I. MOSS.

SNAP FASTENER.

APPLICATION FILED SEPT. 6, 1918.

1,314,688. Patented Sept. 2, 1919.

Fig. 1.

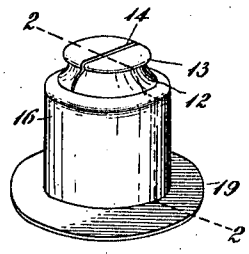


Fig. 2.

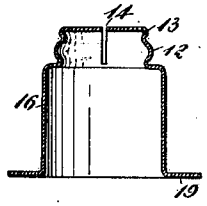


Fig. 3.

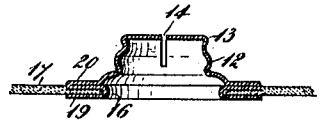


Fig. 4.

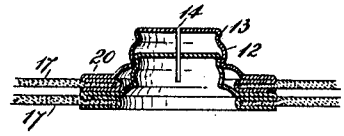


Fig. 5.

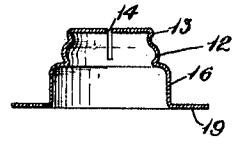


Fig. 6.

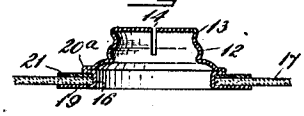


Fig. 9.

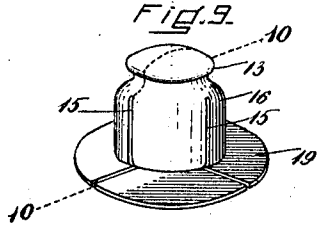


Fig. 10.

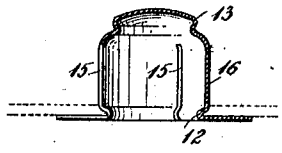


Fig. 11.

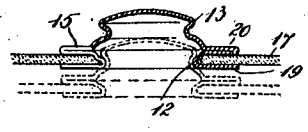
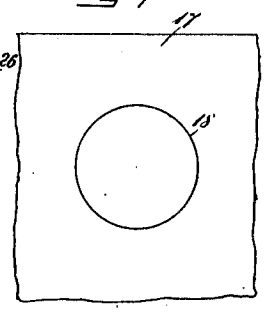


Fig. 8.

Fig. 7.



INVENTOR:
Isidor Moss
By Wright Brown Quinby & May
HIS ATTORNEYS:

UNITED STATES PATENT OFFICE.

ISIDOR MOSS, OF BROOKLINE, MASSACHUSETTS.

SNAP-FASTENER.

1,314,688. Specification of Letters Patent. Patented Sept. 2, 1919.

Application filed September 6, 1918. Serial No. 252,847.

To all whom it may concern:

Be it known that I, ISIDOR MOSS, a citizen of the United States, residing at Brookline, in the county of Norfolk and State of Massachusetts, have invented new and useful Improvements in Snap-Fasteners, of which the following is a specification.

This invention relates to a snap fastener of the type shown by Letters Patent of the United States, No. 1,242,579, dated October 9, 1917, said fastener comprising associable components each including a receiving portion and an entering portion, one of said portions being complemental to the other portion, said components being securable together by pressing either component upon the other in a line transverse to the plane of the components.

Each member of a fastener of this type is open at one end to permit the insertion into its receiving portion, of the entering portion of the accompanying member.

The chief object of the invention is to provide a member of a fastener of the said type which is attachable to a portion of a garment, or other carrying part having an aperture receiving a portion of said member, the attached member being secured to the carrying part in such manner as to leave both the entering and the receiving portion of the member exposed, so that the entering portion of either of the two complemental members may be snapped into the receiving portion of the other member, either from right to left, or from left to right. This is a desirable feature, when the fastener is used to connect carrying parts forming portions of gloves and other articles of apparel.

Another object of the invention is to enable a plurality of fastener members to be attached to an elongated apertured carrying part, such as a relatively narrow tape or strip constituting an attaching member adapted to be sewed, or otherwise secured to a garment, the members being properly spaced apart on said carrying part or attaching member, so that especial care is not required in spacing the members on the garment, the series of fastener members and the elongated attaching member constituting a plural fastener element, adapted to be secured as a single part to a garment.

The invention is embodied in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings forming a part of this specification,—

Figure 1 is a perspective view of a fastener member constituting one embodiment of the invention.

Fig. 2 is a section on line 2—2 of Fig. 1.

Fig. 3 is a view similar to Fig. 2, showing the member attached to a carrying part.

Fig. 4 is a view similar to Fig. 3, showing two members interengaged.

Fig. 5 is a view similar to Fig. 2, showing another embodiment of the invention.

Fig. 6 is a view similar to Fig. 5, showing the fastener member attached to a carrying part.

Fig. 7 is a plan view of a portion of an apertured carrying part.

Fig. 8 is a side view of a plural fastener element, embodying the invention.

Fig. 9 is a perspective view of a fastener member constituting another embodiment of the invention.

Fig. 10 is a section on line 10—10 of Fig. 9.

Fig. 11 is a view similar to Fig. 10, showing the member attached to a carrying part.

The same reference characters indicate the same parts in all of the figures.

Each of the two fastener members hereinafter described, has a receiving portion and an entering portion, said portions being complemental respectively to the entering portion and the receiving portion of the other member.

In the drawings, 12 represents the receiving portion and 13 the entering portion, the receiving portion of each member being adapted to snap into engagement with the entering portion of the other member, as indicated by Fig. 4. The construction of the fastener member, so far as it relates to said receiving and entering portions, may be as disclosed by the above-mentioned patent, that is to say, the entering portion may be rendered resilient by slots 14, as shown by Figs. 1 to 6, the receiving portion being non-resilient, or the receiving portion may be rendered resilient by slots 15, as shown by Figs. 9 and 10, the entering portion being non-resilient. Said construction may be otherwise modified without departing from the spirit of the invention.

In accordance with the present invention, each fastener member is extended to form a tubular shank 16 joining the receiving por-

tion 12, and of greater diameter than the contracted portion of the latter, so that the shank of each fastener member is adapted to receive a portion of the other member (see Fig. 4).

17 represents a carrying part, which may be a portion of a glove, or other article of apparel, or as shown by Fig. 8, may be an elongated strip of suitable flexible material, such as woven or braided tape having selvage edges. The carrying part 17 is apertured at 18 (Fig. 7) to receive the shank portion 16 of a fastener member, the aperture being formed to closely embrace the shank portion.

The shank 16 is provided with means for clamping the carrying part around the aperture 18, and thus providing a secure connection between the fastener members and the carrying part.

As shown by Figs. 1 to 4, I have embodied the clamping means in an annular clamping inner flange 19 projecting outward from the inner end of the shank 16, and an outer clamping flange 20 opposed to the flange 19 and formed by crimping a zone of the shank after the carrying part is seated on the flange 19. Said flanges are caused to firmly clamp the margin of the aperture 18.

As shown by Figs. 5 and 6, a relatively narrow inner clamping flange 20^a may be provided, this flange confining a clamping ring or washer 21 against the carrying part 17. The shank 16, when intended to be crimped to form the flange 20, is longer than is the case when the flange is intended to be crimped to form the flange 20^a, as may be seen by comparing Fig. 2 with Fig. 5.

It will be seen by reference to Fig. 3, that the shank 16 forms a mouth or entrance which is open or exposed at one side of the carrying part 17 to receive a portion of the companion fastener member, and that said entrance is at the back of the carrying part, while the receiving and entering portions project from the front of the carrying part.

The fastener member shown by Figs. 9, 10 and 11 differs from that shown by the preceding figures, mainly, in that the shank 16 and flange 19 are rendered resilient by the slots 15, said slots extending from end to end of the shank and through the flange 19, and in that the outer end of the shank is crimped inwardly to provide stiffening rim or bead segments surrounding the entrance to the shank and forming the receiving portion, as shown by Fig. 11.

It will now be seen that each fastener member may be secured to any carrying part provided with an aperture 18, and that when so attached, the entrance to the receiving portion of the member is at one side of the carrying part, while the receiving and entering portions of the member are at the opposite side of the carrying part, so that the entering portion of either of the two members may be snapped into the receiving portion of the other member, either from right to left, or from left to right.

The elongated carrying part 17 shown by Fig. 8, and the plurality of fastener members attached thereto in spaced relation, constitute a plural fastener element adapted to be attached as one part to a portion of a garment, and coöperate with a duplicate plural element attached to another portion. In this case the elongated carrying part constitutes an attaching member for the series of fastener members.

It is obvious that said attaching member, equipped with a plurality of fastener members, may be of indeterminate length and cut up into shorter lengths, each constituting an operative plural fastener element, and that the strip may be cut between each body member and the next, to provide independent fastener elements.

An important advantage inherent in a plural fastener element embodying the invention, is that the body members may be properly spaced apart during the operation of attaching them to the elongated attaching member, so that but little care is required in locating them on a garment.

The entering portion 13 forms a part of a stud portion of the fastener member, said stud portion having a substantially circular head. When said head is provided with a slot 14, the periphery of the head may be reduced at intervals by flattening diametrically opposite portions of the same, as indicated at 26, 26, (Fig. 8), to provide a stud portion embodying the improvement disclosed by my Patent No. 1,268,870, dated June 11, 1918.

I claim:

1. A snap fastener comprising two complementary members, each comprising an entering and a receiving portion, each adapted to snap into the other, and means to attach each member to a carrying part in such manner as to leave the entering portion exposed on one side of the said part and the receiving portion on the opposite side.

2. A snap fastener comprising two complementary members, each including a receiving portion, an entering portion, and a tubular shank portion provided with means for clamping the margin of an aperture in a carrying part through which said shank portion extends, said shank portion providing an entrance at one side of the carrying part, for an entering portion projecting from the opposite side of another carrying part.

3. A snap fastener comprising two complementary members, each including a receiving portion, an entering portion, and a tubular shank portion provided with an inner clamping flange adapted to be seated on one

side of an apertured carrying part through which said shank portion extends, and an outer clamping flange adapted to coöperate with the inner flange in clamping the margin of an aperture in said carrying part.

4. A snap fastener comprising two complementary members, each including a receiving portion, an entering portion, and a tubular shank portion provided with an inner clamping flange adapted to be seated on one side of an apertured carrying part through which said shank portion extends, and an outer clamping flange adapted to bear on the opposite side of said carrying part.

5. A snap fastener comprising two complementary members, each including a receiving portion, an entering portion, and a tubular shank portion provided with an inner clamping flange adapted to be seated on one side of an apertured carrying part through which said shank portion extends, and an outer clamping flange adapted to cooperate with the inner flange in clamping the margin of an aperture in said carrying part, said flanges being integral with the shank portion, and the outer flange being formed by crimping a zone of the shank portion.

6. As an article of manufacture, a plural snap-fastener element, comprising a plurality of fastener members each having a receiving portion and an entering portion, said portions being complemental respectively to the entering portion and the receiving portion of a duplicate member, each member having also a tubular shank portion joining the receiving portion, and an elongated flexible attaching member apertured at spaced intervals to receive the shank portions of the fastening members, and clamped to said shank portions, the fastener members being serially connected by said attaching member, and open at the back of the latter to receive portions of duplicate fastener members.

7. A fastener member having an entering portion and a receiving portion, and comprising a tubular shank having longitudinal slots, a head at the outer end of the shank forming an entering portion, and an outer clamping flange at the inner end of the shank, adapted to be seated on one side of an aperture in a carrying part through which the shank extends, the said slots extending through said flange, and the shank being provided at the junction of its inner end and said flange with inwardly projecting bead segments forming a resiliently expansible receiving portion, the shank being elongated to provide a zone adapted to be crimped to form an outer clamping flange.

In testimony whereof I have affixed my signature.

ISIDOR MOSS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."