Dec. 30, 1941. D. I. REITER 2,268,224

ADJUSTABLE BUCKLE MOUNTING

Filed Feb. 27, 1941

Fig. 1.

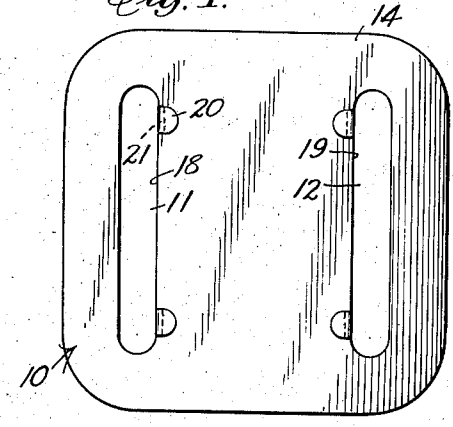


Fig. 5.

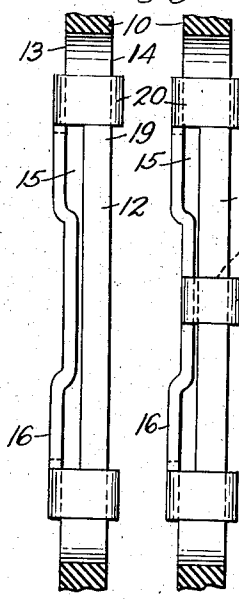


Fig. 6.

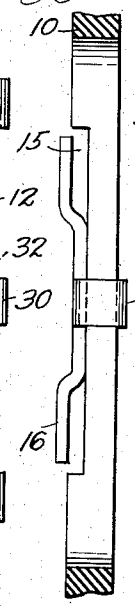


Fig. 7.

Fig. 8.

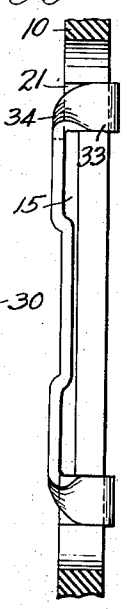


Fig. 2.

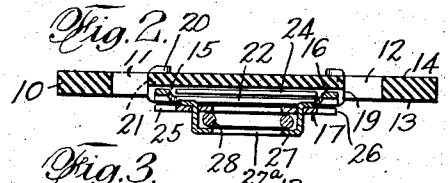


Fig. 3.

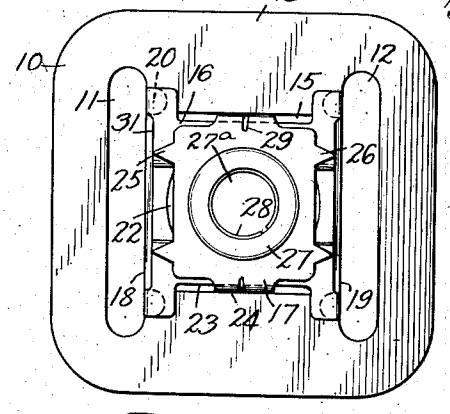


Fig. 4.

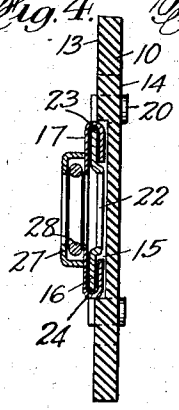


Fig. 9.

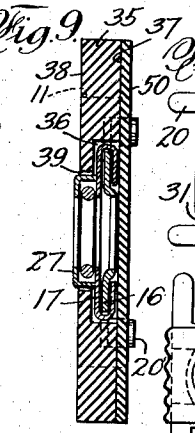


Fig. 3a.

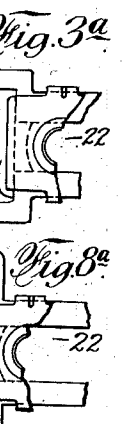


Fig. 8a.

Fig. 10.

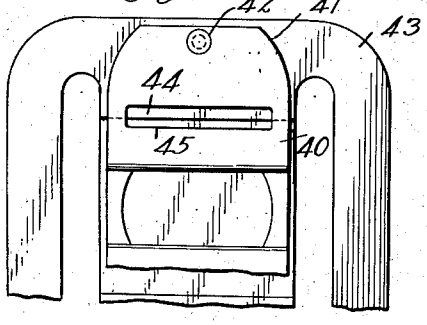
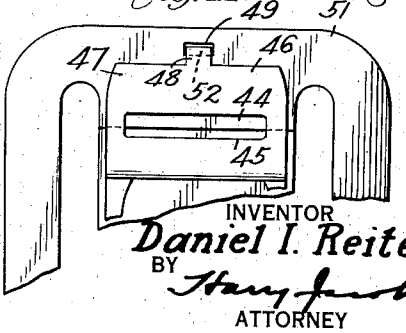


Fig. 11.



INVENTOR
Daniel I. Reiter
BY
ATTORNEY

Patented Dec. 30, 1941 2,268,224

UNITED STATES PATENT OFFICE

2,268,224

ADJUSTABLE BUCKLE MOUNTING

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

Application February 27, 1941, Serial No. 380,810

10 Claims. (Cl. 24—77)

This invention relates to slide buckles of the general type shown in my prior Patents Nos. 1,857,973 and 2,177,119.

In such buckles, a main frame slidably carries an auxiliary frame or slide which in turn optionally carries an element of a separable snap fastener. Cooperating detent means may also be provided on the frames to prevent accidental disturbance of the relative adjustment thereof.

In garments and the like, it is highly desirable that metallic securing elements such as buckles and fasteners be concealed in so far as possible to avoid a displeasing appearance.

The present invention therefore contemplates the application of metallic slide buckles such as those above referred to, to ornamental non-metallic carrying frames. Said frames may be made of suitable plastic material such as synthetic resins and the like sold under various trade-marks or names and supplied in different colors. The slide buckles are applied and secured to the plastic carrying frame in such a manner that the slide buckle is not visible when the entire assembled buckle is in use and hence does not detract from the ornamental effect of the carrying frame.

This invention further contemplates the provision of simple and economical means for effectively securing a metallic slide buckle at the back of a plastic slotted carrying frame whereby the slide buckle is substantially entirely concealed and only the ornamental plastic carrying frame is visible, but the sliding and adjusting function of the buckle and its operation is not interfered with.

The various objects of the invention will be clear from the description which follows and from the drawing, in which:

Fig. 1 is a front view of a garment buckle to which my invention has been applied.

Fig. 2 is a horizontal section of the same.

Fig. 3 is a rear view of the same showing the adjustable snap fastener slide buckle.

Fig. 3*a* is a fragmentary view of the end portion of the blank for the main buckle frame before the lugs thereof have been bent into place on to the carrying frame, the slide being shown with straight edges and without prongs.

Fig. 4 is a vertical section of the buckle of Figs. 1, 2 and 3.

Fig. 5 is a fragmentary vertical section on an enlarged scale of the carrying frame and of the main buckle frame showing the holding lugs passing through the carrying frame and bent into place.

Fig. 6 is a similar section of a modified form of the main buckle frame in which an additional middle pair of securing lugs as well as corner lugs are provided.

Fig. 7 is a similar section of a further modified form of the same in which only the middle pair of securing lugs are provided.

Fig. 8 is a similar view of another modified form of the same in which the corner lugs are first twisted into position before being bent.

Fig. 8*a* is a fragmentary view of a modified form of the main buckle frame blank showing the positions of the lugs before they have been twisted and bent, the slide being shown with serrated edges.

Fig. 9 is a vertical section of a modified form of the carrying frame wherein the frame is made of two parts between which the slide buckle is sandwiched.

Fig. 10 is a fragmentary rear view of a modified form of the garment buckle showing rivets for securing the slide buckle to the carrying buckle.

Fig. 11 is a similar view of a modified form of the securing means consisting of an end lug passed through a slot of the carrying frame.

In that practical embodiment of the invention shown in Figs. 1 to 5 inclusive, the carrying frame is of suitable nonmetallic plastic material such as moldable synthetic resin or the like and is provided with a pair of spaced slots **11** and **12** for the passage therethrough of the end part of a belt. Said belt is passed first from the rear face **13** of the carrying frame to the front face **14** thereof through the slot **11**, and then back toward the rear face through the slot **12**, a portion of the belt being visible at the front face between said slots. Preferably, a recess **15** is made in the rear face **13** for the reception of the main metallic buckle frame **16**, the recess extending between said slots and being preferably wider than the frame **16** to permit the auxiliary metallic slide **17** to slide unobstructedly on the main frame. At the respective inner edges as **18** and **19** of the slots **11** and **12** are preferably provided shallow recesses **21** for the reception of the L-shaped corner lugs **20**, each projecting from a corner of the frame **16**. As shown in Fig. 3*a*, the frame **16** is provided with a slot **22** in the forwardly depressed middle part thereof. Each of the lugs **20** initially extends parallel to the slot **22** and serves to secure the frame **16** to the carrying frame **10** when the intermediate part thereof is bent at right angles to fit tightly in its recess **21**, the end part of the lug project-

ing beyond the front face 14 being then bent on to said front face (Figs. 2 and 5). That part of the lug at the front is however, concealed from view when the buckle is in use, by the end portion of the belt passing through the slots 11 and 12.

As has been hereinbefore indicated, the recess 15 being wider than the body part of the main frame 16, there remains a space between the edge of the frame and the adjacent parallel edge of the recess. A similar space is provided at the opposite edge of the frame between said frame edge and the other edge of the recess 15. These spaces permit the mounting of the slide 17 on the frame 16 by means of the bent arms 24 each projecting integrally from the respective edges of the slide and passing over and around an edge 23 of the main frame through the space mentioned and on to the front face of said frame. The slide 17 is thereby mounted to slide along the edges 23 toward the left and right as desired and as viewed in Fig. 3. Since the arms 24 are narrower than the space between the lugs 20, enough movement of the slide is provided for to carry the prongs 25 thereof into the slot 11 or to carry the prongs 26 into the slot 12 and thereby to grip the belt passed through the slots. The slide 17 is provided with a suitable snap fastener element here shown in the form of a socket 27 having a resilient spring ring 28 and a suitable entrance opening 27a. The socket is designed to receive a cooperating snap fastener element such as a stud mounted on the other end of the belt.

Movement of the slide 17 adjusts the slide relatively to the main frame 16 in a manner adequately described in connection with my said prior Patents Nos. 1,857,973 and 2,177,119 and hence which need not be described in detail. Suitable detent means as 29 may be provided to removably hold the slide in its adjusted position in a manner fully described in said prior patents.

As shown in Fig. 6, in addition to the corner lugs 20, there may be additional lugs as 30 similar to, but somewhat shorter than the lugs 20 outstanding from each end edge 31 of the frame 16. Each of the lugs 30 similarly to the lugs 20, passes through a suitable recess as 32 in the inner edge of its adjacent slot 11 or 12, and is similarly bent on to the front face 14 of the main carrying frame to give additional securing means insuring that the buckle frame 16 is adequately held to the non-metallic carrying frame 10.

As shown in Figs. 7, however, the lugs 20 may be entirely omitted and a single pair of lugs 30 used alone without additional means or other lugs to hold the buckle frame 16 to the carrying frame 10.

In that form of the invention shown in Figs. 8 and 8a, the securing lugs 33 instead of extending in a direction parallel to the longitudinal edges of the middle slot 22 of the main frame, may initially extend, if desired, in a direction at right angles thereto. In this form of the invention, each of said lugs 33 is given a 90° twist as shown at 34 (Fig. 8) before it is passed through the recess 21 and bent on to the front face of the carrying frame. Such twisting of the lug first positions the intermediate and end parts thereof substantially parallel to the longitudinal edges of the slot 22 or in substantially the same position as the corresponding parts of the lugs 20, whereby said lugs 33 may then be bent in the manner hereinbefore described in connection with said lugs 20.

Should it be desired to conceal the major part of the metallic buckle consisting of the frame 16 and the slide 17, then the carrying frame may be made of two non-metallic parts preferably in the form of sheets as shown particularly in Fig. 9. One of the non-metallic plastic sheets as 35 is thicker than the other and is provided with an enlarged recess 36 similar to the recess 15, but extending part way through the thickness of the member 35 from the front face 37 toward the rear face 38. Through the remaining part of the thickness of the sheet 35 is made the smaller recess 39 of sufficient width to receive the socket 27 loosely. The length of the recess 39 is sufficient to permit the adjustment of the slide relatively to the main frame 16 as hereinbefore described. To hold the metallic buckle in the recesses provided therefor, the thinner sheet 50 is cemented to the sheet 35 in face to face relation, thereby closing the front of the recess 36. Belt-receiving slots 11 and 12 are made to register in both sheets as though the sheets were integral with each other. The lugs 20 may also pass through recesses in the inner edge of the belt-receiving slots in the manner above described.

It will be understood that various forms of securing means other than lugs may be employed to attach the main metallic buckle frame to the non-metallic carrying frame. As shown for example in Fig. 10, the main frame 40 is provided with an end extension 41 at each end thereof, through which end extension is passed a suitable rivet as 42 headed to engage the frame 41 and also headed to engage the front face of the carrying frame 43. In this form of the invention, a slot as 44 is provided in the main frame having an edge 45 over which the arms 24 of the slide 17 are bent in precisely the same manner as has been described in connection with the arms 24 and the edge 23 shown in Fig. 3.

In that form of the invention shown in Fig. 11, the extension 46 of the main metallic buckle frame 47 is provided with an end lug 48 passing through the slot 49 of the non-metallic carrying frame 51. The end part of said lug 48 is bent as at 52 to engage the front face of said carrying frame. In both Figs. 10 and 11, while only one end part of each of the main buckle frames is shown, it will be understood that the opposite end part is identical thereto and similarly secured and hence need not be shown or further described.

In any case, it will be noted that there appears to view on the front face of the buckle assembly only a small portion of the lug or rivet used to secure the metallic buckle to the non-metallic carrying frame therefor, and that in the form shown in Figs. 1 to 9 inclusive, even the small metallic lug part appearing on the front face of the buckle assembly is concealed by the belt or strap when the buckle assembly is in use.

It will be understood that the slide may take a number of different forms, that is, it may be made without prongs (Fig. 3a) or with serrated instead of pronged edges (Fig. 8a), or it may be provided with a stud instead of a socket, or the socket may be omitted if desired.

It will further be seen that I have provided simple and economical, though efficient means for adequately securing an adjustable metallic snap fastener slide buckle to a non-metallic

plastic buckle carrying frame in such manner as to adequately carry out the purposes of the invention.

While I have shown and described certain specific embodiments of my invention, I do not wish to be understood as limiting myself thereto, but intend to claim the invention as broadly as may be permitted by the state of the prior art and the scope of the appended claims.

I claim:

1. In a garment buckle, a carrying frame of non-metallic material provided with a pair of belt-receiving slots and having a recess in the rear face thereof, a main metallic buckle frame set in said recess, a metallic slide carried by the buckle frame, and means for securing the frames together comprising a metallic member projecting from the main frame and passing through the carrying frame.

2. In a garment buckle, a carrying frame having a rear recess therein and having spaced slots therethrough, a buckle including a main frame set in the recess, and a securing element projecting from the main frame and through the carrying frame and having an end part engaging the front face of the carrying frame.

3. In a garment buckle, a carrying frame of plastic non-metallic material having a recess extending part way through the thickness thereof, a buckle member having an adjustable slide arranged loosely in the recess, and securing members each projecting from the buckle member and passing through the carrying frame and having an end part engaging the front face of the carrying frame to hold the buckle member and frame together, the carrying frame concealing the buckle member when the buckle is in use.

4. In a garment buckle, a carrying frame of plastic non-metallic material provided with a pair of spaced belt-receiving slots and having a recess extending from the rear face thereof part way through the thickness of the frame toward the front face thereof, a main metallic buckle frame in the recess, a metallic slide slidably carried by the main frame and provided with end prongs movable into and out of the slots, and securing means passing through the carrying frame and securing said frames together.

5. A garment buckle in accordance with claim 4 wherein the inner edge of each slot of the carrying frame has a pair of recesses therein, and wherein the securing means comprises corner lugs on the main frame passing through the recesses in the respective inner edges of the slots, said lugs each having a bend therein and having an end part engaging the front face of the carrying frame.

6. In a garment buckle, a carrying frame of non-metallic material provided with a pair of spaced belt-receiving slots, the inner edge of each slot having a recess therein, a buckle including a main buckle frame arranged at the rear face of the carrying frame and concealed by the front face of the carrying frame, and lugs on the main frame each having an intermediate part thereof in a recess and having the end portion thereof engaging the front face of the carrying frame.

7. In a garment buckle, a non-metallic carrying frame having spaced belt-receiving slots therein, a buckle including a main frame arranged on the rear face of the carrying frame, a slide carried by the main frame and having end prongs projectable into the slots, and a securing element projecting from the main frame through the carrying frame and having an end part engaging the front face of the carrying frame.

8. In a garment buckle, a non-metallic carrying frame provided with belt-receiving slots and comprising a rear member having a front recess extending from the front face thereof part way through the thickness of the member toward the rear face and having a smaller rear recess extending from the rear face to the front recess, a snap fastener buckle comprising a main frame arranged in the front recess, a slide slidably mounted on the main frame, and a snap fastener element carried by the slide and arranged in the rear recess, a front member secured to the rear member and covering the main frame, and means projecting from the main frame through the front member for securing the frames together.

9. In a garment buckle, a non-metallic carrying frame having spaced belt-receiving slots therein each provided with a pair of spaced recesses in the inner edge thereof, a metallic buckle frame arranged at the rear face of the carrying frame, and an integral corner lug at each corner of the buckle frame having an intermediate part fitted into a recess and having an end part in substantially parallel relation to the buckle frame.

10. In a garment buckle, a non-metallic carrying frame having spaced transverse belt-receiving slots therein each provided with a pair of spaced recesses in the inner edge thereof, a main metallic buckle frame arranged at the rear face of the carrying frame, a metallic slide slidably carried by the buckle frame to engage the end part of a belt passed through the slots, a snap fastener element on the slide to engage a cooperating snap fastener element on the other end of the belt, and a corner lug at each corner of the buckle frame having part thereof in a recess and having the free end part thereof arranged against the front face of the carrying member.

DANIEL I. REITER.