E. BRUMBERG.

BUTTON.

APPLICATION FILED JAN. 19, 1912.

1,035,080.

Patented Aug. 6, 1912.

Fig. 1.

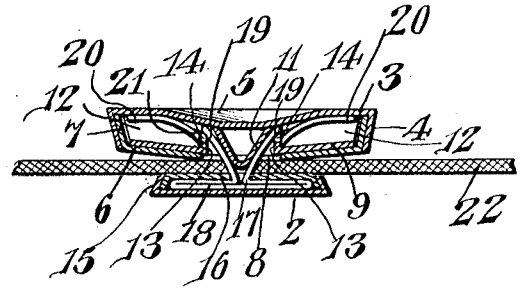


Fig. 2.

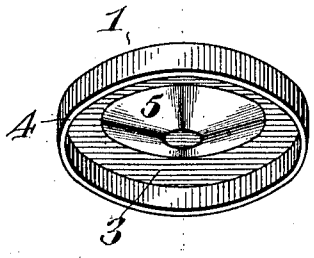


Fig. 3.

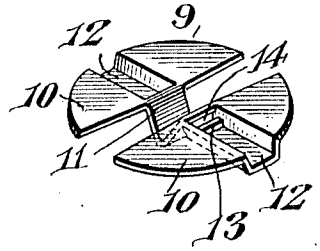


Fig. 4.

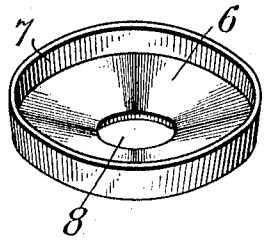
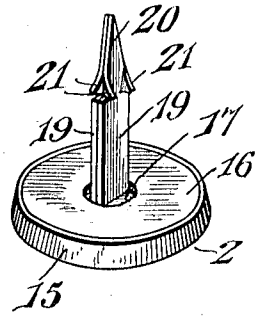


Fig. 5.



WITNESSES

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BUTTON.

1,035,080. Specification of Letters Patent. Patented Aug. 6, 1912.

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To all whom it may concern:

Be it known that I, ELI BRUMBERG, a citizen of the United States, residing at Montesano, in the county of Chehalis and State of Washington, have invented a new and useful Button, of which the following is a specification.

This invention has reference to improvements in buttons, and its object is to provide a button more particularly for use in connection with garments made of wash goods, and in connection with underwear where the button is secured to the garments without being sewed thereto, and without the necessity of the use of special instruments for securing the button to the garments.

In accordance with the present invention the button is made of two members, one constituting the front member designed to pass through a buttonhole, and the other constituting a back member between which and the front member the goods of the garment is located, the back member having parts which are forced through the goods and then inserted in the front member and locked therein, the structure being of such nature that this may be accomplished by the fingers of the operator to the exclusion of tools, if desired. The back member of the button may in the main be made in the usual manner and carries a pair of spring fingers preferably of flat metal with the free ends pointed and at appropriate points struck up to form locking spurs. The front member comprises a dished face plate, a back plate, and an intermediate finger receiving and guiding member all secured together by a flange on the dished face plate.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawings forming a part of this specification, with the understanding that while in the drawings there is shown a practical form of the invention, it may be embodied in other practical forms and, therefore, the invention is not confined to any exact conformity with the showing of the drawings.

In the drawings:—Figure 1 is a substantially diametrical section of the button as applied to a garment, the showing being on an enlarged scale. Fig. 2 is a perspective view of the face plate of the front member of the button. Fig. 3 is a perspective view of the guiding and locking plate confined within the front member of the button. Fig. 4 is a perspective view of the back plate of the front member of the button. Fig. 5 is a perspective view of the back member of the button with the piercing fingers.

Referring to the drawings, there is shown a front member 1 and a back member 2. The front member comprises a face plate 3 having a marginal flange 4 projecting beyond one face thereof and the central portion of the face plate is dished toward the same side as the flange, as indicated at 5, the dished portion being preferably substantially conical for a purpose which will hereinafter appear. The back portion of the front member or head of the button comprises an approximately conical plate 6 with a marginal flange 7 so shaped and related to the flange 4 as to be locked by the latter to the plate 3 in spaced relation thereto, the flanges 4 and 7 preferably tapering as indicated.

When cloth covered buttons are desired, the plate 5 is covered with a piece of cloth and the margins of the cloth inclose the flange 4 and are locked between the flanges 4 and 7, this being the customary manner of securing cloth coverings to metal buttons, and, therefore, needs no further mention. The center portion of the plate 6 is provided with an opening 8 of appropriate size for a purpose to be hereinafter referred to.

Within the space inclosed by the face plate 3 and back plate 6 of the head of the button there is lodged another plate 9 substantially circular in outline and comprising two segmental portions 10 joined by a narrow web 11 bent upon itself into approximately V-shape. The web 11 constitutes a spacing member for the segments 10, separating their chord portions an appropriate distance. In line with the web 11 the segments 10 are depressed to form channel portions 12, each terminating adjacent the corresponding end of the web 11 in a low lip 13 defining between it and the corresponding end of the web 11 a passage 14. When the plate 9 is lodged within the head or front member of the button the web 11 will extend into the opening 8 in the plate 6, and while this plate is shown as a somewhat shallow cone, it will be understood that in practice it may be nearly or quite flat, but ordinarily it is shaped about as shown.

The back member 2 of the button com-

prises two plates 15, 16, respectively, with marginal flanges locked together as is customary, and where cloth covering is employed, fastening the cloth to the back member, and within the back member there is confined within the two plates 15 and 16 a shank member 17 which may be composed of a strip of metal folded on itself, as indicated at 18, with fingers 19 projecting through the plate 16 and each terminating in a pointed end 20, the fingers before the two members of the button are joined, being in parallel contact. At approximately where the pointed end 20 of each finger 19 joins the body of the finger there are struck up on opposite edges thereof spurs 21, the spurs of one finger projecting therefrom in a direction opposite from the spurs of the other finger.

When the button is to be secured to a garment typified by a fabric 22, indicated in Fig. 1, the pointed ends 20 of the associated fingers 19 easily pierce the cloth of the garment under moderate pressure exerted upon the back member 2 of the button. Now, the front member is applied in such manner that the pointed ends of the fingers 19 will move along divergent faces of the web 11 into the interior of the head of the button through the opening 8 which is of a size to admit the fingers 20 with their spurs or lugs 21. The fingers travel along and are guided by the divergent faces of the web 11 until they reach the passages 14 and travel through them, the fingers being continuously spread apart by the action of the web 11. As soon as the ends of the fingers travel through the passages 14 they engage the walls of the conical dished portion 5 of the face plate 3 and are further diverted thereby toward the marginal portions of the interior of the head or outer member 1. These movements continue until the spurs or lugs 21 have traveled through the passages 14 into the channels 12, the latter also in part receiving the pointed ends of the fingers. The spurs 21 by their elasticity snap behind the tongues 13, wherefore the fingers after once entering the channels 12 until the spurs 21 pass the tongues 13 are locked therein against withdrawal under any force short of that destructive to the parts.

The button constructed as described is capable of being made thin enough so that when applied to a garment it will pass through an ordinary wringer or pressing machine commonly used in laundries without injury to the button or the garment. After the button has been once applied it cannot be taken off and will not come off of its own accord unless broken by a superior force. The spreading of the fingers 19 by the web 11 and the ultimate lodgment of the pointed ends of the fingers within the channels 12 in locking engagement with the tongues 13 contribute toward bringing the front member 1 and the back member 2 of the button as closely one toward the other as the thickness of the fabric 22 will permit, wherefore the button lies very closely to the fabric and being quite thin is not liable to be brought into engagement with the wringer rolls in any other position than flat against the fabric, wherefore there is practically no liability of the buttons being pulled off the fabric on passing through the wringing and pressing machines. The V-shaped guide in conjunction with the dished or conical portion 5 of the plate 3, together form a guide for the pointed ends of the fingers which gradually bends these fingers into an approach at their outer ends to parallelism with the fabric.

What is claimed is:—

1. A two-part button structure comprising a front member and a back member, the front member containing a plate having oppositely directed channels and an inclined guide member leading to the channels, and the back member being provided with bendable fingers each terminating in a pointed end with locking spurs projecting from the fingers, the guide member serving to direct the fingers into the channels in the front member, and said channels terminating adjacent the guide member in tongues coacting with the spurs on the fingers to lock the fingers in the channels when inserted therein.

2. A two-part button comprising a front member and a back member, the front member being formed of a dished face plate with a marginal flange and a rear plate having a flange embraced by the first named flange and provided with a central opening, a plate housed in the front member and having diametrically opposite channels therein each terminating at the end adjacent the other channel in a lip, said channeled member having a central V-shaped web in line with the channels and defining at each end a passage between the web and the lip in the adjacent channel, and the back member being provided with matching tongues terminating in pointed ends and adjacent the pointed ends being provided with spurs, the spurs of one tongue projecting oppositely from those of the other, and the fingers of the back member being adapted to engage the V-shaped web to be guided thereby through the passages adjacent the lips in the channels and into said channels with the spurs engaging behind the lips in the channels in locking relation to the said lips.

3. A two-part button comprising a front member and a back member, the back member having a pair of fingers and the front member being provided with a channel member housed therein, said channel member having a centralized guide portion leading to the channels and the fingers and

channel portions having coacting locking parts engaging on the entrance of the fingers into the channels.

4. A two-part button having a front member and a back member, the front member being provided with a plate composed of segmental portions with a joining V-shaped web and diametrically disposed channels extending from the corresponding ends of the web to the outer edge of the plate, each channel at the end adjacent the web being provided with a locking lip in spaced relation to the web to form a passage from the web into the channel, and the back member being provided with devices movable into the channel and said devices having locking means coacting with the lips in the channels to secure the front and back members together.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ELI BRUMBERG.

Witnesses:
I. FLOREY,
R. MCBEE.