

No. 673,245.

Patented Apr. 30, 1901.

J. DE LONG.

DEVICE FOR PREVENTING RATTLING OF WINDOW SASHES.

(Application filed Dec. 15, 1900.)

(No Model.)

Fig 1:

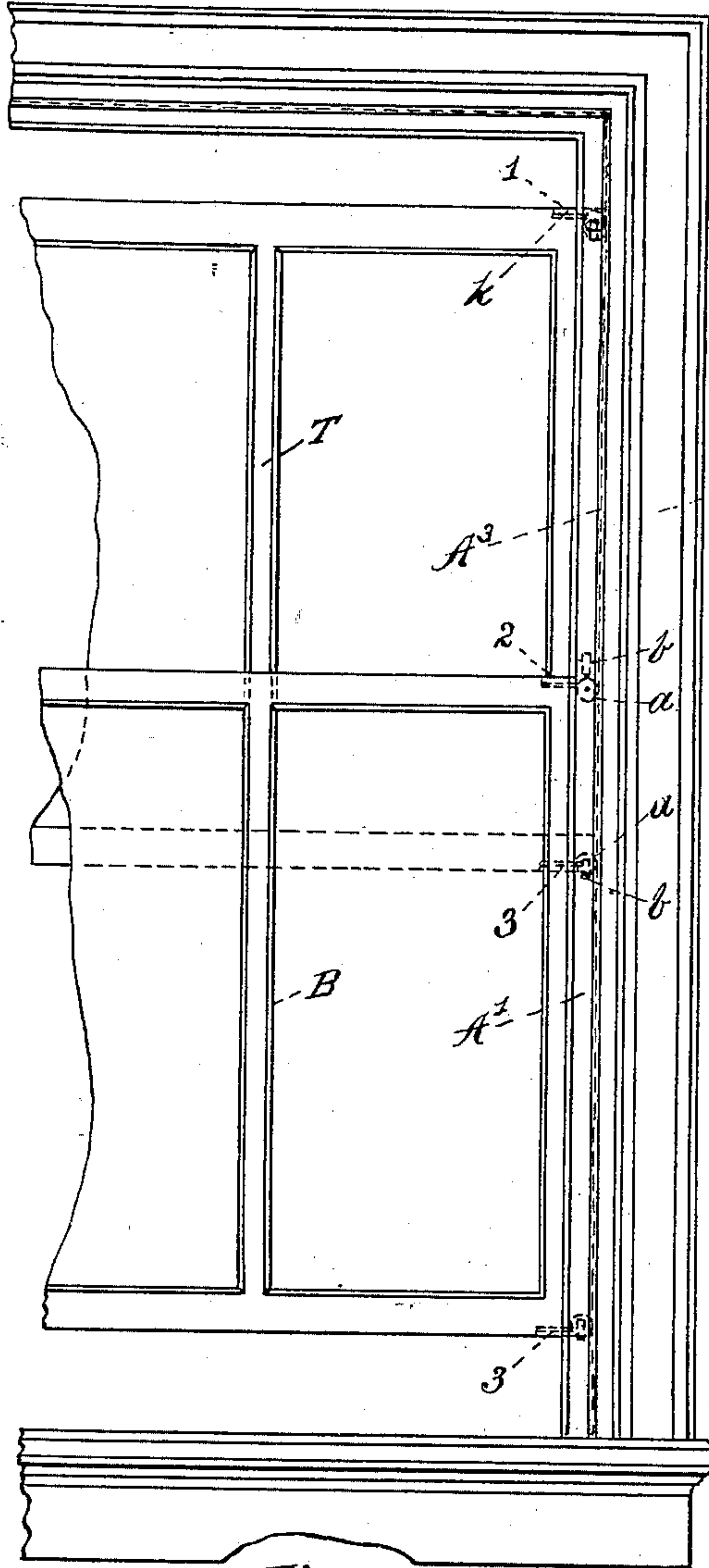


Fig 2:

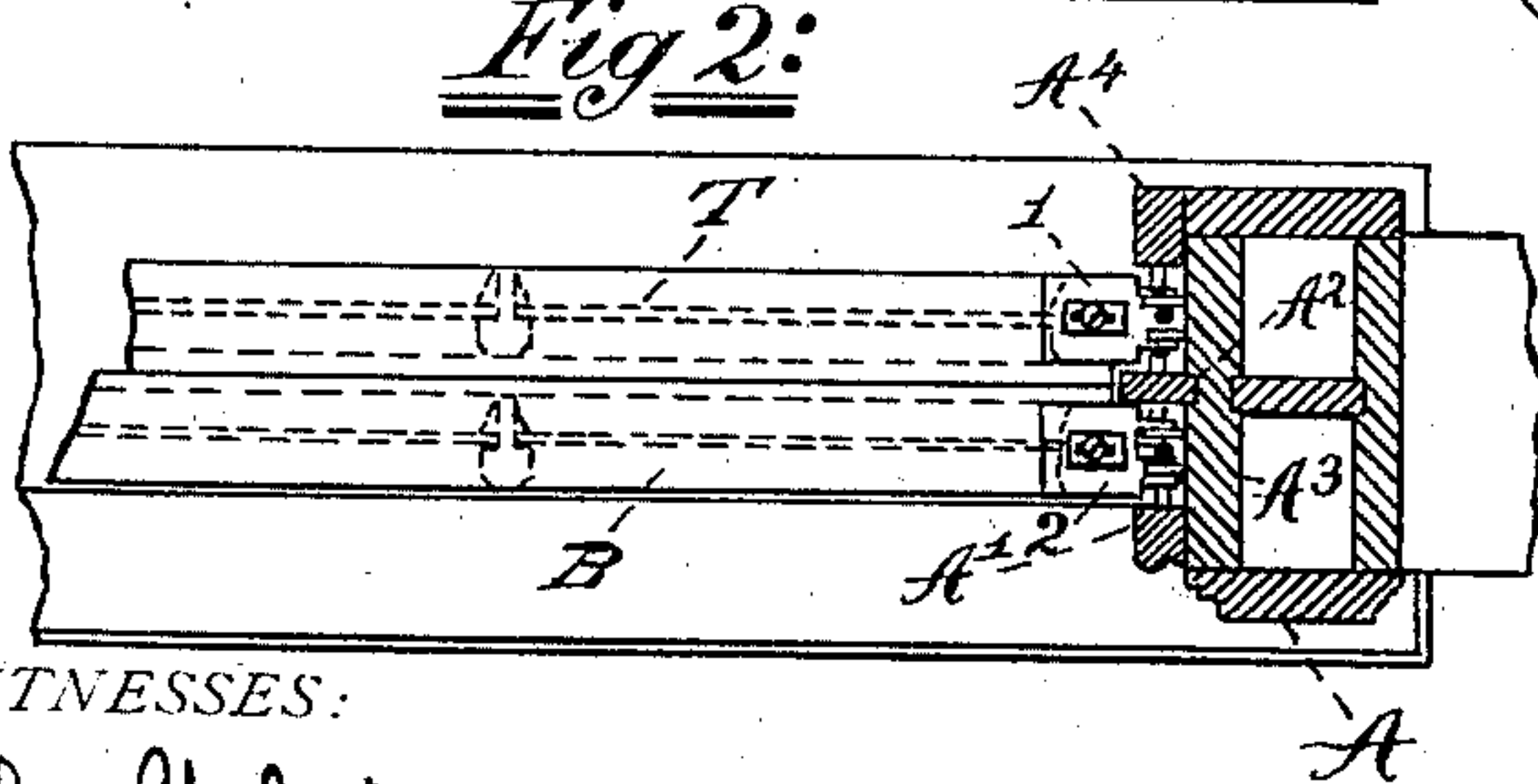


Fig 4:

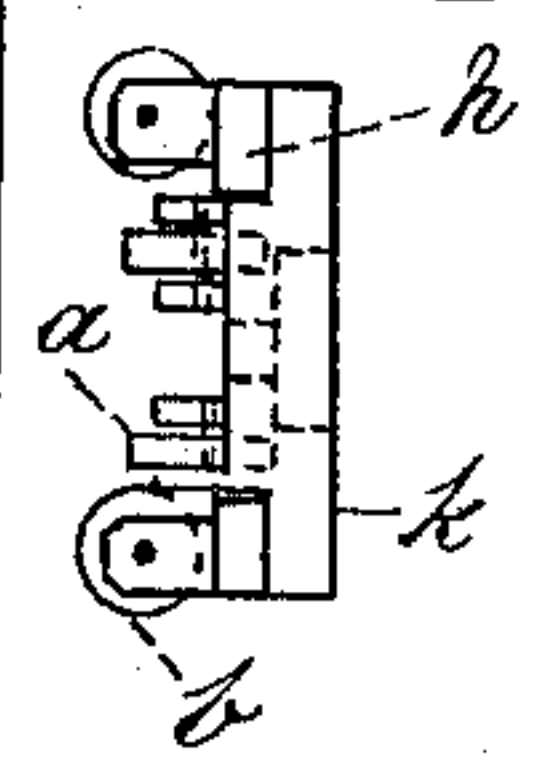


Fig 3:

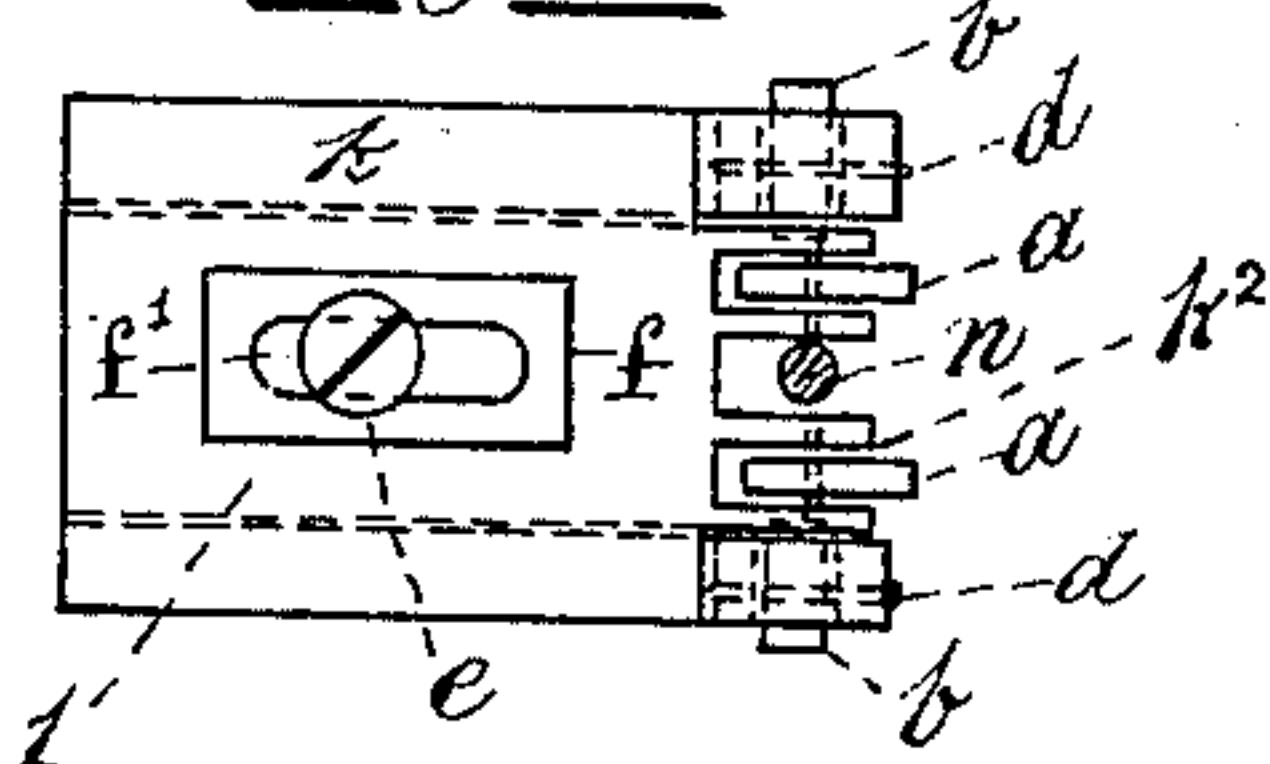


Fig 5:

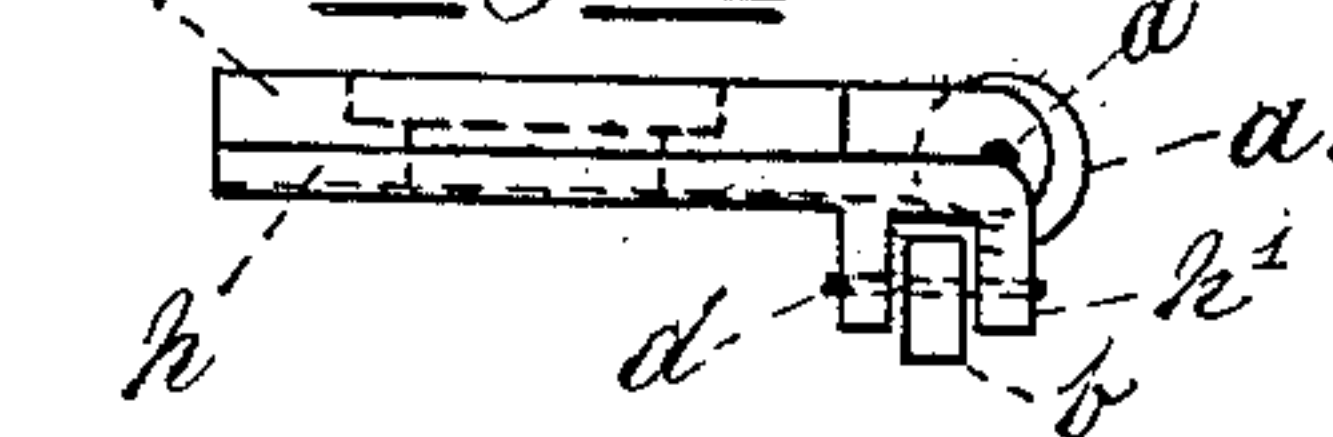


Fig 7:

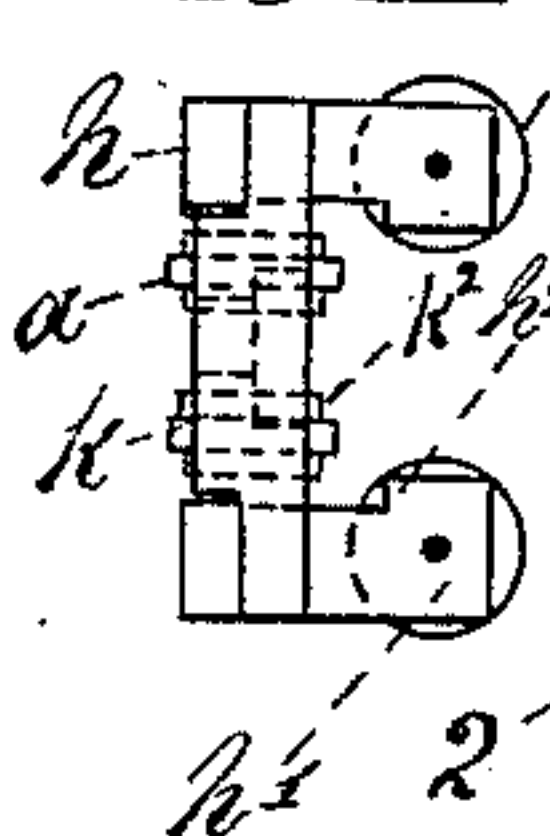


Fig 6:

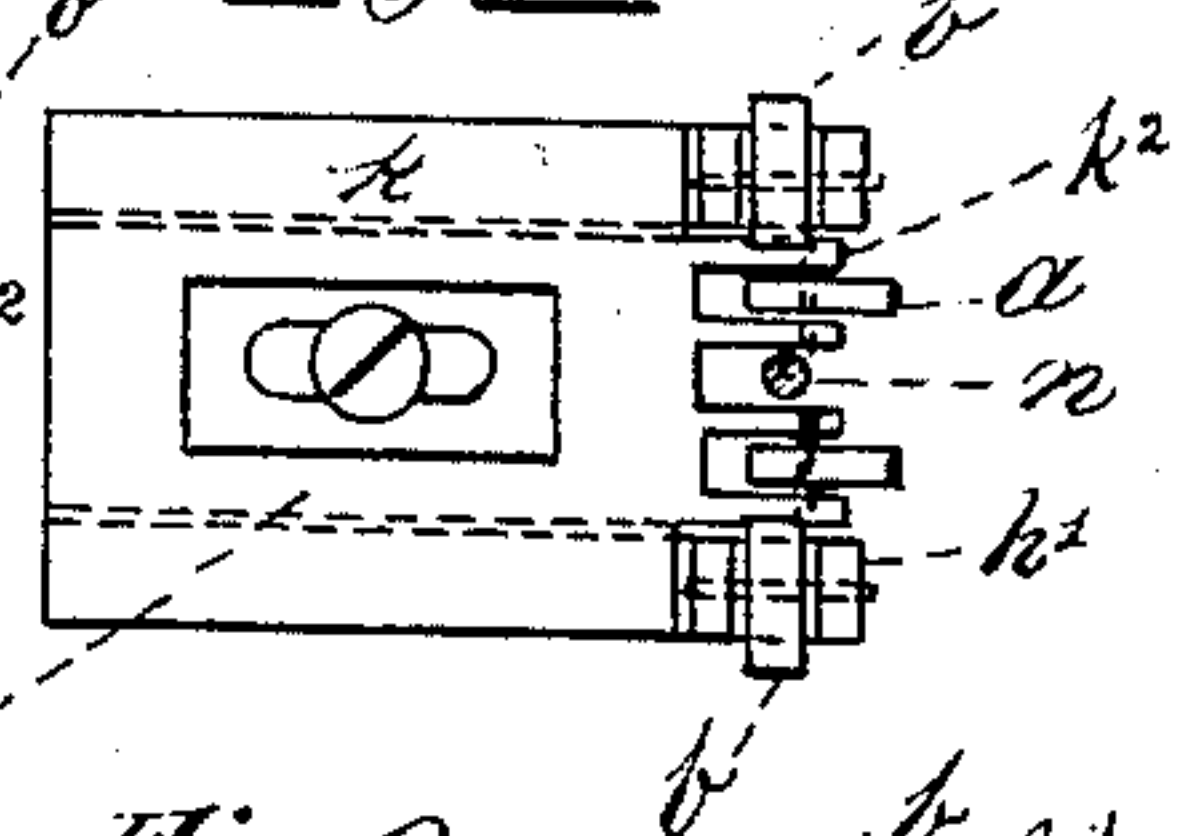


Fig 8:

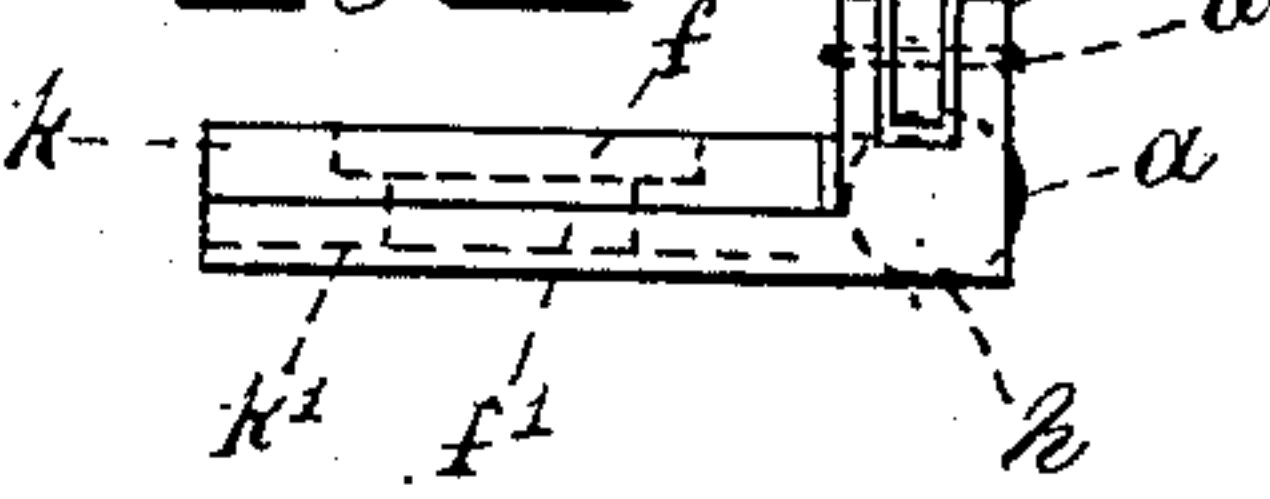


Fig 10:

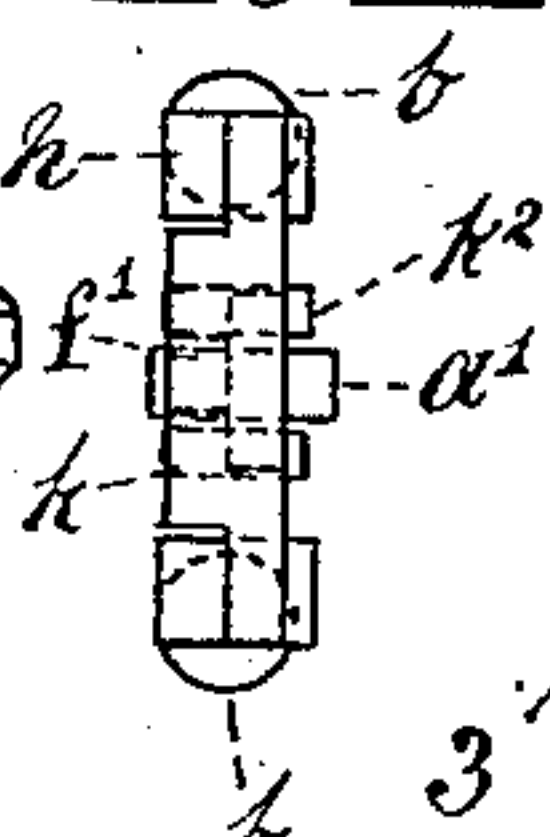


Fig 9:

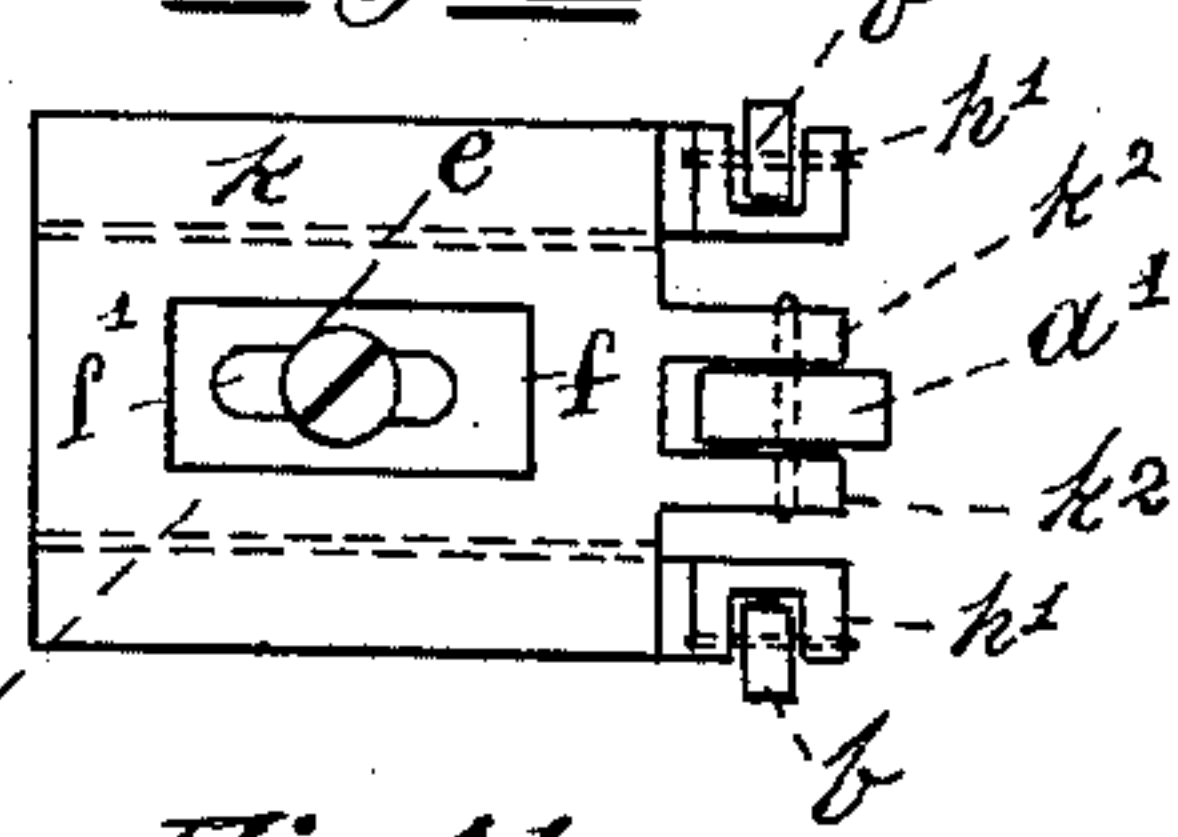
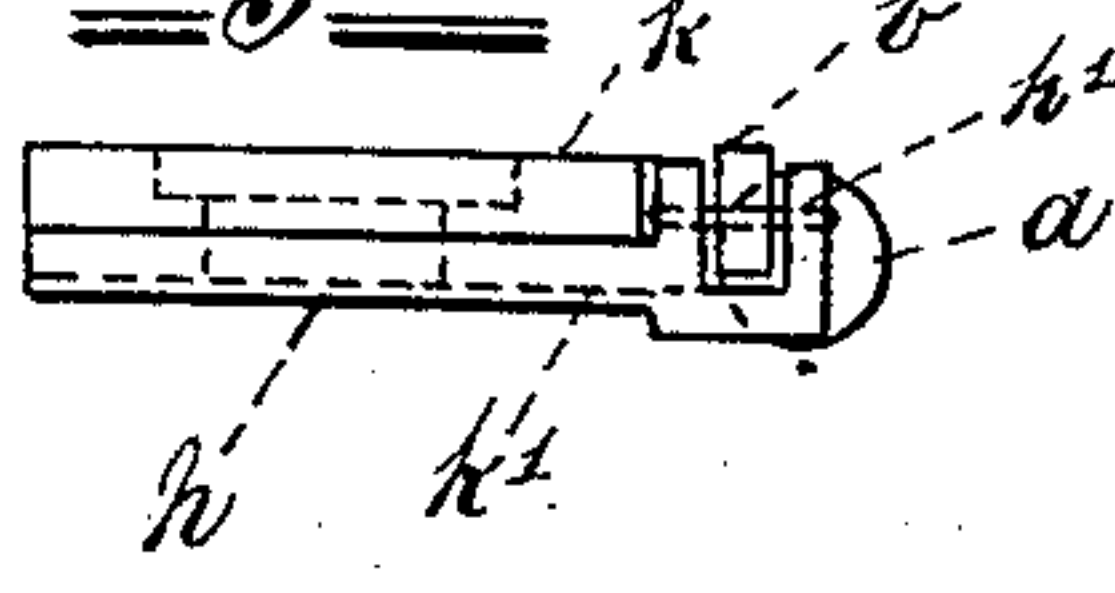


Fig 11:



WITNESSES:

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John F. Kerr  
ATTORNEY.



# UNITED STATES PATENT OFFICE.

JOSEPH DE LONG, OF PATERSON, NEW JERSEY.

## DEVICE FOR PREVENTING RATTLING OF WINDOW-SASHES.

SPECIFICATION forming part of Letters Patent No. 673,245, dated April 30, 1901.

Application filed December 15, 1900. Serial No. 39,941. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH DE LONG, a citizen of the United States, residing at 20 East Nineteenth street, in the city of Paterson, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Devices to Prevent Rattling of Window-Sashes, of which the following is a specification, reference being had therein to the accompanying drawings.

The object of my invention is to provide a device to prevent the rattling or shaking of window-sashes.

The invention relates particularly to those windows having an upper and a lower half intended to be raised and lowered as occasion requires; and it consists of a series of rollers mounted on pivots in suitable plates to be secured to the top and bottom of the upper and lower sashes of a window, so that when a sash is raised or lowered the said rollers will rotate on their pivots, being in frictional contact with the bottom of the groove in which the sashes fit and with the parting-strip and bead between which the sashes slide. The plates in which the rollers are mounted are adjustable, so that a sash that rattles or shakes backward and forward or shakes from side to side may be made so snugly fitting in the grooves of the casement that it cannot be rattled or shaken by hand or by the wind, and this result is accomplished without preventing the sash from being easily raised or lowered. The rollers and plates are adjusted, and then the plates are screwed to the sash, the sash-cord passing through a clevis formed in the plates for that purpose, and then the beads secured to the casement. The series of rollers are so arranged that some project from the ends of the sash and some from the sides thereof, said rollers being mounted at right angles to each other, so that some press against the bottom of the groove and some against the parting-strip and beads secured to the casement. The window can thus be raised and lowered with facility, and there is the least possibility of it shaking or rattling in the casement.

In the accompanying drawings, in which similar characters of reference indicate like parts, Figure 1 is a part elevation of a casement, showing my device attached to upper

and lower sashes of a window. Fig. 2 is a part-sectional plan view of same. Fig. 3 is a plan view of device for top of top sash; Fig. 4, an end view of same, and Fig. 5 a side view of same. Fig. 6 is a plan view of device for top of lower sash; Fig. 7, an end view of same, and Fig. 8 a side view of same. Fig. 9 is a plan view of devices for the bottoms of both sashes; Fig. 10, an end view of same, and Fig. 11 a side view of same.

The principle is the same in relation to both the upper and the lower sashes; but the construction of the plates is slightly different. The device at the bottom of both sashes may employ one roller less than the device at the tops of both sashes.

The invention consists in the series of rollers so mounted in plates and carrying-strips that certain rollers are adapted to rotate in a direction at right angles to the direction of the rotation of certain others, said plates and carrying-strips being adjustably secured to the tops and bottoms of the upper and lower sashes, so as to permit the said series of rollers to project the desired distance beyond the end and the adjoining sides of said sashes and be turned by the frictional contact with the bottom and sides of the groove in which the sash is moved vertically in raising or lowering the same.

In the accompanying drawings, in which similar characters of reference indicate like parts, A represents the casement; A', a bead; A<sup>2</sup>, a parting-strip; A<sup>3</sup>, a groove for sashes; A<sup>4</sup>, the weather-bead; B, the lower sash, and T the upper sash. In Fig. 1 the upper sash is shown partly lowered and the lower sash partly raised. The numeral 1 indicates the device for top of top sash, 2 the device for the top of the lower sash, and 3 the device for the bottom of both sashes.

Carrying-strips *h* have an adjusting-neck *h*<sup>2</sup> and are provided with a clevis *h'*, in which the rollers *b b* are mounted, as shown in the various figures, on the pivots *d*, the rollers *b b* pressing against the parting-strip and beads, as is seen in Fig. 2. Upon and across the two carrying-strips *h* is laid the upper plate *k* of the device, which is provided with a clevis in which is mounted the rollers *a* or *a'*. When the device is used for the bottom of either the upper or lower sash, I prefer to



use only one roller  $a'$ ; but when the device is used for the top of the upper or lower sash I use two rollers  $a$ , (see Figs. 3 and 6,) and a space is left between the two clevises for the sash-cord  $n$ , the two rollers  $a$  pressing against the casing or the bottom of the groove of which the parting-strip and bead form the sides. In the device 3 I use one roller, which is mounted in a clevis  $k^2$ . (See Figs. 9 and 10.) The under portion of the plate  $k$  drops between the carrying-strips  $h$   $h$ , on which the projecting sides or shoulders of  $k$  rest, as shown in Figs. 7, 8, 10, and 11. The plate  $k$  is provided with a slot  $f'$  and a recess  $f$  to receive and permit the passage of the screw  $e$ , by means of which the device is secured to the sash.

Besides preventing the shaking and rattling of the sashes, my invention keeps out dust and obviates drafts.

It is obvious that one or more rollers mounted at right angles in various ways may accomplish the object of my invention. Therefore, while I prefer the manner and method of arrangement shown in the drawings, I do not wish to limit myself to the specific con-

struction and arrangement shown, but wish to claim, broadly, the principles or the essential elements of my invention.

With this description of my invention, what I claim is—

The combination with the window-sash and casement, of carrying-strips having a roller mounted in a clevis therein, said rollers to rotate in a direction at right angles to the length of the carrying-strips, a roller-carrying plate the lower portion of which depends between said carrying-strips, and the extended upper portion of which rests upon said strips, a roller or rollers mounted in said roller-carrying plate at right angles to the rollers in the said carrying-strips, said carrying-strips and roller-carrying plates being adjustably secured to the window-sash substantially as set forth.

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

JOSEPH DE LONG.

Witnesses:

JOHN F. KERR,  
JOHN WEBSTER.