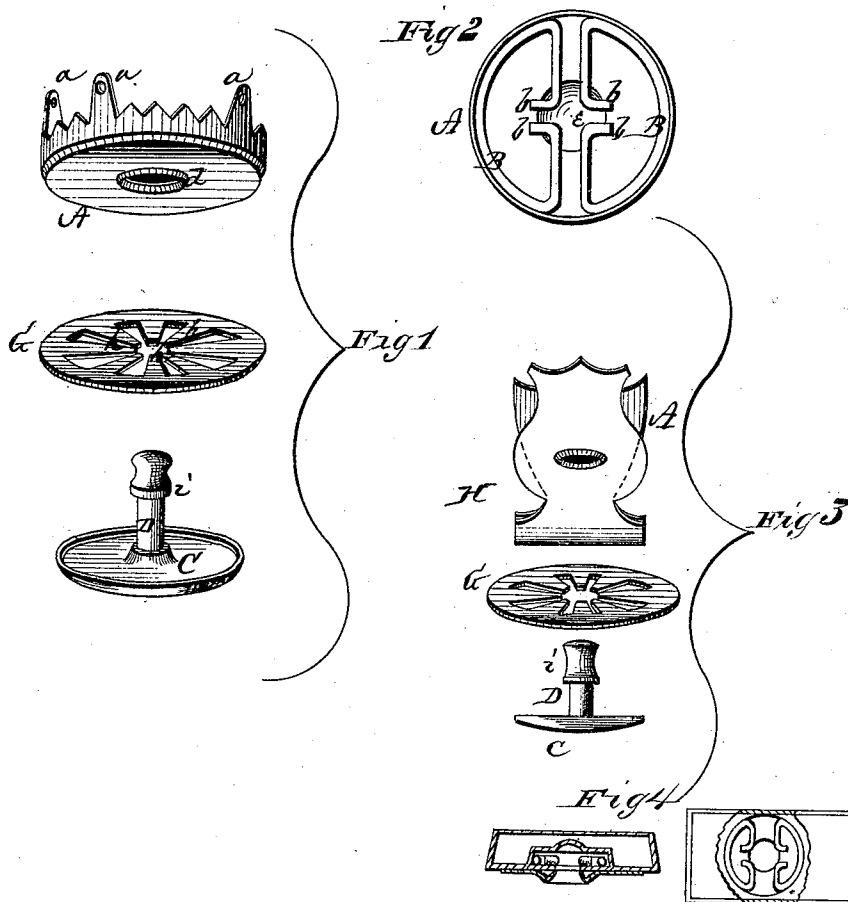


C. N. BROWN.
STUDS AND BUTTONS.

No. 178,726.

Patented June 13, 1876.



WITNESSES
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CHARLES N. BROWN, OF WATCHEMOKET, RHODE ISLAND.

IMPROVEMENT IN STUDS AND BUTTONS.

Specification forming part of Letters Patent No. **178,726**, dated June 13, 1876; application filed October 4, 1875.

To all whom it may concern:

Be it known that I, CHARLES N. BROWN, of Watchemoket, in the county of Providence and in the State of Rhode Island, have invented certain new and useful Improvements in Sleeve-Buttons, Shirt-Studs, and Collar and Neck-Tie Fasteners; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a combined collar-button and neck-tie fastener, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view, showing the parts of my combined collar-button and neck-tie fastening detached. Fig. 2 is an interior view of the part attached to the neck-tie. Fig. 3 shows the same invention applied to a back collar-button, and Fig. 4 shows part of my invention applied to a sleeve-button or shirt-stud.

A represents a case or box, struck up from sheet metal, in two parts, and soldered together. Within this case are placed two springs, B B, each bent in semicircular form, and their ends *b* bent inward and then outward from the center of the case, as shown particularly in Fig. 2.

From the back of the case A project lugs or ears *a a*, which are to pass through slits in the neck-tie shield, so that the case will be on the back of the neck-tie, and the case is then fastened to the shield by rods or wires passing through the lugs, or in any other manner that may be deemed most convenient.

In the outer disk of the case is a central aperture, *d*, and in the inner disk, directly opposite the same, is a depression, *e*, as shown.

C represents a disk, having a center shank, D, projecting from the same; and on the end

of this shank is a shoulder, *i*; or, in other words, a head, is formed on the end thereof. This shank or button-post is formed of small wire by suitable machinery.

G represents a circular plate, cut out with a central hole, and from this hole are cut a series of radial slots, forming a series of spring-tongues or ribs, *h h*.

The shank or post D is to be passed from the inside through the neck-band of the shirt and through the ends of the collar, and then the plate G put on the end of the post, so that the ends of the tongues *h* will catch on the shoulder *i* of the post, thus holding the disk C in its place to fasten the collar before the neck-tie is put on, which may not always be convenient or desirable to do at once. The neck-tie is then put on by pressing the case A onto the end of the shank until the bent ends *b* of the springs B B catch on the shoulder *i*, which completes the fastening.

By this means the collar and neck-tie may be securely fastened in a very short time, and without the least trouble or annoyance.

The same principle may be applied to a button, H, for fastening the collar at the back of the neck, as shown in Fig. 3; and the double spring may be applied in precisely the same manner to sleeve-buttons, shirt-studs, and other similar articles.

I am aware that buttons have been made in which a single spring is made to hold a shank or post, so that the two parts of the button can be separated at will.

By my invention of the two semicircular springs, with their ends bent, as described, a bearing is given to the post of the button upon four sides, whereby any tendency to relieve the button by lateral pressure cannot turn the post through the spring more easily in one direction than it does in another, which is a serious objection to the use of the single spring when used in a very thin or shallow button, where there can be but little or no lateral support to prevent the post from declining from a perpendicular position from the face of the button. In such a case the post can be pulled out by a small strain when the post inclines

upon the line in which the single spring opens, but when inclining across that line it cannot be drawn out by much force, thus rendering the single spring impracticable for use in very shallow buttons.

Another advantage of importance obtained in using the double spring is their greater elasticity, opening upon four sides equally at the same time. They can be inclosed within a smaller circle, and also endure much greater service, holding the post more securely in every position.

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

1. The case A, provided with the two springs B B, each bent in semicircular form, with their four ends *b* bent inward and thence outward from the center of the case, in combination with the disk C, having shank D with shoulder *i*, substantially as and for the purposes herein set forth.

2. The circular plate G, having a central hole and a series of radial slots cut therein forming a series of spring-tongues, *h*, in combination with the case A, and springs B, and the disk C, with its shouldered shank, substantially as and for the purposes herein set forth.

3. The combination of the case A, having projected ears *a a* and springs B B, as described, the circular plate G, with its spring-tongues *h*, and the disk C, with its shouldered shank D *i*, all constructed substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 3d day of September, 1875.

CHARLES N. BROWN.

Witnesses:

WILLIAM W. RICKARD,
CHRIS. J. DODGE.