

No. 616,461.

Patented Dec. 27, 1898.

F. K. GOFF.
SEPARABLE BUTTON.

(Application filed Mar. 22, 1898.)

(No Model.)

Fig. 1.

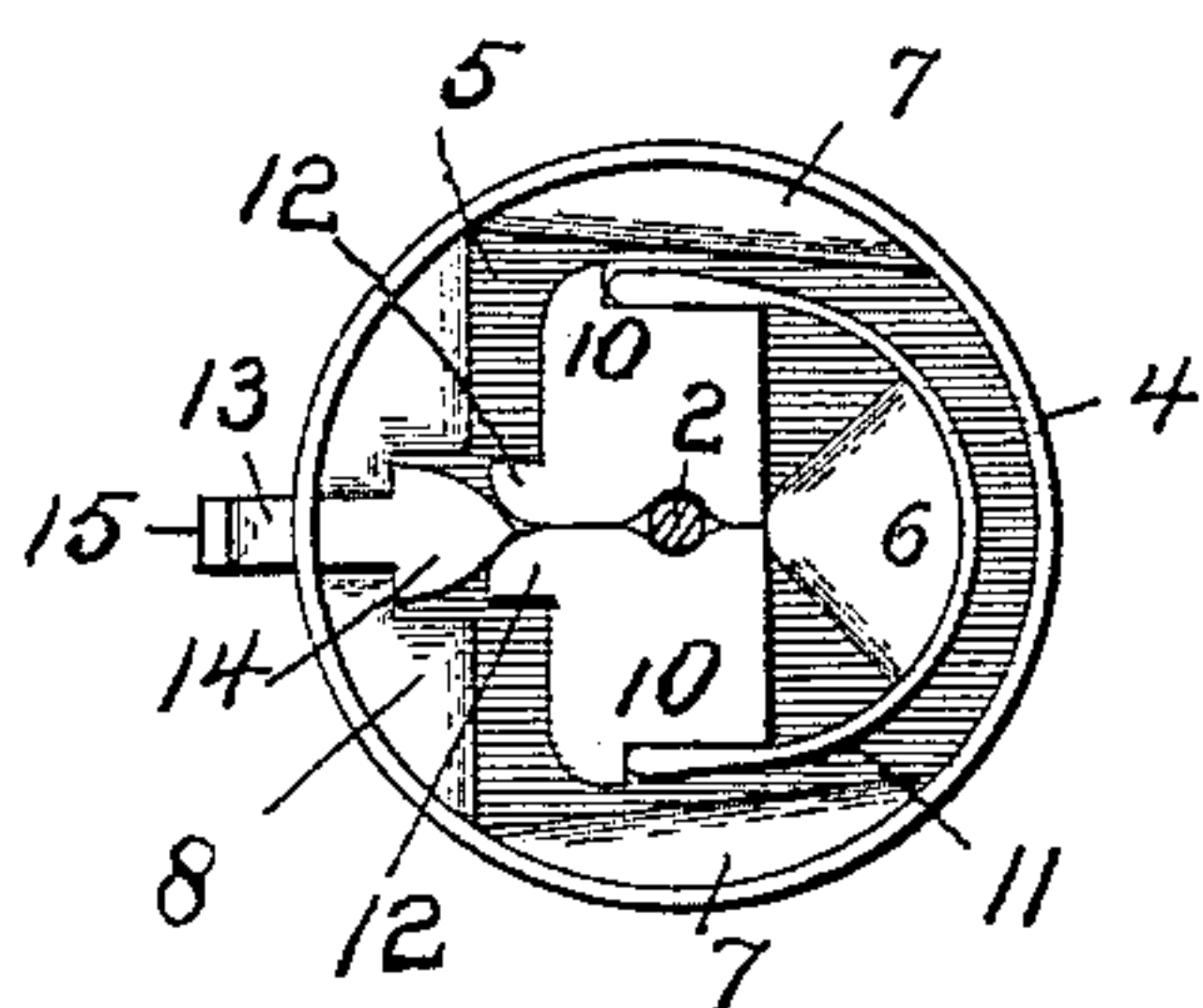
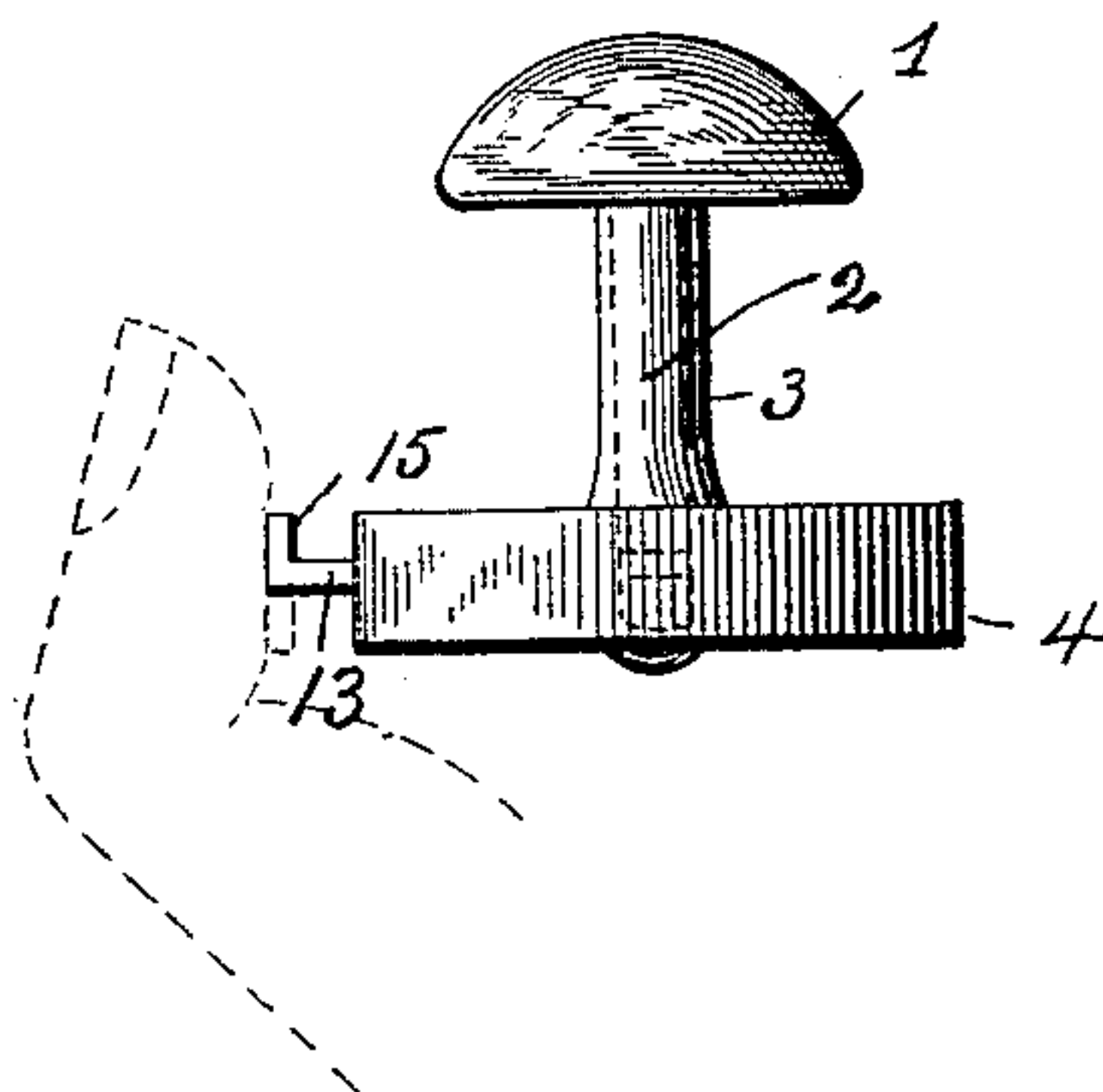


Fig. 2.

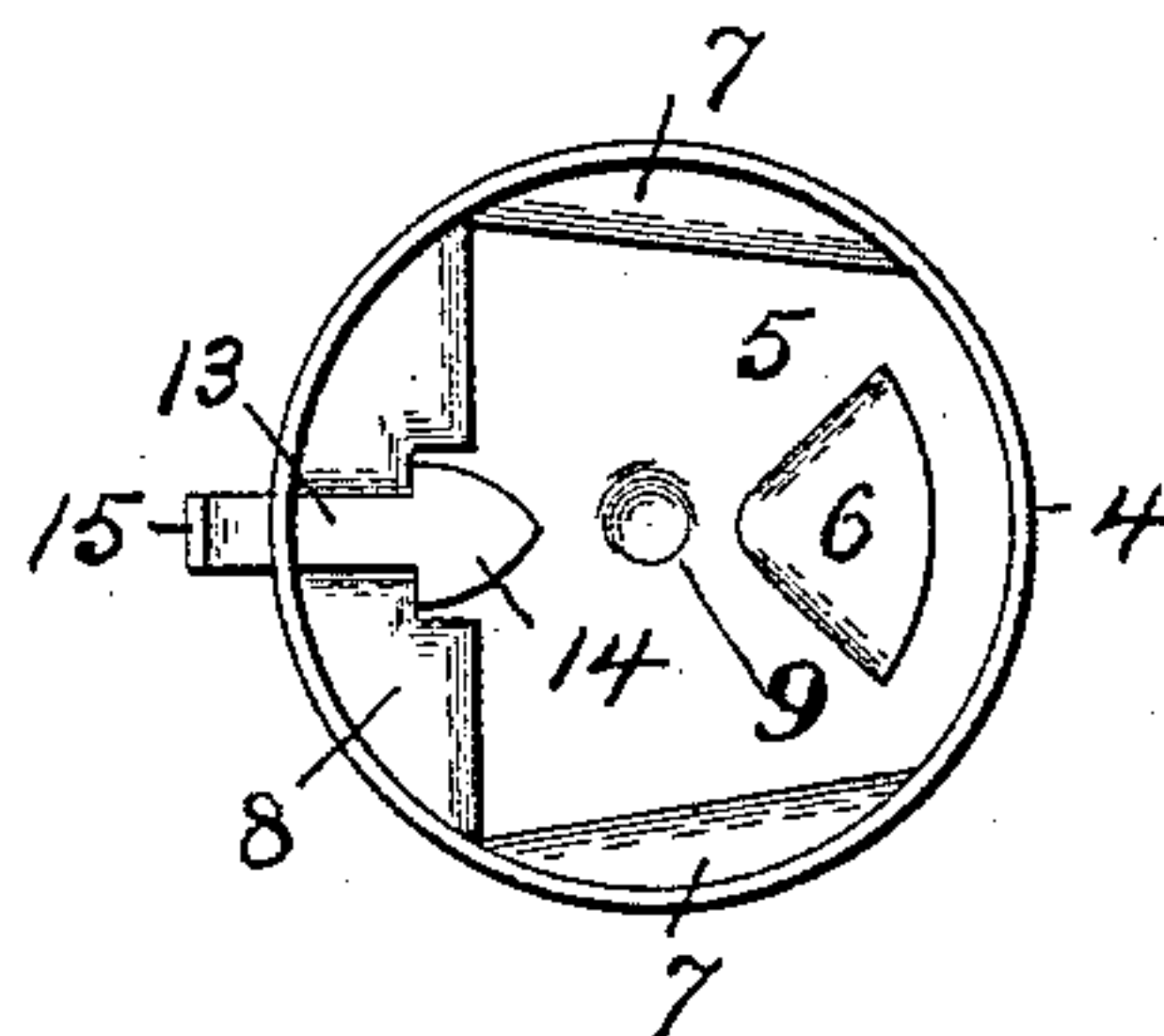


Fig. 3.

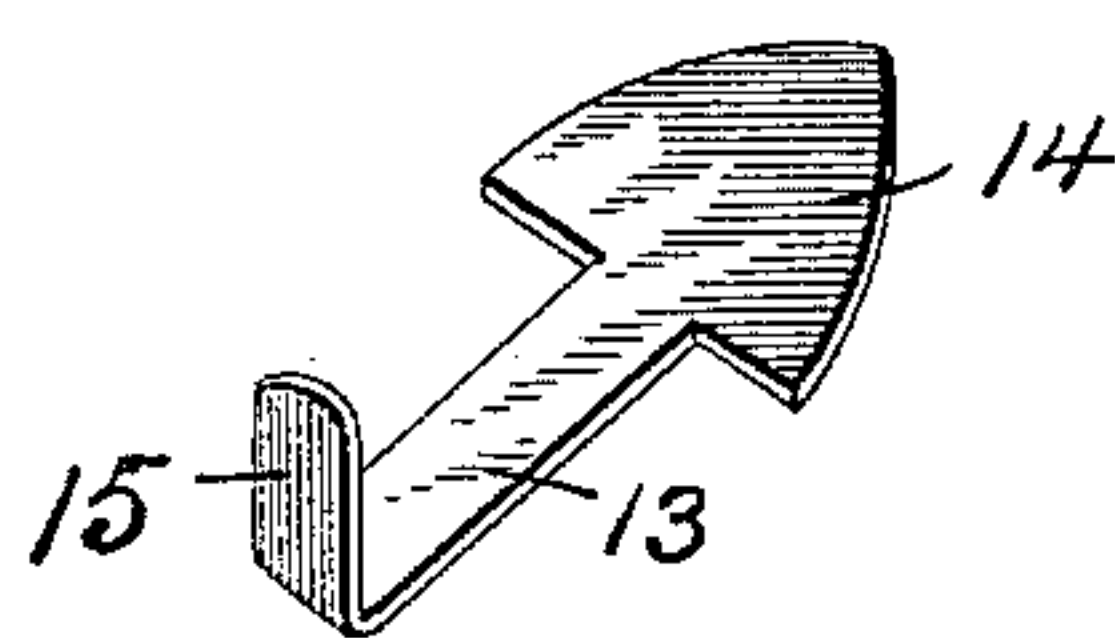


Fig. 4.

Witnesses.

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UNITED STATES PATENT OFFICE.

FREDERICK K. GOFF, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO
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SEPARABLE BUTTON.

SPECIFICATION forming part of Letters Patent No. 616,461, dated December 27, 1898.

Application filed March 22, 1898. Serial No. 674,740. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK KING GOFF, a citizen of the United States, and a resident of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Separable Buttons, of which the following is a specification.

My invention has relation to separable buttons or studs; and the objects sought to be accomplished are to simplify the construction of such devices and to render the working parts more reliable in use and more easily operated.

Separable studs as made prior to my invention usually consist of a shoe containing a spring or catch which holds the head of a shank which is firmly secured to the head, the spring being operated by one or more push-bars which extend through the sides of the shoe. These push-bars are usually made of comparatively thin metal and are rounded upon their outer ends to present a proper finish. In separating such studs the push-bars are taken between the thumb and finger and pressed upon to actuate the spring. If the spring should be comparatively stiff, which feature, by the way, is desirable in this class of studs, it is found quite difficult to obtain sufficient pressure for such operation without to some extent hurting the fingers. Another disadvantage in the use of the ordinary push bar or bars is that when taken hold of the rounded ends of said push-bars form a very insecure hold for the thumb and finger, and hence the shoe is often dropped and lost after being separated. I have improved the construction of the push-bar of such studs by turning the outer free end either upward or downward to offer a comparatively flat and secure bearing for the finger and at the same time make the shank of such push-bars narrower than those now in common use. I have also improved the action of such bar in operating the catches.

My invention consists in the improved construction and arrangement of parts shown in the accompanying drawings, which form part of this specification, and in which—

Figure 1 is a side view of my improved stud, showing a finger in dotted lines placed upon

the outer end of the push-bar. Fig. 2 is a face view of the shoe, showing the operative parts in place and the cover of the shoe removed. Fig. 3 is a similar view with the catches and spring removed and the push-bar in position. Fig. 4 is a perspective view of my improved push-bar.

Similar figures of reference indicate like parts in the various views of the drawings.

1 is the head of the stud, which is provided with a shank 2, rigidly secured thereto. Said shank is of the usual construction, consisting of a wire having a head at one end and a groove or neck designed to be caught by the catches for holding the two parts of the button together.

3 represents a tubular post secured to the shoe and surrounding the shank.

4 is the shoe of the button, which consists of a disk having an annular rim at its outer edge. Placed within this shoe is a disk 5, provided with the raised portions 6, 7, and 8, and a central depression 9, which serves as a box or casing for the catches, spring, and inner portion of the push-bar. The catches are thin sheet-metal parts seated in the depression in the disk 5 and bearing at one of their edges against the raised portion 6. The catches 10 bear against the rounded apex of the raised portion 6, and when the push-bar 15 is operated the apex serves as a fulcrum for the catches 10, and the latter are not compelled to slide laterally, but open, as if pivoted. The raised portion 6 is rounded also upon its enlarged outer end to form a bearing for the spring 11. Said catches have apertures for the post 2, side ears to hold the spring 11 in place, and lips 12, rounded upon their inner surfaces to facilitate the action of the head of the push-bar. The push-bar 13 has a head 14 of substantially shield shape, the shank portion of said bar having a turned-up outer end 15, or the end may be turned down, as shown in dotted lines, Fig. 1. The raised portion 8 is recessed to form a seat for the head 14 of the push-bar 13, and the square shoulders back of the head 14 normally rest against the offset shoulders of this recess. The shank of the push-bar 13 works in a guideway between the raised portions 8.

In assembling the parts the push-bar 13

may be placed in the shoe by first inserting the end of the portion 15 in a slot in the rim of the shoe 4 and turning said push-bar until it assumes the position shown in Figs. 2 and 3. It will be noticed that the raised portion 8 is recessed to form a seat for the head 14 and that the said push-bar will be guided by a guideway between the raised portions 8 in a manner to create but little friction and to reliably prevent the bar from becoming displaced.

It will be seen from the foregoing that my improved stud is composed of comparatively few parts, that said parts are held in position by simple means which will not permit them to become easily disarranged and rendered inoperative, and that the push-bar having the outer turned end 15 presents a reliable hold for the finger and thumb and one which will not cause pain in operating a comparatively strong spring. The friction upon the shank of the push-bar 13 is also reduced to a

minimum by means of the construction of the raised portions 6 and 8.

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

A separable button having a shoe containing a disk having a raised portion of triangular form, with rounded apex and base, for the purposes described, and a raised portion 8 having a guideway for a push-bar, catch-plates, having lips 12, the spring for holding the plates in contact, and the push-bar 13, having the arrow-shaped head 14, seated in the guideway in the raised portions 8, substantially as described.

Signed at Providence, in the county of Providence and State of Rhode Island, this 18th day of March, A. D. 1898.

FREDERICK K. GOFF.

Witnesses:

H. C. CURTIS,
JAMES CAMPBELL.