

UNITED STATES PATENT OFFICE.

WALLACE W. ROBINSON, OF PORTLAND, MAINE.

STRAP AND BELT TIGHTENING BUCKLE.

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To all whom it may concern:

Be it known that I, WALLACE W. ROBINSON, a citizen of the United States, residing at Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Strap and Belt Tightening Buckles, of which the following is a specification.

This invention relates to improvements in strap or belt tightening buckles. It is adapted to be used as a body belt or for a tourniquet. Among other advantages, it is capable of being made from two pieces of metal by proper stamping and bending or it may be cast. It is simple in construction and easily and readily applied to its various uses.

In the drawings herewith accompanying and forming a part of this application, Fig. 1 is a perspective view of one embodiment of my invention, the strap holding lever being raised to more clearly expose the parts of the base and the lever; Fig. 2 is a longitudinal vertical central sectional view of same showing the strap threaded and the lever in locked position; Fig. 3 is an elevation, the lever being tipped back in the most favorable strap threading position, and Fig. 4 is a longitudinal vertical central sectional view of a modified form of my invention.

Referring now to said drawings 1 is the base, having upturned sides 2 and a strap receiving opening 3 at one end. Across said opening is a transverse bar 4 positioned sufficiently high above the bearing surface of the base to allow free movement of the strap while adjusting it to the body before the lever is set. In the opposite end of the base may be an opening 6 having at the far end a raised bar or loop 7. The front end of the base is provided with a transverse bar 8 to which one end of the strap may be attached and a transverse bar 9 may extend across the upturned ends of the sides of the base or be broken as shown. This bar is formed in the upturned ends of the sides and is a lever locking bar. The sides terminate in front in slightly curved ends 5. The strap carrying lever is provided with trunnions 10 taking into openings or holes 11 in the sides of the base. The locking lever has a body part 12 and sides 13 and is adapted to be pivotally attached to the base. The sides have overlapping binding plates 14 which tend to strengthen the body part. The body part terminates in an edge 15 below which is a transverse bar 16 which may be formed by

bending up the material of the base from a common center into a roll. Beyond bar 16 are outwardly extending stops 17 and a transverse bar 18 which may extend entirely across the space between the sides or may be broken as shown in the drawing. The stops 17, when the lever is in open position, engage the sides 2 of the base and prevent bar 18 from pinching between bar 16 in the lever and bar 4 on the base.

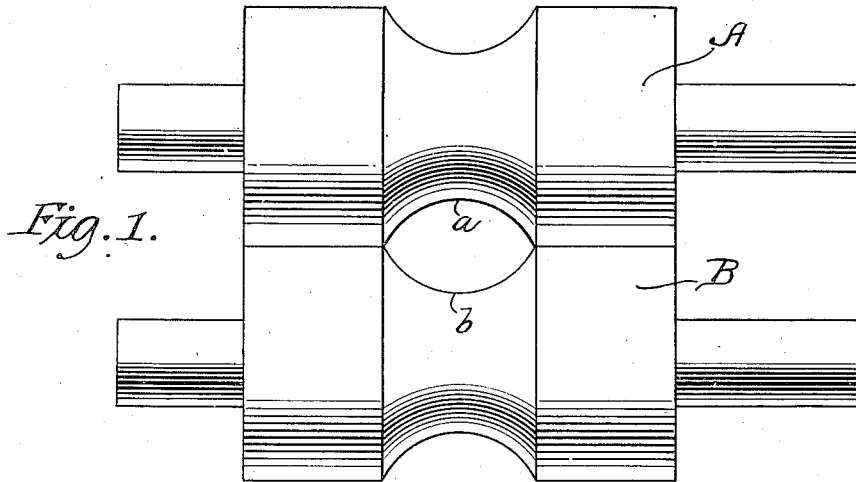
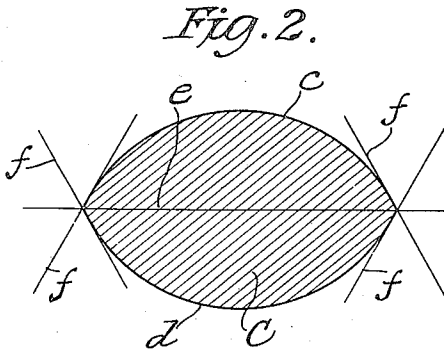
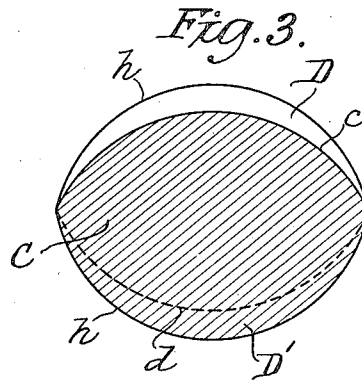
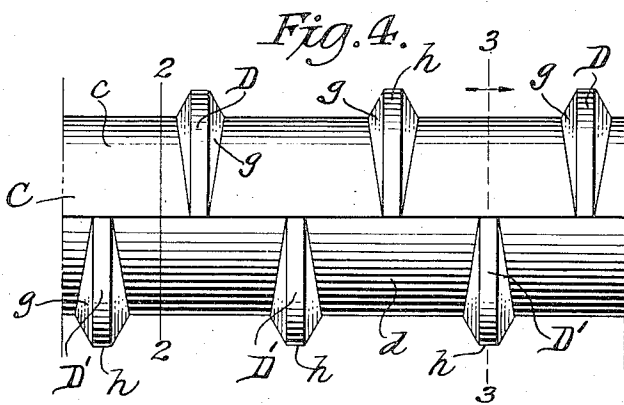
Referring now to Fig. 3 the operation of threading the strap to the buckle will now be explained, it being understood that one end of the strap is attached to the base in any convenient manner, either directly by passing it around the transverse bar 8 or attaching it to a hook 20 which is attached to the base in any convenient manner, as for example, to bar 8. The other end of the strap is then passed up through the space 3 of the base over edge 15 of the lever and around transverse bar 16, thence back under bar 18. The lever is then turned into locking position shown in Fig. 2, the stops 17 engaging the curved edges 5 of the base, the strap being then locked in tightened operative position in the lever, in which position it is practically impossible to move the strap in the buckle, due to its frictional engagement at the various bearing points, namely, edge 15, roll or bar 16 and transverse bar 18. The lever is locked by passing the strap under bar 9, which makes a close fit to the bar 18 of the lever, so as to prevent the lever from being unlocked as long as the strap is under bar 9.

In Fig. 4 I have shown a modification in the form of the device but in which the principle involved is substantially the same. The base has the opening 3, cross bar 4, the raised bar 7 and means for attaching one end of the strap to the base. The lever has trunnions 10 which take into the base 11, the body part 12 with the transverse edge 15 and the transverse bar 16 under the base. It also has the transverse bar 18 at the front of the lever which may be whole or broken, as in Figure 1. The threading of the strap in this form of the device is substantially the same as the former case and its operation in this form, both as an adjusting belt and as a powerful locking belt for tourniquets is the same as in Fig. 1, except that in Fig. 1 the lever is positively locked in operative position, as described above. While in this form the bar 7 pinches the strap against bar 16 of

K. R. SCHUSTER.
METAL BAR OF CURVED CROSS SECTION.
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1,428,561.

Patented Sept. 12, 1922.



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1