W. E. HOLLENBECK.

INTERCHANGEABLE SCREEN AND STORM SASH.

APPLICATION FILED APR. 30, 1914.

1,147,093.

Patented July 20, 1915.

2 SHEETS—SHEET 1.

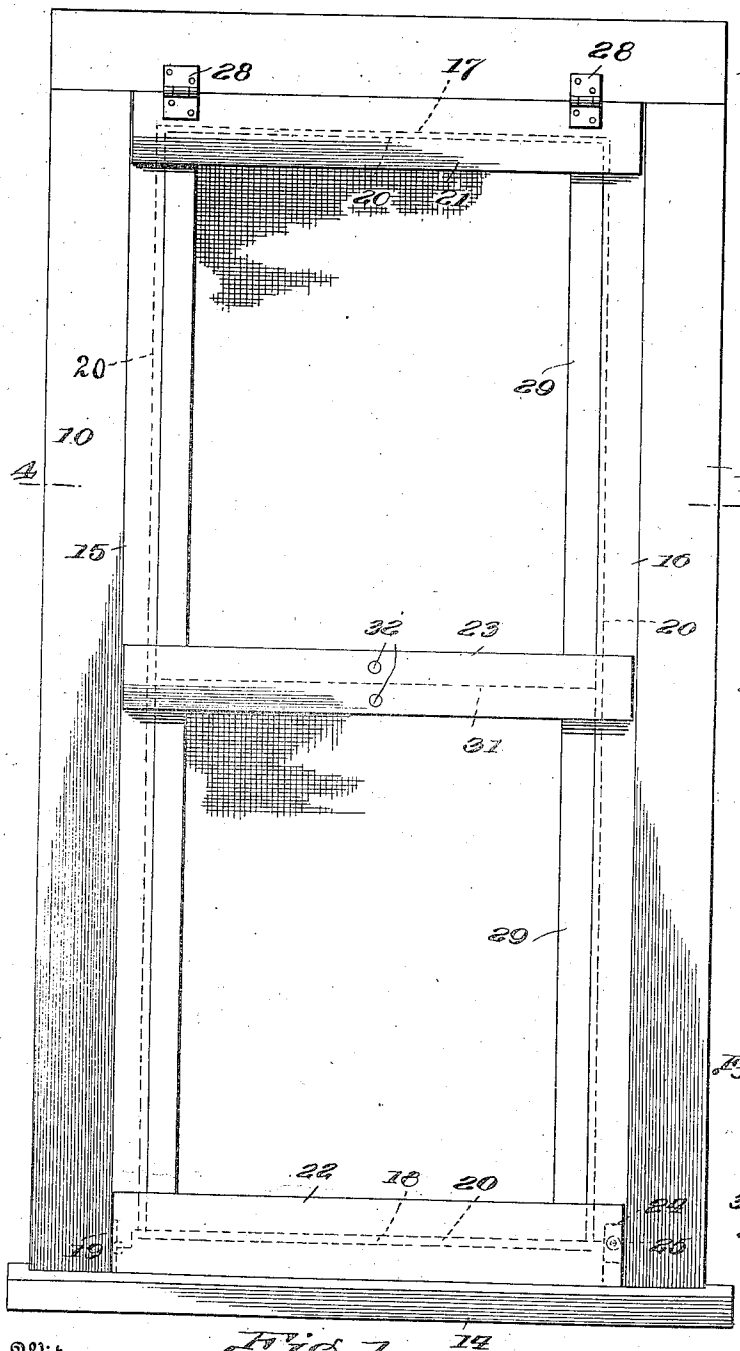


Fig. 1.

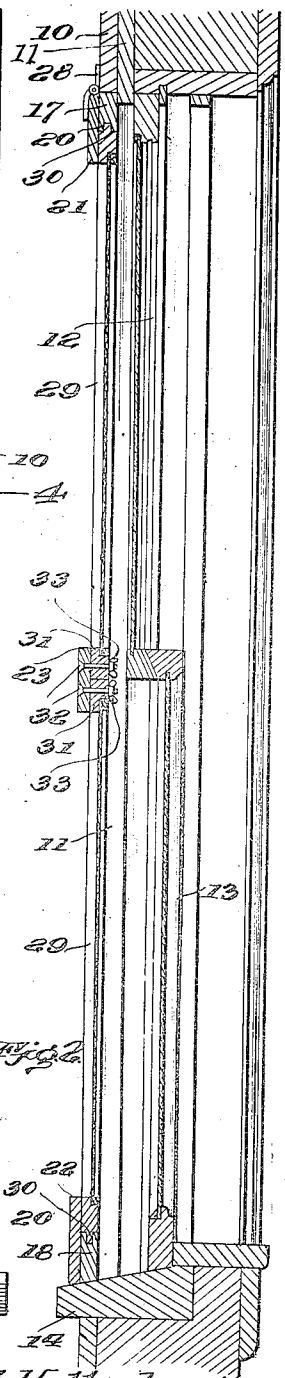


Fig. 2.

Witnesses

C. N. Woodward.

J. Russell

W. E. Hollenbeck

Inventor

By

Howson & Howson,

Attorneys.

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2 SHEETS—SHEET 2.

Fig. 3.

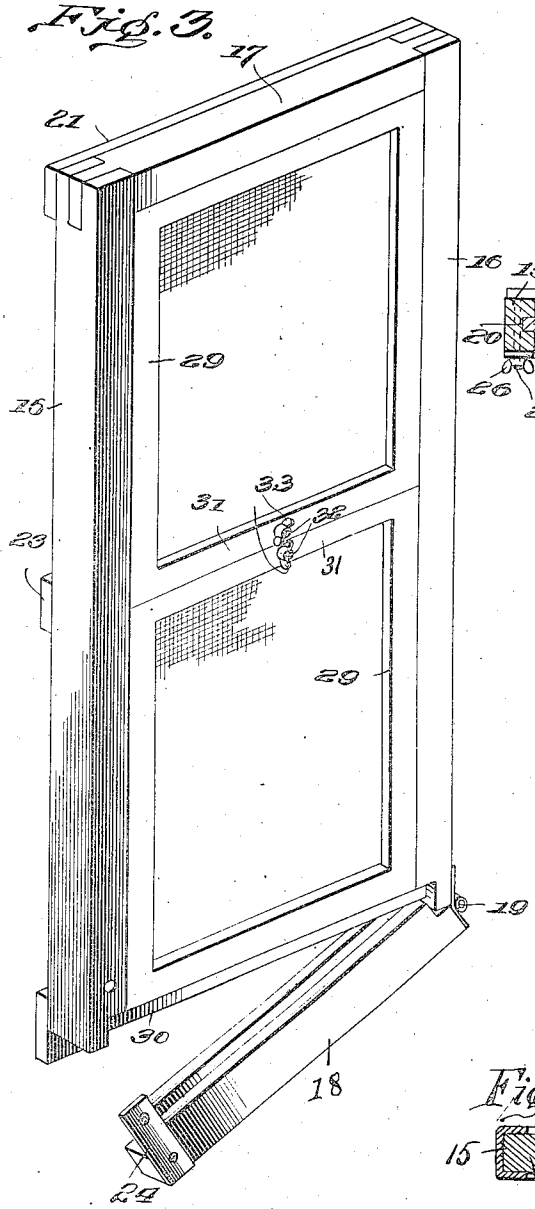


Fig. 4.

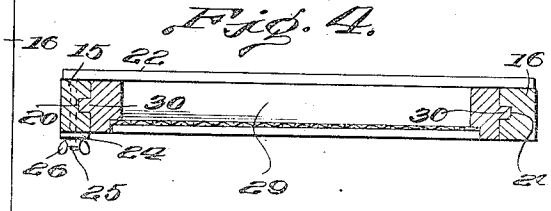
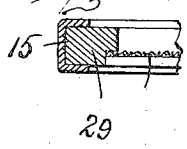


Fig. 5



Witnesses

E. N. Woodward

Inventor

W. E. Hollenbeck

By

Attorneys.

UNITED STATES PATENT OFFICE.

WALTER E. HOLLENBECK, OF MARION, IOWA.

INTERCHANGEABLE SCREEN AND STORM-SASH.

1,147,093. Specification of Letters Patent. Patented July 20, 1915.

Application filed April 30, 1914. Serial No. 835,551.

To all whom it may concern:

Be it known that I, WALTER E. HOLLENBECK, citizen of the United States, residing at Marion, in the county of Linn and State of Iowa, have invented certain new and useful Improvements in Interchangeable Screens and Storm-Sashes, of which the following is a specification.

This invention relates to improvements in windows and doors, and has for one of its objects to provide a simply constructed interchangeable window or door screen and storm sash, or storm door, which may be applied without material structural change to window-frames and sashes or doorway openings of various sizes.

Another object of the invention is to provide a simply constructed frame device wherein sashes covered with wire netting may be quickly substituted for storm sashes, or storm sashes employed to replace the screen covered sashes as required, without the removal of the frame devices from the window or door frames.

With these and other objects in view the invention consists in certain novel features of construction as hereinafter shown and described and then specifically pointed out in the claims.

The improved device is applicable to either window or doorway openings, and it is not desired to limit the device in this respect, but for the purpose of illustration the device is shown applied to a conventional window frame, and in the drawings thus employed Figure 1 is a view of a conventional window-frame from the outside with the improved device applied. Fig. 2 is a longitudinal section on the line 2—2 of Fig. 1. Fig. 3 is a perspective view from beneath of the main supporting frame with the removable end in open position. Fig. 4 is a transverse section on the line 4—4 of Fig. 1. Fig. 5 is a sectional detail illustrating a modification in the construction.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The outside casing is indicated at 10, the outside stop at 11, the upper sash at 12, the lower sash at 13 and the sill at 14, these parts being of the usual construction.

The improved device comprises an oblong frame formed of side members or stiles 15—16, a head member 17 and a lower member 18. The side members 15—16 and the head member 17 are rigidly united, preferably by tenon and mortise joints, while the lower member 18 is preferably halved upon the side members 15—16 and hinged at 19 to one of the side members, for instance the member 16. By this means the member 18 is free to swing away from the members 15—16 to permit the insertion of the storm sashes or the screen frames, as may be required.

The inner edges of the sides 15, head members 17 and the bottom member 18 are channeled as indicated at 20. Bearing over the members 15—16—17 is a guard member 21, while a similar guard member 22 bears over the lower ends of the side members 15—16 and projects over the lower member 18, but is not attached thereto. A guard member 23 bears over the side members 15—16 intermediate their ends as shown.

The member 18 is provided with a plate 24 which extends over the contiguous portion of the member 15 and is adapted to be secured in position by a clamp bolt 25 which extends through the member 16 and likewise through the plate and is provided with a wing nut 26. By this means the member 18 is secured in position relative to the member 15 and readily releasable by detaching the clamp bolt. The guard member 17 is hingedly united at 28 to the head member of the casing 10, and thus adapted to swing outwardly at the lower end. The members 18 and 22 of the supporting frame bear normally upon the upper face of the sill 14, and are free to swing outwardly therefrom upon the hinges 28, as will be obvious.

Two sets of sashes are provided with each of the supporting frames, one supplied with glass and the other supplied with screen material, and are interchangeable within the grooves 20 of the members 15—16—17—18, the sashes, represented conventionally at 29, being provided with tongues, indicated at 30, to engage in the channels. By the arrangement shown when the sashes are to be changed, the supporting frame is swung outwardly upon its hinges 28 to enable the member 18 to be released by detaching the holding bolt 25, and swung downwardly to release the sashes which, for the time being, have been located within the frame, and the other sashes substituted therefor by sliding them upwardly within the channels of the side members 15—16 and

then restoring the member 18 and securing it in place by means of the holding bolt 25. The meeting rails 31 of the sashes 29 are preferably secured in position by clamp bolts 32 engaging through the guard member 23 and provided with wing nuts 33 at their inner ends. By this means the sashes 29 are firmly secured in position and prevented from sliding downwardly from the supporting frame when the lower member 18 is detached.

The improved device is simple in construction, can be inexpensively manufactured, and thus obviates the necessity for providing two separate sets of sashes, one for summer use and one for winter use.

The frame members 15—16—17—18 may be constructed of channeled metal, as illustrated in Fig. 5, and in this event the ribs 30 on the members 29 will not be required.

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

1. A device of the class described comprising a supporting frame including a rigid end member and side members spaced apart, a transverse member extending over said side members at the end opposite to the rigid end member and at one side of the side members, said transverse member projecting below the adjacent ends of said side members, sashes within said supporting frame, a detachable end member bearing against the projecting portion of the transverse member and against the adjacent portion of one of said sashes, and fastening means for connecting the transverse member to the side members.

2. A device of the class described comprising a supporting frame including a rigid end member and side members spaced apart, a transverse member extending over said side members at the end opposite to the rigid end member and at one side of the side members, said transverse member projecting below the adjacent ends of the side members, another end member hingedly united at one end to one of said side members, a holding member carried by said last mentioned end member at its free end and extended to bear against the adjacent frame side member, and a fastening device connecting said holding member to the adjacent frame side member.

In testimony whereof I affix my signature in presence of two witnesses.

WALTER E. HOLLENBECK. [L. S.]

Witnesses:
L. D. DENNIS,
R. D. HART.