May 10, 1927. 1,628,501

I. R. LEDERER

REMOVABLE CROSSBAR FOR BUCKLES

Filed June 23 1926

Fig. 1.

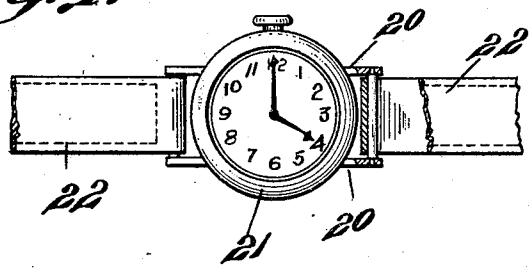


Fig. 3.

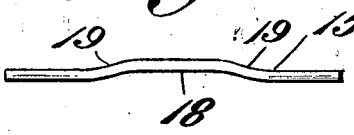


Fig. 5.

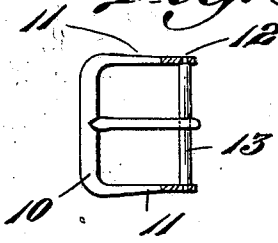


Fig. 6.



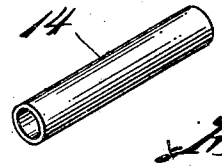


Fig. 2.

Fig. 4.

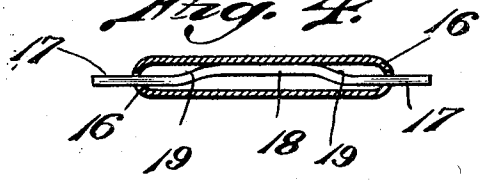
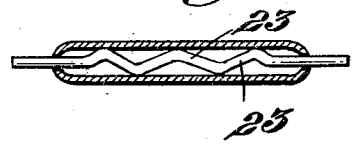


Fig. 7.



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Patented May 10, 1927. 1,628,501

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REMOVABLE CROSSBAR FOR BUCKLES.

Application filed June 23, 1926. Serial No. 117,993.

This invention relates to an improved construction of removable cross bar for buckles and other similar articles; and the object of this invention is to provide such a cross bar which is adapted to fit between the side arms of the buckle or other device and to mount a pivot pin in the tubing, the same being of a diameter less than that of the inside of the tubing and of a length greater than that of the tubing to extend beyond its ends and into the perforations or holes in the arms, the body of the pin within the tubing being offset laterally to frictionally engage the inner surface of the tubing to press against this surface and to frictionally retain the pin in endwise adjusted position within the tubing.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings:

Figure 1 is a front view illustrating my improved connector cross bar as applied to the bails of a wrist watch.

Figure 2 is a perspective view showing the short length of tubing that forms the outer shoulder of the cross bar.

Figure 3 shows one form of pivot pin having a middle portion offset from the axis of its end portions.

Figure 4 is a sectional elevation illustrating the pivot pin as set into the tubular cross bar with its body portion offset to engage the inner wall of the tubing.

Figure 5 shows the cross bar as applied between the side arms of a buckle.

Figure 6 is a modification illustrating the body portion of the pivot pin as offset laterally on both sides of its axis.

Figure 7 shows this modified form mounted in the tubular cross bar.

It is found in the practical construction and operation of buckles such as wrist watch buckles and other articles such for instance as the bail members of wrist watches and other devices, of advantage to provide a cross bar which is removably mounted in the arms of the buckle or bails to permit it to be passed through the permanently formed eye in the ends of the wrist strap, and to form such a removable bar without the use of springs; and to accomplish this in a simple and effective way, I have provided tubing of a length to fit between the side arms of the device to which it is connected and in which a pivot pin is mounted, the body of the pin which is inclosed within the tubing being provided with a lateral offset portion to engage the side walls of the tubing whereby the pin may be moved endwise in the tubing and be frictionally retained in any adjusted position therein; and the following is a detailed description of the present embodiment of my invention and showing one construction of cross bar by which these advantageous results may be accomplished:—

With reference to the drawings, 10 designates a buckle having side arms 11 which are pierced at 12 to receive the ends of the pin in the cross bar 13. This cross bar is constructed of a short length of tubing 14 of a length to fit between the arms 11.

Within this tubing, I have mounted a pivot pin 15, the same being of a diameter smaller than the inner diameter of the tubing and of a length greater than the length of the tubing to extend beyond both ends thereof, the ends of the tubing being turned inwardly as at 16 to provide bearings for the extending end portions 17 of the pin.

The body portion of the pin is offset laterally from the axis of its end portions as at 18, to rest against the inner wall of the tubing and exert the required pressure thereagainst, and this offset portion is of a length less than that of the tubing to permit of an endways movement of the pin in the tubing sufficient to house either one of the extending end portions of the pin within the tubing when desired. In other words, the pin may be moved endways until its extremity is flush with the end of the tubing at which time the inclined offset shoulder 19 of the pin will bring up against the inturned end of the tubing thereby forming a stop for limiting further movement of the pin.

This offset portion 18 is arranged to bear with sufficient pressure against the inner surface of the tubing so as to frictionally retain this pivot pin in any desired adjusted position therein so that when it is desired to remove the cross bar from between the arms of the buckle, it is only necessary to force inwardly one end of the pin causing it to slide in this tubing until this end is flush with the end of the tubing, at which time this end of the tubing may be moved laterally out of engagement with its arm and then endwise to withdraw the

opposite end of the pin from the bearing hole in the opposite arm.

This cross bar may be applied equally well to the side arms 20 of the wrist watch bail 21 and to extend through an eye portion in the end of the wrist strap 22 to secure this strap end to the bail.

In some instances, instead of forming a single offset portion in the body of the pivot pin, I may provide a double offset portion 23, as shown in Figures 6 and 7, whereby opposite portions of the pin body are caused to extend on opposite sides of its axis to engage the opposite inner walls of the tubing, as illustrated in Figure 7.

My improved cross bar is very simple and practical in construction, is inexpensive to manufacture and effective in its operation and by its use the ends of a wristband or the like may be readily connected to or disconnected from a buckle, watch bail or other device in which this cross bar is employed.

The foregoing description is directed solely towards the construction illustrated, but I desire it to be understood that I reserve the privilege of resorting to all the mechanical changes to which the device is susceptible, the invention being defined and limited only by the terms of the appended claims.

I claim:

1. In a device of the character described having a pair of perforated side arms, a tubular cross bar extending between said arms, a pivot pin in said tube of a diameter less than that of the inside of the tube and of a length greater than that of the tube with its opposite end portions extending in substantially axial alignment beyond both ends thereof, the ends of the tube being reduced to form central bearings for the protruding ends of the pin, and the body of said pin being offset laterally within the tube to frictionally engage the walls thereof and permit of a relative endways movement and be retained in adjusted position within the tube.

2. In a device of the character described having a pair of perforated side arms, a tubular cross bar extending between said side arms, a pivot pin in said tube of a diameter less than the inner diameter of said tube and of a length greater than that of said tube with its opposite end portions extending substantially in axial alignment into said perforations in said arms, the ends of the tube being rolled inwardly providing central bearings for said pin therein, the body of the pin within the tube being offset laterally for a distance less than the length of the tube, the ends of the offset portion being set on an obtuse angle to the axis of the end portion of the pin, said offset portion frictionally engaging the inner surface of the tube to frictionally retain the pin in adjusted position within the tube.

3. In a device of the character described having a pair of perforated side arms, a tubular cross bar extending between said side arms, a pivot pin in said tube of a diameter less than the inner diameter of said tube and of a length greater than that of said tube with its opposite portions extending substantially in axial alignment into said perforations in said arms, the ends of the tube being turned inwardly providing central bearings for said pin therein, said offset portions being set on an obtuse angle to the axis of the pin and being of a length less than that of the tube to permit of an endways movement of the pin in the tube sufficiently to house one of the extending end portions of the pin within the tube flush with the end thereof when desired to permit the positioning and removal of the bar to and from operating position.

4. In a device of the character described having a pair of perforated side arms, a tubular cross bar extending between said side arms, a pivot pin in said tube of a diameter less than the inner diameter of said tube and of a length greater than that of said tube with its opposite end portions extending substantially in axial alignment into said perforations in said arms, the ends of the tube being turned inwardly providing bearings for said pin therein, the body of the pin within the tube being offset laterally on opposite sides of its axis to frictionally engage the opposite inner side walls of the tubing.

In testimony whereof I affix my signature.

IRVING R. LEDERER.