A. HOLZBERG.

FASTENER.

APPLICATION FILED MAR. 13, 1913.

1,084,339. Patented Jan. 13, 1914.

Fig. 1.

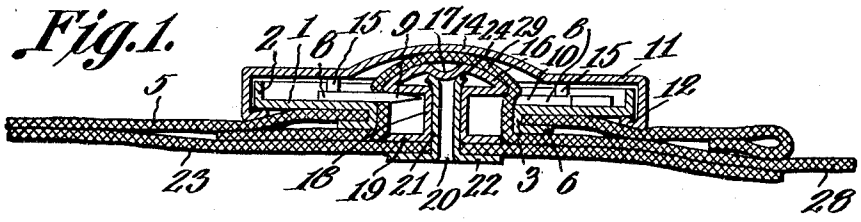
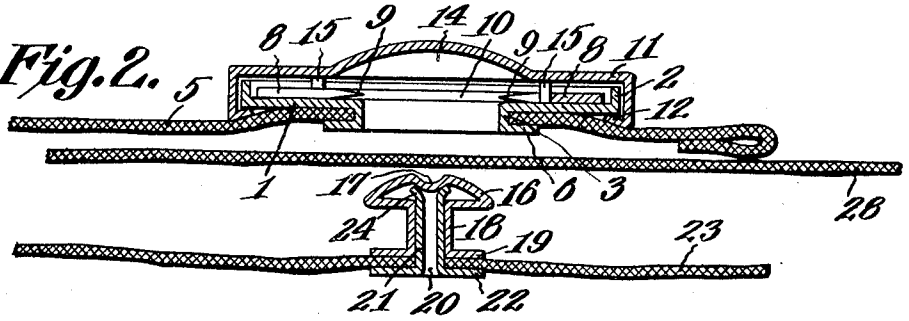


Fig. 2.



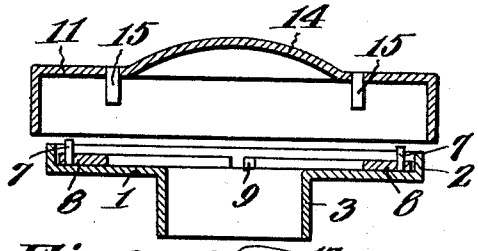


Fig. 3.



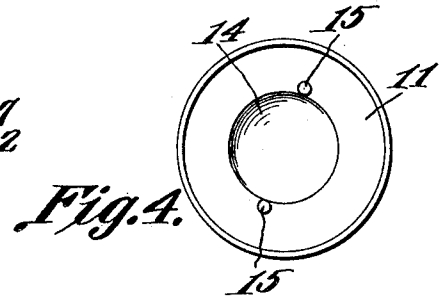


Fig. 4.

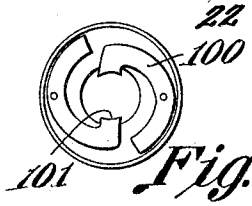


Fig. 8.

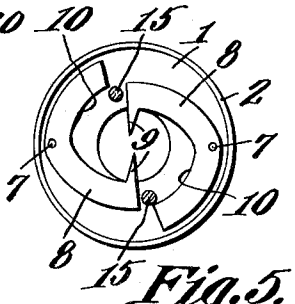


Fig. 5.

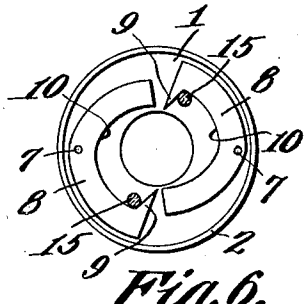
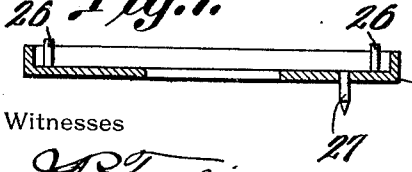


Fig. 6.

Fig. 7.



Witnesses

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FASTENER.

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To all whom it may concern:

Be it known that I, ABRAHAM HOLZBERG, a citizen of the United States, residing at Superior, in the county of Douglas and State of Wisconsin, have invented a new and useful Fastener, of which the following is a specification.

The device forming the subject matter of this application is a fastener adapted to be employed upon garments of any description, for closing bags or pouches, and, in general, under all circumstances in which it is desired to fasten two parts together.

One object of the present invention is to provide a fastening in which a button is held engaged with the clasp, by novel mechanism.

Another object of the invention is to provide novel means for actuating the locking members of the clasp.

It is within the scope of the invention to improve generally, and to enhance the utility of, devices of that type to which the present invention appertains.

With the above and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawing:—Figure 1 shows the invention in transverse section, parts being interlocked; Fig. 2 is a transverse section, showing the constituent parts separated; Fig. 3 is a transverse section showing the parts separated and in the forms which they will assume before the device is assembled; Fig. 4 is a bottom plan of the top portion of the clasp; Fig. 5 is a plan of the main member of the clasp, the studs of the cap being shown as an added detail; Fig. 6 is a view similar to Fig. 5, but showing the pawls in unlocked position; Fig. 7 is a transverse section showing a modified form of the main member; and Fig. 8 is a plan showing a slight modification in the prongs of the pawls.

In carrying out the invention there is provided a main member 1 equipped at its periphery with an upstanding flange 2 and provided adjacent its center with a tubular neck 3. The neck 3 is inserted through a piece of material indicated at 5, and the free end of the neck 3 is bent outwardly to form a clencher flange 6, so that the material 5 is bound between the clencher flange 6 and the main member 1, as will be observed readily in Fig. 2.

Upstanding from the main member 1 is a pair of pins 7. Pivoted intermediate their ends upon the pins 7 are curved pawls 8, opposite ends of the pawls 8 being provided with inwardly projecting prongs 9 which, as shown in Fig. 5, are adapted to enter within the circle described by the bore of the neck 3. The pawls 8 are provided with inner cam edges 10.

The invention further includes a cap 11 which is placed over the main member 1 of the clasp. The lower edge of the cap 11 is bent inwardly to form a flange 12 which engages beneath the main member 1. The main member 1 and the cap 11 are thus assembled for relative rotation, but a separation of these parts is prevented by the flange 12. The central portion of the cap 11 bulges outwardly, as indicated at 14. Depending from the cap 11 are pins 15 which are adapted to ride along the cam edges 10 of the pawls 8.

The invention further includes a button 16 having a curved top which is centrally provided with a depression 17. The button includes a neck 18 provided with an outstanding flange 19. A stud 20 is provided, the same including a tubular neck 21 and a flange 22. The neck 21 of the stud is inserted through the material 23 and enters the neck 18 of the button 16. The inner end of the neck 21 of the stud 20 engages the depression 17 of the button, and thereby the inner end of the neck 21 of the stud is expanded as shown at 24. The stud 20 and the button 16 are thus locked together, and the material 23 is bound between the flange 22 of the stud 20 and the flange 19 of the button 16, as clearly shown in Fig. 2.

In Fig. 7 of the drawings, a slightly modified form of main member is shown, the main member in Fig. 7 being indicated by the reference character 25 and being provided with pins 26. The main member 25 is equipped with a single depending pointed prong 27 spaced from the opening in the main member, which prong may be clenched through two pieces of material, the neck and

the clencher flange 6 hereinbefore described being dispensed with. The function of the prong 27 is to prevent the main member from rotating when the cap is turned to operate the pawls.

The numeral 28 indicates a piece of material which is interposed between the button 16 and the main member 1. When the button 16 is thrust into the neck 3 of the main member 1, the material will be carried upwardly into the bulge 14 of the cap 11, as indicated at 29 in Fig. 1. The cap 11 is then rotated, whereupon the pins 15 will ride along the cam edges 10 of the pawls 8 and tilt the pawls upon the pins 7, the prongs 9 engaging the material 28 below the head of the button 16. Thus, the parts will be locked together as shown in Fig. 1. By rotating the cap 11 in an opposite direction, the prongs 9 will be retracted, as will be understood best when Fig. 6 is examined. It is to be observed that the prongs 9 act as stops for the pins 15 of the cap 11, thereby preventing the pins from riding entirely off the pawls when the cap 11 is rotated to retract the pawls.

The material 23 and the stud 20 may be dispensed with, it being obvious that the material 28 may be locked to the material 5 by inserting the button 16 alone into the neck 3, and by rotating the cap 11 in the manner hereinbefore described. It is equally obvious that the material 28 may be omitted, the button 16 which is connected with the material 23, being inserted into the neck 3 of the main member 1.

The structure hereinbefore described will be found useful under a wide variety of circumstances, and it is entirely obvious and clearly understood that all possible uses of the invention belong to the inventor.

In Fig. 8, the pawls are denoted by the numeral 100 and may be provided with blunted prongs 101. This form of the invention will be useful when the device is to be employed upon cuffs, collars and the like.

Having thus described the invention, what is claimed is:—

1. In a fastener, a clamp comprising rotatably supported parts; a pawl pivoted to one part and comprising diverging arms; and a projection on the other part and adapted, upon relative rotation between said parts, to engage the inner edge of one arm to swing the other arm inwardly, and engage the said other arm upon relative reverse rotation between said parts, to swing the said other arm outwardly and to swing the first specified arm inwardly.

2. In a fastener, a clamp comprising rotatably connected parts; a pawl pivoted upon one part; a projection on the other part, engaging the inner edge of the pawl and being mounted to move in a circumference, the pawl being curved upon a radius which is shorter than the radius of the circumference described by the projection, the inner edge of the pawl constituting a cam, and the projection being adapted to ride upon opposite ends of the cam, to swing one end of the pawl outwardly in the one instance and to swing the said end of the pawl inwardly in the other instance; and a button insertible into the clamp and engageable by the pawl.

3. In a fastener, a clamp comprising rotatably connected parts; a pawl pivoted to one part and provided with a curved inner edge, there being a projection on the other part adapted to engage the curved inner edge of the pawl, the pawl being provided at one end with a prong, and the projection constituting means for advancing and retracting the prong, the prong constituting a stop receiving the projection; and a button insertible into the clamp and engageable by the pawl.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ABRAHAM HOLZBERG.

Witnesses:
W. W. SAVAGE,
W. G. CHANDLER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."