P. A. HORRAS.

BELT OR OTHER BUCKLE.

APPLICATION FILED FEB. 12, 1921.

1,414,697. Patented May 2, 1922.

Fig. 1

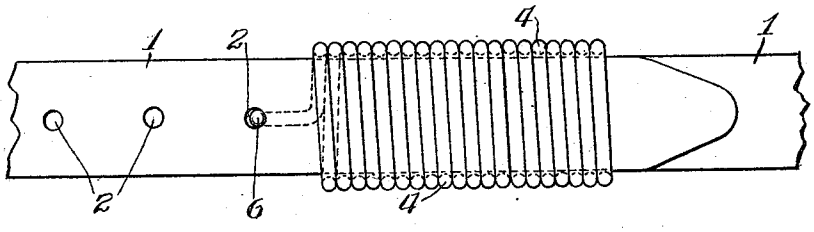


Fig. 2

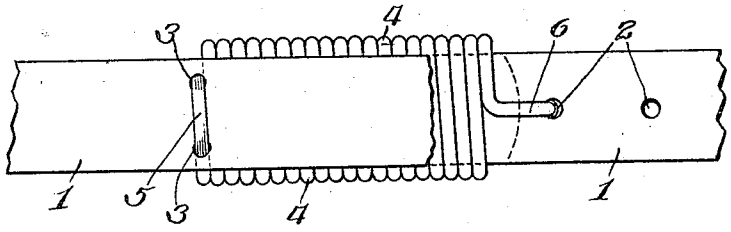


Fig. 3

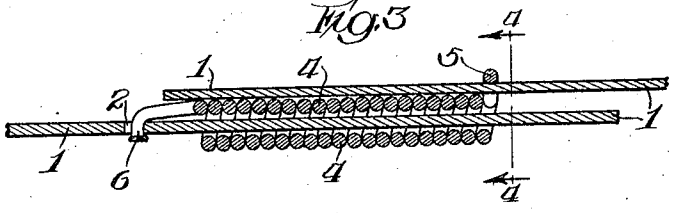
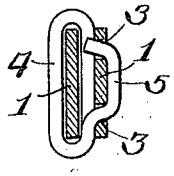


Fig. 4



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BELT OR OTHER BUCKLE.

1,414,697. Specification of Letters Patent. Patented May 2, 1922.

Application filed February 12, 1921. Serial No. 444,344.

To all whom it may concern:

Be it known that I, PETER A. HORRAS, of Chicago, Cook County, Illinois, have invented a certain new and useful Improvement in Belt or Other Buckles, of which the following is a specification.

This invention contemplates a belt of non-elastic material, such as an ordinary leather belt, having a yielding buckle, or a buckle which can stretch, such as one formed from a coil spring, whereby the belt as a whole can stretch on the wearer, and thus automatically adjust itself to the waist.

To these and other useful ends, the invention consists in matters hereinafter set forth and claimed, and shown in the accompanying drawings, in which:

Figure 1 is a front elevation of the buckle and front portion of a belt embodying the principles of the invention.

Figure 2 is a rear or inside view of the structure shown in Figure 1.

Figure 3 is a longitudinal horizontal section.

Figure 4 is a vertical section on line 4—4 in Figure 3.

As thus illustrated, the invention comprises a strap 1 having holes 2 therein, in the usual manner, said strap being of leather or any other non-elastic material. Holes 3 are also provided as shown. The buckle comprises a helical tension spring 4 of steel wire, or other suitable resilient material, having one end thereof attached at 5 to the holes 3 in one end portion of the belt, and having its other end provided with a hook or tongue 6 to engage the holes 2 previously mentioned. In this way the spring is not a compression spring, and is normally as short as possible, but sustains a lengthwise pull or tension strain to permit loosening of the belt on the wearer, and contracts to tighten the belt. Said spiral spring is flattened, as shown, to form a flat buckle through which the surplus end portion of the belt is inserted, as shown, whereby said buckle not only connects together the two end portions of the belt, but also takes the place of the ordinary loops usually found on a belt. The spring connection thus provided between the two end portions of the belt is adapted to stretch or yield, and thus permit the belt as a whole to stretch on the wearer. In this way the belt can automatically contract or expand and accommodate or adjust itself to the waist, so that it will always fit snugly, but also yield enough for comfort. Thus the non-elastic belt strap gives substantially the same effect as one made of elastic material. The advantages, however, of incorporating the elasticity in the buckle, are that strong material, such as leather, can be used for the strap, and that the buckle, although elastic or yielding, can be made of resilient metal which will practically never wear out or become weakened by use. Thus the tension spring is adapted to yieldingly buckle the two end portions of the belt together, and is attractive in appearance. While the buckle is shown on a belt, it is obvious that it can be used for other purposes.

Thus it will be seen that the flat helical spring has the convolutions thereof formed tight together and is adapted to serve in place of an ordinary buckle, such as an ordinary belt buckle, or in any situation requiring the ready coupling and uncoupling of two ends of a strap, by means of the usual series of holes in one end portion of the strap. The device, therefore, is not only a spring which contracts to automatically tighten the belt, or which lengthens to increase the girth of the belt, but is also in itself a buckling device—that is to say, it is not merely a resilient or spring connection, nor is it merely some portion of a buckle but to the contrary the device is the entire belt buckle itself, the spring alone being adapted and designed to serve primarily as a buckle, and secondarily as a yielding connection in the belt to make the latter more comfortable around the waist of the wearer. The convolutions being tight together, or approximately so, it follows that the spring must lengthen or stretch to increase the circumference of the belt when on the wearer, and must contract or shorten of its own accord, and by reason of its own tension or resiliency to automatically tighten the belt around the waist.

The coil spring 4 shown is flat, or substantially flat, to bring the two lapping portions of the belt as close together as possible, and to render the device more satisfactory in use, so that the resilient buckle thus formed will lie or rest flatwise against the body of the wearer.

What I claim as my invention is:

1. A belt of nonelastic material, and resilient means adapted to stretch and yieldingly buckle the two front end portions of

the belt together, forming a front buckle for the belt, so that the belt as a whole can stretch only at the front thereof on the wearer, and whereby the belt is tightened by contraction of said buckle, said buckle comprising a substantially flat coil spring having the convolutions thereof tight together, attached to one end portion of the belt, and having means to detachably engage the usual holes in the other end portion, when the latter is inserted through the flattened spiral, so that the convolutions thereof form a spring buckle connection between said end portions of the belt, and whereby expansion of the belt around the waist of the wearer serves to lengthen the spring, while by contraction of the spring the belt is automatically tightened.

2. A belt of nonelastic material, and resilient means adapted to stretch and yieldingly buckle the two front end portions of the belt together, forming a front buckle for the belt, so that the belt as a whole can stretch only at the front thereof on the wearer, and whereby the belt is tightened by contraction of said buckle, said resilient means being formed to receive the end portion of the belt which has the usual series of holes therein.

3. A buckle as specified in claim 2, said resilient means being a spring having the convolutions thereof formed tight together and having attaching means at the opposite ends thereof.

4. A buckle as specified in claim 2, said resilient means being formed from wire and having one end portion thereof bent to extend through upper and lower openings in one end portion of the belt, the other end of said resilient means being provided with an out-turned end portion for engaging said series of holes in the belt.

PETER A. HORRAS.