No. 654,902.

Patented July 31, 1900.

## P. H. LETTRÉ. SHIRT STUD.

(Application filed May 9, 1900.)

(No Model.)

Fig. 1

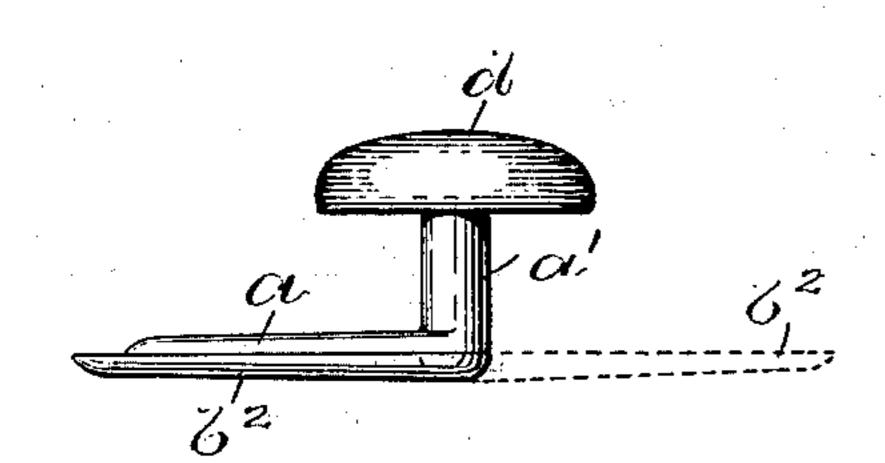
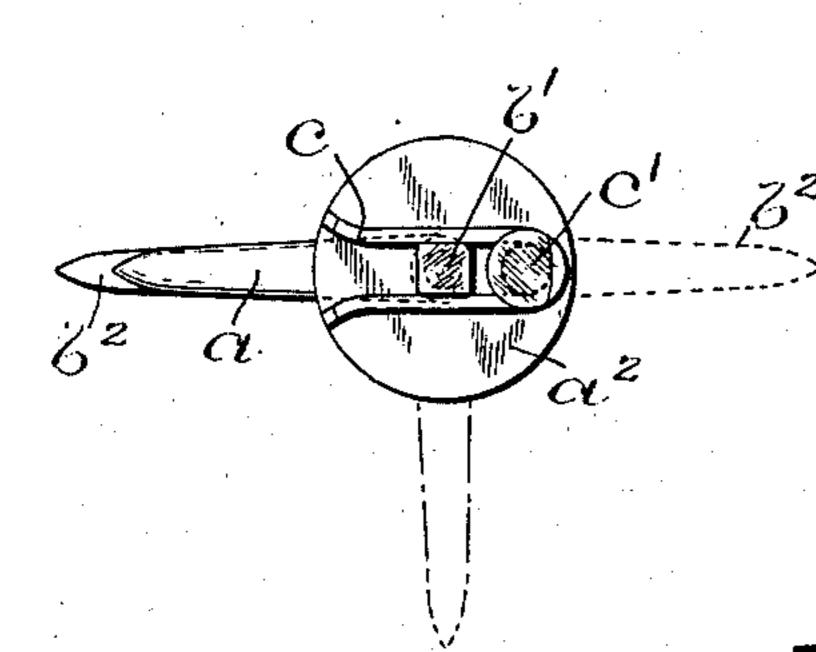
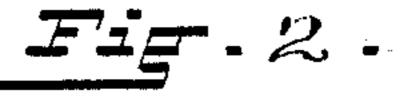


Fig. 3





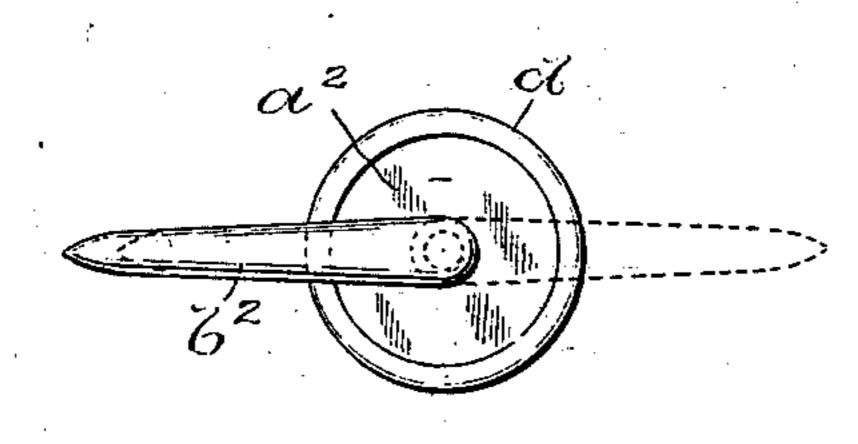
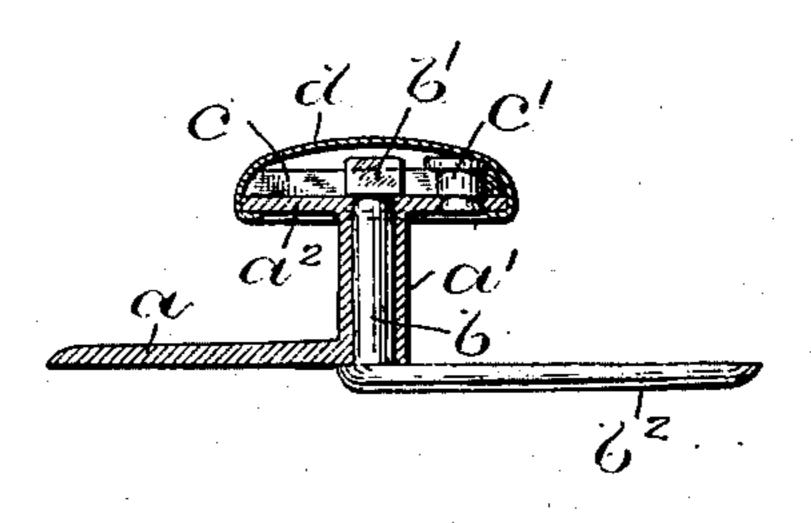
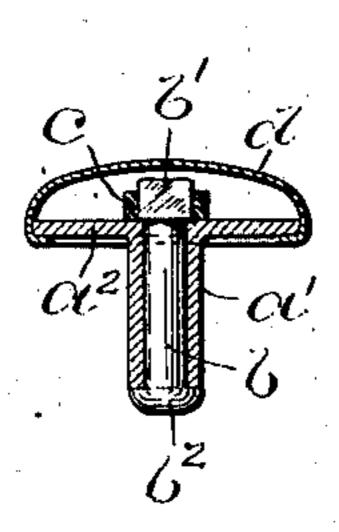


Fig. 4.



F15.5



WITNESSES.

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## UNITED STATES PATENT OFFICE.

PHILIPP H. LETTRÉ, OF ATTLEBOROUGH, MASSACHUSETTS, ASSIGNOR TO T. I. SMITH & CO., OF SAME PLACE.

## SHIRT-STUD.

SPECIFICATION forming part of Letters Patent No. 654,902, dated July 31, 1900.

Application filed May 9, 1900. Serial No. 15, 999. (No model.)

To all whom it may concern:

Be it known that I, PHILIPP H. LETTRÉ, a citizen of the United States, residing at Attleborough, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Shirt-Studs, of which the following is a specification.

This invention has reference to an improvement in study such as are used on shirts, which when inserted into the buttonholes may be secured by swinging an arm into the locked position.

The invention consists in the peculiar and novel construction whereby the locking-arm may be secured in the desired position, as will be more fully set forth hereinafter.

Figure 1 is a side view of my improved stud shown in the unlocked position. Fig. 2 is a bottom view of the same. Fig. 3 is a top view of the stud with the cap removed to show the square head of the shaft and the retaining-spring. Fig. 4 is a sectional view showing the locking-arm in the locked position. Fig. 5 is a sectional view on a vertical plane to the device, as shown in Fig. 4.

In the drawings, a indicates the fixed arm, extending from the tubular post a', integral with which is the plate  $a^2$ , forming the back of the button of the stud. Journaled in the tubular post a' is the shaft b, having on its upper end the square head b' and on its lower end the swinging arm  $b^2$ . On the plate  $a^2$  the bifurcated spring c, bearing on two sides of the square head b', is secured by the stud

c'. When all the parts so far described are 35 in place, the cap d is placed over the spring c and the square head b' and secured to the plate  $a^2$  by forcing the edge of the cap under the peripheral edge of the plate, as shown in Figs. 4 and 5. When the stud is to be secured, 40 the arm  $b^2$  is placed under the arm a and both are inserted in the hole in the shirtfront, the spring c, acting on the square head b', holding the arm  $b^2$  in position under and in alinement with the arm a. The arm  $b^2$  45 may now be swung one-quarter or one-half around, as indicated in Fig. 3, and will be held in either position by the spring c.

Having thus described my invention, I claim as new and desire to secure by Letters 50 Patent—

In a shirt-stud, the combination with the back-plate  $a^2$ , the tubular post a' and the arm a, of the shaft b pivotally supported in the tubular post a', the square head b' formed 55 on one end of the shaft b, the swinging arm  $b^2$  at the other end of the shaft b, the stud c', and the bifurcated spring c secured to the plate  $a^2$  by the stud c', as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PHILIPP H. LETTRÉ.

Witnesses:

B. M. SIMMS, J. A. MILLER, Jr.