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CLASP.

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1,229,200.

Patented June 5, 1917.

Fig. 1.

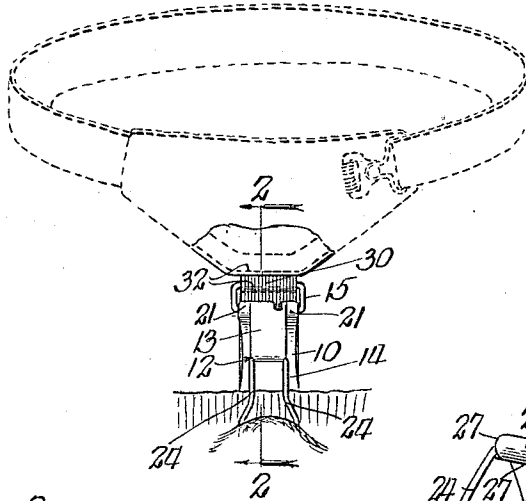
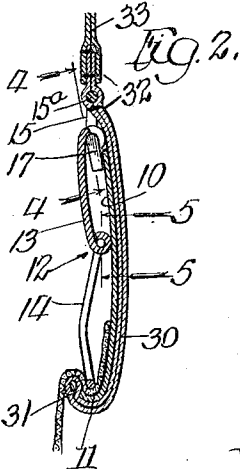


Fig. 4.

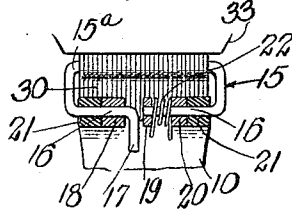
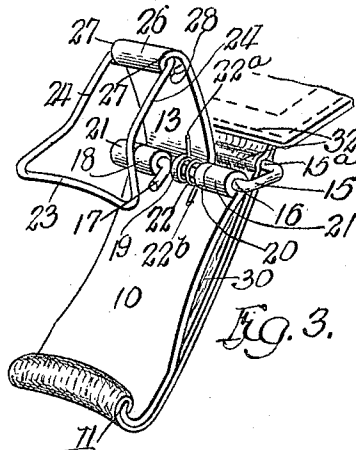


Fig. 5.

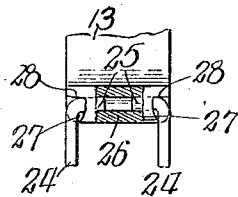


Fig. 6.

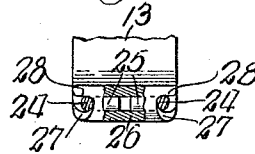
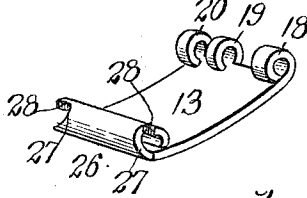


Fig. 7.



Witnesses:
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UNITED STATES PATENT OFFICE.

CLARENCE E. MEHLHOPE, HENRY R. MATTHEI, AND TADEUSZ Z. MALLY, OF CHICAGO, ILLINOIS, ASSIGNORS TO GEORGE PLAMONDON, OF WHEATON, ILLINOIS; ALFRED D. PLAMONDON EXECUTOR OF SAID GEORGE PLAMONDON, DECEASED.

CLASP.

1,229,200.

Specification of Letters Patent.

Patented June 5, 1917.

Application filed April 7, 1913. Serial No. 759,323.

To all whom it may concern:

Be it known that we, CLARENCE E. MEHLHOPE, HENRY R. MATTHEI, and TADEUSZ Z. MALLY, citizens of the United States, and residents of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Clasps; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in clasps more particularly adapted for use with garters and consists of the matters hereinafter described and more particularly pointed out in the appended claims. The clasp is of that type which includes a back member provided with a lip or shoulder at its lower end and a toggle-jointed latch member hinged to the back member and adapted for co-action with the shoulder or lip carried by said back member.

In the drawings:—

Figure 1 is a view showing a front elevation of our improved clasp as it would appear when attached to a man's garter of familiar type and in position supporting a sock or stocking.

Fig. 2 is a view representing on an exaggerated scale a longitudinal section through the clasp in a plane indicated by the line 2—2 of Fig. 1,—the clasp in this view being shown with its parts in closed position.

Fig. 3 is a perspective view drawn to the same scale as Fig. 2 showing the clasp with its parts in open position.

Fig. 4 is a partial section through Fig. 2 in a plane indicated by the line 4—4 thereof.

Fig. 5 is a partial section through Fig. 2 in a plane indicated by the line 5—5 thereof.

Fig. 6 is a like section except that the lower member of the toggle-jointed latch member is shown in the position which it occupies when the clasp is open as illustrated in Fig. 3.

Fig. 7 is a perspective view of the upper toggle-member viewed from the back of said member.

Referring now to that embodiment of our

invention illustrated in the drawings, 10 indicates the back member which carries at its lower end an upturned shoulder or lip 11; 12 indicates the toggle-jointed latch member which is hinged to the upper end of the back member 10 and comprises an upper toggle-member 13 and a lower toggle-member 14. 15 indicates a loop which is bent to provide pintle members 16, 16 upon which the back and latch members of the clasp are hinged and to form a lug 17 which extends between the back member 10 and the upper toggle member 13 to provide a trigger for opening the clasp. The construction thus far described is substantially like that described in an application filed by Clarence E. Mehlhope, one of the co-inventors herein, on November 29th, 1912, Serial No. 733,982.

The upper toggle-member 13 is provided at its upper end with lugs or extensions which are bent to form three laterally spaced sleeves 18, 19 and 20. Two of these, 19 and 20, form journals to receive one of the pintle members 16 of the loop 15, while the other one, 18, forms a journal to receive the other pintle 16 of said loop. The back member 10 is likewise provided with extensions bent to form laterally separated sleeves 21, 21, which are journaled on said pintle members 16 at the sides of the sleeves 20 and 18 of the upper toggle-member. The trigger 17 is located in the space between the two sleeves 18 and 19 of the upper toggle-member. The space between the sleeves 19 and 20 of said upper toggle-member is occupied by a coiled spring 22 which is bent about the pintle member 16 and has an end 22^a which engages against the inner face of the upper toggle-member and an end 22^b which engages against the front face of the back member 10. Thus the spring 22 tends to force the upper toggle-member away from the back member of the clasp, that is to say, tends to hold the latch member in open position.

The lower toggle-member 14 consists of a loop of wire bent to form a transverse bottom end member 23 adapted for coaction with the lip 11 of the back member to engage the garment to be supported; lateral members 24, 24; and pintle members 25, 25 which are formed by bending the upper ends of the lateral members 24, 24 toward

each other. At the lower end of the upper toggle-member is formed a transverse sleeve 26 in which said pintle members 25 of the lower toggle member have bearing. The ends of said sleeves are cut to provide cam edges or surfaces 27, 27 which converge toward the middle of the plate 13 and which terminate in shoulders 28, 28.

The loop 14 is made of spring wire and is formed so that the lateral members 24, 24 of the loop will normally assume a position in which they are nearer together than the length of the sleeve 26 on the upper toggle member would permit. Thus when the pintle members 25 of the loop are in position within the ends of the sleeve 26, the lateral members 24 of the loop are held by spring pressure in engagement with the cam surfaces 27 and as these surfaces converge toward the center of the plate, said lateral members of the loop will tend to slide toward the shoulder 28. This movement causes the loop to swing about the pintles 25 and thus normally assume the position shown in Fig. 3 when permitted to do so, wherein they are disposed in a position concave toward the back member.

The operation of the clasp as thus far described is as follows:

The clasp when open has its parts naturally in the position shown in Fig. 3. To attach it to a sock or stocking, a part of the sock or stocking is engaged over the lip 11 and then by the mere pressure of the thumb on the upper toggle member of the latch, the lower toggle member is pushed downward into locking engagement behind the lip, the toggle naturally straightening out and assuming the locked position shown in Fig. 2 without the requirement of any other manipulation than the simple push by the one finger as described. When the clasp is to be opened, the loop 15 is swung backwardly in any convenient manner causing the trigger 17 to swing forwardly against the rear face of the upper toggle-member. This movement is continued, the trigger and loop acting together as a lever to pry the upper arm of the toggle member away from the back member until the knuckle of the toggle is forced from its position against the back member whereupon the spring 22 forces the upper toggle member outwardly away from the back member so that it swings upon its hinged connection with said back member and withdraws in a longitudinal direction the lower toggle member from its position in engagement with the sock or stocking which is immediately released and slides off the lip. The action in thus detaching the clasp appears to be almost automatic, only the smallest movement of the loop 15, after the trigger has been caused to engage with the upper toggle-member, being required and the latch member immediately

snapping into full open position, as shown in Fig. 3, when this slight movement has been accomplished.

In addition, by reason of the construction and connection of the lower toggle-member with the upper toggle-member, the lower toggle-member automatically assumes the position indicated in Fig. 3 in which it is ready for most convenient operation when it is again desired to close the clasp and it is not necessary to bring it forward to this position as would be required were the connection between the two members of the latch loose.

We have shown the back member provided with a cloth backing so as to prevent the metal of the clasp from touching the skin of the wearer. As shown this cloth backing consists of a strip 30 which is passed through a slot 31 in a familiar manner and then in a double thickness passed up back of the clasp and on each side of the upper transverse bar 15^a of the loop 15, as shown in Fig. 2. The two thicknesses of the cloth strip are stitched on each side of the transverse member 15^a, as indicated at 32, 32, and are then sewed to the garter 33 in a convenient manner. This construction protects not only the back of the back member but also the upper transverse member of the loop and affords a means for the attachment of the clasp to the garter proper without depending upon the loop 15 as a part of the suspending means of the clasp. The loop in this case simply acts as the means for actuating the trigger.

While in describing our invention we have referred to certain details in mechanical arrangement and construction, it is to be understood that the invention is in no way limited thereto except as may be pointed out in the appended claims.

We claim as our invention:—

1. In a clasp comprising a rigid shoulder-carrying back member and a toggle-jointed latch member hinged thereto, a lever fulcrumed to swing upon an axis substantially coaxial with the axis of the hinge connecting the two clasp members, said lever having an arm constituting a trigger adapted for operative engagement with one of said clasp members to open the clasp, said lever being capable of a limited inoperative movement, and resilient means tending to force said clasp members apart.

2. In a clasp comprising a rigid lip carrying back-member, a toggle-jointed latch member and a loop providing a pintle for a hinged connection between said two clasp members, a trigger extending into the space between said back member and latch member of the clasp, said trigger member being integral with said loop and being adapted to open the clasp, and a spring coiled upon said pintle and having an end engaged

against the inner face of the latch member and an end engaged against the front face of the back member.

3. In a clasp comprising a rigid lip carrying back-member, a toggle-jointed latch member and a loop providing a pintle for a hinged connection between said two clasp members, said toggle-jointed latch member comprising upper and lower arms, a trigger adapted to open the clasp extending into the space between said back member and the upper arm of said toggle-member, and being capable of limited movement between said members when the latch member is in closed position, and being made rigid with said loop, and a spring coiled upon said pintle and having an end engaged against the front face of said back member and against the rear face of said upper toggle-arm.

4. In a clasp comprising a rigid shoulder-carrying back member and a toggle-jointed latch member hinged thereto, the toggle-jointed latch member comprising upper and lower arms and means for hinging said arms together tending to cause them to assume a position concave toward the back member, a lever fulcrumed to swing upon an axis substantially coaxial with the axis of the hinge connecting the two clasp members, said lever having an arm constituting a trigger adapted for operative engagement with one of said clasp members to open the clasp, said lever being capable of a limited inoperative

movement, and resilient means tending to force said two clasp members apart.

5. In a clasp comprising a rigid shoulder-carrying back member and a toggle-jointed latch member hinged thereto, the toggle-jointed latch member comprising an upper arm having an integral sleeve formed at its lower end and the ends of said sleeve being provided with converging cam surfaces, terminating in longitudinally extending shoulders and a lower arm consisting of a spring loop having a transverse end member and spaced lateral members with inwardly turned pintle parts engaging in the ends of said sleeve, a lever fulcrumed to swing upon an axis substantially coaxial with the axis of the hinge connecting the two clasp members, said lever having an arm constituting a trigger adapted for operative engagement with one of said clasp members to open the clasp, said lever being capable of a limited inoperative movement, and resilient means tending to force said clasp members apart.

In testimony, that we claim the foregoing as our invention we affix our signatures in the presence of two witnesses, this 4th day of April A. D. 1913.

CLARENCE E. MEHLHOPE.

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TADEUSZ Z. MALLY.

Witnesses:

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