(No Model.)

J. V. PILCHER.

BUTTON.

No. 521,042. Patented June 5, 1894.

Fig I.

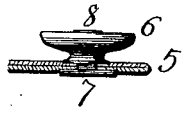


Fig II.

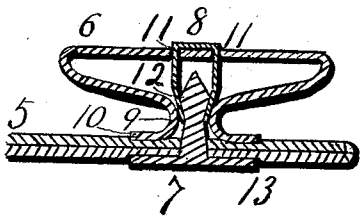


Fig III.

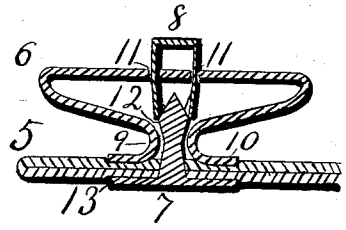


Fig IV.

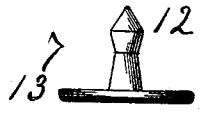
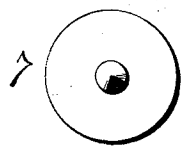


Fig V.



WITNESSES,
P. E. Stevens.
M. C. Killyard.

INVENTOR.
John V. Pilcher.
by W. E. Stevens ATT'Y.

THE NATIONAL LITHOGRAPHING COMPANY,
WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN V. PILCHER, OF LOUISVILLE, KENTUCKY.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 521,042, dated June 5, 1894.

Application filed April 4, 1894. Serial No. 506,282. (No model.)

To all whom it may concern:

Be it known that I, JOHN V. PILCHER, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Buttons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to that class of buttons which are adapted to be secured to a garment automatically, that is without the aid of sewing; and its objects are:—first, to adapt a button shank having a broad base, to penetrate the cloth to which the button is to be attached; and to further adapt the same shank to be removably secured to the head; second, to provide means for securing the head to the shank, and, third, to provide means for removing the head from the shank whenever it may be desired to detach the button from the cloth.

To this end my invention consists in the construction and combination of parts forming a button hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure I, is a side elevation of a button according to my invention, attached as in service, upon a piece of cloth which is shown in cross-section. Fig. II, is an enlarged vertical section of the same, with a button secured to the cloth. Fig. III, is a vertical section similar to Fig. II excepting that the key is shown in a raised position as it would be before the shank has been locked to the head, or after the shank has been unlocked to permit the button head to be removed therefrom. Fig. IV, is a side view, and Fig. V, is a top view of a shank.

5 represents a piece of cloth, 6 the button head, 7 the shank, and 8 the key. The button head is stamped up of sheet metal, with a narrow neck 9 and a spreading base 10. In the top of the head are formed two eyes 11 through which pass the two legs of the key 8. The shank 7 is pointed at its upper end so that it may be pushed through cloth, making its own hole, and it is reduced in size midway its body, leaving it broad at the shoulder 12 so that the shoulder can barely be crowded through the neck 9 of the head. In passing through the neck 9 the point of the shank 7 enters between the legs of the key 8, and when the shoulder 12 has passed through the neck 9 the key 8 may be pushed down so that the ends of its legs will wedge into the space between the neck 9 of the button and the body 7 of the shank, whereby the shank will be permanently secured to the head of the button. In applying this button the point of the shank is to be pressed up through the cloth 7, then the button head 6 is to be placed over the projecting end of the shank, the key 8 being in the meantime raised. Now the button and shank are to be pressed closely together until the base 10 of the head and the base 13 of the shank clamp the cloth firmly between them, then the key 8 is to be pressed down to the button head, when its two legs entering the neck 9 below the shoulder 12 will rigidly secure the button to its shank upon the cloth. The button is now ready for service. If at any future time it becomes necessary to change the position of this button upon the cloth, or to remove it entirely therefrom, the key 8 may be raised by inserting the point of a knife between its head and the head of the button and prying upward upon the key, whereby its legs will be drawn out from the neck 9, leaving the shank 7 free for the button head to be raised therefrom, then the shank may be withdrawn from the cloth and the button may be applied elsewhere. There is so very little movement sidewise of the legs of the key 8 in being sprung inward as they are pushed into the tapering neck 9, to bind the shank 7, and in being sprung outward to release the shank that common brass, steel, iron, or tin will answer the purpose of the key, and endure being locked and unlocked hundreds of times without injury; yet when the key is in place the shank cannot be removed from the head of the button except by such severe strain as will swell the neck 9 out of shape; and this small neck is so rigid that the button could be torn bodily through any kind of cloth, taking a piece of the goods with it, without in the slightest degree loosening the shank in the head; and yet the raising of the key 8 to release the shank requires very little force because the legs of the key are parallel sided as to the thickness of the

metal, and these legs only serve to fill the space between the tapering neck 9 and the smaller tapering body 7. Thus it will be seen that this button may not only be attached to the goods by any person without the aid of needle and thread, or of any other thing except the button itself, but when so attached it is secure to the extent of the full strength of the cloth; and when it is desirable to remove the button for any purpose it may be done without injury to the cloth and without any injury to the button, so that the same button may be used any number of times. It will be understood that these buttons may be made with either a long or short neck 9 to receive the opposite portion of the thick or thin garment to which this portion is to be buttoned.

Part of the advantages of this invention would be secured if the shank described were deprived of its point so as to require a bodkin or similar implement to make the hole in the cloth to receive the shank, but the pointed shank adds much to its utility.

A single aperture in the top of the button might be made to receive both legs of the key; or if one leg of the key was removed still the other leg would wedge the shank against the opposite side of the neck and hold the head to the shank in a like manner to that described, because the shoulder of the shank fits the neck so as to pass through only with a close rub and anything to the amount of one leg of the key inserted between would hold it.

The button head may be either ornamented or plain, and the key head furnishes especial facilities for holding a central ornament to be surrounded by the head as a field or background.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a button shank having a broad base at one end, pointed at the other end, and reduced in size in its body leaving a broader shoulder above; a button head provided with a broad base and a small neck and an opening up through the base, neck and top, the said opening through the neck being of a size to barely permit the passage of the shank shoulder and enlarged upward, and a key passing freely down through the head and provided with legs adapted to fit removably between the said neck of the button and body of the shank beneath the said shoulder of the shank, substantially as specified.

2. The combination of a button-head having an aperture through it; a shank having a shoulder nearly as large as the said aperture and fitted to pass through it; and a key provided with legs adapted to enter the aperture at the opposite side of the button beside the shank and beneath the shoulder, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN V. PILCHER.

Witnesses:
ARTHUR C. NORTHER, Jr.,
CHAS. W. GILLETTE.