Jan. 14, 1941. S. LEVIN ET AL 2,228,771

COVERED BELT BUCKLE

Filed March 11, 1939

Fig. 1

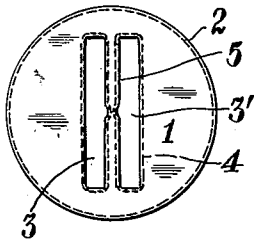


Fig. 3

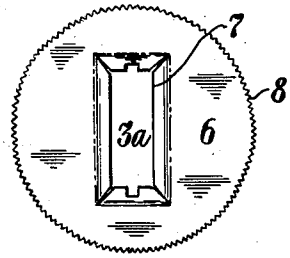


Fig. 5

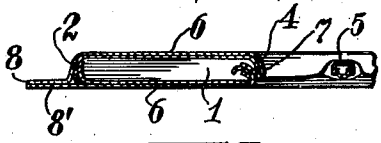


Fig. 6

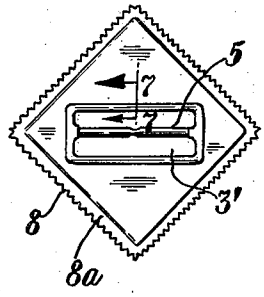


Fig. 2

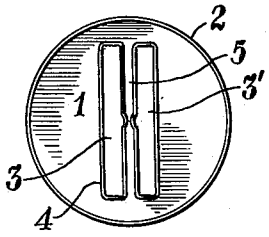


Fig. 4

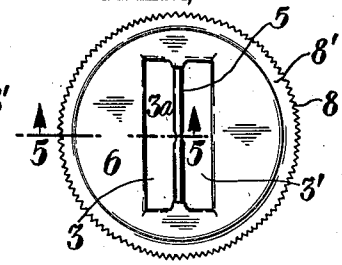


Fig. 7

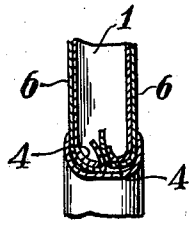


Fig. 8

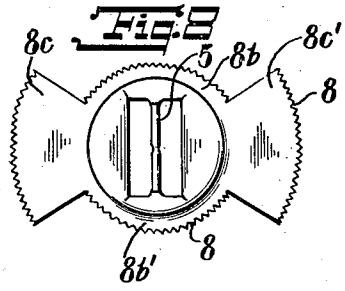


Fig. 9

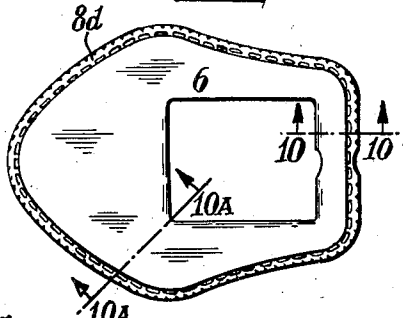


Fig. 10

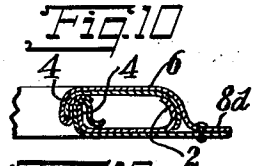


Fig. 10A

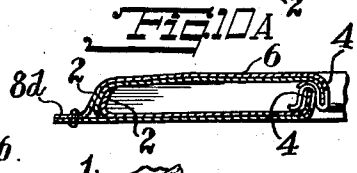


Fig. 11

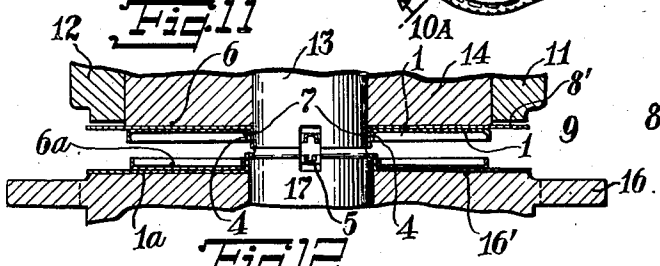


Fig. 13

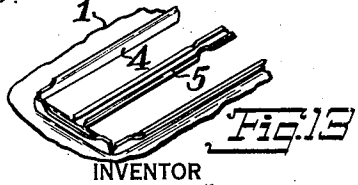
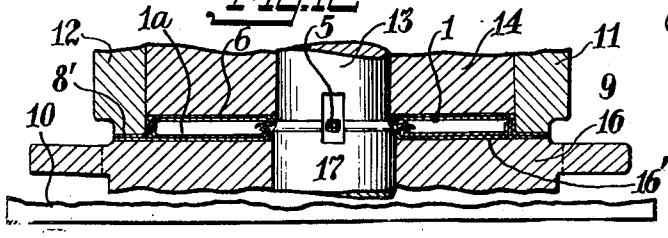


Fig. 12



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UNITED STATES PATENT OFFICE

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COVERED BELT BUCKLE

Samuel Levin, New York, and Louis Rosenberg, Brooklyn, N. Y.

Application March 11, 1939, Serial No. 261,162

6 Claims. (Cl. 41—34)

This invention relates to improvements in covered belt buckles and comprises a continuation in part of our former application Serial No. 216,774, filed June 30, 1938.

In conventional covered belt buckles a hollow frame surrounding a belt-receiving opening or aperture is composed of top and bottom reinforcing shells of metal or like rigid material. These shells usually have relatively high outer or perimetric flanges and relatively low inner flanges around the belt-receiving opening. The said shells are covered by a suitable flexible covering material, the covering material in the manufacturing operation being initially folded around both the outer and inner flanges at the edges of each shell, after which the outer high flanges of the edges of the top and bottom shells so covered are, by the use of a suitable die, inserted one within the other and frictionally fastened together, the outer covered flanges or edges of the upper and lower shells or reinforcing members being brought together, one within the other while the covered relatively low flanges at the belt-receiving aperture were brought into close abutment, also one within the other, but the holding or fastening frictional engagement occurred at the perimetric or outer flanges, and reliance being principally placed on the elastic qualities of the covering material to produce the gripping and holding or fastening between the top and bottom shells, it being obvious that the material of the metallic shells themselves have no "give" to them and therefore merely serve as a base for bringing the elastic or flexible material covering one flange into contact and frictional engagement either with the other flange bared or with elastic or flexible material covering such other flange. In the said manufacturing operation, a die is usually employed in which core members having the shape of the belt-receiving opening and outer rim members having the shape of the outer edge of the buckle are moved into interengaging movable relationship to a pressure-applying head while the intermediate shell-contacting portions remain in stationary position with relation to such head during the clinching action of the head on the buckle frame. This mechanism, though effective in forcing the covered flanges of the top and bottom shells at the outer edge of the buckle into frictional engagement, made it impossible to utilize extension edges at the outer edge of the buckle or to ornament such outer edges.

One of the objects of our present invention is to enable covered buckles to be made with extension edges of any suitable shape or ornamental design and to provide a sufficient frictional engagement between upper and lower reinforcing members without the conventional use of flexible or elastic covering material over the outer flanges, but on the contrary by providing a metal-to-metal joint at the outer flanged edge of the pair of shells and utilizing, as frictional fastening portions, the covered flanges at the edge of the belt-receiving aperture or inner edge of the frame members and also in some cases utilizing a clinching of a two-part tongue post as a fastening element. We are thus enabled to provide an extension outer edge of any suitable ornamental design or shape by pressing and fastening the top and bottom portions of covering material along a strip closely adjacent to the outer edge of the frame and allowing the outer edges of such covering members to project outwardly from the reinforcing members. In making these buckles practically, from a commercial standpoint, dies must be employed, and in such dies, instead of retaining the intermediate shell-contacting members in stationary position in relation to the pressing head and utilizing rim and core members which move in relation to said head and shell-contacting members, we retain the rim and core members in stationary relationship to the pressure-applying head and provide for a resilient movement of the upper frame-contacting intermediate member in relation to said head and to relatively stationary core and rim members. By retaining the rim member in stationary relationship to the pressure-applying head, we are enabled simultaneously to provide for an outward extension and pressing of the outer edges of the covering members and for a clinching action between the edges of the top and bottom shells at the edges of the belt-receiving aperture and by providing for a relative movement of a frame-contacting member we are enabled to produce a rounding of one of the covering members prior to the pressing and fastening action of the two covering members. By retaining the rim members in stationary position, we also leave space in the plane of the meeting covering edges to enable outward extension and ornamentation thereof in any suitable way, as for example by scalloping or providing saw teeth at the edges or by leaving elongated projecting portions which may, in conformation, be dovetailed or of any other suitable shape.

Another object of this invention is to arrange the rigid shells along the inner edge or belt-receiving opening to clinch and securely hold flex-

ible covering members at said inner edge while permitting the outer edge to be disengaged and to have an ornamental outward-extension and thus to enable the production of belt buckles having top and bottom reinforcing frame members of rigid material covered by top and bottom members of a suitable flexible covering material, the said flexible top and bottom members being inserted into and clinched between folded flanges of the reinforcing frame members along the edges of the inner belt-receiving opening between the corners thereof and at the said corners having a split to permit upright flange portions to cooperate with the outer edge flanges so as to provide a secure interlocking engagement, the opposite outer edges of said flexible members of covering material, however, extending outwardly in abutment and having a lapped joint with each other without being clinched between the outer edges of the reinforcing members, said lapped joint being formed by a pressing between abutting rim members of the apparatus and a fastening together, preferably by cement or stitching of such outer edges, such outer edges being formed in any suitable shape or design and when so fastened together forming a highly ornamental and rigid belt buckle.

With these and other objects in view, the invention comprises the combination of members and arrangement of parts so combined as to co-act and co-operate with each other in the performance of the functions and the accomplishment of results herein contemplated, and comprises in one of its adaptations the species or preferred form illustrated in the accompanying drawing, in which—

Fig. 1 is a view in plan of one of two metal shells used in making our covered belt buckles;

Fig. 2 is a view in plan of the under-side of the shell shown in Fig. 1;

Fig. 3 is a view in plan of one of two similar cover members, before attachment, that are used in covering a pair of shells such as shown in Figs. 1 and 2;

Fig. 4 is a view in plan of a completed belt buckle embodying our invention;

Fig. 5 is a section on the line 5—5 of Fig. 4, looking in the direction of the arrows;

Fig. 6 is a view in plan of a modified form of belt buckle embodying our invention;

Fig. 7 is a section on the line 7—7 of Fig. 6, looking in the direction of the arrows;

Fig. 8 is a view in plan of another modified form of belt buckle embodying our invention;

Fig. 9 is still another modified form of belt buckle embodying our invention;

Fig. 10 is a section on the line 10—10 of Fig. 9, and Fig. 10A is a section on the line 10A—10A of Fig. 9;

Figs. 11 and 12 are fragmentary vertical sectional views of die mechanism employed in making our belt buckles, and

Fig. 13 is a fragmentary view in perspective of a portion of a shell around the belt-receiving aperture after clinching thereof.

Referring now to the drawing which illustrates a preferred embodiment of our invention, 1 (Fig. 1) indicates, in top elevation, the body portion of a member of a pair of identical conventional shells used in making belt buckles. Such shells before use are conventionally provided, at their peripheries, with interengaging rim flanges 2 extending at right angles to the body portion 1 and preferably have tongue-post sections 5 separating a belt-receiving aperture into two parts 3, 3'. The belt-receiving apertures of the two members are also provided with flanges 4 extending at right angles from the body portion 1. In the preferred embodiment of our invention illustrated, a pair of these shells comprising an upper shell and a lower shell, which are adapted to seat one within the other, are covered with a pair of substantially identical cover members 6 (Fig. 3). These cover members are provided with belt-receiving openings 3^a registering with the shell apertures and have, along their marginal edges, flaps 7 so cut as to be foldable over the internal aperture flanges of the shell.

The edges 8 of the members 6 have outwardly-extending edge portions which are not folded inwardly between the shell flanges but are extended outwardly to provide abutting flanges 8' which, in Figs. 4, 6 and 8, are connected together by a pressed joint. In the present embodiment of our invention, the cover members 6 are preferably provided at their outer perimeters with ornamental edges 8 which, in Figs. 3 and 4, we have shown the extension edges as circular and serrated; in Fig. 6 as square and serrated; in Fig. 8 as partly dove-tailed and partly circular and serrated and in Figs. 9 and 10 the extension edge is stitched and slightly scalloped. In Fig. 4, the pressed and cemented joint extends around the perimeter 8' of the circular shells, while in Fig. 6 the joint extends along the marginal edge 8^a of a square shell and in Fig. 8 the pressed and cemented joint extends along the rounded portions 8^b, $8^{b'}$ and along the dove-tailed portions 8^c, $8^{c'}$, the edges of all of which are preferably serrated or otherwise ornamented, while in Figs. 9 and 10 the stitched extension edge 8^d is substantially shield-shaped in conformation.

In accordance with our present invention we are enabled, by mechanical means, not only to produce belt buckles having outwardly extended edge portions which are capable of themselves being ornamented and of providing ornamentation for the belt buckle but of producing such belt buckles with top and bottom shells which add to the rigidity of the belt buckle structure and because of the secure clinching of the flexible top and bottom members at the inner or belt-receiving aperture enables the extension edges to be securely held with cement or stitching while producing tight, closely-fitting covers on the shells. With this end in view, we provide a belt buckle embodying top and bottom reinforcing members or shells covered with upper and lower cover members, each provided with belt-receiving apertures and having their edges at such apertures folded around their respective edges of the belt-receiving aperture in the frame members. These shell members are utilized not only to reinforce the belt buckle when completed, but also are employed, during the manufacturing operation, to support the cover members in proper relationship to permit the cover members to be clinched around the edges of the shells at belt-receiving aperture and locked together by pressing of the shells into interengagement and providing a pressed joint at the outer edges thereof, all in a single operation.

In the preferred form of our invention, the joint formed by clinching of the cover members between the interengaged shell flanges at the belt-receiving aperture is, in the conventional manner, formed within planes coinciding with the top and bottom of the shell members but

in order to procure an inward folding and frictional holding of the cover members and at the same time enable an interlocking engagement of the shells, the shell flanges during the interengaging operation are between the corners bent or folded inwardly with the cover members, while the flange portions, adjacent to the corners, remain unbent and with the outer flanges produce a secure interlocking engagement when brought together. The pressed or sewn joint at the outer edge of the belt is, however, formed in a plane substantially coinciding with the bottom surface of the lower shell member, so that when the belt is in use this outwardly-extending portion will lie flat against the body of the wearer. Also, in the preferred embodiment of our invention, the edge flanges of the shell members within the covers adjacent to said pressed or sewn joint are preferably clinched together or pressed into interengagement or close abutment so that when the portions of the flanges adjacent to the corners of the belt-receiving aperture are similarly abutted and forced together a secure frictional interlocking connection of the sectional hollow parts of the shells will be produced.

In accordance with our invention, we take a rigid top frame member, support in registering position thereon a top cover member, then place the same in a press and frictionally connect the said shell with its cover member beneath the head member of the press. We then, by a similar operation, connect the bottom member frictionally beneath and intermediate reversible member of the press. This reversible member is then inverted to cause the flange portions of the shells to extend toward each other. Thereafter, as shown in Figs. 11 and 12, pressure is applied on the head to cause, in one operation, the clinching of the covers along the flanges at the belt-receiving aperture between the corners thereof while clinching the shells themselves at such corners and at the outer rim flanges by causing such rim flanges to abut and frictionally engage each other, such interengagement of the flanges providing an interlocking of the shells. At the same time pressure is applied on the outer extension portion of the covers to provide a pressed joint along such outer edges.

In the preferred embodiment of our invention illustrated we provide a press 9, comprising a conventional base member 10 and a novel head 11. This novel head embodies an outer rim-pressing member 12, a central core member or plug 13 and an intermediate body contacting member 14. In the embodiment shown, the pressing member 12, is fast on the head 11 while the core member 13 and intermediate member 14 are relatively removable in relation thereto and also relatively removable in relation to each other. In an initial operation a top shell member 1 is supported on a suitable bed member of a press, a top cover 6 is supported on the shell member 1 with its outwardly-extending portion 8' projecting outwardly and both parts are frictionally mounted beneath a member 14. During such initial operation of connecting the top shell and cover member beneath the press head, the core or plug member 13 is moved downwardly relatively to the member 14 so as to force the flanges 7 of the cover member against the flanges 4 of the shell member and to provide a frictional connection between such flanges and the core or plug member 13, so that upon raising or elevating the head 11 out of contact with the said bed, the top shell and the top cover member will be held in elevated position beneath the head member 11.

We now make a similar operation in relation to the lower member. In so doing we insert, on a suitable press bed, an intermediate reversible press member 16 which embodies a bed portion 16' and a central core portion or plug 17, as more particularly shown in Figs. 11 and 12. Upon a similar application of pressure on the core member or plug 17 a bottom shell member 1a and a bottom cover member 6a will be similarly frictionally fastened beneath the member 16. Upon reversing the member 16 into the position shown in Fig. 11, the top and bottom shells and top and bottom cover members will be brought into proper connectable relationship to each other in which the flanges of the shells are extended toward each other. Now by applying pressure to the head and bringing the parts into the position shown in Fig. 12, the flanges of the shells at the belt-receiving aperture will be clinched together as shown in Fig. 12 and also in Figs. 5, 7 and 10, while the outwardly-extending edges of the cover members will be pressed together to form a pressed joint which may be cemented without any other fastening, as shown in Figs. 4 to 8 inclusive, or may be sewed together as shown in Figs. 9, 10 and 10A. During this pressing operation the member 14, will rise slightly against suitable pressure and the pressed joint will be formed in a plane substantially coinciding with the lower surface of the bottom shell. During this operation also, the inner edge of the rim member 12 will, within the cover members, force the outer flange 2 of the upper shell into frictional engagement with the lower flange 2, while the flanges 4 at the belt-receiving aperture are being forced one behind the other so as to produce a secure interlocking of the top and bottom shells. The rigid shells along the belt-receiving aperture are at each of the said corners thereof split to permit expansion of the cover material and to cause the upright flange portions at said corners to cooperate with the outer edge flanges so as to provide said secure interlocking engagement. Thus we are enabled to clinch and securely hold the inwardly-folded flexible covering members at said inner belt-receiving edge while permitting the outer edge to be disengaged and to have an ornamental outward-extension. We consequently produce belt buckles having top and bottom interlocked reinforcing frame members of rigid material covered by top and bottom members of a suitable flexible covering material, the said flexible top and bottom members being inserted into and clinched between folded flanges of the reinforcing frame members along the edges of the inner belt-receiving opening between the corners thereof while the opposite outer edges of said flexible members of covering material, because of the secure internal base afforded by said interengaged and interlocked reinforcing shells may be permitted to extend outwardly in abutment and to have a lapped joint with each other without being clinched between the outer edges of the reinforcing members. Said lapped joint is formed by a pressing operation between abutting rim members of the apparatus and a fastening together, preferably by cement or stitching, of such outer edges, and such outer edges may be formed in any suitable shape or design, and when so fastened together forming a highly ornamental, rigid and stable belt buckle.

The buckle can now be removed from the press and will be complete with clinched joints along

the belt-receiving aperture and a pressed joint around the outer edge.

Having described our invention, we claim:

1. A covered belt-buckle comprising top and bottom reinforcing frame members provided with a belt-receiving aperture, said buckle being provided with upper and lower cover members each provided with belt-receiving apertures and having their edges at such apertures folded around the respective edges of the belt-receiving apertures in the frame members and fastened at such aperture edges by a frictional fastening together of the inwardly folded and covered edges of the reinforcing frame members, said cover members having their outer edges extended outwardly into abutment and fastened together closely adjacent to the outer edges of said top and bottom frame members.

2. A covered belt-buckle comprising top and bottom reinforcing frame members provided with a belt-receiving aperture, said buckle being provided with upper and lower cover members each provided with belt-receiving apertures and having their edges at such apertures folded around the respective edges of the belt-receiving apertures in the frame members and fastened at such aperture edges by a frictional fastening together of the inwardly folded and covered edges of the reinforcing frame members, said cover members having their outer edges extended outwardly into abutment and fastened together closely adjacent to the outer edges of said top and bottom frame members, said fastened outwardly projecting edges of the top and bottom cover members extending in a plane substantially coinciding with the bottom of the lower reinforcing member.

3. A covered belt-buckle comprising top and bottom reinforcing frame members provided with a belt-receiving aperture, said buckle being provided with upper and lower cover members each provided with belt-receiving apertures and having their edges at such apertures folded around the respective edges of the belt-receiving apertures in the frame members and fastened at such aperture edges by a frictional fastening together of the inwardly folded and covered edges of the reinforcing frame members, said cover members having their outer edges extended outwardly into abutment and fastened together closely adjacent to the outer edges of said top and bottom frame members, said reinforcing frame members comprising metal shells having edge flanges around which the edges of the cover members at the belt-receiving aperture are folded and fastened by a clinching of the folded edges of the cover members between said flanges at the said edges around the said belt-receiving aperture while the outer edges of the frame members are frictionally engaged with each other in a metal-to-metal joint.

4. A covered belt-buckle comprising top and bottom reinforcing frame members provided with a belt-receiving aperture, said buckle being provided with upper and lower cover members each provided with belt-receiving apertures and having their edges at such apertures folded around the respective edges of the belt-receiving apertures in the frame members and fastened at such aperture edges by a frictional fastening together of the inwardly folded and covered edges of the reinforcing frame members, said cover members having their outer edges extended outwardly into abutment and fastened together closely adjacent to the outer edges of said top and bottom frame members, said reinforcing frame members comprising metal shells having edge flanges around which the edges of the cover members at the belt-receiving aperture are folded and fastened by a clinching of the folded edges of the cover members between said flanges at the said edges around the said belt-receiving aperture while the outer edges of the cover members are fastened together by a joint extraneous of the joint of the shell.

5. A covered belt-buckle comprising top and bottom reinforcing frame members provided with a belt-receiving aperture, said buckle being provided with upper and lower cover members each provided with belt-receiving apertures and having their edges at such apertures folded around the respective edges of the belt-receiving apertures in the frame members and fastened at such aperture edges by a frictional fastening together of the inwardly folded and covered edges of the reinforcing frame members, said cover members having their outer edges extended outwardly into abutment and fastened together closely adjacent to the outer edges of said top and bottom frame members, said reinforcing frame members comprising metal shells having edge flanges around which the edges of the cover members at the belt-receiving aperture are folded and fastened by a clinching of the folded edges of the cover members between said flanges at the said edges around the said belt-receiving aperture while the outer edges of the cover members are fastened together by a cement joint between such members at such outer edges.

6. A covered belt-buckle comprising top and bottom reinforcing frame members provided with a belt-receiving aperture, said buckle being provided with cover members having its edges at such apertures folded around the respective edges of the belt-receiving apertures in the frame members and fastened at such aperture edges by a frictional fastening together of the inwardly folded and covered edges of the reinforcing frame members, said reinforcing members having, at their outer edges a metal-to-metal contact and said cover members having their outer edges extended outwardly into abutment and fastened together closely adjacent to the outer edges of said top and bottom frame members.

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