

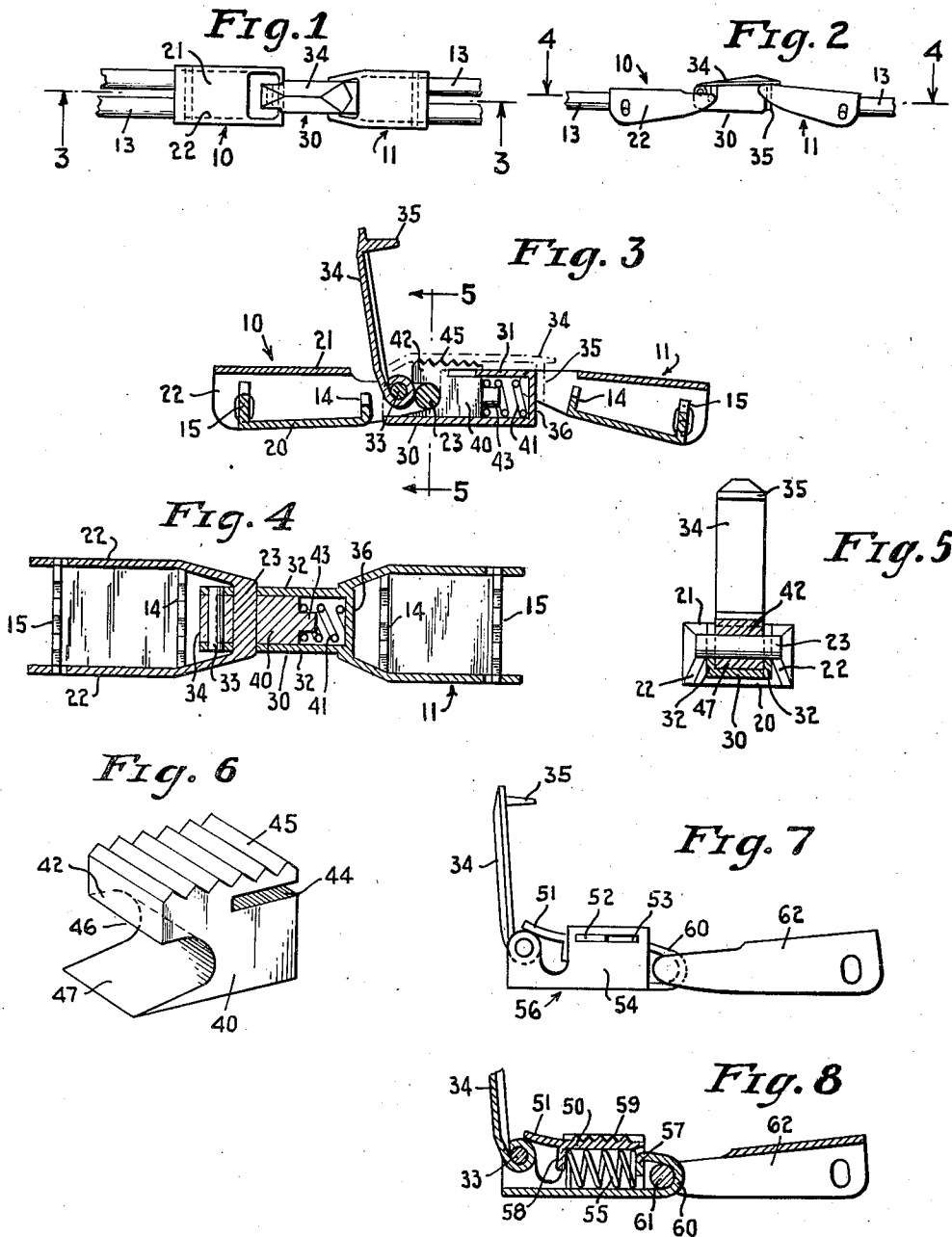
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SAFETY CATCH FOR WRIST WATCH STRAPS

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SAFETY CATCH FOR WRIST WATCH STRAPS

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This invention relates generally to fastening means for bracelets and the like and more particularly to an improved type of fastener including a safety guard device for inhibiting accidental disengagement of bracelet elements connected thereby.

It is an object of the present invention to provide a fastener wherein undesired separation of elements connected thereby is at least largely prevented by means of an automatically functioning guard device.

It is another object of the device according to the present invention to provide a bracelet clasp wherein the protective guard device hereinabove mentioned is located within the casing of the clasp and accordingly presents no projecting parts affecting the appearance of the device.

An especially important object of the present invention is to provide a bracelet coupling including safety protecting means which, during closing of the coupling serve to guide the elements into aligned locked relationship thereby facilitating engagement of the clasp elements but which, after closing, resists disengagement of the elements except by exertion of positive force opposing spring pressing action.

The invention will be fully and comprehensively understood from a consideration of the following detailed description when read in connection with the accompanying drawing which forms part of the application.

Figure 1 is a top plan view of an embodiment of the present invention;

Figure 2 is a side view of the device illustrated in Figure 1;

Figure 3 is a vertical sectional view of Figure 1 taken along the line 3-3;

Figure 4 is a horizontal sectional view of Figure 2 taken along the line 4-4;

Figure 5 is a vertical sectional view of Figure 3 taken along the line 5-5;

Figure 6 is a perspective detailed view illustrating one of the elements comprising the clasp;

Figure 7 is a side view of a modification of the device illustrated in the foregoing figures; and

Figure 8 is a vertical sectional view of the device illustrated in Figure 7.

The device illustrated in Figures 1 to 5 inclusive comprises separable bracelet end-elements, generally indicated at 10 and 11, adapted to engage with bracelet bands generally indicated at 13 by means including the pivoted clips 14 and 15 mounted within the members 10 and 11 substantially as shown in Figure 3. The element 10 comprises a bent U-shaped member having a

pivoted bottom 20 and an upper portion 21, the upper portion being bent to provide sides 22, substantially as shown in Figures 1 and 2, carrying on projecting end parts thereof, a cross member 23 formed integral therewith. The member 23 is substantially round in cross section and is adapted to being received in the coupling member, generally designated at 30 hereinafter to be described, carried on the bracelet end-elements 11. The element 11 comprises a hollow bracelet engaging portion, substantially similar to the bracelet engaging portion of the member 10 hereinbefore described, wherein are pivotally mounted the clips 14 and 15. The coupling, generally designated at 30 in Figure 1 is mounted on the end of the element 11 substantially as shown.

The coupling 30 comprises a hollow casing, substantially rectangular in cross section, relatively fixedly secured as aforementioned to the member 11, and cut away in the upper portion thereof to provide a relatively flat portion 31 carried between the upright side members 32. The side members 32 are provided, near the distal ends thereof, with aligned openings adapted to receive and hold end parts of the pivot 33 therein, said pivot having freely rotatably mounted thereon, a safety cover element 34 conforming in outline with the general outline of the top of the coupling 30. The cover element 34 carries, near the distal end thereof, a projecting portion 35, formed integral therewith, adapted to being received against and frictionally engaging with the back face 36 of the member 30, substantially as shown in dotted form in Figure 3 and in full lines in Figures 1 and 2. Cutaway formations are provided in parts of the sides 32 for receiving the member 23 of the bracelet end element 10 whereby said member 23 can be moved in said cutaway formations merely by positioning same over the member 34 when the latter is in raised position substantially as shown in Figure 3 and thereafter closing the cover whereby the elements assume substantially the relationship illustrated in Figures 1 and 2.

The safety protector of the coupling in the herein illustrated embodiment of the present invention comprises a block 40, slidably mounted within the casing 30 and positioned against a coiled helical compression spring pressing against the end 36 of the member 30. Sliding motion of the block 40 is restricted in one direction by engagement of the stop 43, mounted on the rear end of the block 40, with the end 36 of the casing 30 and in the opposite direction by engagement

of the end portion 42 of said block 40 with a portion of the member 34 positioned circumjacent the pivot 33 substantially as shown in Figure 3. The block 40 is maintained within the casing 30 by means including engagement of the flat surface 31 of the casing with a slot 44 formed in a part of said block. It is to be noted that the upper exposed surface of the block 40 is provided with a knurled or serrated face 45 for facilitating sliding motion thereof. The front face of the block 40 is provided with an inwardly extending cutaway formation 46 for engaging with and receiving the member 23 substantially as shown in Figure 4. It is to be noted that the portion 42 of the spring-pressed block 40 extends above said cutaway formation and that the lower inclined portion 47 assists in guiding the member 23 into its proper position.

In operation the opened cover 34 and formation 35 are passed through the opening in the distal portion of the element 10 and the cover closed whereby the cross piece 23 moves the block 40 against the pressure of the spring 41 and the cross piece is moved within the recess 46 in the block. The parts are then in substantially the relationship shown in Figure 4. It is to be noted that when the member 34 is rotated in a clockwise direction upon its pivot 33, the projecting formation 35 is brought into engagement with the end 36 of the member 30 whereby the cover is retained in place and the coupling with associated elements present substantially the appearance illustrated in Figures 1 and 2.

The embodiment of the present invention illustrated in Figures 7 and 8 comprises certain modifications of the structure hereinabove described resulting in economies in manufacture. In this embodiment the block 40 is replaced by a stamping 50 presenting an extending end portion 51 for holding the member 23 within recesses formed in the casing in a manner substantially analogous to the hereinabove described functions of the projecting portion 42 of the block 40. Extending tab portions 52 are provided on the member 50, slidably receivable in slots 53 formed in the sides 54 of the clasp member. A spring 55 confined within the interior of the clasp casing generally designated at 56, abuts against an interior end portion 57 of said casing and presses against an upright formation 58 carried on the member 50 whereby the portion 51 of said member is held in substantially the position illustrated in Figure 8, namely, positioned against the portion of the cover 34 circumjacent the pivot 33. The exposed upper surface of the member 50 is provided with knurling as indicated at 59, functioning in substantially analogous manner to the surface 45 of the block 40. The rear portion of the coupling, generally designated at 56, is provided with a loop formation 60 for engagement with the member 61 mounted on the bracelet attaching means 62.

In operation a member corresponding to the member 10 in the first described embodiment of the present invention is engaged with the clasp 56 by passing the cross piece 23 thereof over the member 34 and, pushing back the member 50 as by closing the cover 34, positioning said cross-

piece within the recesses in the sides 54 of the member 36. The spring 55 is then permitted to act against the member 58 whereby the protective closure 51 is held in position over the cross piece 33.

It is to be understood that this improvement is capable of extended application and is not confined to the exact showing of the drawing nor to the precise construction described, and therefore, such changes and modifications may be made therein as do not affect the spirit of the invention nor exceed the scope thereof as expressed in the appended claims.

I claim:

1. A clasp coupling comprising a casing having an open end and aligned opposed recesses formed in sides thereof; a pin mounted in said casing, extending across the open end thereof; a cover pivotally mounted on the pin and swingable to overlie one side of said casing and guide an object into said recesses, said cover when in closed position, obstructing said recesses, whereby the object is retained therein; and means within the casing movable upon occasion by said cover for retaining the object in said recesses irrespective of the cover position comprising a spring-pressed block having a cutaway formation in the front face thereof alignable with bottom parts of said recesses, and having other portions adapted to obstruct the mouths of said recesses in localities therebetween.

2. A clasp coupling comprising a casing, essentially rectangular in cross-sectional outline, closed at one end, open at the other and having aligned recesses formed in opposite sides thereof; a pivot pin, mounted in the sides of said casing, extending across the open end thereof; a cover, freely rotatably mounted on said pivot pin, adapted to overlie one side of said casing and guide an object into said recesses, said cover, when in closed position, obstructing said recesses whereby the object is retained therein; and means within the casing movable upon occasion by said cover for retaining the object in said recesses irrespective of the cover position comprising a spring-pressed block, slidably mounted within said casing, urged toward said pivot pin, said block having a cutaway formation in the front face thereof, alignable with bottom parts of said recesses, and having other portions adapted to obstruct the mouths of said recesses in localities therebetween.

3. A clasp coupling comprising a casing having recesses, each open at the top, formed in the sides thereof for receiving a transversely disposed bail member; a spring urged block slidably mounted within said casing having a recessed front portion engageable with a bail member positioned within the recesses as mentioned; and a cover, swingably mounted on said casing engaging with a bail positioned between parts of said cover and said block, said block having means thereon engageable by said bail, said cover when swung forcing said bail against said means to move the block backwardly and urge the bail into the recesses.

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