This invention relates to storm sash in general and in particular to means for supporting one of a pair of double hung storm sash in a partly open position for ventilating purposes.

The principal object of the invention is the provision of a combination vent arm and handle for storm sash.

A further object of the invention is the provision of means for forming a simple inexpensive and attractive handle on a storm sash.

A still further object of the invention is the provision of means readily affixed to a storm sash for supporting the storm sash in elevated relation in a frame therefor by engaging the frame at a point immediately below the sash.

The combination vent arm and handle shown and described herein comprises an accessory for a storm window construction including a frame and having a pair of glazed sash positioned therein in double hung relation in that the combination vent arm and handle provides both means for lifting the sash and means by which the sash may be maintained in elevated relation to the said frame. Additionally, when the pair of glazed sash are in elevated position in the upper portion of the storm window frame and a screen sash positioned beneath the same, the combination vent arm and handle acts as a keeper in retaining the said screen sash in the frame.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawing, wherein

Figure 1 is a plan view of a portion of a storm window frame and sash showing the combination vent arm and handle installed thereon.

Figure 2 is a horizontal section taken on line 2-2 of Figure 1.

Figure 3 is a plan view of a portion of a storm window frame and a pair of sash showing a modified form of the vent arm installed thereon.

Figure 4 is a top plan view of the vent arm shown in Figure 3.

Figure 5 is a front plan view of the vent arm shown in Figure 4.

By referring to the drawings and Figures 1 and 2 it will be seen that a portion of a storm window frame 10 has been illustrated and includes a vertical channel 11 formed in an edge thereof for slidably receiving a glazed sash 12. The frame of the glazed sash 12 is indicated by the numeral 13 and has oppositely disposed channels formed in its edges. The outermost channel is indicated by the numeral 14 and the innermost channel is indicated by the numeral 15. The glazing material of the glazed sash 12 is disposed in the innermost channel 15 and retained therein by means known in the art. A combination vent arm and handle 16 is disposed in the outermost channel 14 and pivotally secured to the frame 13 of the glazed sash 12, as best shown in Figure 3, by indenting oppositely disposed sections 17 and 18 of the frame 13. The indented sections 17 and 18 register with depressions 19 and 20 formed in one end of the combination vent arm and handle 16, it being observed that the middle section of the combination vent arm and handle is provided with grounded upper and lower edges 21 and that it is offset with respect to end portions 22 and 23.

By referring to Figure 3 of the drawings it will be seen that the offset portion of the combination vent arm and handle 16 lies on a plane different from that of the end portions 22 and 23 thereof as the same are disposed within the channel 14 in the frame 13 when the handle is in normal position, as shown in Figures 1 and 2 of the drawings.

By referring to Figure 1 of the drawings it will be seen that the frame 13 is notched as at 24 and 25 to permit the combination vent arm and handle to assume its normal horizontal position with respect thereto as, for example, when the handle is used in manually raising the glazed sash 12. When the glazed sash 12 is to be positioned in elevated relation in the storm window frame 10, the combination vent arm and handle is pivoted on the indentations 17 and 18, as shown by the arrow in Figure 1, and swung about until the end 23 thereof engages the vertical channel 11 in the edge of the storm window frame 10.

The over-all length of the combination vent arm and handle is such that the end 23 will engage the channel 11 with the longitudinal axis of the combination vent and handle lying at approximately 13 degrees from horizontal where
it will obviously wedge against the channel 11 and thereby hold the glazed sash 12 in elevated relation. The holding action is obtained by the rather flat angle from horizontal at which the combination vent arm and handle is disposed as it wedges into the channel 11 and tends to shift the glazed sash 12 to the right, as shown in Figure 1 of the drawings.

In order to release the sash so that it can be lowered, it is necessary to first raise the same slightly and then swing the combination vent arm and handle back into the position shown in solid lines in Figures 1 and 2 of the drawings. It will be obvious to those skilled in the art that the same vent arm action can be obtained for holding the sash in elevated position without the handle portion thereof by providing a relatively straight bar such as shown in Figures 3, 4 and 5 and indicated by the numeral 26, the same being pivotally affixed to a sash 27 which is slidably disposed in a storm window frame 28. The pivotal engagement between the vent arm 26 and the sash 27 is indicated by the numeral 29 and a notch 30 is provided in the sash 27 so that a projection 31 on the vent arm 26 may be manually engaged so as to move the same.

In Figure 3 of the drawings a screen sash 32 is positioned and immediately beneath the sash 27 and it will be observed that the vent arm 26 is positioned at a flat angle from horizontal so that the free end thereof engages a channel formed in the upper edge of the screen sash 32. This acts as a lock in retaining the screen sash in position beneath the sash 27 and in preventing it from falling out of the frame 28 or being removed therefrom. At such time as the screen sash is not in position, the vent arm may be swung about in the manner shown in Figure 1 of the drawings and used to hold the sash 27 in elevated relation in the frame 28. In order that the vent arm 26 may be retained in the channel in the sash 27 in which it is disposed, a portion thereof is offset as indicated by the numeral 33 so that frictional engagement is had between the remainder of the device and the sash 27.

It will thus be seen that a simple combination vent arm and handle has been disclosed which may be inexpensively formed and assembled in various storm sash constructions and utilized for retaining the same in elevated relation and for mounting frame and lifting the sash and in handling the sash as well. Additionally, the device serves, as illustrated in Figure 3 of the drawings, for locking a screen sash in position in a storm window frame.

It will thus be seen that the several objects of the invention are met by the combination vent arm and handle described herein.

Having thus described my invention, what I claim is:

1. In a storm window frame and sash; said sash having a channel in its lowermost edge, said lowermost edge of said sash having a pair of spaced notches therein, a supporting arm for said sash, said supporting arm having an offset portion, the ends of the said arm normally being in said channel with the offset portion lying outside said sash and forming a handle therefor, said arm being pivoted at one end to the said sash and the free end of the said arm being engageable with the said frame to hold the said sash in elevated relation with respect thereto.

2. In a storm window frame and sash; a support arm for the said sash, said support arm having an offset portion forming a handle for said sash, said sash having a channel formed in the bottom edge thereof, one end of the said support arm disposed in said channel and pivotally affixed to the said sash, the free end of the said support arm being engageable with the said frame to hold the said sash in elevated relation thereto, and notches formed in the said sash for registry with the said support arm so that the free end of the said arm is adapted to move into the said channel whereby the sash may be lifted by the said handle.

3. In a storm sash having a frame including an inverted channel, a combination handle and support arm for said sash, the said handle and support arm comprising a member having offset end sections, one of the end sections being pivotally affixed in the said inverted channel in the frame of the sash and the free end section of the member positioned for registry with the said channel in the frame, the intermediate section of said member being positioned in spaced relation to said frame and forming a handle movable in an arc based on the said pivotal connection between the said member and the said frame so as to form a support for said sash.

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