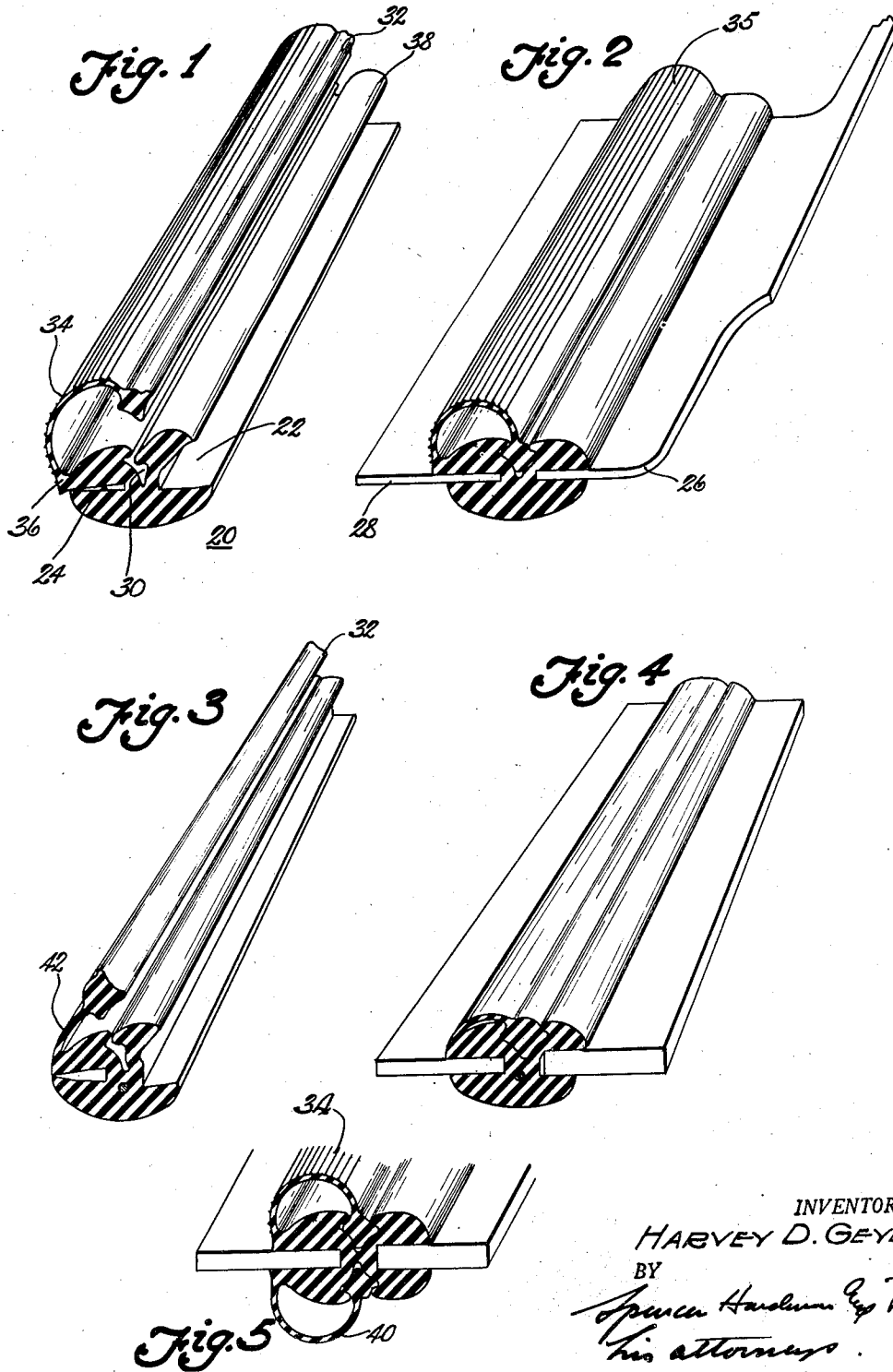


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CONNECTOR STRIP

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CONNECTOR STRIP

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This invention relates to mounting strips and is particularly directed to inexpensive mounting strips for forming weather-proof joints and the like between two plane surfaces, for example, a door panel and a door frame.

It is, therefore, the primary object of this invention to provide a mounting strip useful in joining two plane surfaces, which mounting strip firmly holds the two surfaces within grooves therein and which includes a longitudinally extending flap made from resilient material which, when placed in a locking groove within the strip, causes the strip to wedge against the flat surfaces and simultaneously forms a cushion substantially along the joint thereof. In some cases it may be desirable to form such a strip with dual cushioning and wedging flaps on both sides thereof, but in all cases, the flap or flaps has the dual function of spreading the strip so as to wedge the panel or other articles clamped thereby firmly within the strip and simultaneously acting to form a cushion therealong.

In the manufacture of automobiles, refrigerators and the like, it is often desirable to mount instrument panels or glass by means of a resilient strip so that the piece being mounted is resiliently held within the mounting member and wherein the mounting piece may be removed from its mounting in a facile manner. For example, window glass can be held within a door frame through the use of such strips. Instrument panels of automobiles may likewise be held in place through the resilient mounting means, to be described in detail hereinafter.

Another application of my improved mounting strip is directed to refrigerator doors wherein a metal door is fabricated which has an intumed edge therearound and wherein an inner door panel made of metal or plastic is to be mounted therein. In this connection, the edges of the inner door panel are dimensioned so that they are closely spaced to the inner edges of the door. In this instance, a mounting strip as described hereinafter, may be used to hold the panel to the door and a resilient flap used as a wedging means for locking the panel and door in place has the dual function of acting as a sealing strip around the door when the door is mounted on a cabinet. Obviously, a sealing strip of the class described has many other utilities and in all cases, presents a means for easily mounting one part upon another wherein the parts may be detached with great ease and wherein if desired, a sealing strip and cushion is provided.

Further objects and advantages of the present

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invention will be apparent from the following description, reference being had to the accompanying drawings wherein preferred embodiments of the present invention are clearly shown.

5 In the drawings:

Fig. 1 shows a fragmentary view in perspective of a section of my improved mounting strip showing the flap and mounting strip.

10 Fig. 2 is a fragmentary view in perspective of a portion of a strip gripping plate-like members wherein the flap is in locking position and likewise forms a cushion along one side of the strip.

15 Fig. 3 is a view in perspective of another type of strip wherein another type of locking flap is provided.

Fig. 4 is a view in perspective of a portion of a strip as shown in Fig. 3, wherein two plate-like members are joined therebetween and wherein a locking flap is in wedged position, and

20 Fig. 5 is a sectional view of another embodiment of a strip similar to that shown in Figs. 1 and 2 wherein a double cushion is provided on either side of the strip.

In Patents Numbers 2,189,137 and 2,189,138 entitled "Connector strip" and issued to F. R. Eichner, there are described several types of sealing or mounting strips. In the Eichner patents the connector strips are made of resilient material having mounting grooves therein which are normally in either open or closed position and wherein additional longitudinal grooves are utilized which are filled by means of a separate wedge of resilient material for turning the flaps or the edges of the mounting grooves inwardly and thereby seal the connector strip firmly to the glass or other material being mounted. These strips have great utility in the assembly of many automotive devices. The present invention is directed to the improvement in these strips wherein the wedge used for closing the flaps of the Eichner strip is formed integral with the connector strip and wherein in some cases, this wedge forms a cushion or sealing means on one or both sides of the strip.

25 Referring specifically to the drawings, Fig. 1 shows a connector strip 20 in perspective which includes a longitudinally extending groove 22 therein and an opposed longitudinally extending groove 24. The grooves 22 and 24 are adapted to receive the parts to be connected as designated at 26 and 28 respectively in Fig. 2. When parts 26 and 28 are in position, it is apparent that the groove 24 due to its configuration in section, definitely grips the part 28 but that the groove 22 is a loose fit on the member 26. In order to lock

the member 26 within the groove 22, a third longitudinally extending groove 30 is provided which is disposed intermediate the grooves 22 and 24. The groove 30 includes three longitudinally extending semi-circular depressions so that a section of the groove has a shape somewhat similar to a three-leaf clover. A filler strip 32 is provided which has a configuration in section approximating that of the groove 30 and said filler strip is connected by means of a flap 34 at the upper lip 36 of the groove 24. In assembly, the strip 32 is then pressed into the groove 30 by means of a tool somewhat similar to a button hook or the like which spreads the groove to permit ingress of the strip 32 whereupon the upwardly extending flap 38 of groove 22 is forced downwardly to firmly grip the member 26. In this position, the strip 32 causes the flap 34 to take the shape of a longitudinally extending tube, which tube forms a resilient sealing strip 35 along the connecting strip 20.

The integral connection between the filler strip 32 and the connecting strip 20 has great utility. To begin with, the construction provides an integral sealing means 34 when strip 32 is in locking position and in this structure it is also possible to conceal screws or the like which pass through the flap 36 of the strip 20. Similarly, the entire device is of a better appearance and reduces the number of parts required since the filler strip is integral with the connecting strip and no additional filler strips are necessary. Furthermore, in production when the connecting strip is cut to length the filler strip is cut to the exact length required since it is integral with the connector strip thereby eliminating considerable inaccuracies heretofore found in use of separate filler strips.

It is apparent that if a double sealing strip is desired that a second filler strip 40 and flap may be provided at the opposite side of the connector strip 20 as shown in section in Fig. 5.

When a cushion sealing is not desired, the length of the flap 34 is reduced as shown in Figs. 3 and 4 wherein a flap 42 is utilized together with the filler strip 32. In this connection when the filler strip 32 is in position within the groove 30 no appreciable resilient seal is present but the concealing ability of the flap is still apparent. Similarly, an integral filler strip and the connector strip is provided.

From the foregoing it is apparent that I have provided a new type of connector strip wherein a filler strip is made integral with the connector strip and in some cases, is connected thereto by means of sufficient material in the flap so that when the filler strip is in position, that the flap forms a resilient bumper or sealing strip at one or both sides of the connecting strip.

While the embodiments of the present invention as herein disclosed, constitute preferred forms, it is to be understood that other forms might be adopted, all coming within the scope of the claims which follow.

What is claimed is as follows:

1. A connecting or sealing strip comprising a body of resilient material adapted to engage adjacent edge portions of two parts to be joined, comprising; a pair of opposed grooves adapted to receive the edge portions of said parts and including a longitudinally extending groove therebetween, a filler strip for said longitudinally extending groove adapted to be forced into said longitudinally extending groove and cause said pair of grooves to grip said parts, and a longi-

tudinal flap connected to said body and to said filler strip longitudinally thereof for connecting the strip to the body, said flap being of sufficient width to permit insertion and withdrawal of the strip in the groove.

2. A mounting strip comprising in combination; an elongate resilient body portion having a pair of opposed longitudinal grooves therein adapted to receive the parts to be mounted; a third groove longitudinally disposed between said pair of grooves, and normally partially closed, a longitudinal flap integral with said body portion and extending from the edge of one of said pair of grooves towards said third groove, a filler strip integral with said flap along its free edge and having a cross section similar in shape to the cross section of the third groove, said filler strip being adapted to be forced into said third groove for spreading said groove and thereby flexing the adjacent edges of said pair of grooves into tight clamping relation with said parts whereby said flap covers and conceals a longitudinal portion of the body portion.

3. The strip as claimed in claim 2 wherein the width of said flap is substantially greater than the distance from its point of attachment to the filler strip whereby when the filler strip is in position the flap forms a sealing cushion longitudinally disposed along one side of the mounting strip.

4. A mounting strip comprising in combination; an elongate body of resilient material having a pair of opposed longitudinal grooves therein adapted to receive parts to be mounted, the external edges of one of said grooves being closer together than the thickness of the part to be mounted and the external edges of the other of said groove being spaced apart a distance greater than the thickness of the part to be mounted therein, a third groove longitudinally disposed in said body intermediate said first mentioned grooves, a longitudinal flap integral with said body and joined thereto adjacent one of the edges of one of said first mentioned grooves, a filler strip of longitudinal extent integral with said flap along the edge opposite to its joining portion and having a cross section similar in shape but slightly larger than the cross section of the third mentioned groove, said filler strip being adapted to be forced into the third mentioned groove for spreading the groove and thereby flexing the adjacent edges of the first mentioned pair of grooves into tight clamping relation with the parts to be mounted whereby said flap covers and conceals a longitudinal portion of the body portion.

5. A strip as claimed in claim 4 wherein the width of the flap is substantially greater than the distance between its point of attachment and the filler strip whereby when the filler strip is in position that the flap forms a cushion longitudinally disposed along one side of the mounting strip.

6. The strip as claimed in claim 4 wherein the third mentioned groove is of such configuration in cross section that the filler strip is interlocked therewith when in position therein.

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REFERENCES CITED

The following references are of record in the file of this patent:

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Number	Name	Date
2,189,138	Eichner	Feb. 6, 1940