P. BENZBACH.

SELF FASTENING BUTTON.

APPLICATION FILED AUG. 16, 1915.

1,200,698. Patented Oct. 10, 1916.

Fig. 1.

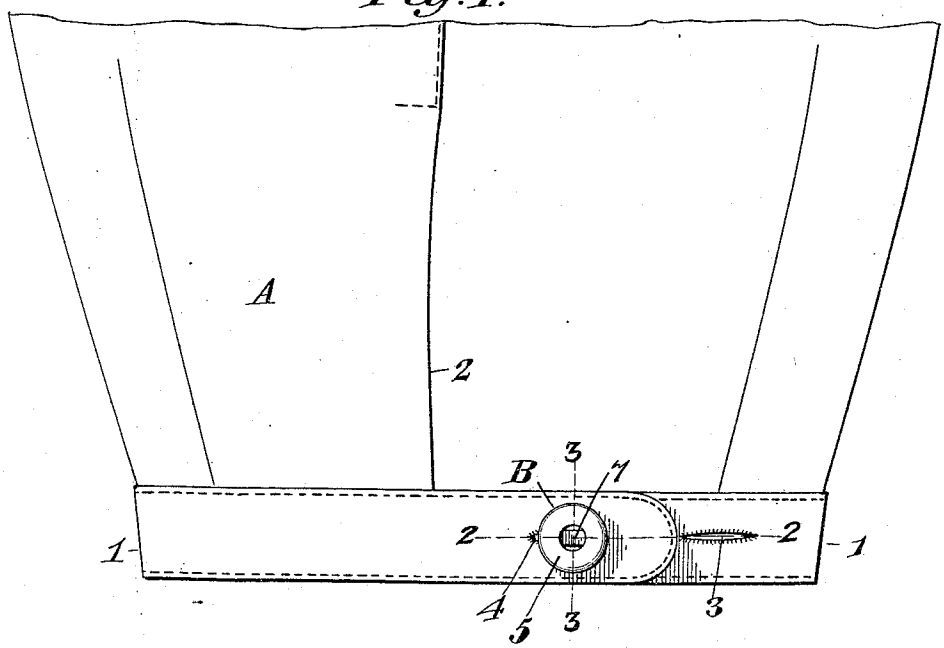


Fig. 2.

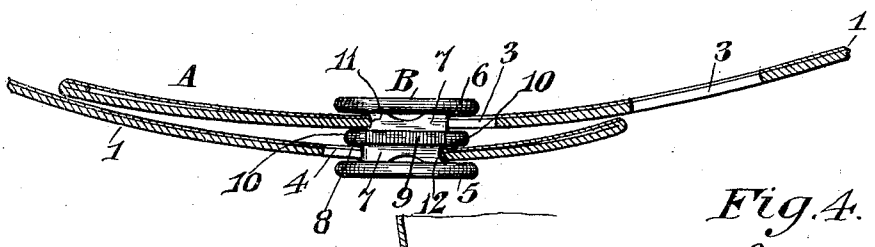


Fig. 3.

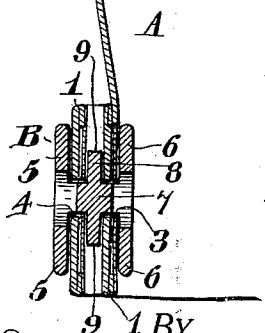
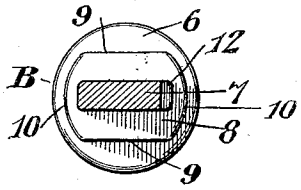


Fig. 4.



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UNITED STATES PATENT OFFICE.

PHILIP BENZBACH, OF DANVILLE, PENNSYLVANIA.

SELF-FASTENING BUTTON.

1,200,698. Specification of Letters Patent. Patented Oct. 10, 1916.

Application filed August 16, 1915. Serial No. 45,787.

To all whom it may concern:

Be it known that I, PHILIP BENZBACH, a citizen of the United States, residing at Danville, in the county of Montour and State of Pennsylvania, have invented a new and useful Self-Fastening Button, of which the following is a specification.

The present invention relates to an improved button adapted particularly for engagement through both ends of a band, or any two overlapping parts, to detachably hold the ends or parts in overlapping relation and engagement.

An object of this invention is to provide a button of such peculiar construction that when disengaged from one end of a band, the button will not fall out the opposite end of the band.

Another object is to provide a button of such construction that the ends of the band may be easily and quickly removed when grasped and drawn outwardly over the heads of the button, and may be as easily and quickly replaced, the construction being such as to overcome any tendency for the button to work out of the button-hole.

A further object of this invention is to provide a button of this character with a division plate for engagement between the overlapping ends of the band, or between any two overlapping parts, such as suspenders and trousers, to hold the button thereto, the division plate being of such form that it may be made of less diameter than the heads of the button, so that it will not leave an impression on the band or garment.

The invention consists of certain novel features of construction and combinations of parts which will be hereinafter described and pointed out in the claims.

It is evident that changes in the form, proportion, material and minor details of construction within the scope of the appended claims, may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings:—Figure 1 is a view in elevation showing the invention applied to the leg band or strap of a pair of boys' knickerbockers or trousers; Fig. 2 is a sectional view on the line 2—2 of Fig. 1, showing the button in elevation; Fig. 3 is a sectional view on the line 3—3 of Fig. 1; and Fig. 4 is a vertical sectional view through the button.

A, represents the leg of a garment such as the trouser or knickerbocker leg worn by boys, and 1 represents the leg band or strap. The leg is slitted or open at the lower end as at 2, and one terminal of the band 1 extends beyond the slit portion and overlaps the other terminal of the band. One terminal of the band is provided with a plurality of button-holes 3, and the overlapping terminal is provided with a button-hole 4. It is, of course, understood that the button of this invention may be used to secure together any over-lapping members provided with the button holes 3 and 4. The overlapping ends of the band 1 carry a button B, which is constructed according to this invention. The button B is composed of two disk-like heads 5 and 6, connected together by a flat wide shank 7. Preferably, the width of the shank 7, as shown in Fig. 4, is more than double the thickness of the shank. This broad shank 7 is adapted to lie flat in the button-holes of the band without appreciably spreading the edges of the button-holes.

A division plate 8 is located intermediately between the heads 5 and 6, and is connected thereto by the shank 7. The division plate 8 is preferably integrally formed with the shank 7, and the space between the division plate and each head is sufficient to freely receive the ends of the band 1, or other article to which the button is to be applied.

The division plate 8 has straight edges 9 at its opposite sides, the straight edges being substantially in parallelism with the opposite flat sides of the shank 7. The ends 10 of the division plate, which lie between the straight edges 9, are rounded as shown to advantage in Fig. 4.

The shank 7 is provided in one edge with a notch 11 between the head 6 and the division plate 8 for the reception of the outer

end of the button-hole 3 of the band 1. The shank 7 has in its opposite edge a similarly shaped notch 12 located at the opposite side of the division plate 8 and between the same and the head 5 for the reception of the outer end of the button-hole 4 of the band.

The division plate 8 has the straight edges 9 arranged, as shown in the drawings, for the purpose of preventing the accidental dislodgment of the button from the button-holes. The edges of the button-holes cannot easily work over the straight edges 9 of the division plate. The division plate 8 is of less diameter than the heads 5 and 6 to admit of the easy placing and removal of the button, to prevent the plate 8 from making an impression on the garment or band to which the button is applied, to reduce the weight of the material and the quantity of material used in its construction, and to prevent the production of a clumsy button, which would be awkward to handle and would be uncomfortable to the wearer when in use.

The notches 11 and 12 in the opposite sides and at the opposite ends of the shank 7 provide relatively deep seats to receive therein the opposite strain bearing ends of the button-holes 3 and 4, as shown to advantage in Fig. 2. The deep seats are particularly adapted to retain the button in place after one of the ends of the band have been removed. The deep seats prevent the dislodgment of the button even when the garment or band is submitted to rough usage or handling, the button being thus always held in place and ready to receive the free end of the band thereon. A button of this construction may, therefore, be employed in lieu of the usual buttons which must be secured to the garment by thread. The present button is of a construction which provides a more efficient and stronger connection between the button and the band than by the employment of threads. In removing the end of the band from the button, the top of the band is grasped and drawn outwardly over the adjacent head 5, as shown in the present drawings. This lifting of the band raises the upper edge of the button-hole 4 from between the head 5 and the division plate 8. The upper edge of the button-hole is then permitted to bulge inwardly over the straight edge 9 of the division plate, which frees the edge of the button-hole and permits the free and easy spreading of the button-hole and consequently the ready removal of the end of the band from the button.

The disks 5 and 6 are of the same size producing a reversible button, and permitting either disk to be exposed to the outer surface of the garment.

It will be seen from the foregoing that I have provided an article of manufacture which can be made and sold at a small cost, and which is capable of being used for various purposes, such for instance, as applying the button to the waist band of a pair of trousers, so that the tab of a pair of suspenders could be fastened thereto. When used in this connection a vertical button-hole could be formed in the waist-band, and the shank would be perpendicular and conform to the shape of the slit or button-hole of the suspender tab.

In the drawings, I have shown the invention applied to boys' knickerbockers. The invention is of particular advantage in such use. It will be noted upon reference to Fig. 2 of the drawings, that the end of each button-hole fits into the opposite notches 11 and 12, and since the strain on the band is in opposite directions, one button-hole will engage one of the notches and the other button-hole will engage the opposite notch. When the outer strap is unbuttoned, the button is not liable to drop out of the button-hole for the end of the button-hole engages in the notch and prevents this.

What is claimed is:—

1. A button comprising a flat shank, concentric heads mounted on the opposite ends of the shank, and a concentric division plate of less diameter than the heads surrounding the intermediate portion of the shank and being spaced from the heads, and having a transversely reduced diameter providing opposed straight edges lying substantially in parallelism with the opposite flat faces of the shank.

2. A button comprising a pair of disk-like heads connected by a flat wide shank, said shank having a width greater than the thickness of the shank, and a division plate mounted on the shank and being of less diameter than said heads and of greater diameter than the width of said shank.

3. A button comprising a pair of heads, a flat shank connecting said heads and being of a width double the thickness of said shank, and a concentric division plate surrounding the shank intermediately of the heads and being of less diameter than the heads and of greater diameter than the width of said shank, said division plate having a transversely reduced diameter providing opposed straight edges lying substantially in parallelism with the opposite flat faces of the shank.

4. A button comprising two disk-like heads connected by a flat wide shank, and a division plate of smaller diameter than the heads but of greater diameter than the shank located intermediately between the heads and connected by the shank thereto, the portion of the shank between the division plate and the inner head having a straight side edge and a notched side edge, and the portion between the division plate

and the outer head also having a straight side edge and a notched side edge, the straight and notched edges being oppositely arranged, causing the straight edge of one portion of the shank to come opposite the notched edge of the other portion of the shank.

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

PHILIP BENZBACH.

Witnesses:
RALPH KISNER,
NELLE M. KEIM.

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