

G. PITTS.

SLEEVE BUTTONS AND STUDS.

No. 188,177.

Patented March 6, 1877.

Fig. 1.

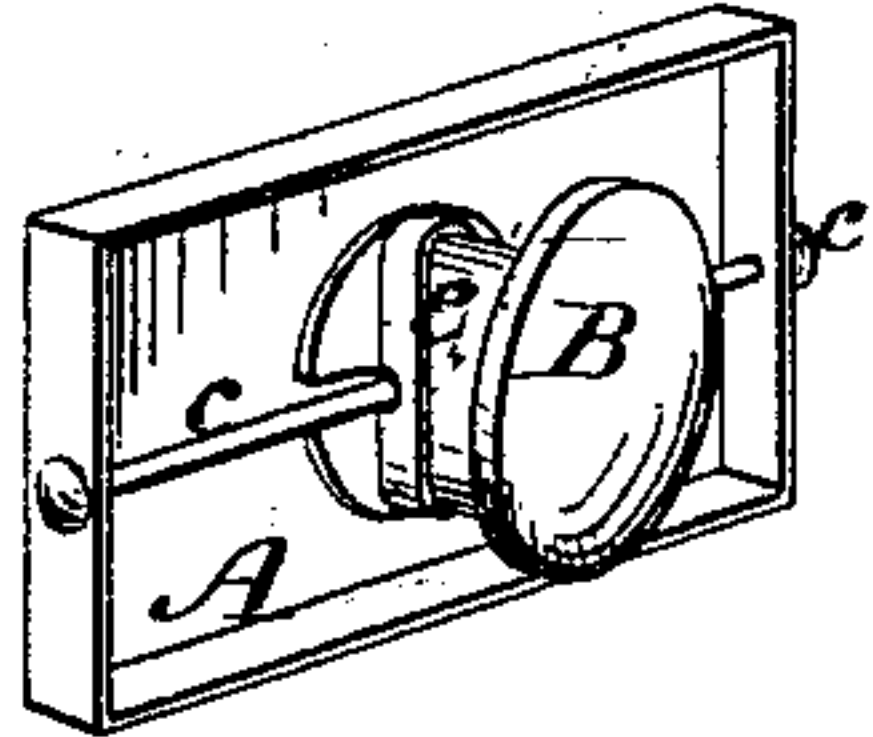


Fig. 2.

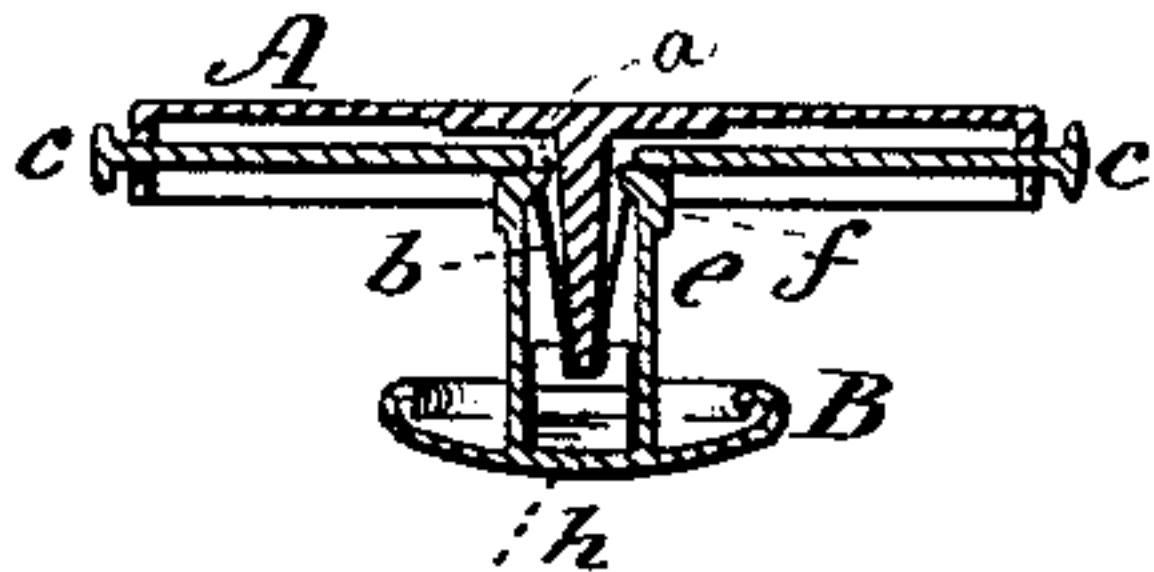


Fig. 3.



Fig. 4.

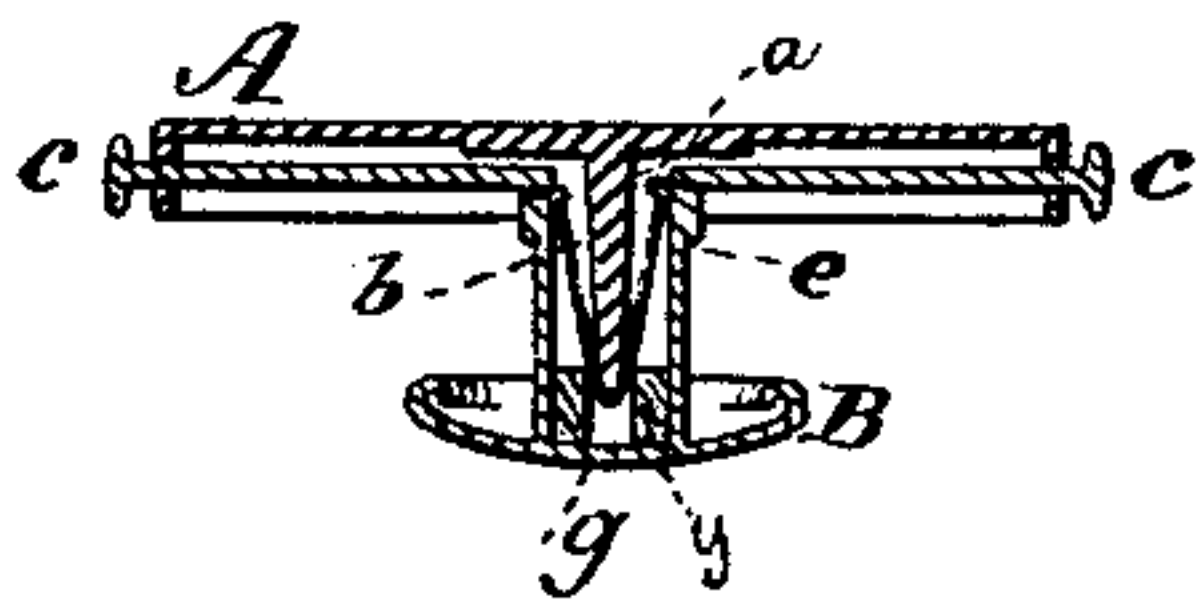


Fig. 5.

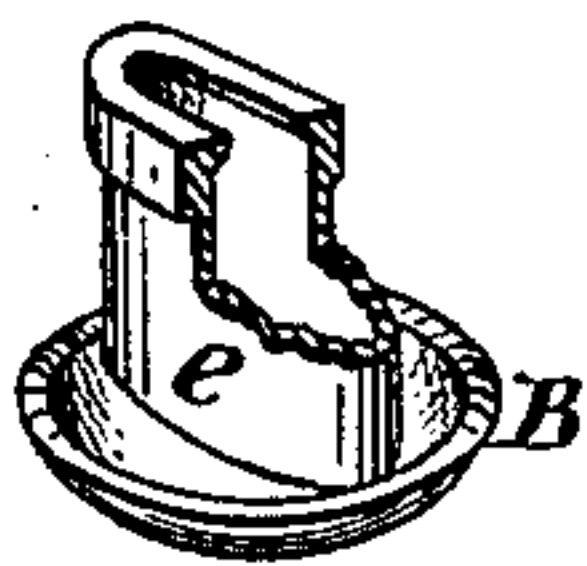
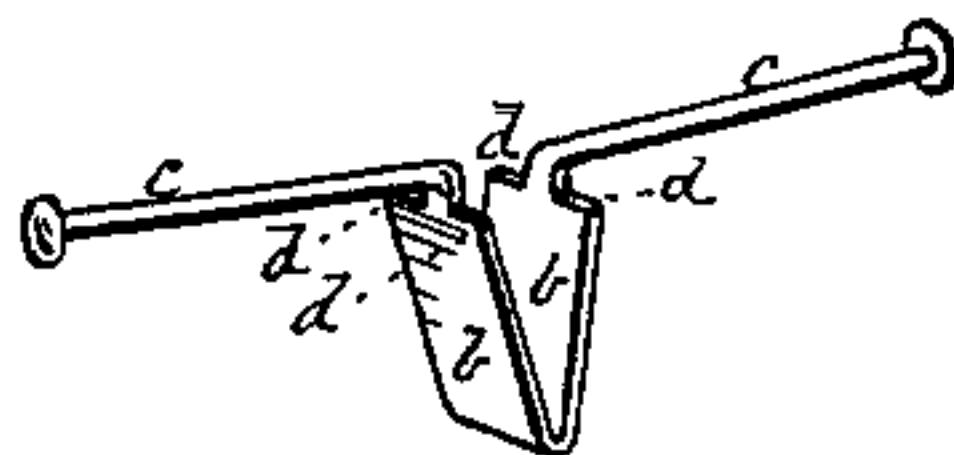


Fig. 6.



Attest
Philip A. Farmer
A. B. Carlawell

Inventor:
George Pitts,
By *[Signature]*
Attorney.

UNITED STATES PATENT OFFICE

GEORGE PITTS, OF PROVIDENCE, R. I., ASSIGNOR OF TWO-THIRDS HIS
RIGHT TO JOHN L. MASON AND GEORGE L. MASON.

IMPROVEMENT IN SLEEVE-BUTTONS AND STUDS.

Specification forming part of Letters Patent No. **188,177**, dated March 6, 1877; application filed
February 9, 1877.

To all whom it may concern:

Be it known that I, GEORGE PITTS, of the city and county of Providence, and State of Rhode Island, have invented certain new and useful Improvements in Sleeve-Buttons, Studs, &c.; and I do hereby declare that the following specification, taken in connection with the drawings furnished and forming a part of the same, is a true, clear, and complete description thereof.

My improvements relate to that general class of buttons which embody a tubular post attached to the back of the button, and a front provided with a spring-shank, which enters the post. Such buttons have heretofore, in some cases, been provided with cylindrical posts and shanks, and in other cases with flattened tubular posts and a flat spring, which serves also as a shank.

The objects of my improvements are to attain a firmer connection of the front and back of the button when interlocked than heretofore, and at the same time to effect a more ready separation of the parts after proper manipulation of the locking-spring; and to these ends my invention consists, partially, in the combination of a button-back provided with a flattened tubular post having interior shoulders, a button-front provided with a flat shank, and springs for engaging with the shoulders of the post, and a pressure-spring within the post at its base, whereby the springs of the shank are maintained in close contact with the shoulders on the post, and the front and back readily separated when the shank-springs are disengaged from said shoulders.

My invention further consists in the combination, with the flattened tubular post, the flat shank, and the springs attached thereto, of lugs within the post on opposite sides thereof at its base, which serve to prevent any lateral movement of the shank when inserted in the post. These lugs are soldered to the post and the back of the button when no base-spring is employed, and, when thus applied, they serve also to strengthen the connection of the post with the back of the button, and render it practicable to use a thin, light post, thus saving valuable stock.

As the function of these lugs is to prevent

lateral movement of the inner end of the shank, it is not necessary that they be attached to the post, and therefore, when the base-spring is employed, it is provided with a block grooved to receive the inner end of the shank, in which case the block on each side of the groove performs the function of a lug.

To more particularly describe my invention, I will refer to the accompanying drawing, in which Figure 1 represents one of my buttons in rear perspective. Fig. 2 represents a button with a base-spring in longitudinal central section. Fig. 3 represents, in side and end view, the base-spring, which is located within the post. Fig. 4 represents, in longitudinal central section, a button without a base-spring. Fig. 5 represents the back and its post, partly in perspective and partly in section. Fig. 6 represents the shank-springs and push-rods detached from the shank and button-front.

A denotes the front of the button. It may be made in any desired form. It is provided with a flat shank, as at *a*, and two flat locking-springs, as at *b*, preferably composed of one piece of metal secured to the shank at its lower end. These springs constitute the locking device, and it is, therefore, necessary to employ a means whereby they can be easily manipulated for separating the front from the back. I prefer push-rods, as at *c*, as heretofore employed—one to each spring, and projecting outward through the end of the button front. Each spring has at its top, on each side of its rod, a shoulder, as at *d*.

B denotes the back of the button. It is provided with a flattened tubular post, *e*, which has on each side an interior shoulder, as at *f*, with which the shoulders *d* of the springs engage when they are inserted into the post. Pressure on the push-rods forces the springs inward, and effects a release of the shank from the post. Within the post, at its base, on each side thereof, is a lug, as at *g*, composed of metal, which is soldered, preferably, both to the post and back. The space between these lugs is just sufficient to freely admit the end of the shank *a*.

The base-spring is shown at *h*. It may be varied in form, but I prefer that it be composed of a straight piece of narrow thin sheet

metal bent inward at each end, as shown, so that one end of the spring will be beneath the other end, and so that pressure on the upper end will be resisted by both of the ends. As the spring should be in contact with the center of the shank, its upper end may be simply bent upward to afford a point of contact; but I prefer that it be provided with a small block of metal, as shown.

When the block is grooved longitudinally, as shown, the bottom of the groove constitutes the point of contact for the shank, and the sides of the groove constitute the lugs which prevent the lateral movement of the lower end of the shank.

Instead of the grooved block, the end of the spring may be bent upward, and provided with a recess for receiving the end of the shank:

It will be seen that when the front and back are united the base-spring causes the shank-springs to firmly abut against the shoulders of the post, and also that when the shank-springs are compressed by means of their push-rods the base-spring promptly effects a disengagement of the back from the front. The width

of the shank is but a trifle less than the longest diameter of the post, and, therefore, the shank is incapable of movement in any direction save the longitudinal movement which is requisite for uniting and for disconnecting the two parts of the button.

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

1. The combination, with the flattened tubular post provided with interior shoulders, and the flat shank provided with locking-springs, of a base-spring within the post, substantially as described.

2. The combination, with the shank, its locking-springs, and a flattened tubular post provided with interior shoulders, of lugs located within the post, for preventing lateral movement of the end of the shank, substantially as described.

GEORGE PITTS.

Witnesses:

HENRY W. LITTLE,
CHARLES H. RICHARDSON.

1.25 words.