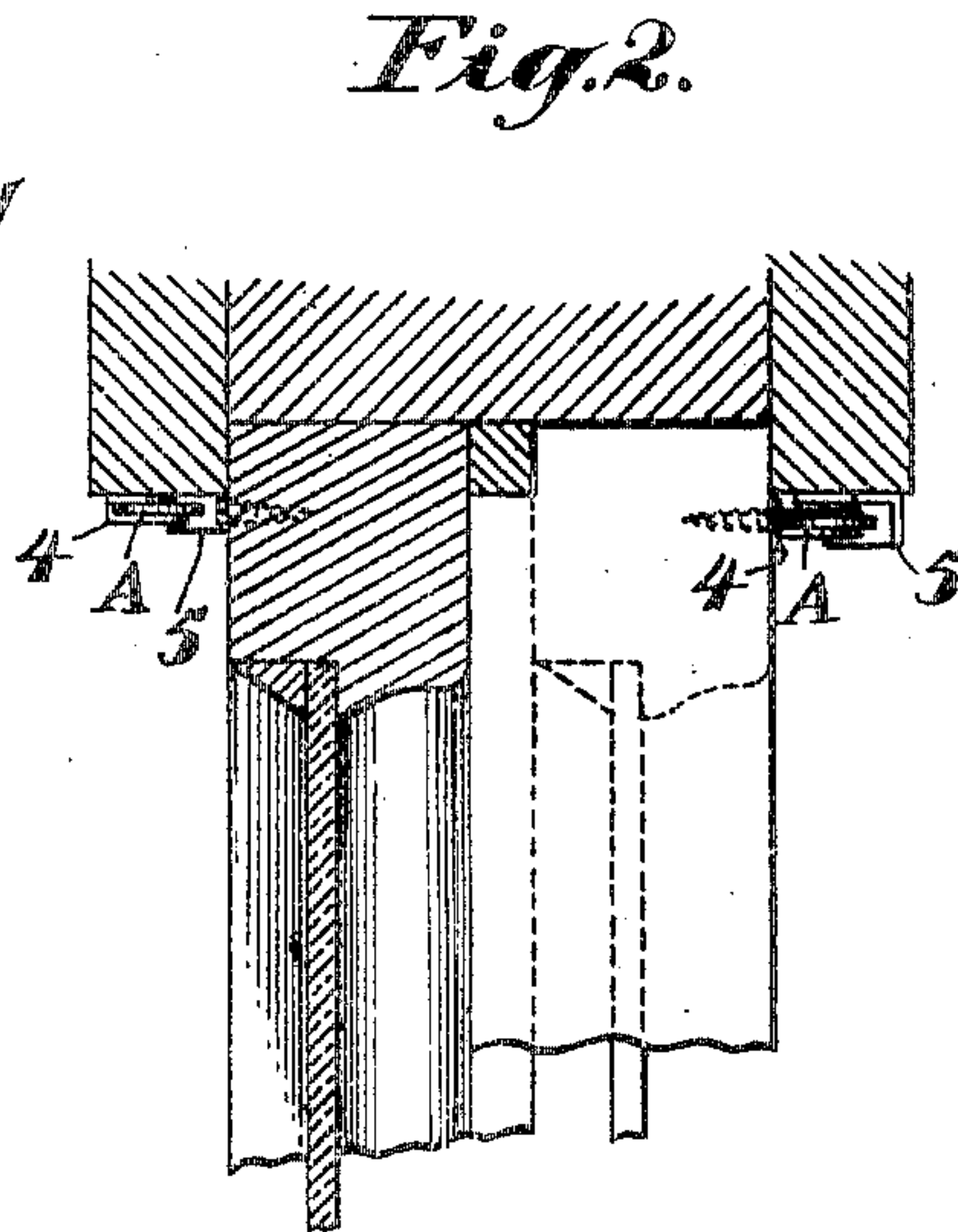
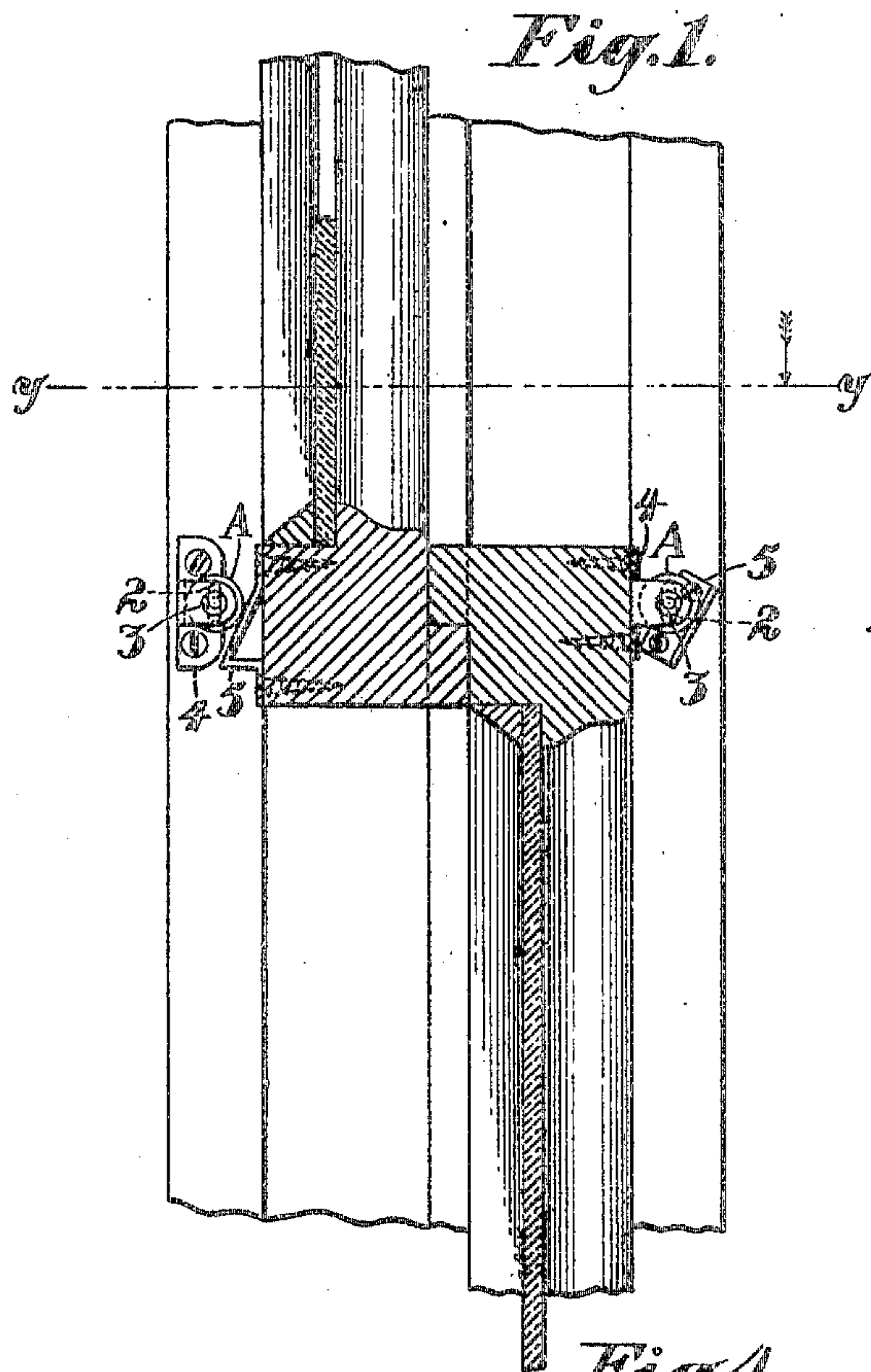


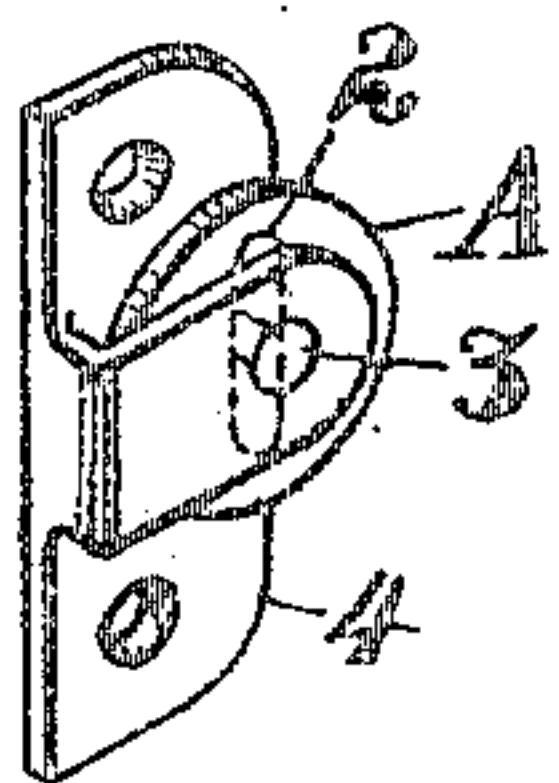
No. 797,767.

PATENTED AUG. 22, 1905.

G. H. DYER.  
WINDOW TIGHTENER.  
APPLICATION FILED AUG. 18, 1904.



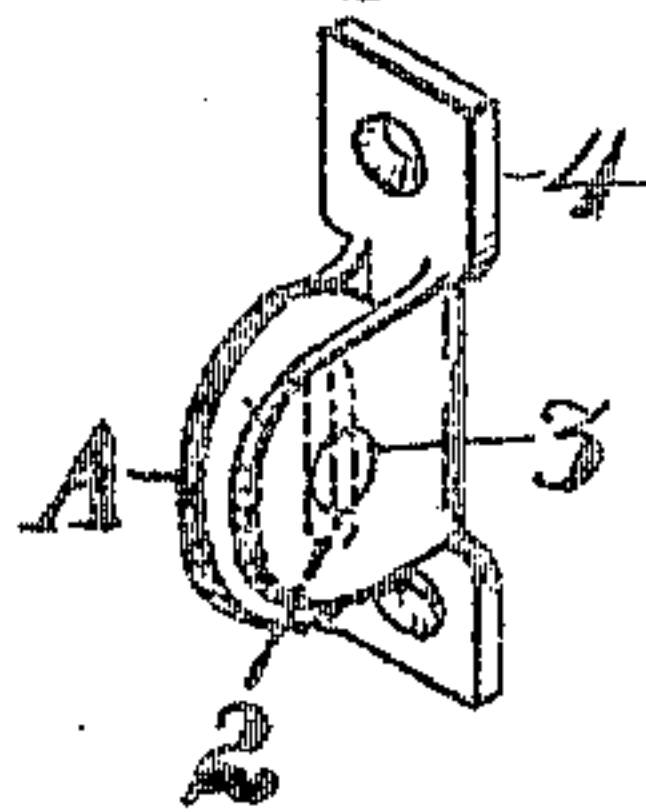
*Fig. 3.*



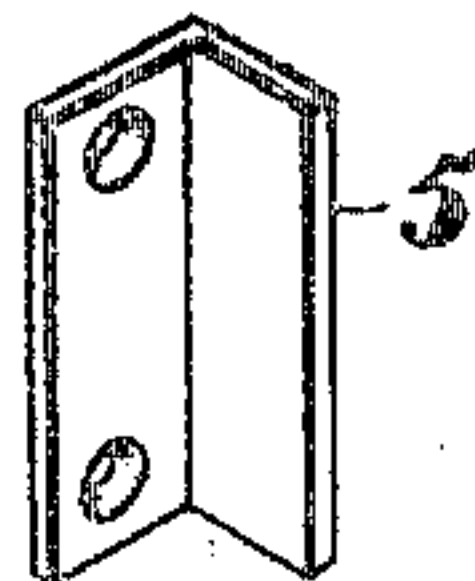
*Fig. 4.*



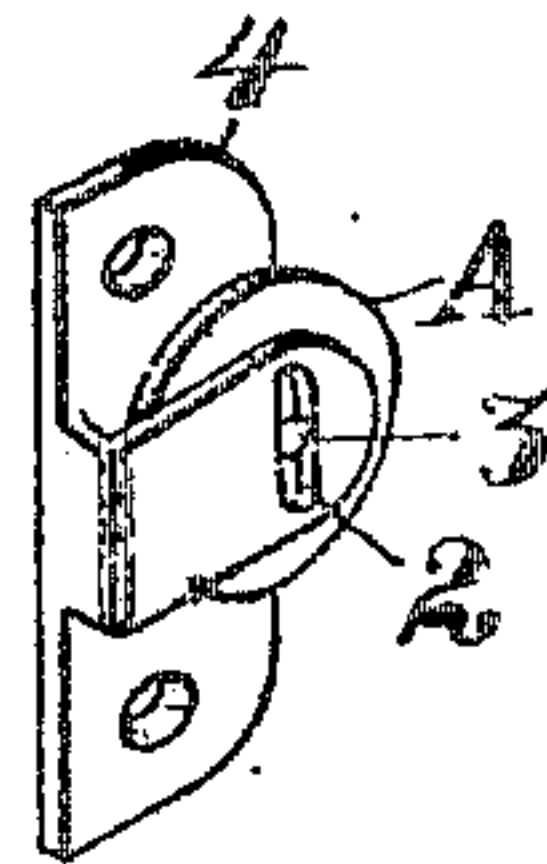
*Fig. 5.*



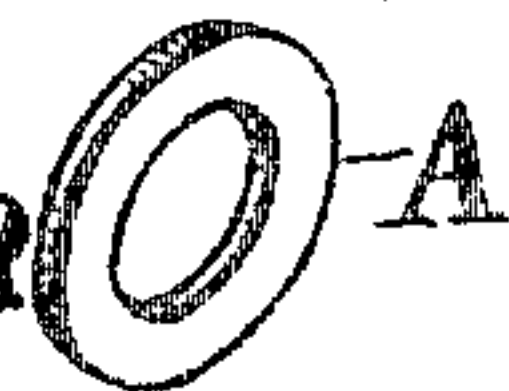
*Fig. 6.*



*Fig. 7.*



*Fig. 8.*



Witnesses:-

F. L. Fiedner  
J. A. Brown

Inventor;

George H. Dyer  
By Geo. H. Thompson



# UNITED STATES PATENT OFFICE.

GEORGE H. DYER, OF SAN FRANCISCO, CALIFORNIA.

## WINDOW-TIGHTENER.

No. 797,767.

Specification of Letters Patent.

Patented Aug. 22, 1905.

Application filed August 18, 1904. Serial No. 221,234.

*To all whom it may concern:*

Be it known that I, GEORGE H. DYER, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Window-Tighteners, of which the following is a specification.

My invention relates to a device which is designed to prevent the rattling of windows and maintaining them substantially tight.

It consists in the combination of parts and details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 shows the application of my device. Fig. 2 is a section on line *y y* of Fig. 1. Fig. 3 is a detail of the disk for upper sash. Fig. 4 is a detail of the inclined plate for same. Fig. 5 is a detail of the disk for lower sash. Fig. 6 is a detail of the inclined plate for same. Fig. 7 is a modification showing slot in plate-carrying disk. Fig. 8 shows a ring with open center.

Owing to shrinkage and for other reasons it is found difficult to maintain windows in such condition that they will not become loose and rattle.

It is the object of my invention to overcome this difficulty, and I effect it by means of a slotted freely-movable disk or ring carried by one member, as the sash, and a corresponding inclined plate carried by the other member, against which the movable disk or ring contacts and binds when the sash is closed.

In carrying out my invention I have found a circular disk or ring very suitable for the work. This disk has a slot 2 made in it, extending radially on each side of the center. This disk is loosely mounted upon a pin 3, which is fixed to a plate 4, the plate 4 being secured to the lower sash of a vertically-sliding window or to the stop in which the upper sash slides. When applied to the lower sash, the other constituent of the device consists of a plate 5, secured to the window stop or part in which the sash slides, and stands at an incline, as shown, so that when the sash is closed the disk or ring 2 will rest upon this inclined surface, and by reason of the angle at which this plate stands the disk will be constantly

pressed away from the incline and the sash will be forced against the outer stop. It will be seen that by reason of the slot made in the disk or ring any shrinkage or contraction of the sash or the stops which would ordinarily allow the sash to become loose and rattle will be immediately compensated, because the slot in the disk or ring allows the latter to slip down a little farther, and thus bind between the plate on which it is mounted and the inclined plate 5, and in this manner to automatically take up any shrinkage of the parts.

In the case of the upper sash and because the latter slides upwardly instead of downwardly in closing the inclined plate 5 is fixed upon the sash, and the tightening disk or ring is fixed upon the window-stop at a point where it will be engaged by the inclined plate when the sash has been fully closed. This lifts the disk and causes it to bind, as before described, and any shrinkage in this sash will be compensated in the same manner by the dropping of the disk and binding between the two plates.

As shown in Fig. 7, the slot may be made in the support and the shaft of the movable part be slidable in the slot. A loose ring having an open center forms an equivalent construction.

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

An improved window-tightening device consisting of an inclined plate to be fixed to one of the parts of a window, a plate to be fixed to a companion part of the window, a pin mounted in the last-named plate, and a roller mounted on said pin said roller having a slot extending radially from each side of its center and through which slot the pin passes whereby the disk is slidably mounted relative to the pin and the inclined plate.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

GEORGE H. DYER.

Witnesses:

W. M. TAYLOR,  
WM. A. BACON.