

E. L. WATROUS.

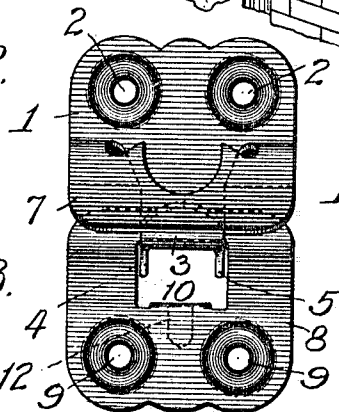
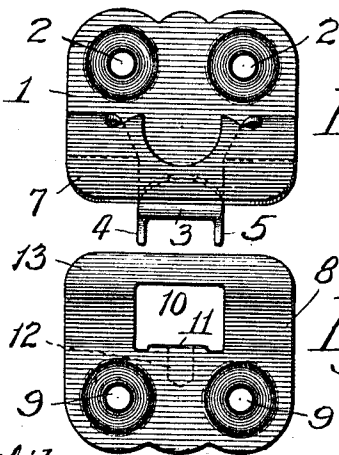
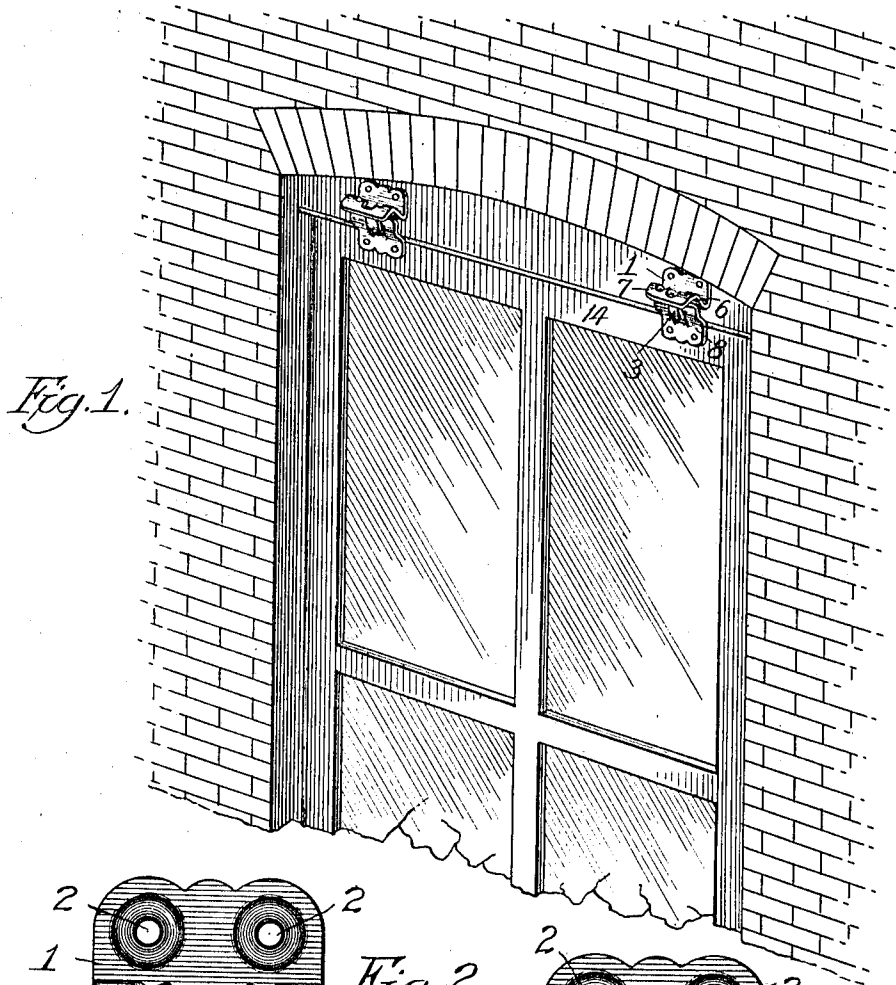
SASH HANGER.

APPLICATION FILED JULY 5, 1912.

1,055,431.

Patented Mar. 11, 1913.

2 SHEETS-SHEET 1.



Witnesses:

John Anders
M. E. Martin

Inventor:

Edward L. Watrous,
by Wallace R. Lane
Attorney

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2 SHEETS-SHEET 2.

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Fig. 5.

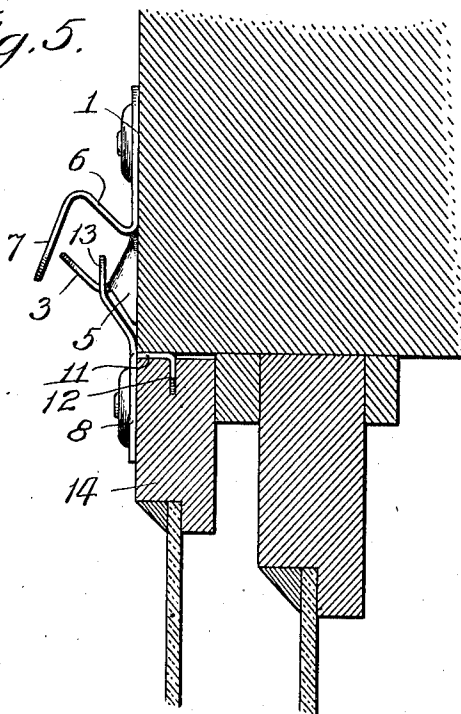


Fig. 6.

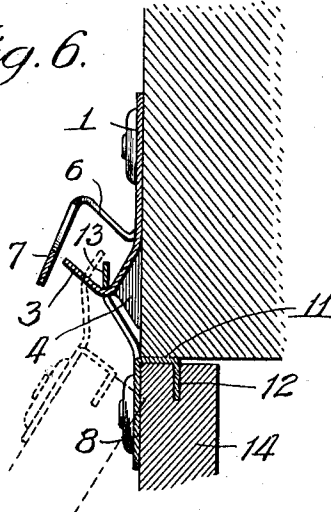


Fig. 7.

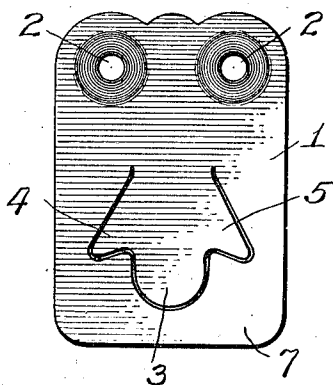
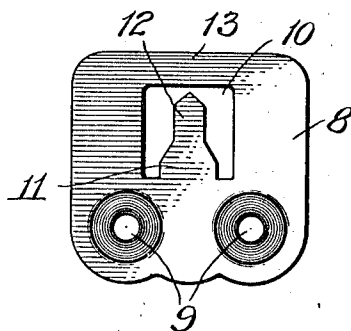


Fig. 8.



Witnesses:

John Enders
M. C. Martin.

Inventor:

Edward L. Watrous,
by Wallace R. Lane
Attorney

UNITED STATES PATENT OFFICE.

EDWARD L. WATROUS, OF DES MOINES, IOWA, ASSIGNOR TO DAVID B. GANN, OF CHICAGO, ILLINOIS.

SASH-HANGER.

1,055,431.

Specification of Letters Patent.

Patented Mar. 11, 1913.

Application filed July 5, 1912. Serial No. 707,827.

To all whom it may concern:

Be it known that I, EDWARD L. WATROUS, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented new and useful Improvements in Sash-Hangers, of which the following is a specification.

My present invention relates to hangers suited for use in supporting storm windows, window screens and the like from the top of a window frame and permitting a swinging movement of the supported frame work when the windows are to be washed, etc., and also permitting easy detachment of the sash or frame when it is to be taken down at the end of the season.

It is the object of the present invention to provide a hanger comprising two parts, the supporting or lower part having a projecting portion to serve in securing the part firmly to a sash and also serviceable as a gage to determine and govern the location of the part on the sash at the position of maximum efficiency.

It is a further object to provide an upper or supporting member shaped from a single piece of metal and having a supporting tongue reinforced and stiffened by wings or side plates, these wings preferably being inclined along their outer edges to serve as guides for the lower member of the hanger when the window is being slipped into place. Also the upper or supporting member has an overhanging guard or shield, serviceable to prevent accidental displacement of the sash, as when being roughly handled while partially swung away from the building or in cases where a strong wind might swing the sash outward too far or lift it away from the supporting hook if not thus protected by an overhanging shield.

The details of my invention will be better understood by reference to the following description, which is to be taken in conjunction with the accompanying drawings, wherein—

Figure 1 illustrates two of the hangers in position for use in supporting a storm sash from the top of a window frame. Fig. 2 shows the upper or supporting member of the hanger. Fig. 3 is a similar view of the supported member. Fig. 4 shows the two members in normal operative position. Fig. 5 is a sectional view somewhat diagrammatical, showing the hanger in elevation

when the supported sash is in its true position. Fig. 6 is a section through the hanger, indicating in dotted lines the swinging outward movement which the sash may have. Fig. 7 shows the blank out of which the supporting member is made with a tongue cut for bending to form a supporting hook and its cooperating wings. Fig. 8 shows the blank out of which the supported member is made, after part of the blank has been cut away to form the retaining gage and before that gage has been bent up.

Referring to Fig. 7, which illustrates the blank for the supporting member, that blank will be seen to consist of a steel plate 1 of rectangular outline, with an ornamental top edge and raised nail seats 2 at its upper corners. A tongue 3 and wings 4 and 5 are cut near the center of the blank, leaving the outer edge of the blank of irregular shape so that ultimately it may be bent up (Fig. 5) to form an upstanding portion 6 and a downwardly inclined portion 7, serviceable as a guard for the tongue of the hanger. The tongue 3 is bent upward along the line of its junction with the wings and the wings are folded down at the sides of the tongue as shown in Figs. 5 and 6, where they serve a double function, first that of reinforcing the supporting hook of the hanger and holding the supporting line of that hook at the proper distance from the wood work and second that of serving as guides to direct the lower member of the hanger upward along the lower face of hook 3, when the sash is being slipped into place initially.

Fig. 8 illustrates the blank for the lower or supported member 8 and has raised nail sockets 9 and is cut away at 10 to leave a tongue 11 tapering to form a driving point 12 for use, as hereinafter set forth.

Tongue 11 is bent as shown in Fig. 6 so that its narrowed sharpened end 12 may be driven into the top edge of a storm window sash or window frame to assist the nails at 9 in holding the hanger member to the wood-work. But in addition to this, tongue 11 has the very important function of serving as a gage to position the supported member on the sash, for when the member is to be installed, it need only be slipped over the end of the sash and its tongue 12 and nails driven in, whereupon the upper loop 13 of the member will be in exact po-

sition with respect to the wood-work for most advantageous use as a supporting loop.

Window sash can be fully equipped with lower hanger members while still in the factory or shop and the operation of installing the hangers on the building, need consist merely in hooking in the top members and lifting them up as far as they will go and there securing them with nails.

Among the advantages of the present invention it should be noted that the supported sash 14 may be swung outwardly, as shown in Fig. 6, so that access may be had to the windows for cleaning or so that ventilation through the window may be attained.

There is little danger that through careless handling or through the action of the wind, this sash will be lifted from the supporting hooks, for the guard plate 7 prevents disengagement of the two hanger parts, except under certain special conditions, which are as follows. With the sash in the position as shown in dotted lines Fig. 6, a straight upward and outward movement of the sash such as would be very convenient to a person leaning from a window or standing on the ground below, the lower hanger member can be moved outward and upward along the hook 3 until it strikes the guard plate 7 and then can be slipped diagonally downward and outward, thus drawing the lower member of the hanger through the opening between hook 3 and guard plate 7 and thus freeing the sash from its supports. To return the sash to its position, it can be lifted upwardly until the upper edges of the lower hanging members strike the wings 4 and 5, which then act as guides or guards to deflect the member outward and over the end of hook 3 after which the sash can be lowered and swung inward into its final and useful position. The two parts which compose this hanger, together with their integral hooks, wings, driving point, baffle plate, etc. may be made of sheet steel of suitable gage and are not only inexpensive to construct, but are not easily broken or displaced.

I claim:—

1. In a hanger, a supporting member having a hook reinforced at its sides by in-turned integral wings.
2. In a hanger, a supporting member having an integral supporting tongue bent outward and then upward from the base of the member, and tapering integral wings folded down at the side of the tongue to stiffen and support the same.
3. In a hanger, a supporting tongue projecting outward and then upward to receive the cooperating member, and a guard forming a part of said supporting member

and overhanging said tongue to prevent accidental displacement of the supported member.

4. In a hanger, a supporting member consisting of a sheet metal plate having its central portion bent outwardly and then upwardly to form a supporting tongue with tapering wings bent downward at the sides of said tongue to stiffen and support the same, the metal which originally surrounded said tongue being bent upwardly and then downwardly forming a guard over said tongue to prevent accidental displacement of the cooperating member supported by said tongue.

5. In a hanger, a supported member consisting of a sheet metal plate having its central portion bent inwardly and arranged for driving into the end of a sash to be supported, thereby forming an anchor and serving as a gage to determine the location of the member on the sash to be supported, the metal originally surrounding the inwardly bent portion forming a hook-engaging loop.

6. In a hanger, a supported member consisting of a sheet metal plate having an integral portion bent inwardly to serve as a gage for positioning the member on the edge of a frame to be supported, the metal originally surrounding the inwardly bent portion forming a hook-engaging loop.

7. In a hanger, a supported member consisting of a sheet metal plate having its central portion cut to form a tongue, said tongue being bent inward to form a gage for positioning the member on the edge of a frame to be supported, the metal originally surrounding said tongue forming a hook-engaging loop.

8. In a hanger, the combination of a pair of sheet metal plates, one of said plates being shaped to form a supporting member having a central tongue bent outwardly to form a supporting hook with wings at its sides reinforcing the hook and filling the space below the same, the metal which originally surrounded said tongue and wings being bent upwardly and outwardly to form an overhanging guard, the supported member which normally is carried by said hook having its central portion bent inwardly and arranged to be driven into the edge of the sash to serve as an anchor and as a gage for positioning the member on the sash.

In witness whereof, I heretunto subscribe my name to this specification in the presence of two witnesses.

EDWARD L. WATROUS.

Witnesses:

D. D. PALMER,
M. F. MARTIN.