

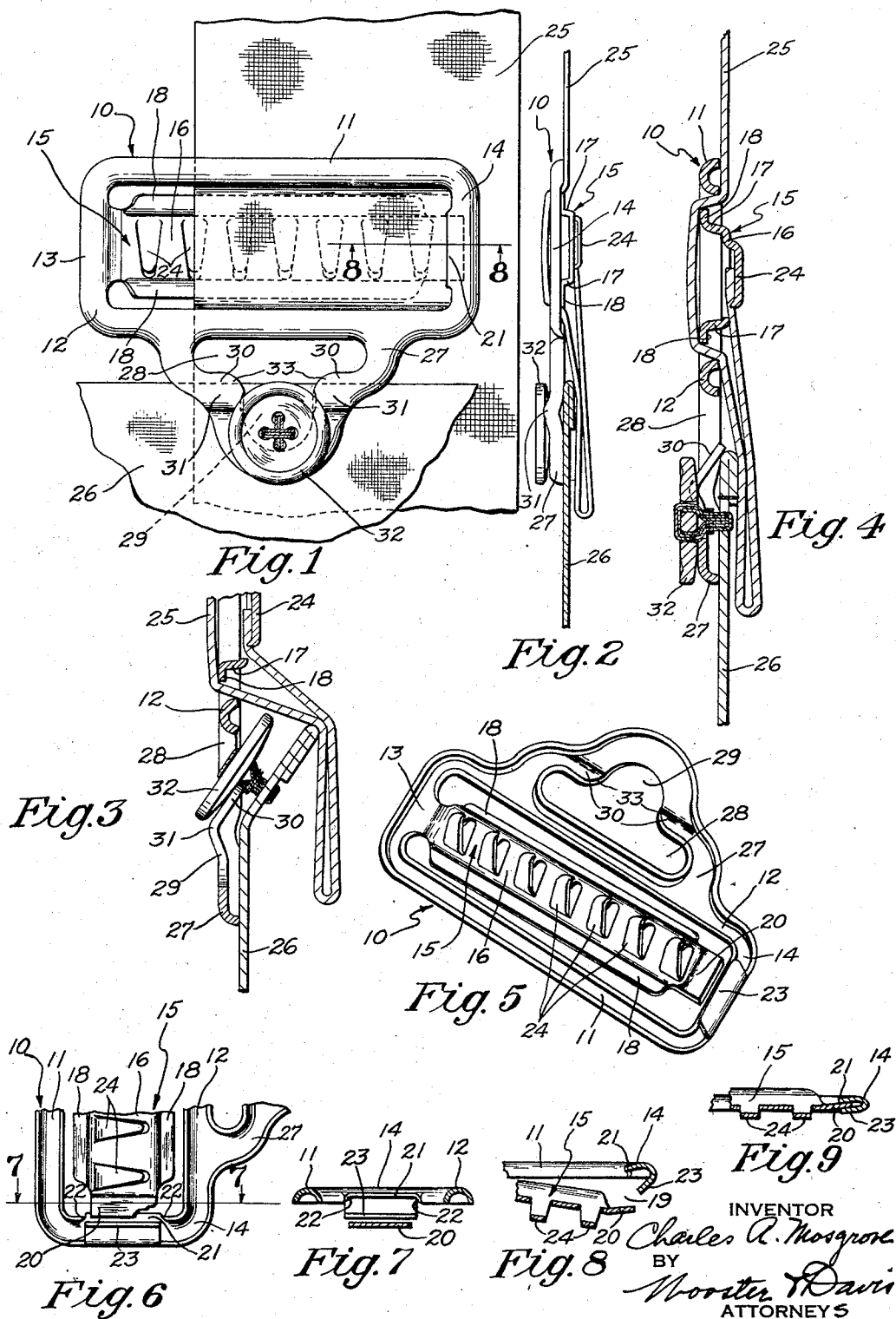
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SLIDE LOOP

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SLIDE LOOP

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3 Claims. (Cl. 24—186)

This invention relates to new and useful im-
provements in slide loops and provides an im-
proved button loop such as is used to receive a
button of a garment to be supported, such for
example as a button of an overall bib to attach
the bib to a shoulder strap.

An object of the invention is to provide an
improved loop which is easily attached to a but-
ton and which is so constructed as to facilitate
the attaching operation and prevent casual un-
hooking or releasing of the button.

A further object is to provide a slide loop in-
cluding certain improvements in the means for
attaching it to a strap and particularly include
certain improvements in the slide buckle con-
struction disclosed in my Patent No. 1,892,516 of
December 27, 1932.

Other objects and advantages will become ap-
parent from a consideration of the following
detailed description taken in connection with the
accompanying drawing wherein a satisfactory
embodiment of the invention is shown. How-
ever, it will be understood that the invention is
not limited to the details disclosed but includes
all such variations and modifications as fall
within the spirit of the invention and the scope
of the appended claims.

In the drawing:

Fig. 1 is a front elevational view on an enlarged
scale showing the improved loop in association
with a button and also illustrating a step in
mounting of the improved loop on a strap;

Fig. 2 is an edge elevational view showing the
improved loop in position on a strap and attach-
ing the strap to a button carrying piece which
piece may, for example, be a portion of an over-
all bib;

Fig. 3 is a sectional view on a further enlarged
scale and illustrating the action which takes place
when hooking the loop over a button;

Fig. 4 is a sectional view on the scale of Fig. 3
and illustrating the device in use;

Fig. 5 is a perspective view looking at the rear
side of the improved slide loop;

Fig. 6 is a rear elevational view showing one
end portion of the loop prior to the closing of the
slide buckle portion thereof;

Fig. 7 is a sectional view taken substantially
along the line 7—7 of Fig. 6;

Fig. 8 is a sectional view taken substantially
along the line 8—8 of Fig. 1, the strap being
omitted; and

Fig. 9 is a view somewhat similar to Fig. 8 but
showing the slide buckle closed.

Referring in detail to the drawing the im-

proved slide loop as here disclosed includes a
slide buckle generally designated 10 and compris-
ing certain features disclosed in my Patent No.
1,892,516 referred to above. The buckle 10 in-
cludes a substantially rectangular frame com-
prising longitudinal or side bars 11 and 12 and
end bars 13 and 14 connecting the side bars.
Preferably the bars forming the frame are
pressed so as to be concavo-convex in cross sec-
tion whereby to add rigidity to the frame.

Formed with one of the end bars or members,
as, for example, the end bar 13, is a cross member
or central bar 15 extending longitudinally of the
frame in the direction of the end bar 14 thereof.
This member 15 is generally U-shaped in trans-
verse section and includes a connecting portion
16, side walls or portions 17 and laterally ex-
tending flanges 18. The flanges 18 are shown as
continuations of the side walls or arms 17 and
are located at the free edges of such walls or
arms.

Prior to the buckle being applied to a strap
or the like the cross member 15 occupies an in-
clined position relative to the frame 10 substan-
tially as shown in Figs. 5 and 8 of the drawing.
From these figures it will be noted that the cross
member inclines outwardly away from the frame
whereby there is a space 19 between the free end
of the cross member and the adjacent portions of
the frame. During the formation of the cross
member it is drawn slightly so as to dispose its
free end, which comprises a tongue like portion
20, over a lip 21 formed with the end member 14
of the frame.

This lip 21 represents a portion of the frame
end bar 14 which is not pressed upwardly as much
as the other side when the frame is treated to
render its parts concavo-convex in transverse sec-
tion, and it will be noted that the lip is located be-
tween raised portions 22 formed when the frame
member 12 is pressed to give it rigidity as above ex-
plained. Thus the lip 21 is the bottom wall of a
recess in the inner edge of the end bar. From the
foregoing it will be apparent that the central
member or bar 15 may be pressed in the direction
of the frame to bring its free end portion 20 into
engagement with the lip 21 and that such an oper-
ation will locate the tongue like free end portion 20
between the raised portions 22, or in the recess of
which lip 21 forms the bottom wall, so that while
the free end of the central bar is in engagement
with the lip 21 the said end of the bar is held
against lateral movement. A lug 23 is carried by
the end bar 14 and when the free end of the cen-
tral bar is pressed into engagement with the lip

21 this lug 23 is bent over against the free end portion of the central bar as clearly shown in Fig. 9 whereby to secure the central bar in position.

The connecting portion 16 of the cross or central bar 15 has portions lanced and pressed therefrom to provide teeth or clamping members 24 each connected at one end with said cross member. These teeth are adapted to have an end of a strap inserted beneath them and the teeth will then be pressed in the direction of the bar 15 to secure the ends of the strap to the latter.

A strap 25 is indicated in Figs. 1 through 4 and such strap may be a shoulder strap of a pair of overalls, a portion of the bib of which is indicated at 26. However, it will be understood that the invention may be applied to other uses. In applying the buckle to a strap the buckle is slipped onto the strap from the edge thereof by inserting the edge of the strap into the space 19 between the frame and the cross member 15 of the buckle as suggested in Fig. 1. The strap may then be drawn into the buckle or the buckle may be drawn across the strap so as to dispose the edges of the strap inwardly of the free end portion of the cross member.

After the strap is located as described it may be doubled upon itself as clearly shown in Figs. 2, 3 and 4 and have its free end inserted beneath the teeth 24. Then the entire assembly may be placed in a die and have the cross member 15 pressed in the direction of the frame to dispose the free end 20 of the cross-member between the raised portions 22 and against the lip 21 of the frame after which the lug 23 is bent over against the portion 20 of the connecting member as shown in Fig. 9. During this same operation the teeth 24 on the connecting portion of the cross member are forced in the direction of said member to clamp the end of the strap thereagainst. Of course, the pressing of the teeth 24 against the end of the fabric may take place in an operation entirely separate from that wherein the cross member is pressed against the run of the strap.

With the described construction the buckle may be easily and quickly applied to a strap and the end of the strap secured in an out of the way position. The means for anchoring the free end of the cross member 15 after the latter has been pressed against the strap is very simple and economical to manufacture and as the lug 23 holds the end of the connecting member against the lip 21 and below the surface of the raised portions 22 it will be appreciated that the free end of the cross bar or member is securely fastened against any casual movement.

An extension 27 on the bar 12 provides the improved button loop and such extension is provided with an elongated button entrance slot 28 and with a button retaining slot 29 communicating at its upper or inner end with the intermediate portion of said entrance slot. At the junction of the slots 28 and 29 the material of the extension 27 is offset or bent to provide inclined portions 30 which start below the plane of the body of said extension and continue upwardly to provide projections or bumps 31 located one at each side of the rear or inner portion of the slot 29 and extending above the plane of the forward portion of extension 27 or of that portion of said extension in which the button retaining slot 29 terminates.

The loop constructed as described may be easily attached to a button and will not casually become unhooked or released from the button. In the drawing the slide loop has been attached to the strap or the like 25 forming a shoulder strap of an

overall, the portion 26 of the bib of which carries any or the usual button 32. When it is desired to attach the strap 25 to the bib 26 or to button said strap to the bib, the loop is disposed with its inclined portions 30 in advance of an edge of the button 32 and with the lower edges of said portions 30 against the fabric of the bib or at least below the under surface of the edge of the button. Then as the loop is drawn upwardly the inclined portions 30 passing under the button raise its edge as suggested in Fig. 3 and as the drawing of the loop continues the button passes through the entrance slot 28 and into the retaining slot 29 of the loop as shown in Figs. 1, 2 and 4.

When the button is in this position it will be noted that the bumps or projections 31 are rearwardly of the center of the button with the portions of extension 27 carrying the retaining slot 29 disposed below the button. Since the bumps or projections 31 are rearwardly of the center of the button they serve to prevent casual relative movement of the button and loop in a manner to result in the unhooking or releasing of the button by passage of the latter rearwardly into the entrance slot 28.

From this it will be clear that with the improved loop the strap may be easily and quickly buttoned or hooked onto the bib and that the bib will not readily be accidentally unbuttoned or unhooked. The inclined portions 30 greatly facilitate the hooking or buttoning of the strap to the bib since as such portions move under the edge of the button they raise such edge and the button is easily guided into the retaining slot 29. It will be noted that this latter action is assisted by the rounding of the edges 33 at the junction of the slots 28 and 29.

Having thus set forth the nature of my invention, what I claim is:

1. In a device of the character described, a frame, a cross member integral at one end with the frame and extending across the same, said cross member inclined relative to the frame whereby to dispose the free end of the cross member out of the plane of the frame to permit a strap to be slipped edgewise between the member and frame, said cross member adapted to be pressed in the direction of the frame to engage the strap and bring the free end of the member against a portion of the frame, and a lug on the frame extending transversely of the cross member and bendable over the free end of the cross member into a position against said member to secure the said end of the cross member against said portion of the frame.

2. In a device of the character described, a frame, a cross member integral at one end with the frame and extending across the same, said cross member inclined relative to the frame whereby to dispose the free end of the cross member out of the plane of the frame to permit a strap to be slipped edgewise between the member and frame, said cross member adapted to be pressed in the direction of the frame to engage the strap and bring the free end of the member against a portion of the frame, said frame including a lip portion against which the free end of the cross member is pressed and raised portions at each edge of said lip portion and between which said end of the cross member is disposed when in engagement with said lip portion, and a lug on the frame and bendable into position against said end of the cross member to maintain the same against said lip portion.

3. In a device of the character described, a

frame, a cross member connected at one end to the frame and extending across the same, said member having a tongue like free end portion and being inclined relative to the frame to dispose
5 the said free end out of the plane of the frame to permit a strap to be slipped edgewise between the member and frame, said cross member adapted to be pressed in the direction of the frame

to engage the strap and bring the free end portion against the frame, the frame having a recess to receive said tongue and hold it against lateral movement, and a lug on the frame extending transversely of the cross member and bendable over the free end of the tongue into a
5 position over said tongue to retain it in the recess.

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