

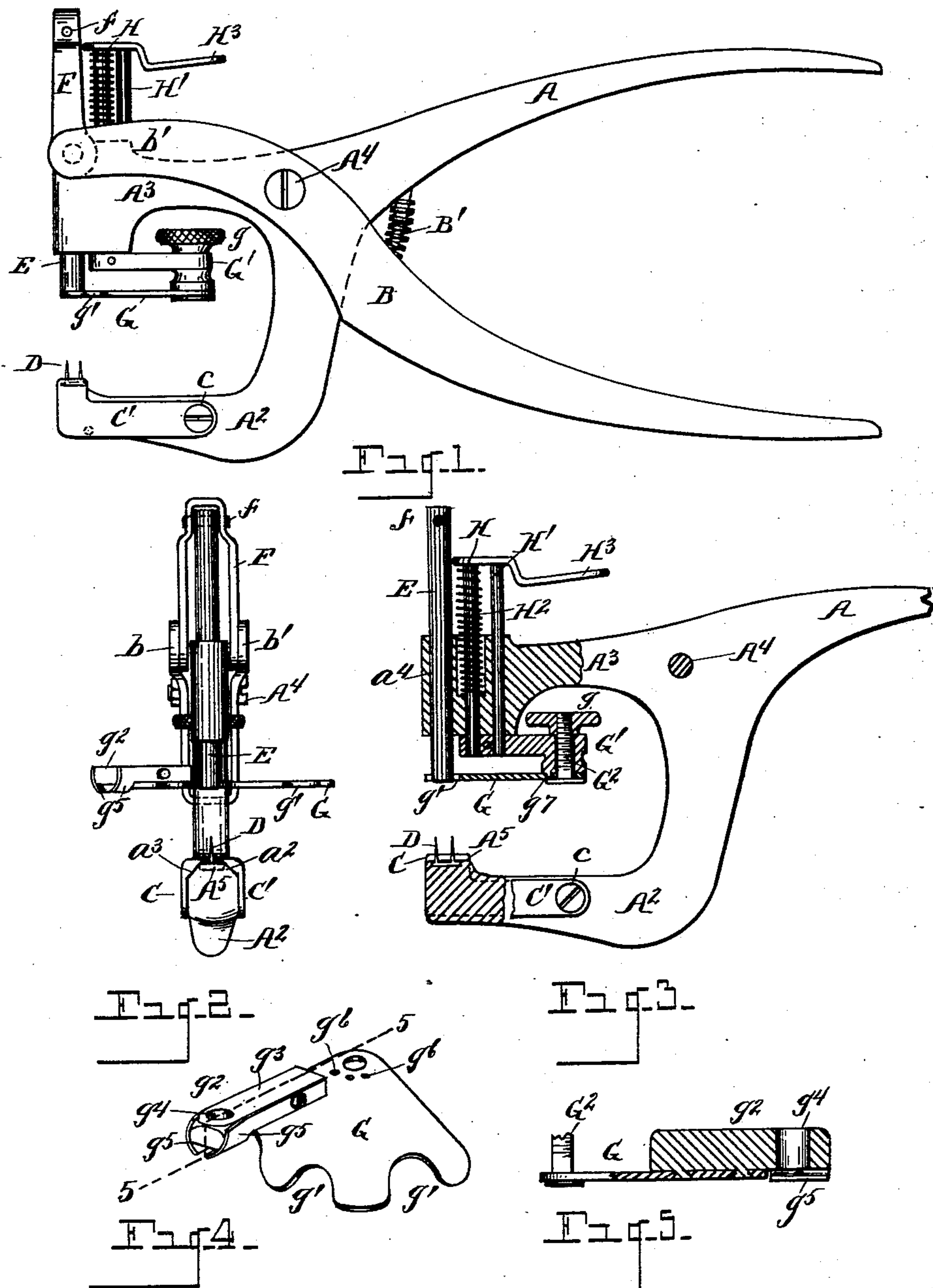
(No Model.)

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HAND BUTTON SETTING IMPLEMENT.

No. 571,954.

Patented Nov. 24, 1896.



WITNESSES

*O. B. Baerzger.*

*M. A. Martin.*

INVENTORS

*Franklin S. McKenney*  
*Frank R. Welton*

By *their Attorney*

*Newell S. Wright*

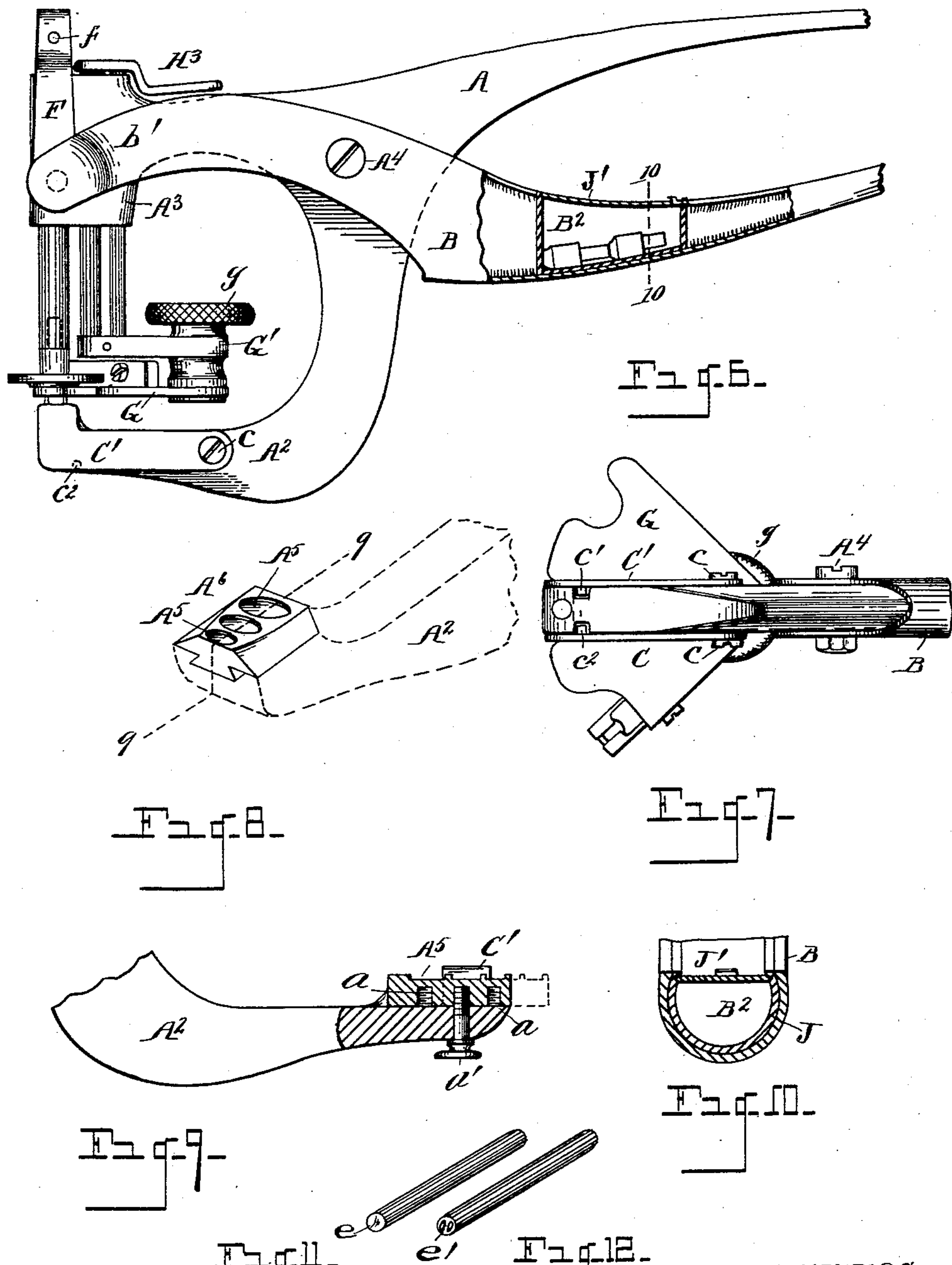
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# UNITED STATES PATENT OFFICE.

FRANKLIN S. MCKENNEY AND FRANK R. WELTON, OF DETROIT, MICHIGAN;  
SAID WELTON ASSIGNOR TO SAID MCKENNEY, AND SAID MCKENNEY AS-  
SIGNOR OF ONE-HALF TO J. M. LONGYEAR, OF MARQUETTE, MICHIGAN.

## HAND BUTTON-SETTING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 571,954, dated November 24, 1896.

Application filed December 9, 1895. Serial No. 571,502. (No model.)

*To all whom it may concern:*

Be it known that we, FRANKLIN S. MCKENNEY and FRANK R. WELTON, citizens of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in a Hand Button-Setting Implement; and we 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, which form a part of this specification.

Our invention relates to an improved hand button-setting instrument; and it consists of the construction, combination, and arrangement of devices hereinafter specified, and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a view of the implement in side elevation, the device being in inoperative position. Fig. 2 is a view in front elevation. Fig. 3 is a view of one of the jaws, partly in vertical section. Fig. 4 is a view in perspective of the button-holder. Fig. 5 is a sectional view on the line 5 5, Fig. 4. Fig. 6 is a side elevation showing the parts in operative position, a portion of the handle of the lever being in section. Fig. 7 is an inverted plan view of a portion of the device. Fig. 8 is a detail view of the seat for the fastening, the same disclosing a modification. Fig. 9 is a view, partly in longitudinal section, on the line 9 9, Fig. 8. Fig. 10 is a view in cross-section on the line 10 10, Fig. 6. Fig. 11 is a detail view showing a die-face on one end of the spindle. Fig. 12 shows the spindle with a die-setting face on the opposite end.

Our invention is designed to provide a hand button-setting implement of simple and economical construction and of superior efficiency, whereby buttons of various sizes and kinds may be secured by a suitable staple upon any article of apparel or any article to which buttons are applied.

Our invention is particularly designed to apply to all varieties of commercial buttons, the same not being limited to any specified form or style or construction of a button.

We carry out our invention as follows:

In the drawings, A represents a jaw provided with a handle and having at one end thereof two arms  $A^2$  and  $A^3$ .

B is an operating-lever fulcrumed intermediate its ends upon the jaw A, as shown at  $A^4$ . The lever is preferably forked at its outer extremity, the two forks  $b$  and  $b'$  embracing the adjacent portions of the jaw A. The lever B is preferably fulcrumed to the jaw A rearward of the arms  $A^2$   $A^3$ . The jaw carries or is formed with a seat for a fastening, (indicated at  $A^5$ ), which may be of any desired construction within the scope of our invention.

In Figs. 2 and 3 we show a single seat, and in Figs. 8 and 9 we show an adjustable slide movably engaged with the arm  $A^2$ . Thus the slide  $A^6$ , as shown in Figs. 8 and 9, may have a dovetailed or other suitable sliding engagement with the arm  $A^2$ . This slide  $A^6$  is formed with a series of graduated seats  $A^5$ . The under face of the slide  $A^6$  may be screw-tapped at various points, as indicated at  $a$ , to receive a set-screw  $a'$ , passed through the arm  $A^2$ , and holding the slide in place in any given position of adjustment.

The use of the slide  $A^6$  with the graduated seats  $A^5$  thereon is designed for various sizes of fastenings. At the sides of the arm  $A^2$  are located clamps  $C$   $C'$  for holding a fastening upon the seat. These clamps consist of spring-arms pivotally connected at their rear extremities to the arm  $A^2$ , as indicated at  $c$ , the clamps having an oscillatory engagement with the pivots at  $c$ , so that the forward ends of the clamps may have a vertical movement, while at the same time they are permitted to spring laterally. The lateral faces of the arm  $A^2$ , adjacent to the seat, are preferably beveled, as indicated at  $a^2$  and  $a^3$ , the adjacent surfaces of the clamps being similarly formed, whereby the pressure of the work may force the forward ends of the jaws downward and laterally apart and away from the seat of the fastening, so as to release the fastening when it has been set upon the button. The upper edges of the clamps are constructed and arranged to set over the head of the fastening.

D indicates a suitable two-pronged fastening. In Fig. 9 the slide  $A^6$  is shown in position.



tion for a fastening to be held upon the middle seat  $A^5$  in full lines, the dotted lines indicating an adjusted position. The clamps  $C C'$  are preferably provided with lugs or spurs (indicated in Fig. 7 at  $c'$  and  $c^2$ ) projecting into corresponding recesses in the under side of the arm  $A^2$ . These spurs  $c' c^2$  hold the clamps from displacement, permitting them to spring downward, but preventing their springing upward beyond their normal position.

The jaw  $A^3$  is constructed with a vertical orifice, (indicated at  $a^4$ ,) through which is sleeved a die-spindle  $E$ , provided with a suitable die-setting face at its lower end. The upper end of the die-spindle  $E$  is connected by a yoke  $F$  with the forward ends of the forks  $b b'$  of the operating-lever  $B$ . The yoke may have any suitable connection with one end of the die-spindle, as shown at  $f$ . By forming the spindle with die-setting faces at each end, as indicated in Fig. 11, it may readily be reversed for use with fastenings of different sizes. It will be evident that the die-spindle is reciprocated through the forward end of the arm  $A^3$  by the movement of the operating-lever  $B$ .

$G$  denotes a button-holder, which is shown supported upon an arm  $G'$ , as by means of an adjusting-screw  $G^2$ , passed through said arm, by means of which screw the button-holder may have a vertical movable engagement with the arm  $G'$  simply by the rotation of the screw, which is preferably provided with a nut  $g$ .

The arm  $G'$  is carried by two spindles  $H H'$ , sleeved through the forward extremity of the arm  $A^3$ , whereby the arm  $G'$  may have a vertically-reciprocatory movement. The spindle  $H$  is provided with a retracting-spring  $H^2$ . The spindles  $H$  and  $H'$  are provided with a pressure-arm  $H^3$ , whereby said spindles may be reciprocated through the arm  $A^3$  independently of the die-spindle and independently of the action of the operating-lever  $B$ .

The button-holder plate  $G$  is made oscillatory upon the screw  $G^2$  and is provided at its forward edge with a series of button-holding recesses of different sizes (indicated at  $g'$ ) for various sizes of buttons. Said plate is also provided with a device (indicated at  $g^2$ ) for holding a shoe-button or other shank-button. The recesses  $g'$  are designed more particularly to hold flat, eyed, or bar buttons.

The device  $g^2$  shown herewith for holding a shank-button may be of any suitable construction, but, as indicated in the drawings, consists of a bar  $g^3$ , constructed with an orifice  $g^4$ , through which the die-spindle may project, the bar  $G^3$  being provided with spring-clamps  $g^5$  to engage the shank of the button. The plate  $G$  is preferably formed with a series of orifices  $g^6$ , and the adjacent portion of the arm  $G'$  is formed with a stop (indicated in Fig. 3 at  $g^7$ ) to enter any given orifice  $g^6$  to hold the plate  $G$  in any given position of adjustment.

It will be perceived, especially by reference to Fig. 6, that the downward pressure of the

spindle upon the button as the die-spindle is forced toward the fastening carries the button-holding plate downward therewith in a corresponding manner. The die-spindle is automatically retracted by a retracting-spring  $B'$  exerting its tension against the jaw  $A$  and lever  $B$ .

$B^2$  is a receptacle engaged in the lever  $B$ . The handle of this lever may be made hollow on its under side, into which hollowed portion may be engaged a case  $J$ , provided with a removable cover  $J'$ .

The receptacle  $B^2$  is provided for holding different sizes of interchangeable dies. When these interchangeable dies are to be employed, they may have a removable engagement with the lower extremity of the die-spindle, as indicated in dotted lines, Fig. 6.

It will be apparent that the spring  $H^2$  serves to hold the button-holding device with a button when thereupon against the die, Fig. 6 showing a button held thus against the die. By this means the button is held in place during the operation of setting the fastening in connection therewith.

In Fig. 11  $e$  indicates the die-setting face at one end of the spindle  $A$ , and in Fig. 12  $e'$  indicates the die-setting face at the opposite extremity of the spindle.

What we claim as our invention is—

1. In a hand button-setting implement, the combination of a jaw provided with arms  $A^2 A^3$ , and an operating-handle, a lever  $B$  fulcrumed to said handle and itself provided with an operating-handle, a die-spindle having a reciprocatory movement through the forward end of the arm  $A^3$  and connected with the forward end of the operating-lever, a button-holding device, an additional spindle carrying said button-holding device at its lower end and having a reciprocatory movement through the forward end of the arm  $A^3$ , said button-holding device made reciprocatory independently of the reciprocation of the die-spindle, and said arm  $A^3$  provided with a seat for a fastening, substantially as set forth.

2. In a hand button-setting implement, the combination of a jaw provided with arms  $A^2$  and  $A^3$ , one of which arms is provided with a seat for a fastening, clamps to hold a fastening upon the seat, said clamps being vertically reciprocatory and laterally movable, a die-spindle sleeved through the forward extremity of the arm  $A^3$ , a graduated button-holding device, a reciprocatory spindle carried by the arm  $A^3$  supporting said button-holding device, said device made adjustable to hold different sizes of buttons, and an operating-lever fulcrumed to said jaw to reciprocate the die-spindle, substantially as set forth.

3. In a hand button-setting implement, the combination of a jaw provided with arms  $A^2, A^3$ , and an operating-handle, a die-spindle sleeved through the forward end of the arm  $A^3$ , an operating-lever to reciprocate the



die-spindle, fulcrumed to said handle and itself provided with an operating-handle, an additional spindle sleeved through the forward end of the arm  $A^3$ , an arm  $G'$  carried  
 5 by the last-named spindle, and a button-holding device having an adjustable engagement with the arm  $G'$ , substantially as set forth.

4. In a hand button-setting implement, the  
 10 combination of a jaw provided with arms  $A^2 A^3$ , a die-spindle sleeved through the arm  $A^3$ , an operating-lever fulcrumed to said jaw, a yoke connecting the upper extremity of the die-spindle to the said lever, spindles  $H H'$   
 15 sleeved through the arm  $A^3$ , an arm  $G'$  carried by the spindles  $H H'$ , a button-holding plate  $G$  having an adjustable engagement with the arm  $G'$ , substantially as set forth.

5. In a hand button-setting implement, the  
 20 combination of a jaw  $A$  provided with a handle, and having at one end thereof arms  $A^2, A^3$ , a die-spindle reciprocatory through the arm  $A^3$ , a spindle  $H$  having a reciprocatory engagement with the arm  $A^3$ , an adjustable button-holding device carried by said latter spindle  
 25 provided with means to hold various sizes and kinds of ordinary commercial buttons, and an operating-lever fulcrumed to said jaw and provided with a handle adjacent to the  
 30 handle of said jaw to reciprocate the die-spindle, substantially as set forth.

6. In a hand button-setting implement, the combination of a jaw  $A$  provided with arms  $A^2 A^3$ , a die-spindle sleeved through the arm  
 35  $A^3$ , an operating-lever fulcrumed to said jaw to reciprocate the die-spindle, a reciprocatory button-holding plate carried by the arm  $A^3$ , said plate formed with graduated button-holding recesses and with a device to hold a  
 40 shank-button, substantially as set forth.

7. In a hand button-setting implement, the

combination of a jaw provided with arms  $A^2 A^3$ , a reciprocatory die-spindle, an operating-lever fulcrumed to said jaw to reciprocate  
 45 said spindle, one of said arms provided with an adjustable device having a series of seats for different sizes of fastenings, substantially as set forth.

8. In a hand button-setting implement, the combination of a jaw provided with arms  
 50  $A^2 A^3$ , a reciprocatory die-spindle, an operating-lever fulcrumed to the jaw to reciprocate said spindle, spindles  $H H'$  sleeved through the arm  $A^3$ , a button-holding device carried by the spindles  $H H'$ , and a pressure-arm  $H^3$   
 55 to reciprocate the spindles  $H H'$ , substantially as set forth.

9. In a hand button-setting implement, the combination of a jaw  $A$ , a reciprocatory die-spindle sleeved through said jaw, an operating-lever to reciprocate the die-spindle, and  
 60 an adjustable button-holding device having a reciprocatory engagement with the jaw, the button-holding device made reciprocatory with the reciprocation of the die-spindle and  
 65 independently thereof, substantially as set forth.

10. In a hand button-setting implement, the combination of a jaw, a reciprocatory die-spindle sleeved through said jaw, an operating-lever to reciprocate said spindle, a reciprocatory arm  $G'$  carried by said jaw, and a  
 70 button-holding device having a vertically and laterally movable engagement with the arm  $G'$ , substantially as set forth.

In testimony whereof we sign this specification in the presence of two witnesses.

FRANKLIN S. MCKENNEY.

FRANK R. WELTON.

Witnesses:

N. S. WRIGHT,

M. A. MARTIN.