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T. C. WILLIAMS

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BUILDING CONSTRUCTION

Filed April 27, 1931

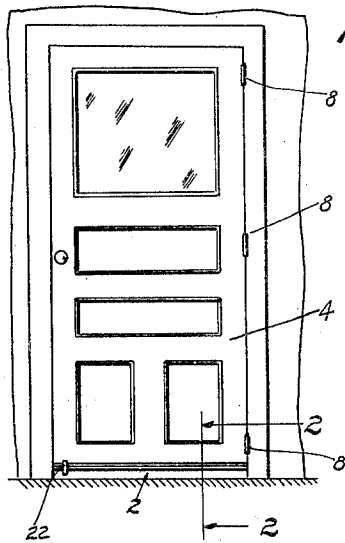


Fig. 1.

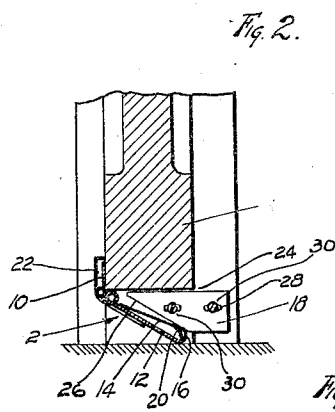


Fig. 2.

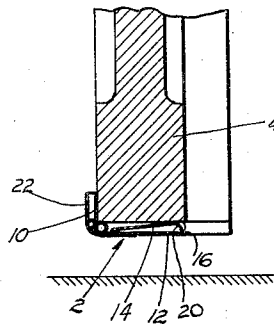


Fig. 3.

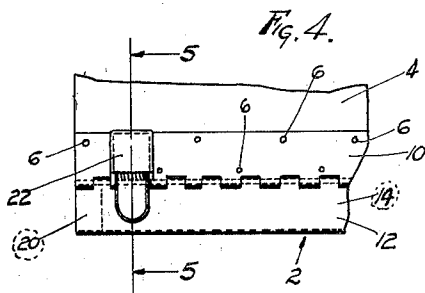


Fig. 4.

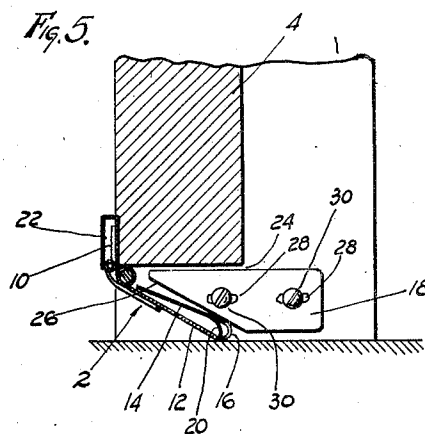


Fig. 5.

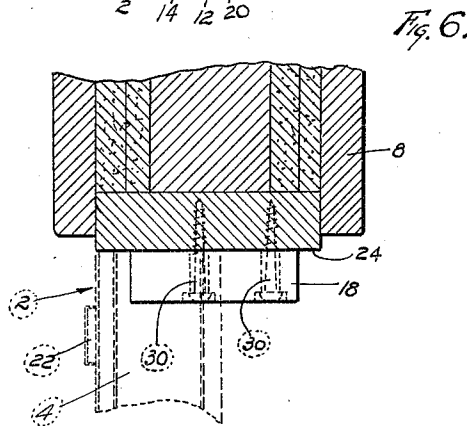


Fig. 6.

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## UNITED STATES PATENT OFFICE

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## BUILDING CONSTRUCTION

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My invention relates to building constructions, and more particularly to a door and its frame, whereby as said door is closed the space between the bottom of said door and the floor will automatically be closed so as to prevent drafts thereunder and also dispense with the objectionable door sills now in common use.

It accordingly is an object of my invention to provide a novel form of building construction in which the bottom of a door is provided with means in the shape of a hinged closure for closing the opening between the floor and the bottom of said door, said closure being automatically operable as the door is closed by the engagement with a suitable, and preferably adjustable, dog or closure operating means, associated in any preferred manner with the frame of said door; means in the form of a suitable spring being provided to oppose the movement of said closure.

The above and further objects and advantages of my invention, as will hereinafter more fully appear, I attain by the construction described in the specification, and illustrated in the preferred form on the drawing, forming a part of my application.

Reference is had to the accompanying drawing, in which similar reference characters denote similar parts. In the drawing,

Fig. 1 is a fragmentary elevational view showing a door equipped with my invention, said door being closed,

Fig. 2 is a fragmentary cross-sectional view, on an enlarged scale, taken on the line 2-2, Fig. 1,

Fig. 3 is a view similar to Fig. 2, but shown in the position the closure assumes when the door is open,

Fig. 4 is a front elevational view of Fig. 2, Fig. 5 is a view similar to Fig. 2, but drawn upon a somewhat enlarged scale, and

Fig. 6 is a part sectional and part top plan view of Fig. 5, showing more particularly the dog or closure means, the door being shown in dotted lines.

Describing my invention more in detail, in its broader aspects said invention comprises a novel form of closure means more especially adapted to be associated with the

door and door frame of a building construction, in which a spring operated hinged closure, associated in any preferred way with the bottom of said door is adapted to be operated by a preferably adjustable dog or closure means, which may be positioned within a cut-away portion in the frame of the door, so that when said door is closed, said closure will close the opening between the bottom of the door and the floor, and when said door is opened, said closure will automatically be lifted free of the floor.

More specifically, my invention comprises a closure or weatherstrip means 2, adapted to be associated in any preferred way with the bottom of the door 4, as by the screws 6, or other suitable means, said door being hinged to the doorframe 8.

The closure 2 comprises an elongated stationary member 10, to which is hinged in any suitable way, a second and complementary elongated member 12, which is preferably formed as shown, that is, has a bent-over portion 14, to provide a rounded floor engaging end 16, whereby scratching of the floor is effectively prevented.

If desired, also, that end of the member 12 which engages the dog or closure operating means 18 may be either cut away or countersunk, as indicated at 20, (Fig. 4), its extreme end being tapered so as to facilitate engagement with said dog.

To oppose the movement of the member 12, any suitable spring means 22, either countersunk onto the stationary member 10, or merely secured thereon in any suitable way, may be provided. But one of such springs is needed.

The frame 8 of the door 4, and preferably the strip thereof which is engaged by the door as it is in closed position, is cut away as at 24, and said cut-away portion has positioned therein the dog or closure operating means 18.

The dog 18 is preferably provided with an inclined surface 26 (Figs. 2 and 5) for engagement with the tapered part 20, whereby an effective coaction is had therebetween to facilitate the easy operation of the member 12, said dog being preferably adjust-

ably mounted within said cut-away portion 24, as by means of the slots 28 and screws 30 (Fig. 5 more particularly), any preferred number of these being provided. By this construction the operation of the closure 2 may be quickly adjusted to the particular conditions met in practice.

In operation, when the door is open, the closure 2 means the position depicted in Fig. 3, and this position is assumed, the instant said closure is disengaged from the dog 18, it being thus impossible to mar the floor.

When the door is nearly closed, the instant the inclined surface 26 of the dog 18 engages the tapered portion 20, the member 12 rides on said dog until said member assumes the position depicted in Figs. 2 and 5, the opening between the floor being entirely closed, thus shutting off the draft under the door. Opening of the door causes the device to assume the position depicted in Fig. 3, the instant the member 12 is disengaged from the dog 18, the spring 22 automatically causing said member to assume said position.

In accordance with the provisions of the patent statutes, I have described the principle of operation of my invention together with the apparatus which I now consider to represent the best embodiment thereof; but I desire to have it understood that the apparatus shown is only illustrative, and that the invention can be carried out by other means.

I claim as my invention:

1. In a device of the class described, a base member adapted to be secured to the bottom of a door, a movable member hinged to said base member, said movable member having a free and unobstructed portion throughout its length bent over said movable member, and adapted to form with said movable member a rounded floor engaging end, and spring means anchored at one end of one of said members and engaging the other of said members for opposing the movement of said movable member.

2. In a building construction, in combination with a door frame, a door in said frame, said frame being provided with a cut-away portion at its lower end and below said frame, a dog positioned in said cut-away portion, and a swinging weather-strip secured to the bottom of said door, and adapted to be operated by said dog.

3. In a building construction, a door frame, a door operable in said frame, said frame being provided with a cut-away portion juxtaposed to the lower portion thereof and therebelow, a dog positioned in said cut-away portion, means associated with said dog whereby said dog may be adjusted transversely in said cut-away portion, and a swinging weather-strip secured to the bottom of said door having a rounded portion for preventing mar-

ring of the floor, said weather-strip being adapted to be operated by said dog.

4. An article of manufacture comprising a first elongated member, a second elongated member hinged to said first member, said second member having a bent-over portion free and unobstructed throughout its length adapted to form with said second member a rounded end for preventing the marring of the floor, and spring means positioned in one end of said first member and adapted to oppose the movement of said second member.

5. In a device of the class described, a first elongated member, a second elongated member hinged to said first member, said second member having a bent-over portion inclined with respect to said second member and forming therewith a rounded end, said first member being provided with a countersunk portion, and spring means mounted in said countersunk portion and adapted to engage said second member so as to oppose the movement thereof.

6. In a building construction, a door frame, part of which is provided with a cut away portion extending across the lower width thereof, a dog, detachably and adjustably associated with said cut away portion, a swinging door associated with said frame, a swinging weather-strip secured to the bottom of said door, and adapted to be operated by said dog when said door is being closed, and a spring on said strip adapted to coact therewith to position part of said strip below said door when said door is open.

7. An article of manufacture comprising a pair of elongated members, plural means for hinging said members together, a spring on one end of one of said members for opposing the movement of the other, one of said members comprising a doubled over portion providing a looped end, said looped portion terminating in a free and unobstructed end extending the longitudinal length of said member, and bent into free and close juxtaposition with the unbent portion of said member.

In testimony whereof I have signed my name to this specification.

THOMAS C. WILLIAMS.