

Jan. 2, 1923.

1,440,647

C. TERRY.
EXPANSIBLE WIRE BRACELET, ARMLET, GARTER, AND THE LIKE.
FILED APR. 16, 1920.

Fig. 1.

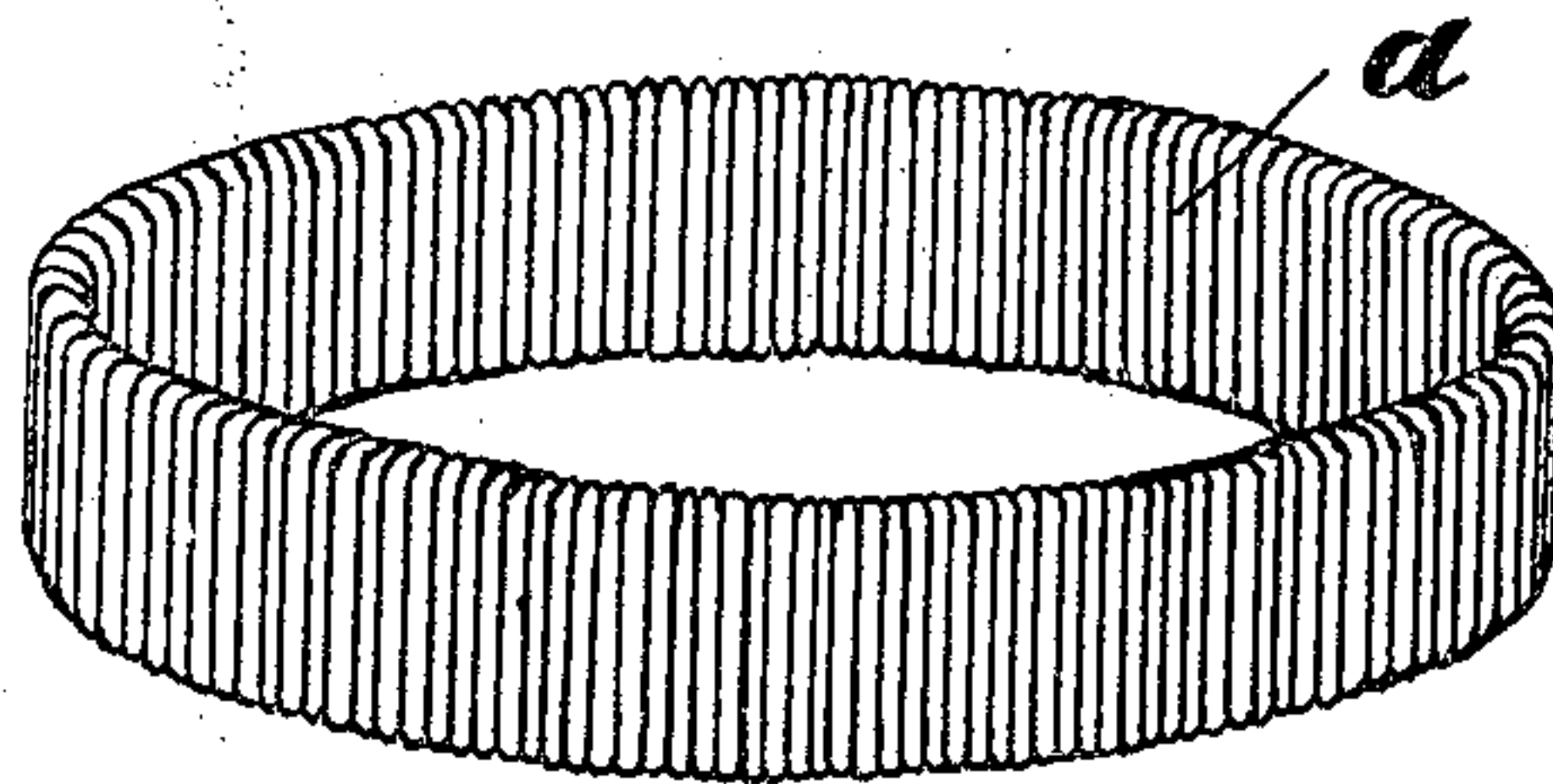


Fig. 2.

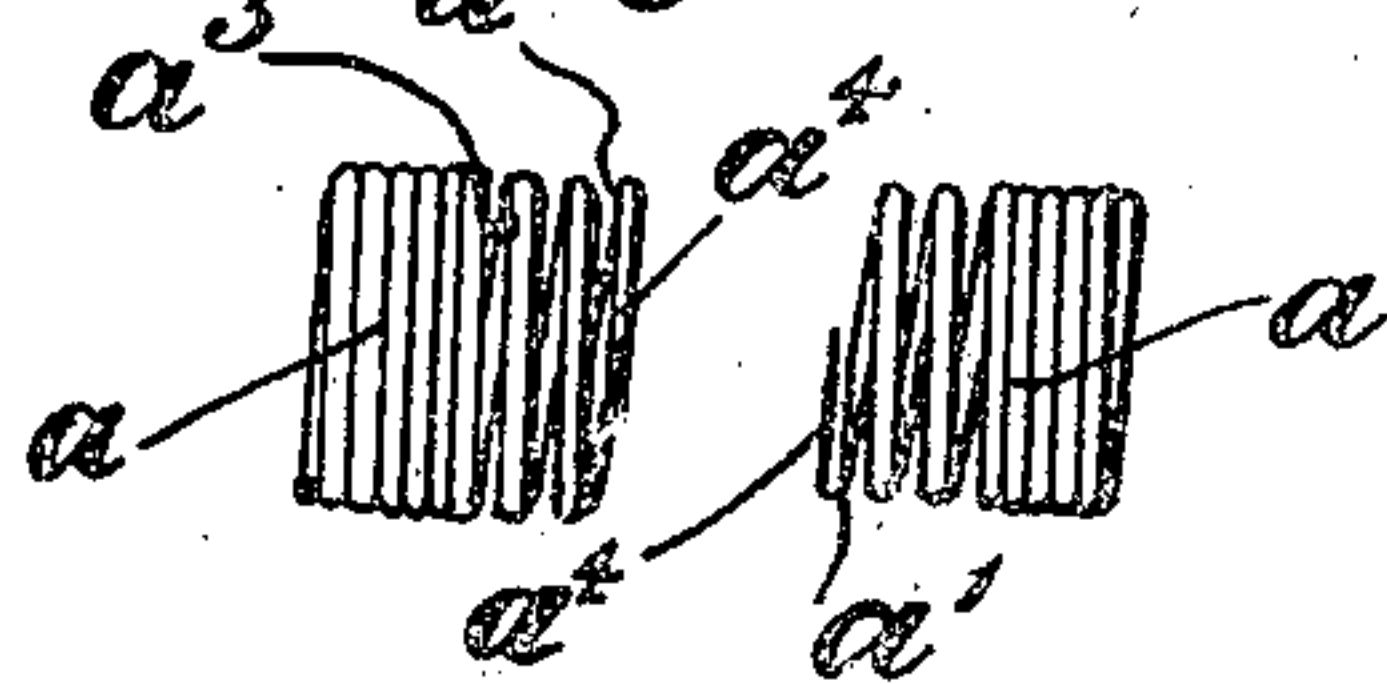


Fig. 3.

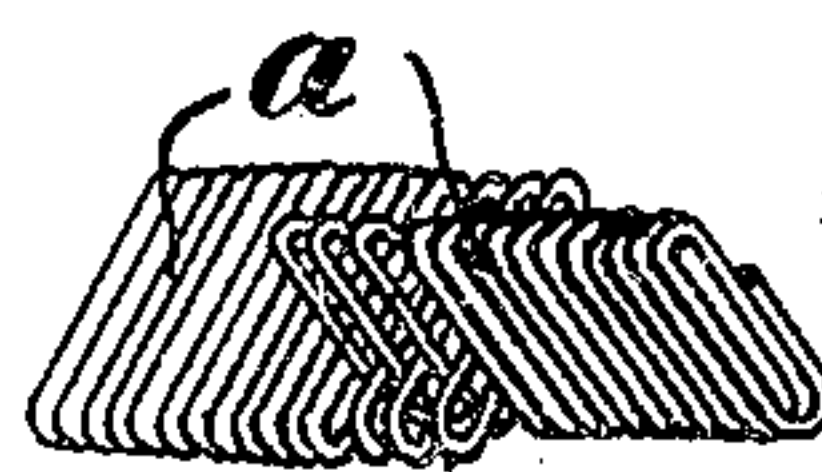


Fig. 4.

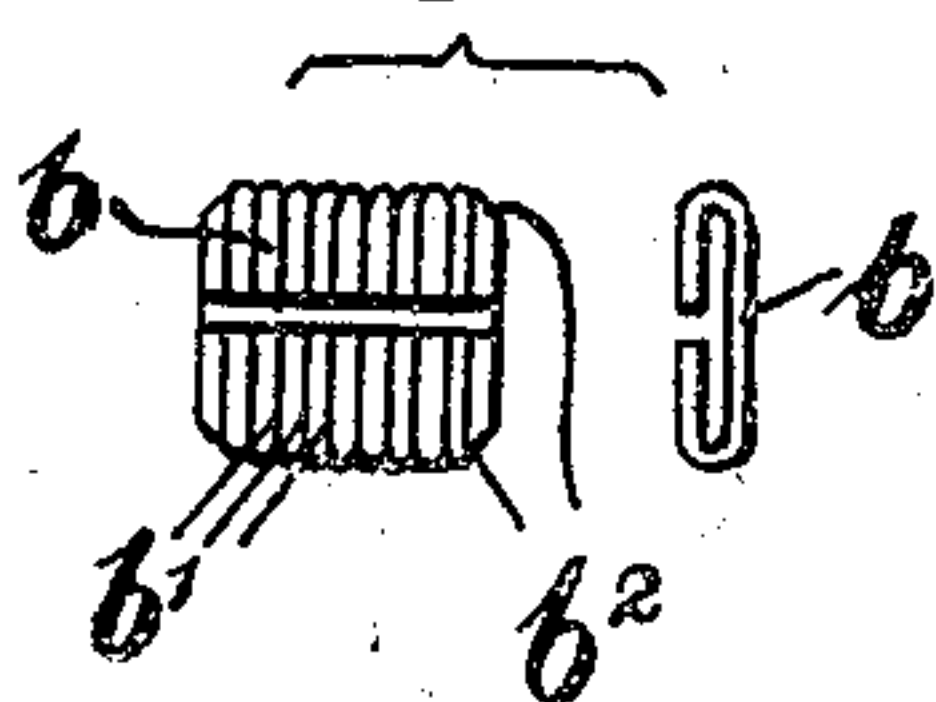
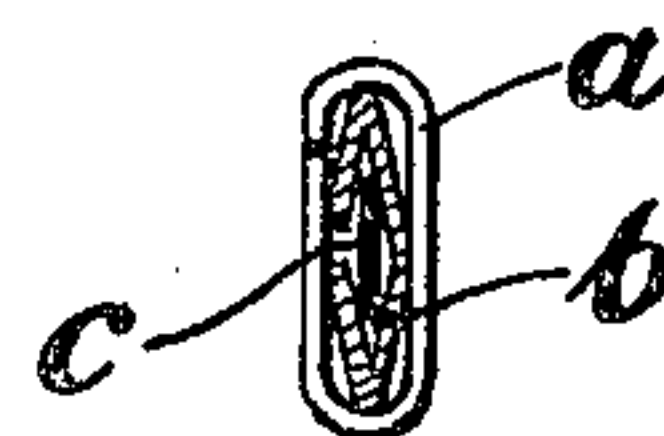


Fig. 5.



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Patented Jan. 2, 1923.

1,440,647

UNITED STATES PATENT OFFICE.

CHARLES TERRY, OF REDDITCH, ENGLAND.

EXPANSIBLE WIRE BRACELET, ARMLET, GARTER, AND THE LIKE.

Application filed April 16, 1920. Serial No. 374,470.

To all whom it may concern:

Be it known that I, CHARLES TERRY, a subject of the Kingdom of Great Britain, of Novelty Works, Redditch, in the county of Worcester, England, manufacturer, have invented certain new and useful Improvements in or Relating to Expansible Wire Bracelets, Armlets, Garters, and the like (for which I have filed application in England August 28, 1913. Patent No. 19,466), of which the following is a specification.

This invention comprises certain improvements in or relating to expanding wire bracelets, armlets, garters and the like, and it has for its purpose to furnish means whereby such articles may be manufactured in a more expeditious and efficient manner than heretofore, and whereby considerable expense is saved during such manufacture.

In the manufacture of bracelets and like articles made from coiled or spiral spring wire, it has hitherto been the practice in forming the desired circlet from a band or portion of such spring to connect the extremities of the band together and retain such extremities in the exact or proper position by soldering, brazing or the like. The present invention, however, comprises means whereby the two extremities of the spiral band may be connected together and retained in the exact required position in a very simple and efficient manner without necessitating the use of solder or the like, and the joint when completed is so neat in appearance as to render same invisible or substantially so.

According to the present invention the extremities of a portion of spiral spring of suitable length for the purpose required are connected together by interlacing or locking a desired or suitable number of the wire coils or convolutions at one extremity with a similar or corresponding number of wire coils or convolutions at the other extremity by means of a screwing, turning or twisting action of the one extremity in relation to the other, and a suitable member is assembled or inserted within the interior of the interlocked coils for effectively preventing the displacement of the said interlaced or locked coils of the connection or joint, and for retaining the said coils in alignment with each other and with the remainder of the article without necessitating any soldering or brazing.

The invention is particularly applicable

to articles in which the coils of the spring are of flat or elongated formation.

In order that this invention may be clearly understood and more readily carried into practice, reference may be had to the appended explanatory sheet of drawings upon which:—

Figure 1 illustrates a complete bracelet, armlet or the like article formed in accordance with the present invention.

Figure 2 illustrates two extremities of a coiled wire band or length before interlacing same.

Figure 3 is a perspective view illustrating two extremities of a coiled wire band or length in the process of interlacing.

Figure 4 shows a suitable form of clip or security member for inserting within the interlaced coils for completing the joint.

Figure 5 is a transverse section through the joint according to this invention.

In a convenient embodiment of the present invention a portion or band of coiled or spiral spring a is provided of any desired or suitable length according to the nature or size of the article to be made, the coils or convolutions of said spiral band a being advantageously of elongated or flat formation adapted in their normal or contracted condition to lie in alignment side by side closely adjacent to each other.

In order to form a circlet or ring member from a spiral band the coils at one extremity of same are interlaced with the coils at the other extremity by screwing same into each other, which action may be accomplished in the following manner.

The one extremity of the band is held in the one or left hand and the other extremity is held in the other or right hand. The extreme coil a^1 at the one or right hand extremity is then interlaced with or hooked into engagement with the extreme coil a^2 at the opposite or left hand extremity. The one extremity of the band a being firmly held, the other extremity is given a twisting or screwing turn in relation thereto, the movement being similar to that effected when tightening or inserting an ordinary screw. Upon completion of the first turn the extreme coil a^1 at the one extremity of the spiral band will be disposed or interlaced in a position between the two extreme coils a^2, a^3 at the other extremity and vice versa.

This screwing movement may be con-

tinued until say three or any other suitable number of coils at both extremities have been interlaced and brought into alignment or in the same plane. The action during the
 5 interlacing operation is such that the coils of the one extremity alternately assume a position in a plane at right angles to the plane of the coils with which they are interlaced and a position in which they lie snugly
 10 or tightly between such coils in the same plane.

If desired, in effecting the interlacing both extremities may be twisted or turned in relation to each other, providing that they are
 15 turned in opposite directions.

Prior to interlacing the coils or convolutions at the extremity of the wire *a* the band or length forming the article is twisted in an opposite direction to the twisting move-
 20 ment necessitated in the interlacing operation, the number of twists or turns given to said band corresponding with the number of twists necessitated in the interlacing operation. In this manner after the operation
 25 of interlacing the extremities a circlet is formed having all the coils in alignment and devoid of any twists.

The two extreme ends of the spiral wire *a* are advantageously of hook formation, the
 30 free arm or part *a*⁴ of the hook being extended to a position substantially half way along the width of the coil and this free extremity *a*⁴ of the hook portion is advantageously tapered off to a fine edge or flattened
 35 by grinding or otherwise so as to facilitate its engagement between the coils during the operation of interlacing in forming the connection.

In order to prevent the displacement of
 40 the coils *a* after having been interlocked, and to retain said coils in one plane, a suitable flat metallic member *b* is inserted within the interior of the wire coils advantageously at a position near the one extremity before the
 45 interlacing is effected, which flat member *b* after the joint has been accomplished is moved along the interior of the coils *a* into a position within the interlaced portion of same.

This flat securing member *b* is advantageously in the form of an elongated thin sheet of metal bent so as to form two flat rectangular face portions, disposed one over the other in parallel relationship, a small space
 55 remaining between same. The size of the rectangular member *b* is conveniently such as to permit of its being readily inserted within the wire coils *a* of the article being made while having a substantially close fit
 60 within same.

The exterior faces of the flat metallic securing member *b* may be advantageously serrated vertically or formed with parallel vertical grooves, cuts or ribs *b*¹ and after the
 65 interlocking of the coils has been accom-

plished and the flat member inserted in position therein, the said member may be caused to be expanded to a certain extent in any suitable manner, such for instance as
 70 by pressing a suitable sharp instrument or tool upon both the upper and lower edges of the same between the coils *a* thereby causing the sides of the flat member *b* to be expanded in opposite directions and firmly bed
 75 against or grip the coils of wire, which coils *a* will be thereby pressed into engagement with the serrations or cuts *b*¹ in the flat member *b*. The faces of the flat member may be otherwise roughened so as to form gripping
 80 surfaces.

In bending the metal to form the two flat sides or faces of the securing member *b* the contiguous edges of same after being bent over may be disposed transversely across the middle of one of the sides or faces,
 85 and when formed the four corners *b*² of the member may be chamfered off so as to facilitate the movement of the said member *b* along the interior of the coils *a*.

It is advantageous to leave open to a cer-
 90 tain degree those coils or convolutions of wire which are to be interlaced as this facilitates the interlocking operation.

A strip or band of fabric *c* of any suitable nature may be inserted within the
 95 coiled article to prevent the expansion or stretching of same beyond a certain degree. The extremities of this strip of fabric *c* may be connected together in any suitable or usual manner such as by stitching, but prior
 100 to such connection the strip is passed through the flat metallic expansible member *b* adapted to be inserted within the coils *a*, the flexibility of the strip of fabric *c* permitting the free turning movement of the
 105 coils during the interlacing of same.

The invention is applicable to bracelets, rings, garters, armlets, anklets or any other desired expansible wire article and it enables the spiral spring or the like to be
 110 gilded, plated, etc., in the length, before joining to form the article required thereby saving much expense and permitting of a greatly improved finish to the article being made.
 115

What I claim as my invention and desire to secure by Letters Patent is:—

1. An expansible bracelet, comprising a continuous coiled spring wire of equal diameter throughout its length, the extremities
 120 being interlaced by threading the end coils between the convolutions of the coacting end coils.

2. An expansible bracelet, comprising a continuous coiled spring wire of equal diam-
 125 eter throughout its length, the extremities being interlaced by threading the end coils between the convolutions of the coacting end coils, and a clip surrounded by the interlaced end coils.
 130

2. An expansible bracelet, comprising a continuous coiled spring wire of equal diameter throughout its length, the extremities being interlaced by threading the end coils between the convolutions of the coacting end coils, and an expansible clip surrounded by the interlaced end coils and adapted to be expanded to enter into frictional contact with said coils.

10 4. An expansible bracelet, comprising a continuous coiled spring wire of equal diameter throughout its length, the extremities being interlaced by threading the end coils between the convolutions of the coacting end coils, and an expansible clip surrounded by the interlaced end coils and adapted to be expanded to enter into frictional contact with said coils, said clip having serrated

faces to increase the engagement with said coils. 20

5. An expansible bracelet, comprising a continuous coiled spring wire of equal diameter throughout its length, the extremities being interlaced by threading the end coils between the convolutions of the coacting end coils, and an expansible clip surrounded by the interlaced end coils and adapted to be expanded to enter into frictional contact with said coils, said clip having serrated faces to increase the engagement with said coils, said end coils having their free ends tapered so as to facilitate the insertion thereof between the convolutions of the end coils. 25 30

In witness whereof I have hereunto set my hand.

CHARLES TERRY.