

D. HEATON.
Setting-Instrument for Attaching Buttons, Studs,
&c.

No. 168,994.

Patented Oct. 19, 1875.

Fig 1.

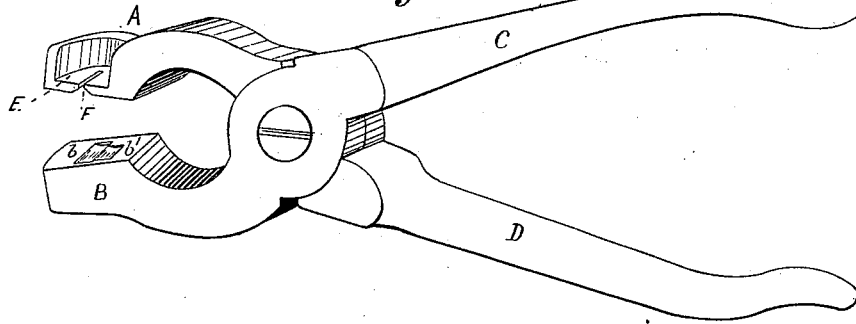


Fig 2.

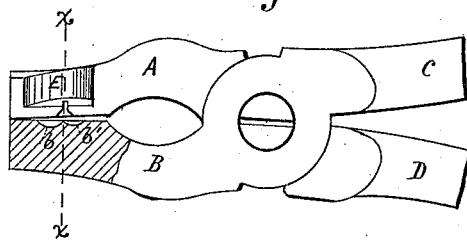


Fig 3.

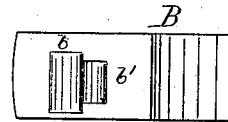


Fig 4.

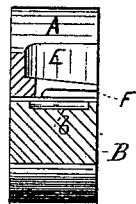
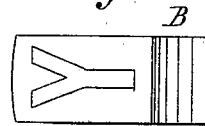


Fig 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

DAVID HEATON, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN SETTING-INSTRUMENTS FOR ATTACHING BUTTONS, STUDS, &c.

Specification forming part of Letters Patent No. 168,994, dated October 19, 1875; application filed September 30, 1875.

To all whom it may concern:

Be it known that I, DAVID HEATON, of the city and county of Providence and State of Rhode Island, have invented certain new and useful improvements in Setting-Instruments for Attaching Buttons, Studs, &c., by prongs, to wearing apparel, and of which the following is a full, clear, and exact description sufficient to enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of a setting-instrument embodying my improvements. Fig. 2 is a side elevation and partial section of the same. Fig. 3 is a plan of the face of the lower jaw of the setting-instrument, showing the form of the die. Fig. 4 is a section taken on the line *x x* of Fig. 2, and Fig. 5 is a modified form of die.

Similar letters of reference occurring on the several figures indicate corresponding parts.

My invention is designed as an improvement upon the setting-instrument for which Letters Patent were granted to me under dates of February 23, 1875, and September 21, 1875, and numbered 160,056 and 168,016, respectively; and it consists in providing the lower jaw with a novel form of die, which, taken in connection with the upper jaw, constituting the holding mechanism of the said setting-instrument, produces a more simplified, effective, and durable mode of construction than that shown in my previous patents, as will be hereinafter more fully described, and pointed out in the claims.

As described in my above-mentioned patents, the setting-instrument is designed to attach buttons, studs, &c., having penetrating-prongs for fastenings, to shoes and other wearing apparel, by putting the prongs through the material, and clinching their ends on the back part of the same; the object of the present improvements being to simplify the construction of the instrument, and the operation of attaching or setting buttons having different-sized lengths of shanks, in order to render the use of the same easy and effective, and without adjustment of parts, as heretofore, in the hands of unskillful persons, as well as others.

Referring to the drawings, and to the letters of reference marked thereon, A and B represent the two jaws of the setting-instrument, having the handles C and D operated by the hand, in a manner well known. The upper jaw A is formed with a recess, E, opening from one side for the reception of the button-head, the bottom of the recess being of an inclined or tapering shape from the rear to the front of the same, and is provided in the center with a slot, F, extending through the bottom of said recess, and having an arched or concave form in the face of the jaw. The lower jaw B is provided with an elongated die, *b*, and a shorter die, *b'*, arranged parallel to each other, and constructed in a concave form in cross-section, as shown in Figs. 1 and 2. The die *b* extends the same distance back on the face of the lower jaw as the slot F in the upper jaw A, while the shorter die *b'* is arranged in a central position to the other, as shown in Fig. 3. The die *b* receives the two front prongs of the metallic fastener, and the die *b'* the single rear prong of the same, when driven through the material to which the button is to be attached, and firmly clinched upon the back part.

It will be observed that the bottom of the recess being of an inclined or tapering shape, and the dies *b* and *b'* extending as far back as the slot F, buttons having shanks of different lengths can be readily adjusted and held in the proper position for setting in the upper jaw A, by pushing the same back in the slot until the bottom of the button rests securely in the recess, and the dies *b* and *b'*, extending back in the same direction with the slot, receive the points of the fastening-prongs, to allow of a ready and efficient means for attaching buttons, having said different-sized lengths of shanks, to shoes or other wearing-apparel.

In Fig. 5 are represented modifications of the die adapted to be used in connection with metallic fasteners of a corresponding shape, in the construction of which the general principles of my invention are adhered to, as will be readily perceived.

The construction of the said holding and clinching mechanism being as hereinbefore described, the setting operation is performed by

placing the shank of the button, having a metallic fastener attached thereto, within the slot F, and pushing the same back until the button is securely fixed in position in the recess E. The material to which the button is to be attached is then inserted between the jaws, and the handles C and D closed quickly together drives the prongs through the material, and clinches them upon the back part of the same, as fully described in my previous patents.

The advantages of my invention will be readily perceived over complicated and expensive devices used for the same purpose, inasmuch as it combines, in its construction and operation, cheapness, strength, durability, with a ready adaptation to the purpose intended.

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

In a setting-instrument for attaching buttons to wearing apparel, the upper jaw A, constructed with a slotted recess, E, having an inclined or wedge-shaped bottom, and the lower jaw B, provided with the dies *b* and *b'*, when constructed, arranged, and operating in relation to each other, substantially in the manner as and for the purpose described.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

DAVID HEATON.

Witnesses:

WALTER U. HEATON,
EDWIN C. POMROY.