J. SOSS.

FASTENING AND BINDING DEVICE.

APPLICATION FILED APR. 21, 1920.

1,364,461. Patented Jan. 4, 1921.

FIG. 1.

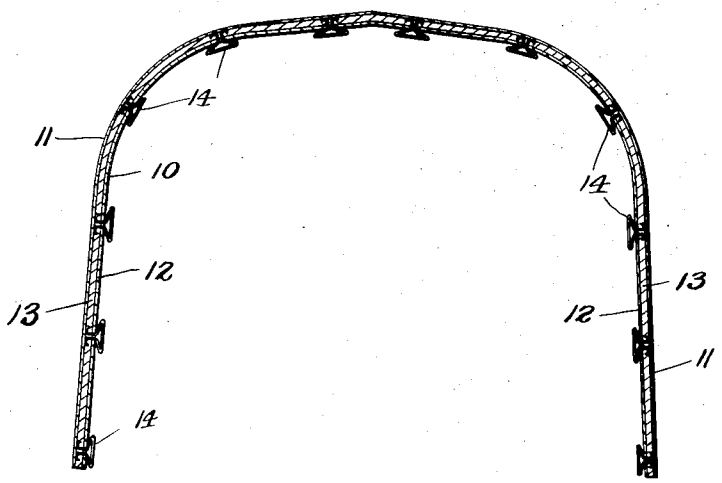


FIG. 2.

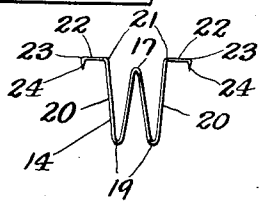


FIG. 3.

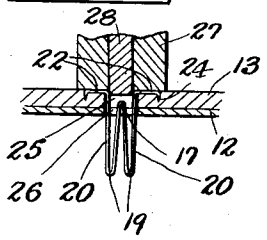


FIG. 4.

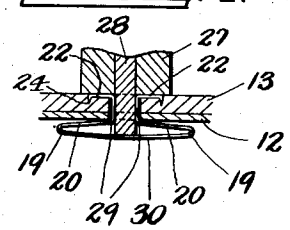


FIG. 5.

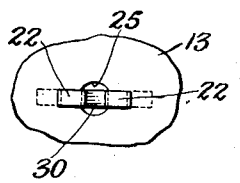


FIG. 6.

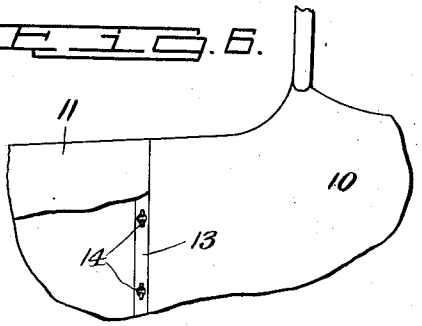
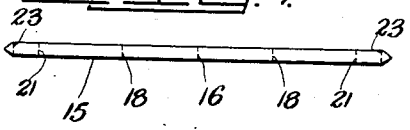


FIG. 7.



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UNITED STATES PATENT OFFICE.

JOSEPH SOSS, OF NEW YORK, N. Y.

FASTENING AND BINDING DEVICE.

1,364,461. Specification of Letters Patent. Patented Jan. 4, 1921.

Application filed April 21, 1920. Serial No. 375,555.

To all whom it may concern:

Be it known that I, JOSEPH SOSS, a citizen of the United States, and residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Fastening and Binding Devices, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to fastening devices and particularly to devices of this class designed to secure or bind two or more parts together and principally a flexible part in connection with a rigid body part, such for example as the attachment of the leather facing strip to the framework of a motor vehicle in connection with which the engine hood operates to form a cushion support for said hood; and the object of the invention is to provide a fastening and binding device of the class and for the purpose specified which is composed of strip or rod-like material fashioned into the desired blank form and which when passed through the parts to be secured and bound together will in itself operate to produce the desired result independent of screws, rivets and similar devices commonly employed; and with this and other objects in view the invention consists in fastening and binding devices of the class described which is simple in construction and efficient in use, and constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which—

Figure 1 is a transverse sectional view of a part of the framework of a motor vehicle, and the engine hood of such vehicle, and indicating the method of securing the flexible backing strip in place by my improved fastening devices;

Fig. 2 a side detail view of one of the fastening and binding devices which I employ;

Fig. 3 a view similar to Fig. 1 and showing a fastening and binding device passed through two parts to be secured together thereby;

Fig. 4 a view similar to Fig. 3 but showing the fastening and binding device in its operative position;

Fig. 5 a plan view of the construction as shown in Fig. 4;

Fig. 6 a side view of a portion of a motor vehicle illustrating the position and location of certain parts of the construction shown in Figs. 1, 3, 4 and 5; and,

Fig. 7 a plan view of a blank from which one of the fastening and binding devices is formed.

In the accompanying drawing, I have shown for the purpose of illustrating one use of my improved fastening and binding devices, a portion of a motor vehicle which is indicated at 10 in Fig. 6 of the drawing, and at 11 I have indicated in Figs. 1 and 6, the engine hood of such vehicle, and the framework 12 of the hood 11, or that part of the body upon which the opposite end portions of the hood 11 rests, is provided with a flexible fibrous facing strip 13, which strip is secured to the framework 12 by my improved fastening devices 14, one of which is shown in detail in Fig. 2, and these fastening devices are substituted for the usual rivets and similar attaching devices now employed.

My improved fastening and binding devices 14 are preferably composed of strip or rod-like material cut to form a blank 15 shown in Fig. 7, which blank is folded centrally as shown at 16 to form a central upwardly directed loop portion 17, and the opposite sides of the strip are then folded upwardly at 18 to form two downwardly directed loop members 19 of said blank, and the upwardly directed free side portions 20 of the loops 19 are bent at 21 to form laterally extending arms 22, the end portions of which are bent at 23 to form downwardly directed V-shaped prongs 24.

It will be seen on a consideration of Fig. 2 of the drawing that when the blank 15 is folded, in the manner above described, the fastening device will assume a substantially W-shape or form, when viewed from either side. In the use of the fastening devices fashioned into the shape or form shown in Fig. 2 for connecting two or more parts together, or for connecting the flexible strip 13 with the framework 12 in the construction shown, the downwardly directed loop

portions 19 of the fastening devices are passed through apertures 25 and 26 in the strip 13 and framework 12 respectively, in which operation the sides 20 of the loops 19 are sprung inwardly in the manner shown in Fig. 3 of the drawing, in which figure, it will be noted that the upwardly directed loop 17 projects into the apertures 25—26. In the operation of passing the attaching devices through the apertures 25—26, a suitable punch or hammer member indicated at 27 in Fig. 3 is employed, and this punch serves to force the prongs 24 of the attaching devices into the flexible strip 13 to embed the laterally directed arms 22 in the face thereof in the manner illustrated in said figure. In the above operation a punch rod 28 which passes through the punch 27 projects into the aperture 25 and serves to guide and support the attaching device 14 or the side portions 20 thereof in position.

After the prongs and laterally directed arms have been embedded in the face of the strip 13, in the manner above set out, the punch rod 28 is moved downwardly through the punch 27 and into and through the apertures 25—26 to force the upwardly directed loop 17 downwardly, which operation forces the downwardly directed loop 19 upwardly and laterally into a position approximately similar to that shown in Fig. 4 of the drawing.

In this operation it will be noted that the side portions 20 of the loops 19 are bent at the points 29 inwardly of the frame-work 12 and that the loop 17 is formed into a comparatively straight base 30.

It will be noted that in forming the complete fastening and binding device, as shown in Fig. 4, the punch 27 will serve to hold the laterally directed arms 22 in proper position, while the punch rod 28 is moved downwardly, and said rod also serves to space and hold the side portions 20 of the loops 19 within the apertures 25 and 26, and it will be apparent that the strip 13 will be securely bound to and held in engagement with the framework 12, and by reason of the dimensions of the strip the exposed metallic face on the strip 13 will be comparatively small.

It will be seen that when the fastening devices 14 are in position, they form a substantial rivet member having head members at both ends, or at both sides of the parts secured together therebetween, the laterally directed arms forming one head member while the loops 19 extending laterally as shown in Fig. 4 form the other head member.

While I have shown my fastening and binding device as composed of strip or sheet material, it will be understood that any form of material may be employed, and I am also not necessarily limited to any specific form or shape into which the strip or rod is bent, the gist of my invention being the provision of a fastening device which may be passed through a plurality of parts in the manner set out and fashioned to securely hold and bind said parts together, and while I have shown and described the invention for the purpose of securing a flexible fibrous strip to a metallic or rigid frame or base, I am not necessarily limited to this use, and various changes in and modifications of the fastening and binding device and its use or application may be made, within the scope of the appended claims, without departing from the spirit of my invention or sacrificing its advantages.

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

1. A fastening device of the class described composed of a single piece of material fashioned to form a central loop member at the opposite sides of which are other loop members having laterally directed members above the top of said central loop member.

2. A fastening device of the class described composed of a single piece of sheet metal fashioned to form a central loop member, other loop members at the opposite sides of and extending in an opposite direction to said first named loop member, and laterally extending arms at the end portions of one of the sides of each of said last named loop members and located above the top of the central loop member.

3. A fastening device of the class described composed of a single piece of sheet metal fashioned to form a central loop member, other loop members at the opposite sides of and extending in an opposite direction to said first named loop member, laterally extending arms at the end portions of one of the sides of each of said first named loop members, and prongs on said laterally directed arms.

4. A fastening device of the class described composed of a single piece of strip or rod-like material fashioned to form an upwardly directed central loop member and downwardly directed loop members at the opposite sides of said central loop member, the upwardly directed sides of said last named loop members being provided with laterally directed members provided with prongs.

5. A fastening device of the class described composed of a single piece of strip or rod-like material fashioned to form an upwardly directed central loop member and downwardly directed loop members at the opposite sides of said central loop member, the upwardly directed sides of said last named loop members being provided with laterally directed members provided with

prongs, said laterally directed members being located in a plane at a predetermined distance above the top of the central loop member.

6. A device of the class described for securing a plurality of parts together, said device being composed of a single piece of material fashioned to form on one end portion of the device laterally directed members and on the other end portion of the device independent members, said members being adapted to pass through the parts to be secured together and flared to securely bind and hold said parts between the same and said laterally directed members, and said laterally directed members being provided with means adapted to pass into one of said parts which are secured together.

7. A device of the class described for securing a flexible fibrous member to another part, said device being composed of a single piece of material fashioned to form laterally directed top members, downwardly directed loop members and an upwardly directed central loop member, said downwardly directed loop members being passed through said flexible fibrous member and said part respectively and flared laterally by downward pressure on said central loop member to securely hold and bind said flexible fibrous member in connection with said part, and said laterally directed top members being pressed into the surface of said fibrous member.

8. A device of the class described for securing a flexible fibrous member to another part, said device being composed of a single piece of material fashioned to form laterally directed top members, downwardly directed loop members and an upwardly directed central loop member, said downwardly directed loop members being passed through said flexible fibrous member and said part respectively and flared laterally by downward pressure on said central loop member to securely hold and bind said flexible fibrous member in connection with said part, and means on said laterally directed members adapted to pass into said flexible fibrous member to securely hold the same in position.

9. A device of the class described for securing a plurality of parts together, said device being composed of a single piece of material fashioned to form on one end portion of the device laterally directed members, and on the other end portion of the device loop members joined by a central loop member, said loop members being passed through the parts to be secured together and said loop members being flared laterally by pressure applied to the central loop member to straighten the same, said flared loop members serving to securely bind and hold said parts between the same and said laterally directed members.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 19th day of April, 1920.

JOSEPH SOSS.

Witnesses:
C. E. MULREANY,
H. E. THOMPSON.