

UNITED STATES PATENT OFFICE.

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BUTTON-SETTING INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 272,918, dated February 27, 1883.

Application filed January 8, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. THAYER, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Attachments for Setting-Instruments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in setting-instruments for securely holding buttons in position preparatory to attaching said buttons to shoes or other wearing-apparel.

My invention consists of a spring-actuated lever or latch detachably secured to the upper jaw of the instrument, the lower end of the lever serving to press against the button.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 represents a front view of a setting-instrument holding a button and metallic fastener and having my improvement attached. Fig. 2 is a top view of the same. Fig. 3 represents my improvement detached from the instrument. Fig. 4 represents an end view of the upper jaw of an instrument having my improvement applied thereto. Fig. 5 represents a front side view, partly in section, corresponding to Fig. 4, showing the fastener, &c., inserted from the front end of the jaw instead of the front side, as shown in Fig. 1. Fig. 6 represents a modification of the upper jaw for attaching my invention.

A and B represent the upper and lower jaws of a common setting-instrument, the former, in the case of Fig. 1, being provided with a recess for the button *h* and a grooved slot for the reception of the shank of the button and the loop or eye of the fastener *i*, the portion of the recess forming the bottom thereof being tapering or wedge-shaped in cross-section.

C represents the clamping-piece, provided with a set-screw, *c*². Said piece C is further provided, at right angles thereto, with an arm or projection, *e*¹, the latter being cylindrical and adapted to receive and retain the spring *e*.

D is a latch or lever having enlargements *d*¹ and *d*² at the ends thereof, and loosely mounted on the screw *d*, the latter secured to the end of the projection *e*¹, before referred to.

e represents a spiral spring, one end thereof being secured to the clamping-piece C and the other or free end connected with the lower arm, *d*², of the lever D.

In Figs. 4 and 5 my improvement is represented as applied to a setting-instrument where a two-prong staple is used, the latter inserted in a groove, *a*, from the front end of the instrument, the end portion of said jaw being made of equal thickness or parallel with the face of the jaw, the eye of the button, when placed therein, resting against the end of said groove *a*. In this case I make a wedge-shaped projection, *d*³, on the inner short arm, *d*², of the spring-lever.

Setting-instruments as ordinarily constructed are unprovided with means for firmly holding and steadying the button and fastener in position preparatory to attaching them to the fabric. With my invention the user is saved the annoyance and inconvenience incident to the operation of attaching buttons—such as having the button or fastener drop out of the jaw—or in having the fastener-prongs standing at an angle with the face of the jaw instead of perpendicular therewith.

In the operation of my invention the end *d*¹ of the spring-lever D is first pressed back sufficiently to allow the button and its pronged fastener to be placed in the jaw A of the instrument, when by removing the pressure on said lever the latter is made to assume a nearly vertical position by the force of the spring *e*, thereby causing the end *d*² of the lever to press against the button and force it into the slot of the wedge-shaped recess of the jaw A, as in Fig. 1.

In Fig. 5 the button is pressed against the end of the slot *a*, one side of the button resting on top of the jaw, the opposite side of the button being held in position by means of the wedge *d*³ of the arm *d*² of the lever, as shown.

For the purpose of applying my improvements to instruments now in use, I make it detachable, as represented complete in Fig. 3, the same being attached to the instrument, in Figs. 1 and 2, by the set-screw *c*². I may, how-

ever, in new instruments, cast or form the projection *e'* upon the jaw A. (See Fig. 6, or as modified in Figs. 4 and 5.)

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

1. The combination, with jaws of a button-setting instrument provided with a recess and slot, of the clamp *c* and spring-actuated lever
10 D, said clamp adapted to be detachably secured to the jaw, substantially as shown and set forth.

2. The attaching device for setting-instruments for buttons, consisting of the clamp *c*,
15 provided with set-screw *c*² and arm *e'*, the lat-

ter adapted to receive the spiral spring *e*, and lever D, substantially as described and shown.

3. The combination, with jaws of a button-setting instrument provided with a slot opening from the outer end thereof, of the arm or
20 projection *e'* and spring-actuated lever D, the latter adapted to wedge the button and fastener in position, substantially as shown and described.

In testimony whereof I have affixed my signature in presence of two witnesses.

JAMES F. THAYER.

Witnesses:

GEO. W. PRENTICE,
F. A. SMITH, Jr.