April 7, 1925. 1,532,180

W. J. GROSS

HINGE CONSTRUCTION

Filed Oct. 21, 1924

Fig. 1.

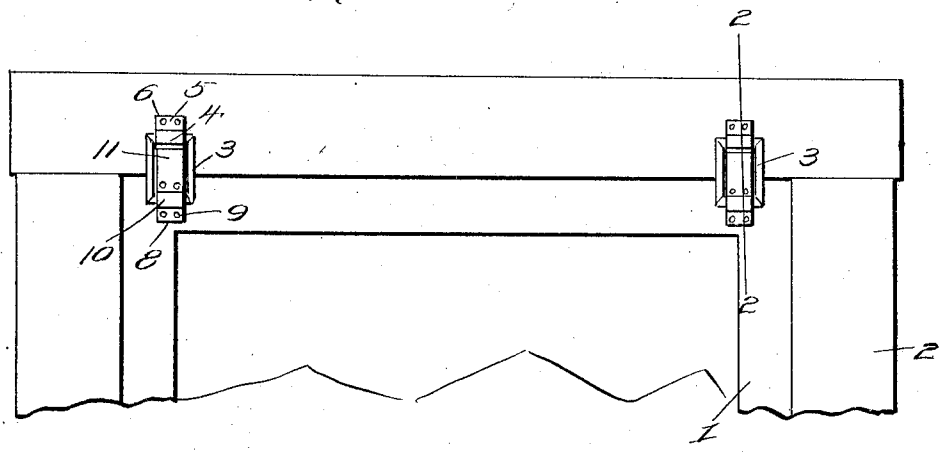


Fig. 2.

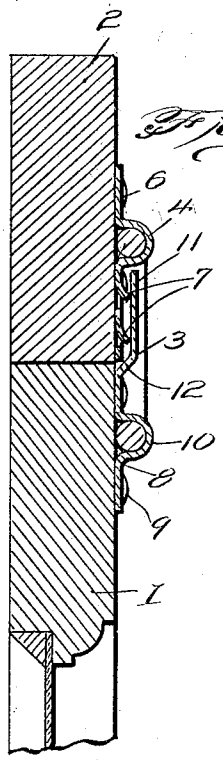
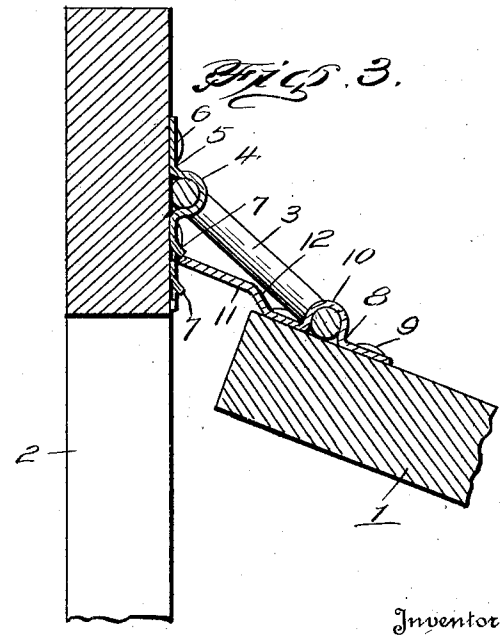


Fig. 3.



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UNITED STATES PATENT OFFICE.

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HINGE CONSTRUCTION.

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To all whom it may concern:

Be it known that I, WILLIAM J. GROSS, a citizen of the United States, residing at Westphalia, in the county of Clinton and State of Michigan, have invented certain new and useful Improvements in a Hinge Construction, of which the following is a specification.

This invention relates to improvements in hinges for use in connection with swinging closures and is more particularly adapted to be used in conjunction with a window.

One of the important objects of the present invention is to provide a means whereby the window may be held in various adjusted open positions with respect to the window frame.

A further object of the invention is to provide a hinge construction of the above mentioned character, which will permit the window to be swung to an open position and held at any desired angle, against accidental displacement therefrom.

A still further object of the invention is to provide a hinge construction of the above mentioned character, which is simple in construction, inexpensive, strong and durable and furthermore adapted for the purposes for which it is designated.

Other objects and advantages of this invention will become apparent during the course of the following description.

In the accompanying drawing forming a part of this specification and in which like numerals designate like parts throughout the same:

Figure 1 is a side elevation of the hinge construction embodying my invention showing the same in use.

Figure 2 is a vertical sectional view taken approximately on line 2—2 of Figure 1, and

Figure 3 is a similar view showing the window held in an open position.

In the drawing, wherein for the purpose of illustration is shown the preferred embodiment of my invention, the numeral 1 designates a window sash, the usual frame therefor being illustrated at 2. The window sash 1 is hingedly connected at its upper portion to the adjacent portion of the window frame whereby the window is adapted for swinging movement with respect to the frame. A pair of hinges are associated with the window sash and frame and as the same are of identical construction, the description of one is thought to suffice for the description of both.

The hinge includes a substantially rectangular shaped link 3, the upper horizontal portion of which is disposed in the transversely extending bend 4 formed in the upper portion of a bracket 5 which is secured to the upper edge of the window frame 2 adjacent the respective sides thereof in the manner as shown at 6. The lower portion of each bracket 5 has struck out therefrom the transversely extending parallel spaced lips 7. The purpose thereof will hereinafter be more fully described.

Cooperating with the bracket 5 secured to the upper horizontal portion of the frame 2 are the brackets 8 which are secured to the upper horizontal portion of the window sash 1. Each of the brackets 8 is secured to the window sash 1 adjacent the upper edge thereof by the fastening members 9. A bend 10 is provided in each of the brackets 8 for receiving the lower horizontal portion of the respective links 3, it being understood of course that the bends 4 and 10 formed in the brackets 5 and 8 respectively are of such construction as to permit the free swinging movement of the upper and lower portions of the links therein.

An extension 11 is formed on each of the brackets 8 and the same extends upwardly above the upper edge of the window sash. Each of the extensions 11 is offset as illustrated at 12 to permit the extensions to be arranged in overlapping relation with respect to the lower portions of the brackets 5 secured to the upper horizontal portion of the window frame 2 in the manner more clearly illustrated in Figure 2 of the drawing.

When the window 1 is in a closed position, the parts are arranged as shown in Figures 1 and 2 in the drawings. When it is desired to open the window 1 and hold the same in a desired adjusted open position, with respect to the frame 2, the window sash 1 is swung outwardly from the frame and the upper edges of the extensions 11 are adapted for engagement with the aligning lips 7 formed in the lower portion of the bracket 5 in the manner shown in Figure 3 whereby the window sash 1 will be held in an open position at the proper angle, and further against accidental closing. When it is desired to shut the window, it is only nec-

essary to disengage the upper edges of the extensions from engagement with the respective lips and return the window sash to the position as shown in Figure 2 of the drawing.

The provision of a device of the above mentioned character, is especially adapted for use upon windows cellars or the like where it is often necessary to either provide the window sash with a hook and eye attachment or else place a temporary prop in the window frame for engagement with the window in order to hold the same open.

Furthermore, a device of the above mentioned character, may be used upon any form of a swinging closure for the purpose of holding the same in various adjusted open positions.

While I have shown the preferred embodiment of my invention, it is to be understood that various changes in the size, shape and arrangement of parts may be resorted to without departing from the spirit of the invention and the scope of the appended claims.

Having thus described the invention, what I claim is:

1. In a hinge structure, a pair of brackets having loops, one bracket provided with outwardly extending lips and the other bracket provided with an extension engageable with the lips, and a link pivoted in the loops.

2. In a hinge structure, a pair of brackets having loops, a link pivotally engaged with the loops, one bracket provided with outwardly extending lips, and the other bracket provided with an extension offset in relation thereto so as to extend over the lips when in a closed position and to engage the lips when in an open position.

In testimony whereof I affix my signature.

WILLIAM J. GROSS.