Feb. 6, 1934. M. KATZ 1,945,859

METAL DOOR SADDLE

Filed Feb. 2, 1932

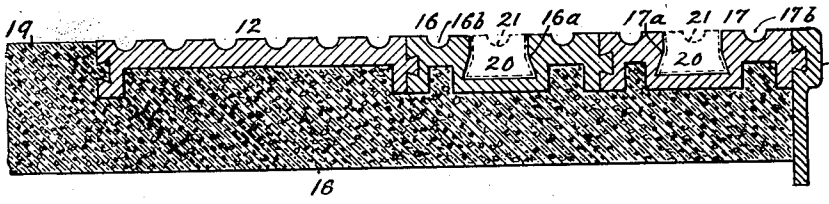



Fig. 2

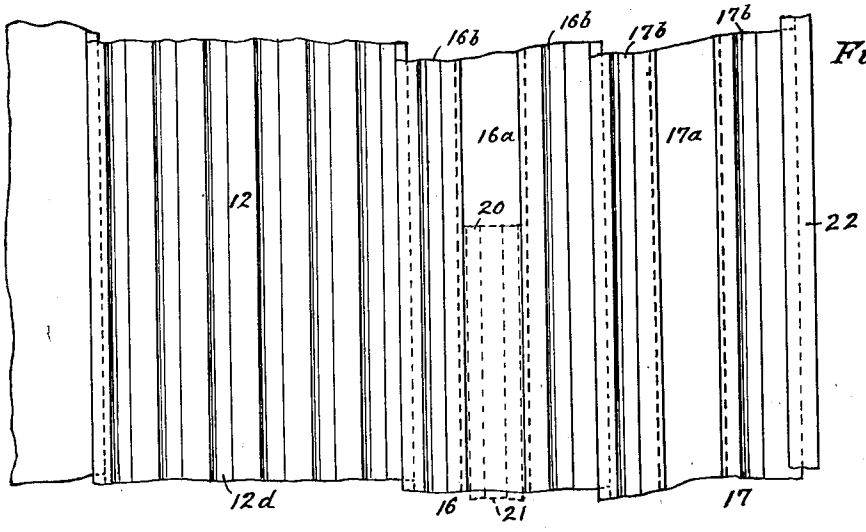



Fig. 1

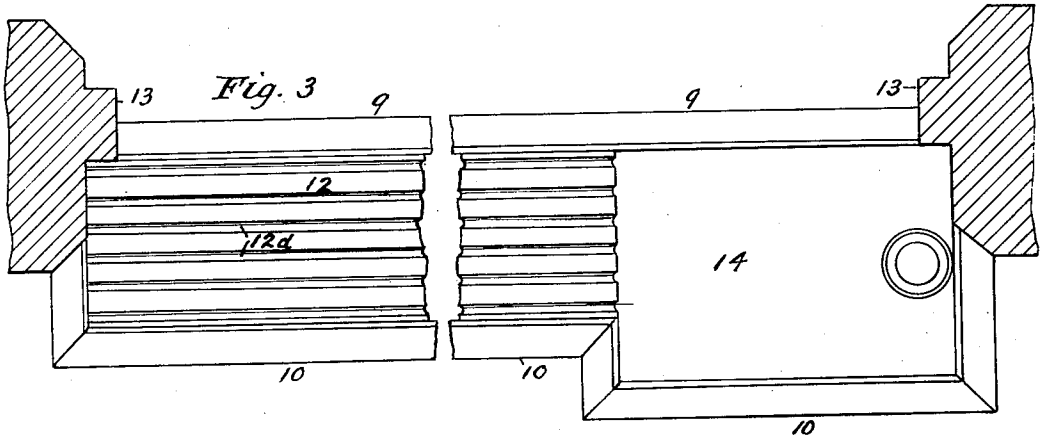



Fig. 3

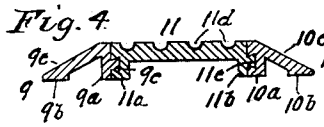



Fig. 4

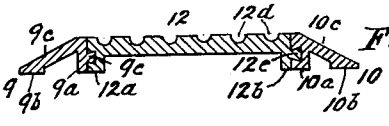



Fig. 5

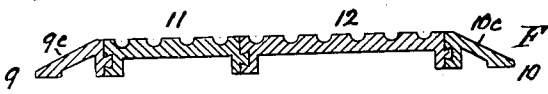



Fig. 6

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# UNITED STATES PATENT OFFICE

1,945,859

## METAL DOOR SADDLE

Martin Katz, Brooklyn, N. Y.

Application February 2, 1932. Serial No. 590,365

3 Claims. (Cl. 20—64)

The invention relates to metal door saddles or thresholds sectionally arranged in variable sizes adapted for application to doors of various types and dimensions.

The objects of the invention herein disclosed include means for providing saddles to known types of single and multiple swinging and sliding doors, also for single and multiple swinging doors having automatic checks mounted below their floor lines, and for single and multiple elevator sliding doors.

The objects also provide for integral interlocking means for connecting together a plurality of saddle sections in which little or no loss of material is shown, and the labor expense of assembling is relatively small.

For further comprehension of the invention, and of the objects and advantages thereof, reference is had to the following description and accompanying drawing, and to the appended claims in which the various features of the invention are more particularly set forth.

Referring to the drawing in which similar characters of reference designate like parts throughout the several views:

Figure 1 illustrates in ground plan a fragmental portion of a saddle adapted for application to a pair of slidable doors leading to an elevator shaft.

Figure 2 is a longitudinal vertical section taken along the line 2—2 of Fig. 1, and showing the position of the saddle with respect to a wall of an elevator shaft.

Figure 3 is a ground plan of a longitudinally contracted door saddle fitted around the jambs of a swinging door and provided with an enlarged open space for the reception of a door check.

Figures 4, 5 and 6 are transverse vertical sections illustrating variable widths of door saddles formed from a plurality of interlocking sections, each of the saddles include a pair of nose or side sections 9 and 10 detachably connected with one or more horizontal intermediate sections 11 and 12, the nose sections being provided with downwardly extending side flanges respectively indicated by 9*a*, 10*a*, 11*a*, 11*b*, 12*a* and 12*b*, formed with interlocking tongue and grooved dovetailed members indicated by 9*c*, 11*c* and 12*c*. Sections 11 and 12 are also provided along their upper surfaces with longitudinal foothold grooves 11*d* and 12*d*, and the upper surfaces 9*c* and 10*c* of nose sections 9 and 10 are beveled outwardly and downwardly to present a relatively free passage. At their outer ends the nose sections 9 and 10 are provided with bottom bearing faces 9*b* and 10*b* disposed in alinement with the bottom edges of the flanges 9*a*, 10*a*, 11*a*, 11*b*, 12*a* and 12*b* and jointly serve as base members for support of the saddles and the weight thereon.

Each of the several sections are formed up in well-known manner from extruded metal of desired composition, and uniformly shaped in transverse section throughout the lengths thereof, thus providing closely jointed interlocking surfaces that may be readily assembled without additional finish.

As herein shown the sections 9, 10, 11 and 12 constitute standard parts formed in desired lengths, and by combining a number of widths in the general manner shown in Fig. 6 any desired width of door saddle, increasing by inches from the narrow width shown in Fig. 4, may be obtained, and the required level of the entire saddle maintained through the bases of the saddle flanges.

In assemblage, the saddle sections are ordinarily cut in lengths to fit between and around the opposite jambs 13 of a doorway as shown in Fig. 3, wherein sections 9, 10 and 12 are interlocked together and arranged to form adjacent one of the jambs a frame enclosing a space 14 adapted to detachably receive a conventional door check having a hinge-pin 15 for the reception of a door disposed thereon for swinging movement.

In the saddle for elevator sliding doors, shown in Figs. 1 and 2, a pair of special door sections 16 and 17 and a standard saddle section 12, each similarly arranged with interlocking flanges, are connected and supported upon a concrete flooring 18 with their upper surfaces alined with the floor line 19 of the building. Dovetailed grooves 16*a* and 17*a*, and foothold grooves 16*b* and 17*b* are formed in the upper surfaces of the saddle sections 16 and 17, extending the full lengths thereof, and formed of extruded metal having uniform transverse sections similar to the standard sections above described. Insert blocks 20, indicated in dotted lines, are fitted within the grooves 16*a* and 17*a* and are provided on their upper surfaces with semicircular runways 21 adapted to be engaged by the doors and to limit the sliding movement thereof. Also connected in interlocking relation with the saddle section 17 is an elevator frame plate 22 that serves to form a wall-part of the elevator shaft and a binder for the concrete flooring 18, the latter being poured after the saddle sections are positioned in order to insure a solid foundation for the irregular lower surface of said saddle.

As above constructed with the relatively narrow widths of saddle sections having integral side flanges and interlocking members, it will be obvious that the several sections may be longitudinally and endwise quickly assembled or detached; that the sections will be strengthened and uniformly braced and supported by the side flanges, and thus serve to reduce the weight, cost of material and labor required in construction; and furthermore to obviate the disadvantages in the common method of connecting the parts of the saddle together by straps and screws, that not only add considerably to the construction cost, but also tend in a comparatively short time to loosen and separate the saddle parts.

I claim:

1. In a door saddle, a horizontal longitudinal section, flanges downwardly projecting along the opposite side edges thereof and having bottom bearing faces disposed in alinement with each other, and interlocking dovetailed tongue and grooved members respectively formed along said opposite side flanges and extending transversely of the latter.

2. A door saddle comprising a plurality of horizontal longitudinal sections, flanges downwardly projecting along the opposite side edges thereof and having bottom bearing faces disposed in alinement with one another, and interlocking dovetailed tongue and grooved members formed along adjacent side flanges and extending transversely thereof.

3. A door saddle comprising one or more horizontal longitudinal sections and a nose section, flanges downwardly projecting along the opposite side edges of said sections and having bottom bearing faces disposed in line with one another, the upper surface of said nose section being beveled throughout its length both outwardly and downwardly to present a relatively free passage, and interlocking dovetailed tongue and grooved members formed along adjacent side flanges and extending transversely thereof.

MARTIN KATZ.