Oct. 19, 1926. 1,603,385

O. L. GAMMELL ET AL

BRACELET CONSTRUCTION

Filed April 22, 1926

Fig. 1.

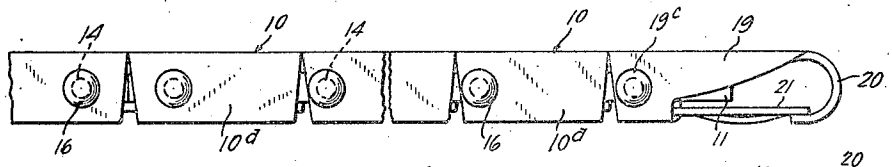


Fig. 2.

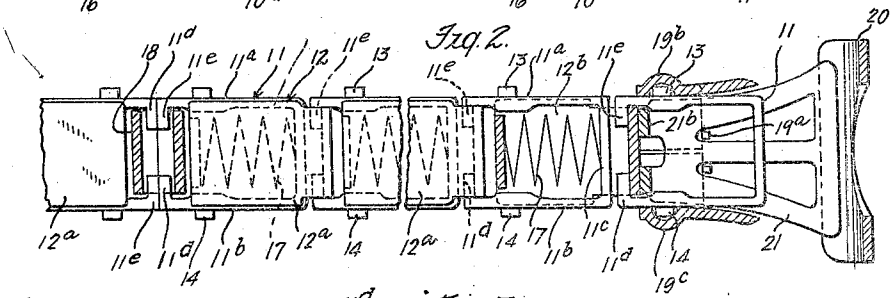


Fig. 3.

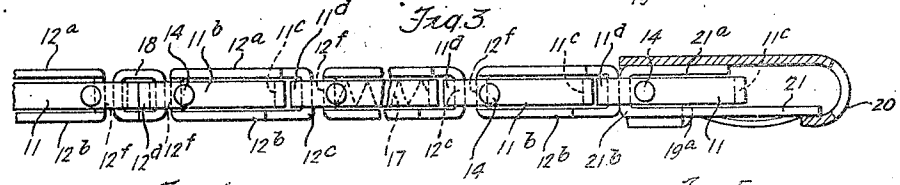


Fig. 4.

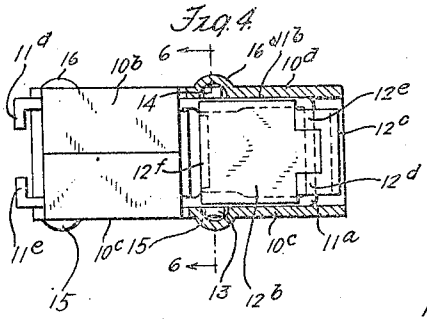


Fig. 5.

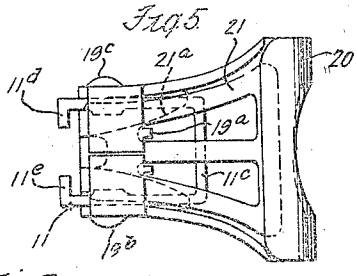


Fig. 7.

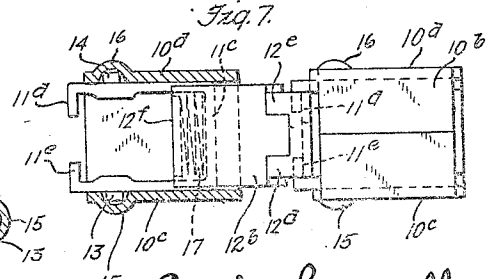
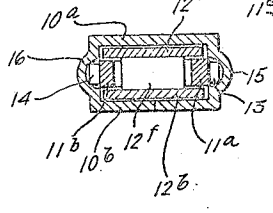


Fig. 6.



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UNITED STATES PATENT OFFICE.

OVE L. GAMMELL AND ROLAND W. WOODWARD, OF ATTLEBORO, MASSACHUSETTS, ASSIGNORS TO SMITH & CROSBY, A COPARTNERSHIP COMPOSED OF ALFRED D. CROSBY AND GEORGE H. CROSBY, OF ATTLEBORO, MASSACHUSETTS.

BRACELET CONSTRUCTION.

Application filed April 22, 1926. Serial No. 103,697.

This invention relates to construction for bracelets and more particularly bracelets of extensible type.

One of the objects of the invention is to provide a construction of the above nature which is thoroughly practical and efficient. Another object is to provide an extensible link bracelet made up of units which are capable of being removed from or added to the bracelet with the greatest convenience. Another object is to provide a construction of the above nature which is neat and attractive in appearance. Another object is to provide a bracelet of the above nature which is strong and durable and wherein the parts slide smoothly in extending or contracting. Another object is to provide a bracelet structure of the above nature which is conveniently manufactured and assembled. Other objects will be in part obvious or 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 is shown one of the various possible embodiments of this invention.

Figure 1 is a side elevation of a portion of the bracelet, shown in enlarged detail;

Figure 2 is a top view with parts removed to show the inner structure;

Figure 3 is a side view of Figure 2;

Figure 4 is a bottom view of two units of the bracelet joined together, one of the units being sectioned;

Figure 5 is a bottom view of an end attaching member detached from the bracelet;

Figure 6 is a section on the line 6—6 of Figure 4, and

Figure 7 is a bottom view of two units of the bracelet in extended relation, one of the units being sectioned.

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

Referring now to the drawing in detail, there is shown in Figure 1 a portion of a bracelet the body of which is made up of a plurality of individual units, these units being hinged together as will be described. When the bracelet is in its contracted position as is shown in Figure 1, substantially all that is visible of the structure of the bracelet are the outer box-like members 10. These parts 10 are preferably formed of sheet metal and are provided with top and bottom walls 10^a and 10^b and with side walls 10^c and 10^d.

In Figures 2 and 3, portions of the bracelet structure are shown with these outer box-like members 10 removed. Within each of the outer members 10 are two links 11 and 12. The link 11 has two longitudinally extending side walls 11^a and 11^b and at one end an end wall 11^c which connects the two side walls. At its other end the link 11 is provided also with an end wall but, preferably, this end wall does not extend all of the way between the side walls 11^a and 11^b. This latter end wall takes the form of parts 11^d and 11^e projecting inwardly toward each other from the side walls 11^a and 11^b respectively. This link 11 is secured within the outer box-like member 10 and is fixed in relation thereto. Projecting outwardly from the side walls 11^a and 11^b are projections 13 and 14 respectively which coact with depressions 15 and 16 respectively formed in the side walls 10^c and 10^d of the box-like member 10. The open end of the link 11 permits the side walls 11^a and 11^b thereof to be sprung inwardly toward each other for insertion of the link 11 into the member 10, and thereupon the parts 13 and 14 snap into the depressions 15 and 16. In this manner the parts 10 and 11 are assembled with the greatest convenience.

The link 12 cooperates with the link 11, and is slidable longitudinally relative to the link 11. This link 12, as best shown in Figure 3, is preferably formed of resilient sheet material and comprises a top wall 12^a, a bottom wall 12^b and connecting end walls 12^c and 12^f.

Within the two links 11 and 12 is positioned a spiral compression spring 17 which acts between the end wall 11^c of the link 11 and the end wall 12^f of the link 12. This spring thus urges the two links 11 and 12 together and thereby urges the link 12 into the

outer box-like member 10. The link 12, it will be seen, may be slid out of the box 10 (as is shown in Figure 7), compressing the spring 17.

It will be seen that the parts which have been described above, taken together, constitute a complete and independent chain unit. The bracelet is made up of these units, each comprising an outer box-like member 10 containing the two links 11 and 12 and spring 17. One unit is connected to the next by the parts 11^d and 11^e being received within and engaging the end wall 12^c of the slidable link 12 of the next adjoining unit. In order that the units may be capable of removal and insertion to vary the length of the bracelet, the connection between the links 11 and 12 of adjoining units is made detachable. As best shown in Figures 4 and 7, the bottom wall 12^b of the slidable link 12 is split adjacent to the end wall 12^c thereof. The wall 12^b is cut inwardly from either side thereof a distance substantially equal to the length of the projecting parts 11^d and 11^e, then the cut is extended longitudinally of the link toward the end wall 12^c and then across the middle portion of the wall 12^b. In this manner there are in effect formed in the bottom wall 12^b, at the end thereof adjacent the end wall 12^c, two hooks 12^d and 12^e which are adapted to receive the projections 11^d and 11^e of the link 11 of the adjoining unit.

In Figure 4 the bottom wall of the link 12 of the right-hand unit is clearly shown. In order to connect an additional unit, it is necessary simply to place the projecting parts 11^d and 11^e of the additional unit upon the bottom wall 12^b to the left of the hooks 12^d and 12^e and, springing the part 12^b inwardly, snap the parts 11^d and 11^e into place beneath the hook portions 12^d and 12^e. Before this can be done, however, it is necessary to draw the link 12 a short distance out of the casing 10, compressing the spring 17. In Figure 7 two of the units are shown in extended position. In order to attach or remove a unit of the bracelet, the parts are extended as shown in Figure 7 and held in such position by any suitable means, whereupon the part 12^b may be depressed toward the roll 12^a to permit the projections 11^d and 11^e to be slipped into or out of place.

When this bracelet is employed as a watch bracelet, it is sometimes desirable that the units be so arranged that corresponding ends thereof extend away from the central portion of the bracelet in both directions, that is, so that the end hooks 12^d and 12^e of the slidable links are directed toward the watch on either side of the middle portion of the bracelet. In such case the two middle units of the bracelet are positioned together so that the projections 11^d and 11^e thereof face each other and the links are hinged together by these projections. In Figures 1, 2 and 3 of the drawing the two units at the extreme left represent the two middle links of the bracelet and they are connected together by a simple barrel link 18 joining together the projecting parts 11^d and 11^e of the two units. When the two middle units are thus connected together, it will be seen that the hook portions 12^d and 12^e thereof are both available, directed in opposite directions from the center of the bracelet, to detachably engage with the adjoining units and build the bracelet up in both directions.

At the right-hand end of the bracelet structure shown in Figures 1, 2 and 3 is shown an attaching device for securing the end of the bracelet to a wrist watch or the like. A bottom plan view of this attaching device or end unit, detached from the remainder of the bracelet, is shown in Figure 5. This construction comprises an outer casing-like member 19 having at its left-hand end parts forming side walls and a bottom wall, the other end thereof being shaped to form a hook 20. Within this member 19 is a spring member 21 which coacts with the lip of the hook 20. This spring member has a part 21^a resting against the inner surface of the top wall of the part 19 and a part 21^b which forms in effect an end wall. The spring member 21 is held in place by the part 21^a thereof wedging against the converging side walls of the part 19 and by lugs or fingers 19^a bent upwardly from the forward edge of the bottom wall of the part 19. The spring member 21 may be sprung upwardly away from the lip of the hook 20 to permit insertion of the bar of a wrist watch or the like.

The outer member 19 contains also a link 11 which is substantially identical with the links 11 hereinbefore described. This link 11 is provided with the projecting lugs 13 and 14 which rest in outward depressions 19^b and 19^c formed in the side walls of the member 19. The end attaching device is detachably connected to the body of the bracelet by the projecting parts 11^d and 11^e of the link 11 thereof hooking into the slidable link 12 of the adjacent bracelet unit.

From the foregoing, it will be seen that there is herein provided a bracelet construction which is essentially practical and achieves many distinct advantages. The separate units of the bracelet are capable of being removed and inserted at will to vary the length of the bracelet and at the same time the structure as a whole has a solid and pleasing appearance. The parts are capable of convenient manufacture and are easily assembled.

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.

We claim as our invention:

1. In bracelet construction, a bracelet comprising in combination a plurality of units detachably hinged together, each of said units comprising a pair of links slidable relative to one another, one of said links having side walls and end walls and the other of said links having top and bottom walls and end walls, a spring urging said pair of links together, and an outer casing having top, bottom and side walls substantially enclosing said first link and secured thereto, said second link being slidable outwardly from said casing against the action of said spring.

2. In bracelet construction, a bracelet comprising in combination a plurality of units detachably hinged together, each of said units comprising a pair of links slidable relative to one another, a spring urging said pair of links together, and an outer casing having top, bottom and side walls substantially enclosing one of said links, said one link having parts springing into interlocking relation with said casing.

3. In bracelet construction, a bracelet comprising in combination a plurality of units connected together, each of which units comprises an outer box-like casing, a link secured within said casing, a second link cooperating with said first link and slidable relative thereto into and out of said casing, and a spring acting between said two links and urging said slidable link into said casing, said first link having means for connection with the slidable link of an adjoining unit.

4. In bracelet construction, a bracelet comprising in combination a plurality of units connected together, each of which units comprises an outer box-like casing, a link secured within said casing, a second link cooperating with said first link and slidable relative thereto into and out of said casing, and a spring acting between said two links and urging said slidable link into said casing, said first link being at one end thereof detachably connected to the slidable link of an adjoining unit.

5. In bracelet construction, a bracelet comprising in combination a plurality of units connected together, each of which units comprises an outer box-like casing, a link secured within said casing, a second link cooperating with said first link and slidable relative thereto into and out of said casing, and a spring acting between said two links and urging said slidable link into said casing, said first link comprising longitudinally extending side portions and transversely extending end portions, said transverse portions at one end thereof detachably engaging with the slidable link of an adjoining unit.

6. In bracelet construction, a bracelet comprising in combination a plurality of units connected together, each of which units comprises an outer box-like casing, a link secured within said casing, a second link cooperating with said first link and slidable relative thereto into and out of said casing, and a spring acting between said two links and urging said slidable link into said casing, said first link comprising longitudinal side walls and end walls, and said slidable link comprising longitudinal top and bottom walls and end walls, one of the end walls of said first link being received within the slidable link of an adjoining unit to connect said units together, and one of the longitudinal walls of said slidable link being split to permit insertion or removal of said end wall.

7. In bracelet construction, a bracelet comprising in combination a plurality of units connected together, each of which units comprises an outer box-like casing, a link secured within said casing, a second link cooperating with said first link and slidable relative thereto into and out of said casing, and a spring acting between said two links and urging said slidable link into said casing, one of said links comprising longitudinal side walls and end walls, and the other of said links comprising longitudinal top and bottom walls and end walls, an end wall of said first link engaging with an end wall of the slidable link of an adjoining unit to connect said units together, and a longitudinal wall of one of said links being split to permit making and breaking of said engagement.

8. In bracelet construction, in combination, a plurality of units each comprising a link having longitudinal side walls, an end wall at one end connecting said side walls, and parts projecting from said side walls toward each other adjacent the other end thereof, a second link slidable longitudinally relative to said first link and having longitudinal top and bottom walls and at each end end walls connecting said top and bottom walls, and a spring within said links urging them together, the bottom wall of said second link being split adjacent one end thereof to provide two hooks within which are removably received said projecting parts of said first link of an adjoining unit.

9. In bracelet construction, in combination, a plurality of units each comprising a link having longitudinal side walls, an end wall at one end connecting said side walls, and parts projecting from said side walls toward each other adjacent the other end thereof, a second link slidable longitudinally relative to said first link and having longitudinal top and bottom walls and at

each end end walls connecting said top and bottom walls, and a spring within said links urging them together, the bottom wall of said second link being cut from its side edges inwardly to permit insertion thereinto of said projecting parts of said first link of an adjoining unit.

10. In bracelet construction, in combination, a plurality of units each comprising a link having longitudinal side walls, an end wall at one end connecting said side walls, and parts projecting from said side walls toward each other adjacent the other end thereof, a second link slidable longitudinally relative to said first link and having longitudinal top and bottom walls and at each end end walls connecting said top and bottom walls, and a spring within said links urging them together, said second link being of springy material and the bottom wall thereof being slit and adapted to be sprung to permit said projecting parts of said first link of an adjoining unit to be inserted or removed therethrough.

11. In bracelet construction, a bracelet comprising in combination a plurality of units connected together, each of which units comprises an outer box-like casing, a link secured within said casing, a second link cooperating with said first link and slidable relative thereto into and out of said casing, and a spring acting between said two links and urging said slidable link into said casing, said first link comprising longitudinal side walls, an end wall at one end connecting said side walls, and parts projecting from said side walls toward each other adjacent the other end thereof, said second link comprising longitudinal top and bottom walls and end walls, the bottom wall of said second link being cut from its side edges inwardly to permit insertion thereinto of said projecting parts of said first link of an adjoining unit.

12. In bracelet construction, in combination, a plurality of units each comprising an outer box-like casing, a link therein having a part sprung into interlocking relation with a wall of said casing and thereby secured therein, a second link cooperating with said first link and slidable relative thereto into and out of said casing, and a spring urging said two links together and said second link into said casing.

13. In bracelet construction, in combination, a plurality of units each comprising an outer box-like casing, a link therein having longitudinally extending side walls and projections on said side walls interfitting with recesses in the side walls of said casing, a second link cooperating with said first link and slidable relative thereto into and out of said casing, and a spring urging said two links together and said second link into said casing.

14. In bracelet construction, in combination, a plurality of units each comprising an outer box-like casing, a link therein having longitudinally extending side walls and projections on said side walls interfitting with recesses in the side walls of said casing, a second link cooperating with said first link and slidable relative thereto into and out of said casing, and a spring urging said two links together and said second link into said casing, said first link having adjacent one end thereof means for connection to said sliding link of an adjoining unit.

In testimony whereof, we have signed our names to this specification this 15th day of April 1926.

OVE L. GAMMELL.
ROLAND W. WOODWARD.