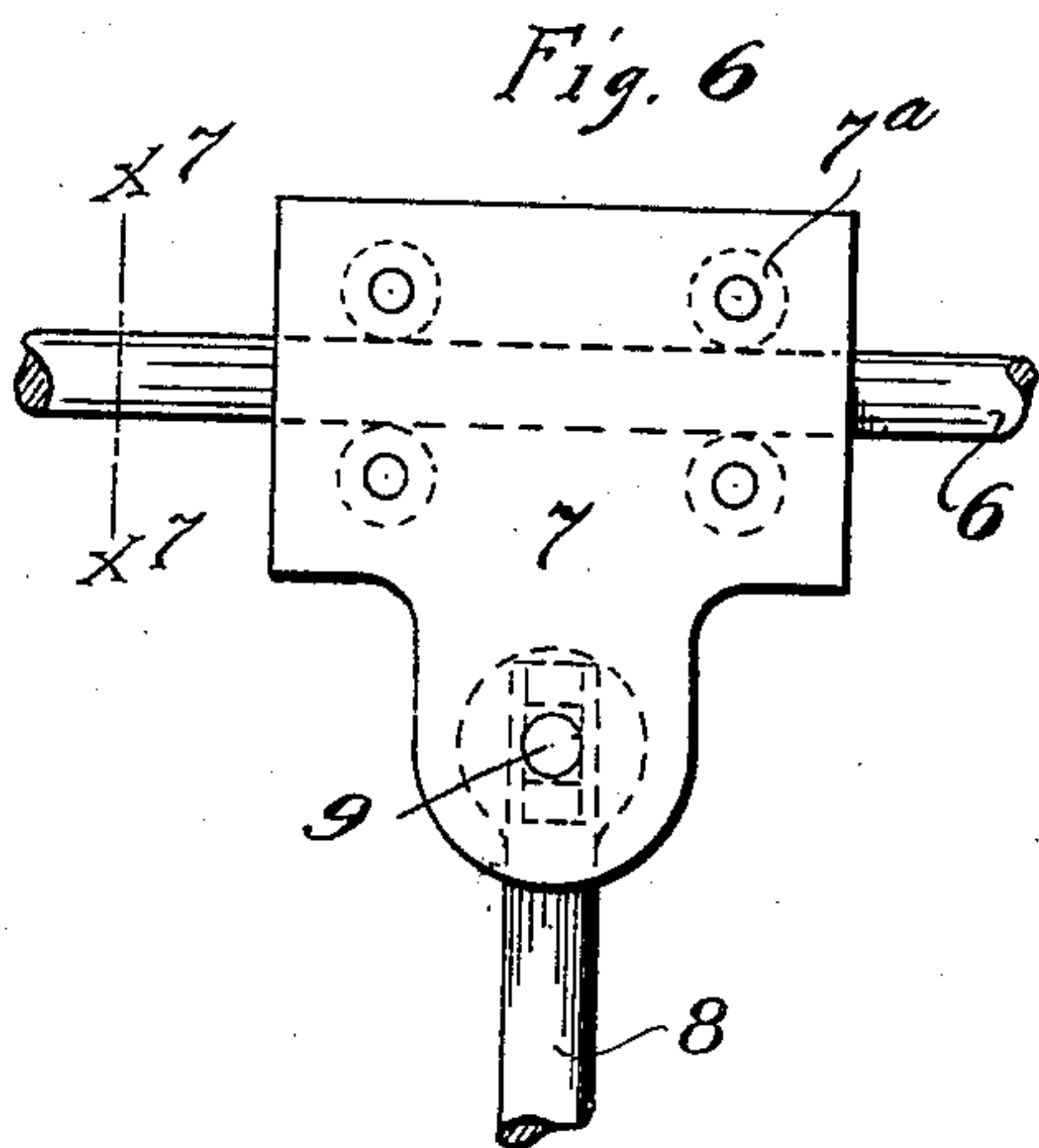
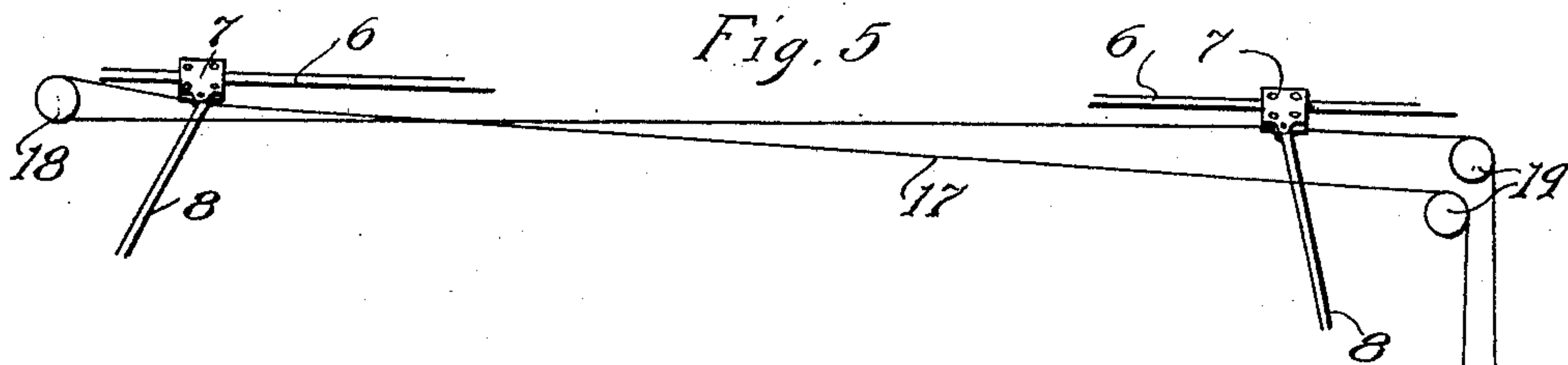
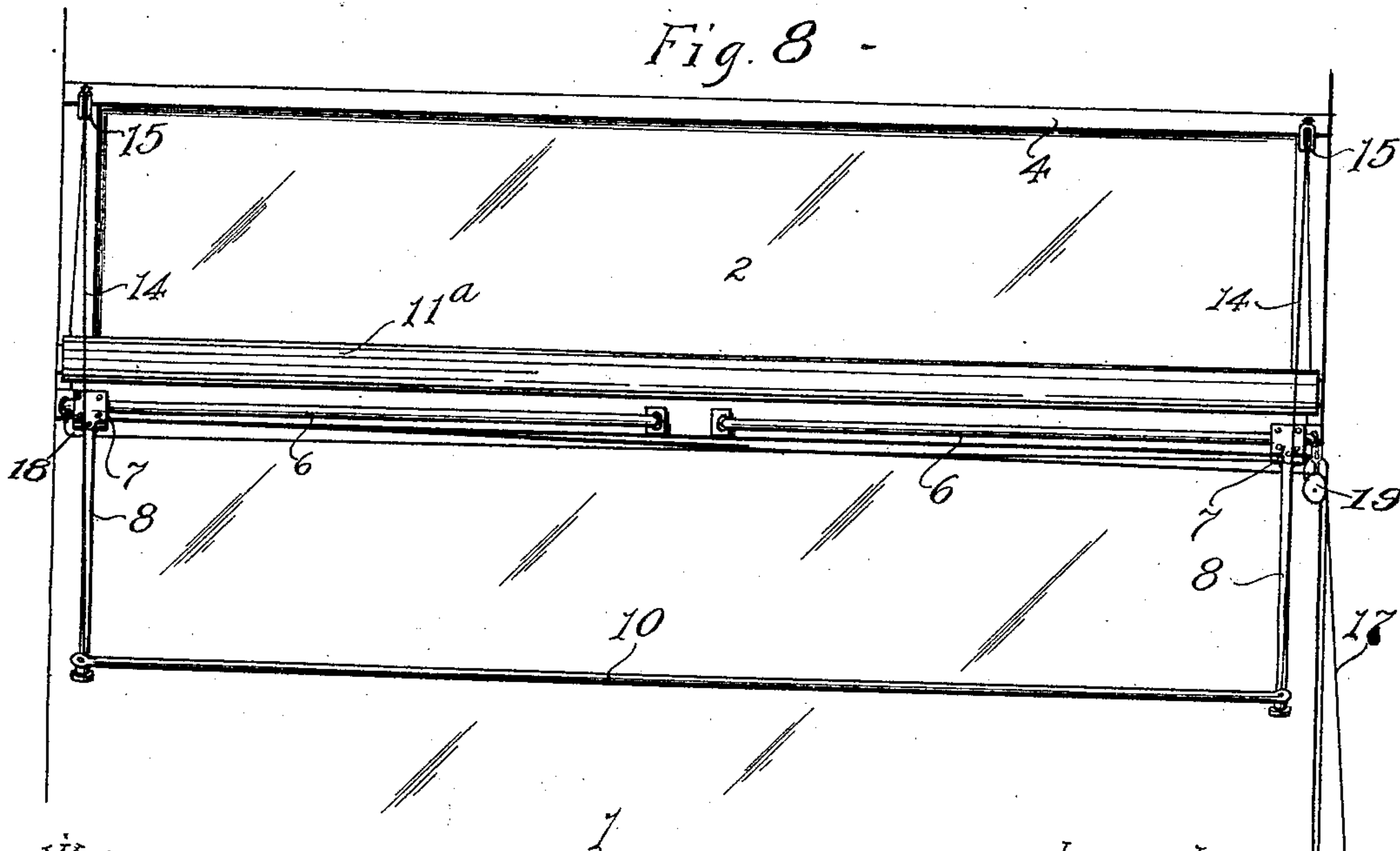


Fig. 8 -



Witnesses

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# UNITED STATES PATENT OFFICE.

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## AWNING.

No. 931,259.

Specification of Letters Patent.

Patented Aug. 17, 1909.

Application filed February 25, 1907. Serial No. 359,046.

*To all whom it may concern:*

Be it known that I, MORTON L. BOND, a citizen of the United States, residing at Minneapolis in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Awnings; 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.

My invention has for its object to provide an improved awning especially adapted for application to transom windows or glass store fronts which have no exposed vertical posts or framework to which the usual awning supports may be attached.

To the above ends the invention consists of the novel devices and combinations of devices hereinafter described and defined in the claims.

It is a well known fact that the most modern store fronts or windows are made up almost entirely of glass, that is, the large plate glass windows cover approximately the entire exposed outer portion of the store front. In such structures, however, transom windows are usually provided, and the transom bars and frames are about the only available parts of the building to which the awning supports may be attached.

Hitherto, so-called disappearing awnings have been provided, the arrangement being such that the awning and supports therefor move inward and outward through the transom bars of the store front. For numerous reasons, too obvious to require enumeration, such an arrangement is objectionable.

My invention provides what I designate as a collapsible awning, as distinguished from the said disappearing type of awning, and the usual folding type in which the awning supporting rod simply moves pivotally.

My improved collapsible awning support comprises supporting rods that are adapted to fold together and lie closely against the transom bar to which they are applied, and it further comprises a roller that is also adapted to be supported from the transom bar and upon which the canvas of the awning is arranged to be rolled when not in use.

The invention is illustrated in the accom-

panying drawings, wherein like characters indicate like parts throughout the several views.

Referring to the drawings, Figure 1 is a perspective view, with some parts broken away, showing my improved collapsible awning applied to a glass store front of the character above indicated. Fig. 2 is a front elevation of the improved device with the canvas of the awning removed. Fig. 3 is a side elevation of the improved awning, some parts being broken away. Fig. 4 is a view corresponding to Fig. 3, but illustrating different positions of the parts. Fig. 5 is a diagrammatic view, with parts broken away, showing the means for buckling the extension arms of the awning support. Fig. 6 is a detail on an enlarged scale of certain of the parts shown in Fig. 5. Fig. 7 is a transverse section taken on the line  $x' x'$  of Fig. 6; and Fig. 8 is a view in front elevation, corresponding to Fig. 2, but illustrating a slightly modified construction.

Of the parts of the store front, the numeral 1 indicates the plate glass panes, the numeral 2 indicates the transom windows, the numeral 3 the front wall, and the numerals 4 and 5 the frames of the transom windows, the numeral 5 being the heavy transom bars thereof. Axially aligned guide rods 6 are rigidly secured at their ends in horizontally extended positions, to the outer faces of the transom bars 5, and mounted to slide on each thereof is a traveling head or block 7, which is preferably provided with small wheels 7<sup>a</sup> that directly engage the upper and lower portions of the said rods 6. As clearly shown in Fig. 7, these heads 7 are made up of laterally spaced plates between which the said rods 6 are passed. A so-called extension rod 8 is pivotally attached to each sliding head 7, preferably by an eyebolt 9. The free or outer ends of the extension rods 8 are connected by and pivotally attached to a ridge rod or bar 10.

A long roller 11 extends longitudinally of the transom bar 5 to which the rods 6 are attached, and at its ends is journaled in bearing brackets 12 secured to said transom bar. The awning canvas or cloth 13 is attached to the ridge rod 10 and to the roller 11. Attached to the outer end of each extension rod 8, either directly or through the end portions of the ridge rod 10, are suspending



cables or ropes 14, the other ends of which are attached to and adapted to be wound upon the end portions of the roller 11. The intermediate portions of these suspending  
 5 cables 14 are passed over small guide sheaves or tackle blocks 15, supported above the roller 11, preferably to brackets 16 attached directly to the upper end portions of the transom frame 4. Each suspending cable 14  
 10 constitutes two sides of a triangular awning support, of which the cooperating extension rod 8 constitutes the third side, and when the extension rods 8 are extended as shown in Figs. 1 and 3, serve to hold the ridge rod  
 15 10 properly projected from the store front and at the proper elevation with the awning canvas or cloth 13 stretched taut. As is evident, when the heads 7 are slid outward on the rods 6, as shown in Figs. 1 and 2, the  
 20 ridge rod 10 is forced outward, and, on the other hand, when the said blocks 7 are slid toward each other on the rods 6, the said ridge rod will be drawn inward toward the guide rods 6.

25 As a simple, convenient and efficient device for controlling the said sliding movements of the head 7, I preferably provide an endless operating cable 17 which is arranged to run over a guide sheave 18 on the left hand  
 30 portion of the transom bar 5, over a pair of guide sheaves 19 on the right hand portion of said transom bar and over a guide 20 on the lower portion 3<sup>a</sup> of the wall 3 (see particularly Figs. 1 and 5). This cable, as  
 35 shown, is attached to the heads of the eye-bolts 9. The guide sheave 20 is shown as connected to a small bracket 21, on the said lower wall portion 3<sup>a</sup>. Directing attention to Fig. 5, it will be noted that when the  
 40 operating cable 17 is moved in the direction of the arrow marked adjacent thereto, the two sliding heads 7 will be simultaneously moved inward or toward each other, while  
 45 when the said cable is moved in a reverse direction, the said head will be moved simultaneously outward or away from each other. Preferably, when the awning is extended, the extension rods or links 8 at their inner  
 50 ends, are moved outward slightly beyond dead centers, so that the inward strain on the said extension rods would tend to hold them in their set positions.

In the construction illustrated in Figs. 1 to 7 inclusive, the roller 11 is provided at  
 55 one end with a sprocket 22 over which runs a depending sprocket chain 23. The lower portion of this chain 23 runs under a small sprocket 24 which, as shown, is mounted in a case 25 secured to the lower wall section  
 60 3<sup>a</sup>. Also, as shown in Fig. 1, the sprocket 24 is provided with angular trunnions 25 to which a wrench or lever may be applied to rotate said sprocket and, hence, to impart motion to the chain 23 and roller 11. How-  
 65 ever, the said roller may be wound up by

pulling directly upon the chain 23, and the said chain might be left loose in its lower portion. Also in this preferred construction, coiled cushioning springs 26 are placed on the guide rods 6 in position to be engaged  
 70 by the sliding blocks 7 when the latter are moved inward thereon such distance that free inward movement will be imparted to said blocks by a pressure thereon transmitted thereto through the partially folded exten-  
 75 sion rods 8. These springs 26 will compress so as to permit the extension rods 8 to fold approximately into parallel positions with respect to the guide rods 6. Furthermore, the said springs 26 assist in imparting initial  
 80 outward movements to the sliding heads 7 when the latter are drawn outward by a movement of the cable 17 in a direction reverse to that indicated by the arrow marked adjacent thereto in Fig. 5.

85 When the awning is to be extended, the arms 8 should be extended as shown in Figs. 1 and 3, which, as already stated, may be done by pulling the cable 17 in a direction reverse to that indicated by the arrow  
 90 marked in Fig. 5. Under these movements of the extension rods or links 8, the canvas 13 will be unrolled from the roller 11. Of course, if the friction on the roller 11 should interfere with its free unrolling movement,  
 95 it may be positively given such movement by pulling the chain 23 in a direction reverse to that indicated by the arrow marked adjacent thereto in Fig. 1.

100 When it is desired to collapse or fold the awning, the blocks 7 should be slid inward by pulling the cable 17 in the direction of the arrow marked on Fig. 5 and by pulling the chain 23 in the direction of the arrow marked adjacent thereto in Fig. 1, so as to  
 105 thereby roll up the canvas 13 on said roller 11.

The construction illustrated in Fig. 8 is the same as that already described, except that the springs 26 on the rods 6 are dis-  
 110 pensed with and that a spring actuated roller 11<sup>a</sup> is used instead of the roller 11 and its actuating sprocket and chain.

In both arrangements, that movement of the roller which winds the canvas or cloth  
 115 thereon also winds thereon the inner ends of the suspending cables 14, so that the ridge rod 10 is drawn inward toward the rods 6, approximately on a straight line, when the canvas is wound upon the roller. It also of  
 120 course follows that the said ridge rod will be moved outward from the guide rods 6 approximately on a straight line when the awning is being extended or projected into an  
 125 operative position.

As is evident, the awning above described is adapted for application to a store front having only transom bars available as sup-  
 130 ports below the transom windows.

It is also evident that this awning is adapt-



ed for application to any other small or narrow support above or at the upper portions of a glass store front.

It will, of course, be understood that any desired number of the so-called extension rods or links 8, and also any desired number of the suspending connections 14 may be provided, depending on the length of the awning.

What I claim is:

1. In a collapsible awning, the combination with a roller, a ridge rod and a canvas or flexible cover attached to both thereof, of extension rods pivotally attached at their outer ends to said ridge rod, means to which the inner ends of said extension rods are pivoted, horizontal guides permitting said means to slide toward and from each other in a direction longitudinally of said roller, and devices independent of said canvas or flexible cover cooperating with said extension rods to support said ridge rod in an extended position and for raising and lowering the same, substantially as described.

2. In a collapsible awning, the combination with a roller, a ridge rod and a canvas or flexible cover connecting the two, of guides extending longitudinally of said roll-

ers, extension rods pivotally attached at their outer ends to said ridge rod and mounted for pivotal and sliding movements at their inner ends, along said guides, and means independent of said canvas or flexible cover cooperating with said extension rods to support said ridge rod in an extended position and for raising and lowering the same, substantially as described.

3. In a collapsible awning, the combination with a roller, a ridge rod and a canvas or flexible cover attached to both thereof, of extension rods pivotally attached to said ridge rods at their outer ends, and mounted for pivotal and sliding movements at their inner ends on guides extending longitudinally of said roller, and suspending cables connected to the outer portions of said extension arms, passed over guides located above said roller, and attached to said roller, substantially as described.

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

MORTON L. BOND.

Witnesses:

MALIE HOEL,  
F. D. MERCHANT.