Jan. 12, 1932. E. D. BARRINGER 1,840,879

THRESHOLD

Filed June 18, 1930

Fig. 1.

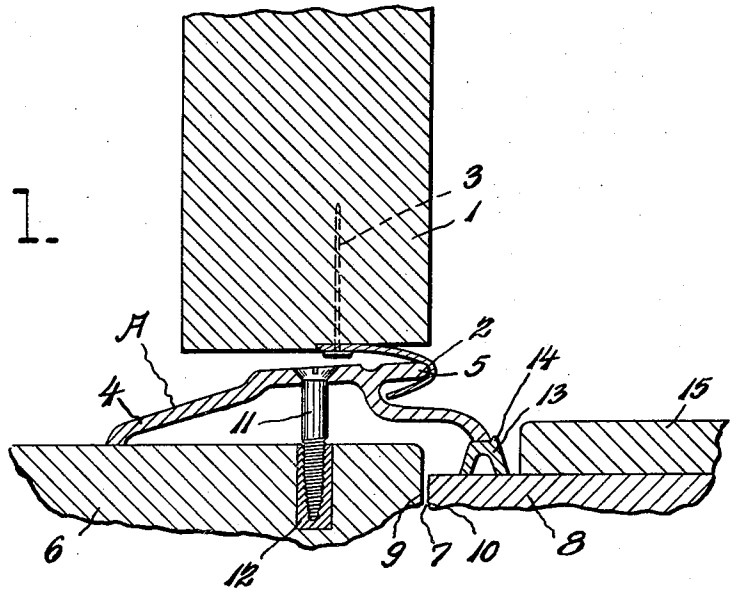


Fig. 3.

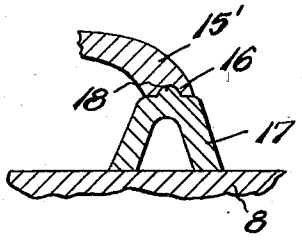


Fig. 2.

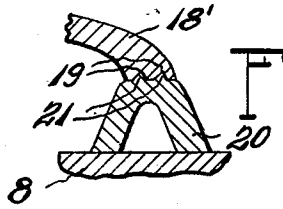


Fig. 4.

Inventor

Elmer D. Barringer.

By Robbins Cobb

Attorneys

Patented Jan. 12, 1932 1,840,879

UNITED STATES PATENT OFFICE

ELMER D. BARRINGER, OF CLEVELAND, OHIO

THRESHOLD

Application filed June 18, 1930. Serial No. 462,041.

My present invention embodies improvements in thresholds particularly such as used with and placed under a door or doors, in stores, homes, and like places.

Thresholds of this class are placed under the door or doors and bridges or close the space between the door sill and floor, and close the clearance space beneath the door itself.

The object of my invention is to provide improved and simplified means for adjusting the elevating of the body or bridging portion of the threshold, at either the in or outside edge, or both edges, if desired, in order that the door may readily be sufficiently spaced from the floor level to swing free of a rug or carpet on the floor, or in order to compensate for differences in the levels of the door sill and adjacent floor.

Another object of this invention is the provision of an elevating member or members, or section; with means for facilitating the fastening of the section or section to the threshold part proper.

With these and other objects in view, this invention consists of certain novel constructions, combinations and arrangement of parts as will be hereinafter fully described and claimed.

The same reference characters indicate the same parts in all figures.

In the drawings: Figure 1 is a sectional view in elevation, showing a threshold anchored under a door, also showing the threshold bridging the joint that may exist between a door sill and a floor, and also showing the inner edge of the threshold plate elevated by a single elevating member or section, with a carpet, rug or other suitable floor covering adjacent thereto. The door is shown as having connected thereto a breaker plate of suitable configuration and engaging with a suitable projecting lip, ledge or shelf formed, integrally with the threshold plate.

Figure 2 is a view, similar to Figure 1, but of a modified form, showing two elevating supports or sections positioned under the edges of the threshold plate.

Figure 3 is a modification, showing a fragmentary sectional view of a threshold plate, the plate being grooved, and the elevating support or section provided with a tongue adapted to fit in the groove to provide an interlocking connection.

Figure 4 is another modification, showing a fragmentary sectional support, or section, the threshold plate and support being provided with ribs to provide an interlocking means.

Now describing my invention in detail and referring to the drawings by numerals and letters, 1 designates a door which carries a weather strip or breaker plate 2 of suitable configuration, and connected to the door by suitable fastening means as at 3.

The threshold A is made of suitable metal, such as bronze, brass, and the like, preferably extruded by known process, and produced to a predetermined configuration to meet the demand encountered in use. I do not wish to be limited to the exact form of threshold depicted.

The bridging portion of the threshold plate 4 is provided with a lip, shelf, or projecting portion 5, adapted to engage the suitably formed breaker plate or strip 2 secured to the bottom edge of the door 1.

The plate 2 interlocks with the shelf or lip 5, and there is provided by this structure a means to break a draft that might find its way under the door, and also rain that might be driven thereunder by force of the winds during the inclement periods of the year. This portion of my construction is not relied upon as novel.

The threshold plate is mounted on the sill 6, and extends over and bridges the joint 7, formed by the meeting edges of the sill 6 and the floor 8, as at 9 and 10. The threshold plate is secured to the sill in any suitable manner as by a screw and shield as at 11 and 12.

The elevating support or section of my invention is designated 13 and is of a suitable configuration, and provided with an upstanding rib 14, adapted to interlock with and prevent the support or section from being disengaged from the threshold plate when assembled. The support 13 is made the same length as the threshold and compensates for the difference in the levels of the sill and

the floor as shown in Figure 1. It is preferably of U-shape in cross section and thus has spaced legs or feet stabilizing its supporting action.

The rug 15 is preferably arranged to come into approximate contact with the supporting structure for æsthetic purposes.

The supports or sections 13 may also be provided to compensate for the different thicknesses of rugs and the like that may be encountered in use, and also provides a means whereby the standard threshold plate may be used in very numerous ways and under all ordinary conditions met with.

In Figure 2, the threshold plate is provided with a supporting section 13 under each edge of the same. The sill 6 and the floor 8 are on the same level, and the threshold plate is fixedly mounted in such a way, that the plate 2 on the door 1, clears the top of the rug 15 on the floor 8 when the door opens.

In the modified form shown in Figure 3 the threshold plate 15′ is provided with a groove 16, and the supporting member 17 is provided with a tongue or rib 18, the groove and tongue or rib forming an interlock. Otherwise, the structure is the same as that shown in Figure 1.

In the modified form shown in Figure 4 the threshold plate 18′, is provided at its edge with grooves 19 and the supporting member 20 is provided with complemental rib portions 21 to form an interlock, of considerable superficial area. Otherwise, the structure is the same as that shown in Figure 1.

The supports or sections 13 will be of various heights, and a suitable assortment of sizes may be kept in stock.

It will be seen that in each instance there is an interlocking relationship maintained between the top surface of the supporting member 13 and the threshold member A, this relationship being maintained specifically by the inter-engagement of the rib 14 with the edge of the threshold member, although, obviously, the rib 14 might be disposed upon the threshold member instead of the support and caused to interlock with the support in correspondingly reverse manner to that specifically shown and illustrated in the drawings. It will be further apparent that this interlocking engagement between the supporting member and the threshold is effected at the outer edges of the threshold and acts to prevent any tendency of the threshold to spread and thus become distorted in the event that the threshold is tread upon, as will be inevitably the case when in use. This element therefore assures the threshold member A being permanently maintained in shape.

The embodiments of the invention illustrated and described herein have been selected for the purpose of clearly setting forth the principles involved. It will be apparent, however, that the invention is susceptible of being modified to meet the different conditions encountered in its use as to sizes and shapes of parts used, generally, and I therefore aim to cover by the appended claims all modifications within the true spirit and scope of my invention.

What I claim as new and desire to secure by Letters Patent of the United States, is:—

1. In means of the class set forth, in combination, a threshold member for doors comprising a door engaging member having outwardly sloping sides, an elevating support disposed beneath an edge of at least one of the sloping sides of the door engaging member and upon which the member rests in a position determined by the said support, and means for interlocking the door engaging member and elevating support in edge to edge engagement, the interlocking means tending to restrain any tendency of the door engaging member to spread under influence of pressure exerted thereon.

2. In means of the class set forth, in combination, a threshold for doors comprising a threshold member having outwardly sloping sides, an elevating supporting member disposed beneath an edge of at least one of the sloping sides of the threshold member and upon which the threshold member rests in a position determined by the said supporting member, the said support being of somewhat U-form in cross section to form a stable base, and means upon one of the said members for interlocking with the other of the said members to secure the said members in interlocked relationship while restraining any tendency of the door engaging member to spread under influence of pressure exerted thereon.

3. In means of the class set forth, in combination, a threshold for doors comprising an integral threshold member having outwardly curving sides, an elevating support disposed beneath an edge of one of the curving sides of the threshold member and upon which the threshold member rests in a position determined by the said support, the support having its upper surface ribbed to interlock the support with the threshold through interlocking engagement between the ribbed surface of the support and the edge of the threshold, the ribbed surface restraining any tendency of the threshold member to spread under influence of pressure exerted thereon.

4. In means of the class set forth, in combination, a threshold for doors comprising a threshold member having outwardly diverging sides, and an elevating support disposed beneath an edge of at least one of the sides of the threshold and upon which the threshold rests in a position determined by the said support, the said support being of somewhat U-form in cross section to form a stable base, the support being provided on its top surface with a longitudinal rib to engage the

edge of the threshold member and aline the same with the support, the rib interlocking with the edge of the threshold member and restraining any tendency thereof to spread under influence of pressure exerted thereon.

5. In means of the class set forth, in combination, a threshold for doors comprising a threshold member having outwardly curving sides, means to elevate the threshold including two sections beneath the curved sides of the threshold, there being one section beneath each longitudinal edge of each side of the threshold, and means interlocking each section with the threshold member for restraining any tendency of the threshold member to spread under pressure exerted thereon.

6. In means of the class set forth, in combination, a threshold for doors comprising a threshold member having outwardly curving sides and means to elevate the threshold including two sections beneath the same, one section beneath each longitudinal edge of the curved sides of the threshold, each section being formed with an integral rib extending longitudinally thereof its entire length to provide an interlocking engagement with the threshold portion seated thereon, each rib cooperating to resist tendency of the threshold to spread under pressure exerted thereon.

7. In means of the class set forth, in combination, a threshold for doors comprising an integral threshold member having outwardly diverging sides and means to elevate the threshold including two sections beneath the same, one section beneath each longitudinal edge of the diverging sides of the threshold, each section being formed with an integral rib extending longitudinally thereof its entire length to provide an interlocking engagement with the threshold portion seated thereon, the sections being of the U-form in cross section to provide spaced stabilizing legs, each section being held in position by the interlocking engagement between the edges of each side of the threshold member and the ribbed top of the section upon which the side of the threshold member rests, whereby sections of varying heights may be inserted under the edges of the threshold member to vary the heights thereof, each rib cooperating to resist tendency of the threshold to spread under pressure exerted thereon.

In testimony whereof I affix my signature.

ELMER D. BARRINGER.