J. W. NIPPERT.

SCREEN OR STORM WINDOW FASTENER.

APPLICATION FILED MAY 29, 1919.

1,326,608. Patented Dec. 30, 1919.

Fig. 1.

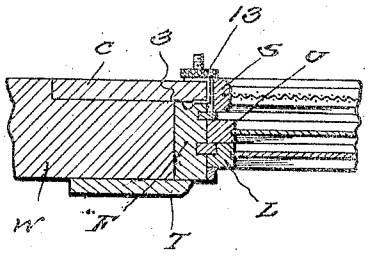


Fig. 2.

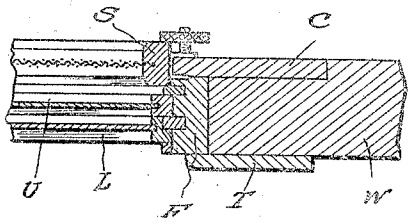
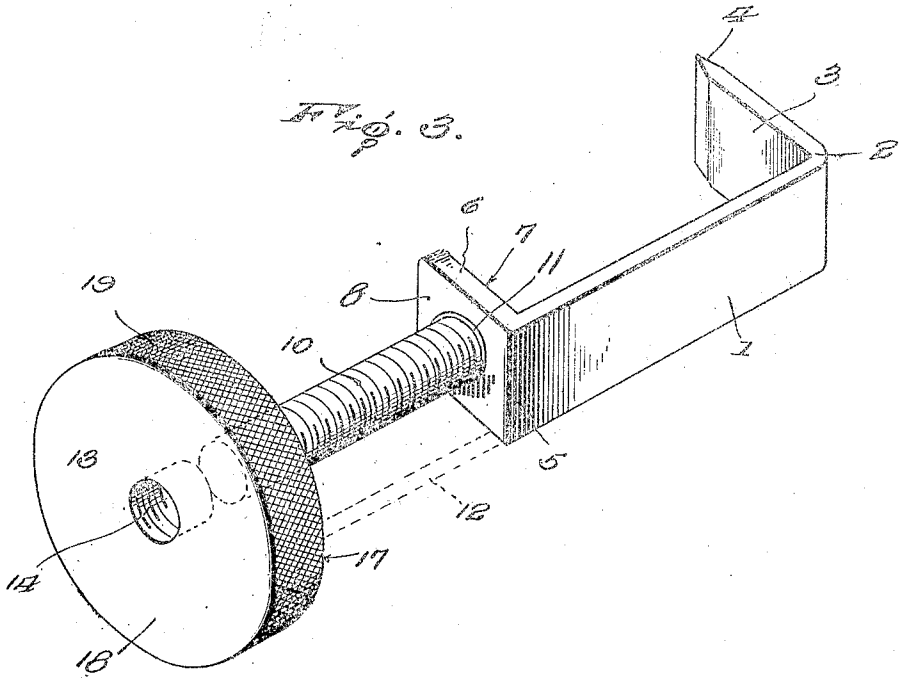


Fig. 3.



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SCREEN OR STORM-WINDOW FASTENER.

1,326,608. Specification of Letters Patent. Patented Dec. 30, 1919.

Application filed May 29, 1919. Serial No. 300,530.

To all whom it may concern:

Be it known that I, JOHN W. NIPPERT, a citizen of the United States, residing at Worden, in the county of Yellowstone and State of Montana, have invented certain new and useful Improvements in Screen or Storm-Window Fasteners, of which the following is a specification.

This invention relates to builders' hardware, and it is in fact a device for fastening a screen frame or a storm window sash into a window frame. These articles are usually applied to the outside of a window, and various types of fasteners are employed for holding them in place, the screen in the summer time and the storm sash in the winter time, but most such fasteners have parts which enter or disfigure the woodwork, and many of them are not adapted to sashes of varying thicknesses.

The present invention is a fastener having a spur at one end intended to be inserted or driven behind the casing, but the spur can be made so thin that the opening it leaves when withdrawn is hardly noticeable. From the spur a thin body passes across the edge of the casing and between it and the sash, and the outer end of this body is turned aside and outward over the casing into a thin flat ear, made necessarily thin and flat for purposes which will appear. A screw projects rigidly outward from the center of this ear and is wholly offset beyond the plane which said body would occupy if projected, so that the screw is not in the way when putting up or taking down the sash. Finally a nut in the shape of a round button with a milled edge is run onto the screw, and this button has a body relatively larger than the ear and its inner face entirely flat so that it may be screwed up against the outer edge of the sash whether said edge is flush with the outer face of the casing or not. Thereby the fastener holds the sash in place, and the sash holds the fastener in place. Details are given below.

In the drawing herewith:

Figures 1 and 2 constitute parts of a composite horizontal sectional view through an entire window frame and its parts, and an added sash applied and secured by these fasteners, the sash or frame in Fig. 2 being thicker than that in Fig. 1.

Fig. 3 is an enlarged perspective detail of the fastener alone.

Into a wall W is set the usual window frame F in which move upper and lower sashes U and L, T is the trim at the inside, and C is the casing at the outside. The letter S designates the frame of a screen or the sash of a storm window, and this element is hereinafter referred to as screen although it is not desired to limit the invention to its use upon a screen only, as the sash S might well contain glass.

The fastener is best seen in Fig. 3. It comprises a metallic strip or plate consisting of a straight flat body 1 preferably bent near its inner end at right angles at 2 into a spur 3 whose extremity may be sharpened to a driving edge or point 4, although it is possible to form this spur in some other manner and attach it to the body instead of making it an integral part of the same. The other end of the body is preferably bent at right angles at 5 into an ear 6 which is substantially square as shown, thin but yet not sufficiently thin to be weak, and flat on its inner and outer faces 7 and 8. If the spur projects at right angles to the body at one side thereof, the ear projects to the same side of the body and is, therefore, parallel with the spur, and the entire element may be stamped from wrought metal, or it might be cast or otherwise formed.

A screw 10 is mounted at the center of the ear, its inner end 11 being screwed upon or preferably passed through and riveted in the ear, and its body projecting perpendicularly from the outer face 8 of the ear and being entirely offset beyond the plane which the body would follow if projected, as indicated in dotted lines at 12. Finally there is provided a nut or button 13 whose bore 14 is threaded to match the threads on the screw, whose inner and outer faces 17 and 18 are perfectly flat, whose body is preferably round and appreciably larger than the ear, and whose edge may be milled as at 19. All parts of this fastener should be of a metal which will not rust or of a suitable metal appropriately treated to prevent rust and yet to present a neat appearance.

In the application of a screen or frame S to a window, a pair or set of these fasteners are first put in place as seen in Fig. 1. The body 1 is laid over the inner edge of the casing C, and the spur 3 forced or driven outward between the casing and the frame F until the body lies close against the edge and ear 6 close upon the outer face of the casing as shown. The sash S is now pushed

into place from the outside, and finally the buttons 13 are applied to the screws 10 and turned thereon until they contact with the sash S. If the latter be accurately fitted to the window as seen in Fig. 1, such contact of the inner face 17 of the button with the outer edge of the sash will occur at a time when said face also contacts with the outer face 8 of the ear; but if the sash be somewhat thicker as seen in Fig. 2, the button will contact with the sash before it touches the ear. In any event the necessity for having the button appreciably larger than the ear is now apparent, because although the sash can be put up between or taken down from between the fasteners when the buttons are not on their screws, the buttons when applied should be amply large to project well over onto the sash frame S. Therefore, it is preferred that the screw project from the ear in a plane beyond that which the plate 1 would occupy if projected, and also that the button be larger than the ear for the reasons described. Also the button should have flat faces so that when screwed home it will not injure the woodwork.

If it be the custom of the householder to put up a storm sash during cold weather, in the spring he can remove the sash and the fasteners. Or it may be that he will remove the sash and replace it with a screen, and in that case the same fasteners may be employed to hold the screen frame. Or, it may be that he puts up a screen in warm weather and has no storm sash, and in that event the screen and the fasteners will be removed in the fall and replaced in the spring. It is not necessary that any particular set of fasteners be applied to a particular window or to a particular sash, but in order to adapt the fasteners to casings of various thicknesses it may be well to make them in sizes wherein the distance between the spur 3 and the inner face 7 of the ear 6 will differ, being a shade over an inch for a casing one inch thick, a shade over an inch and a quarter for a casing one and a quarter inches thick, and so on.

Having thus described the invention, what is claimed as new is:

1. A screen fastener comprising a plate bent into substantially U shape, a screw projecting rigidly from one arm of the U perpendicular to its plane, and a button threaded on the screw and of a size to extend across the projected plane of the body of the U.

2. A screen fastener comprising a plate bent into substantially U shape, a screw projecting rigidly from one arm of the U and fully offset out of the projected plane of the body of such U, and a button threaded on the screw and milled on its edge.

3. A screen fastener comprising a plate provided at one end with a driving spur, and bent at its other end into a thin, square ear having flat faces at right angles to the plane of the plate; a screw projecting rigidly from the center of and perpendicular to said ear and wholly offset out of the projected plane of said plate; and a button threaded on the screw, its body being appreciably larger than said ear and its faces flat, all for use as described.

In testimony whereof I affix my signature.

JOHN W. NIPPERT. [L. S.]