

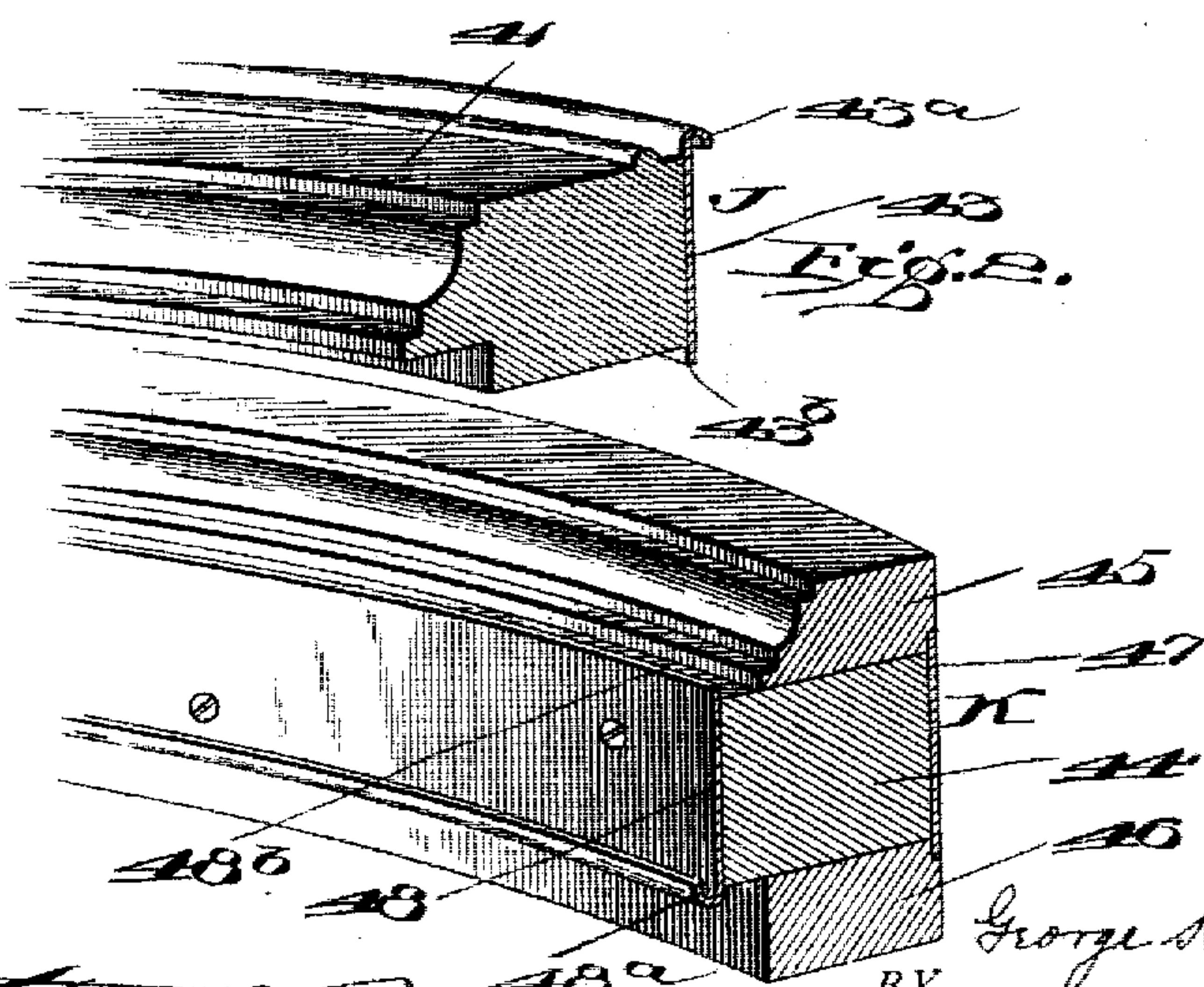
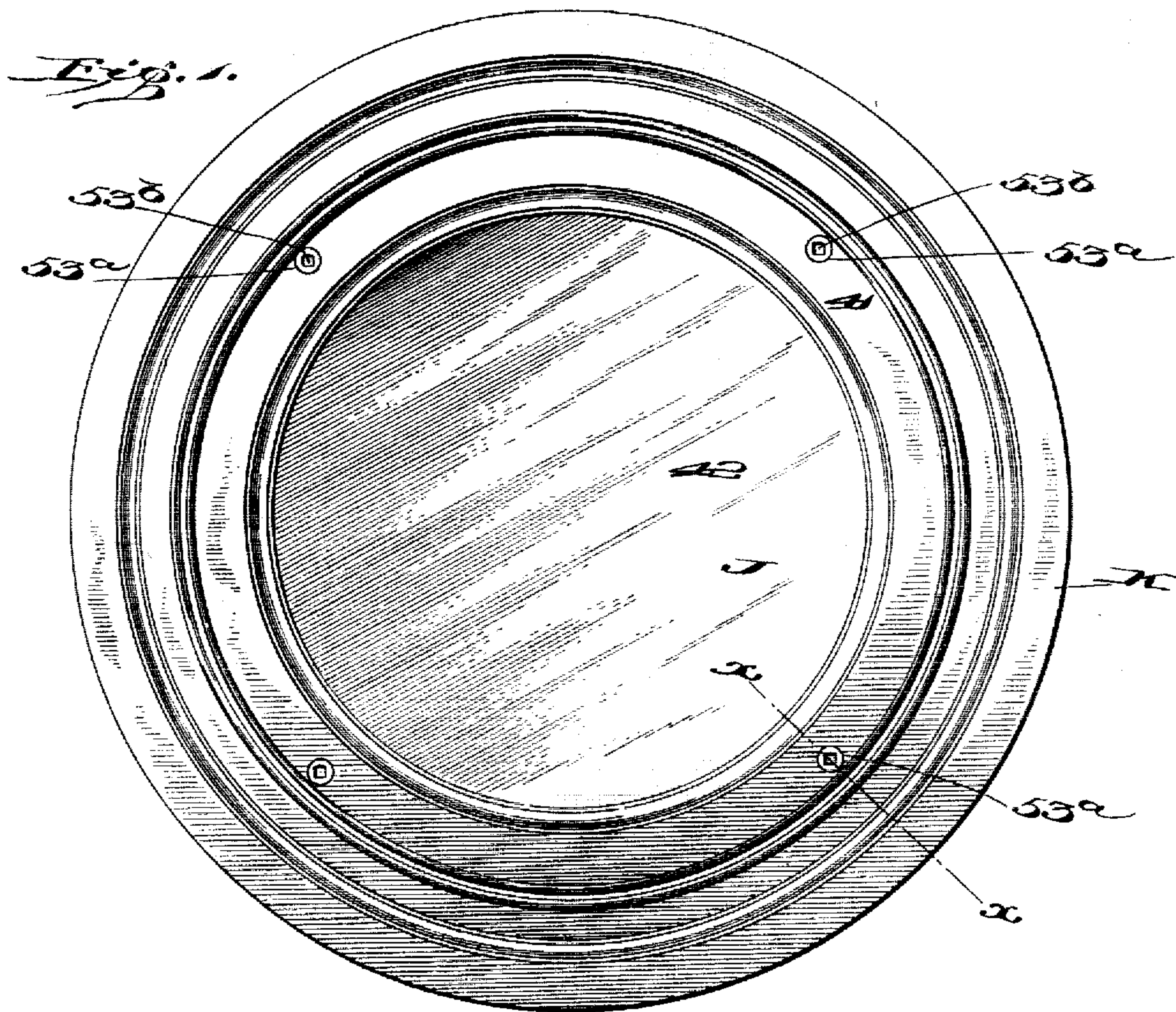
No. 814,317.

PATENTED MAR. 6, 1906.

G. H. PARKER.  
WINDOW RETAINING APPARATUS.

APPLICATION FILED MAY 13, 1904.

2 SHEETS—SHEET 1.



WITNESSES:

*Allen & Coose.*  
*H. M. Seaman.*

INVENTOR  
*George H. Parker*  
BY *Duell, Magrath & Warfield*  
ATTORNEYS.



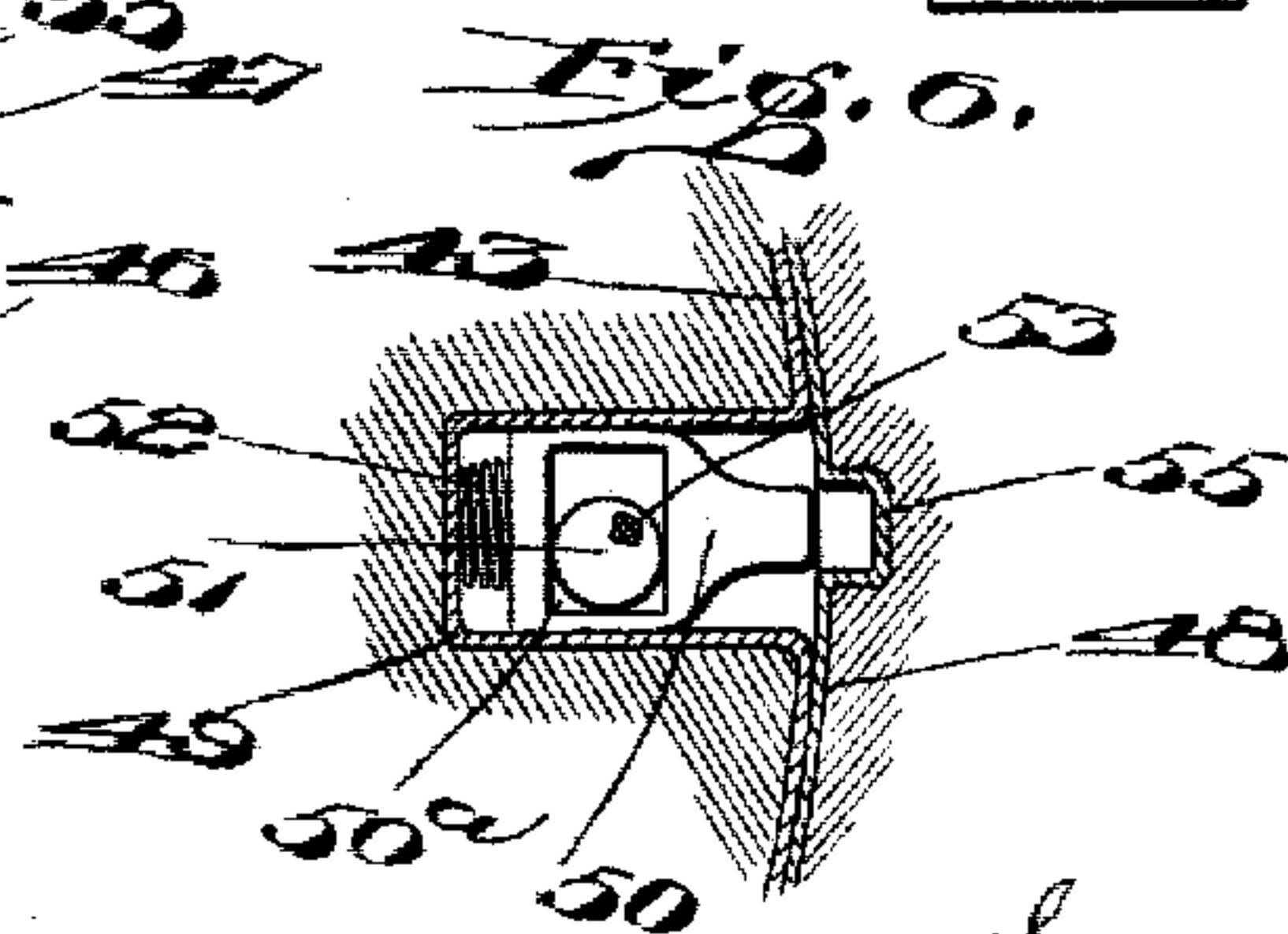
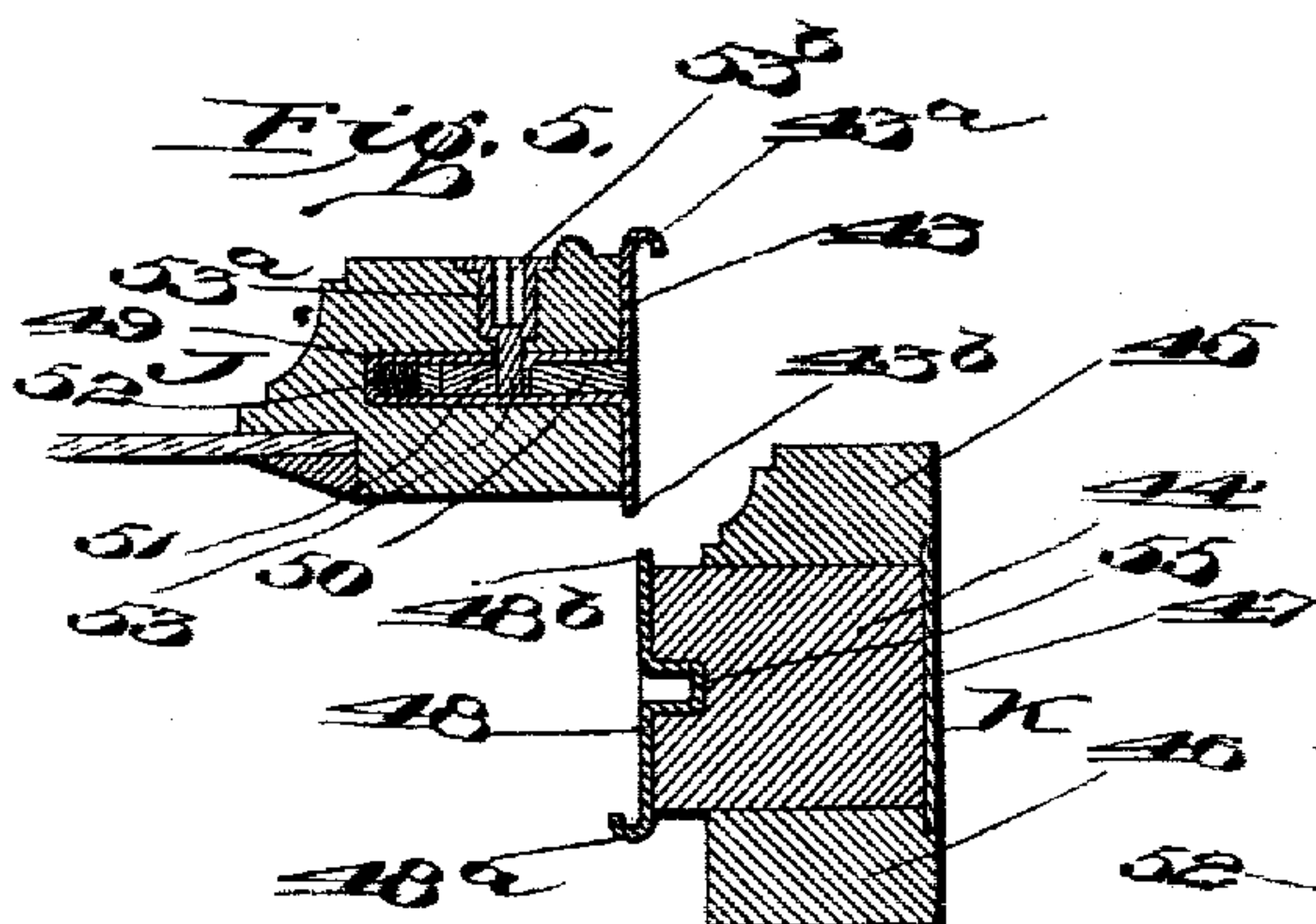
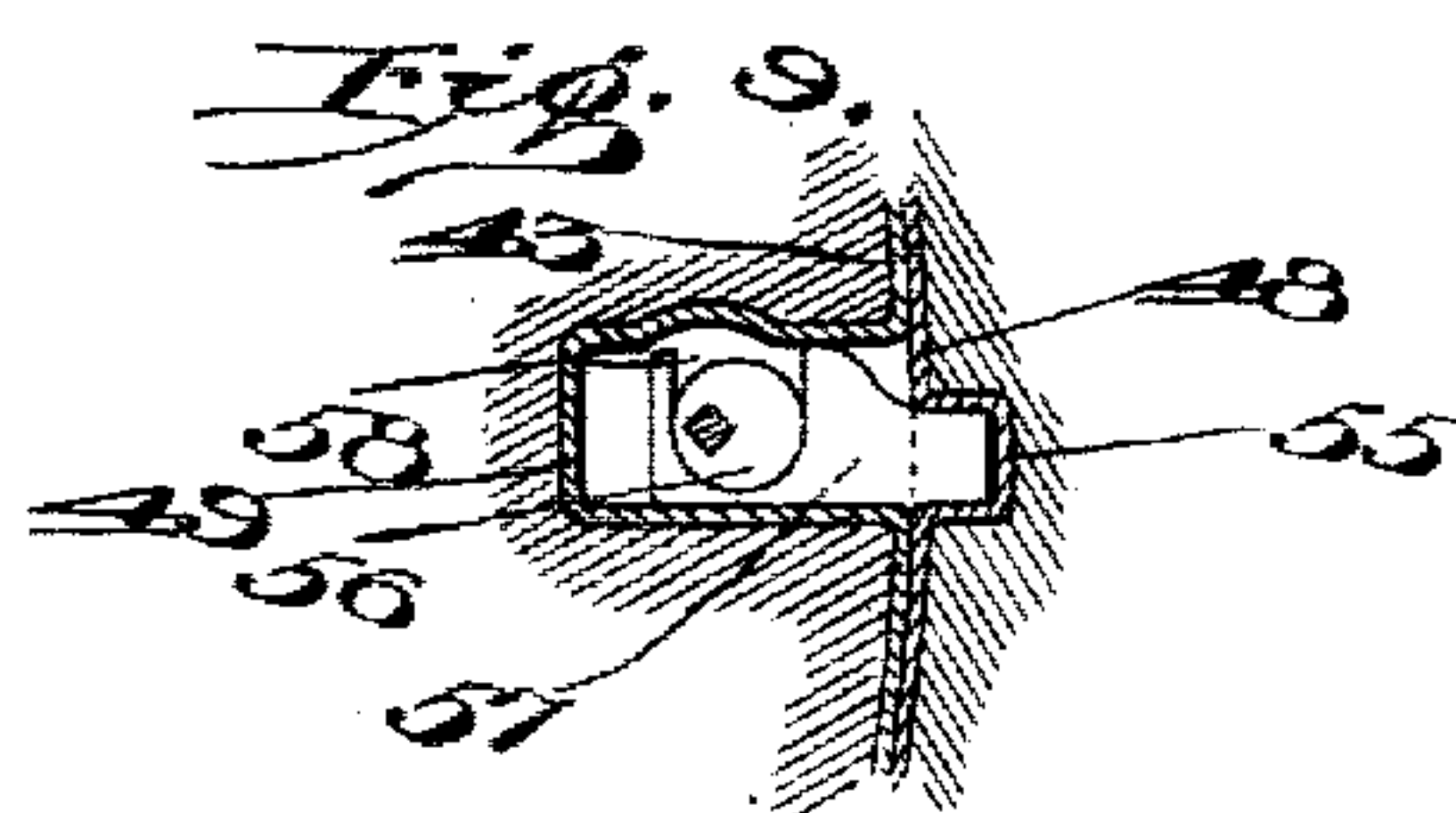
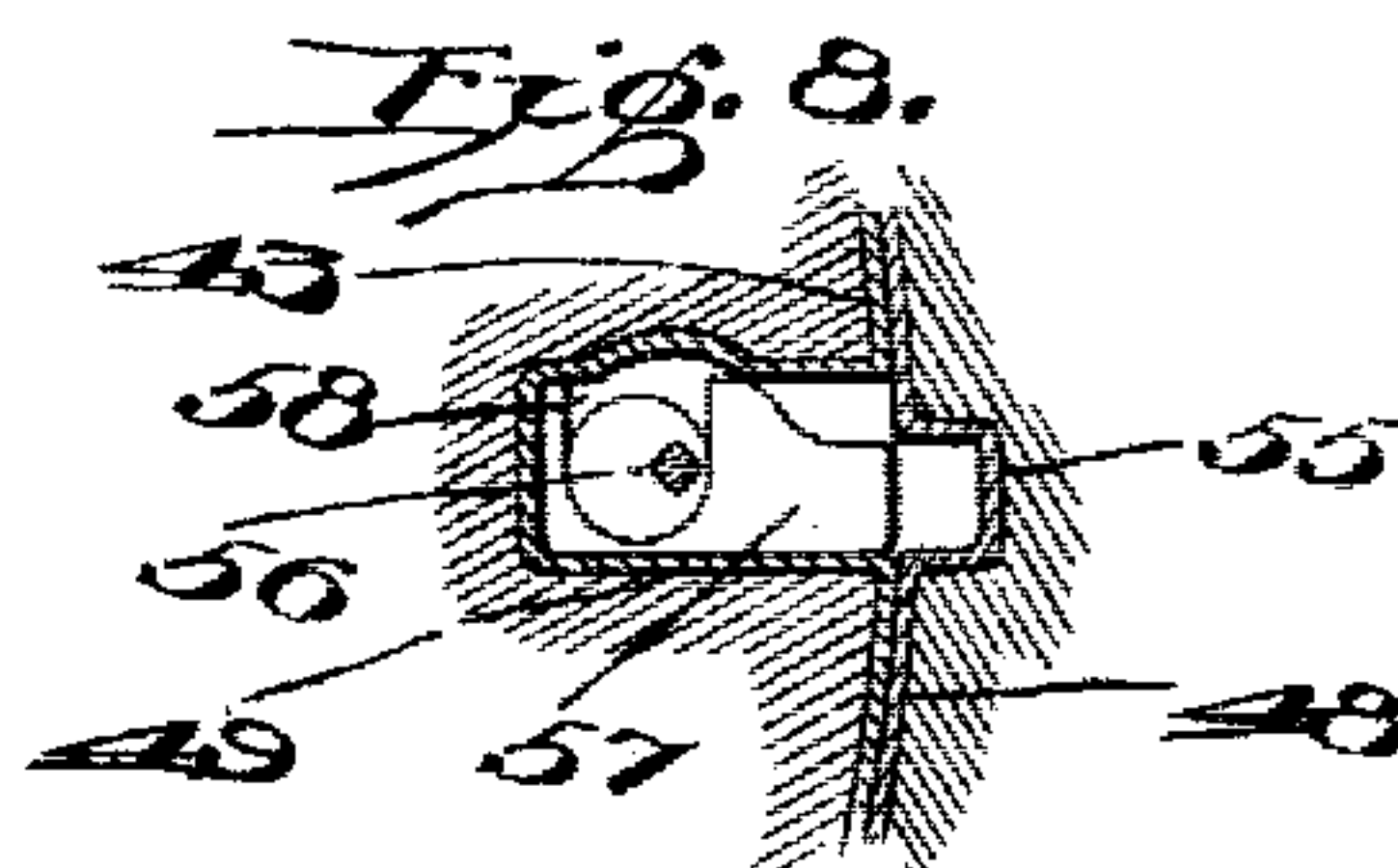
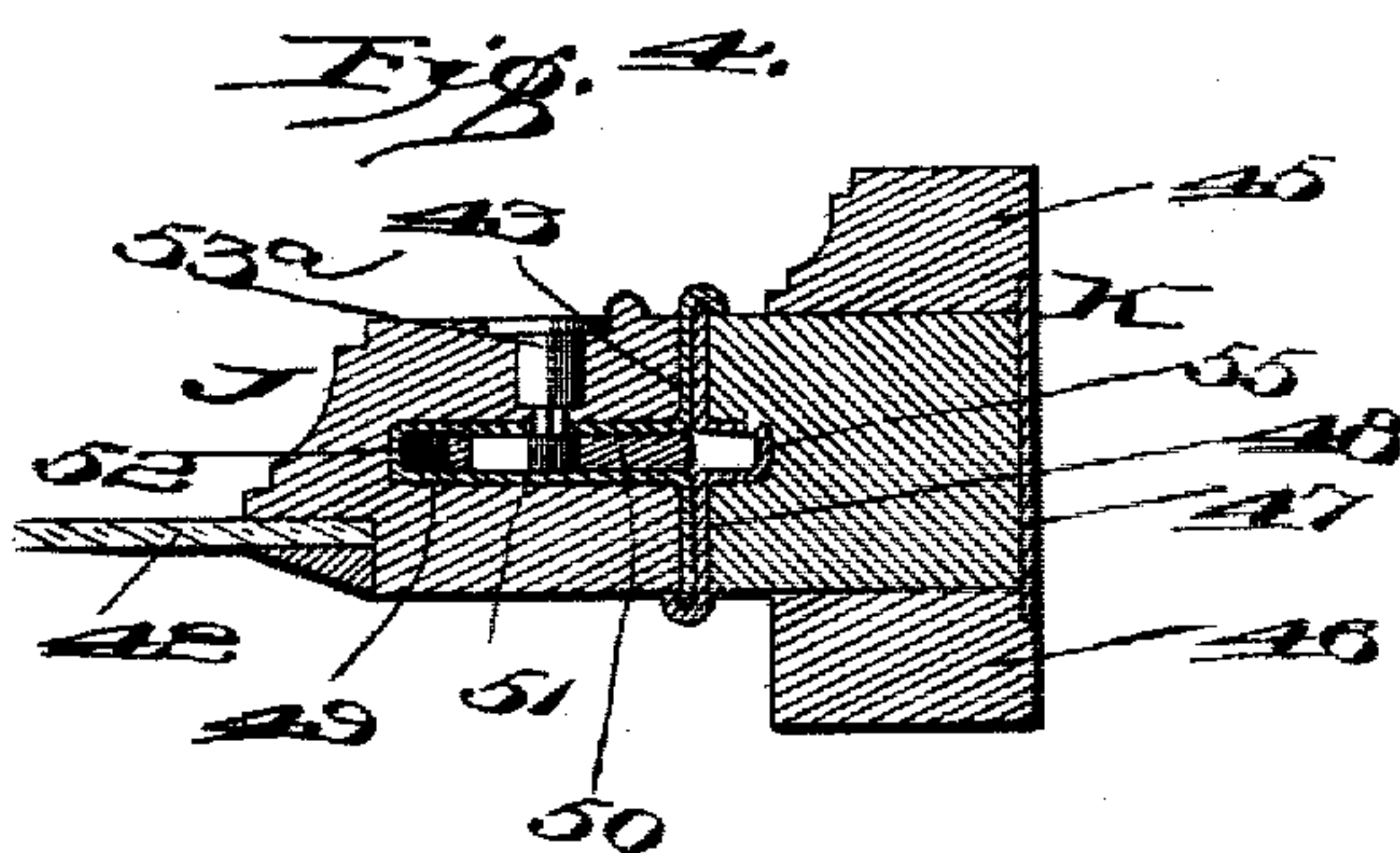
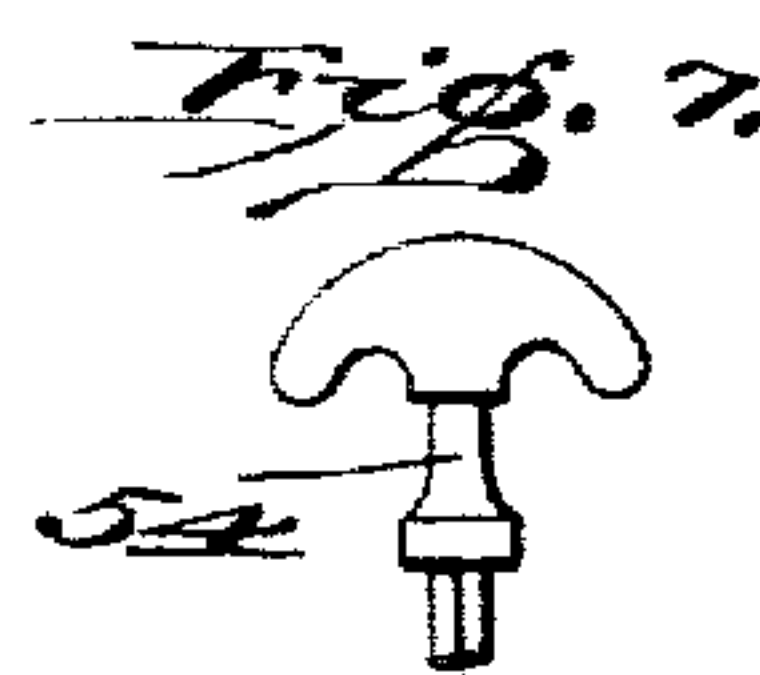
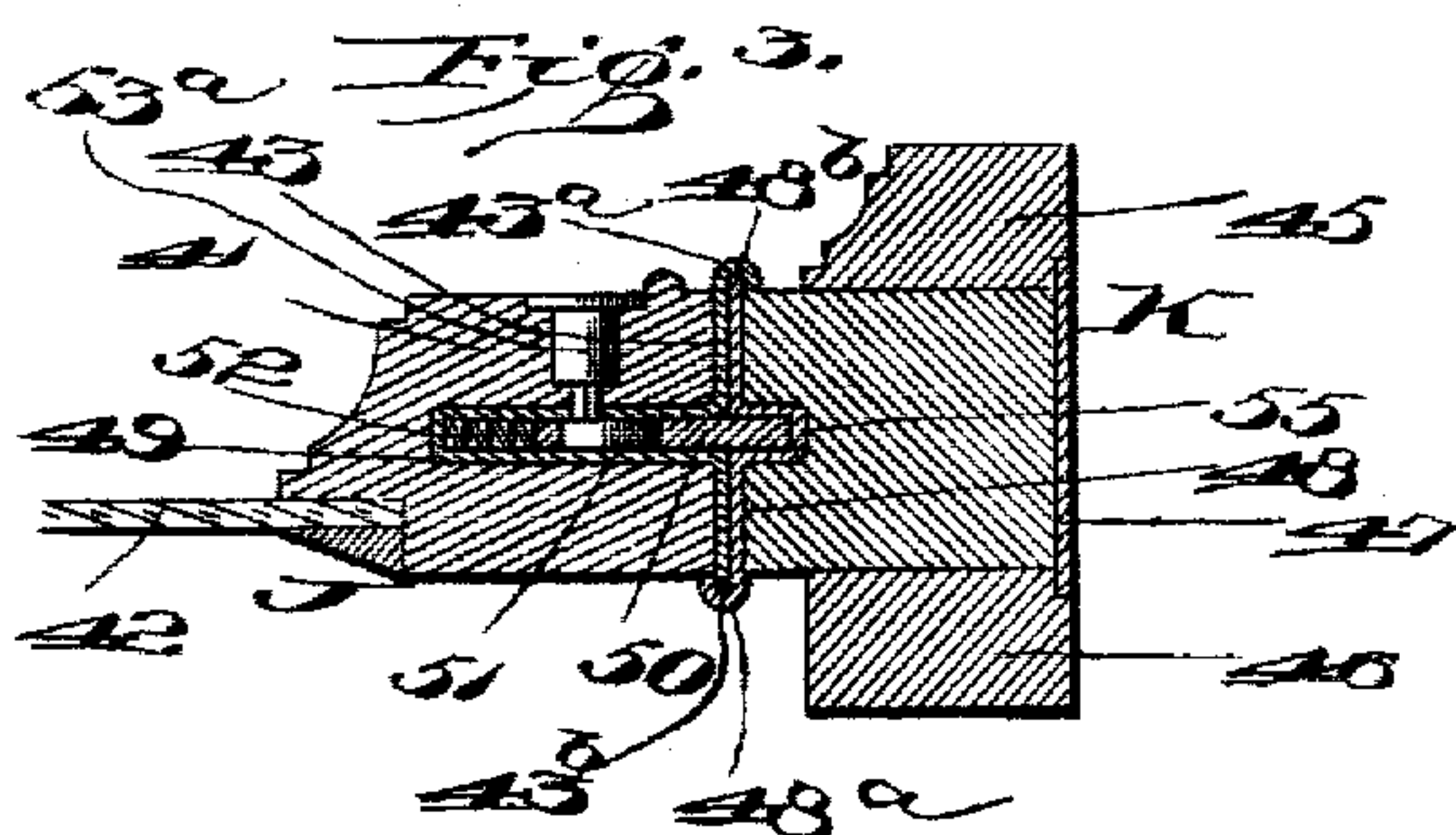
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G. H. PARKER.  
WINDOW RETAINING APPARATUS.

APPLICATION FILED MAY 13, 1904.

2 SHEETS—SHEET 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

GEORGE HENRY PARKER, OF NEW YORK, N. Y., ASSIGNOR TO CHARLES HEMINGWAY PLATT, OF NEW HAVEN, CONNECTICUT.

## WINDOW-RETAINING APPARATUS.

No. 814,317.

Specification of Letters Patent.

Patented March 6, 1906.

Application filed May 13, 1904. Serial No. 207,776.

*To all whom it may concern:*

Be it known that I, GEORGE HENRY PARKER, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Window-Retaining Apparatus, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to means for retaining windows and the like within their frames.

Certain broad features shown and described in this application are shown, described, and claimed in a companion application filed of even date herewith, Serial No. 207,774, and accordingly are not claimed herein.

One of the objects of this invention is to provide a construction whereby a window may be retained in its frame in such manner as readily to be removed and yet to make a tight joint therewith.

Another object is to provide a simple and reliable retaining means which does not detract from the appearance of the window.

Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts which will be hereinafter illustrated, and the scope of the application of which will be indicated in the following claims.

In the accompanying drawings, which illustrate two of various possible embodiments of my invention, Figure 1 is an elevation of a window and window-frame constructed in accordance with the principles of my invention. Fig. 2 is a perspective view of a portion of the same, showing the parts separated. Fig. 3 is a cross-section on the line  $x x$  of Fig. 1, showing a bolt in engaging position. Fig. 4 is a similar view showing the bolt retracted. Fig. 5 is a similar view showing the window removed from the frame. Fig. 6 is a sectional view of the bolting mechanism. Fig. 7 is a detail view of the key adapted to actuate the bolt. Fig. 8 is a vertical cross-section of a slightly-different form of bolting mechanism. Fig. 9 is a similar view showing the bolt extended. Fig. 10 is a detail view of a bolt and associated parts.

Similar reference characters are used to denote similar parts throughout the several views.

Referring now to Fig. 1, J represents generically a window, preferably of a round type in common use in cars and on steamships, and K is a frame adapted to receive the same. Window J comprises a sash 41, in which is secured by any desired means a glass 42 and about the edge of which is fastened a strip or shield 43, preferably of metal. One edge of this shield is bent substantially as shown, so as to form a depending lip or flange 43<sup>a</sup>, and the other edge is straight and projects slightly beyond the surface of the sash, as indicated at 43<sup>b</sup>. The frame K comprises a solid web 44, to the inner and outer sides of which are respectively secured the moldings or trims 45 and 46. These moldings project laterally beyond the web and are rabbeted, as shown, in order to permit weather-strip 47 to rest upon the web and be flush with their lateral surfaces. Upon the concave lateral surface of the web is secured a shield 48, similar to that previously described upon the sash, except the flange 48<sup>a</sup> is upon the outer instead of upon the inner edge thereof. The other edge of the shield projects slightly beyond the web, as shown at 48<sup>b</sup>. The shields and strip may be secured in any desired manner, but are preferably held in place by means of countersunk screws passing through the same into the parts upon which they rest. Shield 43 is adapted to fit snugly within shield 48, the flange 43<sup>a</sup> embracing the straight projecting portion of the other shield, and, conversely, flange 48<sup>a</sup> upon the frame engaging the straight projecting edge 43<sup>b</sup> of the shield 43. It is thus seen that there is provided a tight joint, it being difficult for dust or air to traverse the tortuous passage between the shields, and yet the sash may readily be removed from the same.

The sash is preferably secured within the frame by means of a plurality of substantially radial bolts of which, as they are identical, only one will be described. Within shield 43 is stamped or otherwise formed a depression or recess 49. It will be obvious that this part may be made separate and secured to the shield, if desired; but it has been found a more economical and reliable construction to form the same integral therewith. Within



recess 49 is positioned a bolt 50, provided with a slot 50<sup>a</sup>. An eccentrically-mounted disk 51 is adapted to lie within this slot and has a diameter equal to the width thereof.

5 This eccentric is so mounted that its axis is at a distance from the lower end of the slot less than the greatest radius of the disk. The slot extends a sufficient distance above the axis of the eccentric to permit the more free  
10 movement in that direction, so that when it is desired to move the bolt the eccentric must be swung upwardly from its position to rest in contact with the lower end of the slot. A spring 52 is positioned between the end bolt  
15 and the rear wall of the recess and tends to force the same outwardly. As the depth of the slot permits the eccentric when the bolt is retracted to lie in a position with its greatest radius below the axis thereof, it is necessary to compress the spring upon throwing  
20 the same into operative position. From this it will readily be seen that spring 52 tends to hold the bolt in either its retracted or operative position. Eccentric 51 is operated by means of a pin 53 passing through one of the  
25 side walls of the recess and terminating in a head 53<sup>a</sup>. The outer surface of the head 53<sup>a</sup> lies flush with the surface of the sash and is provided with a square chamber 53<sup>b</sup>, adapted to receive an operating-key 54. Shield 48 is  
30 provided with sockets 55, preferably stamped therein and corresponding in number and position to recesses 49 and adapted to be engaged by the outer ends of bolts 50.

35 If desired, the construction of the bolting mechanism may be somewhat simplified by means of an arrangement such as is shown in Figs. 8 and 9. In this construction eccentric 56 fits within a corresponding open-ended slot  
40 in bolt 57, and the recess 58 is formed so as to admit of the necessary vertical movement of the bolt. The means of operating the eccentric and the coacting parts are the same as that in the previously-described embodiment.

45 In Fig. 10 is shown a bolt within a separate socket.

Words of the nature of "upward," "vertical," and "outward" as used in the description of the above retaining means are  
50 intended to be interpreted in connection with the several figures of the drawings in which those means are shown.

The operation of the above embodiments of my invention is as follows: The several bolts  
55 having been retracted to the position shown in Fig. 4, sash J is placed within the frame K and forced into a position with the depending flanges 43<sup>a</sup> and 48<sup>a</sup>, respectively, engaging the straight projecting edges 48<sup>b</sup> and 43<sup>b</sup>.  
60 Bolts 50, or in the later-described embodiment, 57, are then forced into sockets 55 by means of keys 54, as has been described. The window is thus securely and tightly held in position and the bolts cannot be retracted by  
65 any jarring to which the frame may be sub-

jected. When it is desired to remove the same, a reverse series of operations is performed.

It will thus be seen that I have provided a window which may be readily removed and  
70 yet is securely held in position. Moreover, the construction is such that cinders, dust, or even air cannot enter between the sash and the frame in any considerable quantities; also, the retaining mechanism is simple and  
75 not likely to be affected by any dust or dirt which may collect therein and is positively held by the spring in both its operative and retracted positions. The retaining mechanism, though peculiarly adapted to the construction shown, is useful, moreover, with  
80 other forms of sashes and frames.

As many changes could be made in the above construction and many apparently  
85 widely different embodiments of my invention could be made without departing from the scope thereof, I intend that all matter contained in the above description and shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting  
90 sense. It will also be understood that the invention here set forth could be utilized in various relations, as for doors, hatches, and other devices, and where in the claims I use the terms such as "frame," "sash," and the like  
95 such terms are used broadly as referring to the permanent and movable members of this general class of devices. I desire it also to be understood that the language used in the following claims is intended to cover all of the  
100 generic and specific features of the invention herein described and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

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

1. In combination, a window - frame, a strip lining said frame, a window adapted to be placed within said frame, a strip about  
110 said window, one of the edges of one of said strips being turned so as to embrace the adjacent edge of the other, said strips being adapted normally to lie in contact with each other, said strips being provided with registering  
115 depressions, and a bolt located in one of said depressions adapted to be thrust into the other of said depressions to retain said window in said frame.

2. In a device of the class described, in  
120 combination, a window-frame, a strip about said frame, a window adapted to be placed within said frame, a strip about said window, said strips being adapted normally to lie in contact with each other, one of the edges of  
125 one of said strips being turned so as to embrace the adjacent edge of the other, a depression in one of said strips, a depression in the other of said strips, said depressions being adapted normally to be in registry with  
130



each other, a bolt in one of said depressions, and an eccentric adapted to actuate said bolt, said eccentric being so constructed as to retain the bolt in two alternative positions of rest.

3. In a device of the class described, in combination, a window-frame, a strip lining said frame, a window adapted to be placed within said frame, a strip about said window, the stripping upon said frame and that upon said window being adapted normally to lie in contact, one of the edges of one of said strips being turned so as to embrace the adjacent edge of the other, depressions in each of said strips, said depressions being normally in registry, a plurality of bolts, one of which is located in each of the depressions of one of said strips, said bolts being adapted to be projected radially therefrom, and means adapted to actuate each of said bolts to positively retain the same in each of two alternative positions of rest.

4. In a device of the class described, in combination, a window-frame, a strip lining said frame, a window adapted to be placed within said frame, a strip about said window, the stripping upon said frame and that upon said window being adapted normally to lie in contact, one of the edges of one of said strips being turned so as to embrace the adjacent edge of the other, recesses in each of said strips, said recesses being normally in registry, a plurality of bolts, one of which is located in each of the recesses of one of said

strips, said bolts being adapted to be projected radially therefrom, an eccentric adapted to actuate each of said bolts, said eccentrics being adapted also to retain the bolts in each of their two alternative positions of rest, and means adapted to actuate said eccentrics.

5. In a device of the class described, in combination, a window-frame, a strip lining said frame, a window having a curved periphery adapted to be placed within said frame, a strip about said window, the stripping upon said frame and that upon said window being adapted normally to lie in contact, one of the edges of one of said strips being turned to embrace the adjacent edge of the other, the other of said strips having one of its edges turned to embrace the adjacent edge of the first-named strip, recesses in each of said strips, said recesses being normally in registry, a plurality of bolts, one of which is located in each of the recesses of one of said strips, said bolts being adapted to be projected radially therefrom, an eccentric adapted to actuate each of said bolts, said eccentrics being adapted also positively to retain the bolts in each of their two alternative positions of rest, and means adapted to actuate said eccentrics.

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

GEORGE HENRY PARKER.

Witnesses:

H. M. SEAMANS,  
J. B. KNOX.