

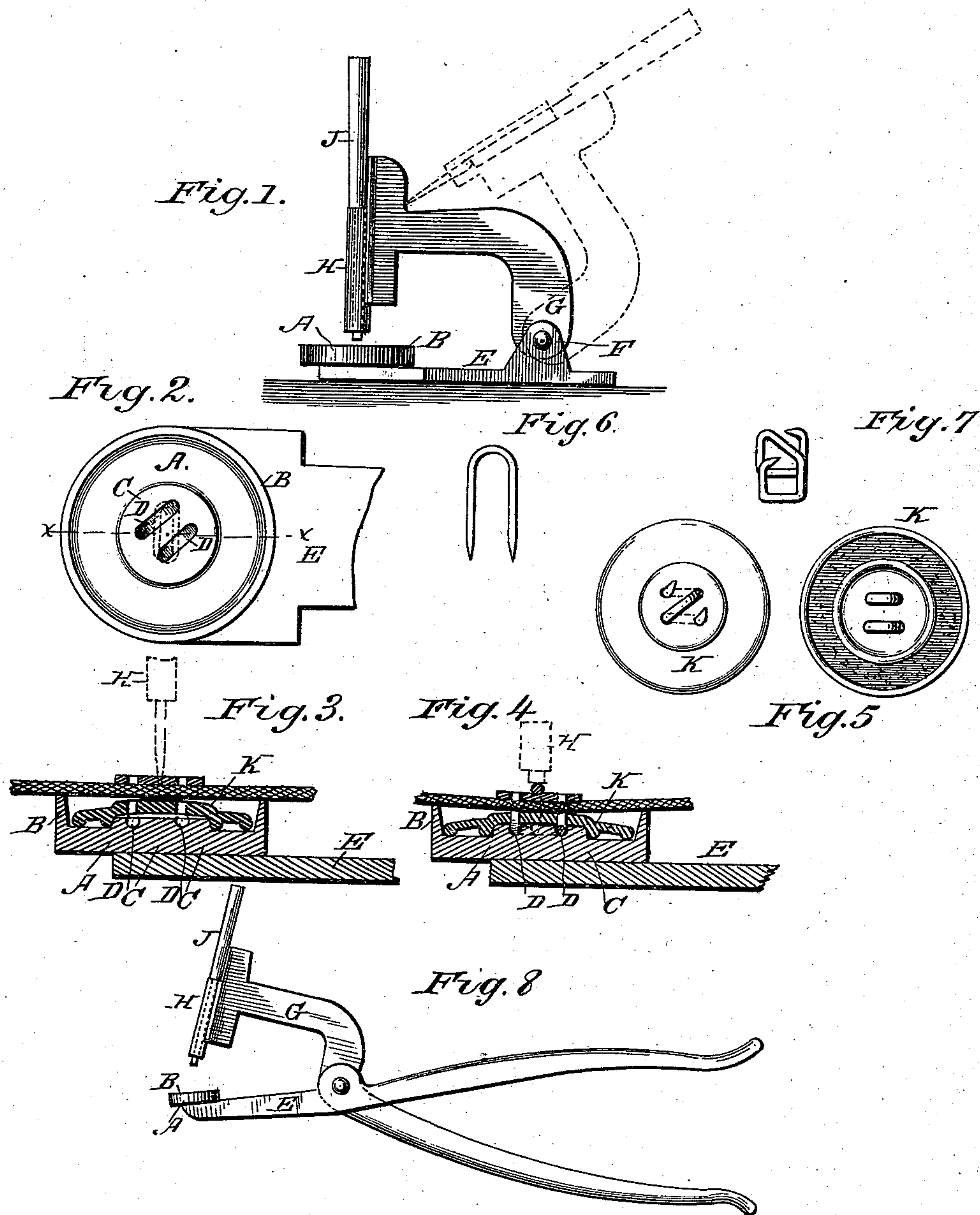
(No Model.)

H. TONE.

BUTTON ATTACHING MACHINE.

No. 376,971.

Patented Jan. 24, 1888.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HARRISON TONE, OF DENISON, TEXAS.

BUTTON-ATTACHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 376,971, dated January 24, 1888.

Application filed June 24, 1887. Serial No. 242,417. (No model.)

To all whom it may concern:

Be it known that I, HARRISON TONE, a citizen of the United States, residing at Denison, in the county of Grayson and State of Texas, have invented certain new and useful Improvements in Button-Setting Machines, of which the following is a full, clear, and exact specification, reference being had to the drawings, forming part thereof, in which—

Figure 1 is a side view of my improved device. Fig. 2 is a top plan view of the die. Fig. 3 is a cross-section on line *x x*, Fig. 2, showing the button in position ready to be secured to the fabric. Fig. 4 is a similar view showing the button secured to the fabric. Fig. 5 is a view showing front and rear of button with the staple in place. Fig. 6 is a view of the staple. Fig. 7 shows the forms of the staple after same has been pressed through the fabric, &c., and Fig. 8 is a view of a modification hereinafter referred to.

The object of the invention is to provide a machine for securing the ordinary four-holed metal button to pants; and the invention consists in the construction and arrangement of parts, as will be hereinafter fully described and claimed.

A represents the die, which is provided with an upward-projecting flange, B, around its outer edge, and with a central projection, C, having two parallel oblique-curved recesses, D. The die is mounted on a suitable base, E, having upward-projecting ears F, between which the rear end of the pivoted arm G is mounted. The forward end of the arm G has a vertical tubular guide, H, secured to or formed on it, the lower end of the said guide extending adjacent to the oblique recesses D in the die.

J represents the plunger sliding within the guide and of a length sufficient to project below the lower open end thereof.

The operation is as follows: The arm G is thrown back, as shown in Fig. 1, a staple is placed in the lower end of the guide H, and a button, K, is laid face down upon the die, the projection C extending into the concavity of the button. The article to which the button is to be secured is brought over the button, the arm G is turned down, and a washer having two apertures is placed upon the lower ends of the staple. A sharp blow is now given the plunger J, which will force the staple

through the goods and two opposite holes of the button, when the ends of the staple will strike the opposite ends of the oblique-curved recesses D, the effect of which will be to turn said ends in opposite directions upward through the other two holes of the button, as clearly shown. The two recesses D are arranged obliquely to the staple-receiving aperture in the tubular guide or holder, in order that the points of the staple may strike the opposite ends thereof.

It is manifest that the machine may be made with a fixed arm, G, or in the form of a hand implement, as shown in Fig. 8, where the parts are the same as in Fig. 1, except that the die, tubular guide, and its anvil or punch are secured at the outer ends of the two pivoted hand-levers, which serve as a base and a hinged arm, respectively.

In practice several sizes of the die may be provided, so that different sizes of buttons may be operated upon. Instead of a continuous flange, B, a series of projections may be formed, if desired. In some instances the washer may be dispensed with—as, for instance, when the material to which the buttons are to be secured is very strong.

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

1. In a machine for attaching buttons, the combination, with the plunger, of the die below the same, having oblique parallel curved recesses in its upper face, substantially as set forth.

2. In a button-setting machine, the die having a concave upper face formed with the central oblique parallel curved recesses therein, substantially as set forth.

3. In a button-setting machine, the die having a central projection to enter the concavity of a button and parallel oblique curved recesses in said projection, substantially as set forth.

4. In a button-setting machine, the die having a peripheral flange and a central projection on its upper face having parallel curved recesses, substantially as set forth.

HARRISON TONE.

Witnesses:

FRANZ KOHFELDT,
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