Jan. 20, 1948. R. H. WHITEHEAD 2,434,729

EXPANSIBLE BRACELET

Filed May 18, 1946 2 Sheets-Sheet 1

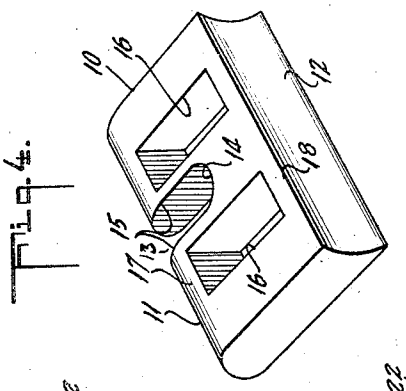


Fig. 4.

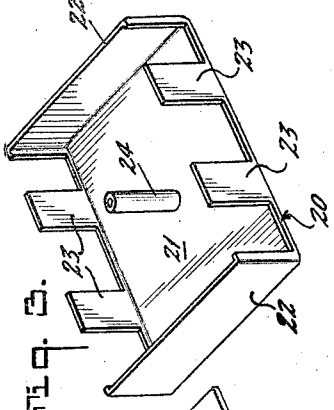


Fig. 3.

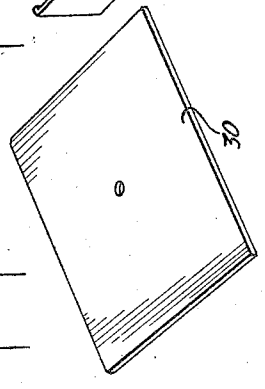


Fig. 2.

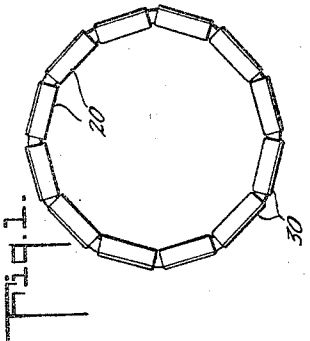


Fig. 1.

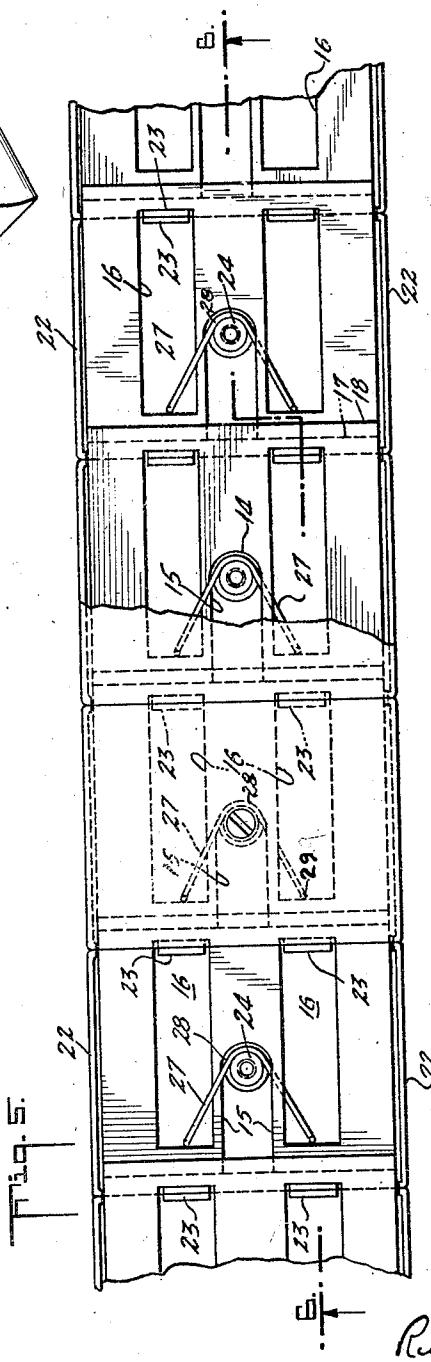


Fig. 5.

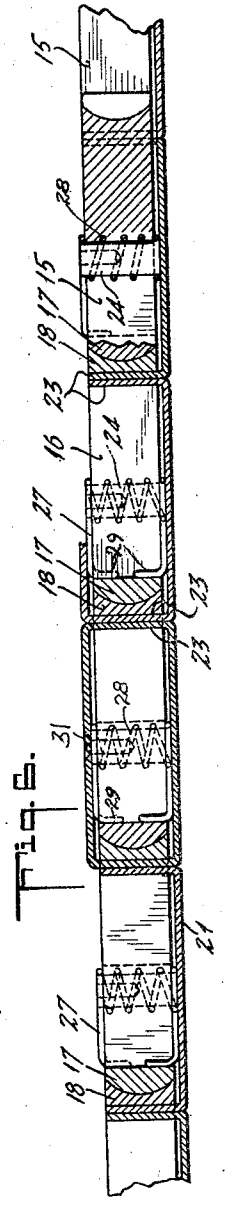


Fig. 6.

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EXPANSIBLE BRACELET

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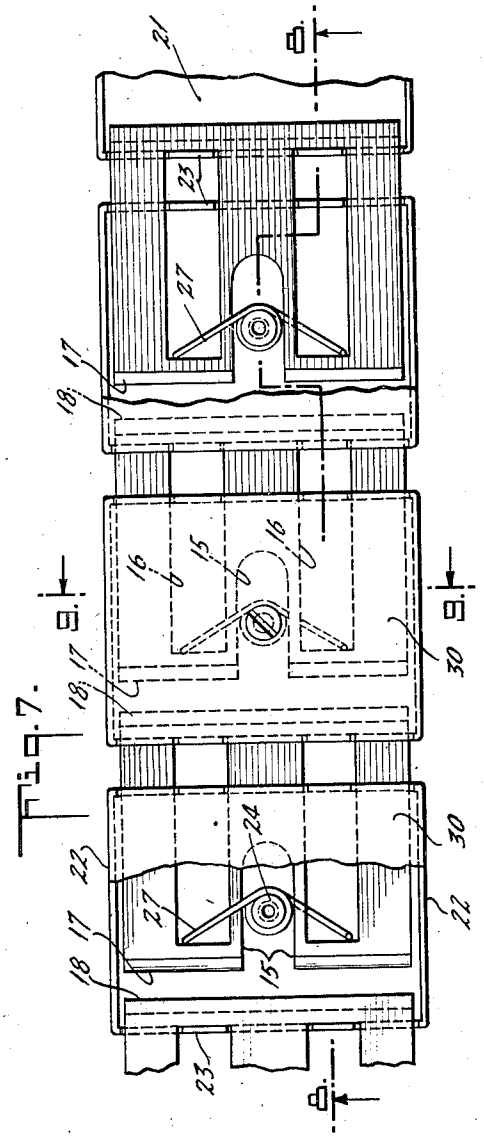


Fig. 7.

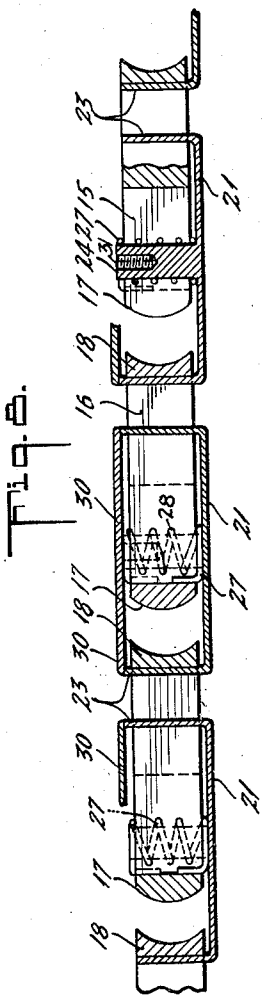


Fig. 6.

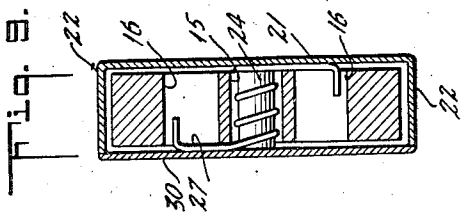


Fig. 8.

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UNITED STATES PATENT OFFICE

2,434,729

EXPANSIBLE BRACELET

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Application May 18, 1946, Serial No. 670,695

8 Claims. (Cl. 59—79)

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This invention relates to an expansible bracelet, which may be used as an ornament, or as a watch-supporting bracelet.

It is an object of this invention to provide a new and improved bracelet of the character described comprising a series of adjacent links in which the links will be held firmly together, but nevertheless may be readily spaced to permit the bracelet to expand.

It is a further object to provide a bracelet which has a definite limit to its contraction so it will not exert undue pressure upon the wrist, and yet which will be firm and secure, particularly when used as a watch support.

It is a further object to provide a device of the character described in which the elements may be constructed by simple machine operations such as punching and stamping, and which may be assembled easily, and yet which when assembled can be firmly held together without danger of coming loose or apart.

It is a further object to provide a device of the character described in which links may be added or removed at will, to make the bracelet longer or shorter, without requiring any soldering, brazing or riveting operation. It is a further object to provide a device which will afford the greatest amount of flexibility consistent with holding the parts firmly together.

The invention accordingly comprises an article of manufacture possessing the features, properties and the relation of elements which will be exemplified in the article hereinafter described and the scope of the application of which will be indicated in the claims.

For a fuller understanding of the nature and objects of the invention, reference should be had to the following detailed description taken in connection with the accompanying drawings, in which:

Figure 1 is a side elevation of a completed bracelet embodying this invention, shown as a continuous bracelet.

Figure 2 is a perspective view of the cover portion of the link box.

Figure 3 is a similar view of the lower portion of the link box.

Figure 4 is a perspective view of the block or segment link.

Figure 5 is a top plan view with certain of the cover portions removed, of a bracelet, to an enlarged scale.

Figure 6 is a section on the line 6—6 of Figure 5.

Figure 7 is a top plan view showing the links of the bracelet in extended position.

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Figure 8 is a section on the line 8—8 of Figure 7.

Figure 9 is a section on the line 9—9 of Figure 7.

In the drawings, the numeral 10 represents a segment of the bracelet comprising a book-shaped member having a convex cylindrical curve 11 along one edge and a complementary concave curve 12 along the opposite edge, these curves being designed to permit adjacent members to rotate with regard to each other while in contact, to give flexibility to the bracelet.

Extending inwardly from the convex edge along the median line is a slot 13 which, as shown, extends substantially half way through the member terminating in a curved surface 14. Parallel to the edges of this slot, and spaced on opposite sides thereof by walls 15, there is provided a pair of transverse rectangular openings 16, each extending substantially from the curved surface 11 to the curved surface 12, leaving only a thin wall 17 at the convex edge 11, and a similar wall 18 at the concave edge 12.

The segments 10 are held together by means of a link box 20 comprising as shown a flat rectangular plate 21 having at its ends upstanding flanges 22. Along each of the side edges there are provided two upwardly extending tongues 23 each of a length, measured in the direction of the side edge, equal to the width of the openings 16. These tongues are spaced from each other by an amount equal to the spacing between the openings 16. A post 24 extends upwardly from the center of the plate 21.

A spring 27 has a central coil 28 adapted to fit upon the post 24 and two outstanding arms. The coil 28 will have an outside diameter to slide freely within the slot 13. The arms of this spring at their ends are bent inwardly parallel to the axis of the coil, as shown at 29. The length of the coil is such that the arms are spaced from each other enough to permit one arm to lie below the wall 15 and the other arm to lie above it.

In assembling the bracelet, one segment 10 having its spring in place with the arms of the spring above and below the walls 15 is assembled with its convex wall mating with the concave wall of an adjacent segment. Thereupon the post 24 of a link box is inserted into the coil 28 of the spring and the walls 17 of the first segment and 18 of the second are inserted between the post and the tongues 23 of the link box, these tongues extending up through the opening 16 with spring ends 29 bearing against wall 17. With the parts in this position, the spring ends 29 will hold the walls 17, 18, and 23 against each other. Thus the segment carrying the convex wall will be

largely held inside of the link box by the spring while the other segment carrying the concave wall will extend outwardly.

The outwardly extending link may now have its convex wall 17 mated with another link having a concave wall 18, and assembled with a link box in the same manner as we have just described.

Each link box may be closed by a cover 30 which is held in place in any suitable manner as for example by a screw 31. This cover may be of any ornamental size or shape desired. If preferred it may be made of slightly larger size than the link box, with a down-turned peripheral flange so as to slip over the link box.

In order to permit the bracelet to bend, the space defined by the link box and its cover is higher than the thickness of the segment.

It will also be clear that by reason of the ready manner in which the links may be assembled into the bracelet, it is a simple matter to reduce or increase the number of links in the bracelet. All that is required for this purpose is to remove the cover of one link box, open the bracelet at one side of this link box, and then either add or remove a link and assemble the ends together again.

Since certain changes may be made in the above construction and different embodiments of the invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which as a matter of language might be said to fall therebetween.

I claim:

1. A flexible bracelet comprising a plurality of alternate members extending transverse to the bracelet and distributed along its length, an intermediate member for each of said pairs for connecting together the members of said pair, said connecting member being slidably connected with at least one of said alternate members in the direction of extension of the bracelet, stops to limit the sliding motion, and spring means within said intermediate member for engaging the sliding alternate member for urging said sliding alternate member toward the other alternate member.

2. A flexible bracelet comprising alternate members extending transverse to the bracelet, each having slots extending longitudinally of the bracelet, intermediate members each having tongues on its opposite edges adapted to fit within the slots of adjacent alternate members to connect them, and a spring within said intermediate member constructed to urge one of said alternate members to bear against the edge of the adjacent alternate member with which said intermediate member connects it.

3. A device according to claim 2 in which the adjacent surfaces of alternate members are both curved about a transverse axis.

4. A device according to claim 2 in which the spring is carried by the intermediate member and bears against the end of the slot of an alternate member against which it bears.

5. A device according to claim 2 in which the spring bears against the ends of the slots of an alternate member, and a cover engaging the ends of said tongues on the intermediate member for closing the open face of said intermediate member.

6. A flexible bracelet comprising alternate members extending transverse to the bracelet each having a pair of slots extending longitudinally of the bracelet, an intermediate member having a pair of tongues on each edge, each pair fitting within the pair of slots in one of said alternate members, whereby said intermediate member is adapted to connect said alternate members together, a pin upon said intermediate member, and an open ended slot in one of said alternate members in registry with said pin, a spring upon said pin having ends adapted to engage the ends of the slots in one of said alternate members to urge the edge of said intermediate member against the edge of the other intermediate member with which said alternate member connects it.

7. A device according to claim 6 in which the adjacent surfaces of alternate members are both curved about a transverse axis.

8. A device according to claim 6 in which the adjacent surfaces of alternate members are both curved about a transverse axis, and a cover engaging the ends of said tongues for closing the open face of said intermediate member.

RICHARD H. WHITEHEAD.