

# H. Simon, Button.

No. 24891.

Patented July 26, 1859.

Fig. 1



Fig. 2.



Fig. 3.

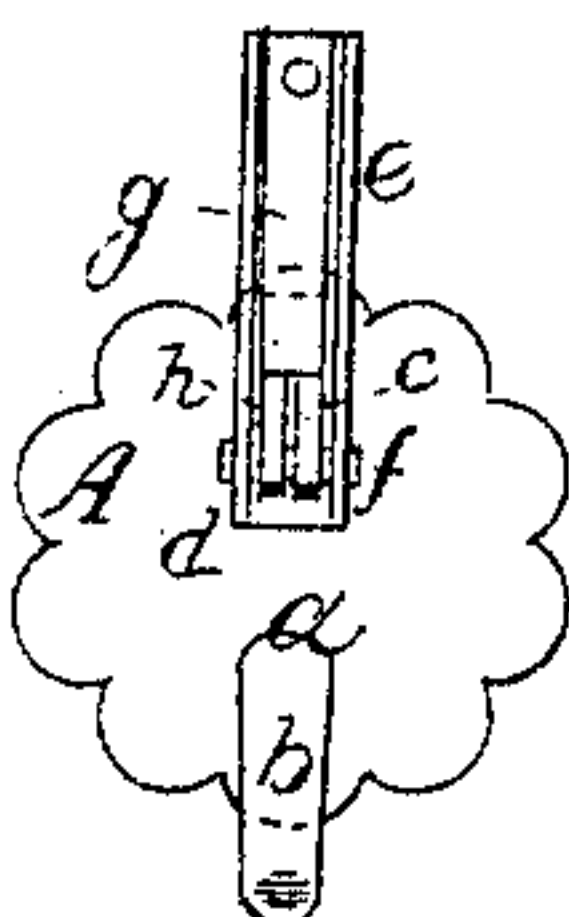


Fig. 5

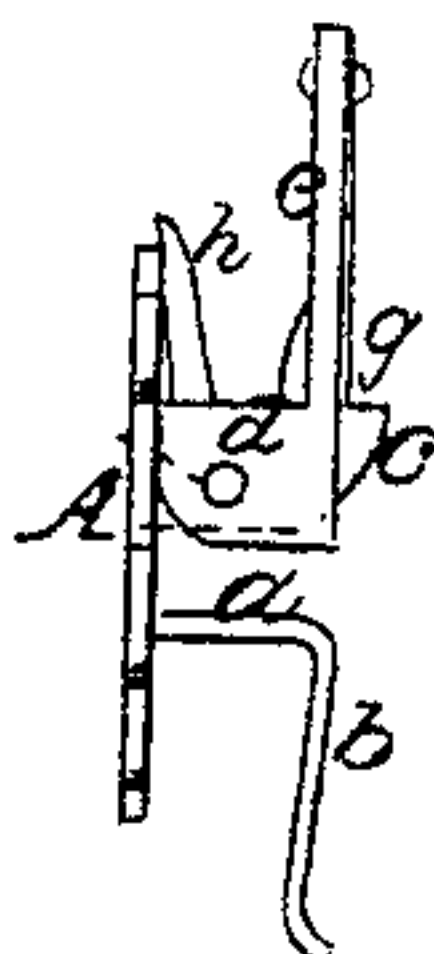
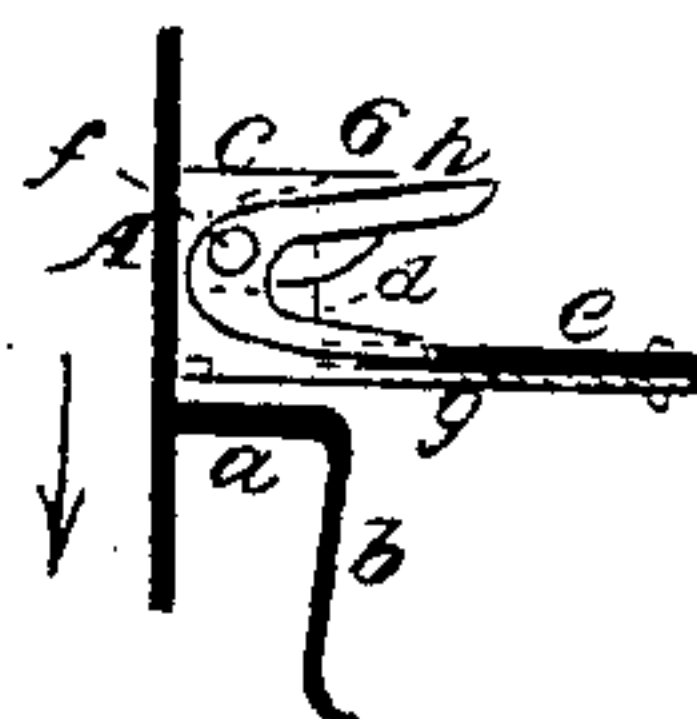


Fig. 4.



Witnesses:  
Henry Martin  
Albert M. Hewitt

Inventor  
Henry Simon

# UNITED STATES PATENT OFFICE.

HENRY SIMON, OF PROVIDENCE, RHODE ISLAND.

## SHIRT-STUD.

Specification of Letters Patent No. 24,891, dated July 26, 1859.

*To all whom it may concern:*

Be it known that I, HENRY SIMON, of the city of Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Shirt-Studs and Sleeve and Vest Buttons; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view, natural size, of a shirt stud with my improvement, showing it in the condition in which it is secured in the shirt. Fig. 2 is a central section of the same, in the same condition, on a scale much greater than the natural size. Fig. 3 is a back view corresponding with Fig. 2. Fig. 4 is a section like Fig. 2, but represents it in the condition in which it is inserted in the shirt. Fig. 5 is a view like Fig. 1, on the same scale as Figs. 2, 3 and 4.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists in a certain construction of, and mode of applying, a spring to the inner portion or fastening of the stud or button, whereby it is enabled to be very easily inserted in and removed from the holes in the shirt or vest, and is made very secure when in place.

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

A is the head or outer portion of the stud.

*a b* is an elbow shaped piece rigidly secured to the back of the head, A, at a short distance from the center thereof, and having the part *a*, which is attached to the head, perpendicular thereto, and the part *b* turned outward from the center of the head and extended beyond the margin thereof.

*c* is a straight flat shank attached rigidly to the back of the head on the opposite side of the center thereof to the elbow *a b*.

*d e* is an elbow shaped piece having the part *d*, and the adjacent portion of the part *e*, slotted to receive within it the shank *c*. This elbow piece is jointed near the extremity of its shorter arm *e* by a pin *f* to the shank *c*, at a short distance from the head A. The said elbow piece is so formed with a shoulder at 6, (Figs. 1 and 4) on each side to bear against the back of the head, that the elbow is incapable of moving outward from the center of the head beyond

the position shown in Figs. 1 and 2, in which the longer arm *d* is parallel with the face of the head, and in line, or nearly so, with the arm *b* of the other elbow; but it is permitted to move in the other direction to bring the longer arm *e* perpendicular to the head A.

*g* is a flat spring attached to the arm *e*, of the elbow piece *d e*, in such a position that when the said arm *e* is parallel with the head, and the said spring free, the latter will abut against the straight outer edge of the shank *c*, as shown in Fig. 2 in black outline, and so lock the elbow piece with the arm *e*, in that position.

*h* is a bent lever arranged within the slot of the elbow piece *d e*, to work on the joint pin *f* of the said elbow piece. When the elbow piece *d e*, is in the last named condition the said lever lies close between the back of the head A and the spring *g*, as shown in Fig. 2 with one extremity extending so little beyond the outer margin of the head as to be scarcely visible from the front. By pressing against this extremity of the lever with the finger, or thumb-nail, while the back of the arm *e* is supported, the said lever will be caused to force back the spring *g*, beyond the end of the shank *c*, as shown in red outline in Fig. 1 and so permit the spring to pass the extremity of the said shank and allow the elbow piece *d e* to be moved to the condition shown in Fig. 4. In moving the elbow piece back to the first mentioned position the spring works along the curved edge of the shank *c* until it passes the extremity of the said shank and springs into the position shown in black in Fig. 2, and so locks the elbow piece again.

This kind of stud or button requires similar button holes to a common stud, but the hole in the inner portion of the garment may be a little shorter. To enable the stud or button to be inserted it is first brought to the condition shown in Fig. 4, and then the parts at the back of the head are put through both holes or only through the hole in the inner portion of the garment as may be desired and by pressing the stud or button toward the body and at the same time drawing the head in the direction indicated by the arrow in Fig. 1, the elbow piece *d e*, is brought to the condition represented in Fig. 2, and the stud secured in the hole or holes. To take out the stud or button the head is pulled directly away from the per-



son or garment, while pressure is applied in the opposite direction against the projecting extremity of the lever *h*. By this means the spring *g*, is forced beyond the extremity of the shank *c*, and the elbow piece *d e* allowed to move to the position shown in Fig. 4 which permits the stud or button to be pulled out.

I do not claim broadly the employment of a spring to secure a stud or button in a garment; but

What I claim as my improvement is—

The movable elbow piece *d e*, spring *g*, and lever *h*, applied in combination with each other and with the fixed shank *c*, and in relation to a fixed elbow piece *a b*, substantially as herein described. 15

HENRY SIMON.

Witnesses:

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ALBERT M. HEWITT.