

(No Model.)

S. L. PRATT.

APPARATUS FOR SETTING BUTTONS.

No. 291,534.

Patented Jan. 8, 1884.

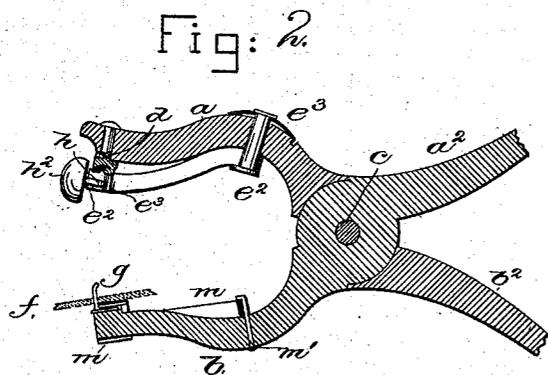
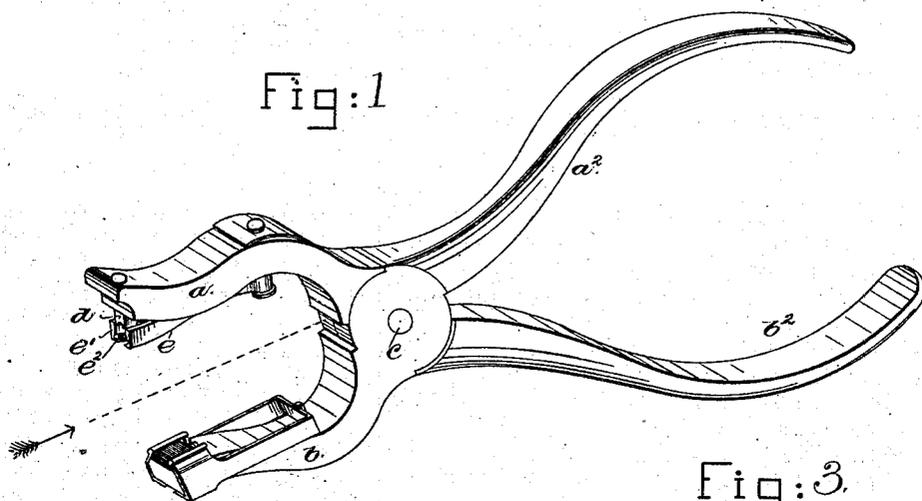
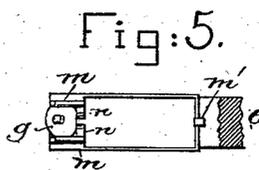
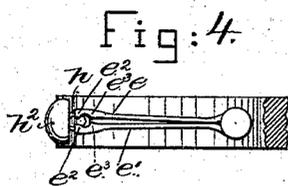
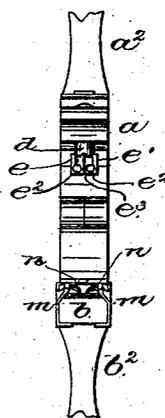


Fig: 3.



Witnesses.

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# UNITED STATES PATENT OFFICE.

SAMUEL L. PRATT, OF HINGHAM, MASSACHUSETTS.

## APPARATUS FOR SETTING BUTTONS.

SPECIFICATION forming part of Letters Patent No. 291,534, dated January 8, 1884

Application filed June 11, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL L. PRATT, of Hingham, in the county of Plymouth and Commonwealth of Massachusetts, have invented an Improvement in Apparatus for Fastening Buttons, of which the following description in connection with the accompanying drawings, is a specification.

This invention is an improvement on United States Patent No. 278,935, granted to me June 5, 1883, and has for its object to simplify the operation of the parts and make more certain the correct entrance of the point of the fastener through the eye of the shank of the button. In that patent the shank of the button was held against the button-carrying member by means of a single flat spring, which acted against one of the flat sides of the shank, and the fastener was held in a groove cut in the solid metal of one of the jaws, the part holding the head of the fastener not having any capability whatever of adapting itself to the sides of the head of the fastener, should there be any variation in the size of the same. In my patent referred to, and in all other button-setting apparatus known to me, the position of the button with relation to the fastener has been determined by a stop which has come against a part of the head of the button.

In the use of a device for attaching ordinary buttons to shoes I have discovered that there is a very considerable difference in the shapes of the eyes, some being longer and wider than others, and by letting the head of the button come against a gage or to serve as a part of a gage for the position of the eye with relation to the path of movement of the fastener it will be obvious that the latter will enter different portions of the eye, and sometimes I find it does not enter the eye at all, but strikes against the shank. The wire in the shanks of ordinary buttons is of the same or of a uniformly-established size, and I have discovered that by using the end of the shank as the part of the button to be arrested by the stop the fastener will always come correctly through the eye and never strike the wire of the shank, except as it is curled over or about it by the action of the anvil upon its point.

My invention in button-setting apparatus consists, essentially, in a pair of spring-jaws to grasp the edges of the shank of the button and hold it in position with relation to the anvil; also, in a pair of spring-jaws shaped to grasp the edges of the button-shank, and provided with lips or flanges to extend partially across the under side of the said shank; also, in a pair of spring-jaws to grasp the edge of the button-shank, and a stop for the end of the said shank; also, in the combination, with one member of a button-setting apparatus, of a stop for the end of the button-shank, and an anvil against which to clinch the fastener.

Other features of invention will be set forth in the claims at the end of this specification.

Figure 1 represents one of my improved button-setting apparatuses in perspective; Fig. 2, a partial longitudinal section of the same, with the button and fastener in position therein, a piece of a shoe or other article to which the button is to be attached having been pushed down below the point of the fastener and the members again separated. Fig. 3 is a view of Fig. 1, looking at it in the direction of the arrow, the ends of the handles being, however, broken off; Fig. 4, a view of Fig. 1, looking upward from the dotted line; and Fig. 5, a view, looking downward.

In the present embodiment of my invention I have shown the frame of the instrument as composed of two movable members,  $a$   $b$ , pivoted at  $c$ , and provided with handles  $a^2$   $b^2$ , which cause the said members to approach each other. In practice the said members will be provided with a spring by which to normally keep them separated, as in the drawings. The member  $a$  has secured to it the anvil  $d$ , or clinching-surface, and also the pair of spring-jaws  $e$   $e'$ , the latter being attached to member  $a$  by the headed bolt  $e^2$ , extended through the said member and through a spring,  $e^3$ , so that the outer ends of the spring-jaws may move toward the base of the anvil and permit the flat side of the button-shank to meet the anvil after the said jaws, grasping the shank of the button, have acted against and forced the material  $f$  (part of a shoe or other article) between it and the end of the fastener down upon and just below the point

of the said fastener. After the spring-jaws have aided in effecting the impalement of the material *f* upon the fastener, the further closing movement of the members *a b* causes the spring-jaws to approach the member *a*, and the bolt *e*<sup>2</sup> then moves longitudinally, the spring *e*<sup>3</sup> yielding, and the point of the fastener *g*, which is of usual shape, comes against the anvil and is curled over and about the shank *h* of the button *h*<sup>2</sup>. The spring-jaws *e*<sup>1</sup> are made to face each other and move toward and from the center of the anvil, and to close upon and grasp the edges of the shank *h* of the button, as best shown in Fig. 4. Each member of the said jaw is provided with a lip, *e*<sup>2</sup>, to extend partially under the wire of the shank, so as to prevent the button dropping from between or sagging in the jaws, and also with a stop, *e*<sup>3</sup>, to arrest the end of the shank as the latter is pushed into or between the jaws, the end of the shank being arrested before the back or head of the button finds a seat. As the wire of the shank is of uniform diameter, the inside of the said wire within the eye at the end of the shank is always in a certain definite position, notwithstanding any variation in the length or width of the shank. The head of the fastener is supported against the member *b*, and the latter has a spring-clamp, *m*, connected to it by a bolt or rivet, *m*<sup>1</sup>. The ends of the clamp are shown as made sufficiently wide to lap under the member *b* and extend above and sufficiently over the said member *b* (see Figs. 1, 3, and 5) to form holders to receive between them the head of the fastener and keep the same down upon the said surface *b*.

The clamp is shown as provided with stops *n n*, which come nearly together, and which

serve to arrest the end of the head of the fastener, as in Fig. 5, so that the shank of the same always occupies a definite position with relation to the said member *b*.

I claim—

1. In a button-setting apparatus, spring-jaws to grasp the edges of the button-shank and hold the button, substantially as described. 45
2. In a button-setting apparatus, spring-jaws to grasp and hold the edges of the shank, and stop to arrest the end of the said button-shank, substantially as described. 50
3. The member *a*, combined with the spring-jaws to grasp the edges of the button-shank, and provided with lips to extend under the flat side of the said shank, substantially as described. 55
4. The member *a*, combined with the spring-jaws, and yielding connecting device, substantially as described, to permit the said jaws, with the button-shank between them, to move toward and from the said member, as set forth. 60
5. The member *a* and spring-jaws to grasp the edges of the button-shank, combined with the anvil, substantially as described.
6. The member *a* and anvil, combined with spring-jaws to grasp the edge of the button-shank, and provided with a stop for the end of the button-shank, substantially as described. 65
7. The member *a*, the spring *e*, and the anvil, in combination with the member *b*, provided with the spring-clasp *m*, substantially as described. 70

In witness whereof I have hereunto set my hand.

SAMUEL L. PRATT.

Witnesses:

WM. B. H. DOWSE,  
CHESTER L. LINCOLN.