A. H. NEWPHER.

WINDOW SASH AND CASING.

APPLICATION FILED MAR. 8, 1912.

1,067,266. Patented July 15, 1913.

Fig. 4.

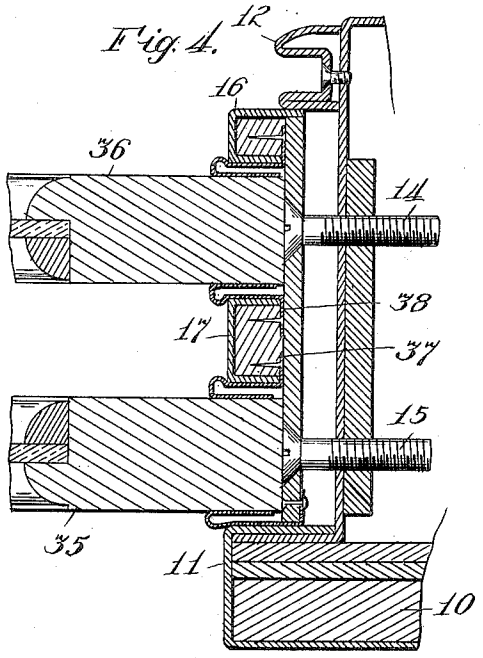


Fig. 1.

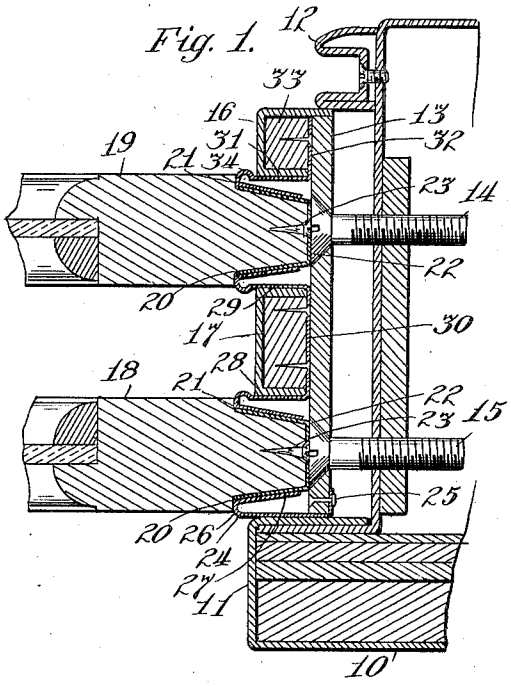


Fig. 3.

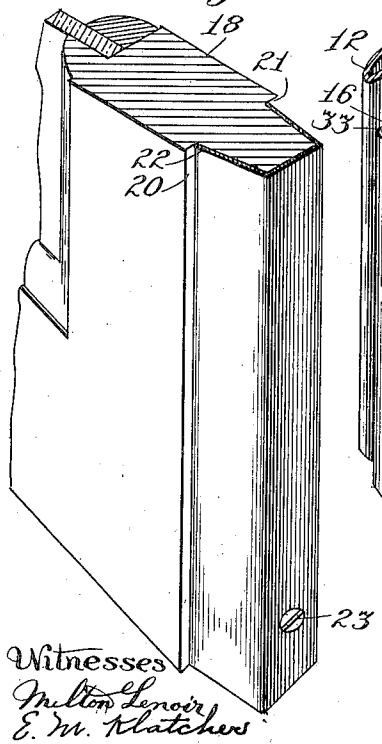
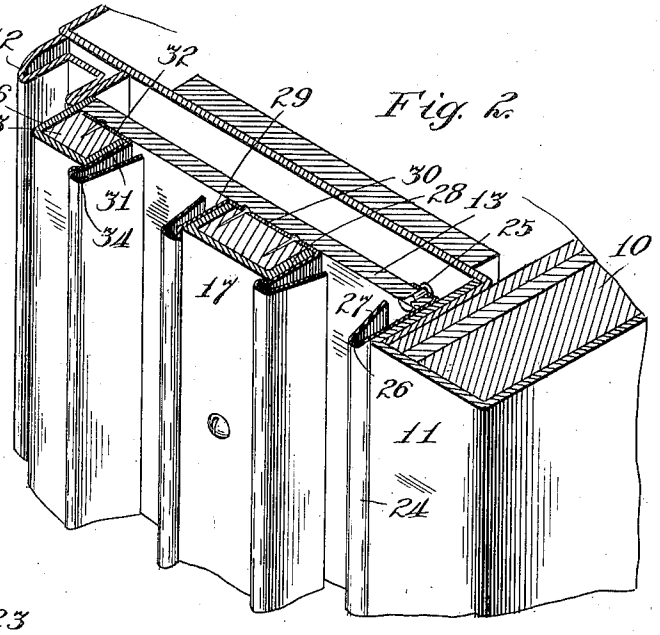


Fig. 2.



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UNITED STATES PATENT OFFICE.

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WINDOW SASH AND CASING.

1,067,266. Specification of Letters Patent. Patented July 15, 1913.

Application filed March 8, 1912. Serial No. 682,450.

To all whom it may concern:

Be it known that I, ALFRED H. NEWPHER, a citizen of the United States, and resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Window Sashes and Casings, of which the following is a specification, and which are illustrated in the accompanying drawings, forming a part thereof.

The invention relates to window sashes and casing, and particularly to means for rendering the same weatherproof; the object of the invention being to provide the window with a permanently attached weatherproofing means which, while effectively excluding moisture, dirt, and air, provides for the free movement of the sash.

An exemplification of the invention is hereinafter described and is illustrated in the accompanying drawings, in which—

Figure 1 is a detail plan section through the side rails of a pair of sashes and the casing; Fig. 2 is a sectional detail of the casing shown in perspective; Fig. 3 is a sectional detail of the side rail of the sash shown in perspective; and Fig. 4 is a detail plan section similar to Fig. 1, showing a slightly modified form of construction.

The invention is shown as applied to the window of a sleeping car in which there are employed double sashes, though it is applicable as well to windows of other structures and to windows having single sash only.

The window casing 10 is shown as of metal and as being provided with an inner stop 11 and an outer stop 12, the latter being shown as providing a runway for a screen, not shown. The frame stile 13 is adjustably secured between the stops 11, 12, by means of screws 14, 15, and carries an outer stop 16 and an intermediate stop 17, the inner stop 11 being of sufficient height to form with the intermediate stop 17 a runway for the inner sash 18, the outer sash 19 running between the stops 16, 17.

In the preferred form of construction each sash is vertically rabbeted adjacent its outer edge, as shown at 20, 21, and is slightly tapering from these rabbets to the edge face of the sash rail. Preferably the projecting tongue thus formed is armored with sheet metal, as shown at 22, secured to the rail by means of screws, as 23. Spring plates are attached to the stile plate of the frame and project outwardly along and slightly beyond the faces of the several stops which cooperate with the sash, the outer portions of these plates being bent inwardly and backwardly but inclined toward the median line of the runway of the sashes, to form spring leaves against which the armored portion of the sashes takes its bearings. These several plates constitute the weather guards, and by their yielding engagement with the side faces of the sashes effectively exclude moisture, dust and air. These weather guard plates may be attached to the stile plate in any desired manner, as shown the plate 24 coöperating with the inner face of the inner sash 18 is lipped under the stile plate 13 and secured thereto by means of a rivet 25. The bow 26 of this plate abuts against the rabbet 20, and its inner spring leaf 27 is inclined inwardly, normally at a greater angle than the beveled face of the sash, and terminates a short distance from the outer face of the stile plate 13.

The weather guard plates 28, 29, coöperating with the outer face of the inner sash 20 and the inner face of the outer sash 19 may conveniently, though not necessarily, be made integral, their connecting portion 30 lying back of and being secured to the stop 17, their free or inturned leaves, as in the case of the plate 24, entering the runways of the two sashes and being normally inclined at a greater angle than the beveled faces thereof. The weather guard plate 31 coöperating with the outer face of the outer sash 19 may be lipped under the stop 16, as shown at 32, and pinned to a filler strip 33 of wood housed within this stop. The outstanding and inturned portions of this weather guard correspond in form to those of the guards already described. As shown at 34 the weather guard plates may be bowed outwardly or away from the sash slightly at the outer face of the stops, thereby increasing their resiliency. The rabbets, as 20, 21, constitute a housing for the body portion of the weather guards, not only contributing to the neatness of appearance but preventing the accumulation of dirt at the juncture of the weather guard with the sash.

In the modification illustrated in Fig. 4, the sash rails 35, 36, are of uniform thickness to their extreme edges and are without the metallic armor. The inner leaves, there-

fore, of the weather guard plates become parallel to their outer leaves when the sash is in place. In this figure, also, the weather guards coöperating with the outer face of the inner sash and the inner face of the outer sash are shown as made of separate plates, each being lipped under the central stop 17, as shown at 37, 38.

I claim as my invention—

1. In a window frame and sash, in combination, a frame stile, stops thereon forming a way for a sash, weather guards of sheet metal connected with the stile and projecting outwardly along the inner faces of the stops and each folded back into the way, and a sash entering the way and bearing laterally against the inturned leaves of the weather guards, the sash being rabbeted adjacent its side edges to form shoulders extending over the bowed portion of the weather guards.

2. In a window frame and sash, in combination, a frame stile, a stop on the stile, a spring metal plate folded to form two leaves, one leaf having a lateral lip extending under the stop and the other leaf projecting inwardly toward the stile and obliquely away from the stop.

3. In a window frame and sash, in combination, a stile plate, stops secured to the plate and forming ways for a sash, spring metal plates extending from the outer faces of the stops obliquely into the ways, and a sash entered between the spring metal plates, the sash being rabbeted adjacent its edges to form shoulders covering the outer edges of the spring plates.

4. In a window frame and sash, in combination, a stile plate, stops secured to the plate and forming ways for a sash, spring metal plates extending from the outer faces of the stops obliquely into the ways, and a sash entered between the spring metal plates, the sash being rabbeted adjacent its edges to form shoulders covering the outer edges of the spring plates and being beveled from the shoulders to its edge faces.

5. In a window frame and sash, in combination, a stile plate, stops secured to the plate and forming ways for a sash, spring metal plates extending from the outer faces of the stops obliquely into the ways, and a sash entered between the spring metal plates, the sash being rabbeted adjacent its edges to form shoulders covering the outer edges of the spring plates and being beveled from the shoulders to its edge faces, such beveled portion being metal covered.

6. In a window frame and sash, in combination, a stile plate, outer stops and a central stop secured to the stile plate and forming ways for a pair of sash, weather guards of spring sheet metal attached to the stile plate and extending inwardly along the inner faces of the several stops and folded back to obliquely enter the ways, the weather guards associated with the central stop being formed of a single sheet extending back of such stop.

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