

Feb. 4, 1941.

G. W. GAIL

2,230,985

SEALING STRIP

Filed Sept. 20, 1937

2 Sheets-Sheet 1

FIG. 1.

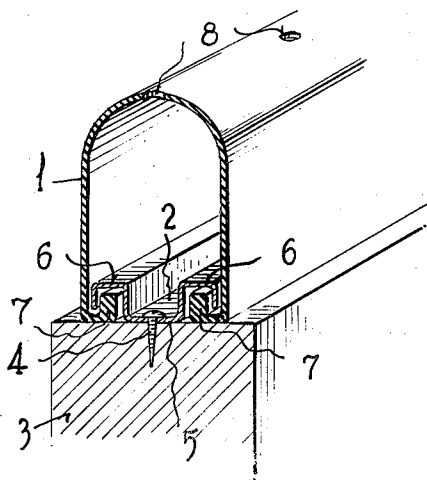


FIG. 2.

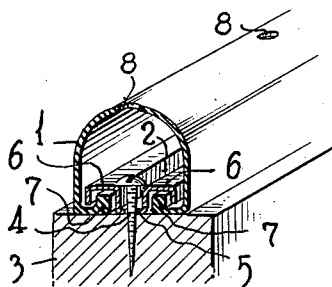


FIG. 3.

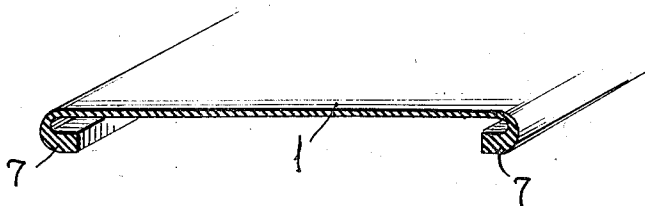
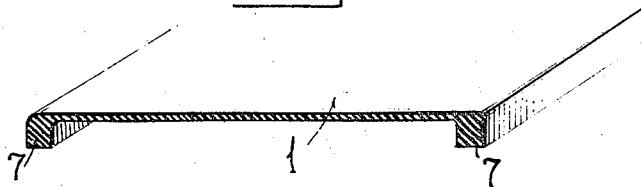


FIG. 4.



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FIG. 5.

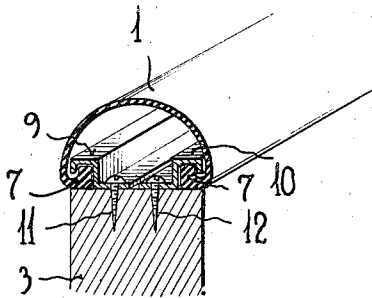


FIG. 6.

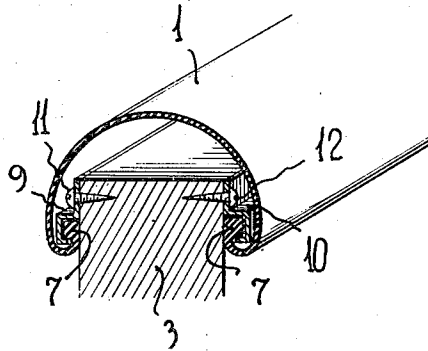


FIG. 7.

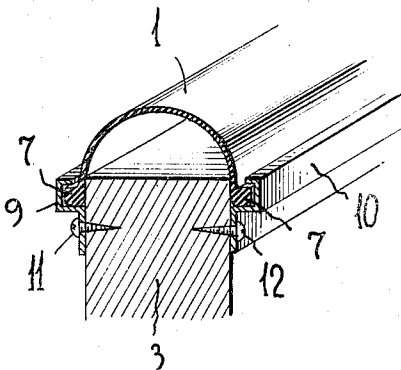
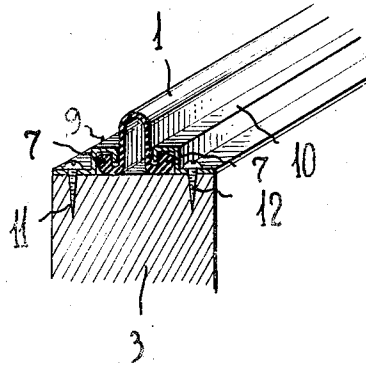


FIG. 8.



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## UNITED STATES PATENT OFFICE

2,230,985

## SEALING STRIP

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Application September 20, 1937, Serial No. 164,770

1 Claim. (Cl. 20—69)

This invention relates to certain improvements in sealing strips and particularly to the general type of combined flexible and metallic sealing strip as disclosed in applicant's prior Patents 1,991,776 and 2,070,725 and pending application Serial No. 121,877 now patent numbered 2,102,578.

These prior constructions all comprised a substantially semi-cylindrical resilient or flexible engaging portion and a relatively stiff or rigid base portion, preferably of metal, the semi-cylindrical resilient portion being secured in operative position and maintained therein by said base portion. In most of these prior constructions there is an interlocking engagement between the rigid base and flexible portions and both the inner and outer portions of both longitudinal edges of the flexible engaging part of the strip are clamped by the rigid base portion.

The object of the present invention is to simplify the construction and manner of mounting of sealing strips of this character, and at the same time retain all of the valuable features of applicant's prior constructions and arrangements.

Another object of the invention is to reduce the amount of material necessary to produce the base portion, and yet retain the interlocking feature between the said base and flexible portions.

A further object of the invention is the production of a sealing strip of the character indicated whereby its adaptability and use is greatly increased to permit its application to various structures and to meet different conditions.

All of the above improved features tend toward a materially reduced cost of manufacture, as the flexible portion can be extruded or molded as a relatively flat strip and the amount of material to produce the base is greatly reduced. Furthermore, the metallic base portion where it is entirely enclosed can be made of thin steel instead of more expensive rust resisting metals.

The preferred embodiment of the invention is illustrated in the accompanying drawings in which

Figure 1 is a view partly in perspective and partly in section of the complete sealing strip mounted in operative position,

Figure 2 is a similar view showing a somewhat modified construction particularly applicable to a narrow type of sealing strip,

Figures 3 and 4 illustrate two forms of the flexible portion of the sealing strip produced as a flat strip either by extruding or molding,

Figures 5 and 6 are further modifications show-

ing a two-piece clamping means wholly within the flexible engaging portion, and

Figures 7 and 8 also illustrate a two-piece clamping means arranged along the outside edges of the flexible engaging portion, Figure 7 showing a wide type of sealing strip whereas Figure 8 shows substantially the same idea applied to a narrow type of sealing strip, said modifications as illustrated in Figures 5, 6, 7 and 8 thus adapting the strip to various available clearances, and also making the same applicable to various thicknesses of doors and similar structures where such sealing strips are used.

Referring to the drawings in detail and particularly to Figures 1 and 2, the improved sealing strip when assembled, comprises a substantially semi-cylindrical flexible engaging portion 1 and an enclosed metallic clamping portion 2, which in combination with the member 3 to which it is attached, comprise the base for said sealing strip, the metallic portion 2 being secured to the member 3 by screws or the like 4.

The metallic clamping portion 2 is preferably of the shape as shown, having a depressed intermediate portion 5 and inverted U-shaped longitudinal opposite edge portions 6 adapted to embrace the enlarged edge portions 7 formed along the longitudinal edges of the flexible engaging portions 1. It will also be noted that just the right amount of clearance is allowed along the extreme outer edges of the metallic portion 2 to permit the insertion of the edges of the flexible engaging portion 1 when it is desired to assemble the strip in this manner after the metallic portion 2 has been secured in place. Where the parts are first assembled and then mounted in operative position the outer face of the flexible engaging portion 1 is provided with properly spaced holes 8 for the insertion of the fastenings 4 and a screw driver or the like for setting these fastenings.

The construction as illustrated in Figure 2 is similar to that shown in Figure 1 except that the depressed portion 5 has been narrowed considerably so that the head of the fastening 4 will engage the inverted U-shaped edge portions 6 and thus making it possible to produce a much narrower sealing strip.

The flexible engaging portion 1 is preferably produced in substantially flat form as illustrated in Figures 3 and 4, by either extrusion or molding but in both instances the opposite longitudinal side edges are made thicker or provided with enlarged portions 7 for the purpose as hereinbefore described.

Referring to Figures 5 and 6 the metallic clamping means is substantially the same as that disclosed in Figures 1 and 2 except that the same is made in two pieces 9 and 10 each piece or clamping strip being secured in position by screws or similar fastenings 11 and 12 respectively. Figures 5 and 6 however illustrate different methods of attachment according to the use and place of mounting. In both of these forms the metallic clamping strips are enclosed within the flexible engaging member 1.

Figure 7 illustrates a side mounting of the clamping means as shown in Figure 6, but as applied to the outside edges of the flexible engaging member 1.

In Figure 8 a further modification is shown of the two-piece clamping member as applied to the outside edges of the flexible portion, where a

relatively small and narrow sealing strip is desired.

I claim:

In a sealing strip adapted to be secured to a supporting member, the combination with a substantially semi-cylindrical flexible elastic strip, enlarged edge portions carried by said strip forming U-shaped parallel channels inside the strip, a securing member for said strip provided with parallel inverted U-shaped channel portions in interlocking engagement with said first mentioned U-shaped channels of said strip and means for fastening said securing member to said supporting member, whereby said strip will be held between the securing member and supporting member.

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