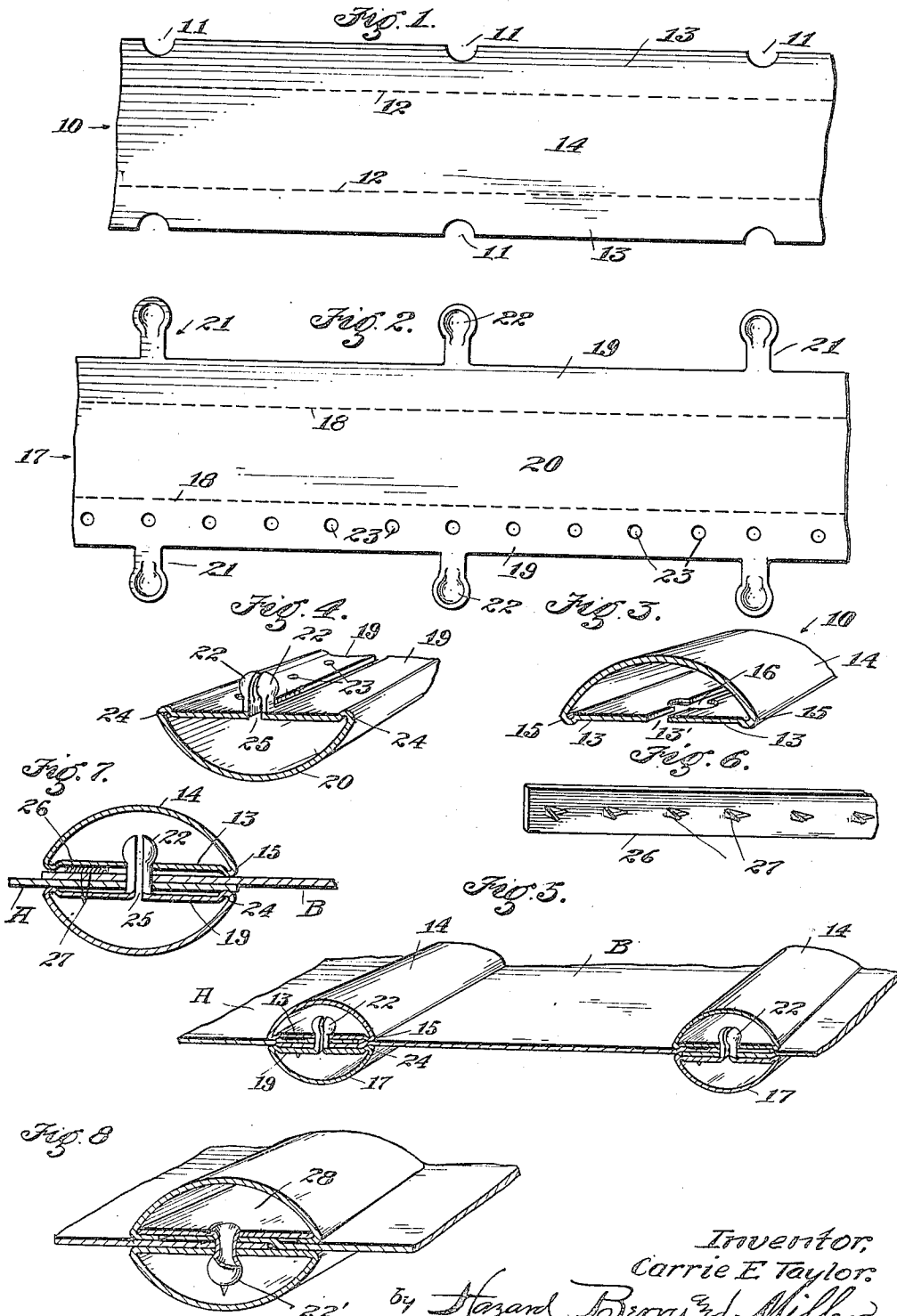


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 DEVICE FOR FASTENING SHEET MATERIAL TOGETHER.
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UNITED STATES PATENT OFFICE.

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DEVICE FOR FASTENING SHEET MATERIAL TOGETHER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CARRIE E. TAYLOR, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Devices for Fastening Sheet Material Together, of which the following is a specification.

My invention relates to a fastening or binding device and in particular to a fastening device adapted to connect the overlapping edges of two or more sheets of material, such as cloth, leather, celluloid, and the like, whereby the edges of the material are securely fastened together to form an invisible seam.

It is an object of my invention to design a device simple in construction, positive in operation, and inexpensive of manufacture. The same consists of two longitudinal resilient strips of metal between which the overlapping edges of the sheets of material to be fastened together are inserted. The device is provided with means adapted to pierce the sheets of material at spaced intervals, said means comprising an element on one strip adapted to coact with an element on the other strip whereby the sheets of material are securely fastened together.

Another object of my invention is to devise a fastening means having the shape of a double molding, each provided with a substantially flat surface, the flat surface of one molding being provided with a button-shaped means adapted to engage the corresponding socket in the flat surface of the other.

My device is applicable wherever it is desired to fasten two or more sheets of material together. The material may be flexible or inflexible and the sheets may be of the same or dissimilar material. For example, the fastening device may be used in connection with celluloid windows in automobile tops or curtains for fastening the edges of the leather or cloth to the edges of the celluloid window pane.

With these and other objects in view which will appear as the description proceeds, my invention consists in the construction and arrangement of parts hereinafter described and claimed.

In the accompanying drawings which form a part of this specification, I have shown a preferred form of my invention, but

it will be understood that I do not confine myself to the specific construction as shown, as various changes in the arrangement of parts may be made without departing from the spirit of my invention as covered by the appended claims.

Figure 1 is a top plan view of the strip of metal adapted to be bent into shape to form the top member of the fastening device.

Fig. 2 is a top plan view of the strip of metal stamped out to be shaped to form the bottom member thereof.

Fig. 3 is a view in perspective of a cross-section of the top member.

Fig. 4 is a similar view of the bottom member.

Fig. 5 is a perspective view showing the fastening device in operation in securing the overlapping edges of two sheets of material together.

Fig. 6 is a perspective view of a strip of metal provided with points adapted to engage with the perforations in the bottom member.

Fig. 7 is a vertical transverse cross-section of the device in operation.

Fig. 8 is a perspective view of my modified fastening device.

10 represents a longitudinal flat resilient strip of metal, preferably steel, whose edges are parallel and are provided at regular intervals with semicircular notches or slots 11, the notches of one edge being oppositely disposed to the notches of the other edge. The dotted line 12—12 of Fig. 1 run parallel to the edges of the strip and divide the same into a central portion 14 and two lateral portions or margins 13—13, the central portion being of approximately twice the width of the lateral portions. The strip of metal is then bent along the dotted lines so that the edges of the strip will be turned inwardly toward each other, as shown in Fig. 3, forming a flat surface, with a narrow slot 13' between said edges. The central portion 14 of the strip may be arched or curved, the outer edges formed by the central portion 14, and the margins 13—13 are made to curve slightly downward so as to constitute longitudinal beadings 15. As will be seen from an inspection of Fig. 3, the top member consists of a curved top portion 14 and a substantially flat base formed by the marginal portions 13—13, said margins meeting the center so that the semicircular

notches 11—11 will meet to form circular apertures or openings 16.

The bottom member of the device is formed from a longitudinal resilient strip of metal 17 of the same width as the one from which the top member is formed. (See Fig. 2.) Dotted lines 18—18 extend parallel to the edges thereof and divide the same in a central portion 20 and two lateral or marginal portions 19—19. At regular intervals, lugs or ears 21 extend laterally from the edges of the strip, the ears of one edge being oppositely disposed to the ears of the other edge. The outer ends of the ears are enlarged, forming a cup-shaped portion 22 having approximately the shape of the hemisphere. Along the median line of one of the marginal portions 19 is a longitudinal series of perforations 23 spaced apart at regular intervals. The strip 17 is bent along the lines 18—18 in a similar manner as strip 10 to form the bottom member of the fastening device, the central portion 20 forming the bottom thereof, the marginal portions 19—19 forming the substantially flat top thereof, while the meeting edges of the marginal portions with the central portion are slightly curved upwardly to form longitudinal beadings 24. The ears 21 are bent upwardly so as to project at substantially right angles from the marginal portions 19—19. The semispherical cups 22 are spaced from each other for a slight distance, forming a slot 25 therebetween. A thin strip of metal 26 having a width of approximately one-third of the marginal portions of metal strips is provided along its median line with a series of pin points vertically extending therefrom. Said pin points may be stamped out of the strip of metal by using the metal of the triangular slot 27 in said strip in a manner similar to that whereby thumb tacks are made.

When it is desired to connect the edges of the two sheets of material, the fastening device is applied as follows:

Along the edges of the material a series of perforations is made which are spaced from the edge thereof for a distance corresponding to the marginal portions of one of said strips and from each other to correspond to the sockets or buttons in the fastening strips. Assuming that the sheet material A is to be fastened to the edge of the sheet material B, the sheet A is placed over the flat top of the bottom member 17, the buttons 22 vertically projecting through the perforations, that have been made in the sheet. The edge of the sheet A extends up to the beading 24 of the bottom member. The sheet B is placed similarly over the bottom member from the opposite direction so that the outer edge will extend up to the beading 15 of the top member. The metal strip 26 with the pin points extending downward, is now placed on top

of the sheet B and along the marginal portion 19 which is provided with the perforations 23 in such a manner that the pin points will be opposite to said perforations. The strip 26 is then pressed downward through the two overlapping marginal ends of the sheets A and B and will engage the perforations 23. Now the top member 10 is placed so that the sockets 16 in its lower face will register with the top of the buttons 22 of the bottom member. Pressing the top and bottom members toward each other, the cup-shaped sections 22 will be pressed toward each other so as to pass through the socket 16 of the top member on the principle of the ball-and-socket joint. It is to be remembered that the fastening strips are made of resilient metal, therefore not only will the cup-shaped members 22—22 be forced together in passing the socket 16, but also the portions 13—13 of the top member, along the median line of which said sockets are located, will bend upwardly, thereby slightly enlarging the size of the socket 16 and enabling the buttons to pass therethrough.

From the foregoing description, it will be seen that I have devised an extremely simple yet efficient device for fastening two or more sheets of material together, which may be easily applied thereto and removed therefrom. The overlapping ends of the sheets of material are entirely covered by the fastening strips and are wholly invisible. The meeting edges of the top and bottom members being provided with oppositely extending beadings 15 and 24, respectively, will clamp the sheets of material between them and form a tight joint.

In Fig. 8 I have shown a modified fastening device in which a separate strip of metal 28, provided with pointed button members 22' is held in place by crimping the edges of said member over the edges of the strip 28. This shape of the buttons avoids the necessity of perforating the sheets of material to be joined together, as the points will puncture said sheets when the top and bottom members of the fastening device are firmly pressed together.

I claim:

1. A device for fastening the overlapping edges of sheets of material together to form an invisible seam, comprising a member made of a longitudinal resilient strip of metal having its marginal portions bent to form a flat base, a series of apertures spaced at regular intervals along the median line of said base, a second member made of a longitudinal resilient strip of metal having its marginal portions bent to form a flat face, a series of bottom members along the median line of said face and adapted to engage the apertures in the said first named member, the face of said second member being provided with a series of spaced perforations,

and a strip of metal interposed between said members and provided with pin points adapted to engage said perforations.

2. A device for fastening the overlapping edges of sheets of material together to form an invisible seam, comprising a member made of a longitudinal strip of metal having a flat base, a series of apertures spaced at regular intervals along a straight line in said base, a second member made of a longitudinal strip of metal having a flat face, a series of button members therein adapted to engage said apertures, one of said members being provided with a series of spaced perforations, and a strip of metal interposed between said members and provided with a series of pin points adapted to engage said perforations.

3. A device for fastening the overlapping edges of sheets of material together to form an invisible seam, comprising a member made of a longitudinal strip of metal having a base portion provided with a series of apertures therein, a second member made of a longitudinal strip of metal having a face provided with a series of button members adapted to engage said apertures, one of said members being provided with a series of perforations, and means interposed between said members and adapted to pierce the overlapping edges of the sheets of material and to engage said perforations.

4. A device for fastening the overlapping edges of sheets of material together to form an invisible seam, comprising a longitudinal member having a series of apertures in longitudinal alinement, a longitudinal second member having a series of button members adapted to engage said apertures, one of said members being provided with a longitudinal series of perforations, and means interposed between said members adapted to pierce the sheets of material between said members and to engage said perforations.

5. A device for fastening the overlapping edges of sheets of material together to form an invisible seam, comprising a longitudinal member having a flat face provided with a series of apertures, and a second member provided with a series of resilient button members adapted to engage said apertures, each of said members being formed of one plate of metal having its longitudinal edges bent upon the central portion thereof adjacent to each other, said apertures and said button members being formed along said adjacent edges.

6. A device for fastening the overlapping edges of sheets of material together to form an invisible seam, comprising a longitudinal member having a flat face provided with a series of apertures, and a second member having a series of button members adapted to engage said apertures, each of said members being formed of one plate of metal having its longitudinal edges bent upon the central portion thereof adjacent to each other, said apertures and said button members being formed along said adjacent edges.

7. A device for fastening the overlapping edges of sheets of material together to form an invisible seam, comprising a pair of longitudinal fastening members, each having a flat face adjacent to and parallel with the flat face of the other, locking means on one of the members, locking means on the other member, said means cooperating with each other to lock the sheets of material interposed between said members in position, each of said fastening members being formed of one plate of metal having its longitudinal edges bent upon the central portion thereof and adjacent to each other, said locking means being formed along said adjacent edges.

In testimony whereof I have signed my name to this specification.

CARRIE E. TAYLOR.