

(No Model.)

A. W. HAM.

MACHINE FOR ATTACHING BUTTONS.

No. 267,342.

Patented Nov. 14, 1882.

Fig 1

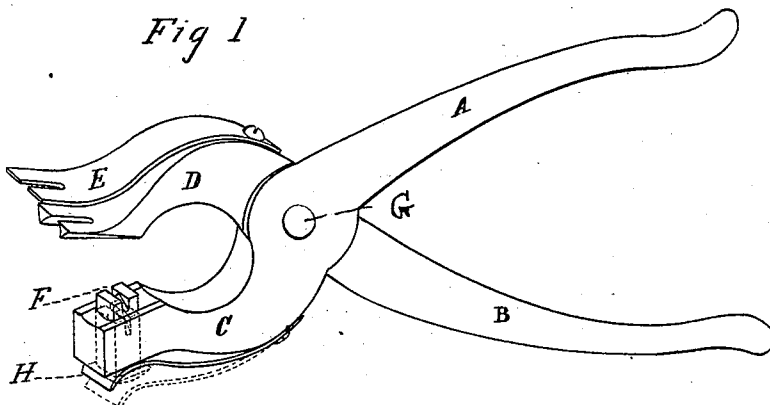


Fig. 2.



Fig. 3



Fig. 4

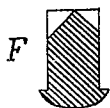


Fig. 5

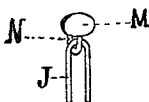


Fig. 6

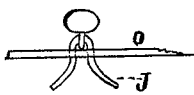
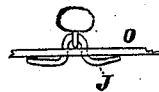


Fig. 7



Witnesses  
A. Davenport  
John D. Booth

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Albert W. Ham

# UNITED STATES PATENT OFFICE.

ALBERT W. HAM, OF TROY, NEW YORK.

## MACHINE FOR ATTACHING BUTTONS.

SPECIFICATION forming part of Letters Patent No. 267,342, dated November 14, 1882.

Application filed September 9, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT W. HAM, a citizen of the United States, residing at the city of Troy, county of Rensselaer, and State of New York, have invented a new and useful Improvement in Machines for Attaching Buttons to Shoes and other Wearing-Apparel, of which the following is a specification.

My invention relates to certain improvements in button-attaching machines operated by the hand, wherein one of two jaws, fulcrumed upon each other, holds the button and fastening-staple, and the other jaw operates to set the staple and secure the button in place upon the shoe.

Figure 1 is a perspective view of a complete machine. Fig. 2 is a perspective view of the spring attached to the upper jaw of the machine. Fig. 3 is a perspective view of the spring attached to the lower jaw, C. Fig. 4 is a vertical cross-section through the slots and wedge-shaped part of the movable die F, on a plane at right angles to the length of the jaw C. Fig. 5 is a perspective view of the button, eye, and staple. Fig. 6 is a perspective view of the same after the forks of the staple have been forced through the fabric and separated by the lower jaw of the machine. Fig. 7 is a perspective view of the same after the ends of the staple-forks have been finally set.

In Fig. 1, A and B represent the handles by means of which the jaws C and D, working upon the fulcrum or pin G, are opened and closed. The upper jaw, D, is forked or slotted at the end, and provided with the spring E, also forked at its free end, as shown. The ring or eye N, Fig. 5, of the button M is inserted in the forks of E and D, so that the button rests on the top of the forks of the spring, which is bent down against the jaw D sufficiently to permit the staple J to pass under the fork of the jaw D, the bend of the staple resting and being held tightly by the spring against the lower side of the fork of the jaw. The lower jaw, C, at a point opposite the forked end of the staple as held in the upper jaw, is provided with a movable die, F, which freely slides through jaw C back and forth to and from the jaw D; but when the jaws are separated or open the spring H, attached to jaw C, forces the die outward from jaw C toward jaw D, so that the end pro-

jects above the jaw C. In this projecting end of the die are two slots, commencing at or near the center of its upper surface, (which is contiguous to jaw D,) and extending downward and outward toward the sides of the lower jaw in such a manner that the remaining portion of the die between the slots is wedge-shaped, as shown in Fig. 4.

When the fabric to which it is desired to attach the button is placed between the jaws and the staple forced down through the same, the forks of the staple come in contact with the wedge-shaped part of the die F, and, being guided by the slots in the die, are spread and caused to assume the position shown in Fig. 6. As soon as the forks have in this manner been sufficiently spread the pressure of the upper jaw, D, against the die overcomes the force of the spring H, and the die is forced down through the lower jaw, C, to the position shown by the dotted lines in Fig. 1, and the ends of the staple-forks are brought in contact with the lower jaw, C, and forced firmly against the fabric, where they are finally set in a position approximating that shown in Fig. 7, the points of the staples pointing outward from each other and not penetrating the fabric. There may be notches in the edges of the lower jaw to guide the forks of the staple. My method of attaching buttons, as above described, affords a long bearing for the forks of the staple at points on the fabric the farthest possible removed from that portion lying between the forks.

I am aware of the construction of machines provided with fulcrumed jaws for attaching buttons to shoes and other apparel, the buttons being provided with staples having two or more forks which were forced through the fabric and clinched by having their ends forced back again into the fabric.

I do not claim broadly a machine having two jaws operated by the hand and provided with a die for clinching button-staples, and I expressly disclaim a device for clinching the staples by forcing the points back into the fabric again.

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

1. In a button-attaching machine, a fulcrumed upper jaw constructed to hold a button and staple, in combination with a lower jaw pro-

vided with a yielding wedge-shaped die and a regulating-spring to act upon the die to spread the forks of the staple, substantially as described.

- 5 2. In a button-attaching machine, the combination of two fulcrumed jaws, one of which is provided with a fork or slot for holding a button and staple and the other with a yielding slotted die adapted to spread the forks of the  
10 staple and guide them in their course, the lat-

ter jaw acting independently of the die to set the staple firmly upon the fabric, substantially as described.

In witness whereof I have hereunto set my hand this 1st day of September, 1882.

ALBERT W. HAM.

Witnesses:

JOHN T. BOOTH,  
N. DAVENPORT.