

(No Model.)

O. W. KETCHUM.
BUTTON.

No. 579,831.

Patented Mar. 30, 1897.

Fig. 1.

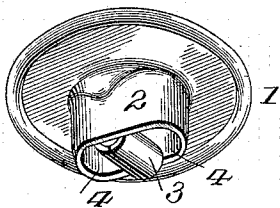


Fig. 3.

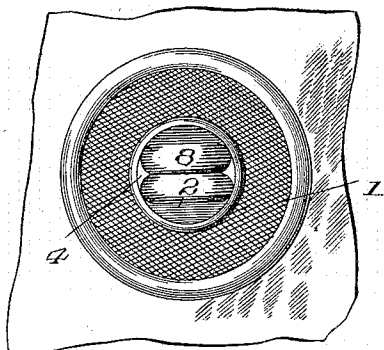


Fig. 2.

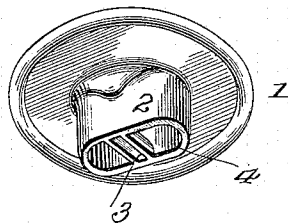


Fig. 4.

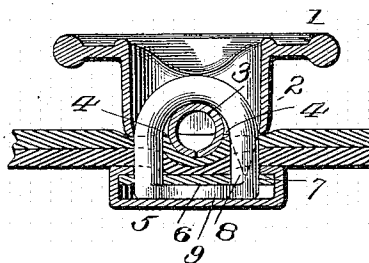


Fig. 5.

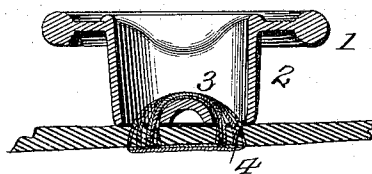


Fig. 7.

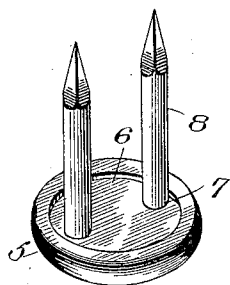


Fig. 6.

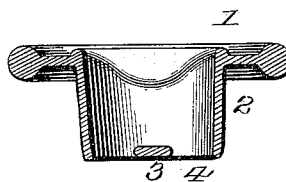
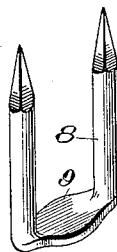


Fig. 8.



Witnesses

John Emrie
N. E. Clendaniel.

Inventor
Oliver W. Ketchum

By *T. W. Robertson*
Attorney

UNITED STATES PATENT OFFICE.

OLIVER W. KETCHUM, OF BALTIMORE, MARYLAND.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 579,831, dated March 30, 1897.

Application filed October 22, 1896. Serial No. 609,677. (No model.)

To all whom it may concern:

Be it known that I, OLIVER W. KETCHUM, a subject of the Queen of Great Britain, residing at Baltimore, in the State of Maryland, have invented a certain new and useful Improvement in Buttons, of which the following is a specification, reference being had to the accompanying drawings.

This improvement relates to that class of buttons provided with a hollow shank having a cross-bar or bridge at the bottom; and the invention consists in the peculiar construction, arrangement, and combinations of parts hereinafter more particularly described, and then definitely claimed.

In the accompanying drawings, Figure 1 is a perspective view of one form of my button, looking from beneath. Fig. 2 is a similar view of another form of the same. Fig. 3 is a plan showing the button illustrated in Fig. 1 attached to a garment by a metallic fastener. Fig. 4 is a central cross-section through Fig. 3 parallel with the prongs of the fastener. Fig. 5 is a similar section of a button such as is shown in Fig. 2 sewed on with thread. Fig. 6 is a similar section of a button with a slightly different form of bar. Fig. 7 is a perspective view of a fastener detached. Fig. 8 is a similar view of the prongs of the fastener.

Referring now to the details of the drawings by numerals, and particularly to Figs. 1, 3, 4, 6, and 7, 1 represents the body of the button having an oblong shank 2, at the bottom of which is a cross-bar or bridge 3, connecting the two sides of the shank, leaving comparatively large-sized holes 4 on each side of said bar. As will be seen in Figs. 1 and 4, the cross-bar is perfectly round, which is caused by curving under the cross-bar part of the metal punched from the holes 4 and so forming the punch by which the bar is shaped that the upper part of the latter shall be pressed round also.

The fastener consists of three parts—viz., a cap 5, a disk 6, having holes or notches 7, and the staple or prongs 8, whose lower ends are connected by a cross-bar 9, preferably formed by bending wire into a staple, and then flattening the connecting part or cross-bar, as shown in Fig. 8.

To “assemble” the fastener, the prongs 8

are put through the holes in the disk 6 and the two set in the cap 5, whose edges are then turned over the disk, as shown in Figs. 4 and 7, whereby the three parts are firmly secured together, so as to be in effect one solid piece.

To fasten the button to a garment, the prongs of the fastener are passed through the fabric and into the holes between the bridge and shank, and the ends of the prongs are then turned down over the bridge, as shown in Fig. 4, by the aid of any suitable tool, by which means the button is securely fastened to the garment.

It is evident that the button thus far described may be sewed on also, if preferred, but where the button is intended to be sewed on only it may be made as shown in Figs. 2 and 5, in which the bar or bridge is only partially cylindrical in form with curved part uppermost.

In some cases I may make the bar as shown in Fig. 6—that is to say, with the edges only rounded or inclined. In making these edges round by the process of stamping the metal is condensed, and thus the bar is considerably strengthened rather than weakened, as it would be if the metal were cut away to make the edges of the bar round. A button made in the form shown in Fig. 6 may be either sewed on or secured by a pronged fastener, as in the case of the button shown in Figs. 1, 3, and 4.

The flattened or oblong shank of the button has the following advantages:

First. It forms a means for guiding the button through an attaching-machine, so that the prongs of the fastener will be sure to enter the shank in the proper position.

Second. The inner sides of the oblong shank form guides for the prongs of the fastener, so that they will lie parallel in the shank when turned down, thus forming a neat finish, whereby the necessity of a cap to cover up the prongs is avoided.

Third. With the oblong shank the bridge is much shorter and is thus stronger than when it extends across a wider space.

Fourth. If the opening between the sides of the hollow shank is rather narrower than the combined width of the two prongs, the sides of the shank will tend to bind on the sides of the prongs and hold them fast when pressed

down, whereby smaller wire may be used for forming the prongs, which in turn will allow of a narrower shank being used.

Fifth. An oblong shank does not distort the buttonhole so much as a round shank, inasmuch as the former may be secured to the garment lengthwise of the buttonhole.

Sixth. An oblong shank allows of large openings being made for the thread, so that a large quantity of thread may be used for sewing it on, enough to entirely prevent the button ever coming off under the greatest possible strain likely to be exerted on it.

Seventh. By setting the long diameter of the shank parallel with the length of the buttonhole the entire wear due to the friction of the wall of the buttonhole comes upon the button, and thus the wearing away of the thread due to the friction of the buttonhole is avoided.

The peculiar form of the bar has these advantages, viz: When made cylindrical, it is adapted to be secured to articles of clothing either by means of fasteners or sewing, as when sewed on the round upper surface prevents the cutting of the thread, and when the fastener is to be used the round under side will tend to guide the prongs in the right direction should they accidentally come in contact with the under side of the bar. The same remarks apply to the button shown in Fig. 6.

Another advantage is that by making the cross-bar curved or cylindrical in cross-section it is much strengthened, so that very thin metal may be used.

While I prefer that the inner sides of the shank shall bear upon the prongs after they are turned down, I do not limit myself to this feature, as the fastener will hold without it, and while I consider it advisable that the prongs of the fastener lie parallel with each other and the central line of the oblong shank I do not wish to be understood as limiting

myself in all cases to such an arrangement as will make said parts exactly parallel with each other, as a good result may be had even if they vary slightly from such parallel arrangement.

In using the word "inclined" in the claims hereinafter made I mean to include either a curved or straight inclined surface, as it is obvious that either may be used, although I prefer a curved or cylindrical surface.

What I claim as new is—

1. As an improved article of manufacture, a button having a hollow oblong shank and a cross-bar at the bottom thereof free from sharp edges, substantially as described.

2. As an improved article of manufacture, a button having an oblong hollow shank and a cross-bar at the bottom thereof, provided with inclined upper edges to avoid cutting the thread, substantially as described.

3. The combination with a two-pronged fastener, of a button having an oblong hollow shank and a bridge at its bottom and adapted to guide the prongs of the fastener parallel with each other as they are turned down, substantially as described.

4. As an improved article of manufacture, a button having a substantially flat face, a hollow shank round at the top and oblong below, and a bridge connecting the bottom of the sides of the shank, substantially as described.

5. The combination with a button having a hollow oblong shank 2 and bridge 3, of a fastener comprising the cap 5, disk 6, and wire prongs 8 connected by a flattened bar 9, substantially as described.

In testimony whereof I affix my signature, in the presence of two witnesses, this 17th day of October, 1896.

OLIVER W. KETCHUM.

Witnesses:

T. J. W. ROBERTSON,
W. E. CLENDANIEL.