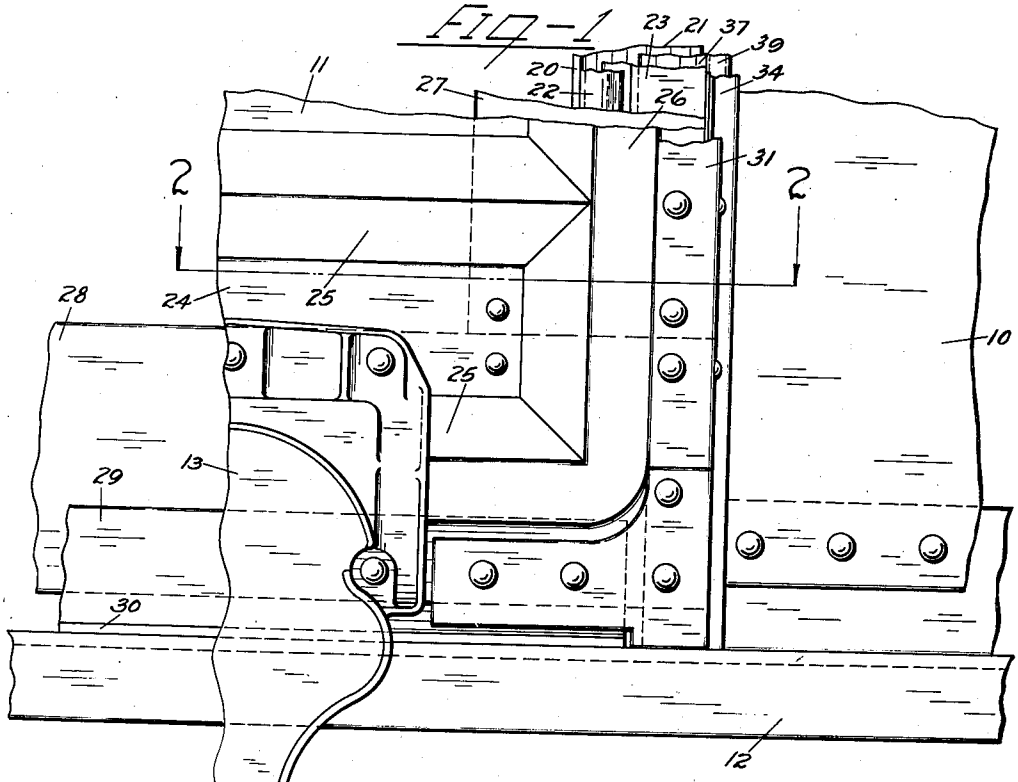
April 13, 1943. A. J. DOYLE 2,316,675

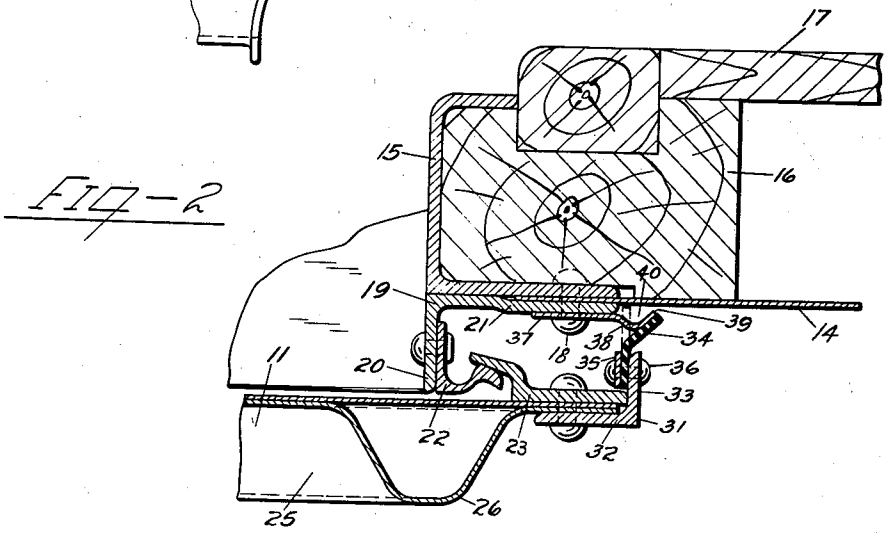
SLIDING CAR DOOR

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FIG—1



FIG—2



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SLIDING CAR DOOR

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Application October 11, 1940, Serial No. 360,793

3 Claims. (Cl. 20—26)

This invention relates to sliding car doors and more particularly to doors embodying an effective seal for excluding rain, snow, dust, cinders and the like from the cars.

It is an object of this invention to provide sliding doors which shall incorporate flexible sealing means capable of preventing the entry of rain, snow, dust, cinders and the like by a flexing action.

A further object of this invention is to provide sliding doors which shall embody flexible sealing means affording an effective seal by flexing action without requiring modification of or addition to the door structure.

Other objects of the invention will become clear as the description thereof proceeds.

In the drawing forming part of this specification:

Fig. 1 is a fragmentary elevation of a railway house car having mounted thereon a sliding door embodying the invention.

Fig. 2 is a horizontal section taken on line 2—2 of Fig. 1.

In the illustrative embodiment of the invention illustrated in the drawing numeral 10 designates the car wall of a railway house car upon which a metallic door 11 is slidably mounted and supported upon a track 12. Movement of the door is secured upon anti-friction means forming part of a lift mechanism indicated generally by the reference numeral 13.

The car wall includes outer metallic sheathing 14 which is fastened to a metallic door post 15. The post carries a wooden nailing strip 16 to which is secured to the inner wooden lining 17 of the car. Fastened to the door post 15 as by means of rivets 18 is an angle member 19 provided with an outwardly extending leg 20. The attaching leg 21 of the angle member 19 lies substantially in the outer plane of the car wall 10. A spark strip 22 is secured to the outwardly extending leg 20 of the angle member 19 and is adapted to cooperate with a metallic sealing strip 23 fastened to the inner face of the door 11.

The door embodies additionally a metallic panel 24 formed preferably with horizontal corrugations 25 which merge at their ends into vertical corrugations one of which is illustrated at 26. Vertical and horizontal backing plates 27 and 28 are utilized to reinforce the rear vertical and lower margins of the panel. The latter margin is strengthened additionally by means of an angle member 29, the lower horizontal leg 30 of which is seated frictionally upon the track 12 when the door is lowered.

The rear vertical margin of the door is reinforced also by means of an angle member 31, one leg 32 of which overlaps and is fastened to the panel while the other leg 33 extends across the panel toward the car wall 10.

The inwardly extending leg 33 of the reinforcing angle 31 provides means for the attachment of a flexible sealing strip 34 formed preferably of rubber or rubber and fabric. The flexible sealing strip is disposed upon the inside of the flange 33 and betwen this flange and a washer plate 35 and secured thereto by means of rivets 36 as shown in Fig. 2 of the drawing. The flexible sealing strip 34 extends inwardly beyond the flange 33 of the reinforcing angle 31 so as to cooperate with a metallic member 37 secured to the leg 21 of the angle member 19 by means of the rivets 18.

The metallic member 37 is flanged outwardly as indicated at 38 and then rearwardly as shown at 39. The flange 39 lies preferably at an obtuse angle to the car wall 10 and terminates short of the metallic sheathing 14 thereby forming a pocket 40 capable of trapping foreign matter and preventing the entry thereof into the car. The obtusely disposed flange 39 of the metallic member 37 engages the extending portion of the flexible sealing strip 34 flatwise. During the final closing movement of the door this engagement causes a flexing of the sealing strip and establishes an effective seal which excludes rain, snow, dust, cinders and the like from the car.

It will be apparent that numerous changes and modifications in the details of the invention will be clear to those skilled in the art. It is intended, therefore, that all such modifications and changes be comprehended within this invention, which is to be limited only by the scope of the claims appended hereto.

I claim:

1. In a railway house car having a wall, a member secured to said wall provided with a vertical flange extending at an obtuse angle to said wall, a longitudinally sliding door mounted upon said car, said door having a vertical flange extending toward said wall and terminating short of said first mentioned flange, and a flexible sealing strip secured to and along said latter flange, said sealing strip extending beyond said latter flange and being engaged flatwise by said first mentioned flange and freely flexed in the final longitudinal closing movement of said door for the purpose set forth.

2. In a railway house car having a wall, a member secured to said wall provided with a vertical

flange extending at an obtuse angle to said wall, said flange terminating short of said wall, said member, flange and wall providing a pocket for trapping rain, dust, snow and the like, a longitudinally sliding door mounted upon said car, said door having a vertical flange extending toward said wall and terminating short of said first mentioned flange and a flexible sealing strip secured to and along said door flange, said sealing strip extending beyond said latter flange and being engaged flatwise by said first mentioned flange and freely flexed in the final longitudinal closing movement of said door, for the purpose set forth.

3. In a railway house car having a wall, a member secured to said wall provided with a vertical flange extending at an angle to said wall, a longitudinally sliding door mounted upon said car, said door having a vertical flange extending toward said wall and terminating short of said first mentioned flange, and a flexible sealing strip secured to and along said latter flange, said sealing strip extending beyond said later flange and being engaged flatwise by said first mentioned flange and freely flexed in the final longitudinal closing movement of said door for the purpose set forth.

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