May 28, 1929. O. V. NELSON 1,714,920

COMBINATION SCREEN AND STORM DOOR

Filed Sept. 12, 1927 2 Sheets-Sheet 1

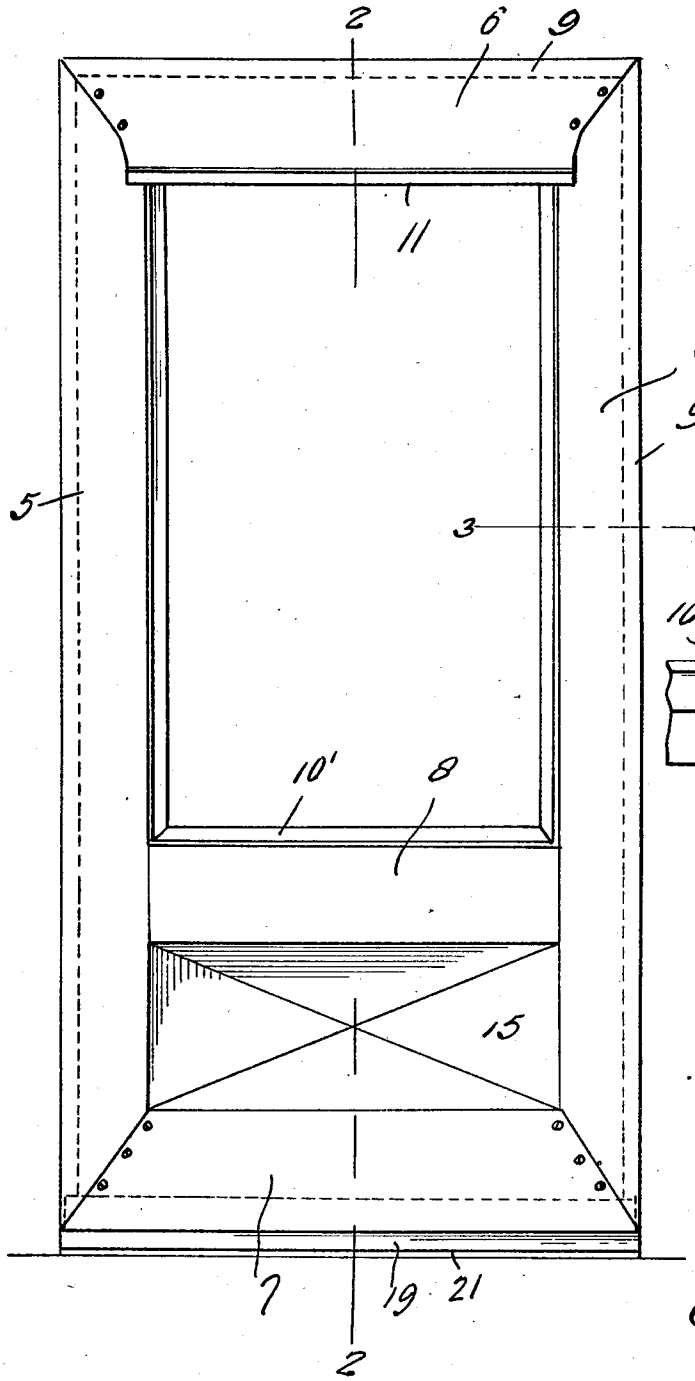


Fig. 1.

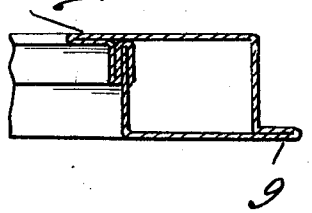


Fig. 3.

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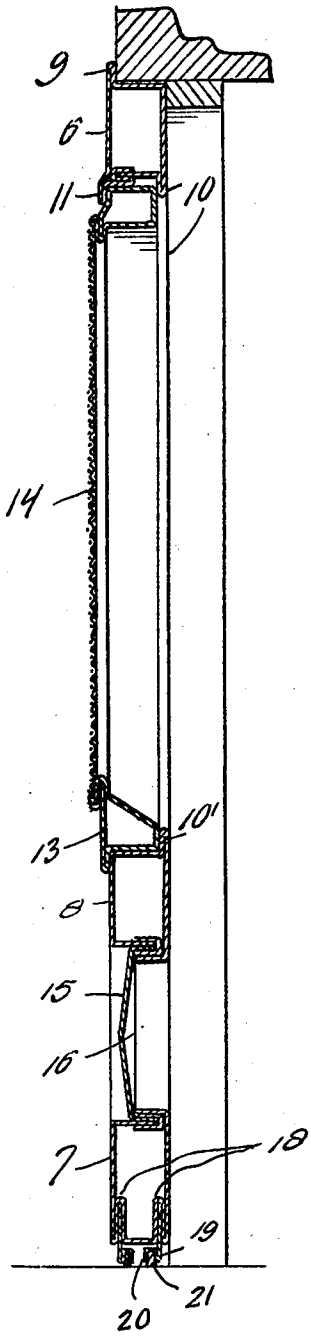
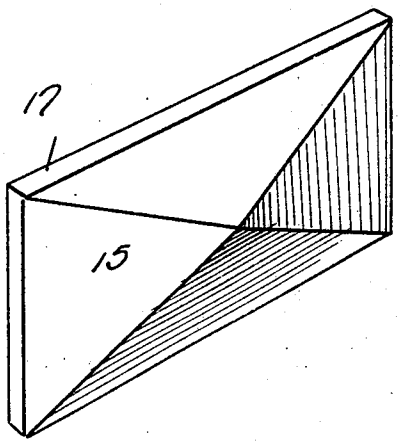


Fig. 2.

Fig. 4.



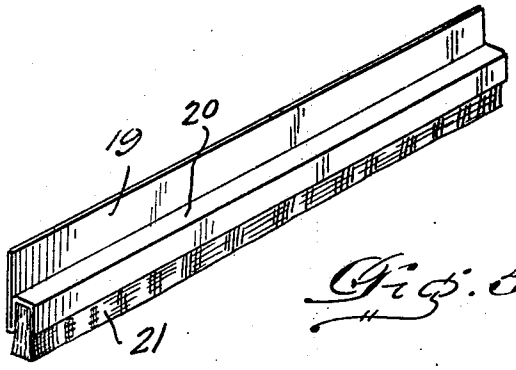


Fig. 5.

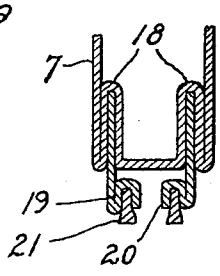


Fig. 6.

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UNITED STATES PATENT OFFICE.

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COMBINATION SCREEN AND STORM DOOR.

Application filed September 12, 1927. Serial No. 219,081.

The present invention relates to a door structure and has for its prime object to provide a door which is constructed of sheet metal and has an opening therein which may be closed by screening or a storm panel.

Another very important object of the invention resides in the provision of an all metal door of this character with adjustable weather stripping at the lower edge thereof.

A further important object of the invention resides in the provision of a door of this nature which is simple in its construction, yet strong and durable and otherwise well adapted to the purpose for which it is designed.

With the above and numerous other objects in view as will appear as the description proceeds, the invention resides in certain novel features of construction, and in the combination and arrangement of parts as will be hereinafter more fully described and claimed.

In the drawing:—

Figure 1 is a front elevation of a door embodying the features of this invention,

Figure 2 is a vertical section therethrough,

Figure 3 is a detail horizontal section taken substantially on the line 3—3 of Figure 1,

Figure 4 is a perspective view of a bottom panel,

Figure 5 is a perspective view of one of the weatherstripping devices, and

Figure 6 is an enlarged detail sectional view of the lower portion of the door.

Referring to the drawings in detail it will be seen that the door comprises hollow sheet metal side rails 5, a hollow sheet metal top rail 6, and a bottom hollow sheet metal rail 7. A hollow cross rail 8 is disposed transversely between the side rails 5 spaced from but adjacent to the bottom rail 7. The side rails 5 and the top rails 6 are each provided with an outwardly disposed flange 9 flush with the outer face thereof and an inwardly disposed flange 10 flush with the inner face thereof. The flange 9 not only acts as a weather strip but by reason of its overlapping relation with the door casing it will compensate for variations in the width of the door casing.

The front wall of the top rail 6 overhangs the opening between the rails 5, 6 and 8 as is indicated at 11. The rail 8 is provided with a flange 10′ extending upwardly flush with the rear face. A screen frame 13 may be placed in the opening provided between rails 5, 6 and 8 to abut flanges 10 and 10′ as is clearly illustrated in Figure 2 and a sheet of foraminous or screen material 14 is fixed across this frame 13. A panel 15 is disposed in the opening provided between the rails 8, 5 and 7 being held in a pocket construction 16 by having a continuous marginal flange 17 seated therein.

The bottom rail 7 on its lower edge is formed with a pair of longitudinally extending pockets 18. A pair of weatherstripping devices are provided for association with this bottom rail 5. Each weatherstripping device comprises an oblong body plate 19 having formed on the lower longitudinal edge thereof an integral extension 20 of an inverted U-shaped formation in cross section and disposed with one side in abutment with the body 19 and adapted to receive between its sides weatherstripping material 21 such as felt or the like. The upper portions of the bodies 19 are adapted to be adjustably received in the pockets 18 so that the felt or other weatherstripping material 21 may engage the floor as the door is opened or closed. Obviously this weatherstripping construction is adjustable as the same may be moved up or down depending upon the height of the door from the floor. It is furthermore pointed out that the body 19 being extensible, forms a means of lengthening the door to compensate for varying irregularities on the length of the frame and the body 19 may even be set at an angle with respect to the door body to overcome angular sagging of the door.

It is thought that the construction, utility and advantages of the invention will now be quite apparent to those skilled in this art without a more detailed description thereof. The present embodiment of the invention has been disclosed in detail merely by way of example since in actual practice it attains the features of advantage enumerated as desirable in the statement of the invention and the above description. It will be apparent that changes in the details of construction, and in the combination and arrangement of parts may be resorted to without departing from the spirit or scope of the invention as hereinafter claimed or sacrificing any of its advantages.

Having thus described my invention, what I claim as new is:—

In combination with a sheet metal mem-

ber having a pair of elongated pockets disposed in spaced co-extensive parallelism, a pair of weather stripping devices each comprising an elongated body plate having formed integrally on its lower end an extension of inverted U-shaped formation in cross section, with one side against the body plate, and the bight disposed below the upper edge of the body plate, the upper portions of the body plates being disposed snugly in the pockets and frictionally held therein, and the inverted U-shaped extensions being positioned on adjacent sides of the body plates, and weather stripping material in the extensions.

In testimony whereof I affix my signature.

OSCAR V. NELSON.