

Nov. 30, 1948.

S. DARVIE ET AL

2,455,236

CLASP

Filed Sept. 19, 1946

2 Sheets-Sheet 1

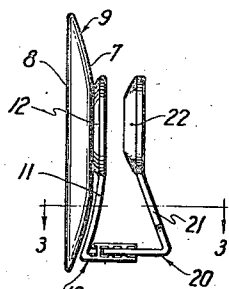


Fig. 1.

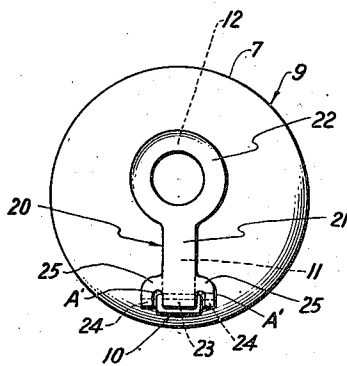


Fig. 2.

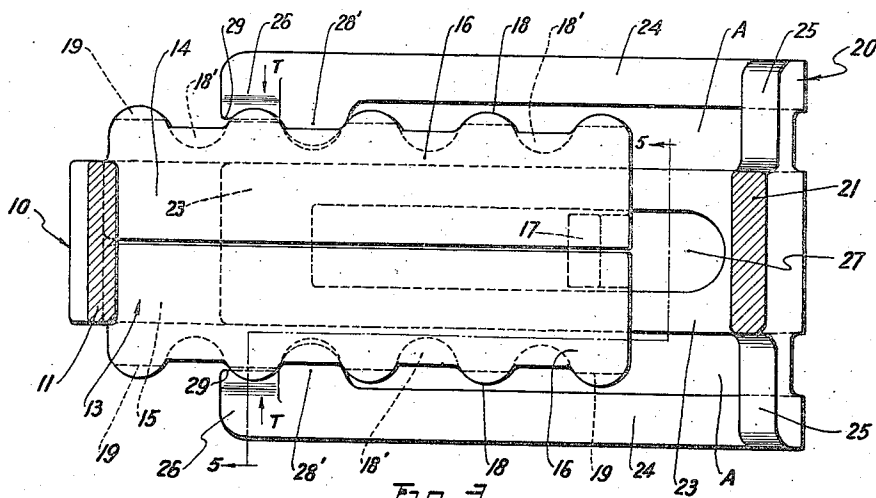


Fig. 3.

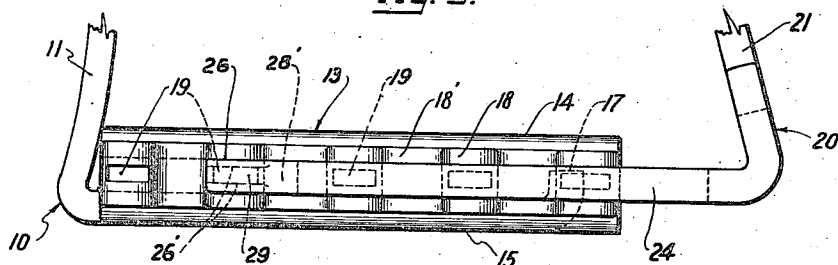


Fig. 4.

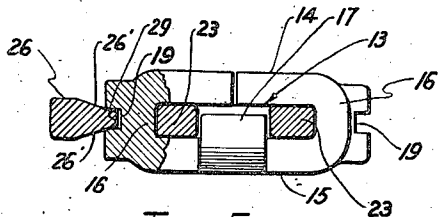


Fig. 5.

INVENTORS
SAMUEL DARVIE
IRVING DARVIE
SAMUEL PEARLMAN
BY *Ed. P. Bruck*
ATTORNEY

Nov. 30, 1948.

S. DARVIE ET AL

2,455,236

CLASP

Filed Sept. 19, 1946

2 Sheets-Sheet 2

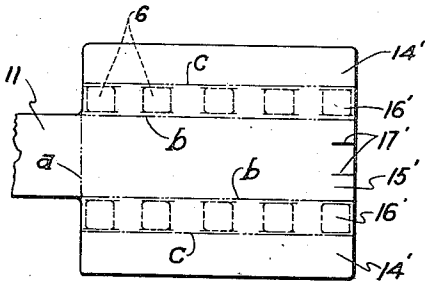


Fig. 6.

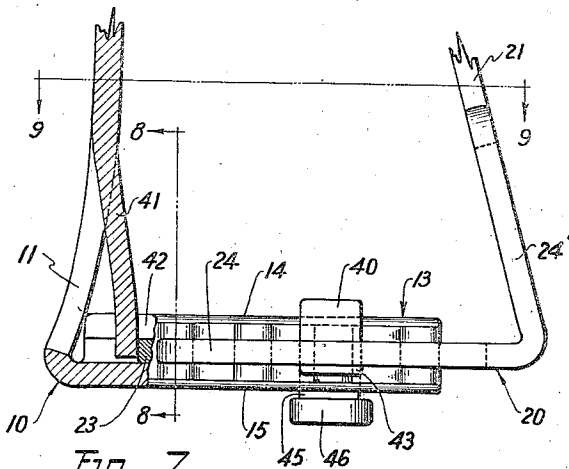


Fig. 7.

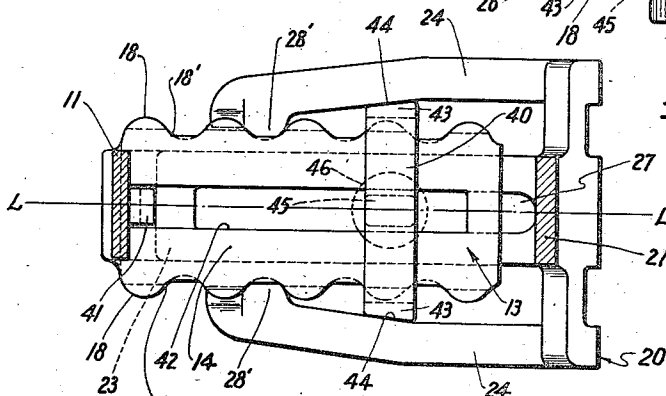


Fig. 9.

Fig. 8.

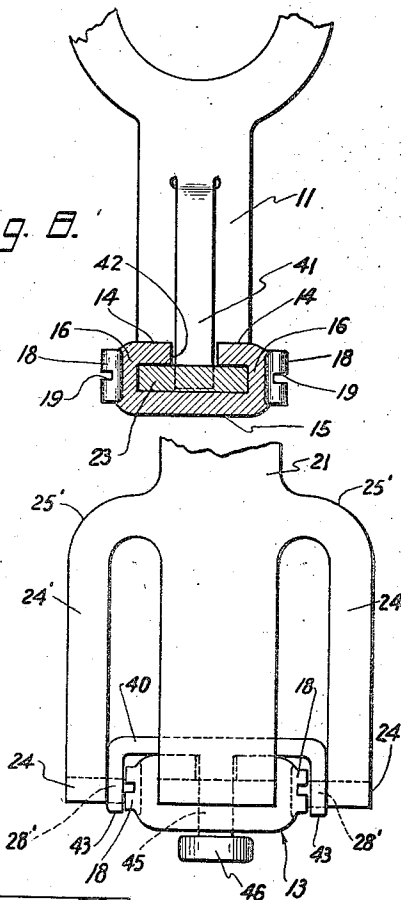


Fig. 10.

INVENTORS
SAMUEL DARVIE
IRVING DARVIE
SAMUEL PEARLMAN
BY *E. P. Pearson*
ATTORNEY

UNITED STATES PATENT OFFICE

2,455,236

CLASP

Samuel Darvie, Irving Darvie, and Samuel
Pearlman, New York, N. Y.

Application September 19, 1946, Serial No. 697,984

12 Claims. (Cl. 24—206)

1

This invention relates to clasps or attaching means for jewelry and other articles, for example, a clasp for earrings, a clasp for attaching a brooch to a garment, a clasp for fastening a shoe ornament, etc.

The object of the invention is to provide a clasp of the class described which will be simple and comprised of parts sufficiently small as to be adapted for use in jewelry and similar articles, and which can be quickly and easily attached and removed and which will at the same time securely hold the jewelry or other article in place. An allied object is to provide a clasp having the foregoing features which will be economical to manufacture.

A more specific object of the invention is to provide a clasp for earrings which, in addition to the above enumerated features, will present wide bearing areas between which the ear is interposed, so that the pressure will be distributed over a relatively wide area of the ear. As a result, the earring will be more comfortable and the improved clasp will leave no mark or soreness on the ear; the greater bearing area will also assure a higher degree of securement. The size of the bearing areas made possible in the improved clasp of this invention is greater than when "screw backs" or similar bulky fastening means are used.

For the attainment of the foregoing and such other objects of invention as may appear or be pointed out we have shown two embodiments of my invention in the accompanying drawing; wherein

Figure 1 is a side view of the improved clasp of our invention, as applied to an earring;

Figure 2 is a rear view thereof;

Figure 3 is a top view of the improved clasp, on enlarged scale, taken on the line 3—3 of Figure 1;

Figure 4 is a side view of the clasp shown in Figure 3;

Figure 5 is a section through the clasp of Figure 3, taken substantially on the lines 5—5 of Figure 3;

Figure 6 is a top view of the blank from which the socket part of the improved clasp is formed;

Figure 7 is a side view, partially in section, of a modified form of the invention;

Figure 8 is an elevational section taken on the line 8—8 of Figure 7;

Figure 9 is a top view taken on line 9—9 of Figure 7; and

Figure 10 is an end or rear view, taken from the right of Figure 7.

2

The improved clasp of this invention is for convenience described and illustrated as applied to an earring, but it will be apparent that the invention is equally applicable to clasps for other articles of jewelry and to other articles. The earring is shown in Figures 1 and 2 in the form of an ornamental disc 9, the front face 3 of which, i. e., the face which is exposed when attached to the ear, is slightly concaved. To the convex rear surface 7 of the ornament is secured a member 10 of the clasp which, for reasons soon apparent, will be referred to as the "socket member." Socket member 10 has a vertical strip 11 which terminates at its upper end in a ring 12. Ring end 12 of the socket member is disposed centrally of ornament disc 9 or, as shown in Figures 1-2, at a point somewhat above the center of disc 9. Cooperative with socket member 10 is a slide member 20 which is mounted on or in the socket member 10 for a limited extent of movement, left-and-right, Figure 1. Slide member 20 likewise has a vertical strip 21 which also terminates at its upper end in a ring 22, which is aligned with ring 12 of socket member 10. It is understood that the ear is interposed between rings 12, 22 and the slide member 20 moved leftwardly, Figure 1, or towards the socket member 10, to attach the clasp to the ear.

The manner of mounting slide member 20 on socket member 10 to enable the said movement of slide member 20 and the manner of holding the two members in adjusted position, will now be described with particular reference to Figures 3, 4, and 5. Vertical strip 11 of socket member 10 uprises at the closed end (leftward, Figures 3, 4) of a flat tubular portion 13 of the socket member; tubular portion or socket 13 has a top plate or panel 14, a bottom panel 15 and side panels 16, 16. The right end, as viewed in Figures 3, 4, of socket 13 is open. Socket or tubular portion 13 and vertical strip 11 are formed of a single piece or blank, as shown in Figure 6, where the panel which forms the bottom 15, see Figure 5, is designated 15' and is disposed centrally of the blank. The bottom panel 15' is of the same width as the vertical strip 11 and forms a juncture therewith on the line *a*. On either side of bottom panel 15' on lines *b*, *b* are narrow panels 16', 16' which form the sides 16, 16, Figure 5. And beyond side panels 16', 16' and on lines *c*, *c* are half panels 14', 14' which together form the top 14, Figure 5. The panels of the blank are folded on lines *b*, *c*, Figure 6, to form the socket portion 13, see Figure 5. The strip 11 is folded or bent upwardly on line *a*, Figure 6; because of the equal width of strip 11

and bottom panel 15', the vertical strip 11 is effective when bent on line *a* to close the left end, Figures 3, 4 and 6, of the socket portion.

Slide member 20 is also formed of a single piece or blank (not shown). Its vertical strip 21 is of the same width as a slide strip 23 which is slidably received within socket 13 of member 10. Slide strip 23 is advanced into, or withdrawn from, socket 13 to adjust the space between rings or bearing areas 12, 22. To maintain members 10 and 20 in this associated relation and to prevent separation of the two, slide strip 23 has an elongated slot 27, in which is slidably received a lug 17 tongued out of the bottom panel 15, see Figure 5, of socket member 10; bottom panel 15' of the blank, Figure 6, is slitted at 17' preparatory to forming lug 17. It will be evident that lug 17 is turned upwardly after slide strip 23 is inserted within socket 13. The abutting edges 14', see Figure 5, of the top half-panels 14, 14 may be soldered or otherwise united.

Slide member 20 has a pair of fingers 24, 24, one on each side of socket 13, see Figure 3. As best shown in that figure, the side fingers 24, 24 and the central or slide strip 23 of slide member 20 are shown to be substantially of the same length and that the side fingers 24, 24 and central slide 23 all project forwardly from the vertical strip 21 of the slide member. Near its lower end, i. e., somewhat above its junction with slide strip 23, the vertical strip 21 has lateral extensions 25 which constitute the integral connection between fingers 24, 24 and vertical strip 21. The space between central strip 23 and side fingers 24, 24 is designated A, A in Figure 3. It will be observed from Figure 2 that the aforementioned lateral extensions or junctures 25, 25 are at a point above the horizontal central strip 23 and horizontal fingers 24, 24; so that the aforesaid space A between the horizontal strip 23 and finger 24, Figure 3, appears in Figure 2 at A', A' between vertical strip 11 and the vertical portions of fingers 24, 24.

The distal end of fingers 24, 24 is provided with a curved, inwardly-directed, protuberance 28' which is receivable in the grooves or dales 18' of serrations 18 formed along the sides 16, 16 of socket or flat tubular portion 13 of the socket member 10, Figure 3. Protuberances 28', 28' fit snugly in serrations 18 and are effective to hold the slide member 20 in any adjusted position at a particular pair of aligned grooves or dales 18' of the serrations on the sides of the socket member. By grasping the slide member 20 it can be pulled outwardly (to the right, Figures 3, 4) or pushed inwardly (to the left), the protuberances 28', 28' moving outwardly to clear the serrations 18. The fingers 24, 24, by reason of the material and the length and width of the arms, have sufficient resiliency to permit their distal ends to spring outwardly and enable their protuberances to pass over the serrations. The resiliency of fingers 24 is enhanced by increasing the length of the fingers, as has been done by placing the juncture extensions 25, 25 at a point above the horizontal portions of the fingers and horizontal central strip 23, see Figure 2.

The protuberance 28', which extends (vertically) for the entire thickness of arm 24, Figure 4, is not at the extreme end of the arm 24 but is adjacent to a tip portion 26 which is at the extreme end of the arm. Tip portion 26 is tapered or beveled at its top and bottom surface, 26', 26', Figure 5, towards a central, horizontal knife edge 29. The tapering of tips 26, 26 is

inwardly, towards serrations 18 of the socket member, as indicated by arrows *t, t*, Figure 3. As best seen in that figure, knife edge 29 of tip 26 does not extend inwardly to the extent that the curved protuberance 28' does; that is, knife edge 29 does not reach to the depth of the dales or grooves 18' of the serrations. A horizontal, central slit 19 is incised along serrations 18; as best seen in Figure 5, the knife edge 29 is received within slit 19. By reason of this sliding engagement of the knife edge 29 of the tip ends 26, 26 of the fingers, the distal ends of fingers 24, 24 are maintained in proper position relative to the socket portion 13, so that protuberances 28' will be in cooperative relation to serrations 18 of the socket member.

The serrations 18 are conveniently formed in the side panels 16, 16 prior to the folding of the blank, Figure 6. The side panels 16', 16' of the blank are punched by a gang of spaced punch rams 6, Figure 6, which are disposed at the points where the grooves or dales of the serrations are to be located. This punching operation causes grooves at these spaced points and a swelling of the metal between these spaced points, to form the hills of the serration. After this punching operation, side panels 16', 16', Figure 6, are incised to form the slit 19, Figures 3-5. Thereafter, the blank is folded into the socket member 20, as described above.

The modified form of the invention shown in Figures 7 to 10 has similar socket member 10 with vertical strip 11, socket portion 13 with upper panel 14 and bottom panel 15, slide member 20 with vertical strip 21, fingers 24, etc. The clasp of Figures 7 to 10 is provided with means which tends to force slide member 20 outwardly, to the right as viewed in Figure 7, away from the socket member 10 (i. e., to separate the bearing rings 12, 22, Figure 1). For this purpose, a tongue 41 is slitted and tabbed from vertical strip 11, Figures 8, 7, and is caused, as by heat treatment and the manner of tonguing it out of strip 11, to exert outward spring pressure, i. e., to the right as viewed in Figure 7. The top surface or plate 14 of the socket member 10 has a central, longitudinal slot 42 through which the distal end of spring tongue 41 clears to reach the interior of the socket. The distal end of spring tongue 41 abuts against the end of central strip 23 of the slide member 20 causing the latter to tend to move outwardly and separate from socket member 10. This outward spring pressure exerted upon slide member 20 is normally thwarted by the reception of protuberances 28', 28' of the fingers 24, 24, in the grooves of serrations 18, 18 along the sides of the socket portion, as described above with reference to Figures 3 to 5.

The clasp of Figures 7 to 10 is further provided with means for positively withdrawing protuberances 28', 28' from the serrations 18, 18 so that slide member 20 may move relative to socket member 10. This means is a narrow transverse strip 40 disposed on the upper surface 14 of the socket portion of member 10 and provided with downwardly turned ends 43, 43, see Figure 9, disposed between serrated sides 16, 16 of socket member 10 and fingers 24, 24 of slide member 20. As clearly seen in Figure 9, the outer face of ends 43 is tapered, as indicated at 44. It will be further observed that the fingers 24 are inclined relative to the longitudinal axis L-L of the clasp and that the inclination of the fingers 24 parallels that of the tapered side 44 of transverse slide 40. Hence by shifting transverse slide 40 inwardly (to

5

the left, Figure 9) towards the tapering ends of fingers 24, where the distance between the fingers becomes progressively smaller, the ends 43, 43 of transverse slide 40 will force the fingers outwardly, thus causing protuberances 28', 28' at the ends of the fingers to be withdrawn from the serrations 18. To facilitate moving of transverse slide 40, it is provided with a nail-piece 46 which is disposed at the underside of socket portion 13, see esp. Figure 7, because the underside is exposed and accessible. Nail-piece 46 is secured at the lower end of a lug 45 which projects downwardly from transverse slide 44 and clears through the aforesaid slot 42 in top panel 14 of socket portion 13 and through the elongated slot 27 in central strip 23 of slide member 20. In order that fingers 24 have greater resilience (required by the transverse slide 40), the lateral extensions 25', 25' which form the integral juncture between the vertical portions 24', 24' of fingers 24 and vertical strip 21, are at a higher point, see Figure 10, than in the case of the form shown in Figures 3-5, where the lateral extensions 25, 25, Figures 2 and 4, are lower and not much above the horizontal fingers 24 and central strip 23.

In the above description, the invention has been disclosed merely by way of example and in preferred manner; but obviously many variations and modifications may be made therein which will still be comprised within its spirit. It is to be understood, therefore, that the invention is not limited to any specific form or manner of practicing same, except in so far as such limitations are specified in the appended claims.

We claim:

1. A clasp for an article comprising a socket member having a strip secured at one end to the said article and a socket portion at the other end of the said strip, said socket portion having wide top and bottom panels and narrow side panels, serrations formed exteriorly in the said side panels, a slide member having a strip cooperative with the said strip of the socket member for attaching the said article and a strip slidably received within the said socket portion of the socket member, said slide strip having an elongated slot, a lug tongued out of said bottom panel of the socket portion and received in said slot, said slide member having a pair of fingers one on each side of the said serrated side panels of the socket portion and provided at their distal end portions with inwardly-directed, curved protuberances cooperative with the said serrations to maintain the said slide member in adjusted position relative to said socket member.

2. A clasp for an article comprising a socket member having a strip secured at one end to the said article and a socket portion at the other end of the said strip, said socket portion having wide top and bottom panels and narrow side panels, serrations formed exteriorly in the said side panels, a slide member having a strip cooperative with the said strip of the socket member for attaching the said article and a strip slidably received within the said socket portion of the socket member, said slide member having a pair of fingers one on each side of the said serrated side panels of the socket portion and provided near their distal end portions with inwardly-directed, curved protuberances cooperative with the said serrations to maintain the said slide member in adjusted position relative to said socket member.

3. A clasp for an article comprising a socket member secured to the said article and having wide top and bottom panels and narrow side

6

panels, serrations formed exteriorly in the said side panels, a slide member slidably received within the said socket member and having an elongated slot, a lug tongued out of the said socket member and received in said slot, said slide member having a pair of fingers one on each side of the said serrated side panels of the socket member and provided at their distal end portions with inwardly-directed, curved protuberances cooperative with the said serrations to maintain the said slide member in adjusted position relative to said socket member.

4. A clasp of the class described comprising a member having a socket portion presenting top, bottom and side panels, serrations formed exteriorly in the said side panels, a slide member having a strip slidable in said socket portion and a pair of fingers one on each side of the said serrated side panels of the socket portion and provided at their distal end portions with inwardly-directed, curved protuberances cooperative with the said serrations to maintain the said slide member in adjusted position relative to said socket member.

5. A clasp for an article comprising a socket member secured at one end to the said article having wide top and bottom panels and narrow side panels, said side panels being exteriorly serrated to form alternate and aligned hills and dales, a slide member slidably received within the said socket member, said slide member having a pair of fingers one on each side of the said serrated side panels of the socket member and provided near their distal end portions with inwardly-directed, curved protuberances receivable in the said aligned serrated dales to maintain the said slide member in adjusted position relative to said socket member.

6. A clasp for an article comprising a socket member secured at one end to the said article having wide top and bottom panels and narrow side panels, said side panels being exteriorly serrated to form alternate and aligned hills and dales, a slide member slidably received within the said socket member, said slide member having a pair of fingers one on each side of the said serrated side panels of the socket member and provided near their distal end portions with inwardly-directed, curved protuberances receivable in the said aligned serrated dales to maintain the said slide member in adjusted position relative to said socket member, the said aligned serrated hills on each side panel having a central slit, and the distal ends of the said pair of fingers tapering inwardly towards a central knife edge, the said knife edges of the fingers being slidably received in said central slits through the serrated hills of the side panels.

7. A clasp for an article comprising a socket member having a strip secured at one end to the said article and a socket portion at the other end of the said strip, said socket portion having wide top and bottom panels and narrow side panels, serrations formed exteriorly in the said side panels, a slide member having a strip cooperative with the said strip of the socket member for attaching the said article and a strip slidably received within the said socket portion of the socket member, a pair of fingers one on each side of the said serrated side panels of the socket portion provided near their distal end portions with inwardly-directed, curved protuberances cooperative with the said serrations to maintain the said slide member in adjusted position relative to said socket member, said attach-

7

ing strip bending upwardly from the said slide strip of the slide member at a predetermined point, the said pair of fingers being secured to the said attaching strip at a point above the said predetermined bending point whereby the resiliency at the distal ends of the pair of fingers is enhanced.

8. A clasp for an article comprising a socket member having a strip secured at one end to the said article and a socket portion at the other end of the said strip, said socket portion having wide top and bottom panels and narrow side panels, serrations formed exteriorly in the said side panels, a slide member having a strip cooperative with the said strip of the socket member for attaching the said article and a strip slidably received within the said socket portion of the socket member, an elongated slot in the said top panel of the socket member, the said strip of the socket member being slitted to form a tongue, the distal end of which clears through the said elongated slot to contact the said slide strip and spring press the said slide member outwardly, said slide member having a pair of fingers one on each side of the said serrated side panels of the socket portion and provided at their distal end portions with inwardly-directed, curved protuberances cooperative with the said serrations to maintain the said slide member in adjusted position relative to said socket member, against the said spring tongue.

9. A clasp of the class described comprising a member having a socket portion presenting top, bottom and side panels, serrations formed exteriorly in the said side panels, a slide member having a strip slidable in said socket portion and a pair of fingers one on each side of the said serrated side panels of the socket portion and provided at their distal end portions with inwardly-directed, curved protuberances cooperative with the said serrations to maintain the said slide member in adjusted position relative to said socket member, and means for positively withdrawing the said protuberances of the pair of fingers from the serrations.

10. A clasp of the class described comprising a member having a socket portion presenting top, bottom and side panels, serrations formed exteriorly in the said side panels, a slide member having a strip slidable in said socket portion and

8

a pair of fingers one on each side of the said serrated side panels of the socket portion and provided at their distal end portions with inwardly-directed, curved protuberances cooperative with the said serrations to maintain the said slide member in adjusted position relative to said socket member, and a narrow transverse strip slidable on the said socket portion and cooperative with the said pair of fingers for withdrawing its said distal protuberances from the serrations.

11. A clasp of the class described comprising a member having a socket portion presenting top, bottom and side panels, serrations formed exteriorly in the said side panels, a slide member having a strip slidable in said socket portion and a pair of fingers one on each side of the said serrated side panels of the socket portion and provided at their distal end portions with inwardly-directed, curved protuberances cooperative with the said serrations to maintain the said slide member in adjusted position relative to said socket member, and a narrow transverse strip slidable on said socket portion and having ends disposed between said serrated side panels and side fingers and adapted to withdraw said distal protuberances of the fingers from the said serrations.

12. A clasp of the class described comprising a member having a socket portion presenting top, bottom and side panels, serrations formed exteriorly in the said side panels, a slide member having a strip slidable in said socket portion and a pair of fingers one on each side of the serrated side panels of the socket portion and provided at their distal end portions with inwardly-directed, curved protuberances cooperative with the said serrations to maintain the said slide member in adjusted position relative to said socket member, said pair of side fingers being inclined to the longitudinal axis of the said socket portion, and a narrow transverse strip slidable on said socket and having ends disposed between said serrated side panels and side fingers, said ends being tapered parallel to the said inclination of the side fingers.

SAMUEL DARVIE.
IRVING DARVIE.
SAMUEL PEARLMAN.

No references cited.