Aug. 27, 1929. W. S. HOOVER 1,726,512

HINGE

Filed Aug. 10, 1928

Fig. 1.

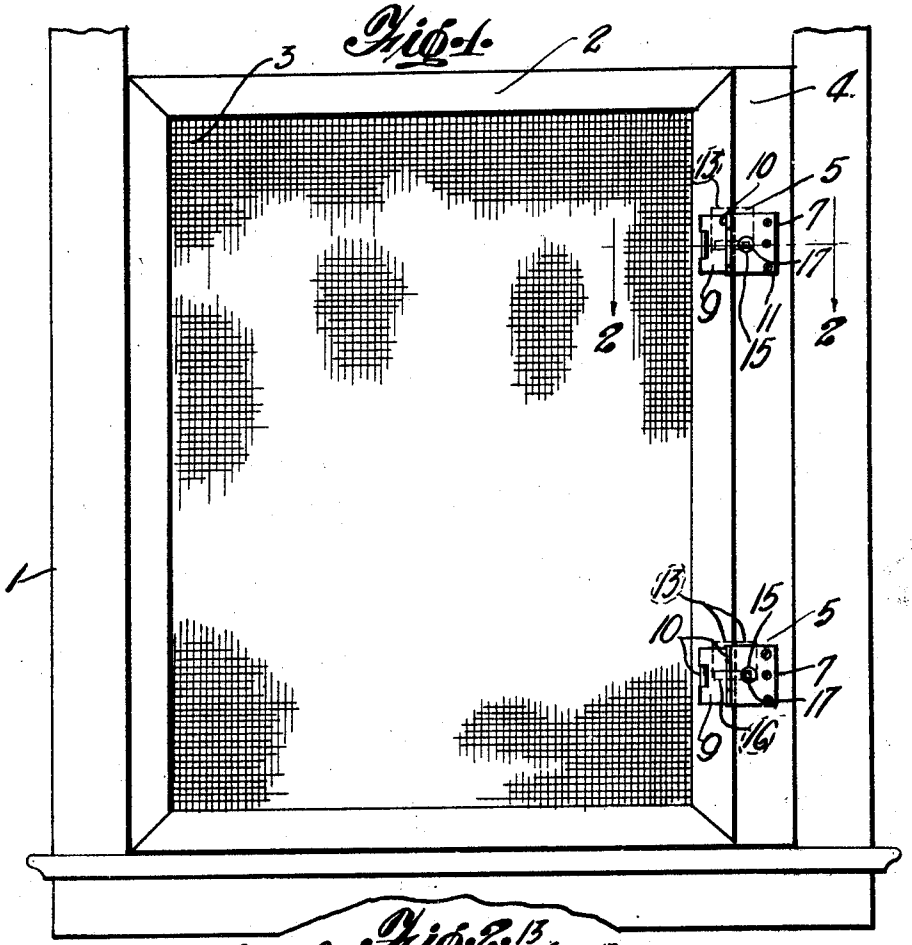


Fig. 2.

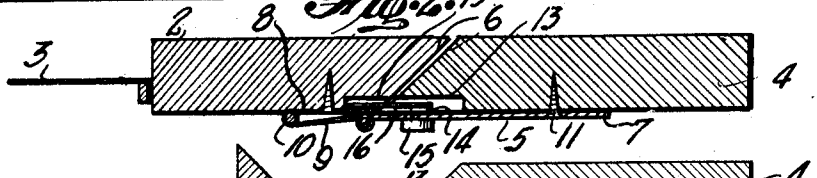
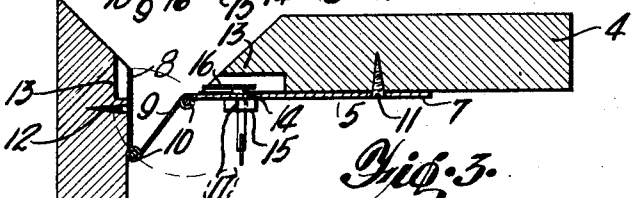


Fig. 3.



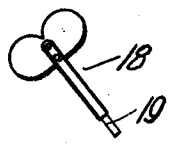


Fig. 4.

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UNITED STATES PATENT OFFICE.

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HINGE.

Application filed August 10, 1928. Serial No. 298,670.

This invention relates to improvements in hinges particularly adaptable for use upon window screens.

The main object of the invention is to provide a hinge which when used upon a screen sash will allow the same to be readily removed from the inside but which will prevent removal of the same from the outside.

Another object is to provide a hinge having a very simple and efficient lock so that the screen cannot be removed or opened without first unlocking the said lock.

Another object is to provide a hinge which will allow the use of a sash for the screen so that there will be no obstructions in the center of the screen and no openings whereby insects may enter the house.

A further object is to provide such a hinge which will be simple and cheap in manufacture and readily placed upon the screen sash.

The foregoing and other objects of the invention together with means whereby the same may be carried into effect will best be understood from the following description of one form or embodiment thereof illustrated in the accompanying drawing in which:

Figure 1 is an inside view of a portion of a window frame showing a screen therein equipped with my improved hinge.

Figure 2 is an enlarged section along the line 2—2 in Figure 1.

Figure 3 is a view similar to Figure 2 but showing the screen sash partially swung inward.

Figure 4 is a view of a key for use in unlocking the hinge lock.

Referring now more particularly to the drawing the reference numeral 1 denotes a window frame of conventional structure. A rectangular sash 2 with the screen 3 is hinged to the side strip 4 by my improved hinges 5 and is adapted to be seated in the window frame 1 preferably in the lower part of the upper window sash slideway or in any convenient position. The meeting edges of the sash 2 and the side strip 4 are beveled or cut at an angle as shown at 6 for a purpose to be set forth.

The hinges 5 comprise butt plates 7 and relatively narrow butt or side plates 8 pivotally joined at their margins to hinge leaves 9, these pivotal joints 10 being of conventional construction. The butts 7 are secured by screws 11 to the side strip 4 with their pivotal joints 10 disposed at the inner margin or hereinbefore referred to meeting edge thereof and the butt or side plates 8 are similarly secured by screws 12 to the margin of the sash 2 the pivotal joints 10 thereof being disposed away from the meeting edge of the said sash. Thus when the sash is closed as shown in Figures 1 and 2 the leaves 9 will fold against the butt or side plates 8. It will be understood that this method of hinging the sash 2 to the side strip 4 will allow the said sash to swing freely inward as indicated in Figure 3 and the beveled meeting edges 6 will prevent the sash from swinging outward.

In removing or opening the screen from a window when the said screen is placed in the window slideways the sash adjacent the hinges may be pushed outward from the side strip and then drawn toward the said side strip so that the free side of the sash will clear the parting strip or stop bead of the window frame allowing it to be opened. The hinge leaves 9 are provided for this purpose and the beveled meeting edges allow the said sash to be drawn toward the side strip as set forth.

In order to prevent accidental or unauthorized opening of the screen sash from the inside I provide a locking means upon the hinges 5. Slots 13 are provided in the sash 2 and side strip 4 at their meeting edges adjacent the hinges 5. Lock bolts 14 with the enlarged heads 15 are journaled in the butts 7 at a point spaced from the pivotal joint 9 and latches 16 are secured to the inner ends thereof within the slots 13 in the side strip 4. The latches 16 when turned into a horizontal position are adapted to enter within the slots 13 in the sash 2 and bear against the edges of the butt or side plates 8. In this position the sash cannot be swung inward since the butt or side plates 8 will not clear the end of the latches 16. When the said latches are in the vertical position they fit entirely within the slot in the side strip 4 and so allow the sash to be opened at will. To facilitate this turning of the latches 16 square key receiving bores 17 are provided in the heads 15 of the lock bolts 14 and suitable keys 18 with the square ends 19 are adopted to fit within these bores.

From the foregoing taken in connection

with the drawing it will be readily apparent that I provide a very simple and efficient hinge which is adaptable to a great variety of uses and such as considered within the purview of my invention.

While I have herein set forth a preferred embodiment of my invention it is understood that I may vary from the same in minor details within the scope of the appended claim.

I claim:

In a hinge, in combination with two parts to be hinged together having slotted angular meeting edges, a butt plate secured to one of the said parts, a side plate secured to the other part, a hinge leaf pivotally connecting the said but and side plates, a lock bolt journaled in the butt plate having a latch at its inner end within the slots in the meeting edges of the parts, the said latch being adapted to releasably engage the side plate, the said lock bolt having a key receiving bore for engaging a key for operating the latch.

In testimony whereof I affix my signature.

WILLIS S. HOOVER.