

(No Model.)

C. M. PLATT.

MACHINE FOR ATTACHING BUTTONS TO CLOTH.

No. 567,505.

Patented Sept. 8, 1896.

Fig. 1.

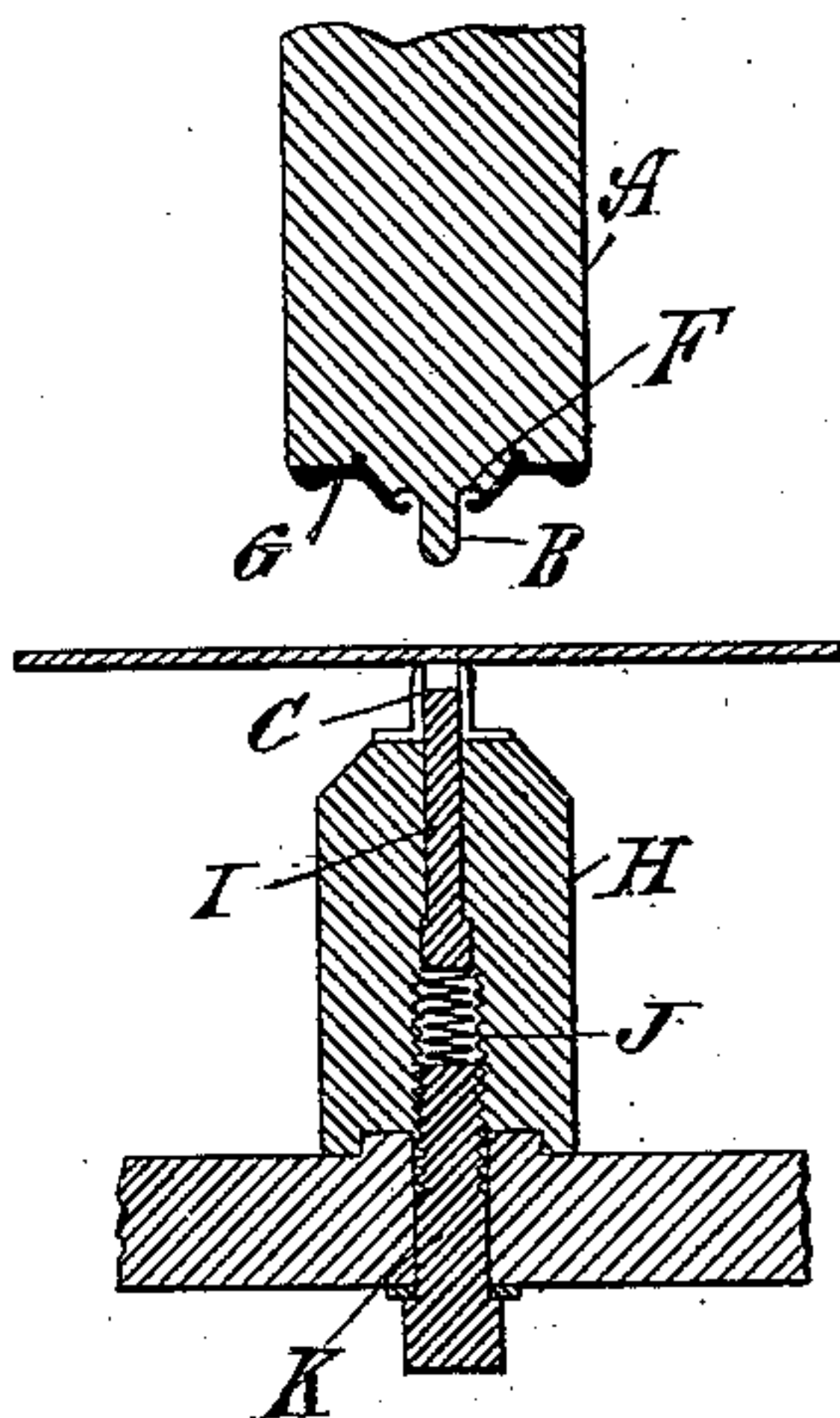


Fig. 2.

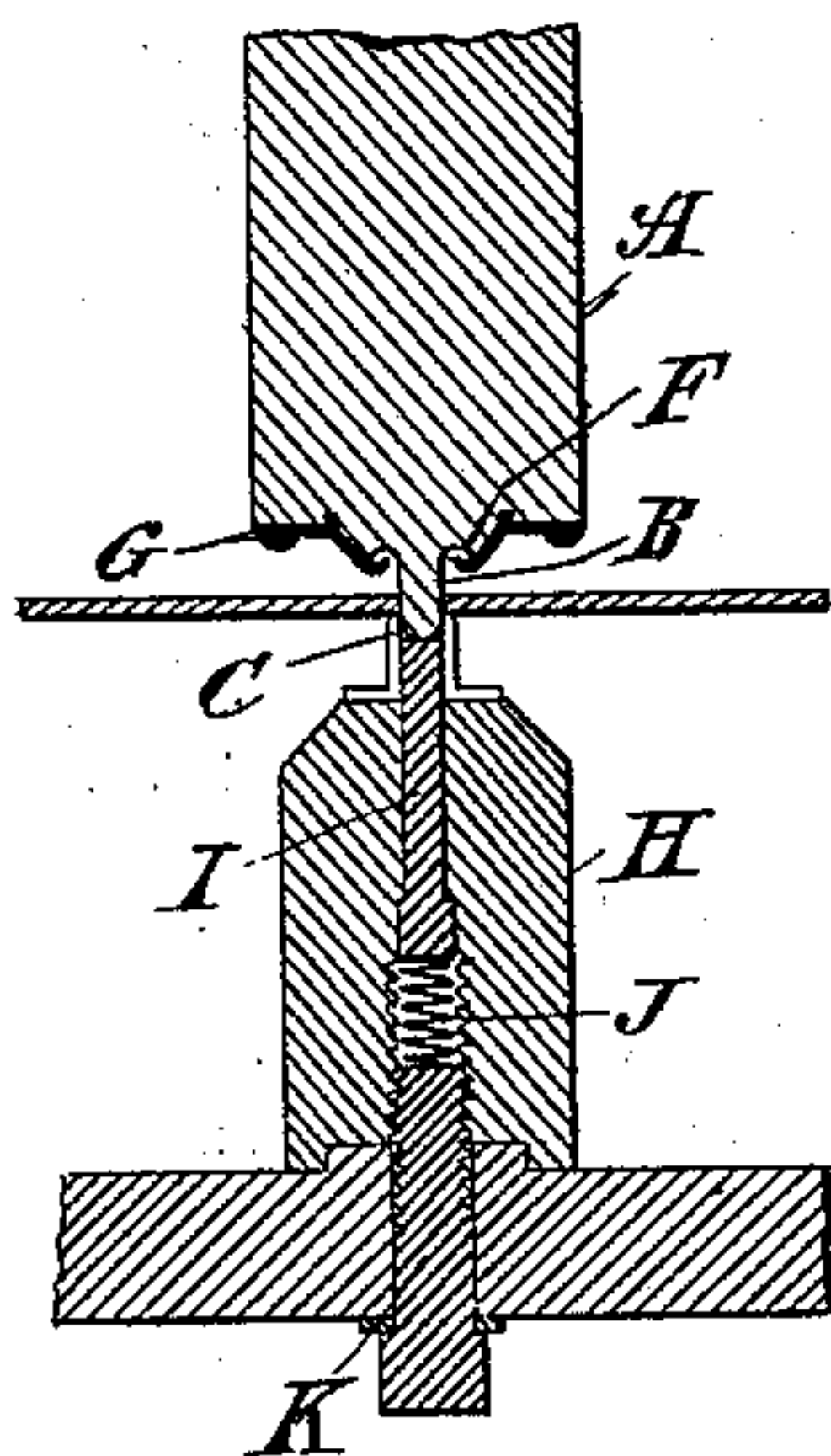


Fig. 3.

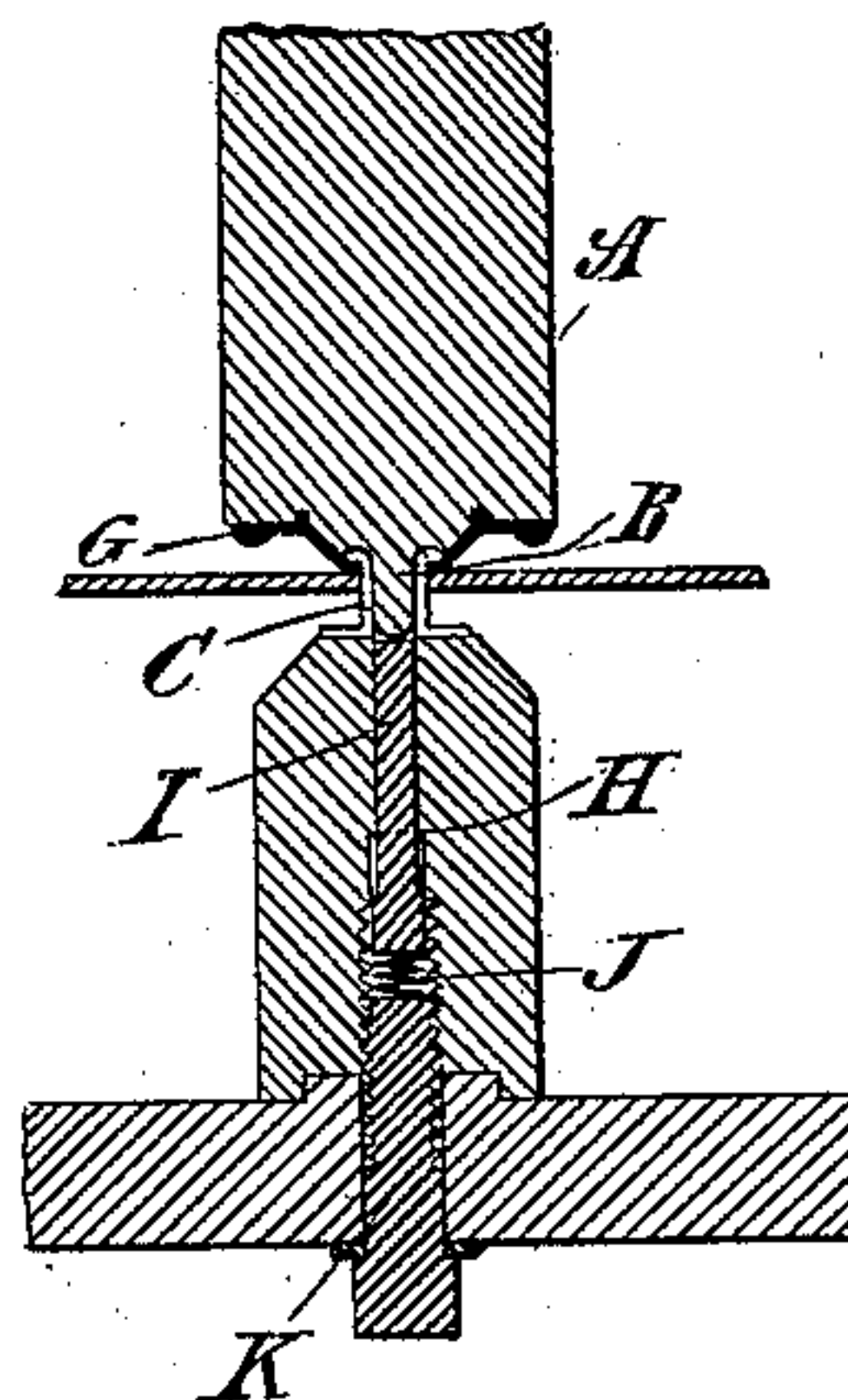
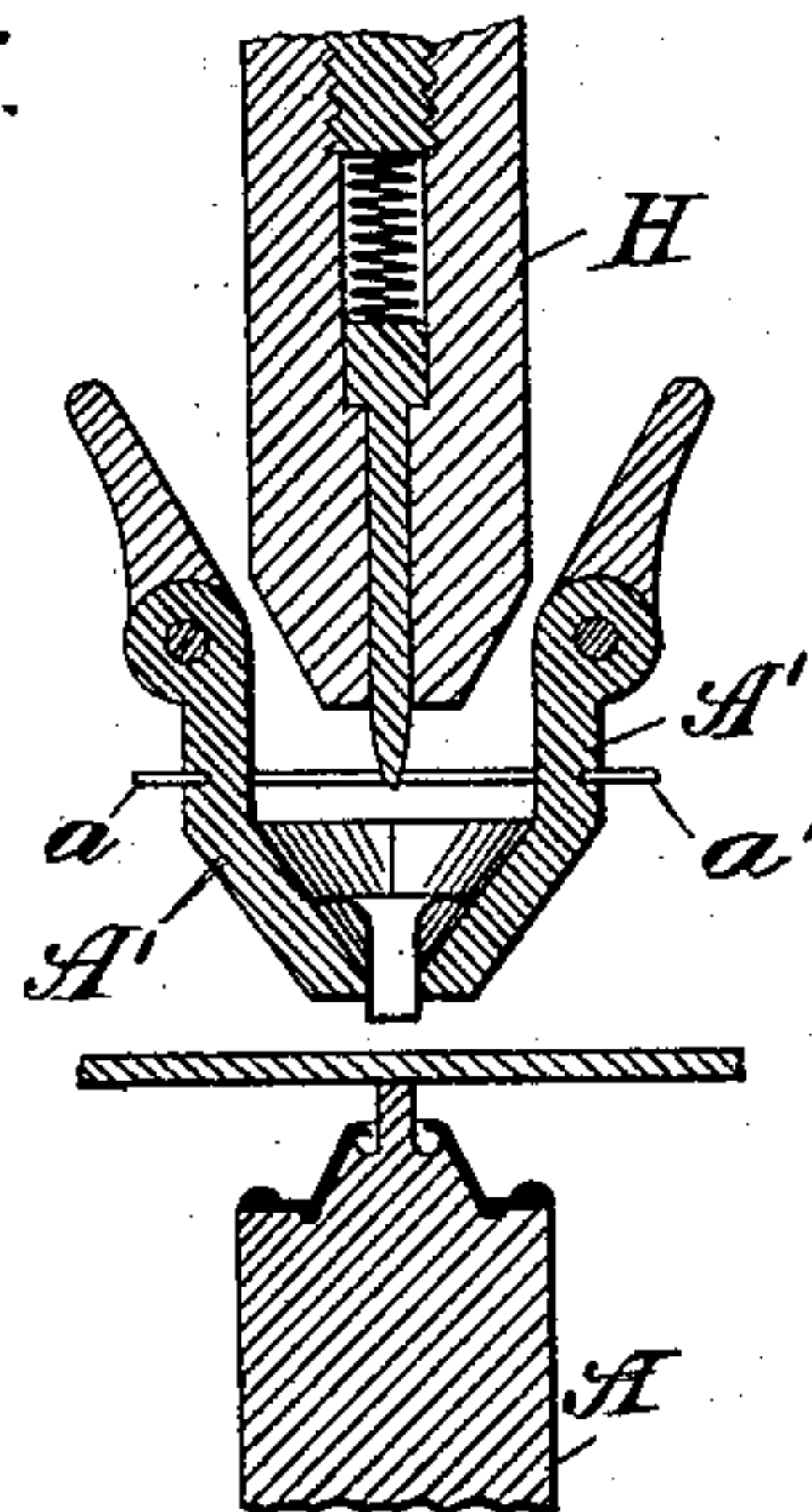


Fig. 4.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

CLARK MURRAY PLATT, OF WATERBURY, CONNECTICUT.

## MACHINE FOR ATTACHING BUTTONS TO CLOTH.

SPECIFICATION forming part of Letters Patent No. 567,505, dated September 8, 1896.

Application filed February 7, 1893. Serial No. 461,307. (No model.)

*To all whom it may concern:*

Be it known that I, CLARK MURRAY PLATT, a citizen of the United States, and a resident of Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Machines for Attaching Buttons to Cloth, of which the following is a specification.

My invention relates to an improvement in machines for attaching buttons to cloth, and more particularly for operating upon buttons consisting in part of a hollow shank or fastener, the object of the same being to construct a machine of this kind or character which will operate with more exactness and facility than the machines now in use; and with this and other ends in view my invention consists in certain details of construction and combination of parts, as will hereinafter be fully described, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a view of a portion of the machine, showing my improved device in cross-section, the parts being arranged to show the adjustment of the several parts before the button has been attached. Fig. 2 is a similar view, the holders or dies being brought together to puncture the cloth. Fig. 3 is a similar view thereof after the button has been attached to the cloth. Fig. 4 is a view of modification.

The holder A is provided in the center of its face with a rigid cylindrical pin B, encircled at its base by an annular recess or upsetting-surface F, its face being shaped or configured to conform to the shape of the centrally-perforated button part or flange G, which is slipped over the said pin and thus held concentric therewith and against lateral displacement, and so as to leave an annular space around the pin opening into the chamber formed between the upsetting-surface and said flange G. The said pin B is itself adapted in length to pass through the cloth or fabric and enter the hollow shank or rivet C and assist in holding the latter against displacement while the parts are being attached. The end of this pin B may be rounded, as shown in Fig. 1, on its extreme end or pointed, as shown in Fig. 3, for the purpose of adapting it to puncture the cloth when the several

parts are brought together, the end of said pin during such operation entering between and separating the fibers of the cloth in contradistinction to cutting the latter, as I have sometimes done by forming said pin with a lower shearing end. The upsetting-surface encircling the base of the pin expands the thin end of the shank C and turns it over in the form of a lip upon the outer face of the said button part G, the chamber formed around the base of the pin being necessary to receive the said end of the shank and to give clearance to it while being expanded. The annular space around the pin B, obtained by adapting the holder to center and lock the button part concentric with the pin, admits the said end of the rivet C into the said chamber. The said rivet C is supported upon a holder H, provided with a yielding centering or guiding pin I, extending above the same and located opposite and in line with the pin B, and adapted to be retired thereby by being supported upon a spiral spring J, inclosed within the said holder H and held in place therein by a screw-plug K.

In using my improved machine the button-flange and the rivet are applied to their respective holders, the holder of the flange G being magnetized for the purpose of holding the same in place. The holders are now brought together and preferably by the depression of the upper holder, whereby the cloth is punctured by the end of the rigid pin B, the yielding guiding-pin assisting in the operation by holding the shank C in place. Upon further approach of the parts the said rigid pin retires the guiding-pin and the button-flange engages with the cloth and pushes it down over the hollow shank, the end whereof now passes through the annular space between the button-flange and the pin and into the chamber formed around the base of the pin by the upsetting-surface, with which it is soon engaged and by which it is expanded and turned over upon the outer face of the button-flange, as shown by Fig. 3 of the drawings. The holders are now separated and the cloth removed with the button firmly attached to it. It will thus be seen that by adapting the rigid pin of the machine to co-operate with the hollow shank in forming an



opening in the cloth for the shank to pass through the use of a bodkin, by hand, is dispensed with, whereby time is saved and the capacity of the machine for applying buttons to cloth is greatly increased.

It will be apparent to any one skilled in the art that several changes might be made in the construction and arrangement of the several parts without departing from the spirit or scope of my invention, as, for instance, as is shown by Fig. 4, the button may be placed upon the lower die A, and the upper die H, provided with arms or holders A' A', arranged to hold or support the shank or fastener, a spring  $\alpha'$  being provided for the purpose of holding said arms or fingers A' A' in their closed or normal position. I would, therefore, have it understood that I do not limit my invention to the exact construction and arrangement of the parts shown and described.

In several former applications filed by me, and which have been allowed, I have shown and described similar devices wherein the pin or lug B was formed on its lower end with a cutting or shearing end instead of a rounded or pointed end, as hereinabove de-

scribed, and hence in this application I make no claim thereto; but,

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a machine for attaching buttons to cloth, the combination with a button-holding die, having formed on one end thereof a pin or lug adapted to extend through or partially through the opening in the button, said pin being of smaller diameter than the opening in said button, and having its end rounded or pointed to pierce the cloth, said die being also provided with a recess or cavity encircling the base of said pin, of an eyelet-holding die provided with a central yielding pin adapted to enter the eyelet, the several parts being constructed and arranged to operate in a manner and for the purpose, substantially as described.

Signed at Waterbury, in the county of New Haven and State of Connecticut, this 30th day of July, A. D. 1892.

CLARK MURRAY PLATT.

Witnesses:

CHAS. W. GILLETTE,  
SAMUEL J. MARSH.