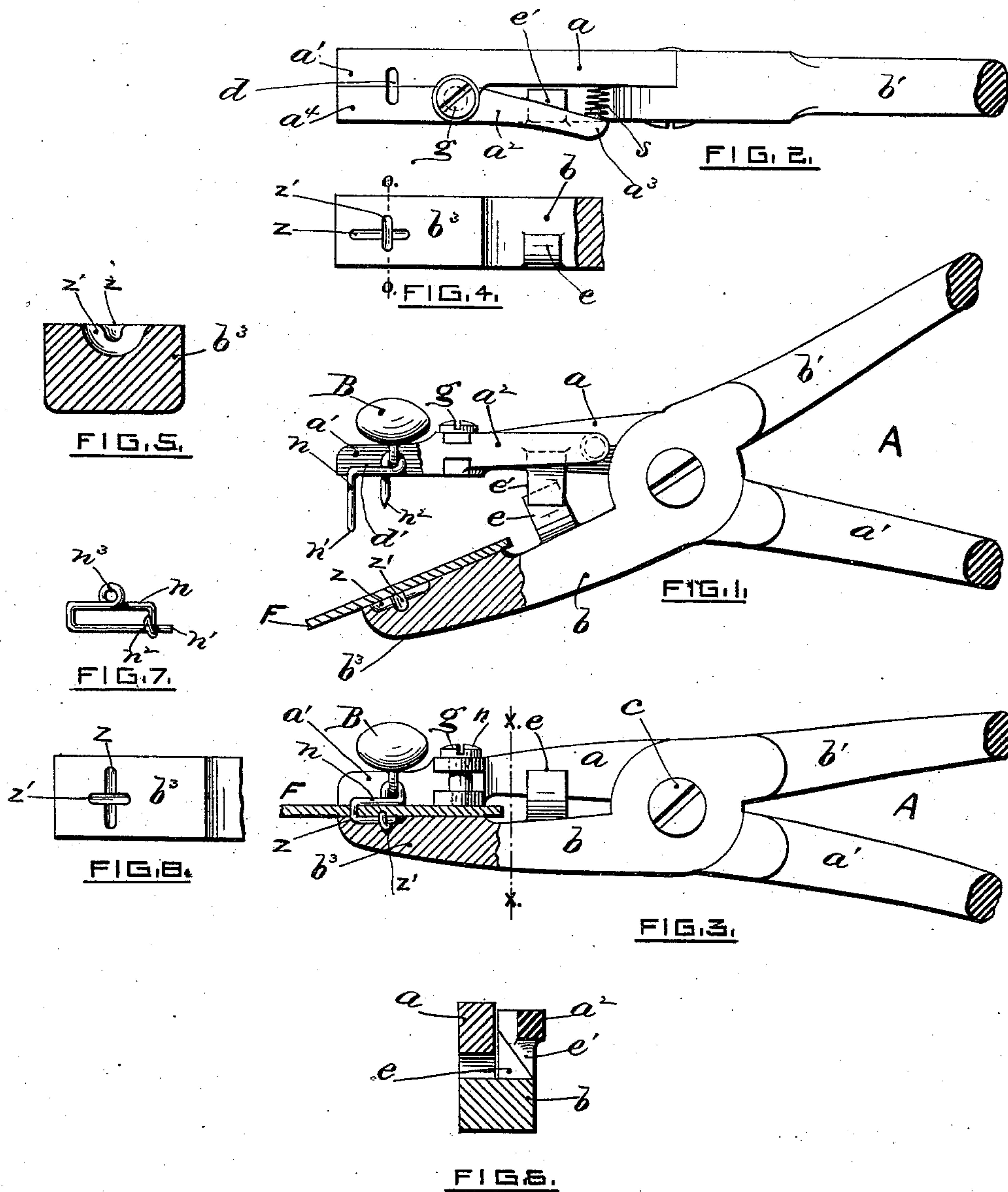


(No Model.)

G. W. PRENTICE.
BUTTON SETTING INSTRUMENT.

No. 294,744.

Patented Mar. 4, 1884.



WITNESSES,

Charles Hamman
Frank B. Grater

INVENTOR,

Geo. W. Prentice

By Geo. W. Remington
Atty.

UNITED STATES PATENT OFFICE.

GEORGE W. PRENTICE, OF PROVIDENCE, RHODE ISLAND.

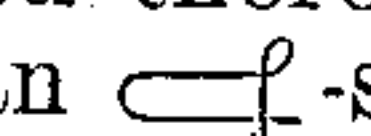
BUTTON-SETTING INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 294,744, dated March 4, 1884.

Application filed January 4, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEO. W. PRENTICE, 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 Dies 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 button-setting instruments; and it consists of a die having a peculiar form adapted to be wrought or formed in one of the jaws or members of the instrument, whereby one of the prongs of a two-pronged button-fastener is first deflected and bent parallel with and under the table or body of the fastener, after which the other prong thereof is adapted, by means of the concave portion of said die, to be deflected beneath the former prong and at right angles therewith, and also clinched thereto, the fastener then approximating an -shaped form.

My invention further consists in means for retaining the button, &c., in the instrument during the operation of attachment, all as will be more fully hereinafter set forth.

In the accompanying sheet of drawings, Figure 1 represents a front view of a button-setting instrument provided with my improvement, showing a button and fastener in position for attachment to the fabric, a portion of each jaw being in section. Fig. 2 represents a top view of the same, with button and fastener removed. Fig. 3 represents a front view of the instrument, showing the fastener clinched beneath the fabric, a portion of the upper jaw being removed. Fig. 4 represents a top view of the lower jaw, showing my improved clinching-dies formed therein. Fig. 5 represents, enlarged, a cross-section through *o o* of Fig. 4, showing the concave portion of my improved die. Fig. 6 represents a cross-section through *x x* of Fig. 3. Fig. 7 represents a button-fastener after being bent and clinched with my improved die. Fig. 8 represents a plan view of the end of the lower jaw, showing the con-

cave portion of the clinching-die parallel with the jaw.

The object of my invention is to furnish means, consisting of dies of peculiar shape in the jaw of a setting machine or instrument, whereby fasteners having two prongs may be inserted through the fabric and clinched thereunder, my invention being more particularly adapted to be used with that class of fasteners represented in W. M. Hazel's patent, No. 259,656, of June 13, 1882.

The following is a description of my invention and its operation:

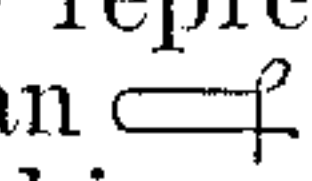
A in the drawings represents a button-setting instrument, consisting of the jaws or members *a b*, terminating, respectively, in handles *a' b'*. The upper surface of the lower jaw, *b*, has formed or secured therein at its end *b³* the longitudinal die-groove *z*, the outer end of said die being slightly concave, the die also being of uniform depth throughout, and adapted to deflect and receive the long prong *n'* of the fastener *n*.

z' represents a concave and nearly semicircular-shaped die formed in said jaw *b³*, at right angles to and bisecting the said die *z*, the die *z'* being adapted to deflect and receive the short prong *n²* of said fastener.

That portion of the upper jaw, *a*, which retains the button and fastener is divided longitudinally into two parts, the front portion, *a²*, thereof being pivoted at *g*.

d d' represent recesses formed at the outer end of the jaw *a*, adapted to retain the button *B* and its fastener *n* during the operation of attaching. To the inner arm, *a³*, of said lever *a²* is formed a wedge or cam shaped projection, *e'*, adapted to engage with a similar and corresponding lug, *e*, of the lower jaw, as fully shown.

The following is the operation of my invention: The end *a³* of the lever *a²* is depressed, thereby opening the jaw for the purpose of placing the button with its fastener *n* therein, the spring *s* serving to assist in retaining them in position. The fabric or leather to which the button is to be attached is now placed in position beneath the depending fastener, when, by compressing the jaws of the instrument, the end *n'* of the long prong of said fastener is first inserted through the fabric, and, coming in con-

tact with the curved end of the die z , is deflected along said die and beyond the concave portion z' thereof. At or about this stage of the operation the end of the short prong n^2 of the fastener is forced through the fabric and engages with the outer edge of the concave die z' , when, finally, by now fully closing or contracting the jaws, the latter prong is forced beneath and partially around the long prong, as fully represented in Fig. 3, thus approximating an  form. During the latter part of the clinching operation the wedges $e e'$ of the jaws engage with each other, thereby rigidly holding the button and fastener in position within the upper jaw. By depressing the lever a^2 the fabric, with its attached button, is released from the instrument.

The fastener shown in Fig. 7 is adapted to be clinched by means of my improved dies, or, in fact, any fastener of that class having two unequal prongs which are offset or not in line with each other.

I do not claim, broadly, a button-fastener clinched as represented, but ask protection for the setting-instrument provided with the dies adapted to clinch the prongs in the form and manner shown and described.

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

1. In a button-setting machine or instrument provided with means for retaining a

button and fastener in position, the prong-deflecting device herein described, consisting of the dies $z z'$, the latter having a concave form, and arranged at right angles with and crossing the die z , said dies being formed in a jaw or member of said instrument, substantially as shown, and for the purpose set forth.

2. The button-setting instrument A, herein described, consisting of the jaws $a b$, the former being provided with the pivoted supplemental lever or jaw a^2 , and the jaw b being provided with the clinching-dies $z z'$ and cam projection e , the whole combined and arranged substantially as shown, and for the purposes set forth.

3. In a two-jaw button-setting instrument provided with clinching-dies and wedge e , and further provided with means for retaining a button and pronged fastener in position, the combination therewith of a supplemental lever adapted to be pivoted to the button-holding jaw, and having a wedge or cam, e' , adapted to engage with the wedge e of its fellow jaw, substantially as shown, and for the purpose described.

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

GEORGE W. PRENTICE.

Witnesses:

CHARLES GREENE,
JAS. F. THAYER.