Oct. 3, 1933. F. W. KAMMERER 1,929,316

THRESHOLD CONSTRUCTION

Filed Jan. 26, 1932

Fig. 1.

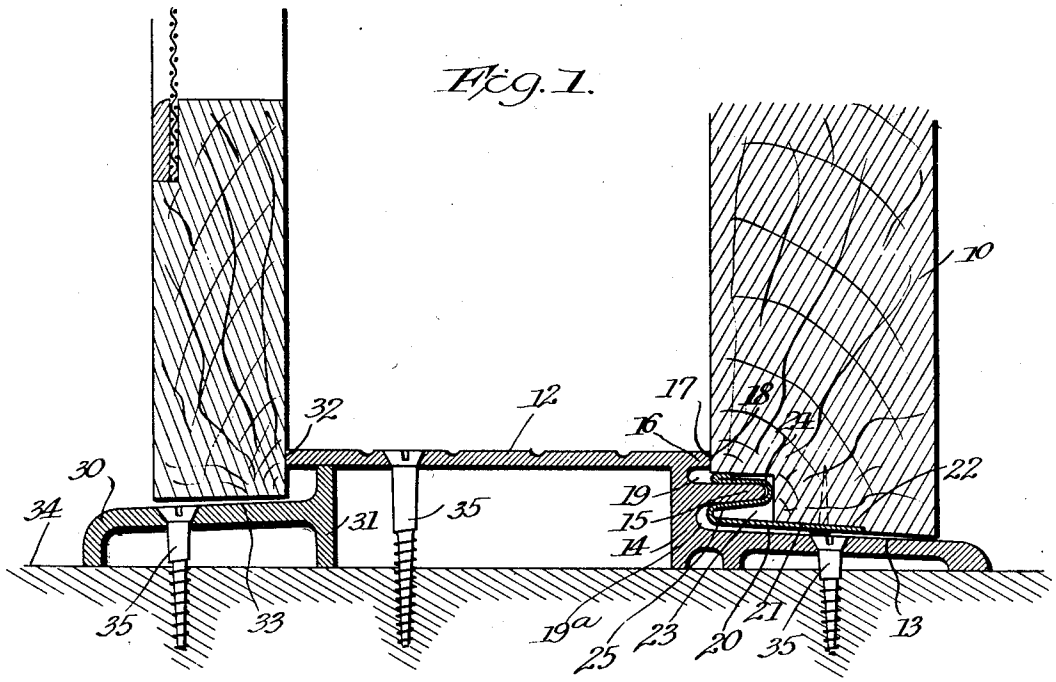
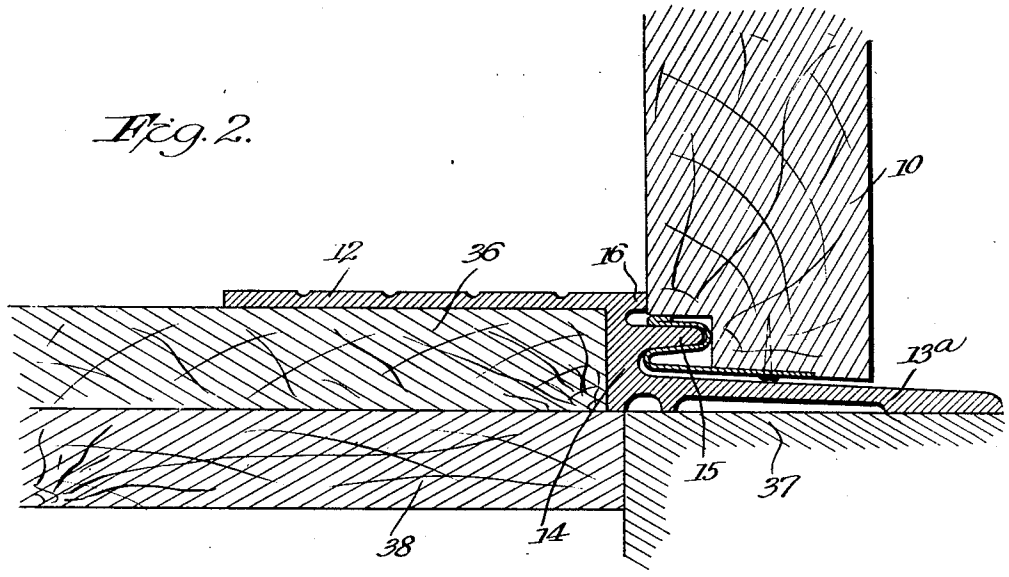


Fig. 2.



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THRESHOLD CONSTRUCTION

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8 Claims. (Cl. 20—64)

This invention relates to a metallic threshold. More particularly it relates to a composite lower door jamb and sill construction.

It is a primary object of the invention to provide a threshold construction having a door sill section, a door jamb section, and a sealing flange for cooperation with weather stripping of novel form carried by the door.

It is a further object to provide a raised horizontal jamb section in combination with a sill section, the width of the jamb section being variable to correspond to the vertical jambs in the door frame with which the device is to be used.

It is a further object of the invention to provide a threshold construction which is particularly adapted for use with outwardly swinging French doors and inwardly swinging screen doors.

Further objects and advantages of the invention will become apparent as the specification proceeds.

In the accompanying drawing, in which like reference characters refer to like parts throughout both views;

Figure 1 is a vertical sectional view of an embodiment of the invention adapted for use with outwardly swinging French doors and inwardly swinging screen doors, and

Figure 2 is a vertical sectional view of a threshold embodying the invention, but showing a modified method of mounting the same on the floor.

An outwardly swinging door is represented by reference character 10, and this may be a door of the French type or any other preferred kind. A screen door 11 is mounted to swing inwardly and is spaced from the door 10 by the jamb section 12 of the threshold of my invention.

This threshold comprises a raised horizontal jamb section 12, a substantially horizontal, though slightly inclined, sill section 13, and a vertical connecting section 14 extending between the two.

The three sections are preferably integral, and are made of brass or other suitable metal. The connecting section 14 serves to support one edge of the jamb section in a raised plane above the floor and above the sill section. A flange 14 projects horizontally from the connecting section over a portion of the sill 13 in spaced relation thereto.

The major portion of the jamb section extends from the section 14 in the opposite direction from the sill 13 and flange 15, but a rearwardly extending continuation 16 thereof projects in the same direction, and overlies a portion of the flange 15 in spaced relation thereto. The vertical edge 17 of this continuation constitutes an abutment which contacts with a portion 18 of the door 10, and limits the closing movement thereof. The space between the continuation 16 and the flange 15 takes the form of a groove 19, and is adapted to receive dust, dirt and other small objects so that the closing movement of the door will not be interfered with.

A weather strip 20 has a flat edge portion 21 secured to the bottom surface of the door 2. This strip is formed into an S-section and the major portion thereof is disposed in a rabbeted edge 23 of door 10. A groove 24 formed by one bend of the strip is adapted to receive the flange 15 in weather-tight relation, and the rib 25 formed by the other bend of the strip contacts the undersurface of the flange, and is received in a groove 19a which, in a similar manner to groove 19, may receive dust, dirt, and the like. The parts are so proportioned that the abutment surface 17 of the jamb contacts with the portion 18 of the door and receives all shocks of closing the door, so that said shocks are not transmitted to the weather-stripping through the flange 15.

The arrangement of parts which accomplish this function is an important advantage of my invention, because it relieves the weather-stripping of strain, and enables it to outlast weather-stripping used in conventional constructions.

In the embodiment of the invention shown in Figure 1 the inner edge of the jamb section of the threshold is supported by a second sill member 30. This member comprises a vertical supporting section 31 disposed under the jamb 12 and spaced a slight distance inwardly from the edge 32 thereof. It further comprises a sill portion 33 which underlies the screen door 11. The sill portion is raised so as to space the lower edge of the screen door above the floor a distance sufficient to avoid contact of the door with rugs or carpets lying on the floor.

The jamb section 12 is preferably made of sufficient width to fit the widest conventional installation. It can then be cut down on the job to fit the particular installation at hand. Consequently, its width may be varied to correspond to the width of the vertical jambs in the door frame with which it is used. The second sill member 30 can be placed under the member 12 in any desired adjusted position and the several parts may be secured to the floor by wood screws 35 or the like. The sill member 30 should be so positioned with respect to the jamb member that a groove is

provided between the lower surface of the jamb member at the edge and the sill portion 33. This groove is adapted to receive dirt and other small objects which might interfere with the closing of the screen door.

The construction shown in Figure 2 is similar to that shown in Figure 1 and differs therefrom only in the manner in which the threshold member is mounted on the floor. This type of installation is desirable in constructions where a rough flooring 38 supports a finish flooring 36, and the edge of the latter terminates adjacent the closing line of the door. The use of a second sill member 30 is unnecessary in this type of installation. The jamb section 12 lies directly upon the finish flooring 36, and the connecting section 14 is positioned adjacent the vertical edge of said flooring. The sill section 13*a* is somewhat longer in this type of construction than in the one described above, and rests upon the frame or permanent sill member 37.

The specific form of weather-stripping is identical in both forms, and consequently need not be further described.

It will be seen that I have shown and described an embodiment of the invention which accomplishes the objects stated above. I contemplate that certain detail changes may be made in the specific structure shown, and all such changes as come within the scope of the appended claims are to be included within my invention.

I claim:

1. A metallic threshold for swinging doors comprising, a raised substantially horizontal bottom jamb section, a sill section, and a vertically disposed connected section therebetween, said jamb and sill sections projecting from said connecting section in opposite directions, respectively, a substantially horizontal flange on said connecting section projecting over a portion of sill section in spaced relation thereto, said jamb section having a rearwardly projecting extension overlying a portion of said flange in spaced relation thereto and constituting an abutment for said door.

2. A metallic threshold for swinging doors comprising a raised substantially horizontal bottom jamb section, a sill section, and a vertically disposed connecting section therebetween, said jamb and sill sections projecting from said connecting section in opposite directions respectively, a substantially horizontal flange on said connecting section projecting over a portion of said sill section in spaced relation thereto and forming therebetween a sealing groove for weather strip, said jamb section having a rearwardly extending continuation spaced from and projecting over a portion of said flange into abutting relation to said door, the space between said flange and said continuation constituting a dust receiving groove.

3. The combination with a threshold comprising a raised substantially horizontal bottom jamb section, a sill section, and a vertically disposed connecting section therebetween, said connecting section having a substantially horizontally projecting flange overlying a portion of said sill section in spaced relation thereto and forming therebetween a sealing groove for weather strip, said jamb section having an abutment edge above the plane of said flange; of a door having a rabbeted lower edge and a weather strip in said rabbet adapted to receive said flange when said door is closed, said weather strip having a rib adapted to project into said sealing groove below said flange, said abutment edge being adapted to limit the closing movement of said door by contact therewith above said rabbeted lower edge.

4. The combination with a threshold comprising a raised substantially horizontal bottom jamb section, a sill section, and a vertically disposed connecting section therebetween, said connecting section having a substantially horizontally projecting flange overlying a portion of said sill section in spaced relation thereto, said jamb section having an abutment edge above the plane of said flange; of a door having a rabbeted lower edge and a weather strip secured to the bottom face of said door and having a free end provided with a sealing groove in said rabbet, said groove being adapted to receive said flange when said door is closed, said abutment edge being adapted to limit the closing movement of said door by contact therewith above said rabbeted lower edge.

5. A threshold comprising a raised substantially horizontal bottom jamb section, a door sill section at one side thereof, integral therewith, and connected thereto by a vertically disposed connecting section, in combination with a second door sill member at the opposite side of said jamb section, said member comprising a sill portion and an upright supporting portion, said supporting portion being disposed beneath the adjacent edge of said jamb section to support the same, the width of said jamb section and the position of said second door sill member being variable to correspond to the width of the door jamb with which said threshold is used.

6. A threshold comprising a raised substantially horizontal bottom jamb section, a door sill section at one side thereof, integral therewith and connected thereto by a vertically disposed connecting section, an edge of said jamb section adjacent said sill section constituting an abutment for a door swung above said sill section, in combination with a second door sill member at the opposite side of said jamb from said first mentioned sill section, said member comprising a sill portion and an upright supporting portion, said supporting portion being disposed beneath the opposite edge of said jamb section, said edge constituting an abutment for a door swung above said second sill member, the width of said jamb section and the position of said second sill member being variable to correspond to the width of the vertical jambs in the door frame with which said threshhold is used.

7. A weather strip construction comprising in combination a threshold having a substantially horizontal raised jamb section, a sill section, a vertically disposed connecting section therebetween, and a flange on said connecting section projecting therefrom over a portion of said sill in spaced relation thereto and forming therebetween a sealing groove for weather strip; and a door having a rabbeted lower edge adjacent said threshold, a weather strip having a flat edge portion secured to the bottom face of said door and having a sealing portion disposed in said rabbeted portion of said door, said sealing portion having a groove adapted to receive said flange in weather-tight relation, and a rib adapted to project into the groove between said flange and said sill and to underlie said flange in weather-tight relation.

8. A weather strip construction comprising in combination, a threshold having a substantially horizontal raised jamb section, a sill section, a

vertically disposed connecting section therebetween, and a flange on said connecting section projecting therefrom over a portion of said sill in spaced relation thereto; and a door having a rabbeted lower edge adjacent said threshold, a weather strip comprising an S-section of spring metal, one of the edges thereof being secured to the bottom face of said door and extending in the plane thereof, the remainder of said strip being disposed in said rabbeted portion and being adapted to receive said flange in weather-tight relation.

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