

No. 768,177.

PATENTED AUG. 23, 1904.

H. C. HETTINGER.  
SASH FASTENER.

APPLICATION FILED MAR. 29, 1904.

NO MODEL.

2 SHEETS—SHEET 1.

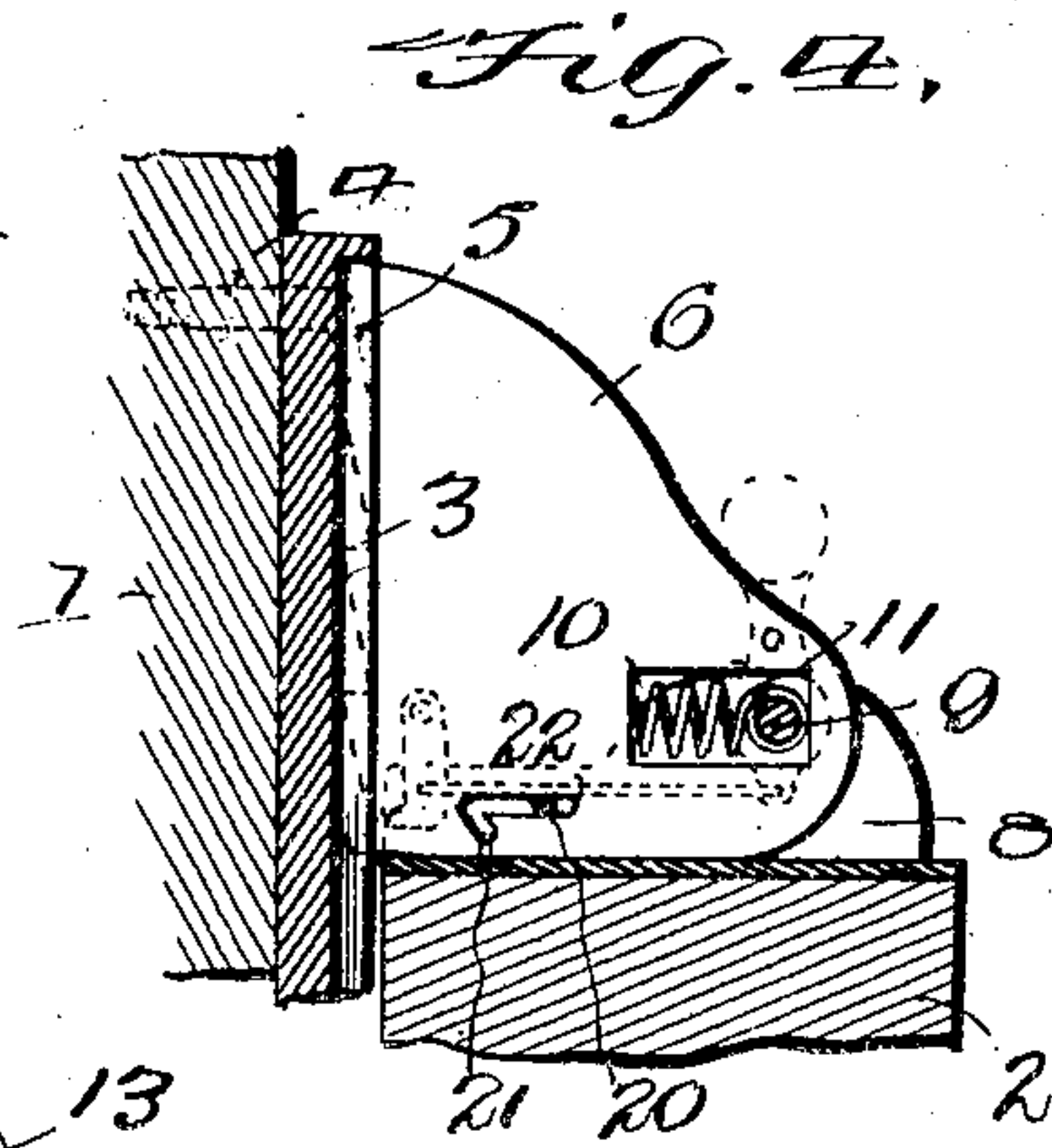
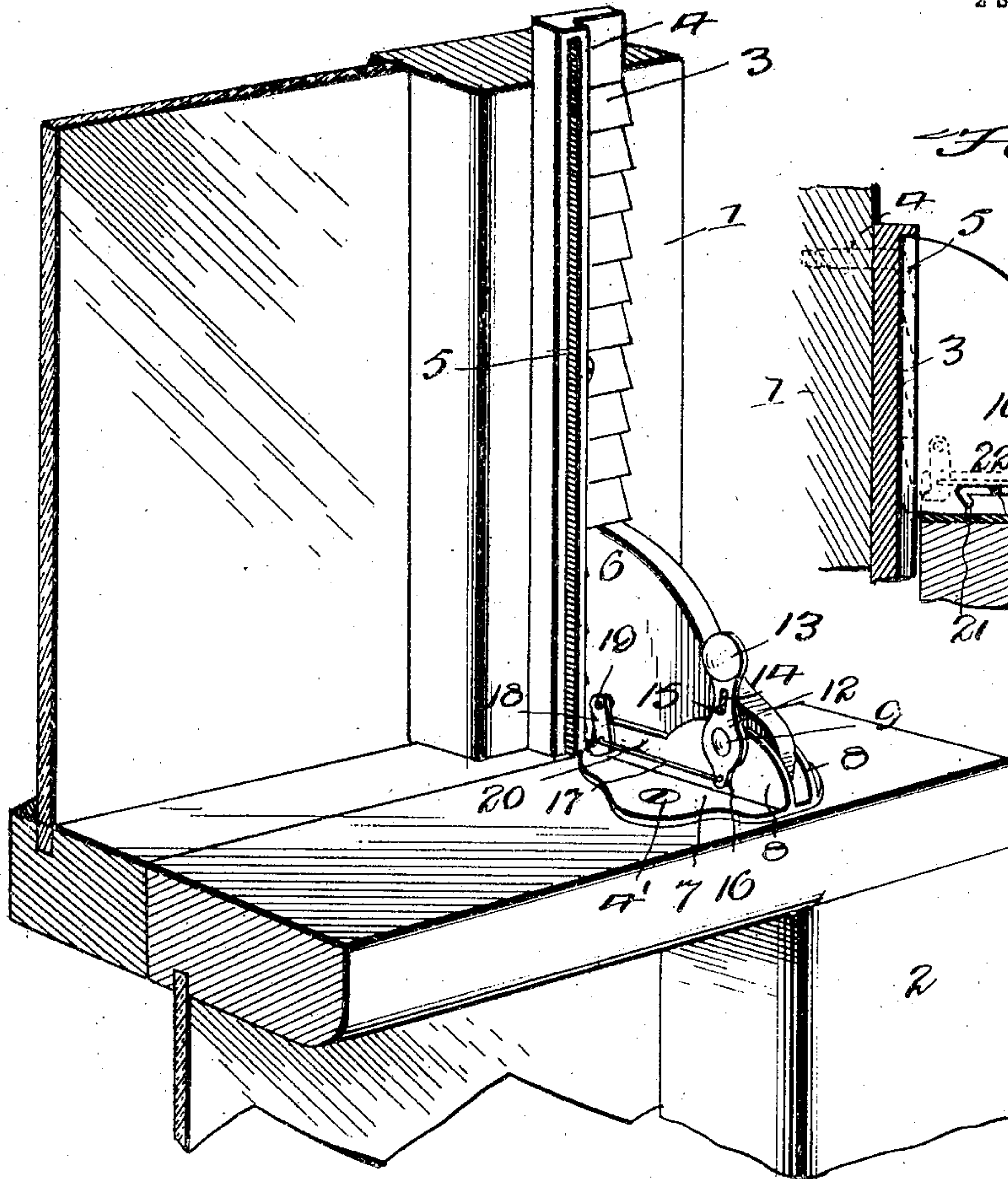


Fig. 1.

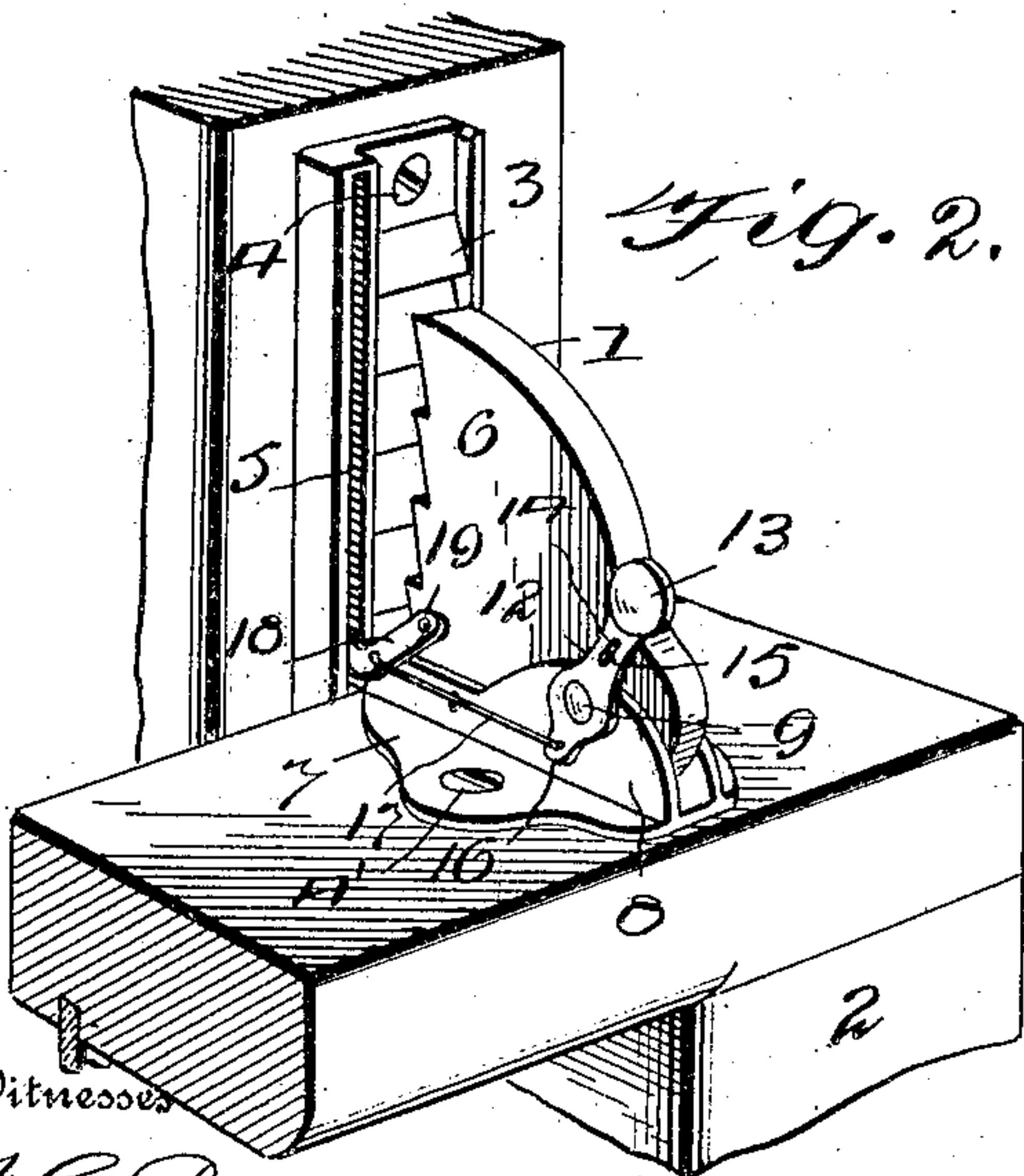


Fig. 2.

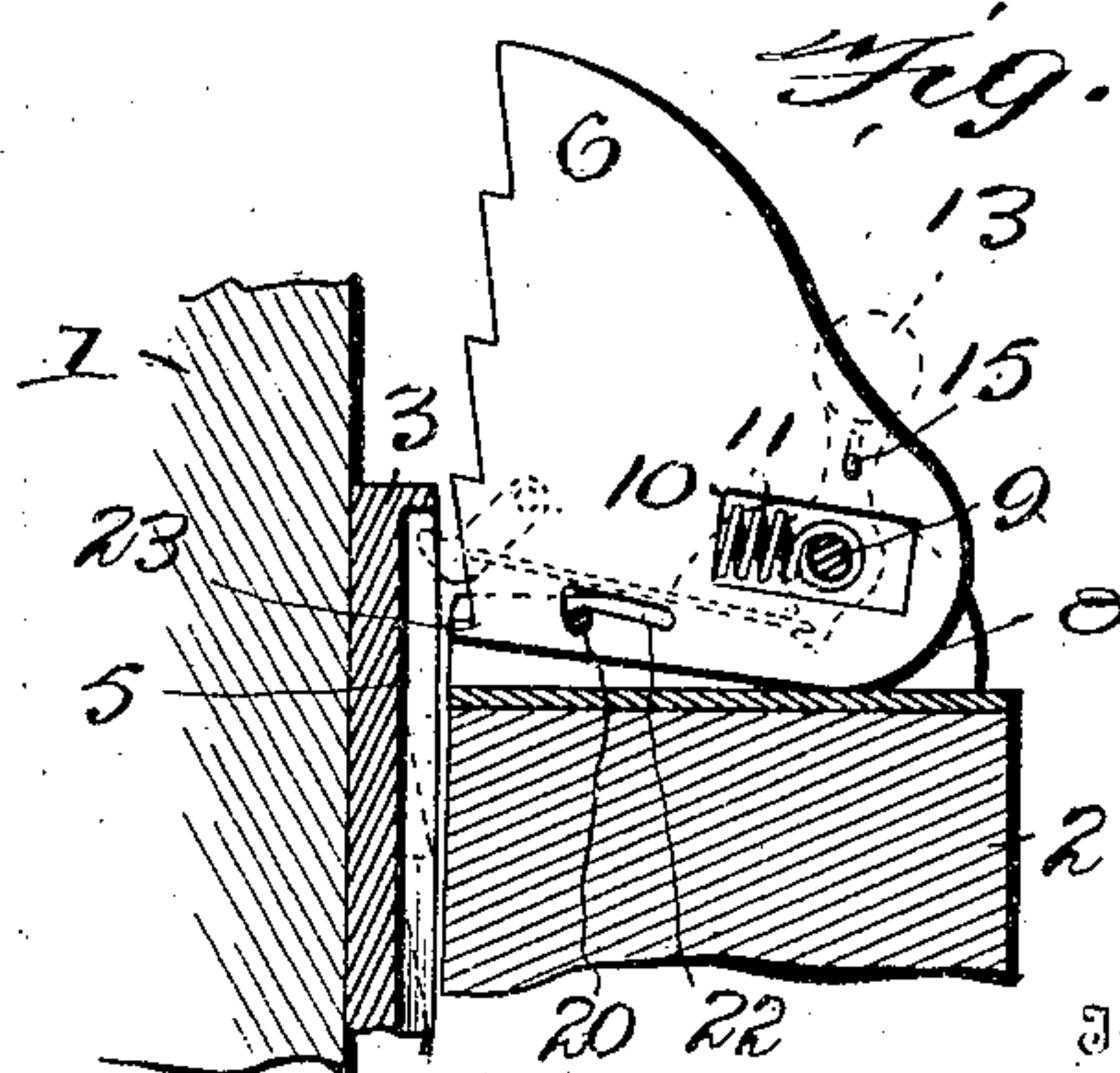


Fig. 3.

Witnesses

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2 SHEETS—SHEET 2.

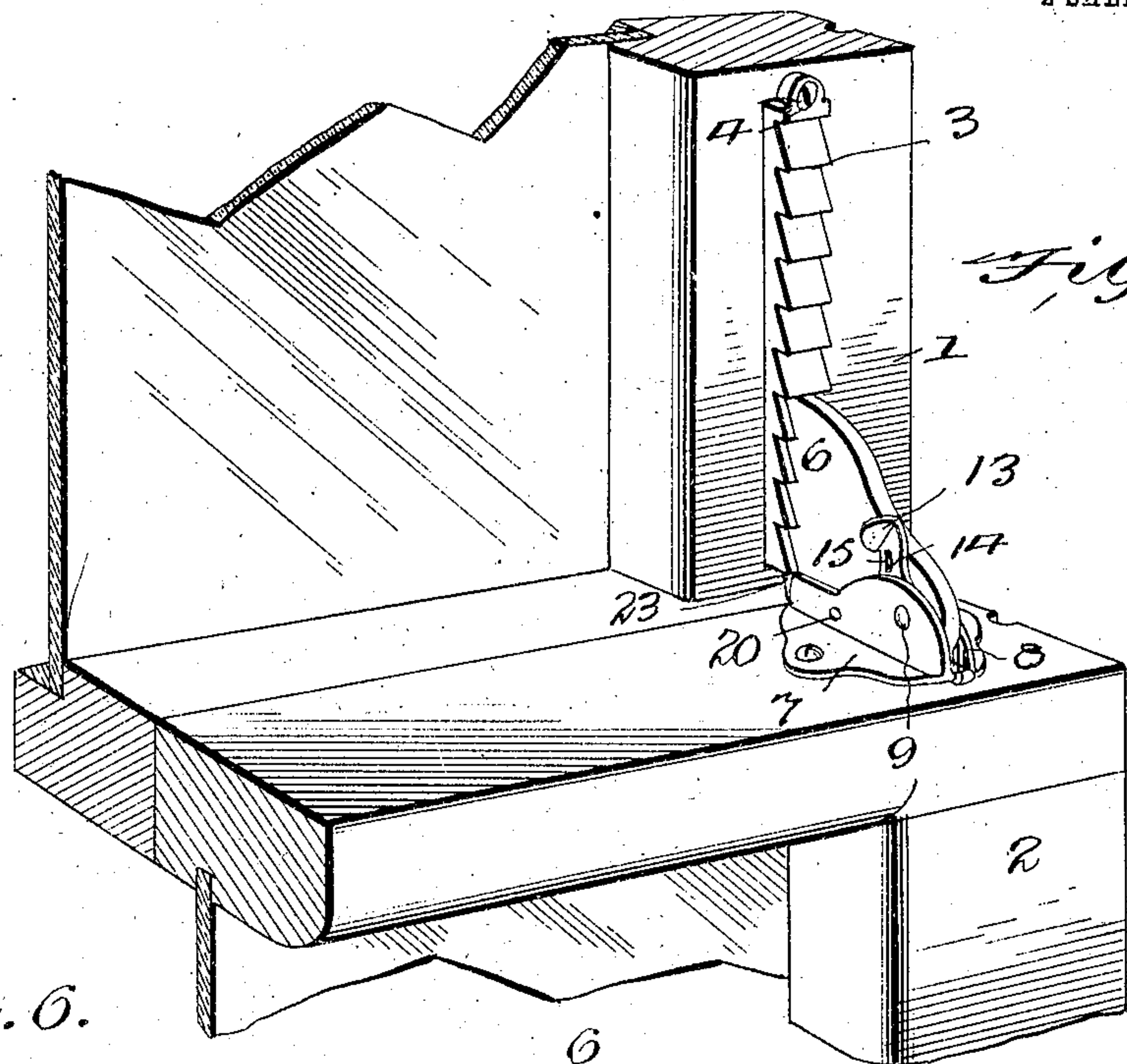


Fig. 6.

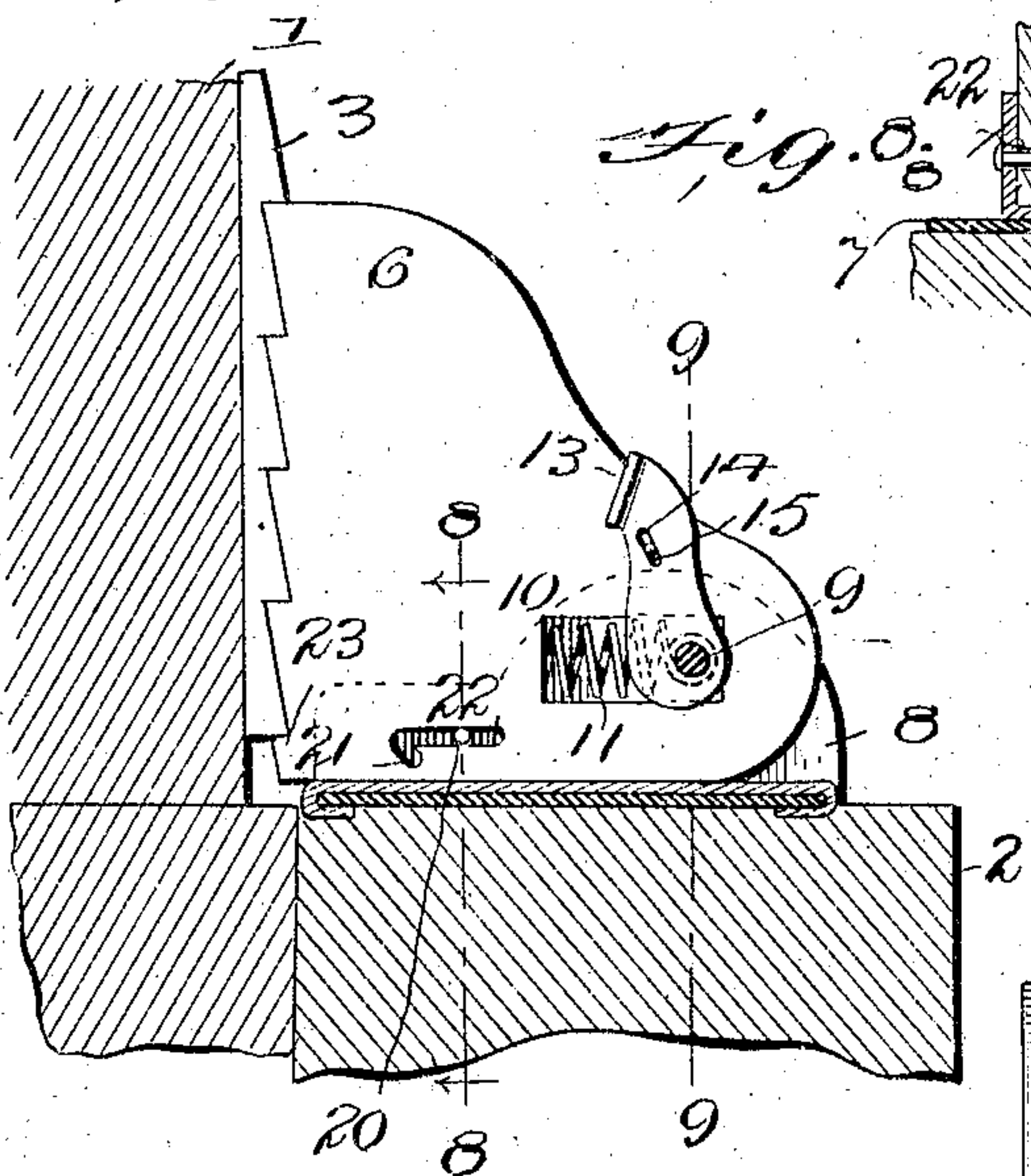


Fig. 8.

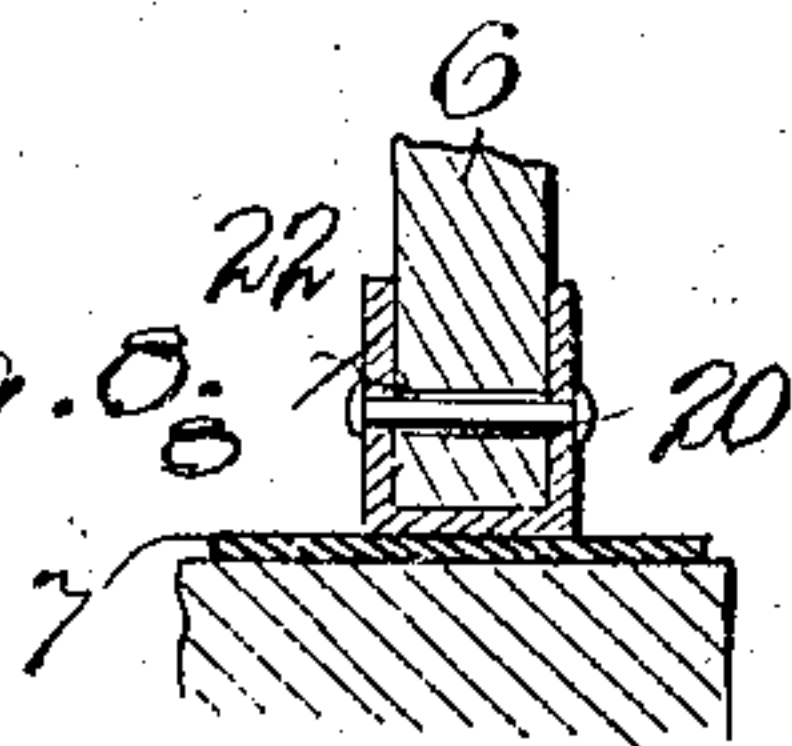


Fig. 7.

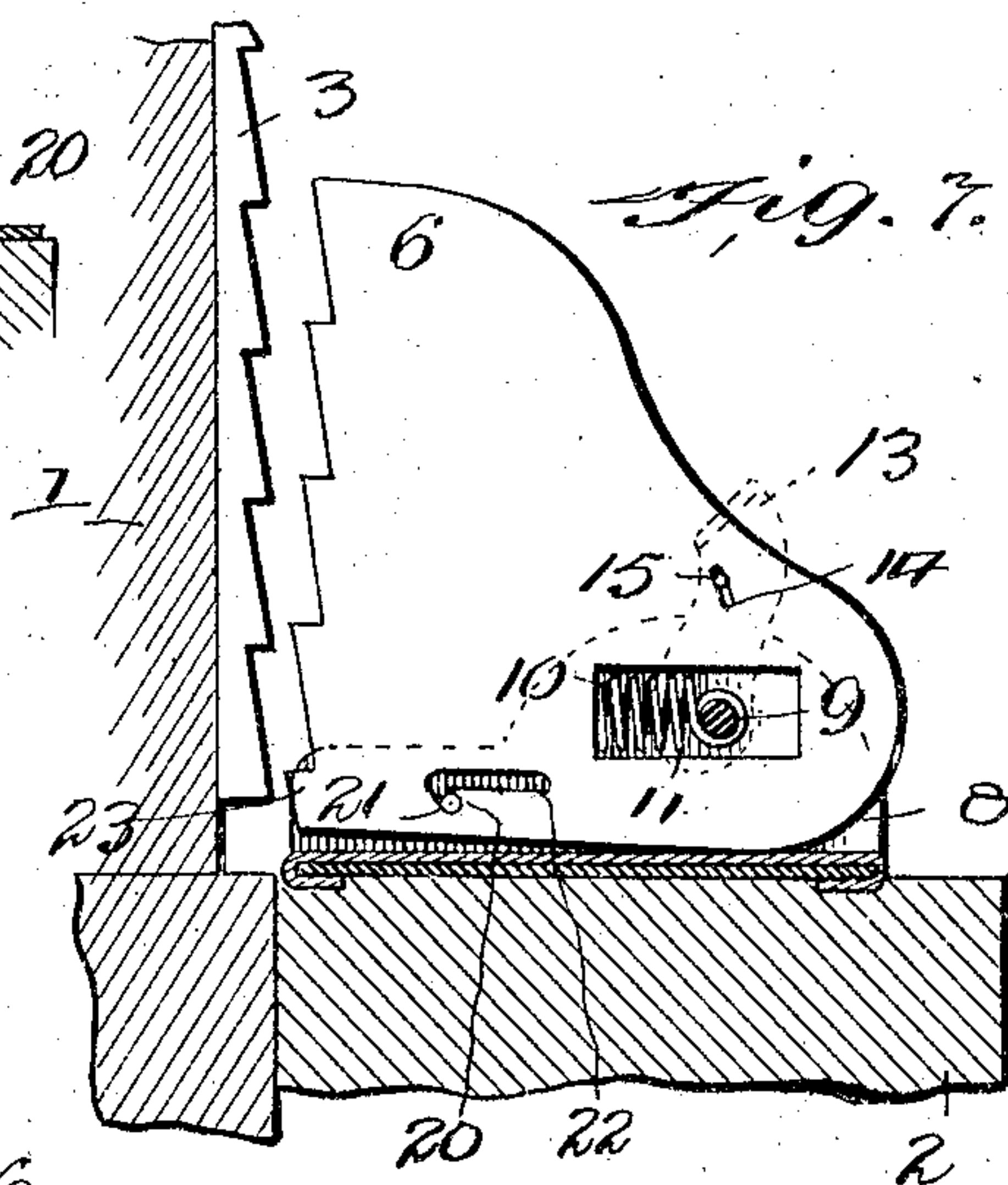
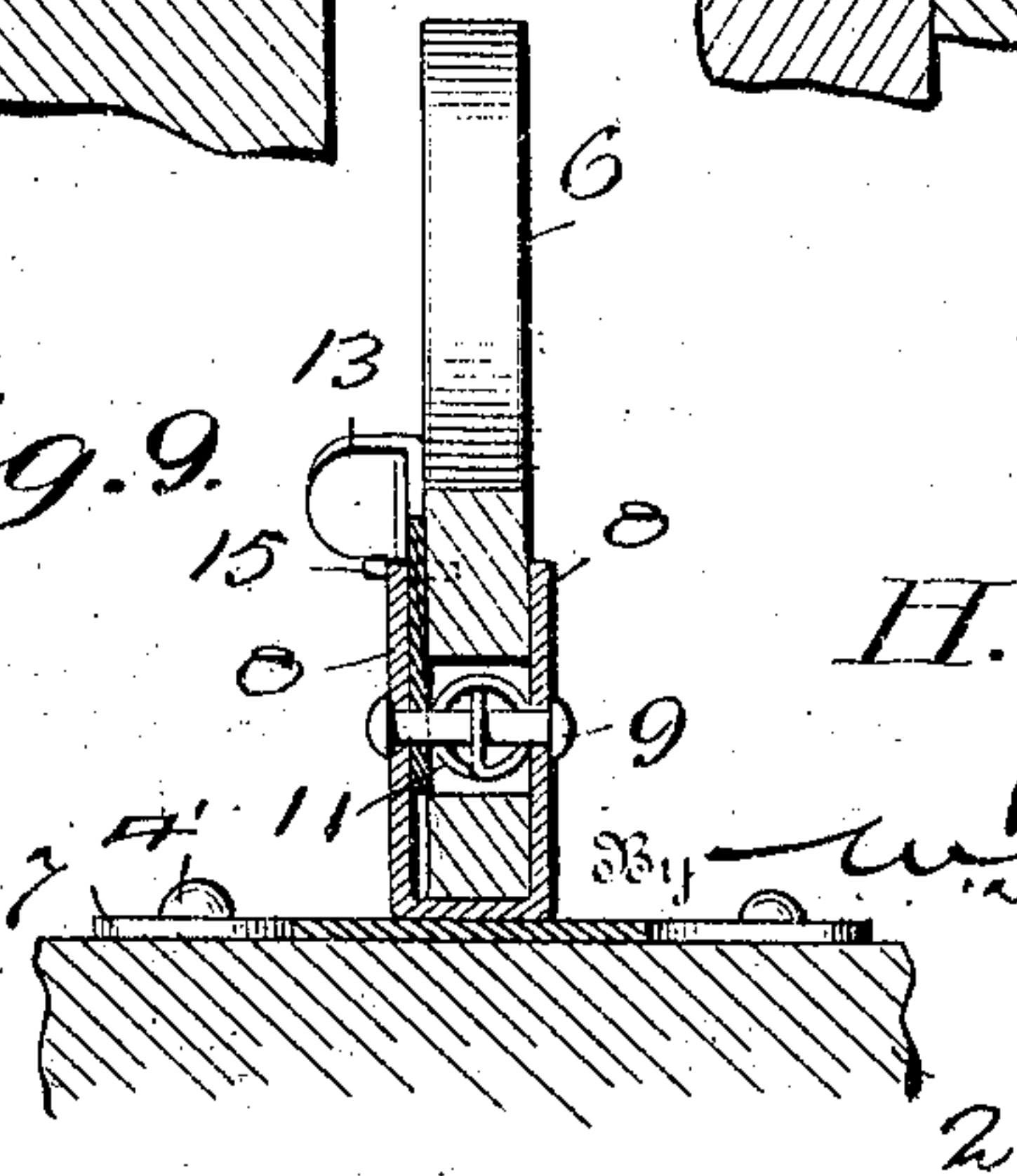


Fig. 9.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 768,177, dated August 23, 1904.

Application filed March 29, 1904. Serial No. 200,605. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY C. HETTINGER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sash-Fasteners; 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 present invention relates to sash-fasteners of that variety carried by one sash and cooperating with the other; and my invention consists of new and important combination and construction of parts, as will be hereinafter specifically designated, and pointed out in the claims, and illustrated in the accompanying drawings.

The main object of my invention is to provide a lock of great reliability and efficiency and one which may be produced and applied to use at a minimum cost.

A further object of my invention is to render my sash-lock proof against being tampered with, as from the outside of the building, thereby insuring that it will be utterly impossible to unlock the same excepting from the inside of the building and by a certain manipulation of parts, as will be hereinafter particularly set forth.

My improved sash-lock possesses many other advantages, as will be hereinafter presented.

In the accompanying drawings, Figure 1 shows a perspective view of my invention complete as applied to use and showing the same disposed in a locked position. Fig. 2 is a similar view showing my sash-fastener disposed in an unlocked position. Fig. 3 is a view, partly in section, showing my sash-fastener in an unlocked position and ready to be automatically moved by a further relative movement of the sash. Fig. 4 is a view similar to that presented in Fig. 3 except that my fastener is disposed in a locked position. Fig. 5 is a perspective view showing a slightly-modified form of construction, the fastener being disposed in a locked position. Fig. 6 is a side elevation of my lock, showing the

supporting-bracket partly in section and the fastener in a locked position. Fig. 7 is a similar view showing the fastener in an unlocked position. Fig. 8 is a sectional view of Fig. 6 on line 8 8. Fig. 9 is a sectional view of Fig. 6 on line 9 9.

Referring to the numerals on the drawings, which for convenience are employed to facilitate reference to the various elements of my invention and cooperating parts, 1 indicates the upper sash, while 2 designates the lower sash, and to the lower end of the upper sash I attach a ratchet-plate 3, as by the screws or nails 4, said ratchet-plate having a plurality of teeth, as shown, upon one edge thereof, while upon the other edge it is provided with a longitudinal slot or groove 5 for a purpose hereinafter set forth.

Designed to cooperate with the ratchet-teeth upon the plate 3 is the detent or sash-fastener proper, 6, having corresponding teeth upon its inner edge to engage the teeth upon said ratchet-plate, as clearly shown in the drawings, and in order to operatively mount or secure the movable detent 6 in its operative position I provide any suitable form of bracket, as a plate 7, having the pair of parallel ears 8, and between said ears I movably mount the detent or fastener proper, 6, the same being held in place between the ears by means of the rod 9, extending from ear to ear and secured to both of them in any preferred way. The rod or shaft 9 passes loosely through a suitable opening in the detent 6, as indicated by the numeral 10, and bearing against the inner end of the opening 10 and wrapped around a contiguous part of the rod 9 is the compression-spring 11, the office of which is to dispose the detent normally inward, as will be pointed out in the following description.

In order to facilitate the control of the detent or fastener proper, 6, I provide the manually-controlled lever 12, which is attached to one end of the rod 9 and reaches upward a proper distance and is provided upon its extreme upper end with the handle-section 13. Near the handle portion 13 I provide a slot 14, designed to receive a pin or lug 15, an-



chored in a contiguous part of the detent 6, and it is therefore obvious that by moving the handle 13 outward, the pivot-point of the lever—namely, the rod 9—being immovable, results in the withdrawal of the detent 6 through the mediation of the lug 15, the slot 14 being for the purpose of compensating for the radial movement of this portion of the lever, as will be clearly understood. The lower end of the lever 12 is provided with an extension, as indicated by the numeral 16, and to this extension I pivotally attach the link member 17, the inner end of which is pivotally attached to the swinging detent 18, mounted upon the lug or finger 19, carried by the fastener proper, 6. The lower end of the swinging detent is designed to take into the slot 5, before referred to, the office of said detent being to automatically operate the fastener proper, 6, in the following manner—that is to say, when the handle portion 13 is moved outward the result will be the withdrawal of the fastener proper, 6, from coöperation with the rack-bar 3, said movement of the fastener incidentally causing the inner movement of the swinging detent 18, and thereby forcing the free lower end of said detent into the slot 5—and it is therefore obvious that when the sash 2 is raised the curved terminal of the swinging detent will at the upper end of the slot 5 engage a portion of the bar 3, the result being that the inner edge of the fastener proper, 6, will be drawn downward sufficiently to cause the rod 20 to ride upward out of the recess 21 at the inner end of the horizontal slot 22, when the tension of the spring 11 will cause the detent to move inward after it shall have passed the end of the rack-bar. It may be stated in this connection that the recess 21 at the inner end of the slot 22 is for the purpose of holding the fastener proper, 6, in an unlocked position, where it will remain until the inner end of the fastener is forced downward sufficiently to cause the rod 20 to take into the horizontal portion or slot 22. When the sash 2 is drawn downward, it is obvious that the teeth of the fastener proper, 6, will ride freely over the inclined faces of the teeth upon the rack-bar 3, thereby insuring that they will reengage said teeth and prevent upward movement of the lower sash or a downward movement of the upper sash until the fastener 6 shall have again been withdrawn through the mediation of the lever 12, as will be clearly understood.

In Fig. 5 and other views I have illustrated that my sash-fastener will be entirely reliable and efficient without the addition of the automatic controlling mechanism, comprising the swinging detent 18 and its controlling devices, enabling it to coöperate with the slot 5. In Fig. 5 and the views following it will be observed that I have wholly omitted the slot 5 and also omitted the swinging detent 18 and the link member connecting it with the lever

12, the other parts of the construction being substantially the same as hereinbefore described.

By reference to Fig. 6 it will be observed that the rod 20, as shown in Fig. 5 and other views, and which extends loosely through the slot 22 and is carried by the ears 8, is loosely received by said slot, thereby permitting the fastener proper, 6, to be moved outward until the rod 20 reaches the recess 21 at the inner end of the slot 22, when the action of the spring 11 will cause the inner edge of the fastener 6 to automatically move upward, the result being that said fastener will be reliably held against inward movement and in a slightly-tilted position until the inner end thereof is again moved downward, which can be readily accomplished by a slight pressure of the finger.

In Fig. 5 and other views the handle portion 13 of the lever 12 is easily and cheaply provided by simply bending and properly shaping the end of said lever, a compensating slot 14 and coöperating rod 15 being provided, as in the other views, all of this construction being of substantially the same character and designed to accomplish the same result—namely, that of causing the outward movement or withdrawal of the fastener 6 by a simple outward movement of said lever, the tension of the spring 11 being ready at all times to again restore the fastener to its inward position when released by disengaging the rod 20 from the recess 21.

It will be seen that I have provided simple and thoroughly reliable means for easily and quickly withdrawing the fastener 6 and automatically holding said fastener disposed in an unlocked position, and, furthermore, that I have provided automatic means, as illustrated in Figs. 1 to 4, inclusive, for releasing the fastener and permitting it to be acted upon by the compression-spring 11 and restored to its normally inward or locked position.

It will be understood that the brackets or ears 8 may be formed in any preferred way, either by casting or shaping the same out of suitable sheet metal. It is furthermore apparent that all of the several parts of my invention may be very cheaply and expeditiously manufactured, whereby each will be ready to be assembled or disposed in its respective coöperative position relative to the other parts, and while I have described the preferred combination and construction of each of the parts I wish to comprehend in this application such reasonable changes and modifications and substitutes as fairly fall within the scope of my invention.

My complete sash-fastener consisting, as it does, of but a few simple parts may be readily located and secured in its proper place upon a window, whereby the respective parts for the upper and lower sash will be in position to coöperate with each other in the manner



hereinbefore explained, each part being readily so mounted as by the addition of the anchoring-screws 4 or equivalent means.

Inasmuch as the rod 9 remains stationary relative to the ears 8 an outward movement of the lever 12 acts directly upon the finger or lug 15, as before explained, resulting first in a bodily outward movement of the fastener 6 until the teeth thereon shall have become disengaged from the teeth upon the bar 3, when the inner end of the fastener will be raised upward, causing the rod 20 to take into the recess 21, and thereby insure that when the handle 12 is released the said detent will be held in an outward position until the rod 20 shall have again been forced out of the recess 21 either by manually moving the lever 12 inward or by means of the automatic action of the swinging detent 18 cooperating with the slot 5:

By reference particularly to Figs. 3, 6, and 7 it will be observed that I have provided an inwardly-directed extension or lip 23, which when the fastener 6 is disposed in a locked position extends beyond the meeting-line of the upper and lower sash and acts as a closure or guard against the introduction of a knife-blade, piece of wire, or the like, by means of which the detent might be forced inward from the outside of the window. This safeguard therefore prevents the possibility of unlocking my improved sash-fastener by unauthorized means, insuring that the fastener can only be unlocked from the inside of the building in the manner hereinbefore explained. It is furthermore obvious that the spring 11 serves to reliably hold the fastener 6 in close engagement with the rack-bar 3 when the fastener is disposed in engagement therewith.

Having thus fully described the construction and manner of using my improved sash-fastener and sash-lock, it is thought that the nature and merits thereof will be fully appreciated.

It is obvious from the foregoing description that no other form of sash-fastener will be required in cooperation with my appliance and

that in addition to reliably locking the sash when they are disposed in a closed position my fastener will also be found efficient and useful for holding and locking the sash when the latter are in an open or partly-open condition, thus providing means which will enable the upper or lower sash to be partly opened for the purpose of ventilation and at the same time hold them reliably locked together.

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

The herein-described sash lock or fastener comprising the combination with the upper and lower sash, of a rack-bar; a fastener or detent 6 movably mounted in a suitable bracket as a pair of ears 8; a rod 9 passing loosely through a slotted opening in said fastener; a spring in said slot cooperating with said rod designed to hold the fastener normally inward; a lever 12 connected to one end of said rod and having a compensating slot 14; a lug carried by the fastener and extending loosely through said compensating slot; an auxiliary rod 20 carried by said ears and passing through a horizontal slot 22 in the lower edge of said fastener said horizontal slot having at its inner end the downwardly-directed recess 21 whereby when the fastener 6 is drawn outward against the tension of its spring said rod 20 will rest in said recess 21 and hold the fastener in an unlocked position until again released by an inward movement of the lever, and means comprising a slotted opening 5 and a swinging detent 18 operatively connected with said lever 12 adapted to automatically disengage the rod 20 from said recess and release the fastener whereby it will reassume its normally inward position, all combined substantially as specified and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY C. HETTINGER.

Witnesses:

FRED RUEDEL,  
ROSIE HETTINGER.