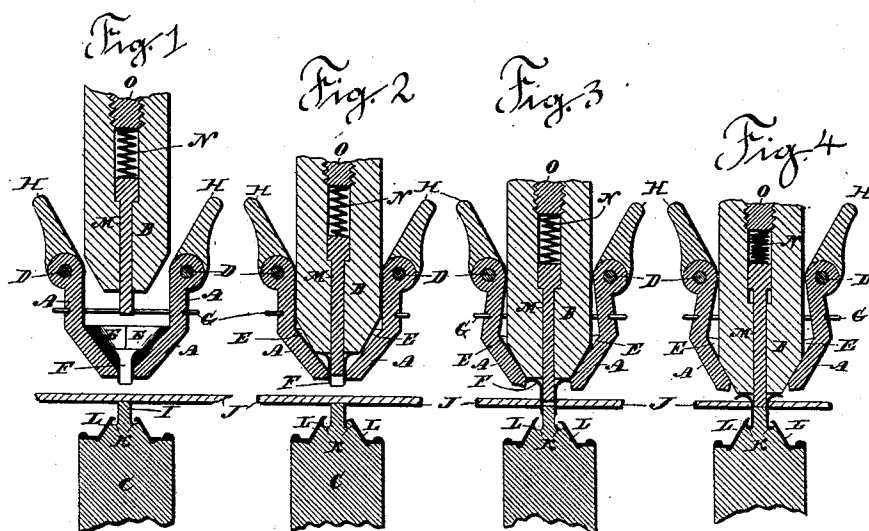


(No Model.)

C. M. PLATT.
MACHINE FOR ATTACHING BUTTONS.

No. 481,588.

Patented Aug. 30, 1892.



Witnesses.

Chas B. Shumway

William Harmon

Inventor

Clark M. Platt

By George D. Vernon

Atty.

UNITED STATES PATENT OFFICE.

CLARK M. PLATT, OF WATERBURY, CONNECTICUT.

MACHINE FOR ATTACHING BUTTONS.

SPECIFICATION forming part of Letters Patent No. 481,588, dated August 30, 1892.

Application filed September 10, 1888. Serial No. 285,016. (No model.)

To all whom it may concern:

Be it known that I, CLARK M. PLATT, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Machines for Attaching Hollow-Shanked Buttons to Cloth; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improvement in machines for attaching hollow-shanked buttons to cloth, the object being to increase the capacity of such machines by making them more nearly automatic in their action than they have been as heretofore constructed.

With these ends in view my invention consists in a machine having certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a sectional view of the two holders and the supporting device of one form of machine embodying my invention, the holders being separated for charging the machine with the button parts. Fig. 2 is a similar view showing the upper holder in engagement with the button-shank. Fig. 3 is a similar view showing the perforation of the cloth by the shank and the fixed centering-pin, and Fig. 4 is a similar view showing the expansion of the button-shank to bind the button-flange to it.

As herein shown, the supporting device consists of two independent fingers A A, located between the upper holder B and the lower holder C of the device suspended from pivots D D, the supports whereof are not shown, provided at their lower ends with flanges E to adapt them to co-operate in carrying a button-shank F, constructed to be separated by the shank for releasing the same, embraced by a spring G for automatically closing them, and provided at their upper ends with tails H for manually opening them. The said lower holder C is provided with a fixed centering-pin I, having a shearing end and therein adapted and in length to co-operate with the thin cylindrical end of the button-shank F in making a perforation in the cloth J for the said end of the shank to pass through. The

base of this pin is provided with a bevel K for expanding the thin end of the shank and turning the same over in the form of a lip upon the outer face of the centrally-perforated button-flange L, which is supported upon the said lower holder, which is constructed with a facial irregularity adapted to engage with the button part applied to it to center and hold the same concentric with the fixed pin, so as to leave an annular space between the inner edges of the button part and the pin for the thin edge of the hollow button-shank to pass through in position to engage with the bevel at the base of the pin. As herein shown, this facial irregularity has the form of a circular boss or cone concentric with the pin. The shank F is held down in the supporting device during the perforation of the cloth by the upper holder B, which also forces it through the cloth and against the bevel K, before mentioned. This upper holder is provided with a centering or guiding pin M, adapted to retire by being backed by a spiral spring N, located within the upper holder and held in place therein by a screw-plug O, as shown.

In using my improved machine when made as herein shown it is charged by feeding the button-shanks into the supporting device and button-flanges to the lower holder. The holders are now brought toward each other and preferably by the depression of the upper holder, which, passing down between the said fingers, enters its centering-pin into the shank held thereby and engages with the flanged end of such shank, which releases itself from the said fingers by spreading them apart as it is pressed down by the holder upon the cloth which is supported at a point exactly opposite the end of the shank by the end of the fixed centering-pin of the lower holder. The upper holder continuing to push the shank down, the thin edge thereof co-operates with the end of the fixed pin to perforate the cloth. The yielding pin of the upper holder is now retired by the fixed pin of the lower holder as the upper holder farther descends, and the shank passes over the said fixed pin and engages its end with the bevel at the base thereof, whereby its end is expanded and turned over upon the outside of the button-flange. The holders are now separated, and as this is done the spring embracing the fin-

gers of the supporting device pulls them together again. The cloth is then removed or shifted for the attachment of another button. By adapting the centering-pin of the machine
5 to co-operate with the button-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 greatly increased. If desired,
10 the holders may be reversed from the positions in which they are herein shown. If desired, also, the supporting device may be applied directly to the upper holder.
15 It is apparent that in adapting my invention to machines for putting on different buttons of the type shown it may undergo some changes and alterations. I would, therefore, have it understood that I do not limit myself to the exact construction and arrangement of parts shown and described, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.
20 I have now on file an application, Serial No. 276,485, for a similar machine, in which that part of the button acted upon by the upper holder is supported by the holder itself, which is magnetized for the purpose; but such ma-

chine is limited to use with buttons made of metal influenced by magnetism. In this case the button part acted upon by the upper holder is supported by a mechanical device, whereby the machine operates with one button as well as another.

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

In a machine for setting buttons, the combination, with spring-actuated jaws or fingers for holding a hollow rivet or eyelet, of an upper movable holder provided with a central yielding pin for entering said eyelet and a lower holder or die for supporting a centrally-perforated button provided with a rigid pin adapted to extend through said perforation and register with said eyelet, and also provided with an annular recess encircling the base of said rigid pin to be partially overlapped by the edge of said perforation, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CLARK M. PLATT.

Witnesses:

LUCIEN F. BURPEE,
S. W. KELLOGG.