

No. 762,896.

PATENTED JUNE 21, 1904.

O. FROTSCHER.  
WINDOW.

APPLICATION FILED MAR. 18, 1904.

NO MODEL.

3 SHEETS—SHEET 1.

Fig. 1.

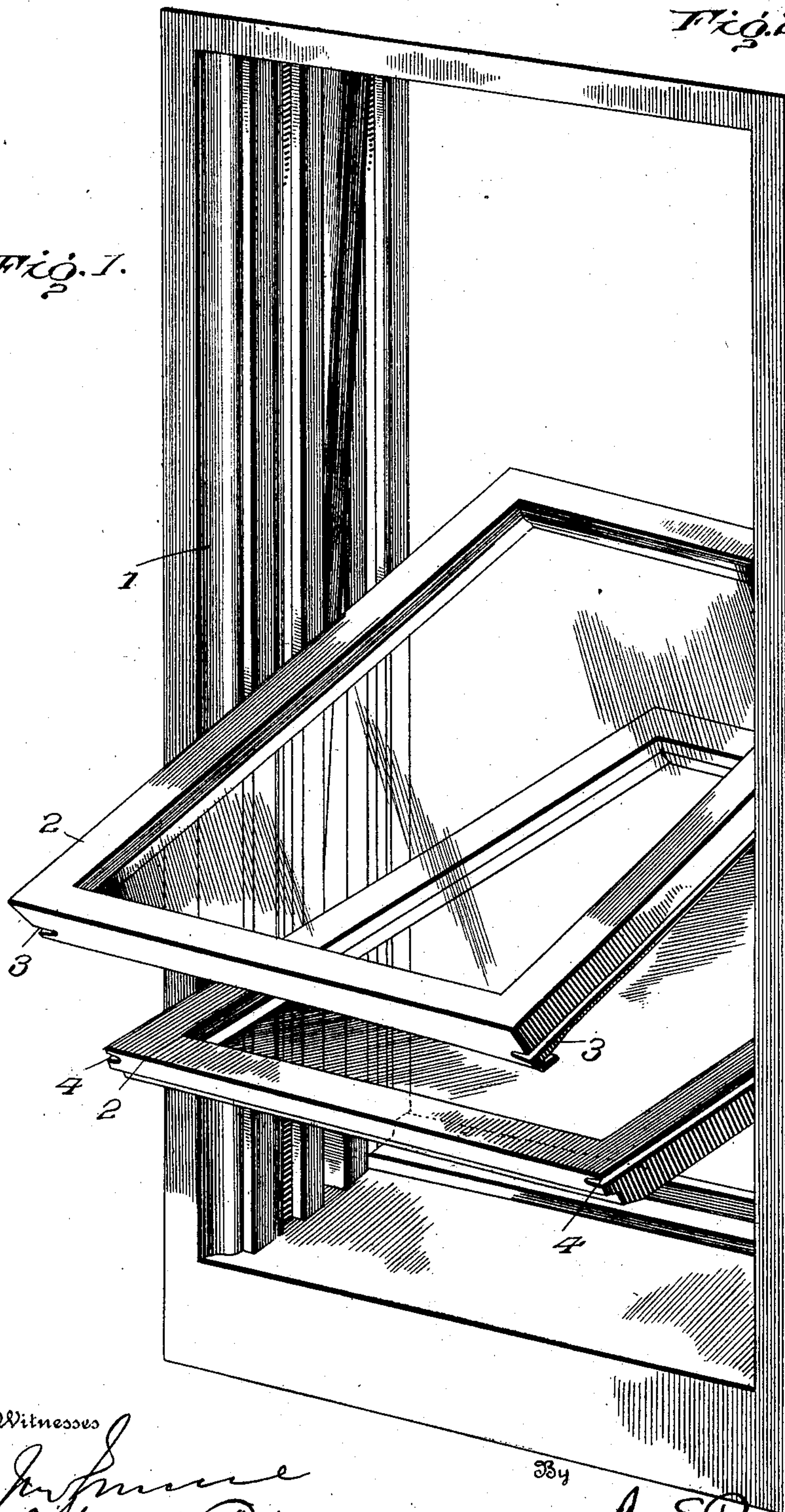
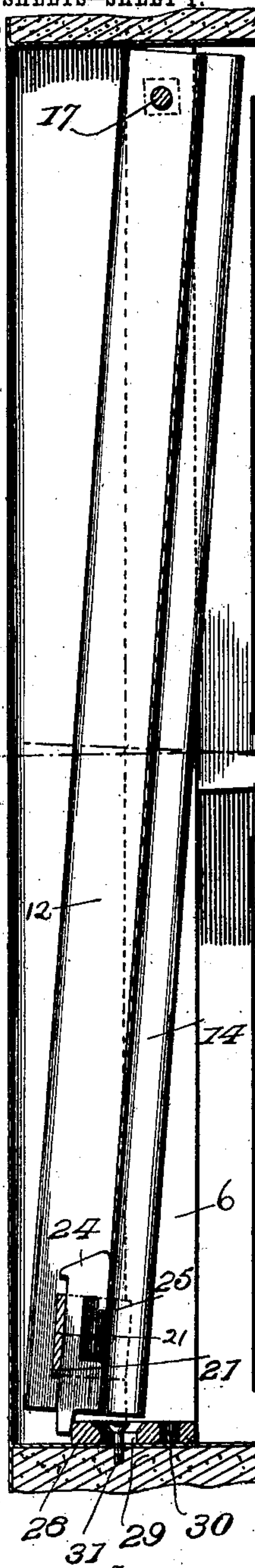


Fig. 2.



Witnesses

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3 SHEETS—SHEET 2.

Fig. 3.

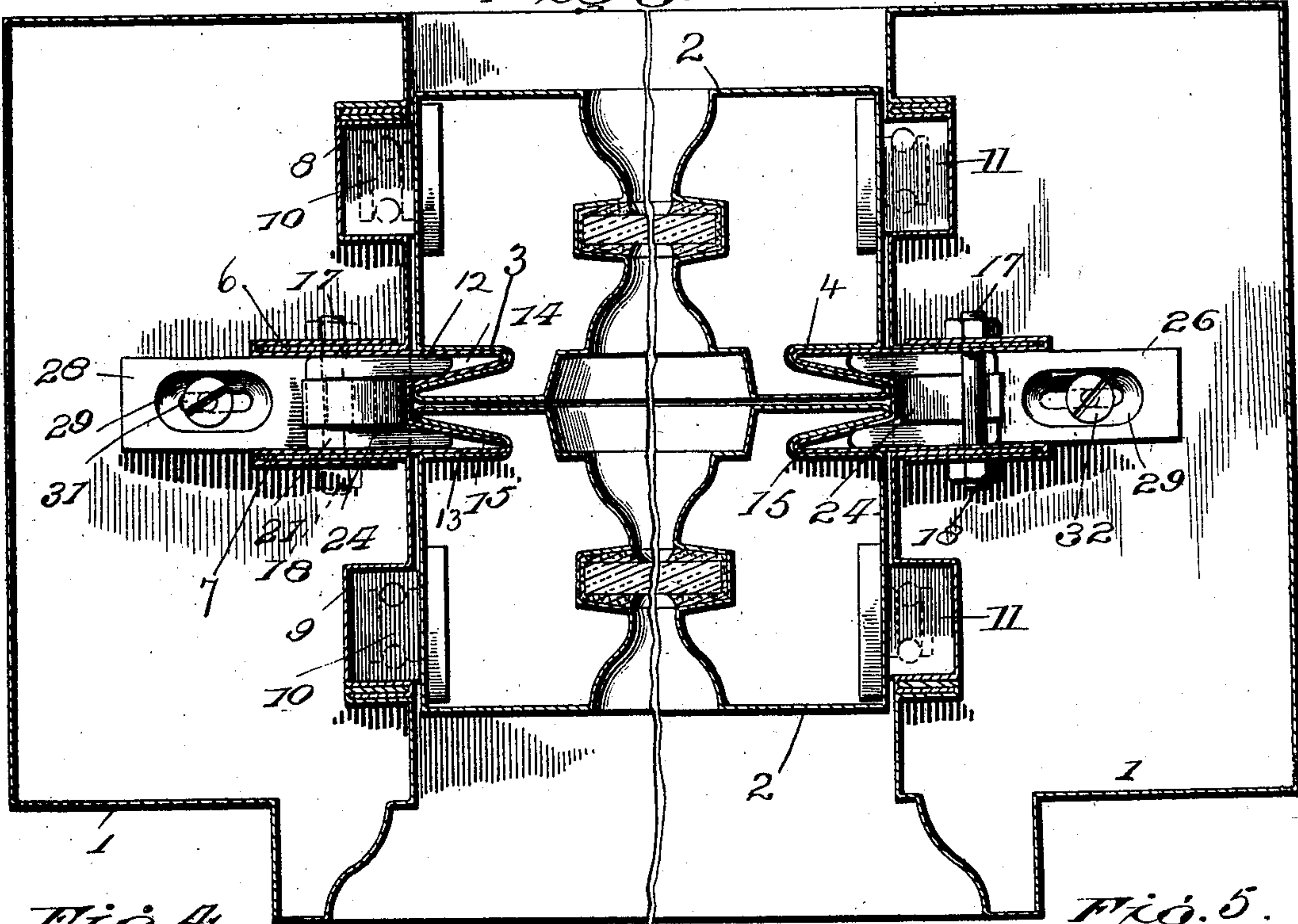


Fig. 4.

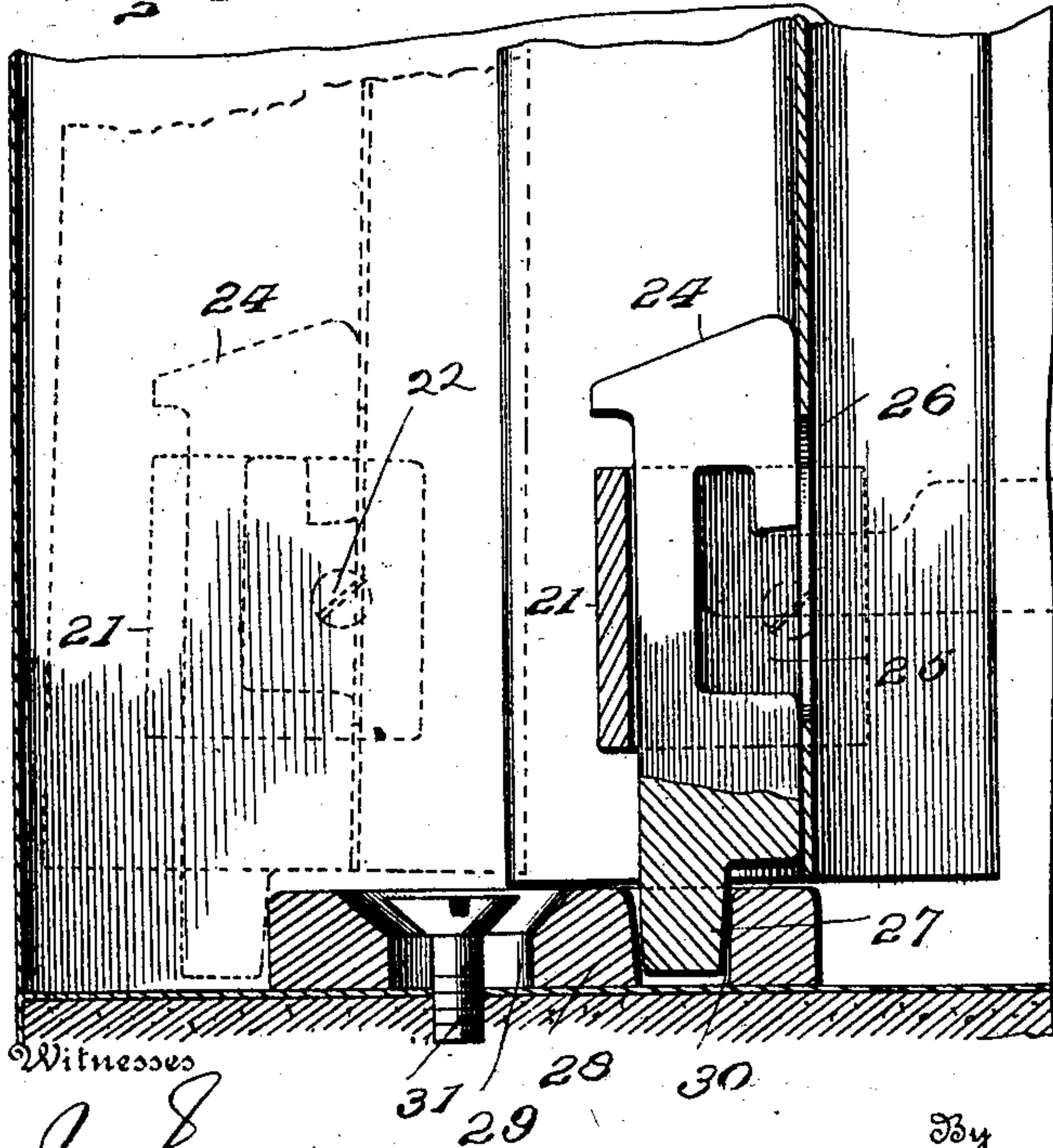
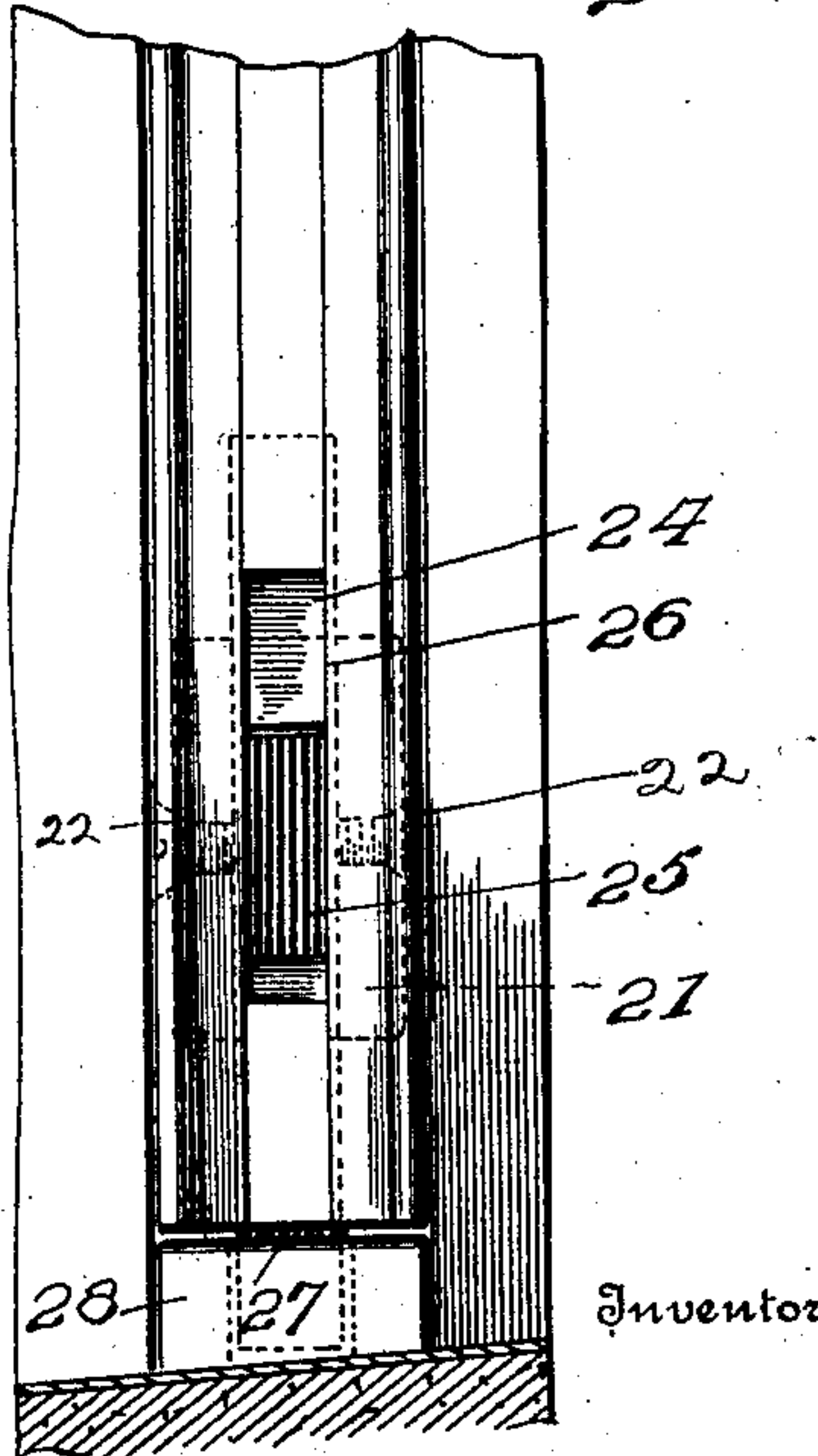


Fig. 5.



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3 SHEETS—SHEET 3.

Fig. 7.

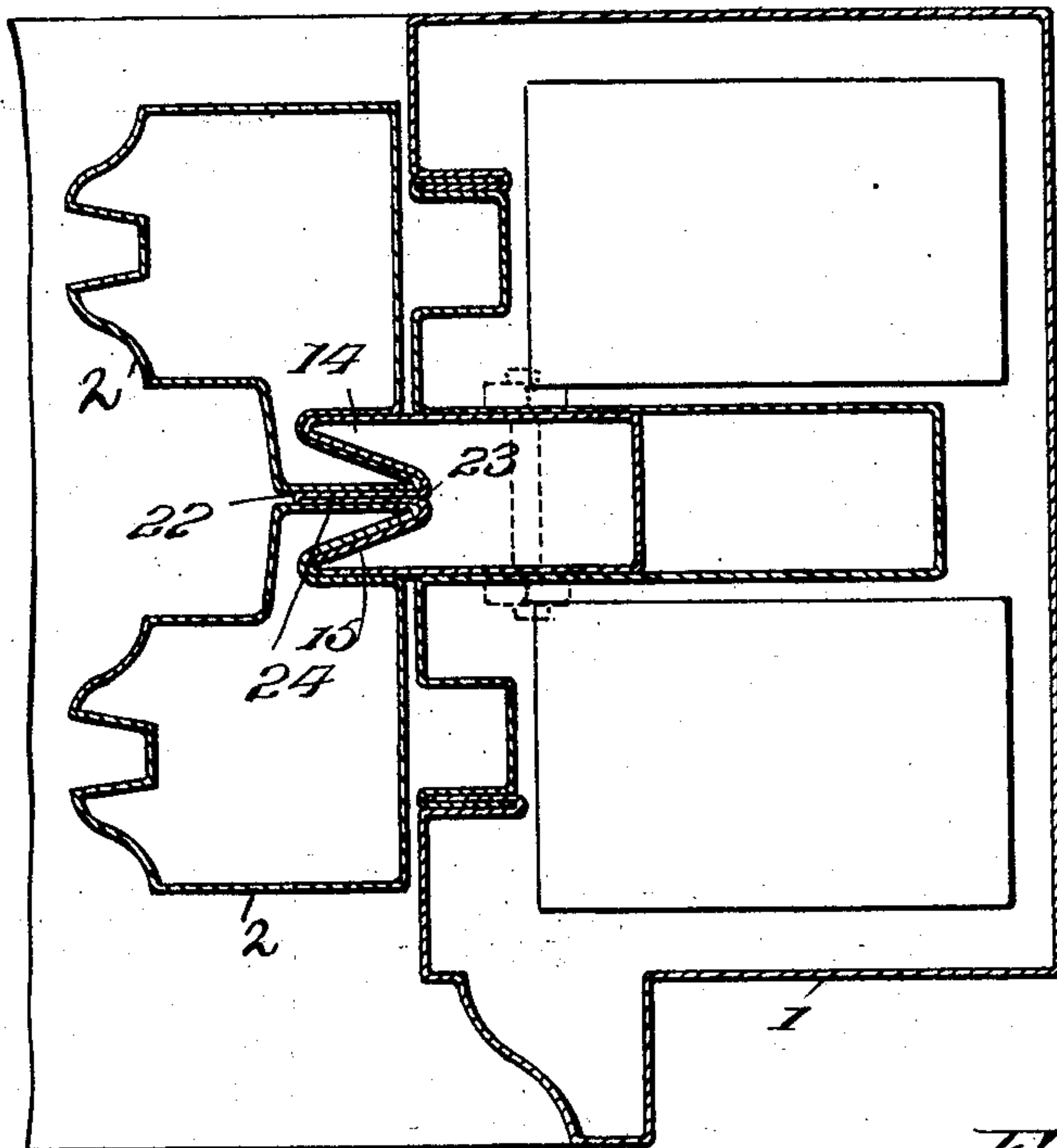


Fig. 8.

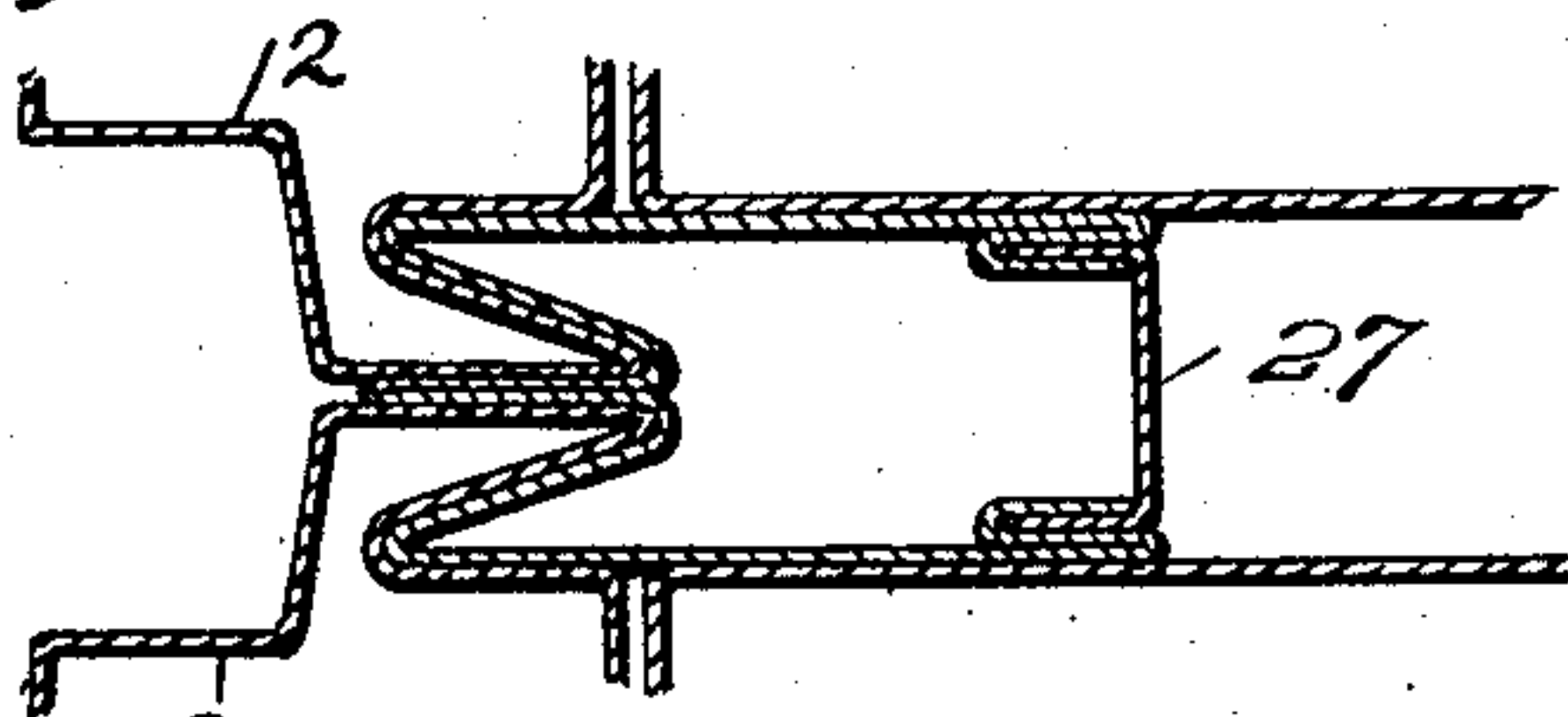


Fig. 9.

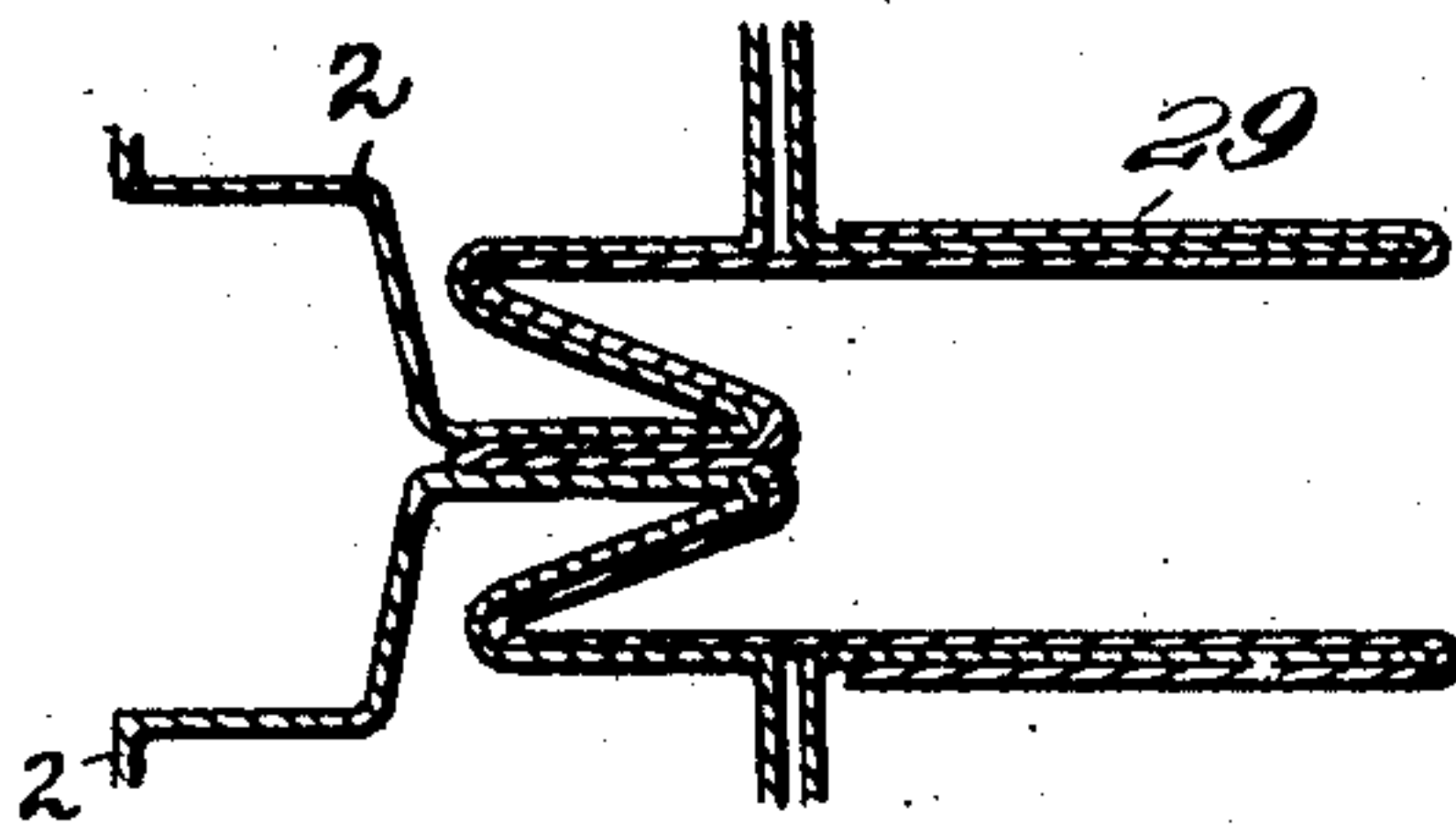
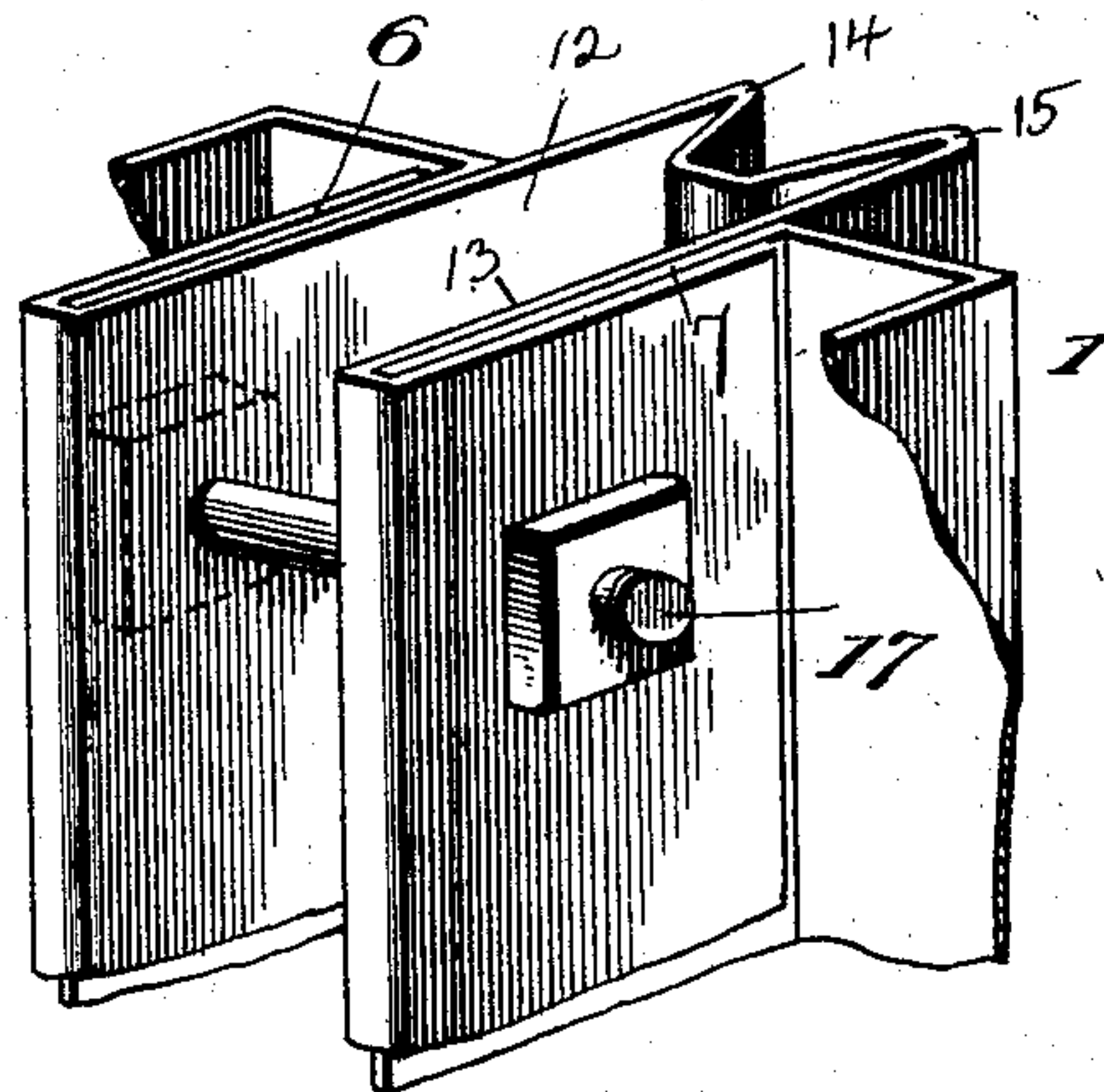


Fig. 6.



Witnesses

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# UNITED STATES PATENT OFFICE.

OSCAR FROTSCHER, OF PHILADELPHIA, PENNSYLVANIA.

## WINDOW.

SPECIFICATION forming part of Letters Patent No. 762,896, dated June 21, 1904.

Application filed March 18, 1904. Serial No. 198,790. (No model.)

*To all whom it may concern:*

Be it known that I, OSCAR FROTSCHER, a citizen of the United States of America, and a resident of Philadelphia, in the county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Windows, of which the following is a specification.

This invention relates to improvements in windows of the character shown in my Patent No. 749,608 granted January 12, 1904, in which the sashes are arranged so that they may be rotated on horizontally-arranged pivots, as well as to slide vertically in the usual manner.

In my present invention I am enabled to dispense with the sash-slides shown in my aforesaid patent, and I also use a parting-bead of very similar construction which engages both sashes and is the sole means of preventing and permitting their rotary movement.

My invention consists in its preferable embodiment in the peculiar construction and arrangement and combinations of parts herein-after more particularly described and then definitely claimed at the end hereof.

In the accompanying drawings, which represent what I now consider the preferable way of carrying out my invention, but to which my claims are not necessarily limited, Figure 1 is a perspective view of a window, showing my parting-bead in the position which permits the sashes to be swung on their horizontal pivots. Fig. 2 is a sectional view showing one side of the frame, the parting-bead being shown in its inactive position in full lines. Fig. 3 represents a horizontal section of Fig. 1. Fig. 4 represents a sectional view, on a much-enlarged scale, of the arrangement for locking the parting-bead in its active and inactive positions. Fig. 5 shows a face view of the same structure shown in Fig. 4. Fig. 6 is a perspective detail. Figs. 7, 8, and 9 are views showing different forms of the parting-bead.

Referring now to the details of the drawings by numerals, 1 represents a frame which may be formed in any desirable manner, although I show it of sheet-metal construction in Fig. 3, and within this frame is secured the sashes 2,

which may be of any preferred construction, except that I prefer to form in any way whatever openings or grooves 3 and 4, which run longitudinally of the sashes, as very clearly seen in Fig. 1. As illustrated in Figs. 3 and 6, the metal forming the window-frame terminates in two inwardly-projecting parts 6 and 7, which leave a groove or opening between them running the full length of the frame on the inner side thereof. On each side of the part 6 and 7 is also formed a groove or opening, which I have numbered 8 and 9 and within which are contained the pivots 10 and 11. (Shown in dotted lines.) The large opening contained within the window-frame at the rear of 8 and 9 is designed to contain the sash-weights. (Not shown.) As nothing new is claimed in the frame itself nor in the pivots for the sashes, it is believed these parts need no further description. Within the longitudinal opening or groove formed between the parts 6 and 7 and which opening or groove has been described as extending the full length of the window-frame I insert a parting-bead of novel structure, and in one of its embodiments this parting-bead is formed of one piece of sheet metal formed into the shape shown in section in Fig. 3 and in perspective in Fig. 6. In other words, it comprises two vertical members 12 and 13, which fit closely against the inturned portion 6 and 7 of the frame. These members 12 and 13 are merely the continuations of what may best be described as a W-shaped parting-head, the portions 14 and 15 of which are shaped to fit into the longitudinal grooves 3 and 4 of the sashes as such grooves are shown in Figs. 1 and 3. While I do not limit my invention to the shape of this parting-bead, it will be noticed in my drawings that the ends of the members 12 and 13 are bent on themselves to form the deep grooves into which the portions 6 and 7 snugly fit. When the parts are in their active position, this will be found to make an exceedingly tight window, as will be seen from an inspection of Fig. 3.

From an inspection of Fig. 2 it will be seen that my parting-bead is suspended from its upper end and that its lower end is free to move in and out. This may be accomplished



in any desired way; but at present I prefer the simple manner of hanging the parting-bead on a pivot comprising an ordinary bolt 17, which passes through said bead and also through the vertical walls 6 and 7 of the frame 1. (See the perspective detail Fig. 6.) When the parting-bead is in a truly vertical or perpendicular position, its members 14 and 15 closely fit within the grooves 3 and 4 of the sashes, and thus the sashes may be moved vertically, but will be prevented from any rotary movement, owing to the fact that the parting-bead projects into said grooves; but owing to the peculiar construction of the parting-bead it is possible to swing its forward end rearwardly on its pivot, as shown in Fig. 2. When this is done, the sashes, if first moved to the lower portion of the frame, may be swung on their horizontal pivots, as shown in Fig. 1. Of course it will be obvious that in order to make it absolutely sure that when moved to its inactive position the lower half of the parting-bead will not project beyond the horizontal dotted line in Fig. 2 the said parting-bead must be moved rearwardly twice as far as it normally projects. Of course it will be understood that whenever the parting-bead is withdrawn to at least twice the amount that it projects it will be free from touching the sashes for the whole of its lower half. While any desired means may be used to hold this parting-bead in its active and inactive positions, I much prefer the arrangement shown in my drawings, which may be described as follows: At the extreme lower end of the parting-bead I secure a U-shaped keeper 21, and this keeper is secured by soldering, brazing, or by the screws 22. Within the keeper is loosely supported a bolt 24, having a recess 25 in its front side, which is directly opposite a recess 26, cut into the face of the parting-bead. Secured to the window-sill inside of the frame 1 is a plate 28, provided with two openings 29 and 30, the first of which is elongated for the purpose of adjustment and the other is adapted to receive the lower end 27 of the bolt 24, as clearly seen in Fig. 4. A screw 31 is inserted through the elongated opening 29 for the purpose of securing the plate 28 in its proper position. In order to operate the said bolt 24, a tool of the proper construction is provided to project through the opening 24 in the parting-bead, the end of such a tool being shown in Fig. 4. However, as my invention does not reside in the tool further description thereof is unnecessary, and it will be sufficient to state that when it is desired to move the parting-bead into its inactive position the tool is inserted through the opening 26 in the parting-bead and into the opening 25 in the bolt 24. The tool may then be used to lift the bolt slightly upward, so as to free the lower end 27 from the opening 30 in the plate 28, when the operator may by pressing on the tool shove the end of the

parting-bead back into the window-frame, as clearly seen in full lines in Fig. 2 and in dotted lines in Fig. 4, when the bolt may be permitted to drop so that its end 27 projects behind the plate 28, and thus locks the parting-bead in its inactive position. It will be understood that the entire lower half of the parting-bead is now entirely within the frame, and therefore as it does not contact at all with the lower sash said lower sash may be swung on its pivot. It is of course likewise to be understood that if the upper sash is slid to a lower position, so as to be below the point where the parting-bead projects from the frame, said upper sash may also be swung on its pivots.

Whenever it is desired to again lock the sashes from rotation, all that is necessary to do after the sashes have been brought into their proper vertical positions is to insert the hooked end of the tool through the parting-bead into the recess in the bolt 24, when said bolt may be lifted, as before described, and the parting-bead may then be drawn forward until the lower end 27 of the bolt is again in line with the opening 30, when said bolt is permitted to drop until it is in the position shown in full lines in Fig. 4.

In Figs. 7, 8, and 9 I have shown other forms of parting-beads, which in some respects are to be preferred to the form shown in Figs. 1 to 6, in that they form extremely effective weather-strips in addition to acting as parting-beads. In the form shown in Fig. 7 the parts may be just like those shown in Fig. 3, except that there is a space 22 left between the sashes, and the metal forming the weather-strip is formed into a double portion 24, which passes into the space 22, and thus forms an effective weather-strip. As heretofore mentioned, this parting-bead is otherwise just like the one shown in Fig. 3 and is suspended from above and its lower end is allowed to swing inward. In the form shown in Fig. 8 I provide an arrangement just like that shown in Fig. 7, except that the rear end of the parting-bead is formed so as to be closed by a U-shaped or channel strip 27. In Fig. 9 the parting-bead is constructed like the form shown in Fig. 7 so far as the part 24 is concerned; but in this form the rear ends of the parting-bead are formed with portions 29, forming deep grooves similar to those grooves shown in Fig. 3, into which the portions 6 and 7 snugly fit.

As I have before stated, I do not limit myself to the exact construction herein shown and described, but prefer the embodiment illustrated in my drawings as one of extremely simple construction that is not likely to get out of order and that is positive in its inner and outer movements, so that no dependence is placed upon springs or gravity. While I do not limit my claims to such device, I deem important the construction whereby the single



bead is the sole means of locking both sashes and also the structure whereby the parting-bead is secured near one end and is movable near the other end.

5 What I claim as new is—

1. In a window the combination with the frame thereof, of a parting-bead supported by said frame and having two portions projecting therefrom, and sashes having grooves or  
10 openings coacting with said projecting portions and mounted on horizontally-arranged pivots, the said parting-bead being the sole means of preventing said sashes from turning on their pivots, substantially as described.

15 2. In a window the combination with the frame thereof, of horizontally-pivoted sashes provided with grooves or recesses; and a parting-bead supported by said frame, formed of sheet metal and comprising two doubled projecting portions coacting with the grooves or  
20 recesses in the sashes, and a portion projecting inwardly into the frame; said parting-bead being the sole means of preventing said sashes from turning on their horizontal pivots, substantially as described.

3. In a window the combination with the frame thereof, of sashes arranged on horizontal pivots, and a parting-bead coacting with said frame and sashes, said parting-bead being  
30 supported near one of its ends whereby its other end is free to move in and out of contact with said sashes, substantially as described.

4. In a window and in combination with the frame thereof, sashes arranged on horizontal  
35 pivots, a parting-bead coacting with said frame and sashes, said parting-bead being supported near one of its ends whereby its other end is free to move in and out of contact with said  
40 sashes, and means for fastening the free end of said parting-bead, substantially as described.

5. In a window and in combination with the frame thereof, sashes arranged on horizontal  
45 pivots and having grooves or recesses therein, a parting-bead having projecting portions coacting with the grooves or recesses in said sashes, said parting-bead being supported near one of its ends whereby its other end is free  
50 to move in and out of said grooves or recesses, substantially as described.

6. In a window and in combination with the frame thereof, sashes arranged on horizontal

pivots, a parting-bead coacting with said frame and sashes, said parting-bead being pivoted  
55 near its upper end whereby its lower end is free to swing in and out of contact with said sashes, substantially as described.

7. In a window and in combination with the frame thereof, sashes arranged on horizontal  
60 pivots and having grooves or recesses therein, a parting-bead having portions projecting into said grooves or recesses, said parting-bead being pivoted near one of its ends whereby its  
65 other end is free to swing in and out of said recesses, substantially as described.

8. In a window and in combination with the frame thereof, sashes arranged on horizontal  
70 pivots, a parting-bead coacting with said sashes and forming the sole means of preventing said sashes from turning on their horizontal pivots, said bead being pivoted near one of its ends and its other end being free to  
75 move in and out, substantially as described.

9. In a window and in combination with the frame thereof, sashes arranged on horizontal  
80 pivots, a parting-bead coacting with said sashes and having its lower end movable, a plate at the lower end of said bead, and a bolt coacting with said plate to hold said bead in position, substantially as described.

10. In a window and in combination with the frame thereof, sashes having vertical grooves  
85 therein and a space between them, and a threefold parting-bead coacting with said sashes, two portions of the parting-bead fitting the grooves in the sashes, and the other part of the parting-bead entering the space between the sashes, substantially as described.

11. In a window and in combination with the frame thereof, pivoted sashes having vertical  
90 grooves therein and a space between them, and a threefold parting-bead coacting with said sashes, two portions of the parting-bead fitting the grooves in the sashes and the other part  
95 of the parting-bead entering the space between said sashes, said parting-bead being pivoted near one of its ends, whereby its other end may be moved to permit the sashes to swing  
100 on their pivots, substantially as described.

Signed by me at Philadelphia, Pennsylvania, this 17th day of March, 1904.

OSCAR FROTSCHER.

Witnesses:

ALFRED LEWIS,  
JOSHUA R. MORGAN.