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BRACELET ATTACHMENT
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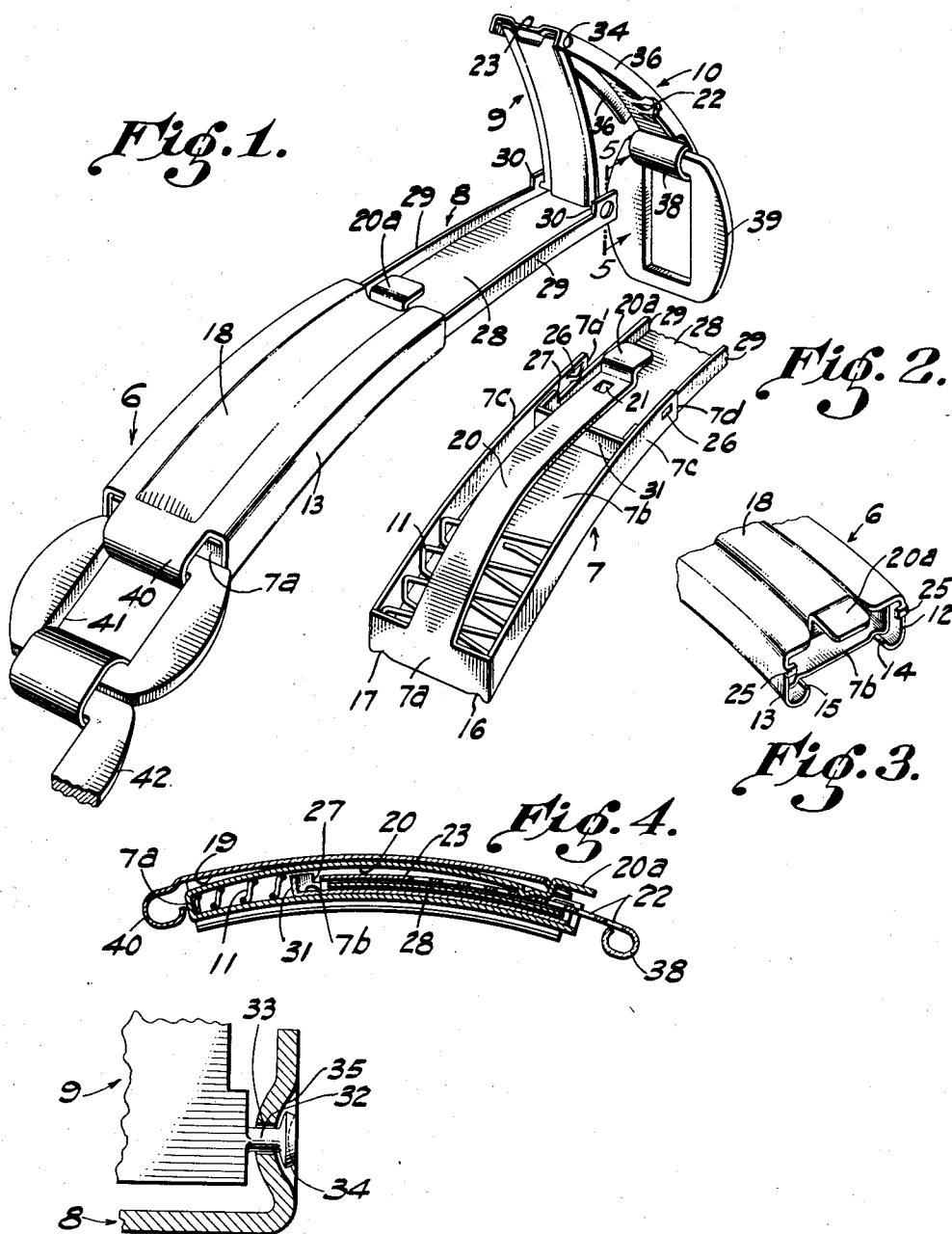


Fig. 5.

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BRACELET ATTACHMENT

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5 Claims. (Cl. 24-71)

The present invention relates to bracelet attachments and pertains more particularly to an improved extensible bracelet clasp for watches or the like. This application is a continuation in part of my co-pending application Serial No. 156,725 filed July 31, 1937.

In addition to carrying forth certain of the objects and features outlined in the foregoing application, the present invention has among its more important objects the provision of improved joint means for pivotally interconnecting the foldable elements comprising the attachment; to provide an improved casing combination construction for housing the extensible parts; to furnish improved manual releasable means permitting extension of the extendible parts; to provide improved stop means to limit distance to which certain of the extensible parts may be extended; generally simplify the parts and provide a construction wherein the efficiency of their co-action is increased and their cost of manufacture is diminished.

Still other objects, advantages, and features of invention will obviously hereinafter appear.

In this specification is included a sheet of drawings in which:

Fig. 1 is a perspective view of the improved bracelet attachment showing the sections of the attachment moved to an expanded, unfolded position.

Fig. 2 is a perspective view of the improved combination wrist plate member and releasing means shown in a detached relation. A portion of the bed plate member is included in the view.

Fig. 3 is a fragmentary perspective view illustrating the manner in which the wrist plate shown in Fig. 2 is held against extension from the main casing proper.

Fig. 4 is a longitudinal mid-section of the device in the assembled condition.

Fig. 5 is a greatly enlarged section taken on line 5-5 of Fig. 1, showing the improved pivotal interlocking joint structure of the foldable elements.

Referring in detail to the drawing, the invention in its improved embodiment comprises an outer casing member 6 having an open bottom, a wrist plate member 7 telescopic within said casing 6, a foldable bracelet extension including a bed plate member 8, a middle foldable member 9 and a terminal foldable member 10, said middle and terminal foldable members being nestable within said bed plate member, and a compression spring 11, coiled in a flat wise manner to extend said bracelet extension.

All the parts just described are slightly arched in their longitudinal extent so as to conform somewhat to the contour of the human wrist.

Along the longitudinal edges of the part 6 are formed the depending parallel flanges 12 and 13. The edges of said flanges are turned to form guide rails 14 and 15 respectively, which travel along the grooves 16 and 17 on the wrist-ward face of the plate member 7.

In the central or mid-width portion of the casing 6 is formed an elongated rise 18 in order that there may be afforded beneath said rise a broad longitudinal groove 19 in which is housed the resilient releasing tongue 20. Said tongue is formed integral with or in a fixed relation to the end wall 7a of the wrist plate member 7. Said end wall 7a is an upwardly directed part of the wrist plate bottom wall 7b. This end wall 7a forms a closure for that end of the wrist member and a closure for the adjacent end of the casing as a whole. Said wrist plate member also has side flanges 7c between which the extensible parts are housed when retracted.

The leaf releasing spring 20 is longitudinally arched to a greater degree than the rise 18 in order that the convex side of the mid-length portion of said spring be caused to engage the inner side of the rise 18, thus leaving the outer end portion of said spring free to be flexed, (when manually raised by means of its upwardly offset finger nail hold 20a) away from the wrist to release the pawl 21 of the tongue from the apertures 22.

Said apertures 22 are arranged in a series along the depressed mid-width portion 23 of the terminal foldable member 10. These apertures are each triangularly shaped, having straight sides, two of which meet in apices directed towards the outer end of said member 10.

In order to prevent undesired extrusion of the wrist plate member 7, an turned ear 25 is provided on each flange (12 or 13) of the casing 6. These ears overlie a portion of the edges 7d of the flanges 7c.

In the sides of the flanges 7c, adjacent to the edges 7d are formed inwardly directed stop lugs 26 which are engaged by upstanding shoulders 27 with which the inner end portion of the bed plate member 8 is provided. Said bed plate member is channel shaped in cross section, its floor portion 28 having side flanges 29 which are not only furnished with the shoulders 27 at one end but are likewise extended at the opposite end to form the bearing lugs 30 between and upon which is pivotally supported the inner end of

the middle foldable member 9. Said floor portion 28 has its inner end developed into a cross flange 31 which closes the inner end of the bed plate member 8 and serves as an abutment against which spring 11 acts to extrude the extensible parts when the latter are manually released by lifting the free end of the spring 20 thus disengaging pawl 21 from its retaining recess 22.

The middle foldable member 9 at each end has a trunnion-like extension 32, and these extensions are journaled in apertures 33 extending through the lugs 30. Said extensions 32 are upset to form concave-convex heads 34, the convex side of each of these heads being directed toward and housed within concave recesses 35 in said lugs 30.

At its opposite end, said middle foldable member 9 is furnished with similar trunnions also having heads 34 whereby they are pivotally interconnected with side flanges 36 of the terminal foldable member 10. Said terminal member has at its outer end a curled connecting flange 38 whereby it connects onto a bracelet link 39. The closed end of the casing 6 has a like connecting flange 40 which engages a bracelet link 41 at the opposite extremity of the bracelet section indicated by the numeral 42.

Before describing the operation, it should be noted that the compression spring 11 is coiled in a flatwise manner, the width of the coils thereof extending sufficiently to give said spring a working fit between the flanges 7c of the wrist plate member 7.

It is also to be noted that the presence of the depression 23 diminishes the height required for the rise 18 in order to provide room thereunder for the necessary flexing of the leaf spring 20.

In assembling the device, the wrist plate member 7 is telescoped into the casing 6, the guide rails 14 and 15 of said member engaging the grooves 16 and 17 of said member 7. Said flanges 12 and 13 have sufficient resiliency to permit the ears 25 to be sprung outwardly to a sufficient extent to allow the telescoping of the wrist plate member into its assembled relation within said casing 6. After said wrist plate member has been fully inserted, the ears 25 spring back over the edge portion 7d of the wrist plate member to hold said member in inserted position.

In the operation of the device, upon effecting a manual rebase of the pawl 21 from its retaining apertures, spring 11 ejects the bed plate member to a position wherein the shoulders 27 thereof engage the stop means 26. In the latter position, the middle foldable member and terminal member are free to be manually extended. If the spring 11 is made sufficiently strong, the impact of the shoulders 27 with the stop means 26 may be sufficient to automatically unfold parts 9 and 10 from their nested relation to part 8. The final adjustment of the device, after refolding the parts into their nested position, is accomplished by retracting the foldable extension to the desired extent.

It should be understood that the present disclosures is for the purpose of illustration only and that this invention includes all modifications and equivalents which fall within the scope of the subject matter claimed.

What is claimed is:

1. In combination, a bracelet attachment having a casing section, including an end wall an extrudable member therewithin provided with a depressed part along its mid-width, said de-

pressed part having in it a series of apertures which form ratchet shoulders, said apertures also having substantially straight sides which meet in apices directed towards the outer end of said extrudable member, a spring coiled in a flat wise manner so as to extend from side to side of said casing acting to extrude said extrudable member, and a release element consisting of a spring tongue, said tongue being a continuation of said end wall and having a free end portion protruding from said casing and furnished with a pawl portion to act upon the ratchet shoulders provided by said apertures, said free end portion of said tongue having a finger nail hold providing a manually operable lifting means to release said tongue from said apertures, the aforesaid apical forming straight sides of said apertures affording a bevelled lift means for the pawl portion of said tongue during the retractive movement of said extrudable member against the action of said coiled spring.

2. In a foldover connecting means for bracelets, an elongated arcuate casing having along each side a dependent flange, each of said flanges having an incurved lower part the free edge portion of which is directed upwardly causing said portion to form an upwardly directed guide rail, a wrist plate member having downwardly directed grooves which fit over said rails, said wrist plate member having a floor furnished with side flanges extending from end to end thereof, said member being slidable along said rails into a telescoped relation to said casing, with said floor portion bridging the space between said rails, and an inturned ear projecting from an end of each of the flanges of said casing in a position to overlie an end portion of the flanges of the inserted wrist member.

3. In a foldover connecting means for bracelets, an elongated arcuate casing having along each side a dependent flange, each of said flanges having an incurved lower part the free edge portion of which is directed upwardly causing said portion to form an upwardly directed guide rail, a wrist plate member having downwardly directed grooves which fit over said rails, furnished with an upturned end portion which is continued to form a tongue convexed to a less extent than the arcuate portion of said casing, the mid-length portion of the arch of said tongue abutting the inner surface of the arch of said casing, said tongue having a projecting portion which is upwardly deflected to form a finger nail lift, there being a pawl-forming depression in said tongue adjacent to said lift, an elongated extrudable member having a series of ratchet elements to cooperate with said pawl, and a spring tending to extrude said extrudable member.

4. The subject matter of claim 3 and, said extrudable member having at each side a stop shoulder and said wrist plate member having at each side an impressed extension forming a stop to cooperate with said shoulder to limit the extrusive movement of said extrudable member.

5. In a bracelet section, an elongated longitudinally arcuated casing including an end wall; an elongated extrudable member within said casing, said member being provided with a longitudinal row of apertures, there being a longitudinally extending space within said casing alongside said member between it and an adjacent wall of said casing, an arcuated spring, one end of said spring being formed integral with said end wall rearwardly of said member, the convex face of the body portion of said spring being directed

toward and housed within the arcuated wall of said casing defined by said space so as to overlie said member when the latter is in the retracted position, said spring tending to assume a position wherein its convex face is arched to a greater extent than the arcuated wall in which it is situated, that end of said spring which is farthest from said end wall being free and protruding from the end of said casing which is opposite to the end which supports said spring, said protruding end having both a lift and a pawl, the pawl cooperating with said apertures to hold said member in selected retracted position and said lift providing a finger nail hold to release manually said pawl from said apertures by a lifting action, and yieldable means comprising a spring coiled in a flatwise manner occupying the full width of said casing and positioned to eject automatically said member when released in the aforesaid manner.

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