May 29, 1928. 1,671,349

J. H. CRIST

SEALING DEVICE FOR SWINGING DOORS

Filed Feb. 2, 1927

Fig. 1.

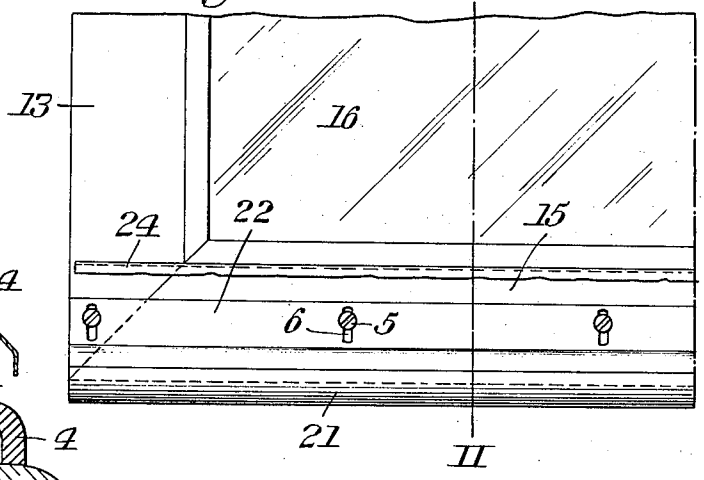


Fig. 2.

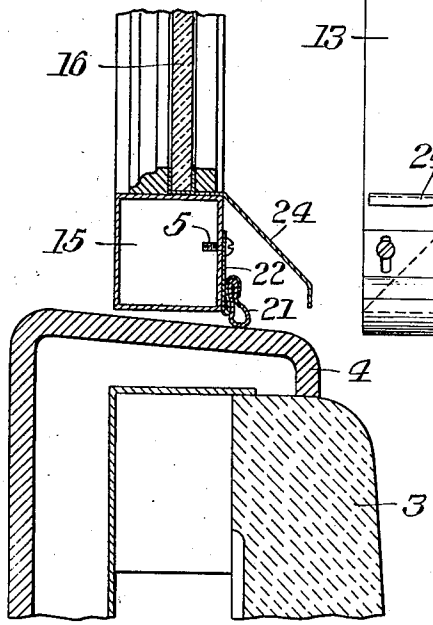


Fig. 3.

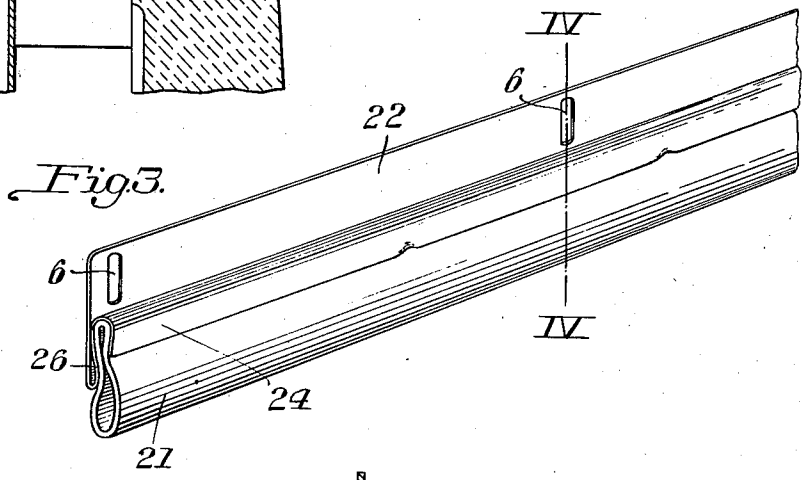
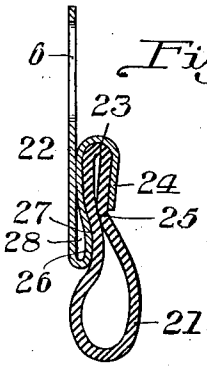


Fig. 4.



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UNITED STATES PATENT OFFICE.

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SEALING DEVICE FOR SWINGING DOORS.

Application filed February 2, 1927. Serial No. 165,339.

My invention refers to resilient sealing strips for a swinging door construction similar to that shown and described in prior patent to myself and Louis G. Crist #1,458,748, of June 12, 1923.

The object in view is to provide a resilient sealing strip of such kind mounted in the lower portion of a holding base and secured to the frame of the door in such a manner as to provide for adjustment thereof with relation to the sill or other edge of a bath stall or riser of a door opening or the like.

The invention is illustrated in the accompanying drawing, in which:

Fig. 1 is a partial view of the bottom portion of the swinging door;

Fig. 2 is a vertical section thereof on the line II—II of Fig. 1, showing the edge portion of a bath stall or the like;

Fig. 3 is a perspective detail view showing a portion of my improved sealing strip;

Fig. 4 is a further enlarged cross sectional view thereof on line IV—IV of Fig. 3.

In the present improvement, the device is illustrated in connection with the same general type of construction as that shown in said patent, in which the upper edge of the stall riser 3 is provided with a sill 4, preferably slightly inclined inwardly as shown, for swinging thereover of the opening and closing door.

Such door is usually made with a main panel 16, preferably of glass, enclosed within a lower supporting frame or member 15, opposite vertical frame members connected therewith at the corners, as shown, one of which is partially indicated at 13. Such framing members are preferably of metal in box shape, with a wood or other suitable filling, as is well understood.

The lower frame member 15 is preferably provided with a splash coping 24 secured as shown for protecting the closing joint construction. Such joint is effected by means of a strip of rubber tubing 21, which is secured to the lower portions of a flat attaching base strip 22, laid directly against and secured to the inner face of the bottom frame member 15 by screws 5. Such screws are inserted at intervals through vertical slots 6 of base 22 located sufficiently close to ensure firm close attachment of the sheet metal base to the face of the frame member. Slots 6 are sufficiently long to provide for vertical adjustment of the base and its bulbous lower rubber tube sealing member 21, either in the original fitting of the door or by a supplemental adjustment as the bulb may become flattened or of less resiliency by wear. The slot connection also provides for supplemental adjustment of the strip in case of replacement of the rubber tubing after being worn or damaged.

The tubing member 21 is clamped by its upper portion 23 tightly between the reversed lower edge portion of base 22, as shown at 24. Such securing portion is rounded at the top and is closely set inwardly against the rubber tubing so as to bind the sides thereof tightly together against each other, as at 25, with an upper slightly widened portion, as clearly shown in Fig. 4.

Intermediate between the main base portion and such redoubled or rounded gripping terminal edge portion 24, the base 22 is bent upwardly, as at 26, with a lower rounded edge and an outwardly curved or rounded bearing portion 27, against which the inner portion of the rubber tubing is laid, without any danger of cutting or abrasion. In bending the base, as at 26, an intervening space 28 is preferably left, of more or less width, providing for the easy reverse rounding and inward closure of the terminal edge, ensuring tight gripping engagement of the upper portion of the tubing section.

As thus constructed, the lower bulbous portion 21 is free to assume a more or less rounded approximately cylindrical form, of sufficient stiffness to bear tightly against the sill 4 when closed, as in Fig. 2, and having inherent flexibility and resiliency, causing it to bind tightly with sealing efficiency against the face of the sill.

As thus constructed, the door may be swung into open and closed position frequently and for long periods of time, without impairment or reduction of the binding efficiency of the tubular packing strip, due to its manner of mounting in the base, while the base itself, by its slotted connection with the lower frame member of the door, ensures for ample and sufficient adjustment under varying conditions of use and wear.

The device is applicable to many and various forms or sizes of doors and is capable of adjustment to close the varying intervening clearance between the door and the sur-

face to be sealed. It may be made in any desired gauge of rubber tubing or of the sheet metal base portion, and when applied to the door in the manner shown ensures continuous sealing protection and closure in the manner described.

What I claim is:

1. A sealing strip for doors consisting of a sheet metal base portion having a plurality of vertical slots therethrough, with its bottom portion doubled on itself to provide a rounded bearing edge and front portion and then redoubled on itself to provide a rounded inwardly deflected gripping terminal, and a section of rubber tubing having its upper portion clamped between said gripping terminal and rounded front portion.

2. A sealing strip for doors consisting of a sheet metal base portion having a plurality of vertical slots therethrough, with its bottom portion doubled on itself to provide a rounded bearing edge and front portion and then redoubled on itself in front of and below the slots to provide a rounded inwardly deflected gripping terminal, a section of rubber tubing having its upper portion clamped between said gripping terminal and rounded front portion and with the lower portion of the tubing depending below the rounded bearing edge of the base, a supporting frame, and holding screws extending through the vertical slots into the frame.

In testimony whereof I hereunto affix my signature.

JOHN H. CRIST.