Nov. 30, 1954 M. KOLBE 2,695,740

EXTENSIBLE BRACELET

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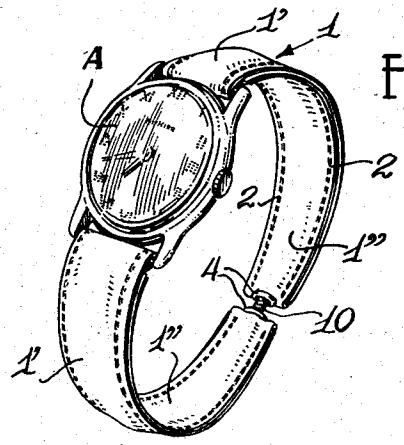


Fig. 1

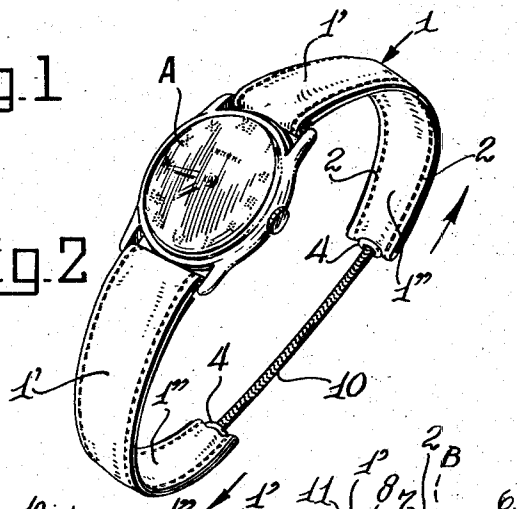


Fig. 2

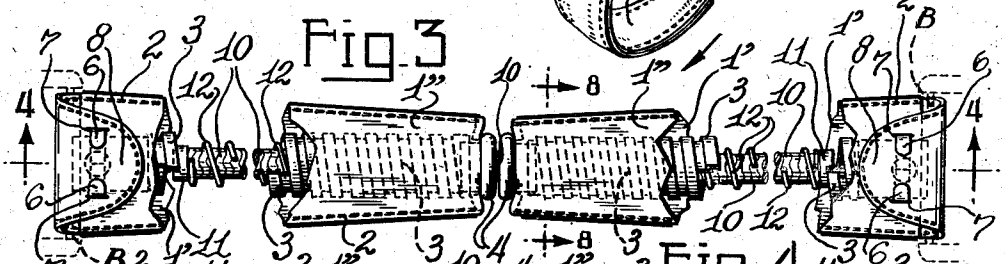


Fig. 3

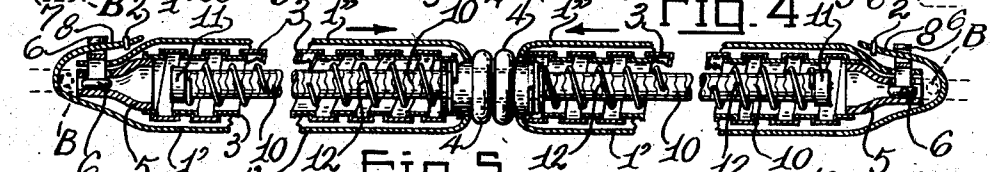


Fig. 4

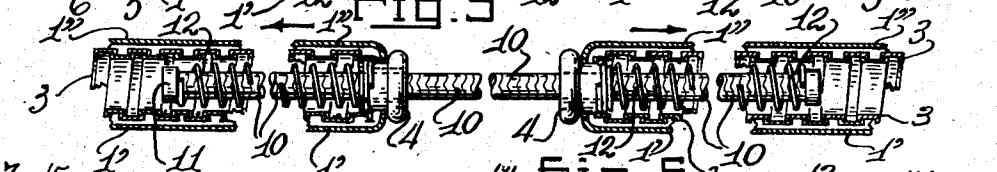


Fig. 5

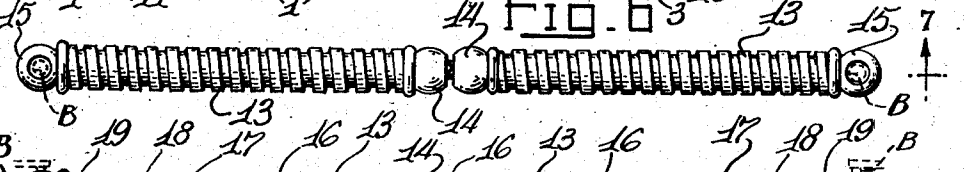


Fig. 6

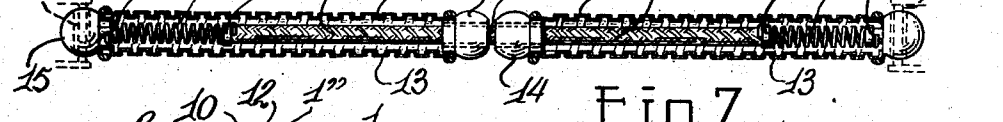


Fig. 7

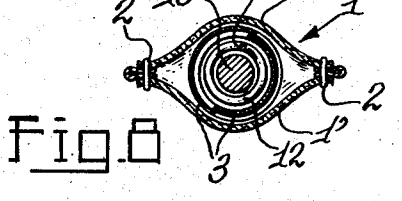


Fig. 8

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EXTENSIBLE BRACELET

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1 Claim. (Cl. 224—4)

The present invention relates to an extensible device for use as a wrist watch strap, bracelet, extension chord and the like.

Known extensible watch straps are generally constituted by a number of short links pivotally secured at their ends to one another and urged to take a contiguous position by means of a plurality of small springs.

Such extensible straps or chords have the disadvantage of being complicated and expensive to manufacture and, furthermore, they are liable to break relatively easily, especially the small springs mentioned above.

Also, all known expansion bracelets endanger the skin by pinching and the metal parts always touch the skin, sometimes causing discomfort or coloration, especially in hot weather.

It is an object of the present invention to provide an extensible unit which is relatively simple and inexpensive to manufacture and which is of rugged construction and has a minimum of parts.

Another important object resides in the provision of an extensible wrist watch strap which has the general appearance of a non-extensible conventional watch strap without any metal parts coming in contact with and pinching the wearer's skin to cause discomfort.

Still another important object of the invention is the provision of an extensible unit composed of at least a pair of elongated hollow flexible elements linked by a flexible chord-like element extending within said hollow elements and spring urged to enter substantially an equal distance in each of them.

Yet another important object of the present invention is the provision of an extensible unit for a wrist watch and the like, comprising three inextensible flexible elements linked in series, the intermediate element being spring connected at both ends to the outer elements in such a way that the latter will be urged towards each other without substantial displacement of the intermediate element.

Another object of the invention resides in the provision of an extensible wrist watch strap which will not pinch or otherwise injure the skin of the wearer.

Still another object of the present invention resides in an extensible device capable of a maximum of extension relatively to its length when in retracted position.

The above and other objects of the invention will become clearer in the following description and by referring to the appended drawings which are given as non-limitative examples of the present invention.

Figure 1 is a perspective view of an extensible wrist watch strap shown in retracted position;

Figure 2 is a perspective view of the same shown in extended position;

Figure 3 is a broken plan view of the strap in retracted position, looking underneath;

Figure 4 is a longitudinal section along line 4—4 of Figure 3;

Figure 5 is a view similar to Figure 4, but showing the device in extended position;

Figure 6 is a plan view of a second embodiment of the invention;

Figure 7 is a section on line 7—7 of Figure 6; and

Figure 8 is a cross-section along line 8—8 of Figure 3.

Referring in more details to the drawings in which like elements are indicated by like reference characters, the extensible device comprises two flexible straps 1 attached at one end to the watch A and each formed of a strip of leather, plastic and the like, folded back over itself to form an outer wall 1' and an inner wall 1'' secured along their edges by the lines of stitching 2.

Thus, the straps 1 are hollow elements into which extends a flexible metallic tube 3 preferably made of interlocking helically wound strips having a U-shaped cross-section.

One end of the tube 3 is secured to a flanged sleeve 4 projecting from the free end of each strap 1, and the other end of said tube 3 is terminated by a flattened perforated nipple 5 which is secured to the strap 1 adjacent the watch A by means of a fastener 6. The legs of said fastener passes through the hole of the nipple 5 and a registering hole made in the inner wall 1'' of the strap 1.

The same fastener may serve to attach the straps 1 to the fastening rods B of the watch A. For that purpose, the legs of said fastener are bent in opposite directions flat against the inner wall 1'' of the strap 1 and then bent a second time to project upwardly for entering two spaced slots 7 made in the flap 8 extending from the outer wall 1' and folded over the fastening rod B. The free ends of the legs of the fastener are then bent a third time against said flap 8.

A flexible link 10, in the form of a metal chain or the like, preferably of circular cross-section, extends through the flexible tube 3 and sleeve 4 of each strap 1. The free ends of said link 10 are provided with a collar 11 serving as an abutment for the compression coil spring 12 surrounding each end portion of the link 10 within the tubes 3. The other end of the spring 12 presses against the sleeve 4.

The compression springs 12 are preferably of substantially equal strength and urge the ends of the link 10 away from the sleeves 4 to substantially the same extent.

Thus, when the wearer puts the watch A around his wrist, the link 10 will not be displaced longitudinally upon closing or the bringing together of the straps 1 and there will be no tendency of the watch A slipping sideways.

It will be noted that, because they are normally at rest, the springs 12 will maintain their resiliency for a long time.

Another embodiment of the invention, illustrated in Figures 6 and 7, takes the form of a lady's wrist watch strap.

In this embodiment, the straps 1 are absent and the tubes 13 are preferably made of a precious metal such as gold or silver. Said tubes 13 may also be made of a common material and covered with a suitable fabric.

The sleeves 14, secured at the inner end of the tubes 13, may be spherical as well as the watch fastening elements 15 secured to the other end of said tubes 13.

In this second embodiment, the flexible link 16 may be made of woven silk and the like, and is terminated by collars 17 for attachment of the tension springs 18 which are secured at their other ends to the studs 19 depending from the fastening elements 15.

It is to be understood that the embodiments here presented are merely illustrative and are not to be taken as limitative, since many variations of the generic invention may be made within the scope of the claim by those skilled in the art.

I claim:

In an extensible wrist watch strap two flexible tubular elements comprising interlocking helically wound strips of U-shaped cross-section, the elements having a closure nipple at one end, a watch bail engaging part extending from each closure nipple, a flanged sleeve at the other end of each element, each sleeve having an opening, a flexible member extending through said sleeve openings and into the flexible elements, a collar of a width greater than the spacing between a helical turn of the helically wound strips at each end of the flexible member, and a spring coil in each flexible element around the flexible member portion therein and having one end secured to

the collar of the flexible member portion and the other end secured to the sleeve of its flexible element.

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