Sept. 29, 1931. L. F. OTTEN 1,825,156

BRACELET EXTENSION DEVICE

Filed Jan. 25, 1930

Fig. 1.

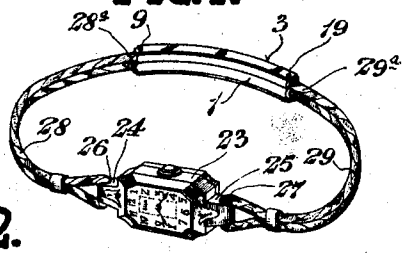


Fig. 3.

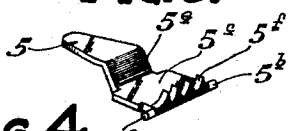


Fig. 4.

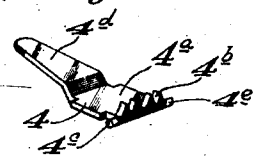


Fig. 2.

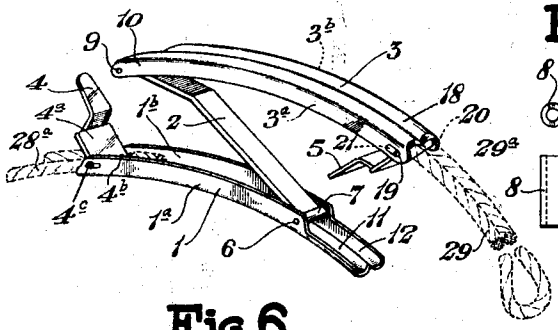


Fig. 5.

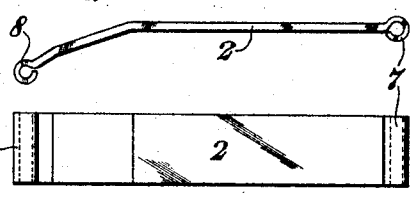


Fig. 6.

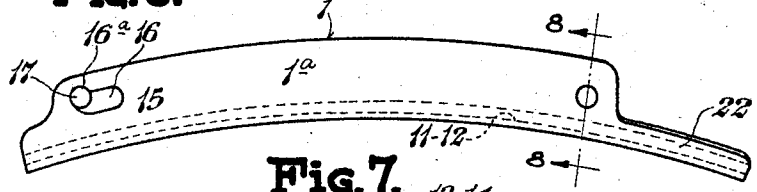


Fig. 7.

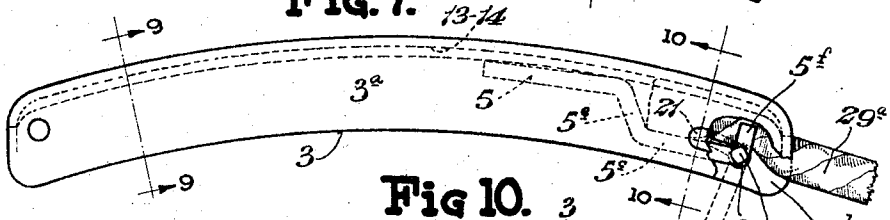


Fig 10.

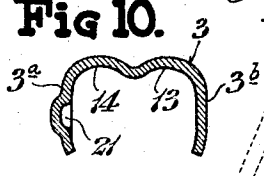


Fig. 9.

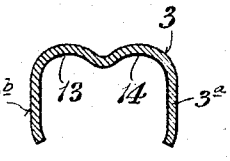
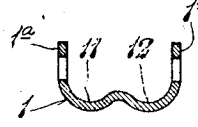


Fig. 8.



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UNITED STATES PATENT OFFICE

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BRACELET EXTENSION DEVICE

Application filed January 25, 1930. Serial No. 423,383.

My invention relates more particularly to adjusting means for cord bracelets, but may also be used in connection with metal-mesh, fabric, leather, and any other suitable material.

There is now a demand by the trade and public for cord bracelets which are principally used to support a lady's watch upon the wrist but, so far as I am aware, I am the first to devise extension means therefor whereby it can be lengthened or adjusted for size by the wearer and with the utmost ease to facilitate the bracelet being passed over the hand of the wearer.

The construction of a cord bracelet is such that it cannot be detached at the watch ends, as is the usual practice, so that any adjustment of the band must be taken care of by the extension member connecting the other or outer ends of the cord bracelet. The connecting member for cord bracelets now in use requires the expert service of a jeweler and once the cord is adjusted for a given size of adjustment is permanent and can never be made larger but, if desired, can be made smaller by a skilled workman, such as a jeweler.

My invention overcomes the above disadvantages relating to cord bracelets for wrist watches and provides simple, efficient and convenient means whereby the cord bracelet can be readily adjusted for various sizes of wrists by the wearer and without the aid of a jeweler or other skilled workman.

Another object of my invention is to provide simple, efficient and convenient means for cord bracelets whereby the cords can be easily removed and replaced, when desired, by the wearer.

A still further object of my invention is to provide an efficient, strong and durable extension device for bracelets of economical construction and which is simple and easy to operate.

My invention consists in providing a cord or similar bracelet having in its construction an extensible member which comprises a plurality of foldable sections or links which are adapted to be unfolded to enlarge the bracelet when placed over the hand and means in said extensible member for detachably connecting it to the sections of the cord bracelet to enable the cord to be adjusted as to length to neatly fit wrists of different sizes.

My invention also consists in the detachable clamps for releasably holding the ends of the cord within the extension device and it further consists in the novel features of construction and in the combination and arrangement of parts as herein set forth and claimed.

In the drawing:

Fig. 1 is a perspective view of a wrist watch equipped with a cord bracelet, the novel extension device being shown in closed position thereon;

Fig. 2 is a slightly enlarged perspective view of my extension device shown partly in open position, the clamps being shown in the unclamped position and portions of the cord bracelet indicated by dotted lines;

Fig. 3 is a perspective view of the top clamp;

Fig. 4 is a perspective view of the bottom clamp;

Fig. 5 is an edge and face view of the center link of the extension device;

Fig. 6 is a detail of the bottom fold shown in side elevation and on a greatly enlarged scale;

Fig. 7 is a side elevation of the top fold on an enlarged scale similar to Fig. 6 and showing a portion of the right hand end broken away to clearly illustrate (by dotted lines) the action of the clamp with respect to the end of the cord bracelet held therein;

Fig. 8 is a cross section of the bottom fold taken on a plane corresponding to line 8—8 of Fig. 6;

Fig. 9 is a cross section of the top fold taken on a plane corresponding to line 9—9 of Fig. 7; and

Fig. 10 is a cross section of the top fold taken on a plane corresponding to line 10—10 of Fig. 7 with the clamp and cord bracelet omitted.

In the embodiment of my invention as illustrated and which shows a preferred construction I provide an extension device for cord, metal mesh, or leather bracelets, con-

sisting generally of bottom fold 1, center link 2, top fold 3, bottom clamp 4 and top clamp 5, respectively, all as clearly illustrated in Fig. 2.

It is desirable to provide a cord bracelet for wrist watches with an extension device which may be manipulated to extend the effective length of the bracelet to permit it to be passed over the hand of the wearer in removing the watch from the wrist without detaching any of the parts and in order to do this I provide a plurality of foldable sections, namely, bottom fold 1, center link 2 and upper fold 3. One end of center link 2 is pivotally connected to one end of bottom fold 1 by pin 6, said pin being permanently attached to said bottom fold in any suitable manner as, for example, by upsetting or heading the ends of said pin after it has been passed through the loop 7 of center link 2. The other end of said center link 2 is preferably bent, as shown in Figs. 2 and 5, to provide clearance for the bottom clamp 4 when the parts are moved to closed position shown in Fig. 1. This upwardly bent end of the center link 2 is also provided with a loop 8 which receives pin 9, thus pivotally connecting end 10 of the upper fold 3 to the upwardly bent end of the center link 2 in a manner similar to that described in connection with pin 6.

As shown in the sectional views 8, 9 and 10, the bottom of bottom fold 1 is bent to form parallel grooves or channels 11 and 12 to conform to the shape of the lower half of the cord bracelet and the top of top fold 3 is likewise bent to form parallel grooves or channels 13 and 14 for the same reason.

As shown in Fig. 4, the bottom clamp 4 is illustrated in detail and comprises flattened portion or body 4*a* having gripping teeth 4*b* integrally formed therewith and bent at right angles thereto, oppositely disposed nibs 4*c* and 4*e* and offset finger pull 4*d*. The upwardly extending walls 1*a* and 1*b* near end 15 of bottom fold 1 are provided with slot 16 and hole 17, respectively. End 16*a* of slot 16 is in direct alinement with hole 17 of wall 1*b*. Said hole 17 receives nib 4*e* of bottom clamp 4 and slot 16 receives the remaining nib 4*c* of bottom clamp 4, thereby pivotally supporting said clamp between the walls 1*a* and 1*b* of bottom fold 1, as clearly shown in Fig. 2. The said slot 16 and hole 17, as well as the nibs 4*c* and 4*e* are concealed from view by the walls 3*a* and 3*b*, respectively, of upper fold 3, when the parts are in closed position as shown in Fig. 1.

Walls 3*a* and 3*b* are provided near end 18 of top fold 3 with alined holes 19 and 20, respectively, which holes pivotally receive nibs 5*a* and 5*b*, respectively, of top clamp 5.

In order to insert the nibs 5*a* and 5*b* of top clamp 5 within the holes 19 and 20, respectively, in walls 3*a* and 3*b* of top fold 3, I provide a recess 21 formed upon the inner surface of wall 3*a* (see Fig. 10) in a plane parallel with the longitudinal dimension of the upper fold 3, one end of said recess being terminated by the hole 19. Therefore, to insert the top clamp 5 between the walls 3*a* and 3*b* of top fold 3, simply place nib 5*b* within hole 20 in wall 3*b* and nib 5*a* of clamp 5 within the recess 21 and move the latter nib forwardly until it slides within the hole 19 of wall 3*a* whereupon said clamp 5 is pivotally and detachably retained between the walls 3*a* and 3*b* of top fold 3, as clearly shown in Figs. 2 and 7. As shown in the sectional views, Figs. 9 and 10, the lower edges of walls 3*a* and 3*b* of top fold 3 are slightly bent inwardly so as to firmly engage the outer surfaces of walls 1*a* and 1*b* of bottom fold 1. The friction between top fold 3 and bottom fold 1, (due to the edges of walls 3*a* and 3*b* being bent slightly inwardly) serves to hold the bottom fold 1 in nested relation within top fold 3 when the extension device is in the closed position shown in Fig. 1. End 22 of bottom fold 1 is partially cut away, as clearly illustrated in Figs. 2 and 6, to provide clearance for the flattened portion 5*c* and offset portion 5*e* of top clamp 5.

In considering the operation of the extension device refer to Fig. 1, wherein a wrist watch 23 is constructed for use with cord bracelets, the lugs 24 and 25 of which are provided with cord receiving holes 26 and 27. Cords 28 and 29 are passed through, the holes 26 and 27 of lugs 24 and 25, respectively, and the outer free ends 28*a* of the cord 28 are securely held within bottom fold 1 by the teeth 4*b* of bottom clamp 4 when said clamp is moved to the clamping position within the walls 1*a* and 1*b* of said bottom fold 1. The outer free ends 29*a* of cord 29 are likewise received by end 18 of top fold 3 and held within the grooves or channels 13 and 14 by teeth 5*f* of top clamp 5 when said clamp is moved to the clamping position within the top fold 3, as shown in Fig. 7.

Assuming that the bracelet is to be lengthened, it is merely necessary to open the extension device by removing the top fold 3 from holding position relative to the bottom fold 1, whereupon the clamps 4 and 5, or either of them, can be opened and removed and the cords 28 and 29 adjusted to the desired length and the clamps then returned to clamping position upon the cord. If it is desired to shorten the bracelet, the free ends 28*a* and 29*a* of cords 28 and 29 can be moved farther into the bottom and top folds 1 and 3, respectively, after removing the clamps and securely held in adjusted position by replacing the clamps 4 and 5 and moving them to closed position, as is clearly apparent by the drawings (Fig. 7).

An important feature of my invention

consists in the simple means of removing and replacing either clamp for the purpose of shortening or lengthening the bracelet and this is readily accomplished by merely removing the clamp in the manner above described and adjusting the cord longitudinally within the channel, either inwardly or outwardly, to shorten or lengthen the bracelet, as the case may be, and then, while the cord is in that position, inserting one nib of the clamp in the hole and the other nib in the slot and drawing it to the end which is in alinement with the hole and then close the clamp to the dotted position shown in Fig. 7.

In practice, these bracelets are made and supplied to the trade and public with cords of sufficient length for any size of wrist and then in order to adjust them to a smaller size it is necessary to remove the clamp and cut off enough of the ends of the cord to reduce it to the proper length, whereupon it is replaced within the channel and the clamp reinserted in position and clamped thereon, as before described. This construction and arrangement results in reducing the size of the extension device to a minimum and by having the clamps removable the cord is placed in position or replaced with great ease and facility by merely laying it in the end of either channel and then inserting the clamp thereon instead of endeavoring to feed or wedge it endwise beneath the clamp when in open position.

The advantages of my invention are readily apparent as, for example, the bracelet can be linked so as to permit its removal over the hand of the wearer without disconnecting any of the parts; second, should occasion arise for replacing the cord, or cords, when worn or for the purpose of changing the color of the cords, or for any other purpose requiring a change of the cord, the clamps of the extension device can be quickly released whereupon the cord can be removed from the extension device and then from the watch case and replaced by the wearer without the aid of a jeweler or skilled workman; third, no tools are required for changing the bracelet or extending or reducing its size; fourth, the construction of the extension device is such that its size can be reduced to approximately the size of the bracelet cord, thereby giving a streamline appearance to the bracelet when in position upon the wrist.

While I have shown and described one particular embodiment of my invention, it is to be understood that certain mechanical changes and modifications can be made without departing from the scope or spirit thereof as defined in the claims.

What I claim as new and desire to secure by Letters Patent is:

An extension device for cord bracelets and the like comprising a plurality of sections hinged together to fold one over the other, two of said sections being longitudinally and transversely arched and each of said sections being provided with parallel channels, which channels receive the outer ends of said bracelet, and clamping means carried by said last-mentioned sections to detachably hold the outer free ends of said bracelet in adjusted position within the channels of said last-mentioned sections.

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