Jan. 2, 1940. E. PRESTINARI 2,185,736

BRACELET CONNECTING LINK

Filed June 24, 1936

Fig. 1.

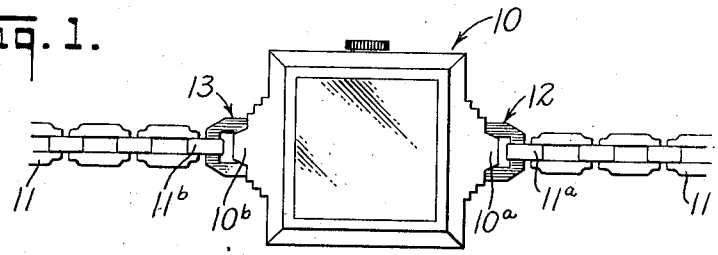


Fig. 2.

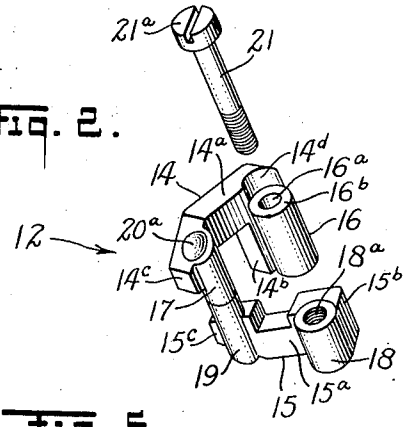


Fig. 3.

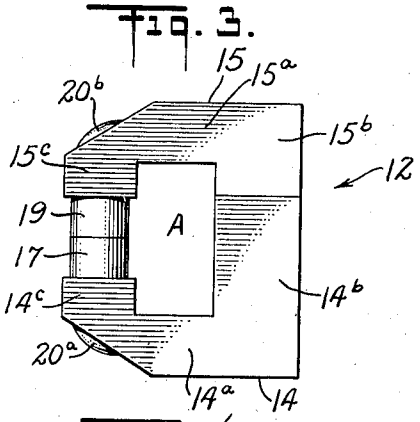


Fig. 5.

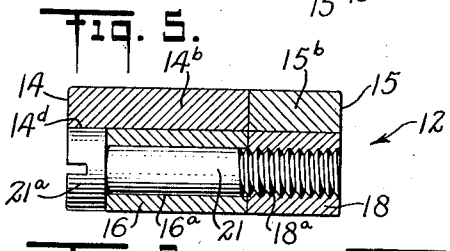


Fig. 4.

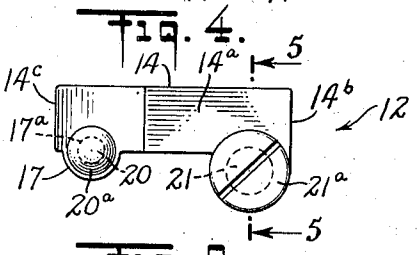


Fig. 6.

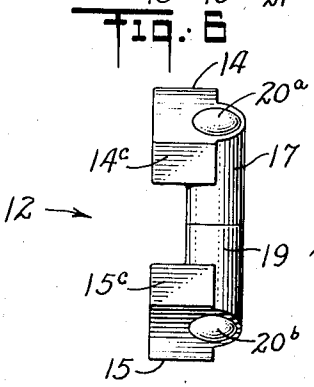


Fig. 7.

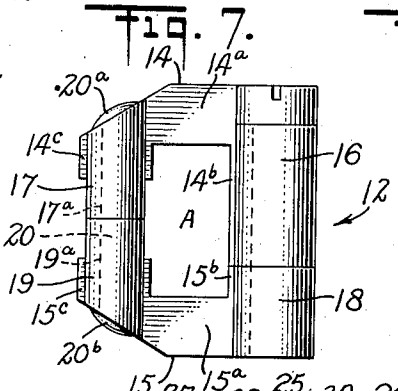


Fig. 8.

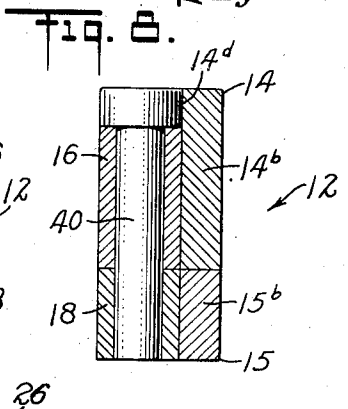
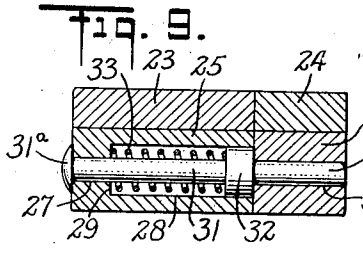


Fig. 9.



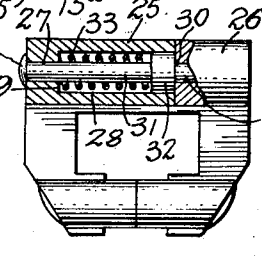


Fig 10

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BRACELET CONNECTING LINK

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Application June 24, 1936, Serial No. 86,915

9 Claims. (Cl. 24—265)

This invention relates to a securing device, and more particularly to an end link for the bracelet chain of a watch or the like.

One of the objects of this invention is to provide an end link for a bracelet chain or the like which is simple and sturdy in construction and durable under conditions of rigorous use. Another object is to provide an end link of the above nature which may be readily and inexpensively manufactured in large quantities. Another object is to provide an end link of the above nature which can be made of inexpensive materials, which is pleasing in appearance, and which may readily conform in design to the design of a bracelet chain to which it is attached. Another object is to provide an end link of the above nature by which an end of a bracelet chain may be readily and securely fastened to or removed from the bail of a watch. Other objects will be in part apparent and in part pointed out hereinafter.

The invention accordingly consists in the features of construction, combinations of elements, and arrangements of parts as will be exemplified in the structure to be hereinafter described and the scope of the application of which will be indicated in the following claims.

In the accompanying drawing, in which are shown several of the various possible embodiments of my invention,

Figure 1 is a top plan view of a watch to which a bracelet chain is secured by my end link;

Figure 2 is an exploded perspective view of my end link;

Figure 3 is a top plan view of my end link;

Figure 4 is an elevation of one side of my end link;

Figure 5 is a sectional elevation taken along the line 5—5 of Figure 4;

Figure 6 is an elevation of one end of my end link;

Figure 7 is a bottom plan view of the end link;

Figure 8 is a sectional elevation of another end of the end link showing a different type of securing pin;

Figure 9 is a sectional elevation similar to Figure 5 but showing a modification of my end link, and

Figure 10 is a plan view of the end link shown in Figure 9, portions thereof being broken away.

Similar reference characters refer to similar parts throughout the several figures of the drawing.

In order that certain features of my invention may be more readily understood, it might be well to point out that considerable difficulty has been encountered in the past in securing a bracelet chain or the like to the bail of a watch. Various types of fastening devices have been used for this purpose, but generally they have been characterized by their inability to securely and reliably hold the chain and watch together. Other links of this nature are not only difficult to assemble and disassemble from the watch and bracelet, but also may be irreparably damaged upon removal from the watch or the bracelet. Still other links of this general nature detract from rather than enhance the appearance of the watch and bracelet. Perhaps the greatest difficulty lies in the difficulty of assembling the watch, the bracelet and the end link. Various expedients have been resorted to, but with little practical success due to the fact that the union between the link and watch or the link and bracelet is either so impermanent as to be ineffective after a short period of use, or so permanent that damage inevitably results to the watch, the end link or the bracelet upon disassembly thereof for purposes of repair or replacement. Various devices which have been constructed with the idea of rapid assembly with the watch and bracelet usually do not effect an efficient connection between the watch and bracelet and such links are quite apt to become disconnected while in use much to the inconvenience of the user, and often to the considerable damage of the watch. It is accordingly another object of this invention to provide an end or connecting link which effectively precludes these conditions.

Referring now to the drawing and particularly to Figure 1, a watch generally indicated at 10 is preferably provided along opposite side portions with bails or eyelets 10*a* and 10*b*. The opposite ends 11*a* and 11*b* of a bracelet chain or the like 11 are respectively secured to bails 10*a* and 10*b* by end or connecting links generally indicated at 12 and 13. As end links 12 and 13 are substantially identical in construction and operation, end link 12 only will be hereinafter described.

Referring now to Figure 2, link 12 preferably comprises a pair of link parts 14 and 15. Link part 14 is conveniently U-shaped having a side portion 14*a* and leg portions 14*b* and 14*c*. Leg portion 14*b* of link part 14 is preferably provided with an arcuate recess 14*d* in which is secured in any suitable manner a tubular element 16 provided with bore 16*a*; and 16*b* of tube 16 preferably being spaced from the outer surface of side

portion 14a of the link part for a purpose pointed out hereinafter.

Still referring to Figure 2, it may be seen that leg portion 14c of the link part has integrally formed therewith or secured thereto in any suitable manner, a rounded portion or tube 17 provided with an axial bore 17a (Figure 7). Preferably leg portion 14b of the link part is longer than leg portion 14c, and this for a purpose discussed later.

Referring again to Figure 2, link part 15 is also preferably U-shaped being provided with end or side portion 15a and leg portions 15b and 15c. As is better shown in Figure 3, leg portions 15b and 15c are preferably of substantially the same length, each having preferably secured thereto tubular elements 18 and 19 (Figure 2) respectively. Tubular element 19 is provided with an axial bore 19a (Figure 7) and through this bore and bore 17a of tube 17 on link part 14 extends a pin or stud 20 having its ends 20a and 20b headed over to pivotally unite link parts 14 and 15. Preferably tubular elements 17 and 19 are substantially equal in length so that the dividing line therebetween coincides substantially with the center line of end link 12.

Tubular element 18 (Figure 2) is preferably complementary to tubular element 16, tube 18 being provided preferably with a threaded bore 18a. Thus when the two link parts are pivoted to a position wherein the axes of tubes 16 and 18 coincide, the adjacent ends of these tubes are in substantial registry thus being in a position wherein a securing screw 21 (Figure 2) may be inserted through bore 16a of tube 16 and threaded into bore 18a of tube 18 to secure link parts 14 and 15 against relative pivotal movement. As is best shown in Figure 5, head 21a of screw 21 desirably lies wholly within recess 14d of link part 14 when the screw is threaded into its securing position. Thus the flat end surface of screw head 21a is flush with the surface of end portion 14a of link part 14, screw head 21a preferably having a diameter substantially equal to that of tube 16 (see Figure 4). I also prefer to dimension screw 21 so that when it is in its securing position the under surface of its head 21a abuts end 16b of tube 16 and the end of its threaded portion is flush with the side of link part 15 or the outer end of tube 18.

Under certain circumstances I may use a headed pin 40 instead of screw 21. Pin 40 may conveniently be formed as a dowel or else be provided with a diameter slightly in excess of the diameter of bores 16a and 18a of tubes 16 and 18 respectively. Pin 40 may be force fitted within the bores of the tubes and thus securely hold link parts 14 and 15 in non-pivotal relationship. It is also apparent that by correctly proportioning pin 40 it may readily be forced out of its securing position in the event that it is desired to disassemble link 12 from the watch or the bracelet.

Referring now to Figure 6 it may be seen that tubes 17 and 19 of link parts 14 and 15 respectively are preferably longer than and extend beyond the ends of leg portions 14c and 15c of the link parts, thus providing a substantial space between the ends of the leg portions. This space, as is better shown in Figure 1, provides a convenient recess into which end link 11a of bracelet chain 11 may lie when link 12 and the bracelet are assembled. Similarly, as is best shown in Figure 3, when leg portions 14b and 15b of link parts 14 and 15 respectively are secured together against pivotal movement, an enclosed space A is formed, this space being bounded by tubes 17 and 19 which form a bar, by tubes 16 and 18 which also form a bar, and by end portions 14a and 15a of link parts 14 and 15 respectively. Enclosed space A may thus conveniently receive the eyelet or bail 10a of watch 10 when the watch and link 12 are assembled.

As pointed out above, leg portion 14b of link part 14 is longer than leg portion 15b of link part 15. Thus when link parts 14 and 15 are swung apart, as shown in Figure 2, end link 11a of bracelet 11 may be hooked into place about tubes 17 and 19 and into the space between leg portions 14c and 15c of the link parts. Also leg portion 14b may readily be introduced into the bail 10a or eyelet of the watch, leg portion 14b preferably being long enough so that its free end registers with the end of the watch bail 10a opposite to the end through which the leg portion was introduced. After being so positioned, link part 15 may be pivoted into position so that the axes of tubes 16 and 18 and link parts 14 and 15 are in alignment, whereupon screw 21 or the dowel or pin described above may be screwed or force fitted into place, thus securing end link 11a of bracelet 11 to bail 10a of watch 10.

It may now be seen that end link 12 is readily capable of rapid assembly to both the bracelet and the watch, and may be as rapidly and conveniently removed from such assembled position in the event that bracelet or watch repair or replacement be desired.

Under certain circumstances I have found it preferable to secure the link parts of the end link together in a different manner wherein I prefer to use the modification shown in Figures 9 and 10.

The only substantial difference between the modification shown in Figure 9 and Figure 10 and the form hereinabove described, lies in the tubular parts through which the securing pin or device extends to prevent relative pivotal movement between the link parts. Accordingly, I provide a link generally indicated at 22 (Figure 10) substantially similar in configuration to link 12, and accordingly being provided with leg portions 23 and 24 substantially similar to leg portions 14b and 15b of link parts 14 and 15 respectively. Secured respectively to leg portions 23 and 24 are tubes 25 and 26. Tube 25 is preferably provided with concentric bores 27 and 28, bore 28 being larger than bore 27 so as to provide a shoulder 29 therebetween. Tube 26 also has a bore 30, this bore being so formed as to be coaxial with bores 27 and 28 when leg portions 23 and 24 are aligned.

A pin or plunger 31 provided with an enlarged or collar portion 32 comprises the securing pin for end link 22. Pin 31 is slidably disposed within bore 27 of tube 25, collar 32 of the pin being similarly disposed within bore 28. As the end 31a of pin 31 is preferably headed over after the pin has been placed within tube 25, the pin is free to move a limited extent within bores 27 and 28 but is constrained against removal from the tube by reason of head 31a and collar 32. Preferably formed integrally with collar 32 is a portion 31a of pin 31, this portion preferably being coaxial with, and substantially equal in diameter to, pin 31. When tubes 25 and 26 are aligned, pin portion 31a may be slidably inserted in bore 30 of tube 26, and accordingly tubes 25 and 26 are retained against relative pivotal movement. To avoid casual displacement of pin 31 from its securing position, I preferably provide a coil spring 33 which I dispose about pin 31 within bore 28. Spring 33, being an expansion spring, has its op-

posite ends continuously engaging shoulder 29 and collar 32 respectively, thus forcing headed end 31a of the pin 31 against the outer end of tube 25 and accordingly maintaining the pin in its securing position.

It may now be seen that pin 31 (Figure 9) is readily removable from its securing position to permit the assembly of link 22 with watch 10 and bracelet 11 in substantially the same manner as pointed out hereinabove with respect to link 12.

It may further be seen that I have provided an end or connecting link for securing a bracelet chain to a wrist watch which effectively fulfills the several objects pointed out hereinabove in a thoroughly practical and efficient manner.

As many possible embodiments may be made of the above invention and as many changes might be made in the embodiment above set forth, it is to be understood that all matter hereinbefore set forth, or shown in the accompanying drawing, is to be interpreted as illustrative and not in a limiting sense.

I claim:

1. An end link for securing a bracelet chain to a watch bail comprising, in combination, a pair of substantially U-shaped parts, each leg of each of said parts having secured thereto a tubular element, one element of each part being pivotally joined to the corresponding element of the other part whereby the other of said elements are free for relative pivotal movement, said first two elements being adapted to be embraced by the end link of said bracelet chain, said freely pivotable elements being formed for disposition within said watch bail, and means for securing said freely pivotable elements in abutting relationship against relative pivotal movement when disposed within said watch bail.

2. In a device of the nature described, in combination, a pair of parts, a pair of bar forming elements secured to each of said parts, each pair of said elements being in alignment with each other, means associated with one of the elements of each of said parts to secure said parts together in pivotal relationship, and means connectible to each of the other of said elements on said parts to retain said parts against relative pivotal movement.

3. In a device of the nature described, in combination, a pair of parts, a pair of bar forming elements secured to each of said parts, each pair of said elements being in alignment with each other, means associated with one of the elements of each of said parts to secure said parts together in pivotal relationship, and means connectible to each of the other of said elements on said parts to retain said parts against relative pivotal movement in abutting relationship, one of said last-mentioned elements being substantially shorter than the other.

4. In a device of the nature described, in combination, a pair of parts, a pair of bar forming elements secured to each of said parts, means associated with one of the elements of each of said parts to secure said parts together in pivotal relationship, means extensible through each of the other elements on said parts to retain said parts against relative pivotal movement, and spring means constantly urging said extensible means in a direction to retain said parts against relative movement.

5. An end link for securing a bracelet chain to a watch bail comprising, in combination, a pair of substantially U-shaped parts, means pivotally connecting one leg of each U-shaped part to the other, and means adapted to secure the other legs of said U-shaped parts in alignment and abutting relationship with each other whereby said parts may be pivoted into open relationship, thereafter adjusted upon the bail of a watch, and then pivoted into closed relationship and secured in this position by said second-mentioned means.

6. An end link for securing a bracelet chain to a watch bail comprising, in combination, a pair of substantially U-shaped parts having its legs arranged in opposed end-to-end relation, a single pin extending longitudinally through one leg of each of said parts to pivotally connect said parts together, said pin being secured to said parts to maintain them against separation axially of said pin, the other legs of said parts having aligned holes formed therein, the axes of said holes being parallel to that of said pin, and a part extendible through said holes to hold said last-mentioned legs in alignment.

7. An end link for securing a bracelet chain to a watch bail comprising, in combination, a pair of substantially U-shaped parts having its legs arranged in opposed end-to-end relation, a single pin extending longitudinally through one leg of each of said parts to pivotally connect said parts together, said pin being secured to said parts to maintain them against separation axially of said pin, the other legs of said parts having aligned holes formed therein, the axes of said holes being parallel to that of said pin, one of said last-mentioned legs being shorter than the other, and means adapted to extend through said holes to hold said last-mentioned legs in alignment.

8. An end link for securing a bracelet chain to a watch bail comprising, in combination, a pair of substantially U-shaped parts having its legs arranged in opposed end-to-end relation, a single pin extending longitudinally through one leg of each of said parts to pivotally connect said parts together, said pin being secured to said parts to maintain them against separation axially of said pin, the other legs of said parts having aligned holes formed therein, the axes of said holes being parallel to that of said pin, one of said last-mentioned legs being longer than the other of said last-mentioned legs and also being longer than the other leg of that part from which it extends, and means extendible through said holes to hold said last-mentioned legs in alignment.

9. An end link for securing a bracelet chain to a watch bail comprising, in combination, a pair of substantially U-shaped parts having its legs arranged in opposed end-to-end relation, a single pin extending longitudinally through one leg of each of said parts to pivotally connect said parts together, said pin being secured to said parts to maintain them against separation axially of said pin, the other legs of said parts having aligned holes formed therein, the axes of said holes being parallel to that of said pin, a part disposed within the hole in one of said last-mentioned legs and extendible into the hole in the other of said last-mentioned legs to hold said last-mentioned legs in alignment, and means for biasing said part into its extended position.

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