

L. MACHEROUX.
GARMENT AND THE LIKE.
APPLICATION FILED APR. 30, 1920.

1,416,486.

Patented May 16, 1922.

Fig. 1.

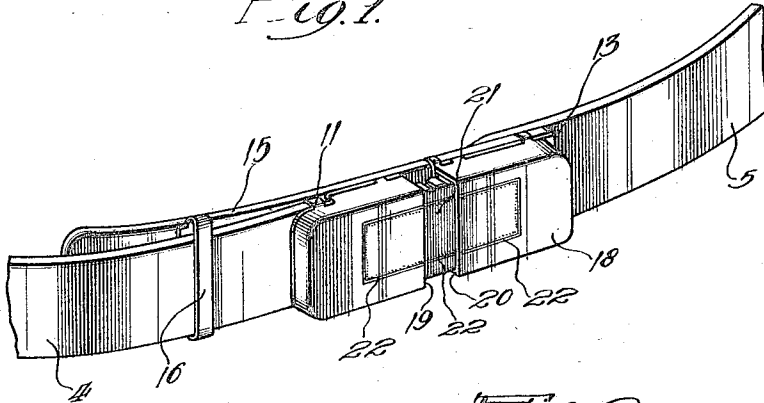


Fig. 2.

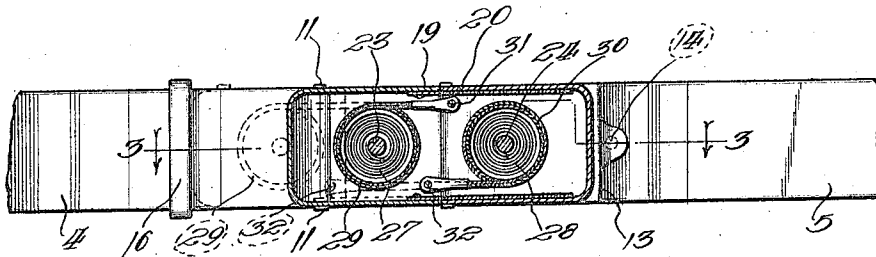
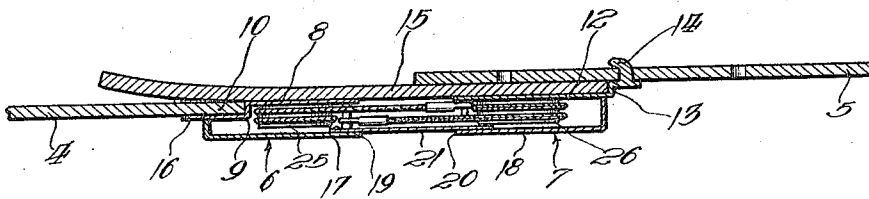


Fig. 3.



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GARMENT AND THE LIKE.

1,416,486.

Specification of Letters Patent. Patented May 16, 1922.

Application filed April 30, 1920. Serial No. 377,372.

To all whom it may concern:

Be it known that I, LOUIS MACHEROUX, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Garments and the like, of which the following is a specification.

The present invention has to do with improvements in garments, and has particular reference to improvements in belts and other sustaining appliances for use in connection with garments.

One of the objects of the invention is to provide a sustaining device or garment which shall be capable of expansion or contraction under spring action or tension, so that it may naturally and instantly adapt itself to changes in size while at the same time maintaining the desired amount of contractile force to properly perform its sustaining function.

Another object of the invention is to provide for the expansion and contraction of the device under spring pressure by the use of spiral or helical springs operating on cables or tie members connecting the two sections of the device together. In this connection one of the features of the invention has to do with the provision of a device of such construction that the spring pull between the two sections will at all times be perfectly balanced notwithstanding the rotational tendency of a coiled or helical spring. In this connection still another object is to provide a device of very simple construction and arrangement of parts and one which can be cheaply manufactured and will be of permanent nature.

Another feature of the invention has to do with the provision of a construction such that as the two sections or parts of the device are moved or withdrawn from each other or moved toward each other in their natural contractile action, they will bear the appearance at all times of a single or unitary element or buckle, the length of which varies or is adjusted according to the degree of separation of the two sections with respect to each other.

In this connection another feature of the invention has reference to the provision of means or constructions whereby the two sec-

tions of the device are at all times kept in perfect alignment or co-operation with respect to each other. Other objects and uses of the invention will appear from a detailed description of the same which consists in the features of construction and combinations of parts hereinafter described and claimed.

In the drawing:

Figure 1 shows a perspective view of the end portions of a belt having applied thereto the buckle or contractile device to which the present invention relates. In this figure the two belt sections are shown as being stretched or opened out a slight distance with respect to each other, the sections of the buckle or contractile device being correspondingly moved;

Fig. 2 shows a face view of the end portions of the belt, the buckle members being shown in section; and

Fig. 3 shows a longitudinal section taken on the line 3—3 of Fig. 2, looking in the direction of the arrows.

Referring to the drawings, I have shown the buckle or contractile device as applied to an end portion of a belt, such illustration being simply by way of convenience, and for the reason that the particular device illustrated in the drawings is designed especially for this particular application. The end portions of the belt are designated by the numerals 4 and 5. To the end of the portion 4 is secured a member designated in its entirety by the numeral 6, and to the end of the portion 5 is secured a member designated in its entirety by the numeral 7. These members co-operate with respect to each other, and they contain spring contractile devices by means of which the two members and the end portions of the belt are drawn together.

The member 6 includes a base plate 8 having a shouldered portion 9 against which seats the extreme end portion 10 of the belt section 4. This base plate 8 is secured to the end 10 of the belt by means of clips or the like 11 or in any other suitable manner.

The member 7 includes a base plate 12 having its end portion shouldered as at 13, and said end portion is attached to the belt section 5 in any suitable manner as by means of a hook 14. A tongue 15 has its end seated

against the shoulder 13, and said tongue overlaps the space between the belt end sections 4 and 5 as will be clearly evident from an examination of Fig. 3. A loop 16 is secured to the end portion of the tongue 15 and encloses the belt end section 4 so as to guide the two belt sections 4 and 5 in their relative movements. Furthermore this loop 16, if properly spaced, will serve as a stop for limiting the amount of separation of the two belt sections, by engagement with the member 6 or a portion thereof, as shown in Fig. 3.

A removable housing or cover plate 17 is secured to the base plate 8, and another removable housing or cover plate 18 is secured to the base plate 12. These two housings have their inner edge portions open and face each other, as shown in the various figures, so that when the two members 6 and 7 come together said housings will meet and provide a mutually enclosed housing. As the belt sections are separated with corresponding separation of the members 6 and 7, the housing edges 19 and 20 will draw apart, and at such times the interior portions of the housings would be exposed and also the two members 6 and 7 would at such time appear separated from each other to the disadvantage or detriment of the appearance of the device. The mutual separation of the housings at such times would expose the operating devices contained therein, which would also be a disadvantage on account of the appearance thus presented, and on account of the possibility of entrance of foreign matter.

I have, therefore, provided a telescoping plate or member 21 of the general shape of the housings and secured to the inner portion of the housing 17 and extending over and telescoping into the housing 18, as will be clearly evident from the various figures. This telescoping member 21 will thus serve at all times to cover over the space between the two housings and maintain said space more or less in closed condition. This telescoping device may also be made to serve a desirable aesthetic function by placing a design such as 22 on the housing members 17 and 18, and carrying said design across the telescoping member 21. No matter how much the housings may be separated within the normal limits of operation, this design will appear continuous, and will give the impression that the members 6 and 7 are continuous instead of discontinuous.

Within the housings 17 and 18 are mounted the contractile devices by means of which the two housings are normally drawn to each other. These contractile devices are illustrated as follows: A pin or stud 23 is secured to the base plate 8 and another pin or stud 24 is secured to the base plate 12. The pulleys or drums 25 and 26 are pivotally

mounted upon these studs and carry the spiral or helical springs 27 and 28 by means of which the drums are normally rotated in the same direction. This rotating tendency would be counter-clockwise in Fig. 2.

A cable 29 is wound upon the drum 25 and another cable 30 is wound upon the drum 26. The end of the cable 29 connects to the opposite housing or base plate 12 by a pin 31, and the end of the cable 30 connects to the base plate 8 or opposite housing by means of a pin 32. By making the contractile tendencies of the two springs substantially equal any twisting or distorting tendency will be neutralized while at the same time the force with which the two belt sections 4 and 5 will be drawn together will be equal to the sum of the two spring tendencies.

I wish to point out the additional function of the telescoping device 21, in that it tends to maintain the two members 6 and 7 always in perfect alignment with each other, thereby largely assisting the function of the tongue 15 in this regard.

I wish also to point out the fact that certain features of the present invention are also disclosed in my co-pending application for Letters Patent of the United States on improvements in garments and the like, Serial No. 296,441, which was filed May 12, 1919.

I claim:

1. As a new article of manufacture, a contractile element of the class described comprising two box-like members open at their facing sides, a spring-retracted reel within each of said members, a cord secured to and working on each of said reels and having its free end connected to the interior of the other box-like member, said reels being spring pressed to turn in the same direction of rotation and the free ends of the cords connecting to the interior portions of the two box-like members on opposite sides of the line joining the centers of the reels, whereby the pulls of the two cords balance on the two sides of the contractile element, and a telescoping plate projection on the upper part of one of the box-like members reaching into the other box-like member and spanning the space between the members, substantially as described.

2. As a new article of manufacture, a contractile element of the class described comprising two box-like members open at their facing sides, spring retracted reels within said members, cords working on said reels and having their free ends connected to the interior portions of the opposite box-like members, respectively, and a telescoping plate projection on the upper part of one of the box-like members reaching into the other box-like member and spanning the space between the members, substantially as described.

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3. As a new article of manufacture, a contractile element of the class described comprising two box-like members open at their facing sides, spring retracted reels within
5 said members, cords working on said reels and having their free ends connected to the interior portions of the opposite box-like members, respectively, and a telescoping plate projection on the upper part of one of the box-like members reaching into the other 10 box-like member and spanning the space between the members, substantially as described.

LOUIS MACHEROUX.