

P. R. DUCHEMIN.  
TRANSOM WORKER.  
APPLICATION FILED JUNE 15, 1909.

946,020.

Patented Jan. 11, 1910.

Fig. 1.

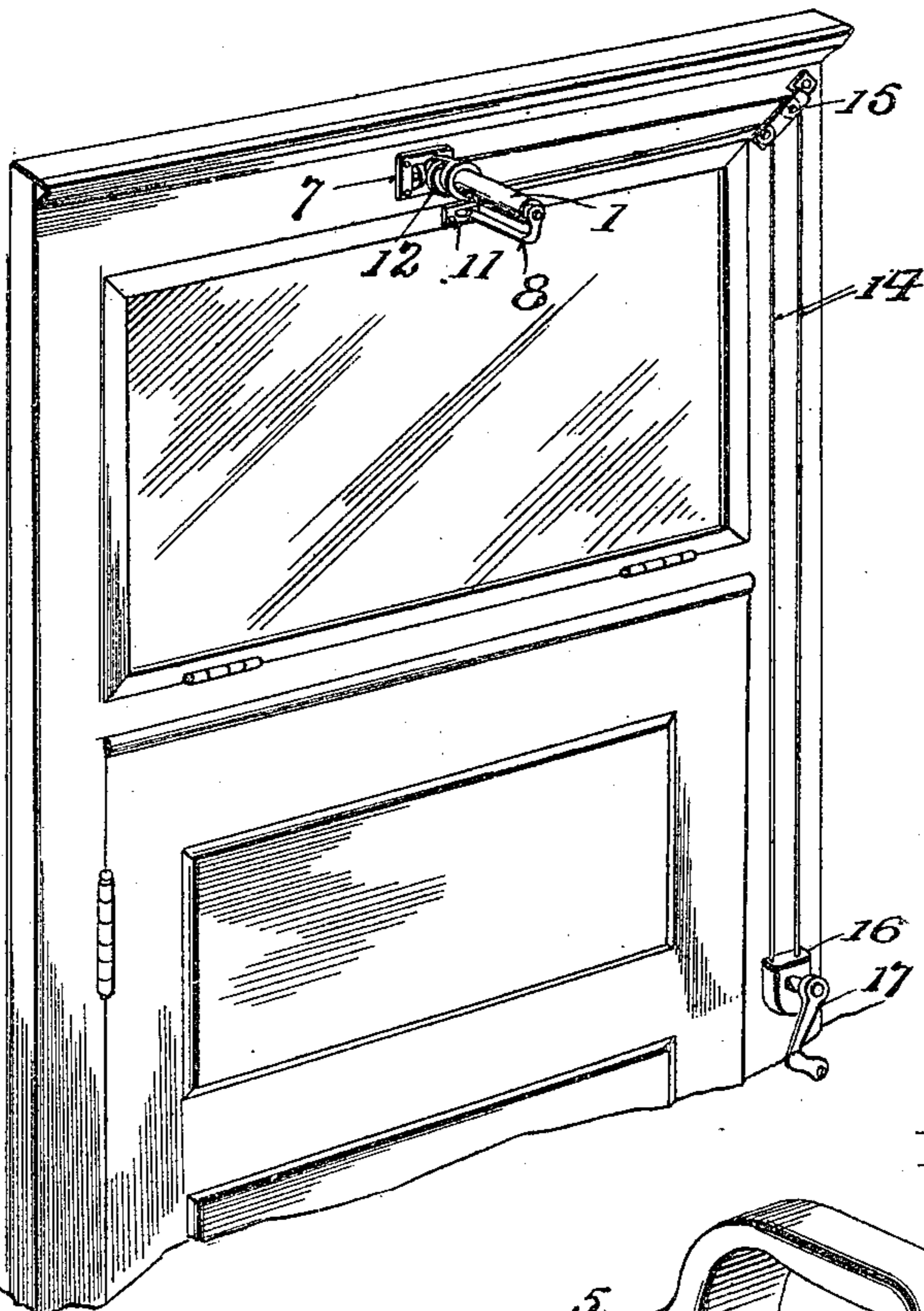


Fig. 3.

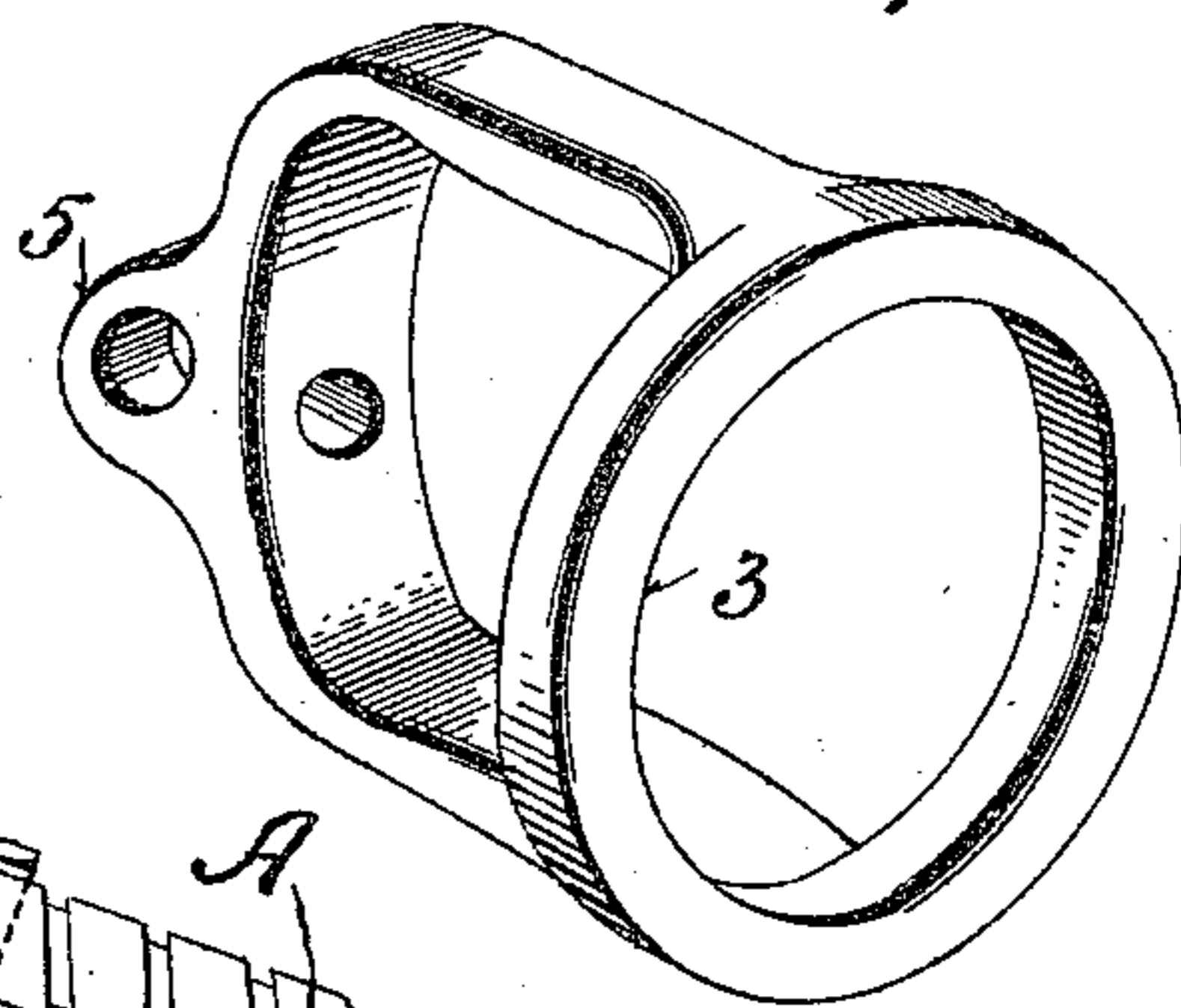


Fig. 2.

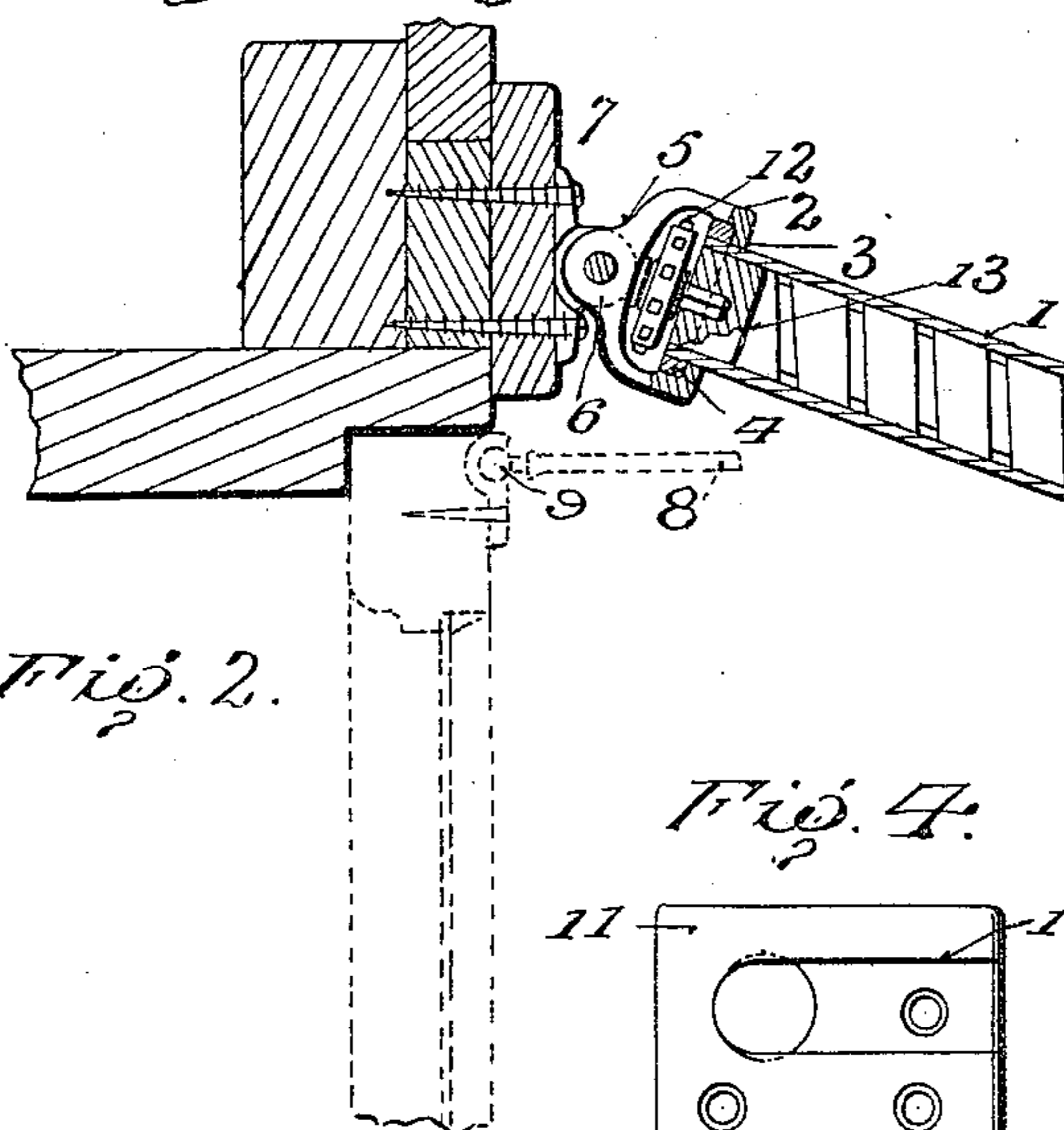
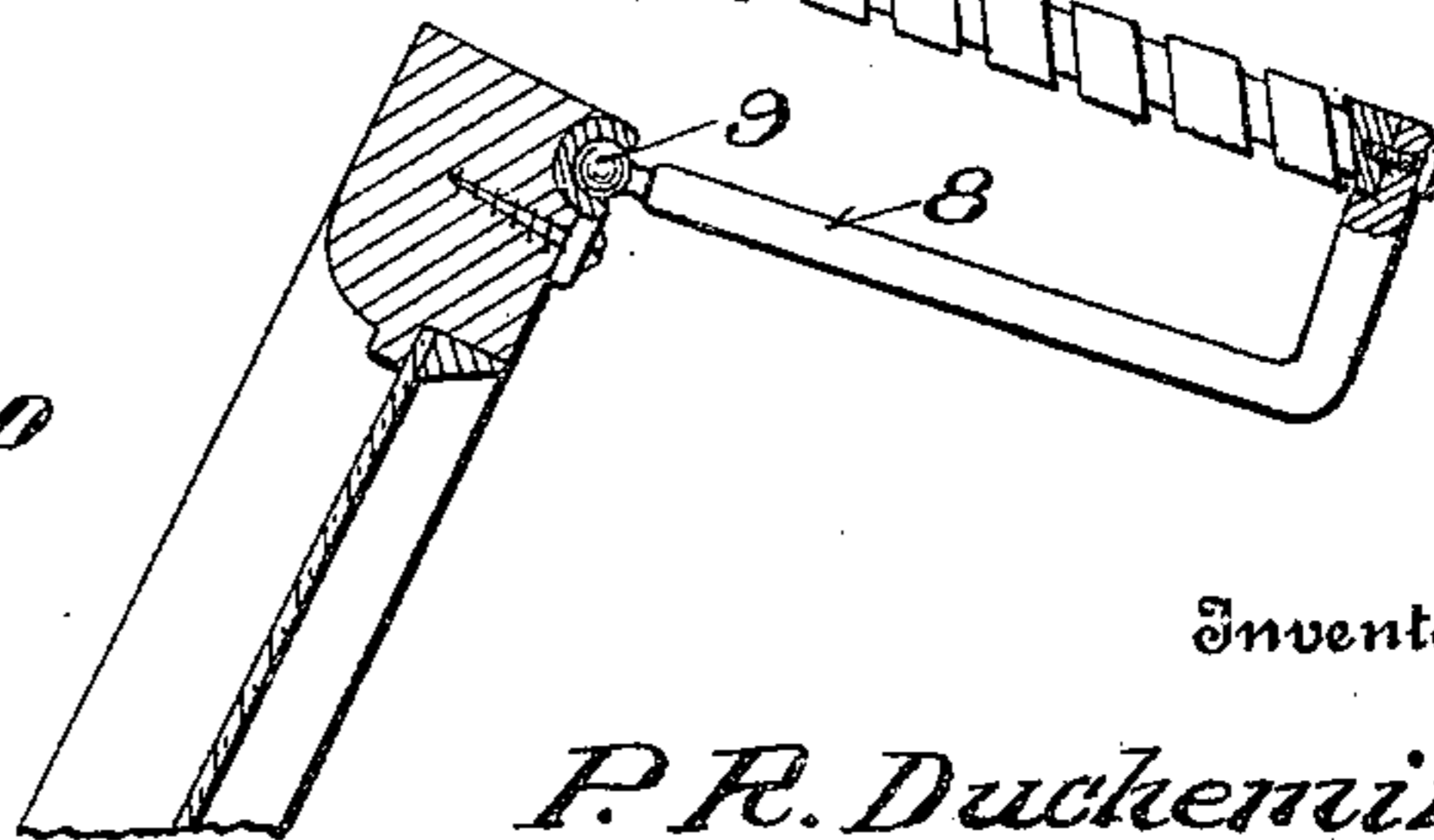
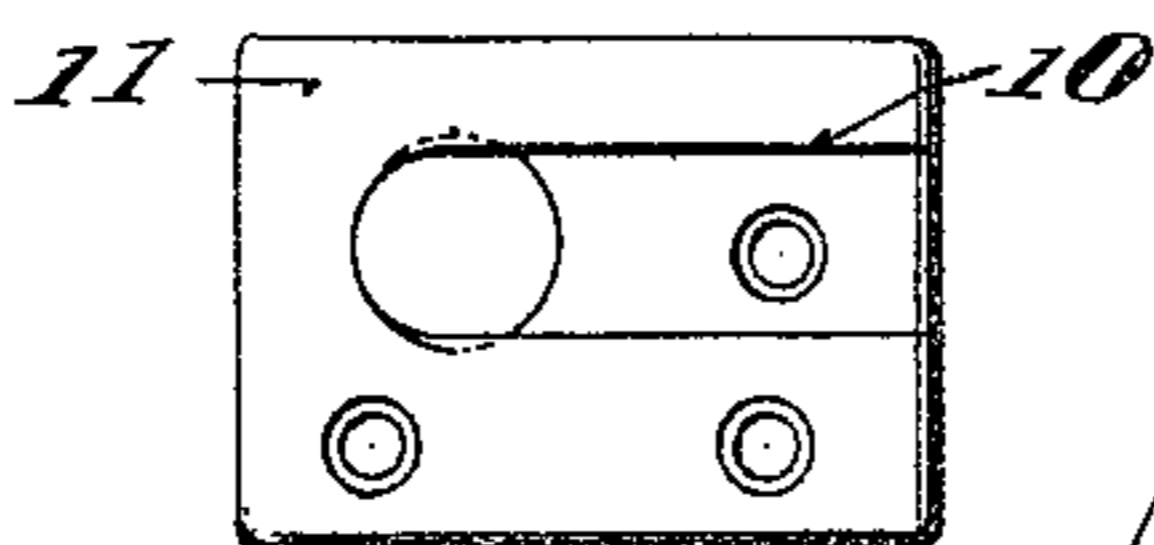


Fig. 4.



Inventor

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Witnesses

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# UNITED STATES PATENT OFFICE.

PETER R. DUCHEMIN, OF COLFAX, WASHINGTON.

TRANSOM-WORKER.

946,020.

Specification of Letters Patent.

Patented Jan. 11, 1910.

Application filed June 15, 1909. Serial No. 502,317.

*To all whom it may concern:*

Be it known that I, PETER R. DUCHEMIN, a citizen of the United States, residing at Colfax, in the county of Whitman and State of Washington, have invented certain new and useful Improvements in Transom-Workers, of which the following is a specification.

This invention comprehends certain new and useful improvements in transom lifters or workers, and the invention has for its primary object a simple, durable and efficient construction of device of this character, the parts of which may be easily manufactured and readily assembled, and disassembled for the purpose of shipment in compact form, the parts also being so constructed and arranged that they may be easily applied to a transom and lintel of a door or window without the services of a skilled carpenter or the use of special tools. And the invention also has for its object an improved device of this character which will hold the transom securely at any desired adjustment without rattling and without the use of special locking devices.

With these and other objects in view as will more fully appear as the description proceeds, the invention consists in certain constructions, arrangements and combinations of the parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings in which:

Figure 1 is a perspective view of the upper portion of a door and the transom therefor, the latter being provided with the improved transom lifter of my invention; Fig. 2 is an enlarged longitudinal sectional view thereof; Fig. 3 is a detail perspective view of a bracket which is designed to hold one end of the extensible transom rod; and, Fig. 4 is a detail face view of a plate which is intended to be secured to the transom at or near the upper edge thereof and which is designed for a pivotal or jointed connection with the bracket in which the outer end of the transom rod is secured.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawings by the same reference characters.

My improved transom worker or lifter includes an extensible rod A which is con-

structed in any desired number of telescopic sections of any desired length and diameter, said sections being three in number in the present instance and having an interior threaded and spiral groove connection with each other, as clearly illustrated in the drawing, so that as one section is rotated about its longitudinal axis in one direction or the other it will effect the extension or retraction of the several sections and the consequent lengthening or shortening of the transom rod to open or close the transom.

In the present embodiment of the invention, the largest section 1 of the transom rod A is adapted to be slipped into the end of a bracket 2 which is formed with an in-turned annular flange 3 designed to encircle one end of the section 1, a collar 4 being applied to the end of said section within the flange 3 and secured to the section by a set-screw or similar fastening device so as to effect a swivel connection between the section and the bracket whereby the section 1 and its companion sections may have imparted to them a rotary movement about a longitudinal axis to effect the extension and retraction above mentioned. The bracket 2 is formed with a transverse web 5 adapted to fit between the ears 6 of a base plate 7 which is secured by set-screws or the like to the lintel of a door or window, and a pivot pin as shown extends through the ears, and through the enlarged middle portion of the web 5 so as to pivotally mount the bracket 2 for a movement about a horizontal axis.

The outer end of the extensible transom rod A is connected to the upwardly extending arm of an angular bracket 8. The other end or arm of this bracket is formed at its extremity with a rounded head or ball 9 adapted to be slipped by a sidewise movement into the undercut groove or socket 10 which is formed in a plate 11 arranged to be secured by screws or similar fastening devices to the transom at or near the upper edge thereof, and preferably about the middle of such edge as indicated in Fig. 1. By this means, it is evident that a pivoted or jointed connection is effected between the transom and the bracket 8.

In order to rotate the transom rod A to effect the extension or retraction thereof and the consequent opening or closing of the transom, I have provided a sprocket wheel 12 which is journaled in the pivoted bracket

2 and which is connected to the section 1 of the transom rod as by a plug 13 which fits within one end of the section and which receives by a preferably square or otherwise many sided socket the outermost and correspondingly shaped trunnion of the sprocket wheel, and a chain 14 passes around said sprocket wheel and extends laterally as shown, the two rounds or stretches of said chain passing over idlers 15 at one corner of the door casing and thence downwardly over another sprocket 16 which is journaled at the side of the door or window at a convenient elevation and which is turned by a crank handle 17 or the like.

From the foregoing description in connection with the accompanying drawing, it is believed that the operation of my improved transom worker will be obvious. In the practical use of the device by turning the crank handle 17 it is manifest that the sprocket wheel 12 will be turned in one direction or the other and the transom rod extended or retracted more or less until the transom has been swung to the desired position. It is evident that the rod and its concomitant parts will securely hold the transom either fully closed or at any desired inclination without the necessity of independent locking devices and that all rattling will be prevented.

It is to be understood that my invention is not limited to transoms, but may be easily adapted for use in connection with shutters or casement windows, and is also not limited to the exact construction, arrangement and proportion of parts herein shown and described, as various changes may be made without departing from the scope of the invention as defined by the appended claims.

The parts may be easily detached from each other for the purpose of shipment and easily assembled and applied when desired for use. In connecting the parts, it is only necessary for instance to slip the sprocket wheel 12 into the opening which is formed for it in the web 5 of the sprocket 2 and to then slip the section 1 into the bracket and into the collar 4 mounted thereon by which movement the square end of the shaft of the sprocket wheel fits in the correspondingly formed socket in the plug 13, the set-screw of the collar 4 being then tightened and finally slipping the bracket 8 by a sidewise movement into engagement with the plate 11, it being of course understood that the plates 11 and 7 are secured to the transom or other

part to be operated and the lintel or other part of the casement respectively.

Having thus described the invention, what is claimed as new is:

1. The combination with a stationary part and a swinging part, of a bracket pivotally connected to one of said parts, another bracket pivotally connected to the other part, a rod connected at one end to one of said brackets and having a swivel connection at its other end with the other bracket, said rod being constructed in a plurality of sections having a spiral groove and thread connection with each other, and means mounted in the bracket at the swiveled end of the rod for turning such end whereby to extend and retract the sections.

2. A device of the character described, comprising a base plate, a bracket pivotally connected to said base plate and provided with an inturned flange, a rod constructed in a plurality of telescopic sections having a spiral groove and thread connection with each other, the rod being slipped into the bracket at one end, a collar secured to such end back of the flange and holding said end for a swiveled movement about its longitudinal axis in the bracket, a sprocket wheel journaled in said bracket and connected to the adjoining end of the rod, an angular bracket connected to the opposite end of said rod, and a plate designed for attachment to a transom or the like and arranged for a jointed connection with one end of said last named bracket.

3. A device of the character described, embodying a rod constructed in telescopic sections having a spiral groove and thread connection with each other, a bracket in which the rod is swiveled at one end, means for turning such end of the rod about its longitudinal axis whereby to effect the extension and retraction of the sections, an angular bracket one arm of which is secured to the opposite end of the rod, and a plate formed with a side opening undercut socket adapted to receive the other arm of said last named bracket, such arm being formed with a rounded extremity adapted to fit into said socket.

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

PETER R. DUCHEMIN. [L. S.]

Witnesses:

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