Feb. 17, 1942. J. T. COOPER 2,273,007

SEAL

Filed March 3, 1941

Fig. 1.

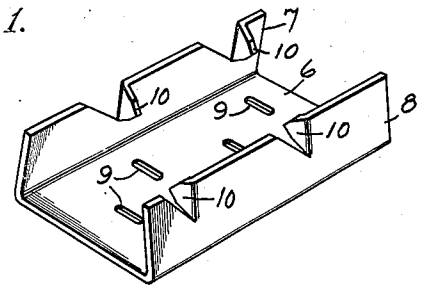


Fig. 2.

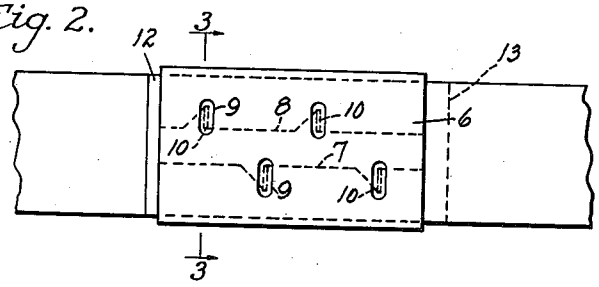


Fig. 3.

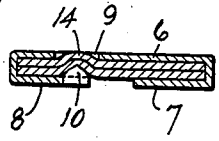


Fig. 4.

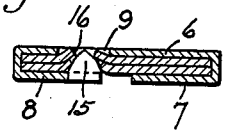
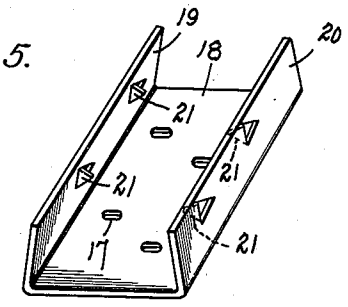


Fig. 5.



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UNITED STATES PATENT OFFICE

2,273,007

SEAL

Joseph T. Cooper, Los Angeles, Calif.

Application March 3, 1941, Serial No. 381,469

4 Claims. (Cl. 24—23)

My invention relates to a seal, and more particularly to means for sealing together the ends of a metal band or sealing to each other two pieces or two portions of metal.

An important object of the invention is to provide such a seal that can be locked in position by a hammer, or any article by which hammering may be done, as well as by a more complicated sealing machine.

Another object of the invention is to provide flanges that may be folded over and prevent lateral displacement of the portions or pieces sealed to each other, together with prongs or other projections disposed transversely to deflection of the portions or pieces in a longitudinal direction.

This application is a continuation in part of my copending application, Serial No. 360,145, filed October 7, 1940, on Seal, now Patent No. 2,250,748, granted July 29, 1941.

The invention also comprises novel details of construction and novel combinations and arrangements of parts, which will more fully appear in the course of the following description. However, the drawing merely shows and the following description merely describes one embodiment of the present invention, which is given by way of illustration or example only.

In the drawing, like reference characters designate similar parts in the several views.

Fig. 1 is a perspective view of an embodiment of my invention.

Fig. 2 is a rear face view of my seal applied to the end portions of a band.

Fig. 3 is a transverse section taken on the line 3—3 of Fig. 2.

Fig. 4 is a transverse section similar to Fig. 3, but showing a modified construction, and modified assembly.

Fig. 5 is a perspective view of a modified seal.

Referring more in detail to the drawing, the reference numeral 6 generally designates the body of the embodiment shown in Fig. 1. The body member has elongated transverse slots 9 arranged in staggered formation in the body member. The flanges have relatively short, sharp prongs 10 stamped inwardly from the flanges 7 and 8. The prongs 10 are so arranged that when the flanges 7 and 8 are bent down toward the body member 6, the prongs 10 project toward the openings 9. The prongs 10 on the opposite flanges are staggered with relation to each other, in order to be opposite the slots 9 in the body member.

Ends 12 and 13 of a metal band are shown clamped within my seal. To effect such clamping the ends 12 and 13 are placed in the channel formed by the body member 6 and the flanges 7 and 8. Thereupon, the flanges are bent down by means of a hammer, or any other suitable means, until the prongs emboss the material of the band ends 12 and 13 into the elongated openings 9, as best shown at 14. This embossing tends to resist withdrawal of the bands from the seal, particularly in an endwise direction.

The modified construction shown in Fig. 4 principally differs in that the prongs 15 are longer, in order that they may pierce the metal of the bands, as shown at 16, thus tending to lock the ends 12 and 13 of the band against endwise withdrawal from the seal.

The modified construction shown in Fig. 5 has staggered, elongated openings 17 in a body portion 18, while flanges 19 and 20 have prongs 21 bent inwardly from the flanges. The prongs 21 on the opposite flanges are staggered with relation to each other, and arranged to be opposite the openings 17 when the flanges 19 and 20 are bent down toward the body member 18. The principal respect in which the modification of Fig. 5 differs from the construction of Fig. 1 is that the prongs 21 are spaced inwardly from both sides of the flanges 19 and 20, whereas the prongs 10 are at the outer edges of the flanges 7 and 8.

It is believed that the use of the present invention is clear from the foregoing description. The present seal may be used for any purpose where a metal band is useful, or where two pieces of metal are desired to be fastened to each other.

While I have illustrated and described what I now regard as the preferred embodiment of my invention, the construction is, of course, subject to modifications without departing from the spirit and scope of my invention. I, therefore, do not wish to restrict myself to the particular form of construction illustrated and described, but desire to avail myself of all modifications which may fall within the scope of the appended claims.

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

1. In a sealing device comprising a body portion having lateral flanges at opposite sides thereof arranged to be bent towards each other and towards the body portion, the body portion having staggered, elongated openings therein, elongated prong means arranged in staggered relation on the flanges, the length of the openings and the length of the prongs being transverse to the length of the body portion, and the prongs being arranged substantially opposite the open-

ings when the flanges are bent towards each other and towards the body portion.

2. A sealing device comprising a body portion elongated in one direction, having a series of openings therein arranged in staggered relation and elongated in a direction transversely of the body portion, and flange means integral with the body for the length thereof and bendable to closely overlie the body portion, having transversely elongated prongs arranged to coincide with and enter the openings of the body portion, the said prongs being of substantially less lengthwise and transverse dimensions than the openings.

3. In a sealing device comprising a body portion having lateral flanges at opposite sides thereof arranged to be bent towards each other and towards the body portion, the body portion having staggered, elongated openings therein, elongated prong means arranged in staggered relation on the flanges, the length of the openings and the length of the prongs being transverse to the length of the body portion, and the prongs being arranged substantially opposite the openings when the flanges are bent towards each other and towards the body portion, and consisting of upset portions of the free edges of the said flanges.

4. In a sealing device comprising a body portion having lateral flanges at opposite sides thereof arranged to be bent towards each other and towards the body portion, the body portion having staggered, elongated openings therein, elongated prong means arranged in staggered relation on the flanges, the length of the openings and the length of the prongs being transverse to the length of the body portion, and the prongs being arranged substantially opposite the openings when the flanges are bent towards each other and towards the body portion, and consisting of upset portions of the flanges between, and spaced from, the longitudinal edges of the flanges.

JOSEPH T. COOPER.