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2,449,167

HEAD AND SOCKET SEPARABLE SAFETY FASTENER

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Fig. 1.

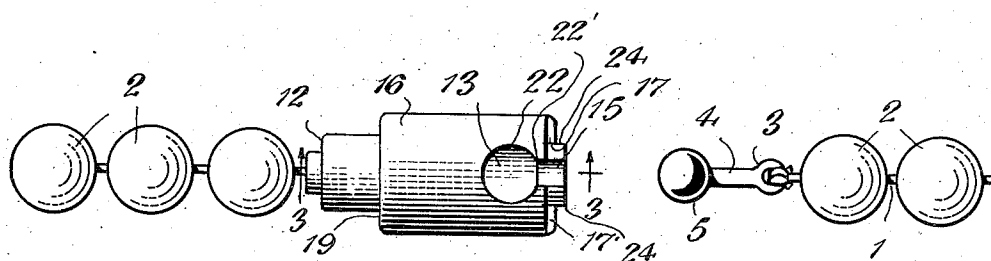


Fig. 2.

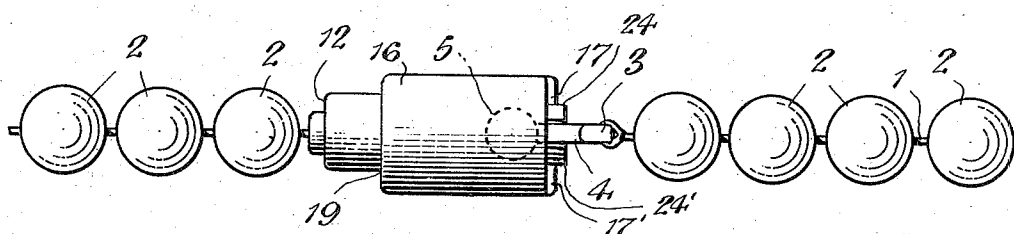


Fig. 3.

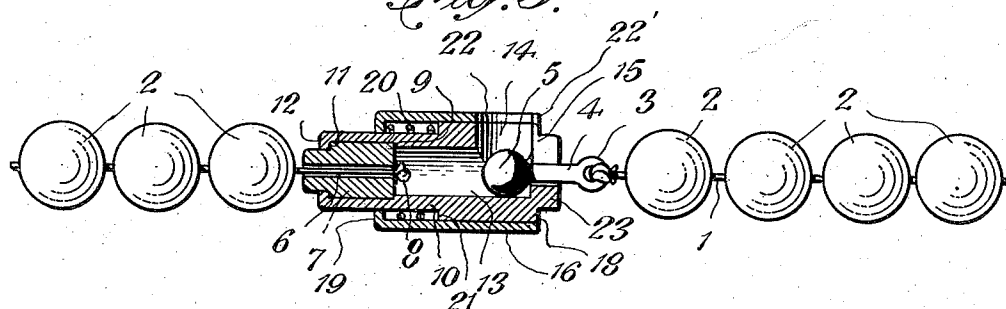
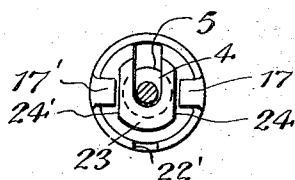


Fig. 4.



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HEAD AND SOCKET SEPARABLE SAFETY
FASTENER

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3 Claims. (Cl. 24-223)

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This invention relates to a safety clasp particularly adapted for use in connection with jewelry or other articles of adornment such as necklaces, bracelets and the like.

It is an object of the invention to provide a clasp in which the parts may be quickly attached and detached, but which provides more than an ordinary degree of safety against accidental detachment.

Other objects and advantages of the invention will appear hereinafter.

A preferred embodiment of the invention selected for purposes of illustration is shown in the accompanying drawings, in which,

Figure 1 is a plan view of the clasp in open position.

Figure 2 is a similar view of the clasp in closed position.

Figure 3 is a longitudinal section on the line 3-3 of Figure 1.

Figure 4 is an end view of the clasp in closed position.

The drawings are on a greatly enlarged scale showing the clasp as applied to a necklace. In this case one end of the cord 1 on which the beads 2 are strung is fastened to a ring 3 formed in one end of a coupling member consisting of a shank 4, and an enlarged spherical head 5. The other end of the cord 1 is passed through the passage 6 in a plug 7 and is knotted at 8 to anchor this end in the clasp.

The plug 7 seats against a shoulder 9 in the cylindrical body member 10 and is preferably held permanently in position by spinning the ends of the member 10 over the shoulder 11 of the plug so as to form a retaining flange 12. For all practical purposes the plug functions as an integral part of the body member 10 and may be considered to be a part thereof. It is made separately only as a matter of manufacturing convenience in order to facilitate the drilling of recess 13 hereinafter referred to.

The member 10 is provided with a recess 13 of a size to receive the head 5, and in order to provide access to said recess, the outer side wall of the member 10 is provided with a circular aperture 14 of slightly larger diameter than the head 5 and opening into the recess 13. Likewise, a slot 15 of a width sufficient to receive the shank 4 is cut in the end wall of the member 10 and opening into the aperture 14 and the recess 13.

Surrounding the cylindrical body member 10 is a sleeve 16 one end of which is provided with a pair of oppositely disposed lugs 17, 17' adapted to engage the shoulder 18, and the other end of

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which is provided with a flange 19 adapted to engage a coil spring 20. The spring also bears against the shoulder 21 of the member 10. The sleeve is movable longitudinally along the member 10 for purposes hereinafter described, but is normally held in retracted position as shown by the compression of spring 20.

The side wall of sleeve 16 is also provided with a circular aperture 22 of a diameter similar to that of aperture 14 and adapted to register therewith, and the end wall is provided with a slot 22' opening into the aperture 22 and adapted to register with the slot 15.

The sleeve 16 is rotatable on the member 10 so that in one position of rotation the aperture 22 and the slot 22' of the sleeve may be brought into register with the aperture 14 and slot 15 respectively of the member 10 as shown in Figures 1 and 3, while in other positions of rotation such apertures and slots are out of register as shown in Figures 2 and 4. In Figures 1 and 3 the clasp may be said to be in open position, for the head 5 and the shank 4 may be freely inserted in or withdrawn from the member 10, while in Figures 2 and 4 the clasp may be said to be in closed position for the head 5 of the coupling member is locked in recess 13 by the sleeve 16. The sleeve 16 is made to provide a loose running fit over the member 10, and means are provided to prevent accidental rotation of the sleeve on the member 10. Thus, in the embodiment illustrated, the reduced end portion 23 of member 10 is provided with oppositely disposed flats 24, 24' which engage the ends of the lugs 17, 17'. When it is desired to rotate the sleeve on the member 10 to shift from the open position to the closed position or vice versa, the sleeve is moved longitudinally of the member 10 against the compression of the spring 20 until the lugs 17, 17' clear the flats 24, 24', at which time the sleeve may be rotated freely. In either the open position or the closed position, of course, the spring retracts the sleeve to the position shown in the drawings, thus locking the sleeve against accidental rotation.

It will be understood that the invention may be variously modified and embodied within the scope of the subjoined claims.

I claim as my invention:

1. A clasp comprising a cylindrical body member, a sleeve surrounding said body member and rotatable thereon, and a coupling member having a shank and an enlarged head, said body member having an interior recess, an aperture through its side wall opening into said recess,

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and a slot in its end wall opening into said recess and into said aperture, said sleeve having an aperture in its side wall and a slot in its end wall opening into said aperture, the aperture and slot of the sleeve being adapted to register with the aperture and slot of the body member in one position of rotation of said sleeve with respect to said body member to enable the head of said coupling member to be inserted in and withdrawn from said recess.

2. A clasp comprising a cylindrical body member, a sleeve surrounding said body member and rotatable thereon, and a coupling member having a shank and an enlarged head, said body member having an interior recess, an aperture through its side wall opening into said recess, and a slot in its end wall opening into said recess and into said aperture, said sleeve having an aperture in its side wall and a slot in its end wall opening into said aperture, the aperture and slot of the sleeve being adapted to register with the aperture and slot of the body member in one position of rotation of said sleeve with respect to said body member to enable the head of said coupling member to be inserted in and withdrawn from said recess, said sleeve being movable longitudinally along said body member, and means to prevent relative rotation between said sleeve and said body member in one longitudinal position of the sleeve thereon while permitting such relative rotation in another longitudinal position of the sleeve thereon.

3. A clasp comprising a cylindrical body member, a sleeve surrounding said body member and

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rotatable thereon, and a coupling member having a shank and an enlarged head, said body member having an interior recess, an aperture through its side wall opening into said recess, and a slot in its end wall opening into said recess and into said aperture, said sleeve having an aperture in its side wall and a slot in its end wall opening into said aperture, the aperture and slot of the sleeve being adapted to register with the aperture and slot of the body member in one position of rotation of said sleeve with respect to said body member to enable the head of said coupling member to be inserted in and withdrawn from said recess, said sleeve being movable longitudinally along said body member, means to prevent relative rotation between said sleeve and said body member in one longitudinal position of the sleeve thereon while permitting such relative rotation in another longitudinal position of the sleeve thereon, and a spring normally holding said sleeve in longitudinal position to prevent relative rotation between said sleeve and said body member.

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The following references are of record in the file of this patent:

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