Dec. 17, 1929. D. MARINSKY 1,739,975

COUPLING MEMBER

Original Filed Dec. 31, 1927

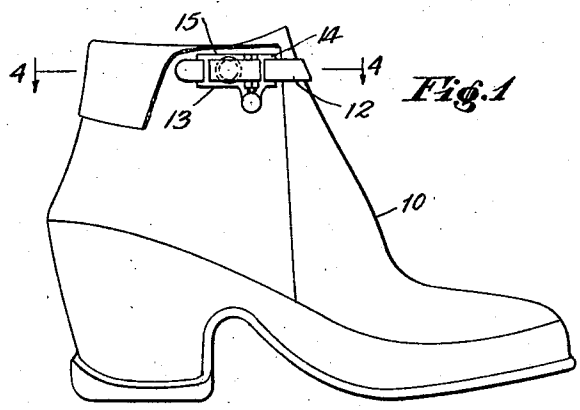


Fig. 1

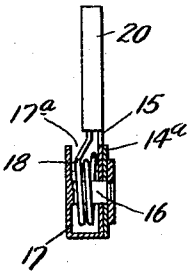


Fig. 3

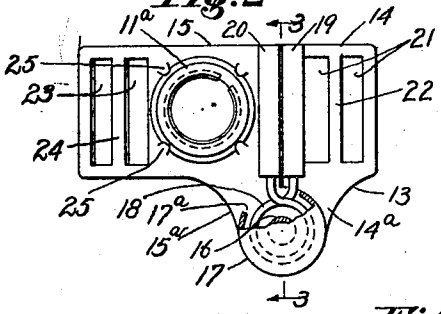


Fig. 2

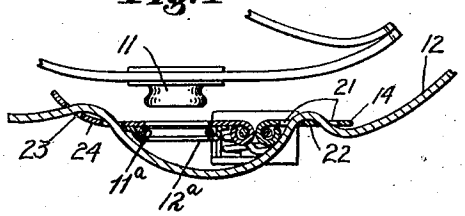


Fig. 4

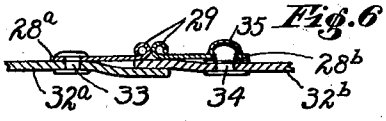


Fig. 6

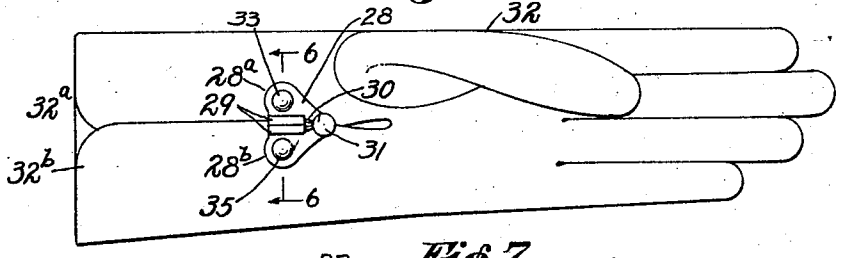


Fig. 5

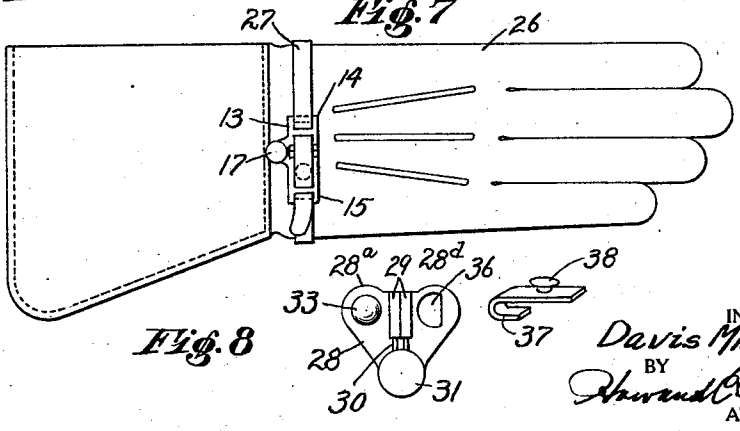


Fig. 7

Fig. 8

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Patented Dec. 17, 1929 1,739,975

UNITED STATES PATENT OFFICE

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COUPLING MEMBER

Application filed December 31, 1927, Serial No. 243,818. Renewed September 27, 1929.

This invention relates to coupling members and particularly to devices of this class involving pivotally coupled parts with means for attaching the separate parts to predetermined supports; and the object of the invention is to provide a device of the class specified with tensional means for coupling the separate pivotally connected parts, the tensional means involving a spring coiled about the pivotal connection and said parts and having protruding ends engaging the projecting portion of said parts to permit of their separation under the tension of said spring in fan-like fashion; a further object being to provide the projecting portions of said parts with means for coupling and attaching the same to predetermined supports permanently or adjustably as well as detachably; a further object being to provide a device of the class specified wherein the protruding portions of the separate parts thereof may be adjustably mounted on a strap member employed for coupling two members together, one of the parts of the device having means for detachably securing the same to one of said members, forming a buckle-like structure, whereby a resilient mounting of the strap member is provided in addition to the adjustability thereof, so that in the adjustment of a strap member to a given size to provide for a snug fit, an additional expansion of the properly fitted strap member is provided under the action of said tensionally expanded or extended parts; and with these and other objects in view, the invention consists in a device of the class and for the purpose specified, which is simple in construction, efficient in use, and which is constructed as hereinafter described and claimed.

My present invention is an improvement on that shown and described in a prior application filed by me October 6, 1927, bearing Serial No. 224,348, and is fully disclosed in the following specification of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:—

Fig. 1 is a side view of an overshoe showing one form of my invention applied thereto.

Fig. 2 is an enlarged, detail view of the coupling member shown in Fig. 1.

Fig. 3 is a section on the line 3—3 of Fig. 2.

Fig. 4 is a section on the line 4—4 of Fig. 1 and on an enlarged scale, and with parts detached.

Fig. 5 is a plan view of a glove showing another form of my coupling device mounted in connection therewith.

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

Fig. 7 is a view similar to Fig. 5 but showing the type of coupling member shown in Figs. 1 to 4 applied to a glove; and,

Fig. 8 is a detail view of another form of coupling member detached, and illustrating a hook member coupled in connection therewith.

In Fig. 1 of the drawing, I have shown for the purpose of illustrating one use of my invention, a galosh or overshoe 10, the upper end or leg encircling portion of which is provided at one side with the male member 11 of a snap fastening device, and the other side portion of the shoe is provided with a strap 12 which extends forwardly around the shoe and is adjustably coupled with one of my improved coupling members 13 consisting of two parts 14 and 15 fashioned in the construction shown from sheet metal, and provided at one side with projecting bearing members 14^a and 15^a which are brought together and overlapped and are coupled together by a pivot pin 16 which also passes through a cup-shaped cap 17 having an opening 17^a. A coil spring 18 is mounted on the pin 16 and the ends of said spring project radially and extend into and operate or slide in tubular bearings 19 and 20 on the parts 14 and 15 respectively, the ends of said spring passing through the apertures 17^a in the cap 17, the transverse dimensions of said aperture controlling the separation of the parts 14 and 15 under the tension of the spring 18 as will be apparent.

The tubular members 19 and 20 on the parts 14 and 15 are arranged on adjacent edges of said parts and the part 14 is provided with spaced elongated apertures 21 spaced apart by a cross bar 22 which forms a buckle member of said part. The strap

member 12 is adapted to be passed inwardly and outwardly through the apertures 21 and around the bar 22 as seen in Fig. 4 of the drawing. The part 15 is wider than the part 14 and is provided at its free end with apertures 23 similar to the apertures 21, and with a cross bar 24 similar to the bar 22. In like manner, the free end portion of the strap 12 passes through the apertures 23 and around the bar 24 and that portion of the strap intermediate the parts 14 and 15 is preferably looped or extended as at 12^a to allow for the separation of the parts 14 and 15 under the tension of the spring 18 when the leg encircling portion of the overshoe 10 is subjected to stress or strain in the operation of walking or for any other reason.

Between the tube 20 and the apertures 23, the part 15 is provided with an opening to permit of the passage of the male member 11 of a fastening device therethrough for securing the coupling device 13 therewith. In the accompanying drawing, I have shown a resilient socket or female member 11^a supported in connection with the part 15 by keepers 25. It will be understood that the part 15 may be constructed to form a socket member or any other means may be provided for attaching said part fixedly or detachably to a support.

In Fig. 7 of the drawing, a device 13 similar in all respects to the device shown in Figs. 1 to 4 inclusive, is shown supported in connection with a glove 26 of the gauntlet or other type employing a securing strap member 27 for adjustably supporting the glove about the wrist of the wearer. While the coupling member 13 is shown supported on the back of the glove, it may be on the inner face of the glove as in the construction shown in Fig. 5 of the drawing.

In Figs. 5 and 6 of the drawing, I have shown a modified form of coupling device 28 consisting of two substantially similar parts 28^a and 28^b, the adjacent faces of which are provided with tubular members 29 similar to the members 19 and 20, in which the ends 30 of a coil spring are mounted, said spring being coiled about the pivotal connection 31 of the separate parts 28 and 28^b, which is similar to the pivotal connection of the parts 14 and 15. In the construction shown, the device 28 is attached or supported in connection with a glove 32, or the separate side portions 32^a and 32^b of the wrist encircling part of the glove, the part 28^a being riveted or otherwise fixedly attached to the portion 32^a as seen at 33, whereas the part 28^b is detachably coupled with the portion 32^b. In the construction shown, this detachable coupling is produced by a snap fastening device consisting of a male member 34 secured to the portion 32^b and a female member 35 formed integral with the part 28^b.

With the construction shown in Figs. 5 and 6 of the drawing, the separate portions 32^a and 32^b of the wrist encircling part of the glove 32 may be securely bound around the wrist of the wearer in coupling the part 28^b with the side portion 32^b. At the same time, the glove is capable of expansion in the separation of the parts 28^a and 28^b in fan-like fashion under the tension of the spring employed. This spring serves to maintain the wrist encircling part of the glove in firm engagement with the wrist of the wearer at all times.

It will also be understood that the coupling device may be located at any desirable place on a glove regardless of the length thereof, and in the case of long gloves extending well up onto the arm, said device may be located adjacent the end of such gloves to support the same around the arm of a wearer. It will also be understood that the device may have many other uses than those herein specified in both long and short bodies and other body encircling members or wherever it is desired to secure a strap or other member around a body of any kind or class and to allow for slight expansion or enlargement of such body.

In Fig. 8 of the drawing, I have shown a slight modification of the construction shown in Figs. 5 and 6, in which figure, I have substituted for the male member 35 of a fastening device, a hole or socket 36 adapted to receive a hook member 37 secured to a support equivalent to the support 32^b by riveting or in any other manner as indicated at 38. In Fig. 8 of the drawing, like reference numerals will identify like parts described in Figs. 5 and 6 of the drawing. For example, the part 28^a has a rivet or other means 33 for securing said part to one support.

With my improved construction, it will be understood that the separate parts of the coupling member are normally supported with their adjacent edges in abutting relation under the tension of the spring, and in the expansion or separation of said parts, the tension of the spring is increased and one of the parts is permanently or adjustably secured to one support and the other part is detachably secured to its support and the latter may also be adjustably coupled with the first named support as in the construction shown in Figs. 1 to 4 inclusive and Fig. 7.

As previously stated, my improved device may be supported in connection with apparel and articles of any kind or class where the result produced by said device is desirable. While I have shown certain details of construction for carrying my invention into effect, it will be understood that I am not necessarily limited to these details, and various changes therein and modifications thereof may be made within the scope of the appended claims, without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A coupling device comprising two movably connected parts, tensional means for supporting said parts normally in abutting relation, means on one of said parts for retaining the same against movement in connection with one supporting member, and means for detachably coupling the other part in connection with another supporting member.

2. A coupling device comprising two movably connected parts, tensional means for supporting said parts normally in abutting relation, means on one of said parts for retaining the same against movement in connection with one supporting member, means for detachably coupling the other part in connection with another supporting member, and the tensional means cooperating with said parts permitting the separation of said supporting members under the increased tension of said tensional means.

3. A coupling device comprising two movably connected parts, tensional means for supporting said parts normally in abutting relation, means on one of said parts for retaining the same against movement in connection with one supporting member, means for detachably coupling the other part in connection with another supporting member, the tensional means cooperating with said parts permitting the separation of said supporting members under the increased tension of said tensional means, and the coupling of the first named part with its supporting member being adjustable.

4. A coupling device comprising two movably connected parts, tensional means for supporting said parts normally in abutting relation, means on one of said parts for retaining the same against movement in connection with one supporting member, means for detachably coupling the other part in connection with another supporting member, the tensional means cooperating with said parts permitting the separation of said supporting members under the increased tension of said tensional means, the coupling of the first named part with its supporting member being adjustable, and means for adjustably coupling the supporting member of the first named part with the second named part.

5. A combination buckle and resilient coupling member of the class described consisting of two movably coupled parts, tensional means engaging said parts to normally hold adjacent faces of said parts in abutting relation and permitting the separation of said parts under the increased tension of said means, and each of said parts having means for adjustably coupling a strap member therewith.

6. A combination buckle and resilient coupling member of the class described consisting of two movably coupled parts, tensional means engaging said parts to normally hold adjacent faces of said parts in abutting relation and permitting the separation of said parts under the increased tension of said means, each of said parts having means for adjustably coupling a strap member therewith, and that portion of the strap member intermediate the coupling means on said parts being slacked to compensate for the resilient separation of said parts.

7. A combination buckle and resilient coupling member of the class described consisting of two movably coupled parts, tensional means engaging said parts to normally hold adjacent faces of said parts in abutting relation and permitting the separation of said parts under the increased tension of said means, each of said parts having means for adjustably coupling a strap member therewith, and that portion of the strap member intermediate the coupling means on said parts being slacked to compensate for the resilient separation of said parts, and means on one of said parts for detachably coupling the same to a support.

8. In an article of apparel comprising a body encircling member having end portions adapted to be coupled together to securely support said apparel on the body of the wearer, a coupling member comprising tensionally coupled parts, one of said parts being secured to one end portion of said apparel, and the other of said parts detachably coupled with the other end portion of the apparel for tensionally supporting said apparel on the body of the wearer.

9. In an article of apparel comprising a body encircling member having end portions adapted to be coupled together to securely support said apparel on the body of the wearer, a coupling member comprising tensionally coupled parts, one of said parts being secured to one end portion of said apparel, and the other of said parts detachably coupled with the other end portion of the apparel for tensionally supporting said apparel on the body of the wearer, the first named end portion of the apparel comprising a strap member adjustably coupled with said first named part.

10. In an article of apparel comprising a body encircling member having end portions adapted to be coupled together to securely support said apparel on the body of the wearer, a coupling member comprising tensionally coupled parts, one of said parts being secured to one end portion of said apparel, and the other of said parts detachably coupled with the other end portion of the apparel for tensionally supporting said apparel on the body of the wearer, the first named end portion of the apparel comprising a strap member adjustably coupled with said

first named part, and means for adjustably coupling said strap member to the second named part.

11. A coupling member of the class described comprising two sheet metal parts, said parts having side extending and overlapping members, means for pivotally coupling said members together, a spring coiled about the pivotal connection of said parts and having radially extending end portions, means on said parts engaging the end portion of said spring whereby said parts may be separated in fan-like fashion under the increased tension of said spring and being normally supported in abutting relation by said spring, means on one of said parts for detachably coupling the same to one support, and means on the other of said parts for adjustably coupling the same with another support.

12. A coupling member of the class described comprising two sheet metal parts, said parts having side extending and overlapping members, means for pivotally coupling said members together, a spring coiled about the pivotal connection of said parts and having radially extending end portions, means on said parts engaging the end portion of said spring whereby said parts may be separated in fan-like fashion under the increased tension of said spring and being normally supported in abutting relation by said spring, means on one of said parts for detachably coupling the same to one support, means on the other of said parts for adjustably coupling the same with another support, and means on the pivotal connection of said parts for limiting the separation thereof.

In testimony that I claim the foregoing as my invention I have signed my name this 27th day of December 1927.

DAVIS MARINSKY.