W. C. RAMSEY.

HINGE.

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1,155,161.

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Fig. 3.

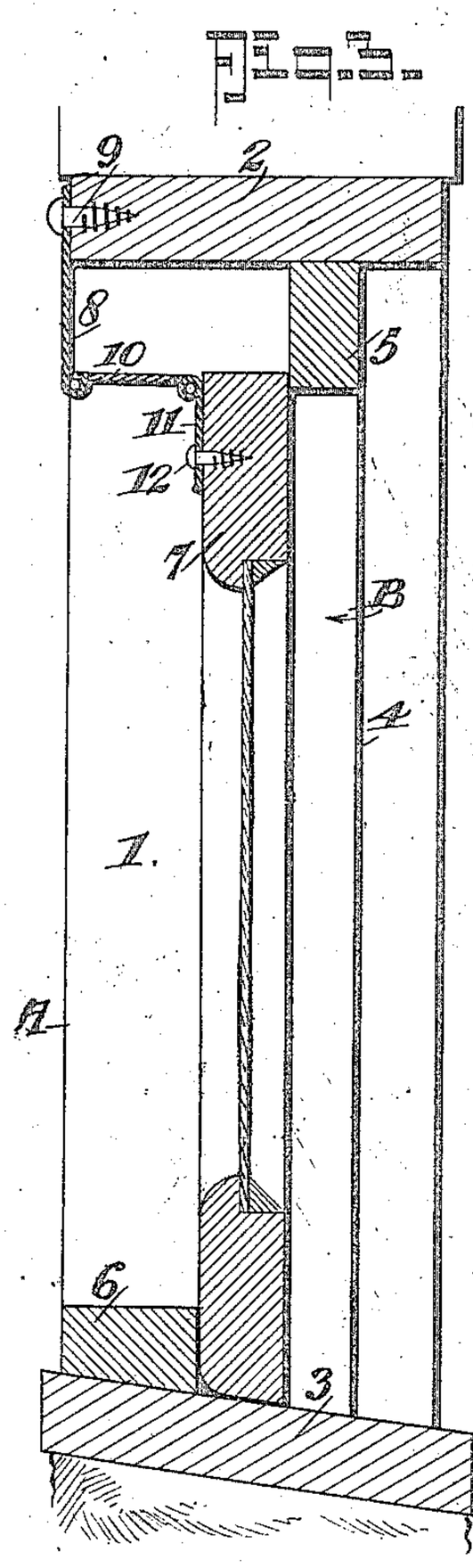


Fig. 2.

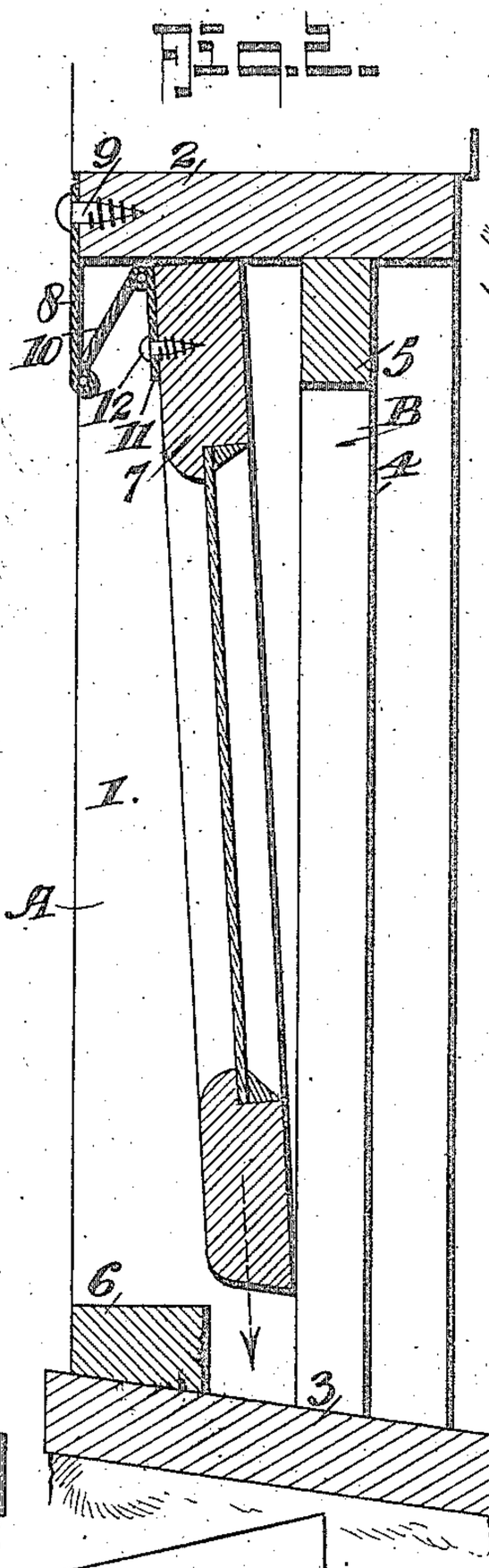
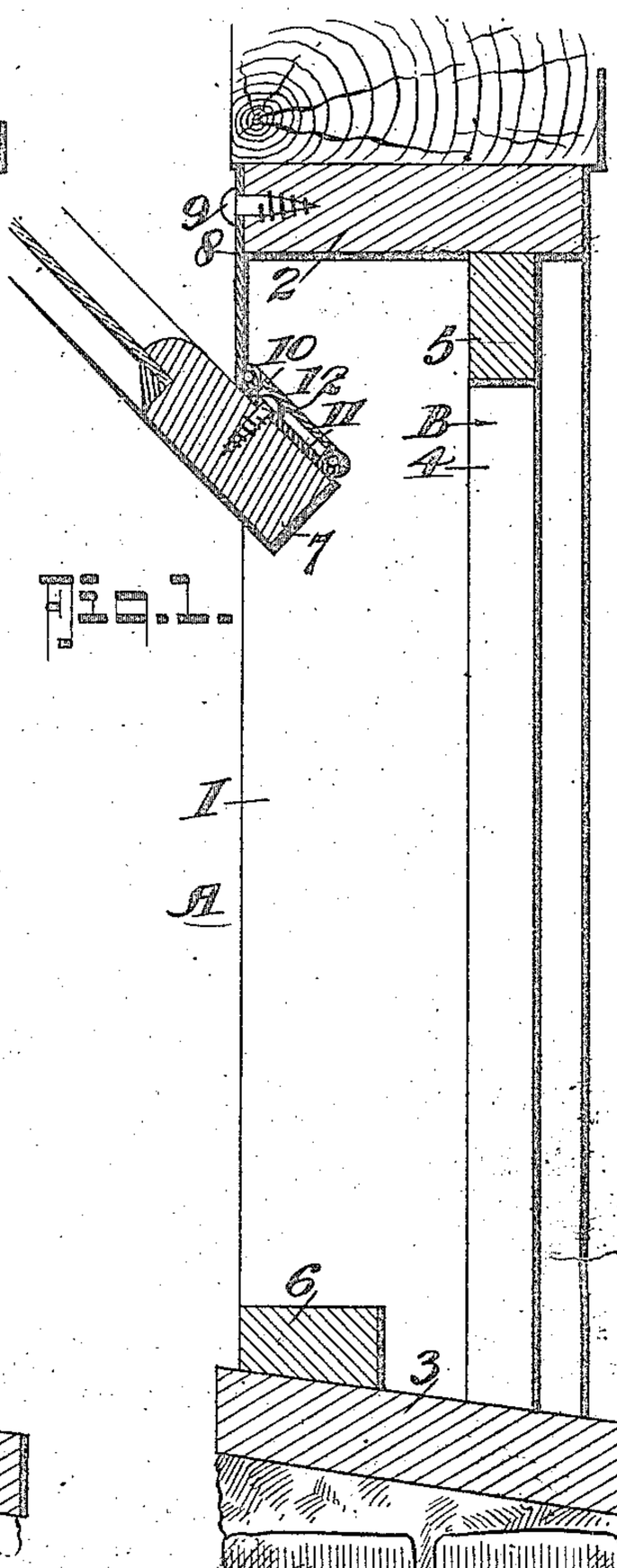


Fig. 1.



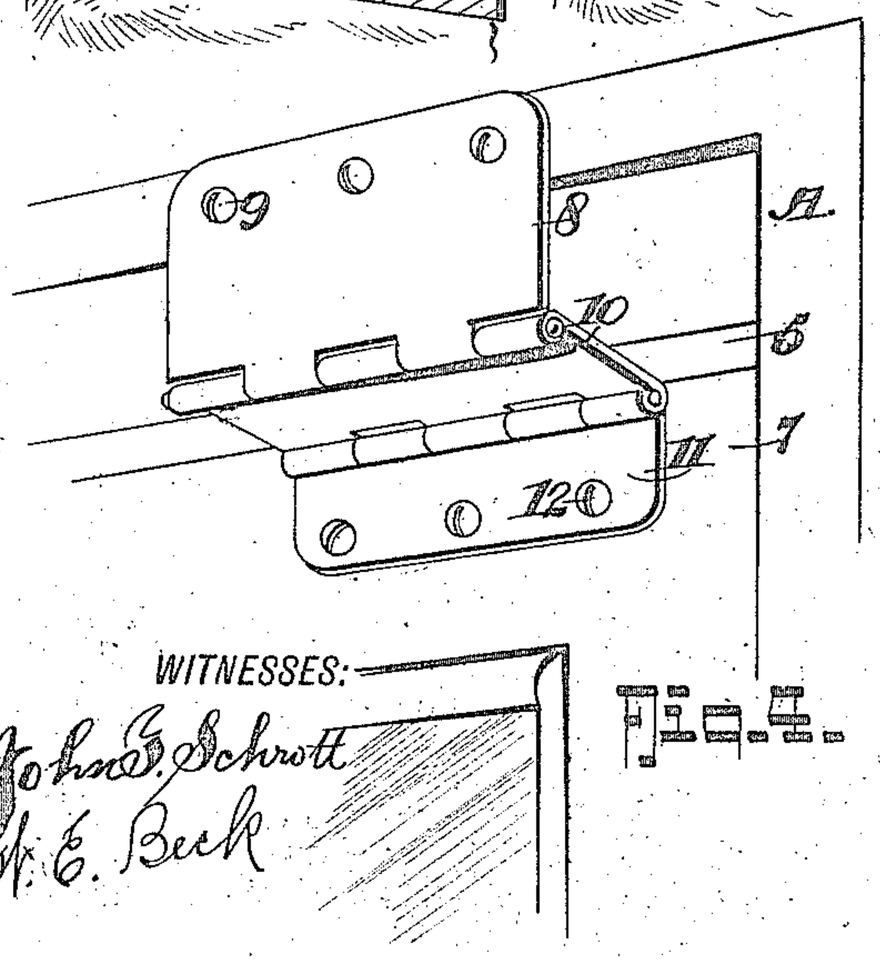
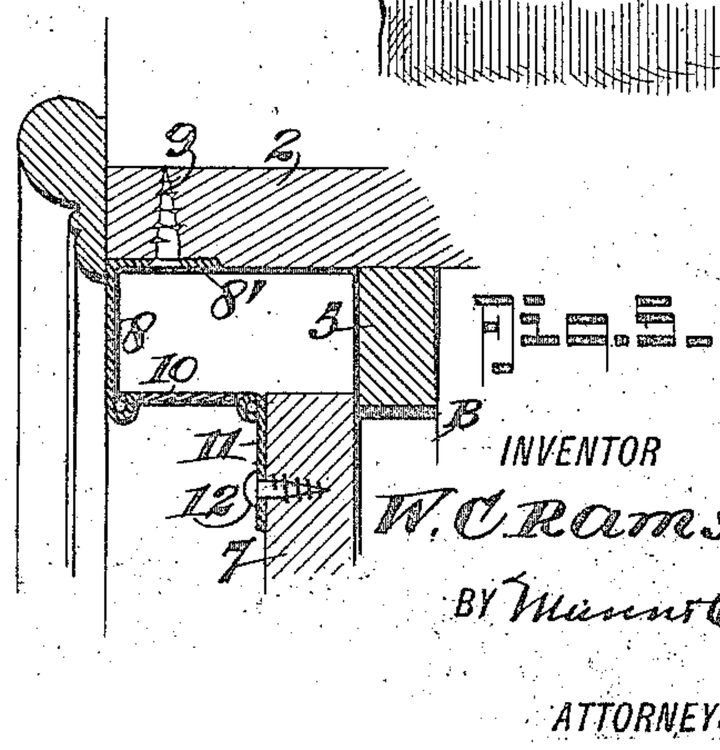


Fig. 4.

Fig. 5.



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HINGE.

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To all whom it may concern:

Be it known that I, WALTER C. RAMSEY, a citizen of the United States, and a resident of Peculiar, in the county of Cass and State of Missouri, have invented an Improvement in Hinges, of which the following is a specification.

This invention relates to hinges for windows and more particularly to that class of windows employed in cellars, basements and the like.

One of the objects of this invention is the provision of a suitable hinge connection between the sash frame and sash for effecting a lateral movement of the latter when being opened and closed, whereby friction between said sash and the molding therefor is reduced to a minimum.

Another object is the provision of a window construction which is exceedingly simple, thus reducing the cost of manufacture, and which is effective in carrying out the purpose for which it is designed.

The inventive idea involved is capable of receiving a variety of mechanical expressions, some of which, for the purpose of illustrating the invention, are shown in the accompanying drawing, in which—

Figure 1 is a vertical transverse section through the window frame, the window being shown in opened position. Figs. 2 and 3 are views similar to Fig. 1 showing the window in partially closed and closed positions, respectively. Fig. 4 is a fragmentary perspective view of a sash frame and sash with the hinge connection therefor. Fig. 5 is a transverse sectional view of a slight modification of the hinge.

Referring more particularly to the accompanying drawings in which like reference characters indicate similar parts, the letter A indicates generally the sash frame which comprises the side members 1, the top member 2 and sill member 3, which is preferably inclined downwardly as shown. A sash molding B of inverted U-shape is mounted in the frame A and consists of side members 4 and top member 5. A cross strip 6 is secured to the sill member 3 and disposed laterally relative to the sash molding B to provide a space therebetween for the reception of the lower end of the sash, said strip 6 being adapted to prevent water and air from entering from the exterior.

A hinge connection is provided for the frame A and sash 7 and consists of a leaf 8 which is secured to the inner vertical side of the top member 2 of the frame A, as shown in Figs. 1 to 4, by means of screws 9. The leaf 8 depends considerably below the upper member 2 of the frame and has pivoted at its lower end one end of an intermediate or spreading leaf 10 which is adapted to assume a substantially horizontal position when the sash is closed. The other end of the leaf 10 is pivoted to a third leaf 11 which is secured to the adjacent face of the sash 7 by means of screws 12. In Fig. 5 the leaf 8 is provided with a lateral extension 8′ which is adapted to be secured to the under surface of the top member 2 instead of securing it to the vertical edge thereof.

It will thus be seen from the foregoing description that the sash 7, owing to the particular construction and arrangement of the parts, will move vertically and laterally relative to the molding B, when being opened. This lateral movement of the sash disengages it from said molding and the cross strip 6 and prevents any friction therebetween which would otherwise occur if the parts were affected by dampness.

After the sash is disengaged from the molding and cross strip the same may be swung to the open position shown in Fig. 1. In closing the window, the sash is first moved to the position shown in Fig. 2 when the same will, by reason of its own weight and through the medium of the intermediate leaf 10 which spreads the other leaves apart, be moved laterally and forced into close engagement with the sash molding and said cross strip.

I claim:—

1. The combination of a sash frame, a sash molding, a sash mounted in the said frame and adapted to be seated laterally against the molding, a cross strip at the lower portion of said frame and spaced laterally from said molding and between which and the molding the sash is adapted to engage when in closed position, and a hinged connection for the upper end of the sash consisting of a three-leaf hinge, one leaf of which is secured to said sash, another leaf of which is secured to and depends below the upper portion of said sash frame, and the third leaf of which connects the two first-mentioned leaves and is adapted to assume a substantially horizontal position when the sash is closed, whereby to force

the sash laterally into close engagement with said sash molding.

2. The combination of a sash frame, a sash molding, a sash mounted in the said frame and adapted to be seated laterally against the molding, a cross strip at the lower portion of said frame and spaced laterally from said molding and between which and the molding the sash is adapted to engage when in closed position, and a hinged connection between said sash frame and upper end of the sash and including a spreading leaf whereby to force the sash laterally into close engagement with said sash molding.

WALTER C. RAMSEY.