Oct. 21, 1924. 1,512,087

L. B. FISH

BUCKLE FOR SAFETY STRAPS

Filed Feb. 26, 1924

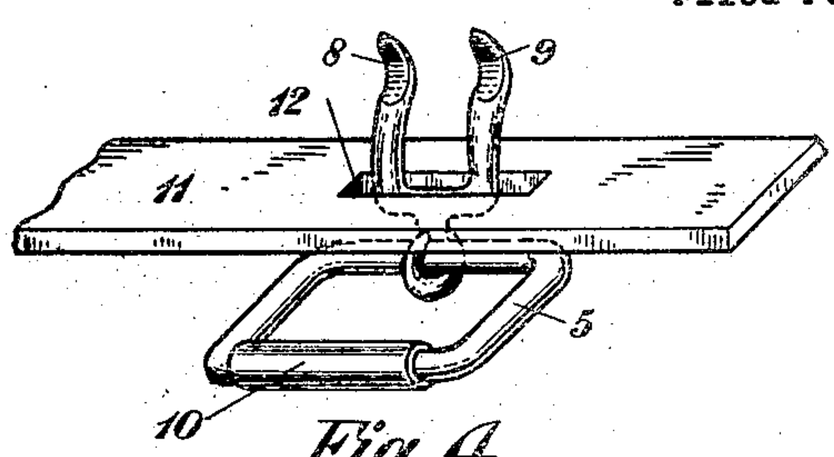

Fig. 4

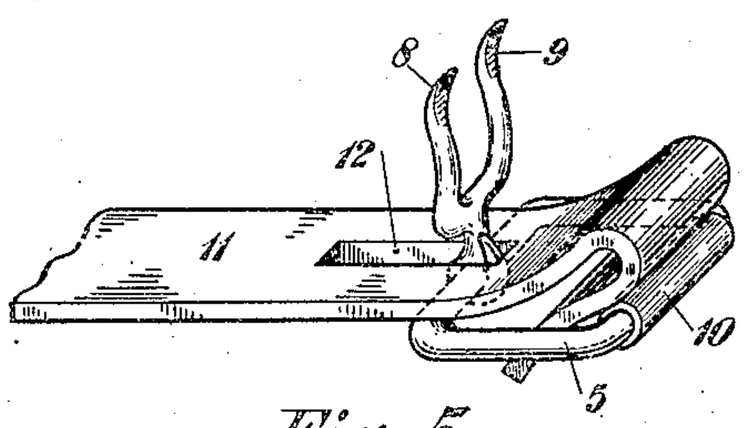

Fig. 5

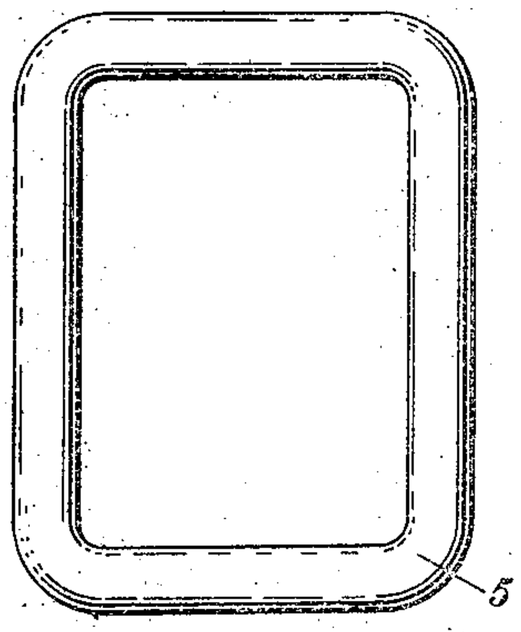

Fig. 1

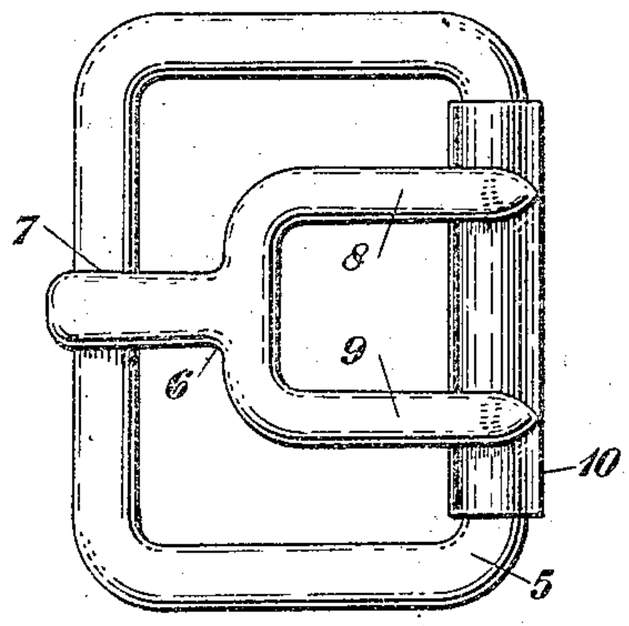

Fig. 2

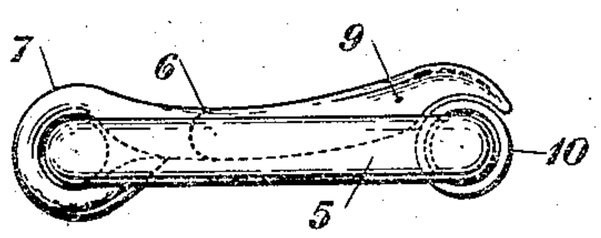

Fig. 3

Fig. 6

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UNITED STATES PATENT OFFICE.

LEWIN B. FISH, OF MAPLEWOOD, NEW JERSEY, ASSIGNOR TO AMERICAN TELEPHONE AND TELEGRAPH COMPANY, A CORPORATION OF NEW YORK.

BUCKLE FOR SAFETY STRAPS.

Application filed February 26, 1924. Serial No. 695,326.

To all whom it may concern:

Be it known that I, LEWIN B. FISH, a citizen of the United States, residing at Maplewood, in the county of Essex and State of New Jersey, have invented certain Improvements in Buckles for Safety Straps, of which the following is a specification.

This invention relates to buckles, and more particularly to devices of the character which are used in connection with safety straps of the type worn by linemen.

Considerable difficulty has been experienced by linemen in the used of the present type of safety strap buckle which comprises two prongs that move independently on the frame. This is particularly true when the linemen find it necessary to change the position of the buckle, as it is inconvenient to handle both prongs at once while inserting them in the holes of the strap due to the fact that generally only one hand is available for this purpose. Accordingly, it is an object of this invention to provide a buckle which is simple in form, and which shall require but slight manipulation in its operation and adjustment.

Other and further objects of the invention will be apparent from the following description, when read in connection with the accompanying drawing in which one form of the device is illustrated.

Referring to the drawing, Figure 1 represents in front elevation the main or frame member of the buckle; Fig. 2 represents a similar view with the tongue and roller members attached to the frame; Fig. 3 is an end elevation of Fig. 2; Fig. 4 is a view showing the first stage of applying the buckle to a safety strap; Fig. 5 is a similar view showing the second stage, and Fig. 6 shows the buckle permanently positioned in said strap.

In the drawing, the numeral 5 designates the frame member of the buckle, which, in the present instance, is shown as being of rectangular form and which shall preferably have the flash removed from its sides so as to present a smooth surface. A tongue 6 is pivotally mounted on one of the sides of the frame 5 by means of the arm or portion 7 which has its extremity turned upon itself to from a loop about the frame. The other end of the tongue 6 has a bifurcated portion comprising the prongs 8 and 9 which are each connected by an angular shoulder with the portion 7 of said tongue. The prongs 8 and 9 are each preferably provided with surfaces curving inwardly having terminating points which are curved in the opposite direction, as more clearly indicated in Fig. 3. These points extend through perforations in the safety strap and rest upon a thin metallic tube or roller 10 rotatably mounted on the side of the frame 5. The roller 10 is provided for the purpose of facilitating the passage of the safety strap.

The strap 11 has a longitudinal slot 12 cut near one of its ends of sufficient dimensions to permit the introduction of the prongs 8 and 9 therethrough, as indicated in Fig. 4. The length of the arm 7 between its shoulder portions and looped portion provides sufficient space to allow the insertion of the strap 11. After the prongs 8 and 9 of the buckle are inserted in the slot 12, the buckle is turned to a transverse position with respect to the slot, and the end of the strap is turned upon itself and looped about the side of the frame on which the tongue is pivotally mounted, as shown in Fig. 5. A strip of metal 13, such as copper, or the like, may be provided about the looped portion of the strap for the purpose of reinforcement, and this, with the end portion of the strap, may be secured together to the main portion of the strap by rivets 14, or other suitable means. The width of the portions of the strap between the edges of the slot 12 and the outer edges of the strap is sufficient to prevent lateral displacement of the arm 7 on the frame 5, while the slot 12 allows free pivotal movement of the tongue on the frame.

In the operation and adjustment of the improved device, the safety strap is moved over the roller to the desired position, at which time pressure is applied to the tongue. This causes the prongs to move in unison, so that when one prong enters a perforation its companion prong will enter an adjacent perforation in the strap without further manipulation.

What is claimed is:

1. In a buckle for safety straps comprising a frame, a slotted strap engaging said frame, and means extending through said slotted strap and including a plurality of bifurcated arms integral with each other and pivotally mounted on said frame for engag-

ing perforations in said strap, said arms lying in a transverse plane with respect to said slot.

2. In a buckle for safety straps comprising a frame, a slotted strap engaging said frame, a tongue extending through said slotted strap and pivotally mounted on the frame, and a plurality of bifurcated arms integral with the tongue and movable in unison to engage adjacent perforations in said strap.

3. In a buckle for safety straps comprising a frame, a slotted strap engaging said frame, and a tongue extending through said slotted strap and pivoted centrally on one side of the frame having integral bifurcated arms movable in unison to simultaneously engage adjacent perforations in said strap, said arms lying in a transverse plane with respect to said slot.

4. A safety strap having a longitudinal slot at one end thereof, a buckle comprising a frame associated with said strap, and means including a plurality of bifurcated arms extending through said slot and being pivotally mounted on said frame to engage perforations in said strap.

5. A safety strap having a longitudinal slot at one end thereof, a buckle comprising a frame associated with said strap, a tongue pivotally mounted on the frame and extending through said slot, and a plurality of members integral with the tongue for engaging in unison perforations in said strap, said members lying in a transverse plane with respect to said slot.

6. A safety strap having a longitudinal slot at one end thereof, a buckle comprising a frame for engaging said slot, a tongue pivotally mounted on the frame, and a plurality of bifurcated arms integral with the tongue adapted to be introduced lengthwise through said slot in one position and lying crosswise of said slot in final position, said arms being adapted to move in unison to engage adjacent perforations in said strap.

7. A safety strap having a longitudinal slot at one end thereof, a buckle comprising a frame associated with said strap, and a tongue pivoted centrally on one side of the frame and having integral bifurcated arms movable in unison to simultaneously engage adjacent perforations in said strap, said arms being introduced lengthwise through said slot in a preliminary position and turned at an angle to assume a transverse relation to said slot in the final position.

In testimony whereof, I have signed my name to this specification this 25th day of February, 1924.

LEWIN B. FISH.