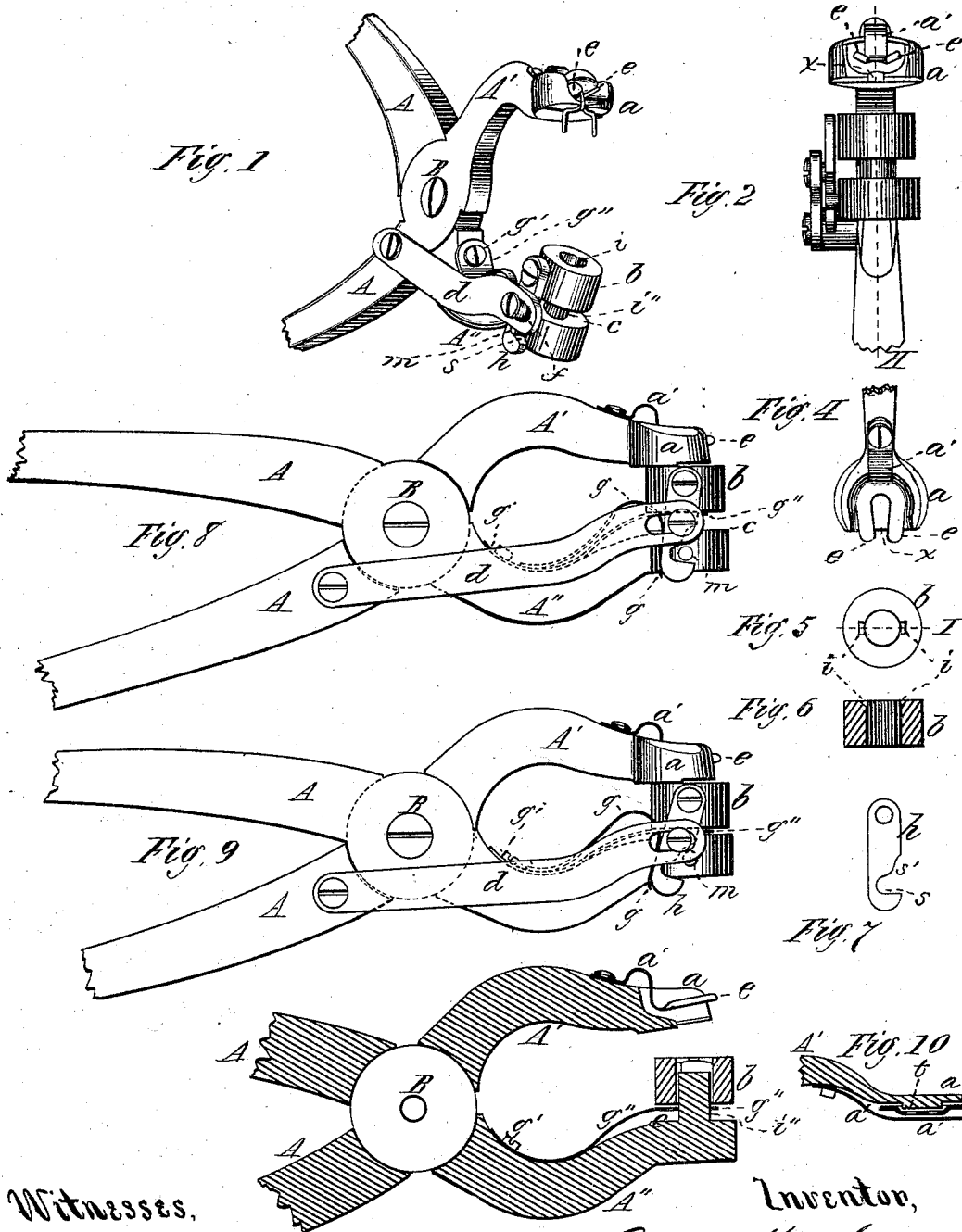


A. MOREHOUSE.

Devices for Attaching Buttons and Fastenings to Fabrics.

No. 147,514.

Patented Feb. 17, 1874.



Witnesses,

B. B. Buckland.

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Fig. 3

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN DEVICES FOR ATTACHING BUTTONS AND FASTENINGS TO FABRICS.

Specification forming part of Letters Patent No. 147,514, dated February 17, 1874; application filed December 31, 1873.

To all whom it may concern:

Be it known that I, AARON MOREHOUSE, of Danbury, in the county of Fairfield and State of Connecticut, have invented a new and useful Device for Attaching Buttons and their Metallic Fastenings to Leather or other Fabric; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description thereof, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of the device represented as open, and with a common eye-button and its fastening held therein ready for its attachment to the fabric. Fig. 2 is a front-end view of the device. Fig. 3 is a longitudinal view through both levers at line H. Fig. 4 is a plan view of the end of the lever, which holds the button and its fastening. Fig. 5 is a plan view of the die. Fig. 6 is a transverse section of the same at line I. Fig. 7 is a side view of the latch. Fig. 8 is a side view of the device, showing the end of the lever which holds the button and its fastening brought down to the die, and the latch thereby drawn back a little and partially disengaged from its pin or catch. Fig. 9 is a similar side view, showing the latch drawn entirely back and disengaged from its pin, and the die grasped between the short arms of the levers; and Fig. 10 is a longitudinal section of the end of the lever, adapted to holding a common perforated button and its fastening.

My invention relates to a device for attaching buttons and their metallic fastenings to any fabric; and consists of two levers pivoted together, the short arm of one terminating in a forked piece, to which is attached a corresponding forked spring, both of which serve to hold the button and its fastening. The short arm of the other lever terminates in a piece provided with a stem, upon which slides a perforated movable die, which is moved in one direction by means of a spring, and in the other direction by the movement of the levers toward each other, and by a latch which partially supports the die while the fabric is placed thereon, and is perforated by the fastening, but which is tripped as the levers are shut to-

gether, and permits the die to be forced to the base of the stem, and allows the end of the stem to press up against the metallic fastening, and bend or clinch the prongs of the fastening against the fabric, or against a plate, or a portion thereof placed between the said prongs and the fabric.

In the drawings, A A represent two levers, which are pivoted together at B, and having the short arms A' and A'', the arm A' terminating in a piece, *a*, which is concave or hollow upon the upper side, and is forked, or has a recess, *x*, therein, and has a spring, *a'*, attached to the upper side, which spring is also forked, or has the prongs *e* to correspond with the forked piece *a*, and is so attached to the arm A' that the prongs *e* are held at a little distance from the forked part of the piece *a*. The arm A'' has a stop or shoulder at *c*, and has a stem, *i''*, made thereon, upon which is placed the die *b*, which moves longitudinally upon the stem *i''*, and this die has a latch or hook, *h*, pivoted thereto, having a catch or recess, *s*, therein, one side of which is made inclined or curved, as shown at *s'*, so that when the die is forced toward the base of the stem, the latch will slip over the pin *m* somewhat easily. A rod, *d*, is pivoted, at one end, to the long arm A of one of the levers, and at the other end is provided with a slot, *f*, through which is inserted a pin or screw, which pivots that end of the rod to the latch *h*. A spring, *g''*, is attached to the arm A'' at *g'*, one end of which partially encircles the stem *i''*, and forces the die *b* toward the end *a* of the opposite arm A', the latch *h*, and pin *m* which enters the recess *s* of the latch, limiting the outward movement of the die, and the stem *i''* is of such length that when the die is forced back to the shoulder *c* it will extend nearly through the die *b*. The spring *g* is attached to the arm A'' at *g'*, and operates against the latch *h* to keep it caught against the pin *n*. For attaching the ordinary perforated button to any fabric, I reverse the arrangement of the holding-spring *a'* upon the end of the short arm A', attaching it to the inside of said arm, as shown in Fig. 10, making the extremity of the spring forked, as before, but making the end *a* of the short arm A' solid instead of forked, and with a protuberance, *t*, upon the lower side to ap-

proximately fit the recess in the ordinary perforated button, as shown clearly in Fig. 10.

The operation of my invention is as follows: The button, with its fastening inserted in the eye, is placed above the spring *a'*, the eye of the button protruding through the opening in the spring and in the part *a*, and the fastening being held against the face of the part *a* by the spring, the fabric is placed upon the top of the die *b*. The handles *A* are then forced together, which brings the fastening or the prongs thereof down upon the fabric, and the ends of the prongs being made sharp, are forced through the fabric, the rod *d* partially drawing back the latch *h* from its pin *m*. As the prongs of the fastening perforate the fabric, they enter the inclined cavities *i* in the face of the die *b*, and the points are thereby given an inward direction toward each other. Thus far in the operation the die has had sufficient support for the prongs of the fastening to penetrate the fabric and be driven through their entire length; but, when that is accomplished, the support of the die has been partially withdrawn by the drawing back of the latch *h*, and by continuing the pressure, or applying still greater force to the levers, the power of the spring *g''* is overcome, and the die moved down upon the stem to the shoulder *c*, and the end of the stem *i''* brought up against the prongs, and firmly clinching them against the fabric. If a plate is used to receive and cover the prongs, so that the back may be smooth and even at the point where the button is attached, the plate is laid in the cavity in the face of the die, so that, if a staple or fastening is used having the prongs some distance apart, the prongs penetrate the fabric, passing inward, and are clinched against the ears of the plate or a portion thereof, and the plate pressed up against the prongs to cover them, the device being adapted to secure any desirable form of plate to the button-fastening.

In practice it is not essential that the rod *d* be employed to trip or draw back the latch, as the latter may be jointed midway to form a knuckle-joint, or may be made of a single piece, as herein shown, and may be provided with a short arm at the upper end projecting forward, which, being pressed down by a protuberance on the part *a*, the latch will be tripped, as before. The slot or opening *x* in the piece *a* may be made in one side and at right angles to the line of the levers, if desirable, without departing from the principle of its operation.

Having described my invention, what I claim as new is—

1. The combination of the slotted piece *a*, provided with a spring, *a'*, and the stem *i''*, die *b*, tripping-latch *h*, and springs *g* and *g''*, constructed and operating substantially as described.

2. The lever *A'*, provided at the end with a slot or opening, *x*, in combination with the spring *a'*, provided with a corresponding opening or slot, and the tripping-rod *d*, or equivalent tripping device, for the purpose of holding the button and its fastening while forcing the latter through the fabric, and then partially removing the support of the die to clinch the fastening, substantially as described.

3. The movable die *b*, operating upon the stem *i''*, and provided with a tripping-latch, *h*, pivoted thereto, whereby support is given to the fabric while it is being perforated with the fastening, and whereby said support is then removed, and the said stem is then allowed to pass through the die to secure the fastening to the fabric all at one and the same movement of the levers, substantially as described.

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Witnesses:

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