(No Model.)

H. H. CURTIS.

BUTTON OR STUD.

No. 369,695. Patented Sept. 13, 1887.

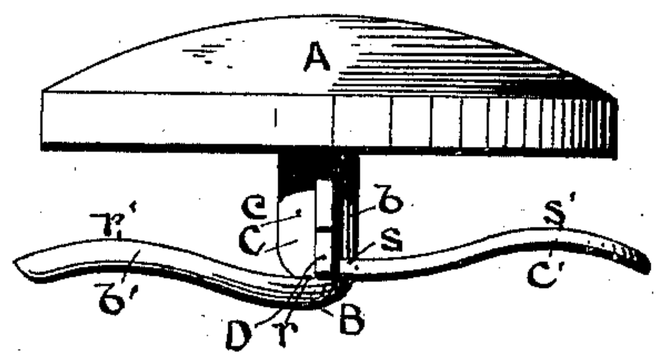

FIG. 1.

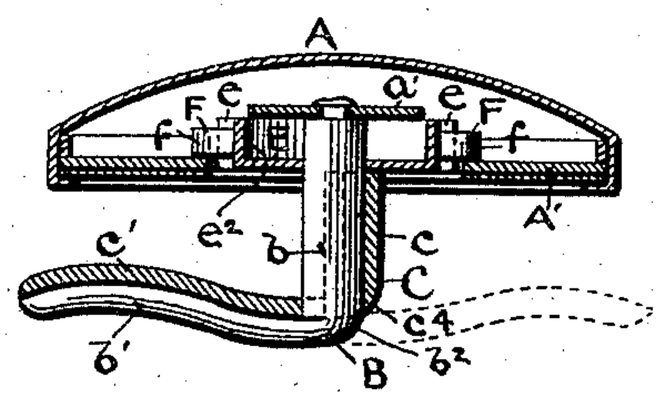

FIG. 2.

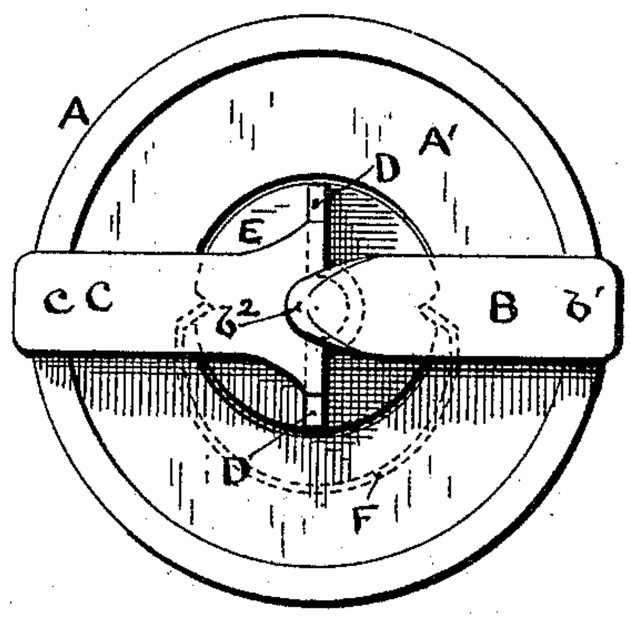

FIG. 3.

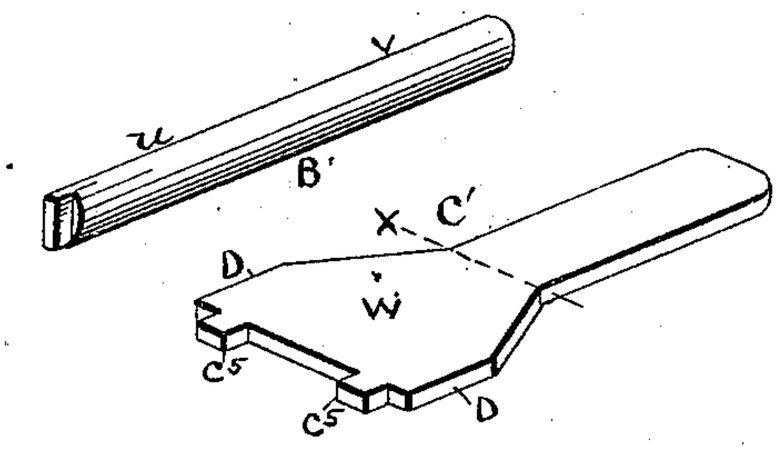

FIG. 4.

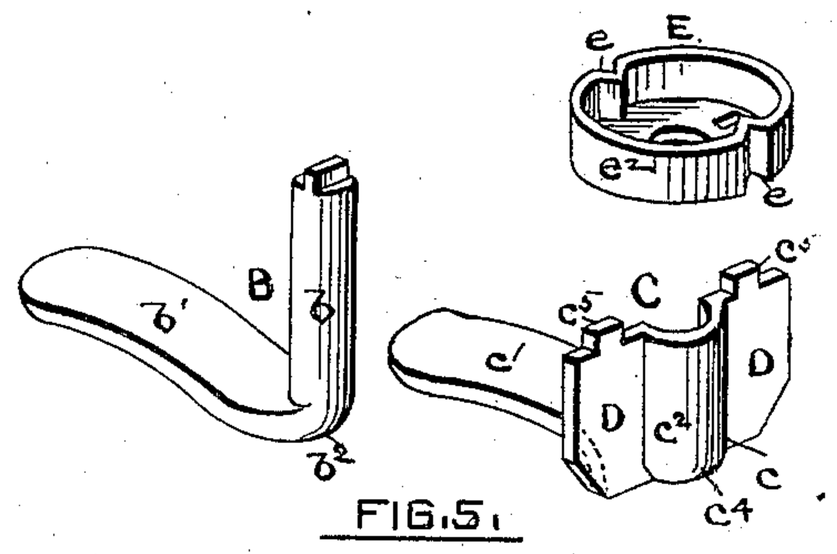

FIG. 5.

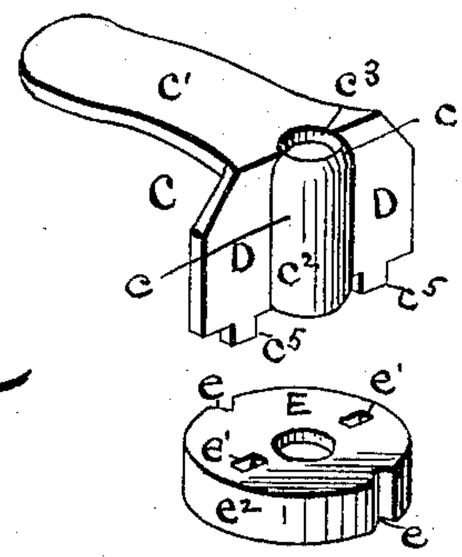

FIG. 6.

WITNESSES.

Charles H. Mathewson.

John W. Barney.

INVENTOR.

Henry H. Curtis

by Edson Salisbury Jones

Attorney

UNITED STATES PATENT OFFICE.

HENRY H. CURTIS, OF NORTH ATTLEBOROUGH, MASSACHUSETTS.

BUTTON OR STUD.

SPECIFICATION forming part of Letters Patent No. 369,695, dated September 13, 1887.

Application filed March 7, 1887. Serial No. 229,944. (No model.)

To all whom it may concern:

Be it known that I, HENRY H. CURTIS, of North Attleborough, county of Bristol, State of Massachusetts, have invented certain new and useful Improvements in Buttons and Studs; and I do hereby declare the following specification, taken in connection with the accompanying drawings, forming a part of the same, to be a description thereof.

This invention relates to that variety of buttons and studs having two L-shaped arms, one of which is rigidly affixed to the head and the other provided with lateral flanges or wings to engage the button-holes, and mounted to rotate axially on the first arm to bring the arms into a position to enable the button or stud to be easily applied and removed and into a position to hold the same in place.

The improvements consist in certain features of construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 represents a side view of a sleeve-button embodying the improvements. Fig. 2 shows a central vertical section of the same. Fig. 3 represents a rear view of the button. Fig. 4 shows the blanks from which the respective arms are made. Fig. 5 shows the finished arms made from such blanks, also the locking-disk. Fig. 6 represents the flanged arm and the locking-disk detached and in perspective, both being inverted.

In general arrangement the button is like that shown in United States Letters Patent issued to F. W. Richards, March 8, 1887, No. 358,882.

A is the button-head, which may be of any form or style preferred.

B and C are the two L-shaped arms which constitute the shoe and post of the button, the former having a shank portion, *b*, and shoe portion *b'*, and the latter a shank portion, *c*, and shoe portion *c'*. The arm B is rigidly secured to the button-head, preferably by being riveted to the countersunk portion *a'* of the back plate, A', and the arm C is mounted on the shank *b* of the arm B so as to rotate axially thereon, the arm C being provided with the lateral wings D D to engage the button-holes of the cuff. The means for locking the arms in position consist of a disk, E, having peripheral notches *e*, and a spring, F, (shown in Fig. 2 and by dotted lines in Fig. 3,) having its ends *f* bent to enter said notches.

The arm C having been turned into the position shown in Fig. 2, the button is easily applied. The head is then turned to carry the shoe portion *b'* of the arm B into the position shown in Fig. 3 and by dotted lines in Fig. 2, so as to hold the button in place, the arm C being held stationary by the engagement of its wings D D with the button-holes. The spring F, by the engagement of its ends with the notches *e* in the disk E, will lock the arms in both positions.

In buttons of this variety, where one of the arms is rotated a half-turn to hold the button in place and to allow of its removal, it is not only desirable that the shoe parts of the arms should hold the lapped portions of the cuff snugly together, but that the shank portions of the arms be long enough to allow plenty of room at the button-holes, where the material of the cuff is thicker, so that the arms may be easily turned and the edges of the button-holes be not abraded or worn thereby.

One feature of the invention consists in shaping the arms B C so as to accomplish this result. This feature is shown in Fig. 1, where the portions *r s* of the shoe parts *b' c'*, respectively, are located at such a distance from the button-head as to give the room desired at the button-holes, and the said parts are bent so that their portions *r' s'* are sufficiently near to the button-head to hold the lapped portions of the cuff snugly together.

Another feature of the invention is making each of the arms B C of a single piece of stock, thereby avoiding soldering. The arm B is made from a blank, B', Fig. 4, in the form of a piece of round wire, whose portion *u* furnishes the cylindrical shank *b*. By proper tools the outer portion, *v*, of this blank is flattened to produce the shoe part *b'*, and the blank is bent into the L shape shown in Fig. 5. The arm C is made from a blank, C', Fig. 4, which is punched from sheet metal of the proper thickness. By proper tools a portion, *w*, of the blank is swaged into a semi-tubular or socket portion, c^2, leaving the wings D D outlying the same. The blank is bent at right angles on the line *x*, and a hole, c^3, is punched to form a

bearing for the arm upon the shank *b* of the arm B.

In order that the arms may pass into the button-holes as easily as possible, the angular portions b^2 of the arm B and c^4 of the arm C are rounded, as shown in Figs. 2 and 5.

In order further to avoid attaching the parts by solder, the locking-disk E is secured to the arm C by tangs c^5, which are integral with the arm, and are passed through holes e' in the disk and then upset or riveted.

It is desirable that when the arms come into a locked position they should do so with a snap or click, so that the ear may determine the fact without there being any necessity for an examination of the button to ascertain it.

In order that the sound produced by the passage of the spring ends *f* into the notches *e* may be as loud as possible, the disk E is made hollow or cup-shaped, as shown in Figs. 2 and 5, the rim e^2 furnishing a broad engagement for the spring ends without the weight which would be present were the disk solid and of the same width.

What I claim, and desire to secure by Letters Patent, is—

1. The combination, with a button or stud head, of the shoe-arm B, formed integral with the shank *b*, rigidly secured to the head, and the shoe-arm C, formed integral with the semi-tubular socket c^2, hole c^3, and wings D, and by said semi-tubular socket swiveled on the rigidly-attached shank, substantially as described.

2. The combination, with the button or stud head, the shoe-arm B, formed integral with the shank *b*, rigidly secured to the head, the shoe-arm C, formed integral with the semi-tubular socket c^2, hole c^3, and wings D, and the spring F, of the hollow cup-shaped disk E, secured to the shoe-arm C in the button or stud head, and having notches *e*, substantially as and for the purposes described.

HENRY H. CURTIS.

Witnesses:
EDSON SALISBURY JONES,
GEORGE M. CADY.