

A. P. READ.
WINDOW BEAD FASTENER.

Patented Dec. 17, 1895.

Fig. 2.

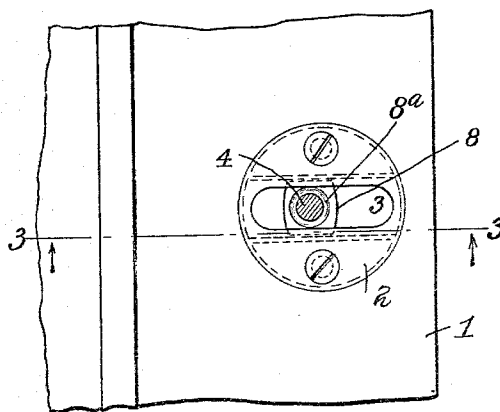
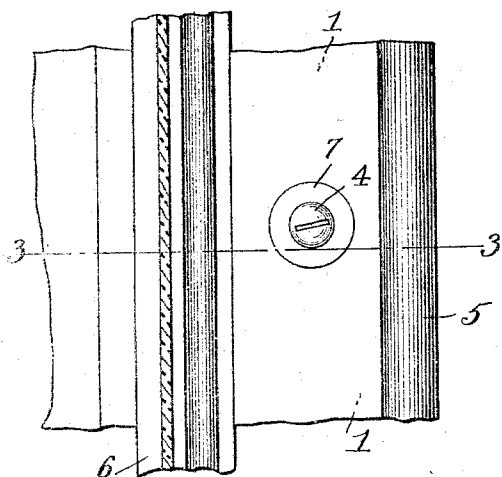


Fig. 3.

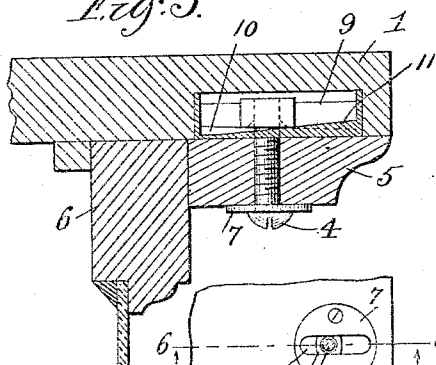


Fig. 4.

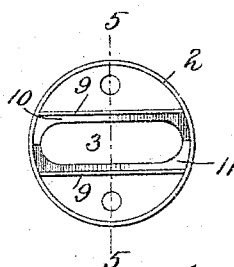


Fig. 5.

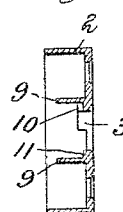


Fig. 6.

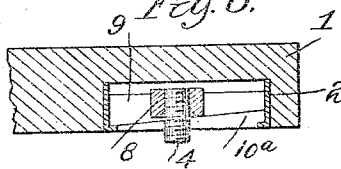


Fig. 7.

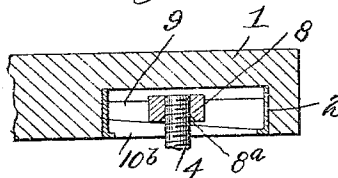
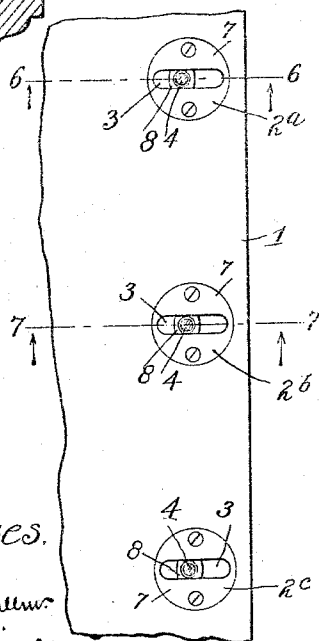


Fig. 8.



Witnesses.
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UNITED STATES PATENT OFFICE.

ALONZO P. READ, OF CHICAGO, ILLINOIS.

WINDOW-BEAD FASTENER.

SPECIFICATION forming part of Letters Patent No. 551,405, dated December 17, 1895.

Application filed January 7, 1895. Serial No. 534,087. (No model.)

To all whom it may concern:

Be it known that I, ALONZO P. READ, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Window-Bead Fasteners, of which the following is a full, clear, and exact specification.

My invention relates to devices for adjustably holding window-beads in place whereby the bead may be fitted snugly against the sash to serve as a weather-strip and may be readily withdrawn therefrom and removed when it is desired to remove the sash from the window-frame; and the invention is designed as an improvement on a device of this character shown and described in United States Letters Patent No. 505,640, issued to me September 26, 1893.

The principal object of my prior invention was to hold the bead known as the "guide-strip" in such a manner that it could be readily removed when it was desired to take out the sash, and to make the said guide-strip serve as a weather-strip, capable of being adjusted into close contact with the sash.

My present invention has for one of its objects to accomplish these ends by more economical and effectual means.

Another object of my present invention is to hold the bead or guide-strip from slipping out of place in either direction without depending upon notched or serrated surfaces.

With these ends in view my invention consists in certain features of novelty in the construction, combination, and arrangement of parts by which the said objects and certain other objects hereinafter described are attained, all as fully explained with reference to the accompanying drawings, and more particularly pointed out in the claims.

In the said drawings, Figure 1 is a face view of a part of the bead or guide-strip provided with my improvements, the glass being shown in section. Fig. 2 is a face view of the window-frame with the guide-strip or bead and the sash removed. Fig. 3 is a plan section taken on the line 3 3, Figs. 1 and 2. Fig. 4 is a detail view of one of the sockets, looking toward its inner side. Fig. 5 is a transverse sectional view thereof, taken on the line 5 5, Fig. 4. Fig. 6 is a transverse sectional view of the socket and a part of the window-frame, taken on the line 6 6 Fig. 8, illustrating a

modification hereinafter described. Fig. 7 is a similar view taken on the line 7 7, Fig. 8, illustrating a part of the same modification, and Fig. 8 is a face view of the window-frame drawn to a smaller scale illustrating said modification.

Like signs of reference indicate like parts throughout the several views.

In applying my present improvements to a window-frame I provide such frame 1 at suitable intervals throughout its height with a number of cavities which are preferably circular, just as in my prior invention, and in each of these cavities I secure one of the circular sockets 2, which is provided with a horizontally-arranged slot 3 as heretofore, through which the locking-stem or set-screw 4 passes and along which said bolt or screw slides when adjusting the bead or guide-strip 5 to and from the window-sash 6. In my present invention the said bolt or screw 4 preferably consists of an ordinary screw passing through the bead 5 and having its head resting upon any suitable washer 7 interposed between it and the bead; and unlike my prior invention I locate the nut 8 within the socket 2, which is provided with two webs or flanges 9 extending along the sides of the slot 3 but at a slight distance from the edges thereof, so as to form shoulders for the engagement of the nut 8 and at the same time prevent such nut from rotating with the screw 4, the nut being rectangular so as to fit against the flanges or webs 9.

In my prior invention the bead was held from slipping out of place by means of notches or serrations formed along the inner edges of the slot 3; but such notches or serrations I have found to be only partially satisfactory, inasmuch as they frequently fail to perform their allotted function unless cut very deep and the head of the bolt is provided with special teeth for engagement with them. In my present invention I do away with said notches or serrations and in their stead I provide the edges of the slot 3 with inclines or bevels 10 upon which the nut 8 rests and which consequently prevent the bead from slipping until the screw is loosened sufficiently to permit the nut to ride up the incline. In the drawings I have shown and I prefer to employ inclines or bevels extending in opposite directions. One of these, 11, is so arranged, as shown in Fig. 3, as to resist the wind-press-

ure on the outer side of the sash, while the other or counter incline 10 will resist movement in the opposite direction. These inclines or bevels 10 11 are also formed on different angles, the steeper one being arranged with its small end adjacent to the sash so as to resist the more severe forces occasioned by the wind, while the other one 10 is arranged in the opposite direction and is of sufficient pitch to resist the less severe shocks occasioned by any accidental knock or blow, or by any one leaning against the bead in such a manner as to force the bead in above the lower sash, for instance, and thus cause the sash to bind when being raised. The object of making these inclines or bevels of different pitch or angle is to bring their planes so nearly parallel or coincident throughout the greater part of their intermediate portions that the nut will rest upon both of them at once and consequently be acted upon by one or the other of the inclines in the event it is moved in either direction, and will not lose its bearing upon one when sliding up the other; whereas were these inclines of the same pitch and of sufficient pitch to resist the wind-pressure, their planes would cross each other at such a wide angle that the nut could not touch them at any point excepting at the intersection of their planes, and consequently should the nut be located beyond this intersection there would be nothing to resist its movement excepting in one direction.

The nut 8, if desired, may be an ordinary nut or burr, but its outer side is preferably reamed out, as shown at 8^a, whereby the screw 4 may be readily inserted therein. This feature is important, for it should be observed that when the guide-strip or bead 5 is placed over the sockets 2 the latter are completely excluded from view. Any difficulty may be avoided however by sliding the nut 8 to the farther or outer end of the slot 3, then putting the bead 5 in place with the screws projecting into the slots, whereupon the bead may be pulled out until the screws strike the nut 8 and then slightly raised and pushed along until the screws strike the ends of the slots. They will then be directly coincident with the hole in the nut, inasmuch as the reamed out portion 8^a is of the same or approximately the same diameter as the slot 3.

While I prefer to employ the double inclines or bevels on each of the sockets 2, as shown and described, it should nevertheless be understood that I do not limit my invention in its broadest sense to this specific construction, for it is obvious that substantially the same result might be accomplished, though less conveniently and cheaply, by providing the sockets with one or more inclines of the same pitch and extending in the same direction, but so arranging the sockets 2 that the inclines of the respective sockets will be alternately in opposite directions, as shown in Figs. 6, 7, and 8. In carrying out the invention in this way the upper socket 2^a, for in-

stance, has its incline 10^a arranged with its higher end outward, as shown in Fig. 6, while the next socket 2^b has its incline 10^b arranged in the opposite direction; the next socket 2^c with its incline arranged like that of the first socket, and so on, alternating or at all events having a sufficient number of the inclines turned in the opposite direction to resist casual forces from the interior while the others resist the wind-pressure. Therefore in hereinafter speaking of my invention I shall refer to a window-frame provided with two or more of the sockets as a complete device.

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

1. The combination of the bead or guide strip and the frame, the one being provided with a locking stem and the other with a slot for the transverse movement of said stem, extending transversely of the bead, and an inclined shoulder or flange along the edge of said slot; and a nut or head on said locking stem engaging with said inclined shoulder or flange, substantially as set forth.

2. The combination of the frame and the bead or guide strip, the one being provided with set screws and the other with a number of slots extending transversely of the bead and inclined shoulders or flanges turned or inclined in opposite directions and extending transversely of the bead, and nuts or heads on said screws engaging with said inclined shoulders or flanges, substantially as set forth.

3. The combination of the frame and a bead or guide strip, the one being provided with set screws and the other with inclined shoulders or flanges turned or inclined in opposite directions and being of different pitch, and heads or nuts on said set screws each engaging with two of said flanges of different pitch, substantially as set forth.

4. As a new and useful article of manufacture a socket provided with a slot and having the straight shoulders or flanges 9 on its inner side arranged at a slight distance from the edge of said slot and an incline or bevel extending along the edge of said slot on the inner side, the nut located between said flanges 9 and resting against the incline or bevel and a set screw passing through said slot and engaging in said nut, substantially as set forth.

5. The combination with the frame and the bead or guide strip, said frame being provided with a transverse slot and guide flanges extending along the edge of said slot, of a nut located between said guide flanges, a set screw passing through said bead or guide strip and engaging in said nut, and an inclined shoulder arranged along the inner side of said slot and against which said nut bears, substantially as set forth.

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