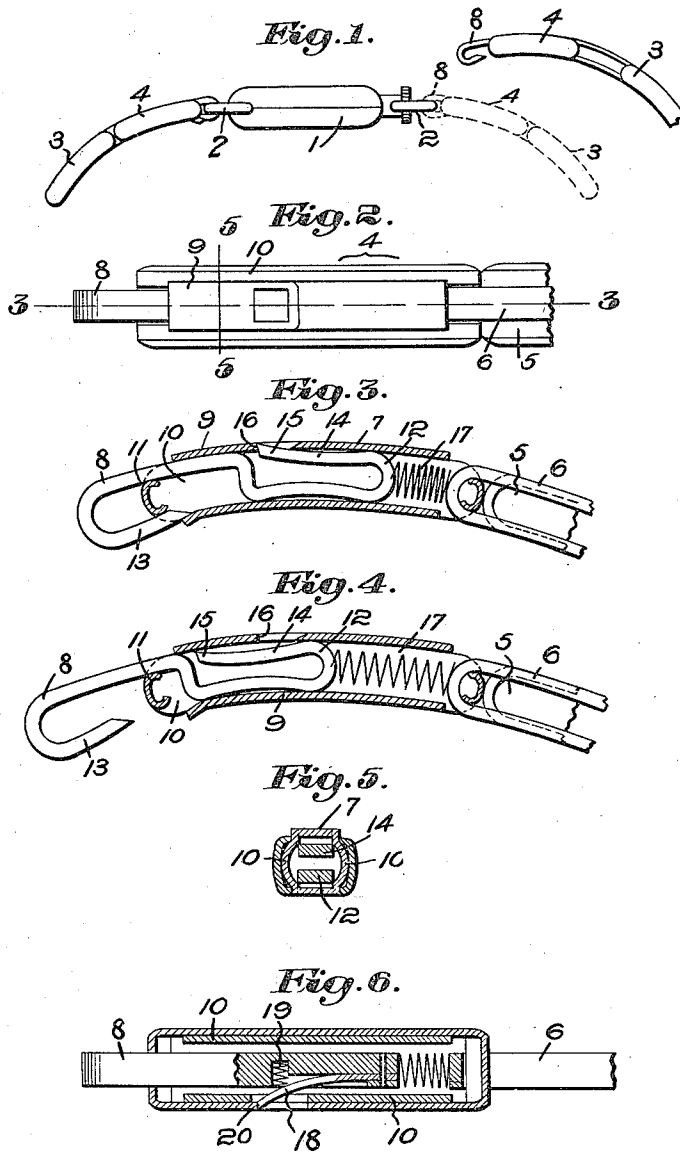


A. HADLEY.
BRACELET.
APPLICATION FILED MAR. 4, 1916.

1,224,921.

Patented May 8, 1917.



Inventor:
A. Hadley,
by Emery, Booth, Jarney & James,
Attorneys.

UNITED STATES PATENT OFFICE.

ART HADLEY, OF PROVIDENCE, RHODE ISLAND.

BRACELET.

1,224,921.

Specification of Letters Patent.

Patented May 8, 1917.

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To all whom it may concern:

Be it known that I, ART HADLEY, a subject of the King of Great Britain, and a resident of Providence, in the county of Providence and State of Rhode Island, have invented an Improvement in Bracelets, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention relates to bracelets and in particular to that form of bracelet which is made up of links and which is commonly used to secure watches and other articles to the wrist. A cardinal object of my invention is to provide a bracelet which can be easily and safely manipulated to place it on the wrist or remove it.

The form of bracelet generally used to hold a wrist watch is the so called expansible bracelet consisting of a number of links each of which comprises two relatively slidable parts that normally lie in contracted relation but which may be drawn apart against the force of a spring, thus temporarily increasing the length of the bracelet. It was first customary to secure a length of this expansible chain directly to the watch, relying on the expansibility of the bracelet to permit the slipping of it over the hand. It was soon found however that it was impracticable to make a bracelet which would fit snugly to the wrist when contracted and still pass readily over the hand and the excessive strain to which bracelets were put in adjusting them was a fruitful source of breakage. The use of various forms of separable fasteners, either "center snaps" disposed diametrically opposite the watch or "end snaps" where the links of the bracelet joined the watch was resorted to to allow of the separation of the bracelet at some point in its length so that it could be placed directly about the wrist. None of the devices utilized, however, gave entire satisfaction because of the peculiarly exacting conditions of use in a bracelet. The problem involved is not the production of a form of separable fastener but rather the proper construction of separable link bracelet.

It will be appreciated that, since the bracelet is applied about the wrist of one hand, only the other hand is available for the manipulation of any securing device and because of the small size of the links and their closeness to the wrist only the tips of the

first few fingers and of the thumb can be used. A considerable delicacy of handling is also necessary as any fumbling or hard pulling may dislodge the watch from the wrist and cause a disastrous fall. With these conditions in mind, it is necessary to construct a bracelet in such a way that the various parts thereof will act together to attain a satisfactory result. How I am enabled to attain such a result by the use of my invention will be best understood by reference to the following description of one specific embodiment thereof taken in connection with the accompanying drawings, wherein:

Figure 1 is a side view of a wrist watch and some of the adjacent links of the bracelet, the view also showing the method of securing the same about the wrist;

Fig. 2 is a plan view of the clasp or separable fastening which forms a part of the bracelet;

Fig. 3 is a section on the line 3—3 of Fig. 2;

Fig. 4 is a view similar to Fig. 3 but showing the clasp when in an extended position;

Fig. 5 is a cross section on the line 5—5 of Fig. 2; and

Fig. 6 is a longitudinal section of a modified form of clasp.

In these drawings I have shown my invention as applied to a bracelet which carries a wrist watch and in Fig. 1 is illustrated the watch 1 provided with suitable eyes 2 at opposite sides thereof to receive the terminal links of the flexible bracelet. This bracelet comprises a suitable number of expansible links 3, pivoted together to form a chain-like structure freely flexible at all times and adapted to conform to the wrist and fit closely about the same, and clasp links 4 which permit the bracelet to be fastened and unfastened. These links may be placed at any convenient point but herein I have shown two of them as terminal links engaging the eyes 2—2 of the watch and forming therewith complete clasps each comprising two separable elements.

The links 3 are in themselves of well-known form and do not need an extended explanation here. They comprise the housings 5 in which the central parts 6 are slidable. These central parts are normally held in contracted relation with the housings 5 as shown in dotted lines in Fig. 1 but may be drawn out to an extended position as shown in full lines in that figure against the action

of springs. Combined with these links are fasteners 4 shown in detail in Figs. 2 to 5 and which I will now describe. These clasp links may vary considerably in form but in general comprise a female member or housing 7 and a male or hook member 8. This housing may take any convenient form but herein I have shown it constructed from bent up blanks and it comprises the tubular body portion 9 which is received between the side members 10 joined at their ends by the cross pieces 11. The hook member 8 comprises the body portion 12 which slides within the housing between two cross pieces 11 and the hook proper 13, which opens downwardly for a purpose which will be later explained, projects from the body portion 12 outwardly at one end of the link. When the body portion is slid to the extreme right hand position as shown at Fig. 3 the hook 13 will be closed, in the example shown by the proximity of its point to the housing of the clasp. To retain the hook member in this position the body portion 12 is provided with a spring catch here shown as consisting of a resilient arm 14 having the turned up end 15 which is adapted to engage a hole 16 in the top of the tubular member 9.

The end 15 will be released from the hole 16 by pressure thereon and the hook member thus released for movement to the open position shown in Fig. 4, thereby increasing the effective length of the bracelet. When the member is pushed to the right from open position the end 15 will snap into the hole 16 and automatically lock the snap in a closed position. Interposed between the left hand cross bar and right hand cross bar 11 to the end of the body member 12 I have shown a spring 17 which is compressed when the snap is closed. It will be apparent that when the end of the arm 14 is depressed out of engagement with the hole 16 the spring 17 will expand as shown in Fig. 4 and project or "kick out" the hook 11. The snap is thus arranged with a hook which is normally closed but which will be automatically opened upon the pressure of the finger.

The operation of my improved bracelet can now be understood and I will again refer to Fig. 1. Supposing the bracelet to be clasped about the wrist and supposing that it is desired to remove the same, the parts being in the position shown in Fig. 1 and the link or clasp 4 being in the dotted line position, it is seized between the fingers of the other hand and the expansibility of the links 3 permit a good grip of the link 4 to be taken. The catch 15 is then depressed and the spring 17 will act to throw the hook 13 to the position shown in Fig. 4, thus automatically increasing the length of the bracelet and facilitating its removal from the wrist. As this hook faces downwardly it is easy to lift it from engagement with the eye

2 without in any way disturbing the watch. In this action the expansibility of the links 3 is again of service since it permits the extension of the bracelet so that the point of the hook will clear the edges of the eye 2 if the expansibility of the clasp link proper is not sufficient. On replacing the bracelet it is wrapped about the wrist and the clasp 4 presented to the eye as shown in Fig. 1. The expansibility of the links 3 permits the fingers of the hand to lift the clasp link 4 as shown in that figure and readily to insert the hook 13 from above while the fingers are holding the clasp link in a firm grip. The link may then be pressed together and will be automatically locked by the parts 15 and 16. In both these actions of putting on and taking off the bracelet the fact that the hook 13 opens downwardly is of considerable importance as it permits the application of the clasp link from the outside of the circle formed by the bracelet and consequently the fingers can get a good grasp and will not be interfered with by the wrist. Furthermore, it is unnecessary to push the hook in beneath the eye 2 which would tend to dislodge the watch which rests on the back of the wrist. Because of the automatic action of the spring 17 the only manipulation necessary to open and close the clasp is simple pressure of the finger nail and there is no pulling or straining which would tend to cause the watch to fall or any adjustments to be made of small parts as the use of most forms of clasps would require if made on such a small scale as is necessary in these bracelets.

In Fig. 6 I have shown in longitudinal section a modified form of catch which I may use in a bracket. In this case, instead of providing a body portion 12 with a spring arm 14 carrying a catch 15, I provide a separate lock 18 supported laterally of the body portion 12 by an independent spring 19. This catch engages an opening 20 in the side of the link. By the use of this form of catch it is possible to release the hook and allow it to be moved to its open position by the action of the fingers in grasping the catch to manipulate the bracelet.

It will be understood that while I have described in some detail the particular form of my invention shown in the drawings hereunto annexed that I have done so with an identifying and not with a limiting intention and that my invention is capable of embodiment in many forms and that the particular elements here shown as parts of the combination might be replaced by others having an equivalent function in that combination.

The important feature of my invention is the providing of a bracelet which embodies a fastening which, because of its construction and its relation to and coöpera-

tion with the other elements of the bracelet, can be readily opened and closed by the fingers of one hand while the bracelet is in position on the wrist of the other hand.

5 What I do claim and desire to secure by Letters Patent is:

1. A bracelet comprising a multiplicity of relatively short links pivotally connected in chain-like form to constitute a structure at 10 all times freely flexible and thereby being adapted to conform to and fit closely about the wrist, said bracelet embodying expansible means for increasing the length thereof during application to or removal from 15 the wrist, resilient means tending to move said expansible means into expanded relation, and releasable catch means for holding said expansible means in contracted relation during the usual wearing of said 20 bracelet on the wrist.

2. In an expansible bracelet, the combination with resiliently contracted expansible links, of resilient means tending to elongate said bracelet to reduce the tension on said 25 resiliently contracted links during application or removal from the wrist of said bracelet, and releasable catch means for holding said resilient means in contracted relation during the usual wearing of said 30 bracelet on the wrist.

3. In a bracelet, the combination of a plurality of flexibly connected links with a clasp for holding said links about the wrist,

said clasp including two interlocking elements separable from each other for removing said links from about the wrist, resilient 35 means tending to elongate said clasp to loosen said links on the wrist preparatory to removal thereof, and a releasable locking device for holding said clasp in contracted 40 position against the pressure of said resilient means, whereby on release of said locking device said clasp is elongated by said resilient means, thereby increasing the 45 length of said bracelet and facilitating the removal thereof from the wrist by the other hand of the wearer.

4. In a bracelet, the combination of a plurality of resiliently contracted expansible 50 links, with a clasp for releasably holding said bracelet closed on the wrist, said clasp including two relatively slidable interlocking elements which provide for a reduction in the tension of said expansible links, resilient means for pressing said relatively slid- 55 able interlocking elements into extended relation, and releasable locking means for holding said interlocking elements in contracted relation with increased tension on said expansible links and against the pres- 60 sure of said resilient means.

In testimony whereof, I have signed my name to this specification.

ART HADLEY.

Witness:

E. L. BYERS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

Correction in Letters Patent No. 1,224,921.

It is hereby certified that in Letters Patent No. 1,224,921, granted May 8, 1917, upon the application of Art Hadley, of Providence, Rhode Island, for an improvement in "Bracelets," an error appears in the printed specification requiring correction as follows: Page 2, line 104, for the word "bracket" read *bracelet*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 19th day of June, A. D., 1917.

[SEAL.]

F. W. H. CLAY,

Acting Commissioner of Patents.