

No. 872,099.

PATENTED NOV. 26, 1907.

H. O. WOLFF.  
SASH LOCK AND TIGHTENER.  
APPLICATION FILED AUG. 23, 1907.

2 SHEETS—SHEET 1.

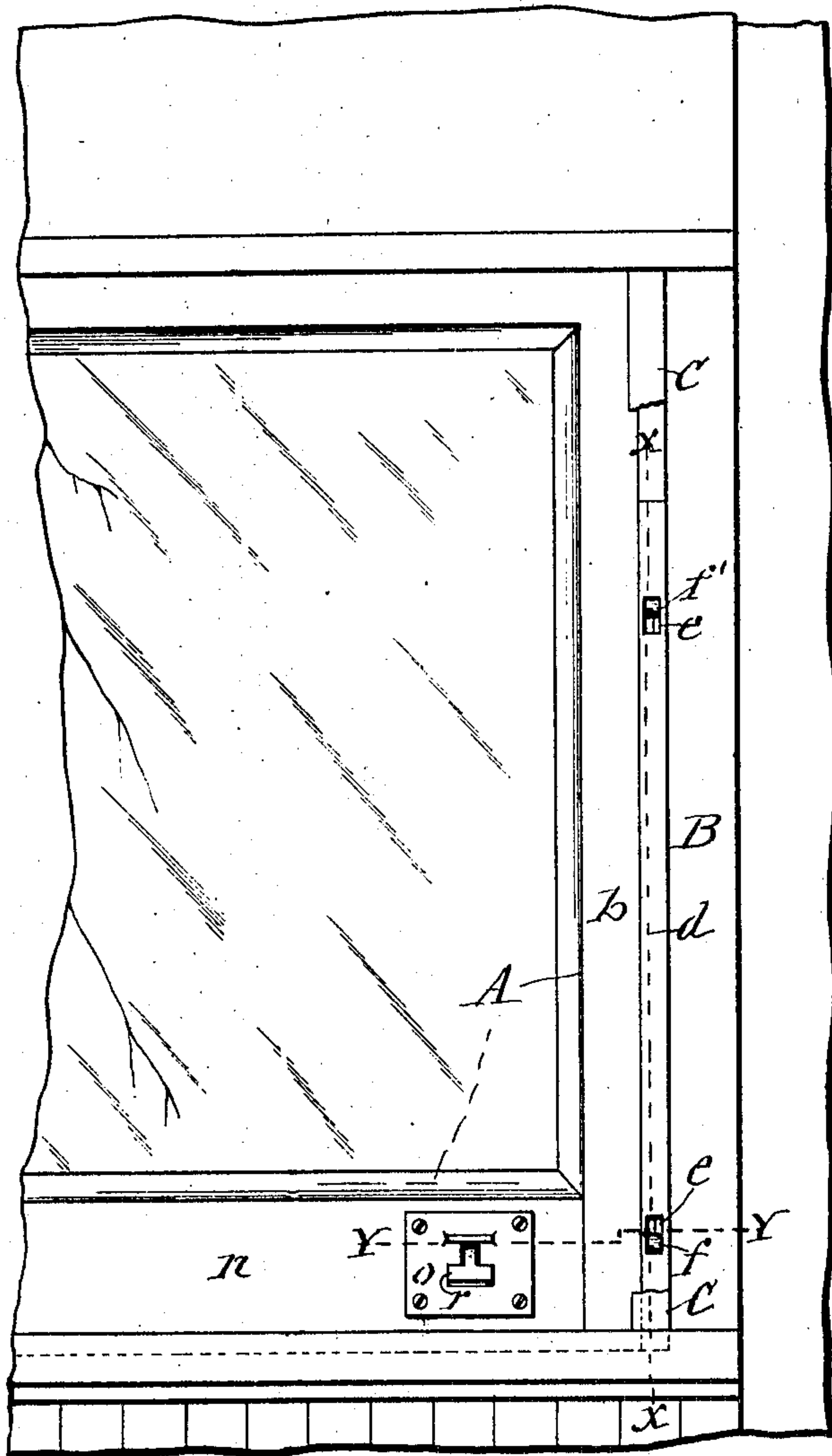


Fig. 1

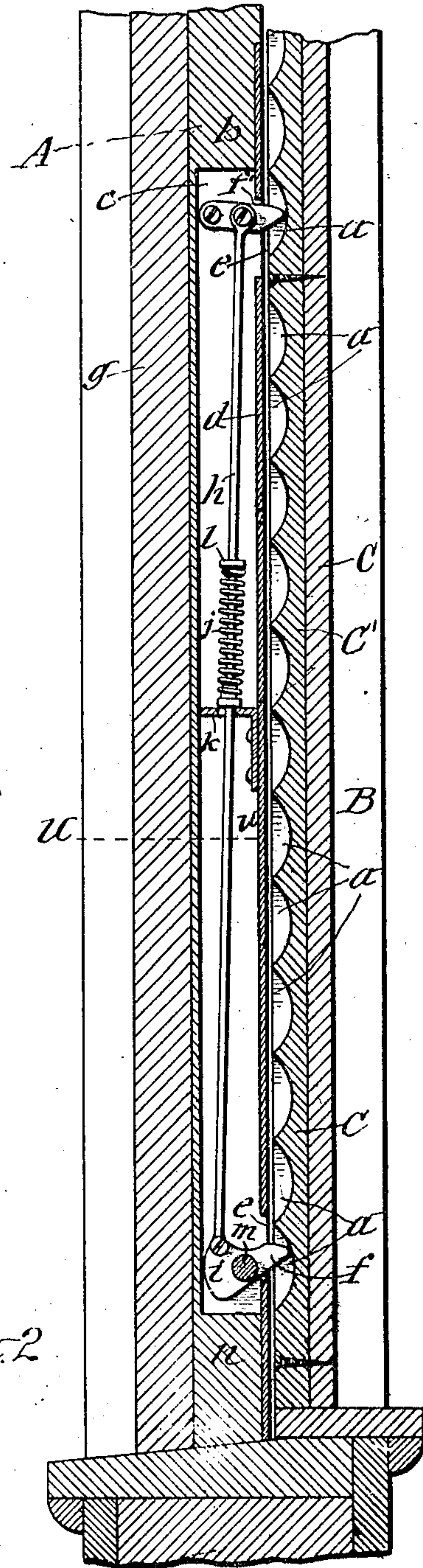


Fig. 2

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Inventor:  
*Herman O. Wolff*  
By *his Attorney* *E. Laass*

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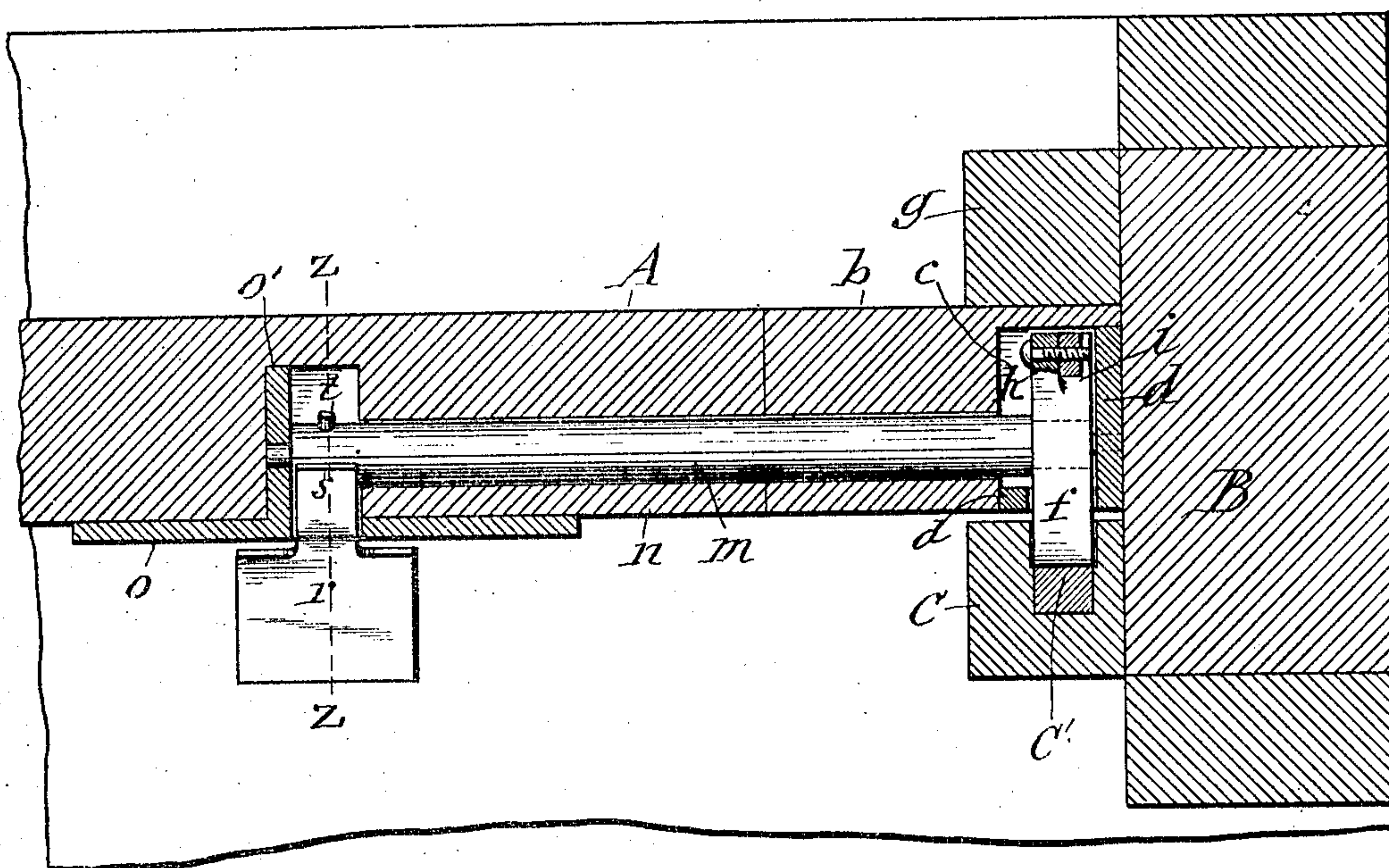
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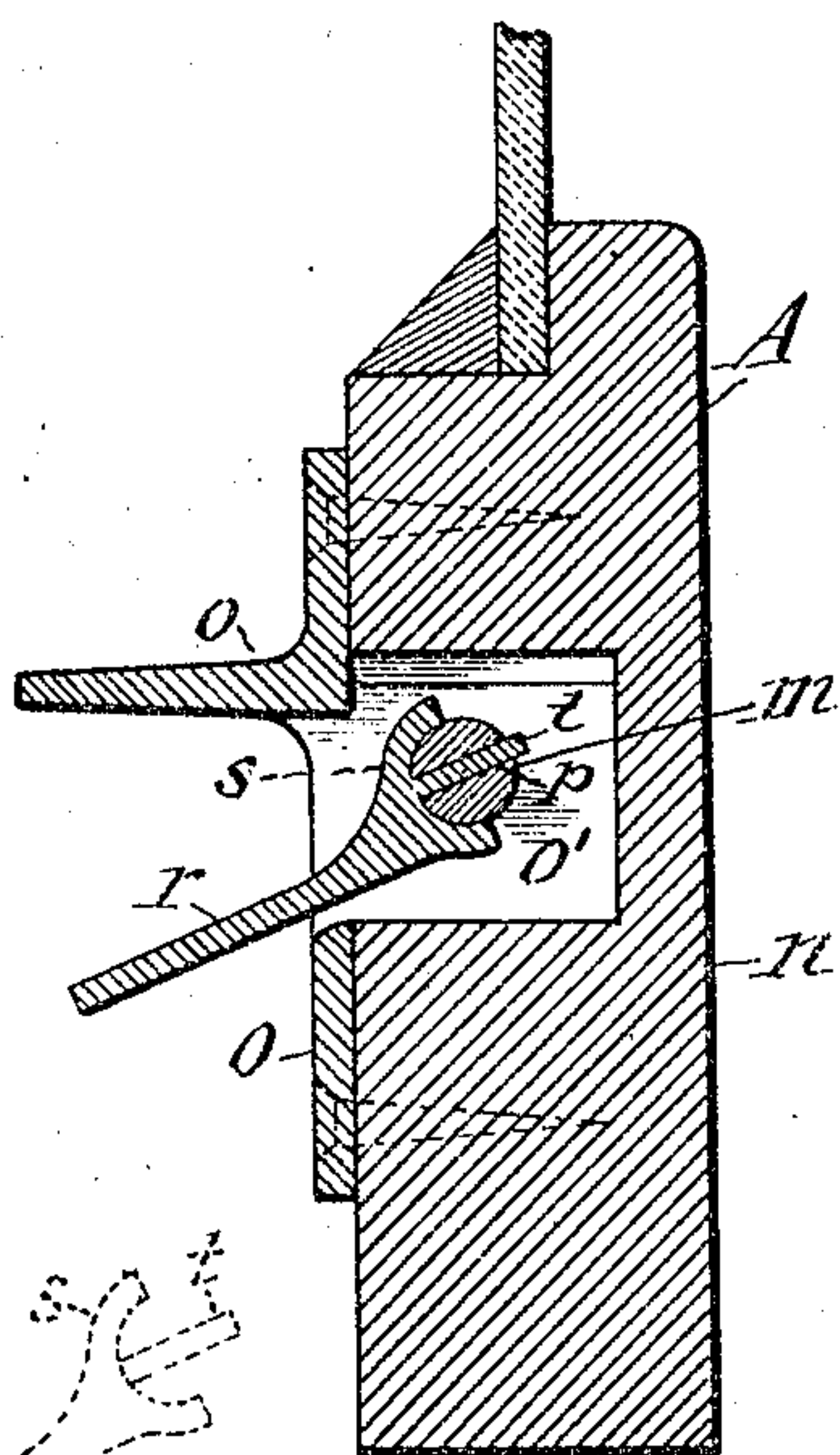
SASH LOCK, AND TIGHTENER.

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2 SHEETS—SHEET 2.



*Fig. 3*



*Fig. 4.*

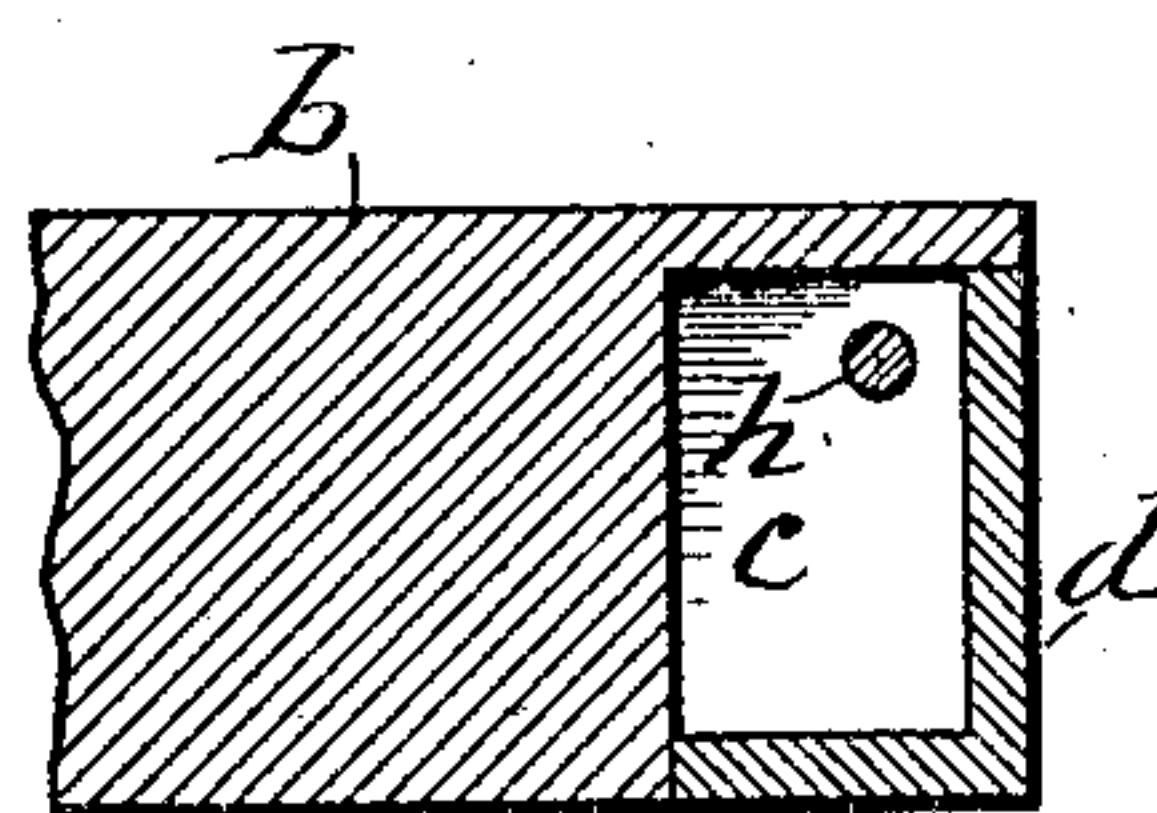


Fig.5

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# UNITED STATES PATENT OFFICE.

HERMAN O. WOLFF, OF SYRACUSE, NEW YORK.

## SASH LOCK AND TIGHTENER.

No. 872,099.

Specification of Letters Patent.

Patented Nov. 26, 1907.

Application filed August 23, 1907. Serial No. 389,762.

*To all whom it may concern:*

Be it known that I, HERMAN O. WOLFF, a citizen of the United States, and resident of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Sash Locks and Tighteners, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the class of sash locks in which a dog is pivoted to the sash and engages a notch in a part of the window-casing. And the invention consists in an improved construction and combination of the component parts of the sash-lock which is very efficient and convenient in its operation of locking the sash and at the same time causes the locked sash to be tightly seated on the window-casing so as to effectively exclude air from the joint between the sash and the casing.

In the accompanying drawings, Figure 1 is an inner face view of a portion of a sash equipped with my invention; Fig. 2 is an enlarged vertical section on the broken line --X--X-- in Fig. 1; Fig. 3 is a further enlarged horizontal section on the line --Y--Y-- in Fig. 1; Fig. 4 is a transverse section on the line --Z--Z-- in Fig. 3; and Fig. 5 is an enlarged transverse section of the stile of the sash taken on line --U--.

--A-- represents the sash, and --B-- the casing which is provided with the inner vertical guiding-strip --C-- usually designated the window-stop. The outer edge of the said stop is provided with a vertically disposed series of notches --a--a-- for the purpose hereinafter explained. Said notches are preferably in a bar --C<sup>1</sup>-- attached to the stop --C--.

The edge of the stile --b-- is formed with a recess --c-- extending lengthwise of the stile and in the said recess is rigidly secured a vertical metal bar --d-- preferably L-shaped in cross-section and disposed with one of its webs flush with the edge of the stile --b--.

The lower and upper end portions of the said web of the bar --d-- are each provided with an aperture --e--e-- and to the inner portion of said bar are pivoted two dogs --f-- and --f<sup>1</sup>-- adapted to protrude through the apertures --e--e-- and engage the notches --a--a-- opposite said apertures. The dogs --f--f<sup>1</sup>-- are beveled toward their outer ends and bear on the bottoms of the engaged notches when the said dogs are in position to

lock the sash as shown in Fig. 2 of the drawings. Said bearings of the dogs serve to crowd the sash outward to the outer guiding-strip --g-- of the window-casing as shown in Fig. 3, thus forming thereat a tight joint between the sash and casing so as to effectually exclude air from said joint.

--h-- represents a rod which extends vertically through the recess --c-- in the stile of the sash and is connected at opposite ends to the two dogs --f--f<sup>1</sup>-- so as to operate them jointly. I preferably connect the lower end of said rod to an inward extension --i-- of the lower dog --f-- and connect the upper end of said rod to the central portion of the dog --f<sup>1</sup>-- as shown in Fig. 2. This causes the two dogs to move in opposite directions from each other. The lower dog is employed to prevent the sash from being raised from its closed position. The upper dog --f<sup>1</sup>-- serves to prevent the sash from dropping from its raised and open position.

The dogs are automatically thrown into their engaging position by means of a spiral spring --j-- which rests on top of a bracket --k-- attached to the bar --d-- and surrounds the rod --h-- to which is attached a collar --l-- bearing on the upper end of the spring. For moving the dogs out of their engaging position, a horizontal rock shaft --m-- is placed in the bottom rail --n-- of the sash and fastened at its outer end to the lower dog --f-- and constitutes the pivotal support of said dog as shown in Fig. 3. The inner end of said shaft is pivoted to a plate --o<sup>1</sup>-- formed on the plate --o-- which is rigidly attached to the inner face of the bottom rail of the sash. The said end of the shaft is provided with a transverse perforation --p-- for reception of a tongue --t-- formed on the end of a thumb lever --r-- which is also formed with a yoke --s-- shaped to embrace part of the shaft and thus compensate for the weakening of the shaft by the perforation --p-- and at the same time brace the thumb lever.

The object of the described connection of the thumb lever to the shaft --m-- is to allow the said thumb lever to be withdrawn from the shaft and removed from the sash and thus guard against the unlocking of the sash by unauthorized persons.

What I claim as my invention is:--

1. The combination, with the sash and the casing provided with a vertical guide-strip engaging the inner side of the sash, of a dog



movably connected to the sash and bearing on the outer edge of the guide-strip, a spring-pressed member automatically forcing the dog toward the said guide-strip to engage the latter, a rock-shaft connected to the spring-pressed member for moving the dog away from the guide-strip, and means for actuating said rock-shaft as set forth.

2. The combination, with the sash and casing, of a vertical guide-strip provided with a vertically disposed series of notches, a dog pivoted to the sash and having a protruding portion adapted to engage one of the notches and beveled to crowd the sash outwardly to bear on the casing, a spring-pressed rod automatically forcing the dog toward the guide-strip, a rock-shaft disposed in the bottom rail of the sash for operating the rod in opposition to the spring to turn the dog out of engagement with the notch, and a thumb-lever for actuating said rock-shaft as set forth.

3. The combination, with the sash and the casing provided with a vertically disposed series of notches, of two dogs pivoted respectively to the lower and upper portions of the sash and disposed to engage the aforesaid notches, a rod extending vertically through the stile of the sash and connected to the dogs, a spring forcing said rod longitudinally in one direction, and means for moving the rod in the opposite direction.

4. The combination, with the sash and the casing provided with a vertically disposed series of notches, of a metal bar secured vertically in the stile of the sash, dogs pivoted respectively to the lower and upper end portions of said bar, a rod extending lengthwise of said bar and connected to said dogs, a bracket attached to the bar, a spiral spring surrounding the rod and seated at one end on the bracket, a collar attached to the rod and bearing on the opposite end of the spring,

and means for moving the rod in opposition to said spring.

5. The combination, with the sash and the casing provided with a vertically disposed series of notches, of a metal bar secured vertically in the stile of the sash and provided with apertures, two dogs pivoted to the said bar and protruding through the aforesaid apertures, a rod extending lengthwise of said bar and connected to the dogs, a bracket attached to the bar, a spiral spring seated on said bracket, a collar attached to the rod and bearing on the upper end of the spring, a horizontal shaft in the bottom rail of the sash and constituting the pivotal support of the lower dog, and a thumb-lever connected to said shaft.

6. The combination, with the sash and the casing provided with a vertically disposed series of notches, of a metal bar secured vertically in the stile of the sash and provided with apertures, two dogs connected movably to said bar and protruding through the apertures thereof, a rod extending lengthwise of the bar and having one end engaging an inward extension of one dog and at the opposite end engaging the central portion of the other dog, a spring forcing the rod longitudinally in one direction, and means for moving the rod in the opposite direction.

7. The combination, with the sash and dogs for locking said sash, of a horizontal shaft in the rail of the sash and transmitting motion to the dogs and provided with a transverse perforation, of a thumb-lever formed with a yoke embracing a portion of the shaft and with a tongue entering the perforation of said shaft and removable therefrom as set forth.

HERMAN O. WOLFF.

In presence of—

J. J. LAASS,

J. E. HARWOOD.