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2,486,057

BRACELET CLASP

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Fig. 1

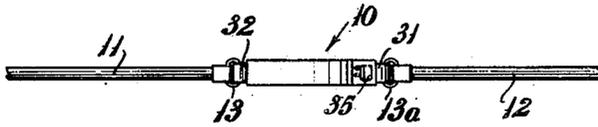


Fig. 2

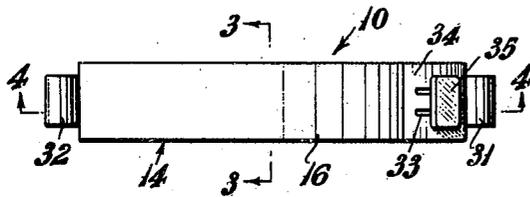


Fig. 3

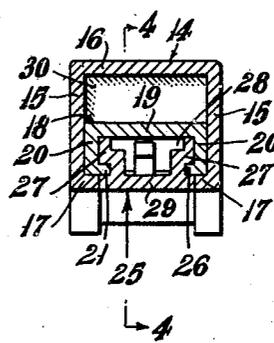


Fig. 6

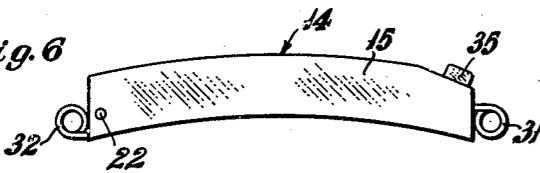


Fig. 4

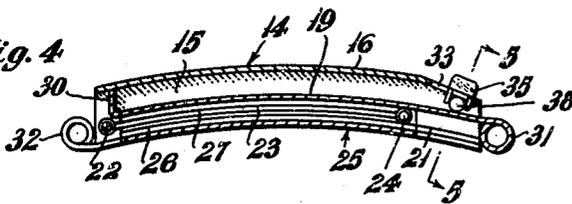


Fig. 5

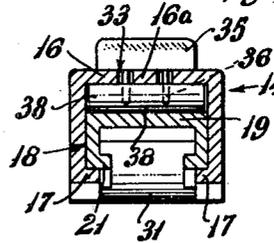
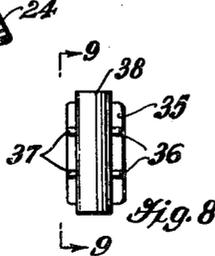
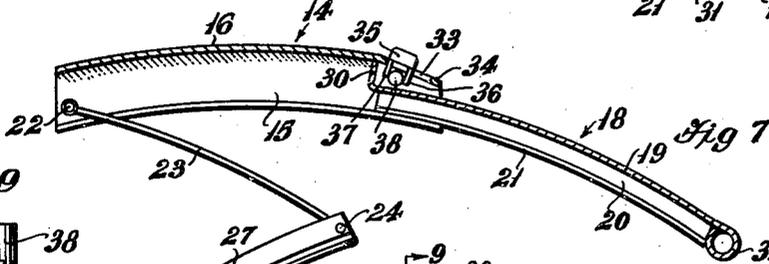
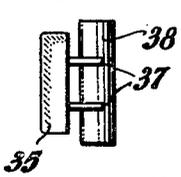


Fig. 9



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BRACELET CLASP

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5 Claims. (Cl. 24—71)

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This invention relates to expansible bracelets, circlets, straps, or the like adapted to encircle a portion of the limb of a person, such as, by way of example, arm bands of the kind used on wrist watches, and the main object of the invention is the provision of a safe, secure, and positive interlocking means for maintaining the band locked in contracted condition so that it is not only safe against inadvertent disengagement and consequent expansion or opening but, in case a force is applied which would tend to pull one locking member out of the other, the degree of positive interlocking of the said members is increased proportionately to the force applied.

The above broad as well as additional and more specific objects will become apparent in the following description, wherein characters of reference refer to like-numbered parts in the accompanying drawing. It is to be noted that the drawing is intended for the purpose of illustration only and that it is neither desired nor intended to limit the invention to any or all of the specific details of construction shown, excepting insofar as they may be deemed essential to the invention.

Referring briefly to the drawing, Fig. 1 is a top or plan view of a portion or length of bracelet or the like laid out flat and containing a locking member embodying the instant invention.

Fig. 2 is a plan view of the locking member per se of Fig. 1.

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2.

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 3.

Fig. 5 is a sectional view taken on the line 5—5 of Fig. 4.

Fig. 6 is a side elevational view of the said locking member per se.

Fig. 7 is a view similar to Fig. 4 but showing the locking member in opened or released condition, as it is when the bracelet, not shown, of which it forms a part, is in open or expanded condition.

Fig. 8 is a bottom plan view of the slide button and the roller retained thereon.

Fig. 9 is a side view of the slide button and roller shown in Fig. 8.

Referring in detail to the drawing, the numeral 10 indicates the locking member embodying the instant invention and forming a part or link in a bracelet or band of which the other links 11 and 12 are shown attached to the ends thereof by means of chain links or rings 13 and 13a, respectively.

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The locking member 10 comprises an elongated arcuate housing 14 of substantially the U-shaped cross-section shown, including the side walls or legs 15 extending from the top or roof 16, the lower edges of the walls 15 being in-turned substantially at right angles to provide opposed ledges 17. A second similarly arched member or slide 18, also of U-shaped cross-section and comprising the roof 19 and side walls 20 which have their lower edges similarly in-turned to form opposed flanges 21. The member 18 is slidably mounted in the housing 14 with the flanges 21 resting slidably on the ledges 17, and the height of the walls 20 is sufficiently less than that of the walls 15 to provide a space between the roofs 19 and 16.

Pivoted at one end on a pin 22 in the left-hand end of the housing 14 is a similarly arched link 23 of narrow width, and pivoted to the other end of the link 23 by means of a pin 24 is one end of a similarly arched trough-like member 25. The latter is provided with opposed longitudinal grooves 28 on the inside of the side walls 27 at the top of the latter. The width of the base 29 of the member 25 is such that it is adapted to fit between the ledges 17 of the housing 14 when the links 23 and member 25 are folded up into the housing 14 as shown in Fig. 4, in the manner illustrated in Fig. 3. An upturned tongue 30 is provided on the left-hand end of the roof 19 of the slide 18 and is of such a length that the length thereof plus the height of the slide 18 is substantially equal to the distance between the upper surfaces of the ledges 17 and the roof 18 of the housing 14. The slide 18 is provided on the other end with a transverse sleeve or eyelet 31, and the member 25 is similarly provided with an eyelet 32 on the left-hand end.

The right-hand end of the roof 16 of the housing 14 is flat and slopes downward toward the ledges 17, as shown at 34, and in this flat area 34 a pair of spaced longitudinal parallel slots 33 are provided through the roof 16. A button 35 is slidably mounted on the roof area 34 and is guided by spaced legs 36 and 37 extending downward through the slots 33 into the space between the roofs 16 and 19. The lower extremities of the legs 36 and 37 extend about the opposite sides of a cylinder or roller 38 which they thus confine loosely therebetween, the roof 19 on which the roller rests providing a support for the roller at the bottom.

It is now apparent that when the button 35 is moved to the right into the position shown in Fig. 4, the roller 38 will be jammed between the

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strip 16a of the roof area 34 between the slots 33 and the roof 19 of the slide 18, thus securely locking the slide in the housing 14, and any effort to withdraw the slide to the right will only cause a tighter binding between the slide and the housing 14. To permit withdrawal of the slide, however, the button 35 is moved to the left, thus disengaging the roller 38 from contact with the roof 19 or merely loosening the roller to permit it to rotate freely, whence it is apparent that the slide may be easily withdrawn to a limit point at which the tongue 30 is stopped by the sloping surface 34 of the roof 16, as substantially shown in Fig. 7.

Assuming that the member 10 is in the open or expanded condition illustrated in Fig. 7, and it is desired to close it and to contract the bracelet about the wrist, the members 23 and 25 are folded together and into the housing 14, where they will occupy the relative positions shown in Fig. 3. Then the slide 18 is pushed in all the way, in which operation the flanges 21 simultaneously ride on the ledges 17 of the housing 14 and in the grooves 26 of the member 25. Then, after the button 35 is moved to the left to jam the roller 38 against the roof 19 of the slide, the member 10 is locked in closed or contracted position. To open or expand the member 10, the button 35 is merely moved to the left and the slide is then free to be withdrawn; after the slide is withdrawn the link 33 and member 25 will fall out of the housing 14.

It is apparent from the above that a novel bracelet clasp has been provided which is extremely simple in operation and safe against inadvertent opening or loosening, and at the same time inexpensive in cost of manufacture.

Obviously, modifications in form and structure may be made without departing from the spirit and scope of the invention.

I claim:

1. A device of the class described comprising a housing having a roof, side walls and a floor and having a longitudinal opening through the housing and having a slide slidably mounted in said longitudinal opening, a portion of the surface of said roof adjacent one end of said housing sloping downward toward said one end and at an acute angle with respect to said floor, said surface portion having a longitudinal slot there-through, a member slidably mounted in a longitudinal direction on said surface portion and having a portion thereof projecting through said slot, a member loosely mounted under said first member, said portion of said first member including means for retaining said second member and having said second member retained therein and confining said second member against lateral movement, said slide being spaced from said housing roof and providing a support for said second member, movement of said first member and hence said second member toward said one end of said housing causing said second member to jam said slide against said floor to prevent withdrawal of said slide through said one end and movement of said first member and hence said second member in the opposite direction freeing said slide to permit withdrawal thereof through said one end of the housing.

2. A device of the class described comprising a housing having a longitudinal opening there-through and including a roof, side walls and a floor, said floor having a longitudinal slot there-through intermediate the width of the floor thereby providing opposed ledges along the lower

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edges of said side walls, a link pivotally secured at one end to one end of said housing between said side walls, a member pivotally secured at one end to the other end of said link, said link being pivotable into said housing through said slot and said member being pivotable into said housing through said slot, a slide of substantially the same cross-section as said slotted housing slidably mounted in said opening on said ledges and hence having a roof and extending through the other end of said housing, means partly on said slide and partly on said member for releasably retaining said member and hence said link in said housing when said slide is slid into said housing after said link and said member are folded into said housing as aforesaid, said roof having an area thereof inclined at an acute angle with respect to said slide positioned near said other end of said housing, said area having a longitudinal slot therethrough, a slidable member mounted on said area and having longitudinal projections extending through said area slot, said projections having a roller loose therein, said slide having a roof providing a support under said roller, a limit stop to the withdrawal of said slide from said housing, movement of said slidable member in one longitudinal direction causing the roller to be jammed by said slidable member against said slide roof and movement thereof in the reverse direction freeing said roller from said slide roof to permit withdrawal of said slide.

3. The device set forth in claim 2, said means partly on said slide and partly on said pivoted member comprising side walls on said slide, said slide side walls having inwardly projecting flanges, said pivoted member having complementary longitudinal grooves receptive of said flanges.

4. A device of the class described comprising a housing having a longitudinal opening there-through and including a roof, side walls, and a floor, said floor having a longitudinal slot there-through intermediate the width of the floor thereby providing opposed ledges along the lower edges of said side walls, a link pivotally secured at one end to one end of said housing between said side walls, a member pivotally secured at one end to the other end of said link, said link being pivotable into said housing through said slot, a slide of substantially the same cross-section as said slotted housing slidably mounted in said opening on said ledges and hence having a roof and extending through the other end of said housing, means partly on said slide and partly on said member for releasably retaining said member and hence said link in said housing when said slide is slid into said housing after said link and said member are folded into said housing as aforesaid, slide means slidably mounted in a longitudinal direction on said housing on the outside thereof and having a portion thereof projecting into said opening, and means partly on said housing and partly on said portion for frictionally locking said slide in said housing when said slide means is moved in one direction and for releasing said slide when said slide means is moved in the opposite direction.

5. A device of the class described comprising a housing having a longitudinal opening there-through and including a roof, side walls, and a floor, said floor having a longitudinal slot there-through intermediate the width of the floor thereby providing opposed ledges along the lower edges of said side walls, a link pivotally secured at one end to one end of said housing between said side

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walls, a member pivotally secured at one end to the other end of said link, said link being pivotable into said housing through said slot and said member being pivotable into said housing through said slot, a slide of substantially the same cross-section as said slotted housing slidably mounted in said opening on said ledges and hence having a roof and extending through the other end of said housing, means partly on said slide and partly on said member for releasably retaining said member and hence said link in said housing when said slide is slid into said housing after said link and said member are folded into said housing as aforesaid, an area of said roof adjacent said other end being inclined at an acute angle to said slide roof, said area having spaced longitudinal slots therethrough, a button slidably mounted on said area and having legs extending through said area slots, the lower ends of said legs providing a

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cup open at the bottom, a roller loosely mounted in said cup and resting on said slide roof, movement of said button in one direction causing said roller to be urged by said area between said area slots against said slide roof to lock said slide frictionally in said housing and reverse movement of said button freeing said roller from said slide roof.

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REFERENCES CITED

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

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