United States Patent [19]

Rieth

[11] **3,786,629**

[45] **Jan. 22, 1974**

[54] **EXPANSIBLE LINKAGE FOR USE IN MAKING A WATCHBAND OR SIMILAR ARTICLE**

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[73] Assignee: **Textron, Inc.,** Providence, R.I.

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[21] Appl. No.: **267,419**

[52] **U.S. Cl.** ..... **59/79 R**

[51] **Int. Cl.** **F16g 13/24**

[58] **Field of Search** . 59/79 R, 80; 63/5 R; 224/4 D, 224/4 H

[56] **References Cited**

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3,158,989	12/1964	Rieth	59/79 R
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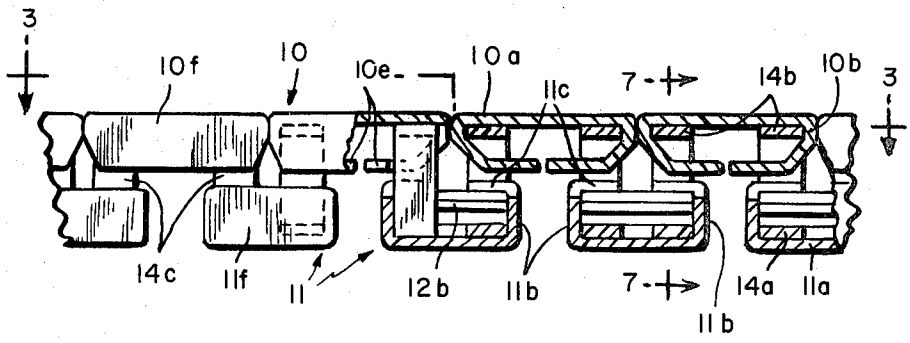
Primary Examiner—Charles W. Lanham
Assistant Examiner—Gene P. Crosby
Attorney, Agent, or Firm—C. Yardley Chittick et al.

[57] **ABSTRACT**

An expansible linkage for use as a watchband, bracelet or similar article having two rows of overlapping staggered links, connecting members displaceably connecting the links of the inner row to the links of the outer row and springs in the inner row for urging the links from their expanded to their contracted positions. The springs are located only in the links of the inner row of links. Each of the links of the outer row has an outer wall, a narrower inner wall substantially parallel to the outer wall, a pair of substantially parallel first side walls connected to the opposite sides of the outer wall and a pair of second side walls which converge inwardly from the inner sides of the first side walls to lateral sides of the inner wall. In one embodiment, the outer wall of each of the links of the outer row of links has an opening formed at one side thereof intermediate its ends and an extension at the opposite side thereof which is of substantially the same size as said opening so that when the linkage is in contracted position the extension is positioned in the opening of the outer wall of the adjacent link. In this embodiment, each of one of the first side walls of each of the links of the outer row of links includes an opening formed therein which communicates with the opening in the outer wall of the link.

11 Claims, 17 Drawing Figures



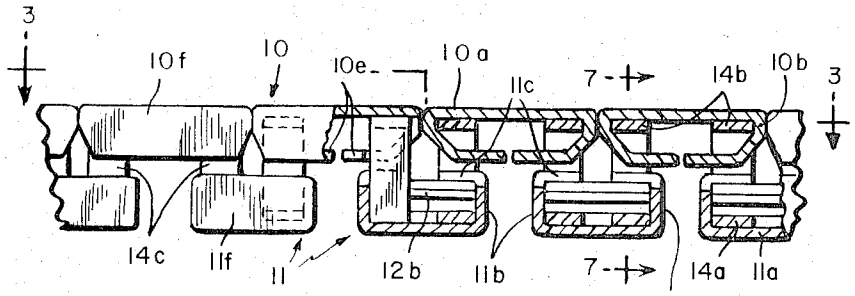


FIG. 1

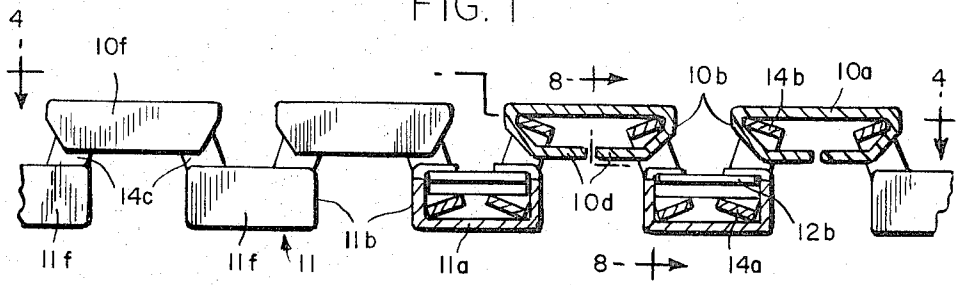


FIG. 2

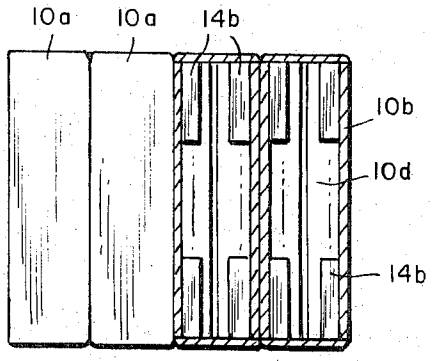


FIG. 3

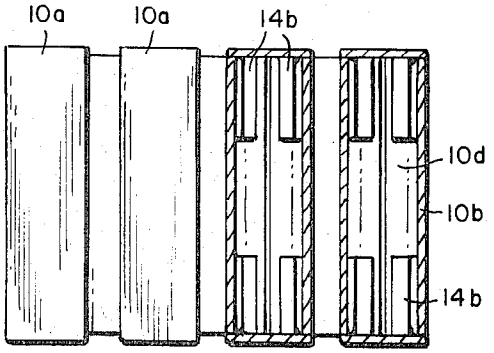


FIG. 4

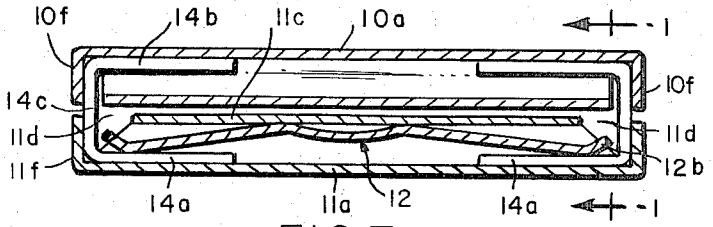


FIG. 7

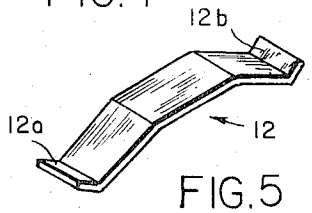


FIG. 5

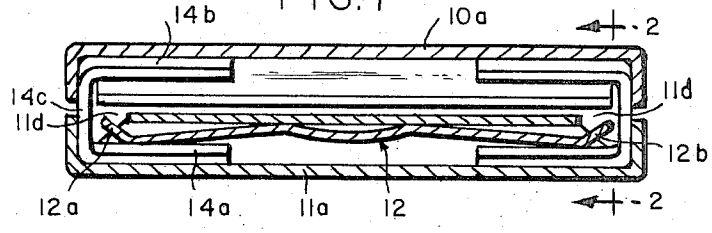


FIG. 8

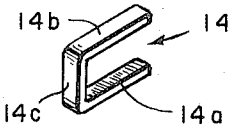


FIG. 6

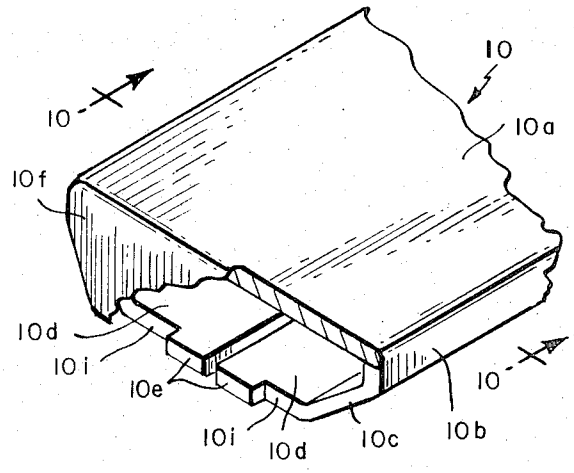


FIG. 9

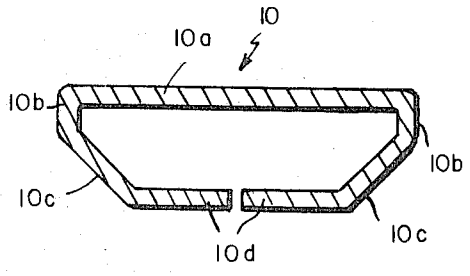


FIG. 10

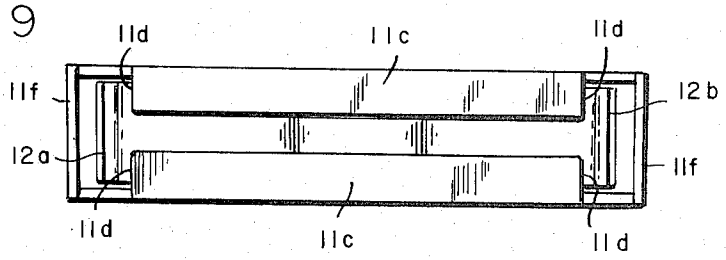


FIG. 11

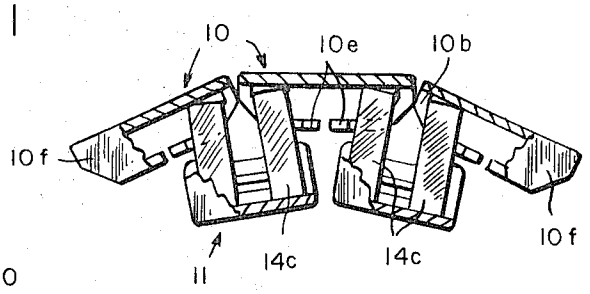


FIG. 12

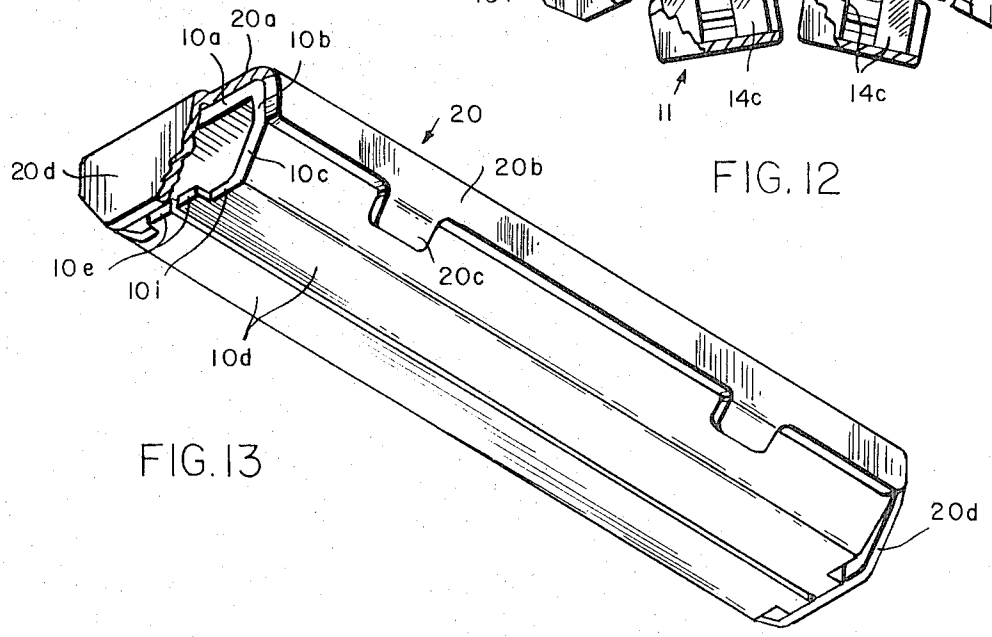


FIG. 13

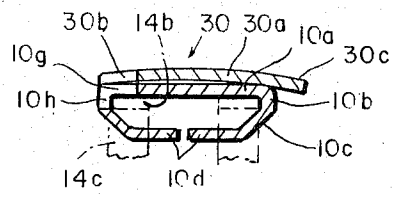


FIG. 17

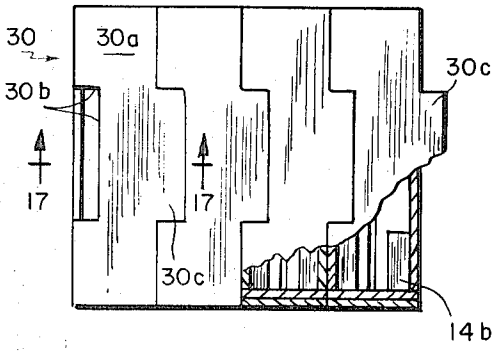


FIG. 14

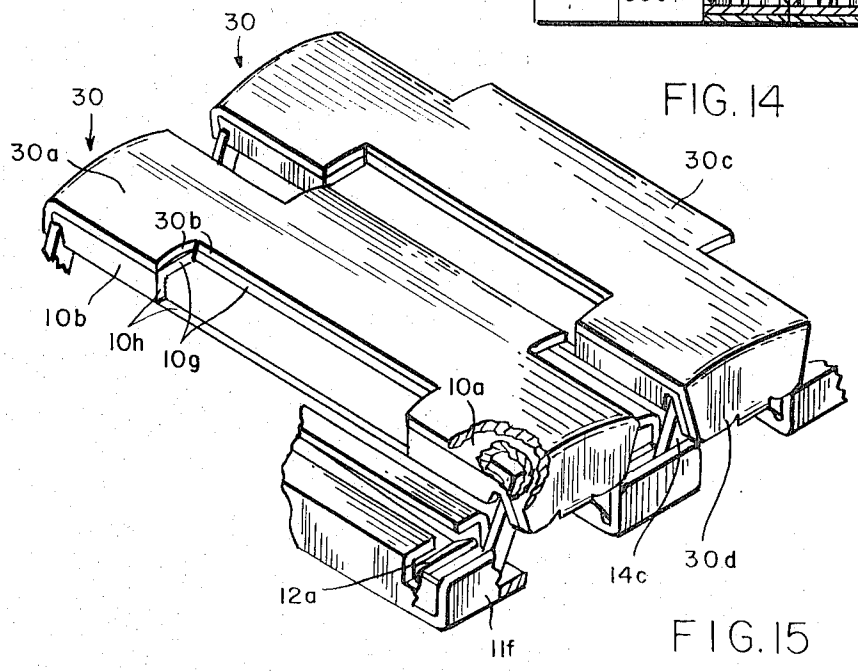


FIG. 15

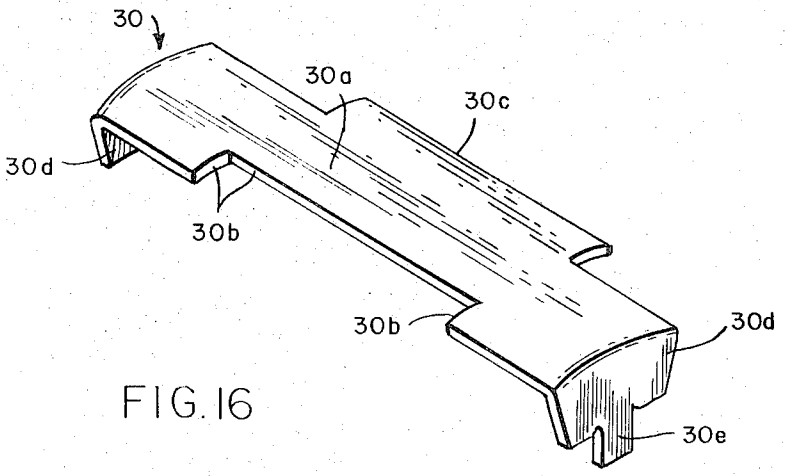


FIG. 16

EXPANSIBLE LINKAGE FOR USE IN MAKING A WATCHBAND OR SIMILAR ARTICLE

BACKGROUND OF THE INVENTION

This invention relates to an expansible linkage for use in making a watchband, an identification bracelet or similar articles of jewelry.

One of the most satisfactory types of expansible linkages which has been used for making watchbands since 1951 includes two rows of overlapping staggered links in which each link extends in a direction generally transverse to the length of the linkage. U-shaped connecting members having legs located within the links of the inner and outer rows connect the links to each other. At least one flat spring is located within each link and extends from an intermediate portion of one wall of the link to engage the legs with an initial deflection. The initial deflection of all of the springs is sufficient to urge the links of the band to fully contracted position. The ends of the springs which engage the legs are further deflected when the linkage is expanded by stretching it to slip a wristwatch and attached watchband over the hand of the wearer to his wrist. When the stretching force is released, the springs act upon the legs and the legs act upon the links to cause the links to return to a contracted position in which the linkage grips the wrist with sufficient pressure to prevent movement thereof longitudinally of the wrist but without enough pressure to cause discomfort to the wearer. In removing the watch and watchband from the wrist, the linkage is expanded by stretching it and the combination is pulled over the wearer's hand and released, whereupon the linkage returns to fully contracted position. This type of linkage is disclosed in U.S. Pat. No. 2,689,450 to Karl E. Stiegele, U.S. Pat. No. 3,307,348 to Wallace F. Vanover and U.S. Pat. No. 3,307,347 to James T. Christoff. Other modifications are known to persons skilled in the art.

Such linkages are relatively expensive to manufacture and and assemble and they lack all of the advantages which flow from the novel cross section of the outer links which are provided by this invention.

Attempts have been made by the following inventors to provide acceptable linkages by omitting the springs from the inner row of links:

U.S. Pat. No.	Date	Inventors
2,918,785	Dec. 29, 1959	Bartholoma et al.
3,543,507	Dec. 1, 1970	Vanover et al.

The linkages disclosed in these patents have not met with commercial acceptance among other reasons because they are relatively expensive to manufacture and assemble compared to linkages of the present invention.

Linkages in which springs are omitted from the links of the outer row of links are shown and described in Italian patents 634,112, dated Feb. 14, 1962 and 635,639 dated Mar. 7, 1962, the inventor of each of which is Carlo Pilatone. Notwithstanding the omission of springs from the links of the outer row in these linkages, they are expensive to manufacture and assemble and, because of the construction and arrangement of the connecting members, springs and other parts, they would be incapable of satisfactory use as watchbands or identification bracelets.

U.S. Pat. No. 3,315,463 dated Apr. 25, 1967 to H. F. Lavierriere also discloses an expansible linkage with no

springs in the outer row of links. However, due to the complicated construction of the connecting members of that linkage and of the method of assembly of the linkage, it would be so expensive to manufacture that it would be non-competitive with a linkage of the present invention, the parts of which are simple and economical to manufacture and which can be assembled economically by mechanical means. In addition, the outer links of the Lavierriere linkage are rectangular in cross section so it lacks all of the important advantages which flow from the novel cross section provided for the outer links of the linkage of the present invention.

One object of this invention is to provide a durable expansible linkage for use as a watchband or bracelet which can be manufactured more economically than the aforesaid prior art constructions.

Another object is to provide such a linkage in which there is a greater latitude in the design of the outer walls of the outer links due to the absence of springs in the outer links.

Another object is to provide a linkage in which the cost of assembly of the linkage is reduced because it is unnecessary to insert springs in the outer links and also because it is unnecessary to insert the ends of the second legs of the connecting members between the springs and the inner surfaces of the outer links.

Yet a further object is to provide such a linkage which has no tendency to curl when placed on a flat surface because there are no springs in the outer links tending to force the inner surfaces of the outer walls of the outer links to positions which are substantially perpendicular to the longitudinal centerlines of the legs and end members of the connecting members.

Another object is to provide such a linkage in which there is substantially no movement of the outer links towards or away from the outer surfaces of the second legs of the connecting members notwithstanding the absence of springs in the outer links because the inclined second side walls of the outer links in combination with the first side walls of the outer links form pockets which nestably receive the adjacent sides of the second legs of the connecting members, the second legs being urged towards the outer walls and the pockets by the inclined second side walls and the springs which are located in the inner links.

A still further object is to provide such a linkage in which there are no side movements of the outer links with respect to the longitudinal centerline of the linkage when viewed from the top due to the construction of the ends of the inner walls thereof.

Another object is to provide such a linkage in which the size of the gaps between the outer sides of the outer links is reduced when the linkage encircles the wrist of a user in contracted position.

A still further object of the invention is to provide such a linkage which includes novel ornamental top shells covering the outer walls of the outer links, the top shells being less expensive to produce than prior art ornamental top shells.

Yet another object is to provide such a linkage in which a member projects centrally from one side of the outer wall of each outer link or of each top shell, if top shells are associated with the outer links, into a gap or opening formed in the top wall of the adjacent outer link or of the adjacent top shell when the linkage is in contracted position to provide an attractive appear-

ance for an expansible linkage which has not heretofore been provided at least in a linkage of this type.

Another object is to provide a novel and durable expansible linkage for use as a watchband or bracelet or other article of jewelry.

Other objects and advantages of the invention will be apparent to persons skilled in the art from the following description.

In general, the invention comprises using springs in the links of only the inner row of links with each of the links of the outer row of links having an outer wall, a narrower inner wall substantially parallel to the outer wall, a pair of substantially parallel first side walls connected to the opposite sides of the outer wall and a pair of second side walls which converge inwardly from the inner sides of the first side walls to lateral sides of the inner walls. The springs in the inner links, in combination with the connecting members which have legs extending into the links of both rows of links, resist displacement of the links when the linkage is stretched longitudinally from a contracted to an expanded position and cause the links to be returned to a contracted position upon release of the stretching force.

Each connecting member comprises an end member, a first leg extending from the end member into one of the links of the inner row of links in a direction generally transverse to the length of the linkage and a second leg spaced from the first leg and extending from the end member into an adjacent link of the outer row of links for rotatably connecting the connecting member to the links.

In a preferred embodiment, the inner wall of each outer link includes means projecting outwardly from its ends between the end members of the pair of connecting members which are associated with the outer links.

In a preferred embodiment, the legs of the connecting members which extend into the links are substantially rectangular in cross section, are wider than they are thick and the wider dimension extends generally longitudinally of the linkage when the linkage is in contracted position. The wider faces of the legs located in the outer links are adjacent to the inner faces of the outer walls of the outer links and one narrower face of each leg is adjacent to one of the substantially parallel first side walls of the outer links when the linkage is in a contracted position.

The outer corners formed at the intersections of the outer sides of the second side walls and the outer sides of the first side walls of adjacent links of the outer row of links contact each other when the linkage encircles the wrist of a user in contracted position and, because the second side walls are of substantially less height than the height of the outer links, the size of the gaps between the outer sides of the outer walls of adjacent links is much smaller than the size of the gaps between the outer sides of the outer links of adjacent links in prior art linkages of this type.

The ends of the inner wall of each outer link are square where the end members of the connecting members engage them and this prevents side movements of the outer links.

Because there are no springs in the outer links, mechanical assembly of the linkage is more economical than with prior art linkages since it is unnecessary to insert the springs in the outer links, or to insert the ends of the second legs of the connecting members between the springs and the inner surfaces of the outer links and also because the gaps between the ends **12***a* and **12***b* of the springs and the inner surfaces of the outer walls of the inner links may be increased thereby facilitating insertion of the ends of the first legs of the connecting members in said gaps.

In one embodiment, an ornamental top shell is added to each outer link of the linkage, it covers the outer wall of the outer link and has a pair of side walls which are substantially co-extensive with the first side walls of the outer link so that the side walls of the top shells are much shorter than the side walls of prior art top shells and they are more economical to manufacture.

In another preferred embodiment, the outer wall of each of the links of the outer row of links has an opening formed at one side thereof intermediate its ends and an extension at the opposite side thereof which is of substantially the same size as said opening so that when the linkage is in contracted position, the extension is positioned in the opening of the outer wall of the adjacent link. Preferably, in this embodiment, each of one of the first side walls of each of the links of the outer row of links includes an opening formed therein which communicates with the opening in the outer wall of the link. In this embodiment, an ornamental top shell may be added to each outer link and the outer wall of the top shell is provided with an opening corresponding in size and position to the opening of the outer wall of the outer link. The outer wall of the top shell is also provided with an extension of substantially the same size as the aforesaid opening in the outer wall of the top shell wall so that when the linkage is in contracted position, the extension of the top shell is positioned in the opening of the top wall of the adjacent top shell and outwardly of the opening in the outer wall of the outer link. These embodiments provide an attractive appearance which has not heretofore been provided in expansible linkages of this type.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings:

FIG. **1** is a fragmental side view partly in section showing an intermediate part of the linkage with the parts in their contracted positions, the section being taken on the lines **1—1** of FIG. **7**;

FIG. **2** is a view similar to FIG. **1** but showing the parts in expanded positions, the section being taken on the lines **2—2** of FIG. **8**;

FIG. **3** is a top plan view of the parts of FIG. **1**, partly in section taken on the lines **3—3** of FIG. **1**;

FIG. **4** is a top plan view of the parts of FIG. **2**, partly in section taken on the lines **4—4** of FIG. **2**;

FIG. **5** is a view in perspective of the spring used in the inner links;

FIG. **6** is a view in perspective of a connecting member used for the linkage;

FIG. **7** is an enlarged cross section taken on the lines **7—7** of FIG. **1**;

FIG. **8** is an enlarged cross section taken on the lines **8—8** of FIG. **2**;

FIG. **9** is an enlarged perspective of an outer link with part of the front end broken away;

FIG. **10** is a section taken on the lines **10—10** of FIG. **9**;

FIG. **11** is a top plan view of an inner link with a spring inserted therein and with end tabs bent up, looking at the inner wall of the link;

FIG. 12 is a fragmental side view of the linkage in the position it assumes when it has been slipped over the hand of the user and encircles his wrist, the end tabs being broken away and shown in section;

FIG. 13 is an enlarged perspective from below of an outer link having an ornamental shell added thereto, part of the end tab being broken away;

FIG. 14 is a fragmental top plan view of the intermediate parts of another embodiment of the invention with parts broken away, the linkage being shown in contracted position;

FIG. 15 is an enlarged perspective of the linkage of FIG. 14 shown in an expanded position with parts broken away;

FIG. 16 is an enlarged perspective of one of the ornamental shells for use with the linkage of FIGS. 14 and 15; and

FIG. 17 is a section taken on the lines 17—17 of FIG. 14.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

THE EMBODIMENT OF FIGS. 1 to 12

Referring to FIGS. 1 to 12 of the drawings, the linkage comprises a row of outer links 10 and a row of inner links 11 connected together by U-shaped connecting members 14 each of which has a first leg 14*a*, a second leg 14*b* and an end member 14*c* connecting the legs together as shown in FIG. 6.

The links 10 of the outer row of links are staggered with relation to and overlap the links 11 of the inner row of links lengthwise of the linkage as shown in FIGS. 1 and 2. The links of both rows extend in a direction generally transverse to the length of the linkage when viewed from the top as in FIGS. 3 and 4.

The links of the outer and inner rows may be made from stainless steel stock or any other suitable material.

Each link of each row of links is connected with two adjacent links of the adjacent row by means of four connecting members 14. The first legs 14*a* and second legs 14*b* of the connecting members extend within the links in a direction generally transverse to the length of the linkage. The first legs 14*a* of two or the four connecting members are located within the inner link 11 of the inner row of links near one end thereof. The second leg 14*b* of one of these connecting members is located within an adjacent link 10 of the outer row of links. The second leg 14*b* of the other connecting member is located within another adjacent link 10 of the outer row of links. The other two connecting members are located near the opposite side of the linkage and their legs are located within the links near their opposite ends in the same way.

The flat spring 12 (FIG. 5) may be made of any suitable corrosion, set and fatigue resistant material such as spring-tempered stainless steel. The springs 12 are located in the links 11 of only the inner row of links.

Each inner link is substantially rectangular in cross-section and comprises an outer wall 11*a*, two substantially parallel side walls 11*b* and an inner wall 11*c* formed by two flanges which extend from the inner ends of the side walls. Each inner wall of each inner link is also formed with recesses 11*d* (FIGS. 7, 8 and 11) which receive the ends 12*a* and 12*b* of the flat springs when the linkage is in fully expanded position — see FIG. 8.

Referring to FIG. 10, each link 10 of the outer row of links comprises an outer wall 10*a*, a narrower inner wall 10*d* substantially parallel to the outer wall, a pair of substantially parallel first side walls 10*b* connected to opposite sides of the outer wall 10*a* and a pair of second side walls 10*c* which converge inwardly from the inner sides of the second side walls to the lateral sides of the inner wall 10*d*. The inner wall 10*d* is provided by a pair of flanges which extend towards each other from the inner ends of the second side walls 10*c*.

Referring to FIG. 9, the inner wall 10*d* of the outer link is provided with a pair of projecting members 10*e* at each end and these projecting members are located between the end members 14*c* of the connecting members when the linkage is in contracted position as shown in FIGS. 1 and 12. These projecting members keep the connecting members aligned in the outer link in spite of the fact that there is no flat spring therein.

Each of the legs 14*a* and 14*b* of the connecting members is substantially straight. The first legs 14*a* of the connecting members are positioned between the outer wall 11*a* of the inner link and the adjacent end portion of the flat spring 12 as shown in FIGS. 7 and 8.

The maximum dimension generally transversely of the legs 14*a* and 14*b* of the connecting member in one direction is greater than the maximum dimension generally transversely thereof in another direction and, when the linkage is in a contracted position, this maximum dimension of the legs extends generally longitudinally of the linkage as shown in FIG. 1. The outer faces of the portions of the legs 14*b* which are of greater maximum dimension are adjacent to the inner faces of the outer walls 10*a* of the outer link when the linkage is in contracted position as shown in FIG. 1. The inner faces of the portions of the legs 14*a* which are of greater maximum dimension are located adjacent to the inner faces of the walls 11*a* of the inner links as shown in FIGS. 1 and 7.

One face of the portion of each leg 14*b* of each connecting member which is of lesser maximum dimension is adjacent to one of the substantially parallel first side walls 10*b* of the outer row of links when the linkage is in the contracted position of FIG. 1.

Tabs 10*f* and 11*f* are formed on the ends of the links 10 and 11 to provide a closed ornamental appearance when the linkage is viewed from the side. The tabs 11*f* hold the connecting members in the links. The tabs 10*f* may be omitted from the outer links and there will be no side movements of the links because of the square ends 10*i* on the walls 10*d* of the outer links. (See FIGS. 7, 8 and 9.)

To form a linkage of this construction into an expansible watchband, end connecting members are provided which receive the bails of a wrist watch.

The initial deflection of the springs is sufficient to urge the links of the band to fully contracted position. The ends of the springs which engage the legs 14*a* are further deflected when the linkage is expanded by stretching it to slip a wristwatch and attached watchband over the hand of the wearer to his wrist. When the stretching force is released, the springs act upon the legs 14*a* and the legs 14*a* and 14*b* act upon the links to cause the links to return to a contracted position in which the linkage grips the wrist with sufficient pressure to prevent movement thereof longitudinally of the wrist but without enough pressure to cause discomfort

to the wearer. In removing the watch and watchband from the wrist, the linkage is expanded by stretching it and the combination is pulled over the wearer's hand and released, whereupon the linkage returns to fully contracted position.

Due to the absence of springs in the outer links there is greater latitude in the design of the outer links.

The cost of manufacture of the outer links is reduced because less material is required and because they are easy to form.

The linkage has no tendency to curl when placed on a flat surface because there are no springs in the outer links tending to force the inner surfaces of the outer walls of the outer links to positions which are substantially perpendicular to the longitudinal centerlines of the legs and end members of the connecting members.

Because there are no springs in the outer links, mechanical assembly of the linkage is more economical than with prior art linkages since it is unnecessary to insert the springs in the outer links or to insert the ends of the second legs of the connecting members between the springs and the inner surfaces of the outer legs and also because the gaps between the ends **12***a* and **12***b* of the springs and the inner surfaces of the outer walls of the inner links may be increased thereby facilitating insertion of the ends of the first legs of the connecting members in said gaps.

In addition because of the novel cross-sectional shape of the links of the outer row of links, the outer corners formed at the intersections of the outer sides of the second side walls **10***c* and the outer sides of the first side walls **10***b* of adjacent links of the outer row of links contact each other when the linkage encircles the wrist of a user in contracted position as shown in FIG. **12.** This substantially reduces the size of the gaps between the outer sides of the second walls **10***b* of adjacent links compared to the corresponding gaps in prior art linkages and consequently, a linkage embodying this invention presents a more attractive appearance when it encircles the wrist of a user.

The Embodiment Of FIG. 13

If desired, the linkage of FIGS. **1** to **12** may be provided with ornamental top shells **20** made of gold-filled material. Each top shell **20** comprises an outer wall **20***a* which covers the outer wall **10***a* of the outer link **10,** a pair of side walls **20***b* which are substantially coextensive with the first side walls **10***b* of the outer link and four tabs **20***c*, two extending from each of the side walls **20***b* which are bent inwardly to secure the top shell to the link as shown in FIG. **13.**

Tabs **20***d* may be provided on the ends of each top shell if desired to enhance the appearance of the linkage but these tabs are unnecessary to prevent side play of the links because of the square ends **10***i* of the link wall **10***d*.

These top shells are less expensive to produce than prior art top shells because the side walls **20***b* are much shorter than the side walls of the prior art top shells.

The Embodiment Of FIGS. 14 to 17

The linkage of this embodiment is similar to the linkage of the embodiment of FIGS. **1** to **12** except that an opening **10***g* is formed at one side of each outer wall **10***a* of each outer link intermediate its ends and an opening **10***h* is provided in one of the first side walls **10***b* which communicates with the opening **10***g* as shown in FIG. **15.**

The ornamental top shell **30** comprises an outer wall **30***a* which is provided with an opening **30***b* corresponding in size and position to the opening **10***g* of the outer wall of the link **10.** The top shell also comprises a projection **30***c* at the side opposite the opening **30***b*, said projection being of substantially the same size as the opening **30***b* in the top shell attached to the adjacent outer link so that when the linkage is in the contracted position of FIG. **14,** the extension **30***c* is positioned in the opening **30***b* of the adjacent top shell.

The top shell **30** is provided with a pair of end walls **30***d* which extend from opposite ends of the top wall **30***a* and a pair of tabs **30***e* which extend from the ends of the end walls **30***d* are for use in securing the top shell to the outer link.

The linkage of FIGS. **14** to **17** may be made without top shells if desired, in which event, projections similar to the projections **30***c* are provided on the outer walls of the outer links and they are positioned in the openings **10***g* when the linkage is in contracted position.

The linkage shown in FIGS. **14** to **17** and the above described modification thereof provides an attractive appearance which has not heretofore been provided in a linkage of this type. The absence of springs in the outer links enables this linkage to be constructed and operated satisfactorily.

While several desirable embodiments of the invention have been shown in the drawings, it is to be understood that this disclosure is for the purpose of illustration only and that various changes in shape, proportion and arrangement of parts as well as the substitution of equivalent elements for those herein shown and described may be made without departing from the spirit and scope of the invention as set forth in the appended claims.

I claim:

1. An expansible linkage including in combination,

two rows of overlapping staggered links, each link extending in a direction generally transverse to the length of the linkage,

means interconnecting each of the links of the inner row with the links of the outer row to provide displacement of the links relative to each other lengthwise of the linkage when the linkage is stretched longitudinally from a contracted to an expanded position, said interconnecting means comprising a pair of connecting members, each connecting member having an end member, a first leg extending from said end member into one of said links of the inner row of links in a direction generally transverse to the length of the linkage and a second leg spaced from the first leg and extending from said end member into an adjacent link of the outer row of links for rotatably connecting the connecting member thereto, and

resilient means associated with each of the links of the inner row of links for resisting said displacement of said links,

wherein the improvement comprises,

each of the links of the outer row of links comprising an outer wall, a substantially flat narrower inner wall substantially parallel to the outer wall, a pair of substantially parallel first side walls connected to the opposite sides of the outer wall and a pair of second side walls which converge inwardly from

the inner sides of said first side walls to lateral sides of said inner wall,

each of the links in the inner row of links comprising a substantially flat outer wall, a substantially flat inner wall of substantially the same width as the outer wall and a pair of substantially parallel side walls connecting the sides of said outer and inner walls, whereby each link of the inner row of links is substantially rectangular in cross section substantially from end to end of its inner wall, and

the outer and inner walls of each of the links of the inner row of links being substantially narrower lengthwise of the linkage than the outer portion of each of the links of the outer row of links, whereby relatively wide spaces are provided between the adjacent sides of the links of the inner row of links when the linkage is in its contracted position.

2. An expansible linkage according to claim **1** wherein said inner wall of each link of the outer row of links includes means projecting outwardly from the end of said inner wall between said end members of said pair of connecting members which are associated with each of said outer links.

3. An expansible linkage according to claim **1** wherein said resilient means is a flat spring and said first legs are substantially straight and are positioned between an outer wall of said link of the inner row of links and an adjacent end portion of the flat spring.

4. An expansible linkage according to claim **1** wherein each of said second legs is substantially rectangular in cross section, the maximum dimension generally transversely of said leg in one direction is greater than the maximum dimension generally transversely thereof in another direction and, when the linkage is in a contracted position, said maximum dimension of said leg extends generally longitudinally of the linkage and the outer face of the portion of the leg which is of greater maximum dimension is adjacent to the inner face of said outer wall of the link of the outer row of links.

5. An expansible linkage according to claim **4** wherein one face of the portion of the leg which is of lesser maximum dimension is adjacent to one of said substantially parallel first side walls of the link of the outer row of links when the linkage is in a contracted position.

6. An expansible linkage according to claim **1** wherein the corners formed at the intersections of the outer sides of said second side walls and the outer sides of said first side walls of adjacent links to the outer row of links contact each other when the linkage encircles the wrist of a user in contracted position and spaces remain between the side walls of the links of the inner row of links.

7. An expansible linkage according to claim **1** which also comprises ornamental top shells, each top shell comprising an outer wall covering said outer wall of said link of the outer row of links, a pair of side walls which are substantially coextensive with said substantially parallel first side walls of said link and means for securing said top shell to said link.

8. As expansible linkage according to claim **7** wherein said means for securing the top shell to said outer link comprises tabs projecting from the inner sides of the side walls of the top shell and bent into engagement with said second side walls of said link.

9. An expansible linkage according to claim **1** wherein the outer wall of each of the links of the outer row of links comprises an opening formed at one side thereof intermediate its ends, and an extension at the opposite side thereof intermediate its ends, said extension being substantially the same size as said opening whereby when the linkage is in contracted position said extension is positioned in the opening of the outer wall of the adjacent link.

10. An expansible linkage according to claim **9** wherein each of one of the first side walls of each of the links of the outer row of links comprises an opening formed therein which communicates with said opening in the outer wall of said link.

11. An expansible linkage according to claim **1** which also comprises ornamental top shells, each top shell comprising an outer wall covering the outer wall of said link of the outer row of links, an opening formed at one side of each top shell intermediate its ends, and an extension at the opposite side thereof of substantially the same size as said opening, whereby when the linkage is in contracted position said extension is positioned in said opening of the adjacent top shell.

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