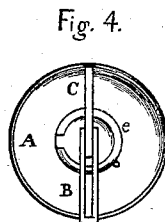
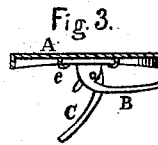
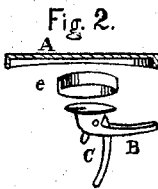
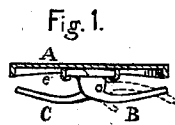


J. T. THORNTON.
Shirt-Buttons and Studs.

No. 138,595.

Patented May 6, 1873.



WITNESSES,

INVENTOR

Charles L. Spencer
Francis A. Daniels

J. T. Thornton

UNITED STATES PATENT OFFICE.

JONATHAN T. THORNTON, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN SHIRT BUTTONS AND STUDS.

Specification forming part of Letters Patent No. **138,595**, dated May 6, 1873; application filed October 7, 1872.

To all whom it may concern:

Be it known that I, JONATHAN T. THORNTON, of Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Shirt Buttons or Studs; and I do hereby declare that the following specification, taken in connection with the drawing making a part of the same, is a full, clear, and exact description thereof, in which—

Figures 1, 2, and 3 represent sectional views, showing my improvement as attached to a shirt-stud; and Fig. 4 represents the under surface of the front plate having the two arms secured in position as in use.

My invention consists in forming a swivel-joint with two operating-arms, to be attached on the under surface of the front-plate of a shirt-stud so that the one or swinging arm may be held stationary when parallel with the front-plate, and in this position, in connection with the double or swiveled arm, the stud may be made secure when in the garment.

To enable others skilled in the art to manufacture and use my invention, I will proceed to describe its construction and operation.

In the accompanying drawing, A, Fig. 1, represents the front-plate, which may be made any desired shape. B and C are the two arms—B the swiveled and C the swinging arm. B is made double, and a cap is soldered to its

top. The arm C is pivoted in arm B to swing between its sides. To form the swivel the cap on arm B is passed into cup *e*, Fig. 2; the edge of said cup is upset or overturned upon said cap, as shown in Fig. 4. Care should be taken in overturning the edge of cup *e*, so as not to bind the cap. Arm C is provided with a projection on one side near where it is pivoted to B, and is used as a lock or fastener in connection with the cup or swivel *e*, which swivel is made with an opening to receive said projection as it is turned to pass under the overturned edge.

To prevent the cap from turning entirely around in swivel *e*, a small pin is inserted as a check.

In removing the stud from the garment the arms are turned to the left, the projection on arm C passing out through the opening in the swivel, and is drawn back, as represented by dotted lines on Fig. 1.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

The swivel *e*, in connection with arm C and in combination with the double arm B and front-plate A, substantially as herein described, and for the purpose specified.

J. T. THORNTON.

Witnesses:

CHAS. L. SPENCER,

FRANCIS A. DANIELS.