

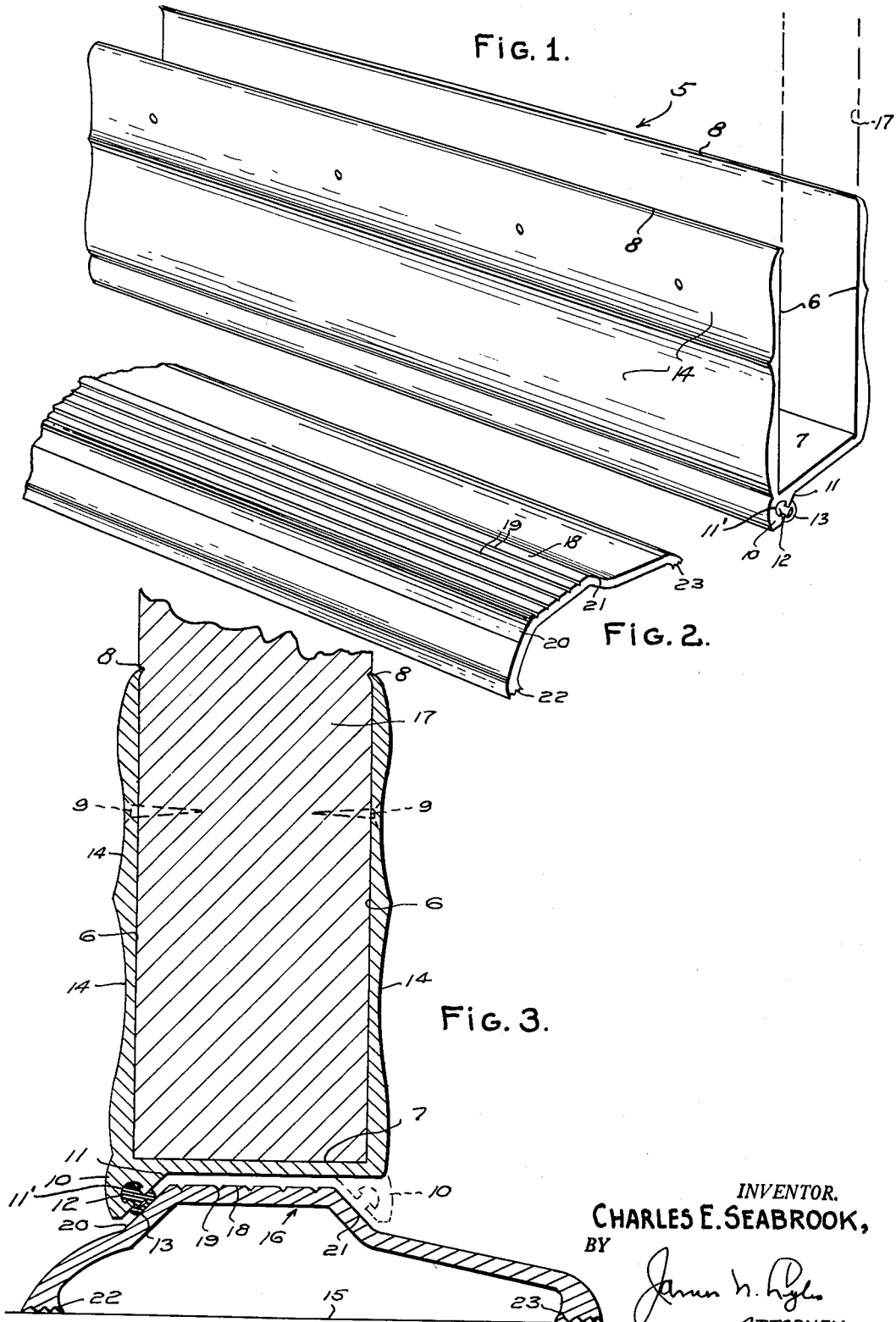
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COMBINED WEATHER STOP AND SCUFF PLATE FOR CLOSURE DEVICES

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COMBINED WEATHER STOP AND SCUFF PLATE FOR CLOSURE DEVICES

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This invention relates to a combined weather stop and scuff plate for connection with a swinging closure device whereby to effectively seal the lower end of the closure device against the entry of foreign matter.

The invention contemplates a novel form extruded metallic device that is formed in a U-shape and of a dimension to snugly engage upon the lower end of the closure device, and whereby the device provides an effective scuff plate upon opposite sides of the closure device and with the device of this invention embodying a compressible weatherstrip that has compressing engagement with a cooperating face of a fixed door saddle and with the door saddle likewise being of extruded material.

The invention further contemplates an extruded U-shaped device that engages over the lower end of a closure door to extend for the major width of the door and with the device having its upper marginal edges disposed in a manner to impart a biting engagement within the opposite side walls of the door whereby to effectively anchor the device and to effectively maintain the structure of the door against weaving or twisting at its joints.

A further object of the invention resides in a combined scuff plate that carries a weatherseal having cooperative weathering engagement with a door saddle, and wherein the device is reversible in order to dispose its weatherseal upon either side of the door, depending on whether the door swings inwardly or outwardly.

Novel features of construction and operation will be clearly apparent during the course of the following description, reference being had to the accompanying drawings wherein has been illustrated a preferred form of the device and wherein like characters of reference are employed to denote like parts throughout the several figures.

In the drawings:

Figure 1 is a perspective view of a device constructed in accordance with the invention,

Figure 2 is a fragmentary perspective view of a door saddle for use with the device of Figure 1, and

Figure 3 is an enlarged transverse vertical section through a door and a fixed door saddle showing the invention in use.

Referring specifically to the drawings, the numeral 5 designates a combined scuff plate and weatherseal as a whole. The device is preferably extruded from aluminum or other desirable materials and, as clearly shown, is of U-shape embodying side walls 6 and a bottom wall 7. The spacing of the side walls 6 is determined in accordance with the particular thickness of door to which the device is adapted to apply, and it will be apparent that the device shall be manufactured in the sizes corresponding to the recognized standard thicknesses of doors. It is also contemplated that the device shall be extruded in any desirable length and subsequently cut to a particular length in accordance with the width of the door to be protected. As clearly shown in Figures 1 and 3, the upper marginal edges of the device 5 are inwardly turned, as at 8, to form biting edges that serve to bite into the

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inner and outer faces of the door when the device is rigidly positioned in conforming engagement with the door. Screws 9 or the like serve to position the device upon the door against displacement and serve to force the edges 8 into their biting engagement.

One side wall 6 and the bottom 7 have been extended downwardly, as at 10, to form a longitudinal integral rib that extends throughout the length of the device. The rib 10 is provided with an inwardly disposed angular face 11 that is grooved throughout its length, as at 11', for the seating reception of a compressible weatherstrip 12. The weatherstrip 12 may be formed of any desirable material, such as rubber or vinyl plastic, and embodies a tubular extended head portion 13. The outer surfaces of the side walls 6 may be ornamented in any desirable manner, such as the corrugations 14 and, while the corrugations are ornamental in themselves, do serve to effectively strengthen the device throughout its length. It will of course be apparent that other designs may be employed with equal success.

Disposed across the door opening and preferably secured to a floor area 15 in any desirable manner is a saddle 16. The saddle 16 is formed of any desirable height and, as is customary, is disposed in underlying alignment with the door 17 when the door is in the fully closed position. The saddle 16 embodies an upper flat face 18 that is preferably provided with a plurality of grooves 19 that serve both as an ornamentation and as a means to prevent slipping by an individual. From opposite edges of the surface 9, the saddle is angled downwardly, as at 20 and 21, and with the angles 20 and 21 being substantially identical to the angled face 11 of the scuff plate. From the angled faces 20 and 21, the saddle is extended in opposite directions downwardly to terminate in preferably corrugated legs 22 and 23 that bear upon the floor area 15 and with the corrugations 22 and 23 serving to anchor suitable caulking material, whereby to prevent the entry of water therebeneath. Thus, the saddle 16 presents opposite weathering faces for its full length that are engaged by the head 13 of the weatherstrip 12, thus, the scuff plate may be reversed for disposing its supported weatherstrip 12 for contacting engagement with either of the weathering faces 20 or 21, shown by dotted lines in Figure 3.

In the use of the device, the operator selects a scuff plate having the desired width in accordance with the door 17 to which it is to be applied. A section of the device is then cut transversely to have a length corresponding to the area of the door to be covered. The device is then disposed over the lower end of the door in straddle relation with the bottom of the door contacting the bottom wall 7 of the device. Suitable pressure may be placed upon the side walls 6 that cause the upper edges 8 to bite into the material of the door after which screw bolts or other fastening devices may be passed through the side walls 6 to securely grip the walls upon the inner and outer sides of the door, thus securely anchoring the device against displacement and serving to rigidly brace the door against weaving or the like by the biting engagement of the edges 8. It will be apparent of course that the device is engaged with the door in accordance with the direction in which the door shall swing. With the saddle 16 rigidly fixed in position across the door opening, it will be apparent, as clearly shown in Figure 3, that when the door is fully closed, the weatherstrip 12 will have a compressing weathering engagement with either of the faces 20 or 21 throughout the width of the door, thus providing a very effective seal in combination with an ornamental scuff plate that protects the surface of the door against damage or marring by the feet of the operator. While the device has been indicated as being extruded from light weight material, such as aluminum,

it will be apparent that various materials, such as steel or plastic, may be employed, although plastic would have relatively little biting engagement with respect to the door.

It will be apparent from the foregoing that a very simple and effective combined scuff plate and weatherseal has been employed. The scuff plate and the saddle offer elements that are cheaply formed to be cut as needed for a selected closure device and closure opening, thus necessitating a relatively low stock of materials to be handled by the dealer. The device is quickly and easily applied and the combined saddle and scuff plate with its compressible weatherstrip provides a very effective weatherseal throughout the width of the door. Further, the saddle 16 presents no undercut grooves or the like and presents an exposed surface over which dirt and the like can be easily swept without interference.

It is to be understood that the invention is not limited to its precise design, but that changes are contemplated as readily fall within the spirit of the invention as determined by the scope of the subjoined claims.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A combined scuff plate and weatherseal for closure doors in combination with a door saddle and wherein the door saddle is provided with oppositely disposed weathering faces, the scuff plate and weatherseal comprising a rigid U-shaped frame open at its top and opposite ends whereby to engage over the lower portion of a door for substantially the full width of the door, means formed upon the frame for its full length that has a biting engagement into the opposite side walls of the door when the frame is in mounted engagement and a compressible weatherstrip carried by one lower corner of the frame that has a weathering engagement with an adjacent weathering face of the saddle when the door is in the closed position, the frame being reversible whereby to dispose its

weatherstrip in a position at the opposite side of the door for weathering engagement with the opposite weathering face of the saddle.

2. The structure according to claim 1, wherein scuff plate and the saddle are extended to form relatively long sections for subsequent cutting to a length corresponding to the width of the door and the door opening, the scuff plate adapted to embrace the door to extend upwardly upon either side for a substantial and identical height, the upper edges of the frame being inwardly directed to form the said biting means, and a downwardly directed rib formed on the frame at one lower corner and for the full length of the frame and whereby to support the said compressible weatherstrip.

3. The structure according to claim 1, wherein the U-shaped frame is provided with a downwardly extending rib at one lower corner and for its full length, the rib being provided with an inner angled face that is longitudinally grooved for its full length, the said compressible weatherstrip being seated within the groove and with the weatherstrip being provided with a compressible head portion that projects beyond the angled face, the said weathering face of the saddle being angled outwardly and substantially corresponding to the angle of the face of the rib and with the angled face of the saddle being disposed in the plane of movement of the weatherstrip when the door is shifted to a closed position.

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