March 15, 1960 D. I. REITER 2,928,153

PRONG ANCHORING AND HIDING CONSTRUCTION

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FIG. 1.
PRIOR ART

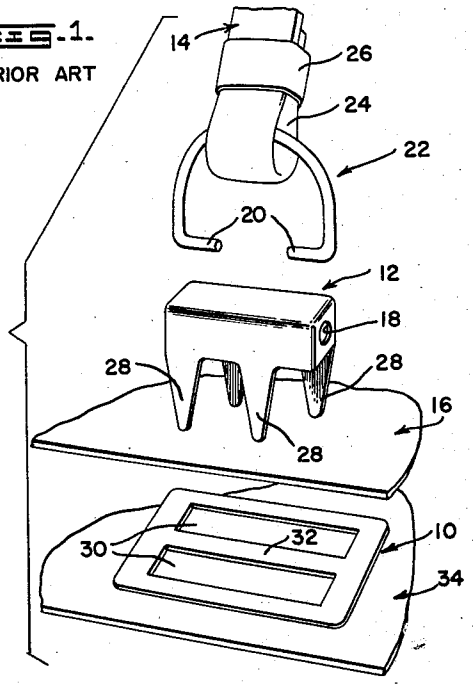


FIG. 3.

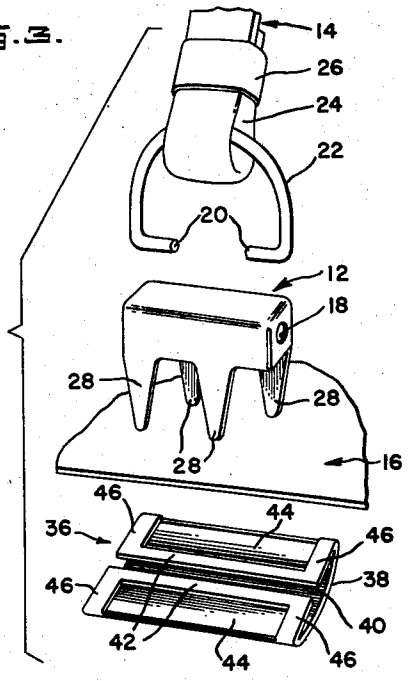


FIG. 2. PRIOR ART

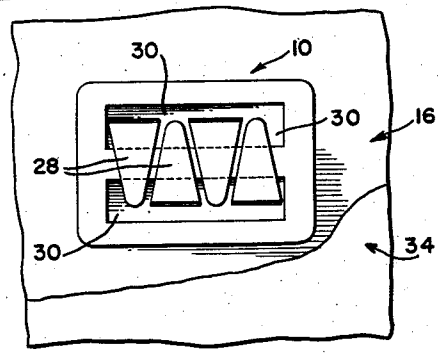
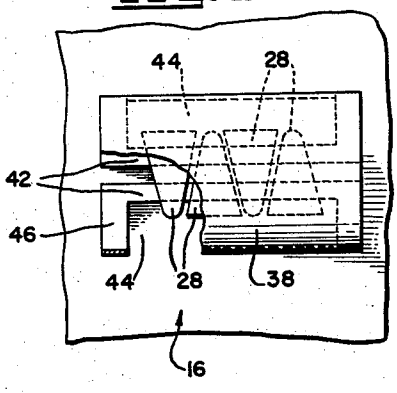


FIG. 4.



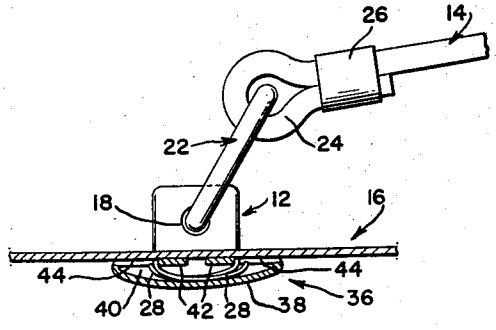


FIG. 5.

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FIG. 6.

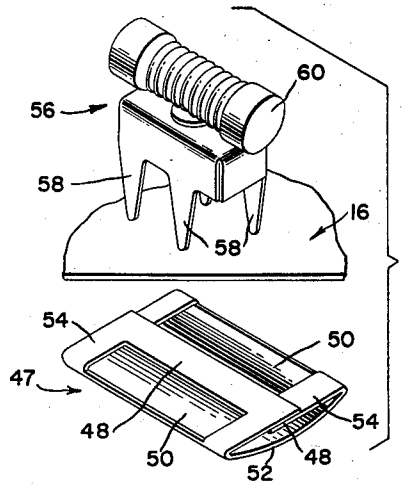


FIG. 7.

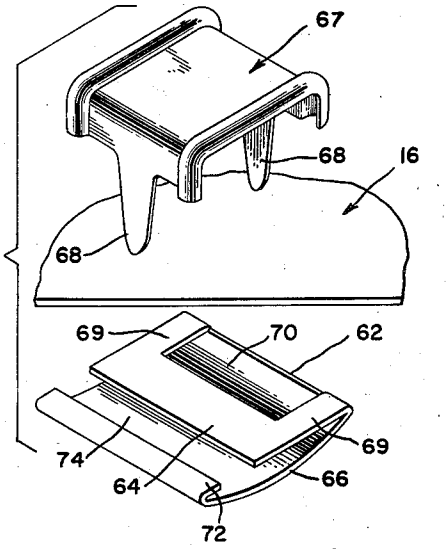


FIG. 8.

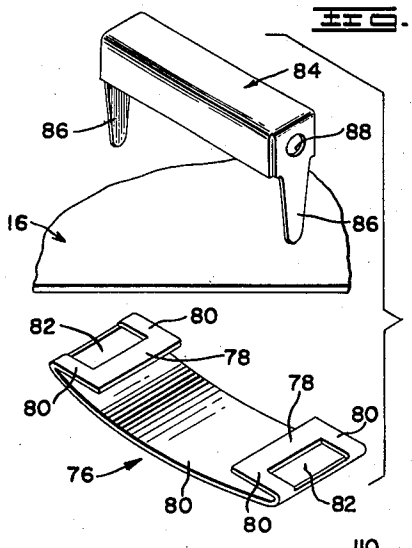


FIG. 9.

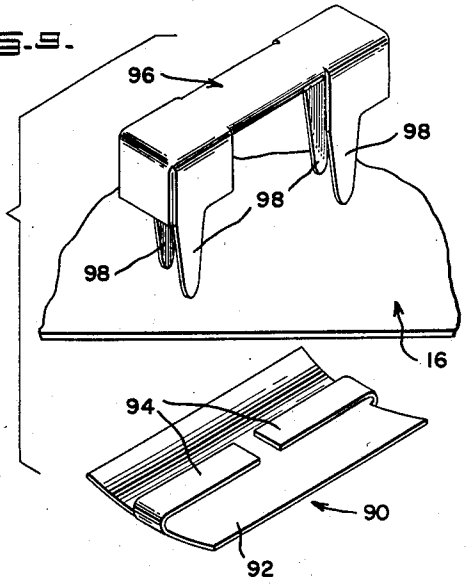
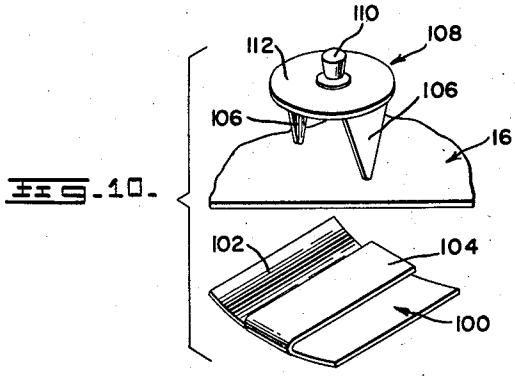


FIG. 10.



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PRONG ANCHORING AND HIDING CONSTRUCTION

Daniel I. Reiter, New York, N.Y.

Application August 19, 1958, Serial No. 755,983

7 Claims. (Cl. 24—150)

This invention relates to the anchoring and hiding of the prongs of fasteners, connectors or other body members, and more particularly is concerned with the anchoring and hiding of the prongs of body members of the type which serve as fasteners for handles, locks, ornaments, or decorations attached to sheets or panels, such as those of which ladies' handbags are comprised.

In the making of ladies' handbags or the like, it is common practice to pass the prongs of some body member through the outer layer of handbag material to the interior of the bag, where the prongs are bent back against the inner surface of the material to anchor them. To strengthen the attachment of the body member to the handbag material it is common practice to employ some form of washer, usually a plate which is placed against the inner surface of the outer layer of material and which has openings through which the prongs pass when they emerge from the outer layer. The prongs are then bent back against the inner side of the washer. The washer serves to anchor the prongs of the body member, and at the same time the prongs serve to hold the washer.

In most of the handbags manufactured heretofore an inner lining is provided which covers the washers and the exposed prongs and hides them from view. More recently, however, there has been a tendency toward the manufacture of handbags which do not include an inner lining, particularly in the less expensive handbags. When prong anchoring devices of the foregoing type are employed in such bags, the prongs and washers remain exposed inside the bag, detracting from the appearance of the bag interior as well as providing sharp projections which may snag or tear delicate articles. There has accordingly been reluctancy among manufacturers to employ such fasteners in bags having no linings.

It is a principal object of the present invention to provide unique devices for anchoring and hiding the prongs of body members so that when such members are employed, as in handbags having no linings, a smooth inner surface will result.

A further object of the invention is to provide prong anchoring and hiding devices which are economical and simple to use.

An additional object of the invention is to provide devices of the foregoing type which are versatile and can be employed with a wide range of body member types.

Yet another object of the invention is to provide improved methods of attaching pronged body members to sheets or panels.

The foregoing and other objects, features, and advantages of the invention and the manner in which the same are accomplished will become more readily apparent upon consideration of the following detailed description of the invention when taken in conjunction with the accompanying drawings, which illustrate preferred and exemplary embodiments and wherein:

Figure 1 is an exploded view of a device of the prior art;

Figure 2 is a plan view, partially cut away, of the same device shown with the parts assembled;

Figure 3 is an exploded view illustrating the use of one form of the device of the invention;

Figure 4 is a plan view, partially broken away, illustrating the same device as it appears when assembled;

Figure 5 is a sectional view illustrating a device of the invention when assembled;

Figure 6 is an exploded view illustrating another form of the invention;

Figure 7 is an exploded view illustrating a further form of the invention;

Figure 8 is an exploded view illustrating an additional form of the invention;

Figure 9 is an exploded view illustrating still another form of the invention; and

Figure 10 is an exploded view illustrating yet another form of the invention.

Briefly stated, the invention concerns a device having a plate that is shaped to form a depression, the depressed surface of the plate being sloped to deflect and bend the sheet-penetrating prongs of a body member, so that the prongs are deflected into the space between the depressed surface and an anchoring member which faces the depression. In a preferred form, the anchoring member is constituted by bending the plate back upon itself to form an anchoring surface spaced from the depressed surface, a suitable passage or passages being provided adjacent the anchoring member to permit the prongs to pass into the space between the surfaces.

Referring to the drawings, and initially to Figures 1 and 2 thereof, a common form of prior art construction includes a flat washer **10** employed in conjunction with a box-like body member **12** for securing the handle **14** of a ladies' handbag to the outer layer of handbag material **16**. The box-like member **12** has openings **18** at its opposite ends (one being shown) which receive the aligned extremities **20** of a ring **22**. The ring passes through a loop **24** formed at the end of the handle **14**, as by folding the handle back upon itself and clamping the juxtaposed handle layers with a decorative metal clamp **26**. The extremities **20** of the ring **22** may be forced apart to permit their insertion in the openings **18** of the body member **12**.

The body member **12** is attached to the layer of bag material **16** by passing a plurality of prongs **28** of the body member through the material **16** and through openings **30** formed in the washer **10** and aligned with the prongs at the respective sides of the body member. In the form shown the prongs are staggered, so that after they are passed through the openings **30**, the prongs on one side may be bent toward and pass beside the prongs on the other side, and each prong may embrace the anchoring bar **32** as shown in Figure 2. The assembly of prongs and washer is then covered by the lining **34** which forms the inner surface of the handbag, the lining being broken away in Figure 2 to show the prong and washer relationship.

This construction works well when the handbag has a lining, but if the lining is omitted, the prongs **28** and washer **10** detract from the interior appearance of the handbag. The present invention provides the same positive anchorage of the prongs that is present in Figures 1 and 2 and yet hides the prongs from view.

As shown in Figures 3 and 4 in accordance with one form of the invention, the lining **34** is omitted and a novel device **36** replaces the washer **10**. The device **36** comprises a plate or wall member **38** that is shaped to form a depression **40**. In the construction shown, the depression is constituted by curving the wall of the plate so that one surface thereof forms a concavity. The curvature may be generally cylindrical. The device also includes anchoring members in the form of spaced bars **42** which are on the concave side of the plate so as

to face the depression 40 and are spaced from the central portion of the wall member 38. The bars 42 are substantially parallel and extend generally perpendicular to the plane of curvature of the plate 38. Thus if the curvature is cylindrical, the bars 42 are substantially parallel to the axis of the cylinder. Beside each bar is an opening or passage 44, the edges of the openings being defined by the bars 42, the extremities of the wall member 38, and by bar supporting portions 46 which extend from such extremities. In practice, the device 36 may be formed from a flat rectangular strip from which the openings 44 are punched out. Portion 38 may be depressed at the same time that the openings 44 are formed, and the ends of the strip may then be folded over along an edge of the openings 44 to form the configuration shown.

In using the device 36 to anchor and hide the prongs 28, a typical body member 12 is located in its proper position relative to the layer of handbag material 16, and the device 36 is aligned with the body member so that the prongs 28 on each side of the box are aligned with the respective openings 44. The body member 12 is then moved toward the adjacent side of layer 16 so that the prongs 28 penetrate the layer and emerge from the other side. Usually the holes in layer 16 for the prongs 28 are formed by the prongs themselves, but preformed holes could be used.

When the prongs emerge from the other side of layer 16, they pass through the respective openings 44 of the device 36 which is adjacent the said other side of the layer 16. Continued movement of the prongs toward the device 36 causes the prongs to engage the concave surface of the wall member 38. The surface of the wall member 38 slopes away from the sheet 16 in the direction of the central portion of the wall member over which the anchoring members 42 are located. On opposite sides of the anchoring members 42 the surface of wall member 38 has opposite slopes which merge at the central portion of the wall member. As shown in Figure 5, the engagement of the prongs 28 with these slopes bends the prongs on opposite sides of the body member toward each other and deflects them into the space between the anchoring bars 42 and the central portion of the wall member 38. Normally, the body member 12, layer 16, and the anchoring device 36 are assembled by placing the body member and the anchoring device in the opposing jaws of a press with layer 16 intervening, and the force exerted on the prongs 28 when the jaws are closed to engage the prongs with wall member 38 is sufficient to cause the prongs to bend laterally and at the same time to curve back toward the sheet 16 and away from the wall member 38. Each prong then embraces the spaced bars 42, and the anchoring of the body member 12 also serves to affix the anchoring device 36 to the layer 16. The curved wall member 38 hides the anchored prongs from view and presents a smooth, continuous exposed surface. Figures 4 and 5 illustrate the positions of the parts after assembly.

Figure 6 illustrates another form of the invention. The anchoring device 47 of Figure 6 is similar to the device 36 of Figure 3. It includes anchoring bars 48, passages 50, a curved wall member 52, and bar supporting portions 54. In this form the anchoring bars 48 are wider and overlapping. Whether the bars are spaced as shown in Figure 4, overlapped as shown in Figure 6, or made abutting, may depend upon the distance between the prongs on opposite sides of the associated body member and upon the width of the bars themselves. Of course, the blanks from which the devices 36 and 47 are formed could be made to accommodate different prong spacings by varying the locations of the lines about which portions 54 are bent, but to simplify the bending it is desirable that the lines of bending lie along an extremity of the passages 44 or 50.

To illustrate the use of the devices of the invention with different types of body members the device 47 of Figure 6 is shown in association with a turn lock 56 of conventional form, the turn lock having the same boxlike configuration as the body member of Figures 1 and 3, having the same depending staggered prongs 58, but replacing the openings 18 by a short rod 60 which turns about a perpendicular pivot (not shown) and which usually is spring biased against the adjacent surface of the boxlike body member. Such a turn lock normally cooperates with a slotted mating part to hold the handbag closed.

In the form of the invention shown in Figure 7, the anchoring device 62 has a single anchoring bar 64 spaced above the curved wall member 66 and held by supporting portions 69. These elements and the passage 70 correspond to the similar elements previously described. The device of Figure 7 is asymmetrical, however, the other extremity of the wall member 66 being bent over to form a lip 72 or simply terminated without the lip. The space 74 between the lip 72 and the bar 64 constitutes another passage through which prongs may pass to engage the wall member 66. The anchoring bar 64 is even wider than those previously described, and while the device of Figure 7 may be employed with staggered prong body members such as those previously described, it is also illustrative of the use of the invention with body members having prongs that are in alignment.

The body member 67 of Figure 7 is generally U-shaped and may be employed to grip the end of a handle passed between the body member and the outer panel 16 of the handbag. When the body member 67 is moved toward the anchoring device 62 with the panel 16 intervening, the prongs 68 will penetrate layer 16 and engage the sloping surface of the wall member 66 on opposite sides of the central portion over which bar 64 lies. They will then be bent toward each other as before. If the prongs are long, and thin enough, they will simply overlap under the bar 64. Otherwise, they will simply meet under the anchoring bar.

Figure 8 illustrates another form of the invention which is similar to that of Figure 3 except that in this form of anchoring device 76 the bars 78 are widely spaced and the curved edges of the wall member 80 are longer than the straight edges. Here again, however, the bars 78 are supported on members 80 and are adjoined by passages 82. This form of the invention is most useful with body members, such as the member 84 illustrated or the member 67 of Figure 7, wherein the prongs 86 are located at the opposite ends of the body member. Body member 84 may be similar to that of Figures 1 and 3 in having a hole 88 which may receive a ring for connecting a handle. In using the invention of Figure 8, the anchoring device 76 and the body member 84 are brought together on opposite sides of the layer 16, and when the prongs pass through the passages 82 and engage the sloping surface of the wall member 80, they are bent toward each other and around the anchoring bars 78.

Figure 9 illustrates still another form of the invention. In accordance with this form the anchoring device 90 has a curved wall member 92 as before, but the anchoring bars 94 are supported from the curved edges of the wall member. The device 90 may be stamped from a flat plate, a curvature being imparted to the wall member 92, and the bars 94 may then be bent over the wall member and spaced therefrom as shown. The free ends of the bars may be spaced as shown, may abut, or may overlap. The width of the bars may be varied to accommodate different prong spacings of the body member, a body member 96 with staggered prongs 98 being shown for illustration. This conventional form of body member is box-like but has a central portion cut away to permit the passage of a wide ring or the end of a strap or handle. The action of the prongs 98 in penetrating the layer 16 and the action of the anchoring device 90 in

deflecting the prongs and bending them under and around the bars **94** are the same as previously described.

An anchoring device **100**, similar to that of Figure 9, but simpler, is illustrated in Figure 10. In this figure the device **100** has a curved wall member **102** as before, but a single anchoring bar **104** extending from a curved edge of the wall member replaces the pair of bars shown in Figure 9. This bar may be wider than bars **94** so as to accommodate a pair of aligned prongs **106** which form part of a body member **108**. For illustrative purposes the body member **108** is shown as the male portion of a snap fastener and has a stud **110** extending from a disk **112**, the stud being received in a mating recess of the female snap fastener portion. Here again, when the body member **108** is moved toward the anchoring device **100**, the prongs **106** penetrate the sheet **16** and engage the wall member **102**, being deflected thereby and bent under the anchoring bar **104**, the action being similar to that described in connection with Figure 7.

From the foregoing description of the invention it will be apparent that the invention provides unique devices and methods for anchoring and hiding the prongs of pronged body members. While within the broader aspects of the invention the details of the invention may vary as to number of anchoring members, width of anchoring members, spacing and location of anchoring members, support of anchoring members, and shape of the wall member, for example, in each form of the invention the prongs are securely anchored and are hidden from view. The versatility of the invention is evident from the fact that an anchoring device of a chosen type may be used with many types of body members. It will therefore be appreciated by those skilled in the art that changes can be made in the embodiments shown and described without departing from the principles and spirit of the invention, the scope of which is defined in the appended claims. Accordingly, the foregoing embodiments are to be considered illustrative, rather than restrictive of the invention, and those modifications which come within the meaning and range of equivalency of the claims are to be included therein.

The invention claimed is:

1. A one piece device for anchoring the layer-penetrating prongs of a body member and for hiding said prongs from view comprising a wall member having a sloping surface adapted to face the side of said layer opposite the side from which said prongs enter and to engage and bend the emerging prongs, said surface sloping away from said layer at the points at which the surface engages said prongs, to determine the direction of prong bend, said device being folded back upon itself from opposite extremities of said wall member to provide anchoring means spaced from a portion of the surface of said wall member for holding said wall member in place over said prongs, said anchoring means being attached to opposite extremities of said wall member and being integral therewith, said device having prong passages adjacent said anchoring means to permit said prongs to engage and be deflected by said wall member into the space between said wall member portion and said anchoring means.

2. A device for anchoring and hiding the layer-penetrating prongs of a body member, comprising a wall member adapted to be located adjacent the layer where the prongs emerge therefrom and to engage and bend said prongs, said wall member having a surface facing said prongs and sloping away from said layer at the points at which said surface engages said prongs, said device being folded back upon itself from opposite extremities of said wall member to provide a pair of anchoring members attached to and integral with said wall member at opposite extremities thereof and spaced from a portion of said wall surface, said device having prong passages adjacent said anchoring members to permit said prongs to engage and be deflected by said wall member into the space between said wall member portion and said anchoring members.

3. A prong anchoring and hiding device comprising a unitary plate having a curved depression forming wall portion, said plate being bent back upon itself from opposite extremities thereof to form prong anchoring portions facing and spaced from the depression forming wall portion, said plate having a prong passage formed adjacent one side of said anchoring portions to permit prongs to pass into the space between said anchoring and depression portions.

4. The invention of claim 2, wherein said anchoring members comprise bar members extending toward each other from opposite ends of said wall member.

5. The invention of claim 2, wherein said anchoring members comprise two bar members substantially parallel to each other.

6. A prong anchoring and hiding device comprising a cylindrically curved depression forming wall portion, said wall portion having integral therewith an elongated bar of appreciably smaller transverse dimension than said wall portion bent back from one extremity of said wall portion and spaced from and facing the central region of the wall portion with its length extending in a direction substantially parallel to the axis of cylindrical curvature of said depression forming wall portion to form a prong anchoring portion, said device having open space along the length of the side edges of said bar and between said edges and corresponding wall portion edges whereby prongs spaced greater than the transverse dimension of the bar may be forced around opposite sides of said bar to engage said wall portion and be deflected thereby under said bar.

7. A prong anchoring and hiding device comprising a curved depression forming wall and an elongated bar facing and spaced from the depression forming wall, said bar being formed integrally with bar supporting strips integral with and bent back from one extremity of said wall, said strips joining the ends of said bar to said wall extremity and being spaced to provide a prong passage between said strips and between said bar and said wall extremity, said bar and said strips forming a substantially U-shaped extension of said wall extremity, and said bar being separated by unobstructed space from the opposite extremity of said wall, whereby prongs may be forced around opposite sides of the bar through said passage and said space, respectively to engage said wall and be deflected thereby under said bar.

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