

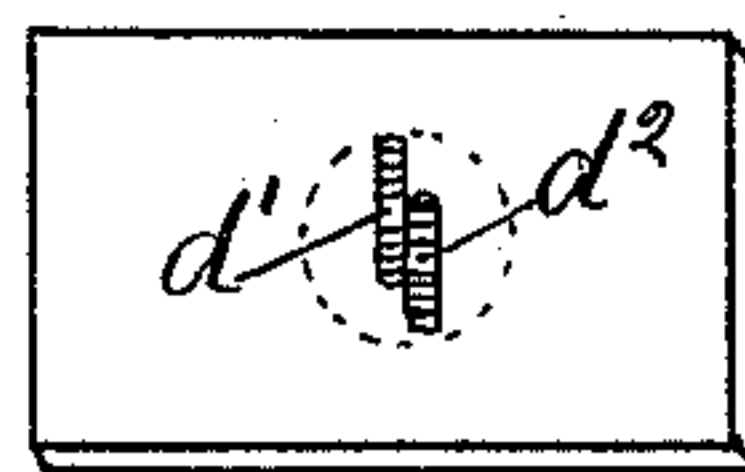
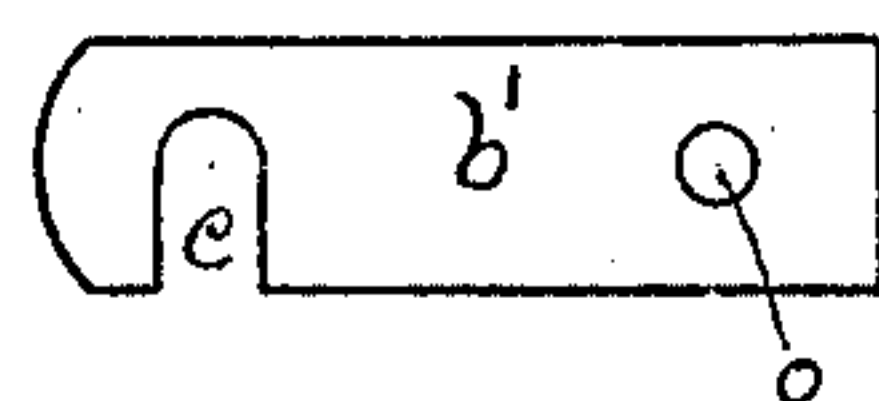
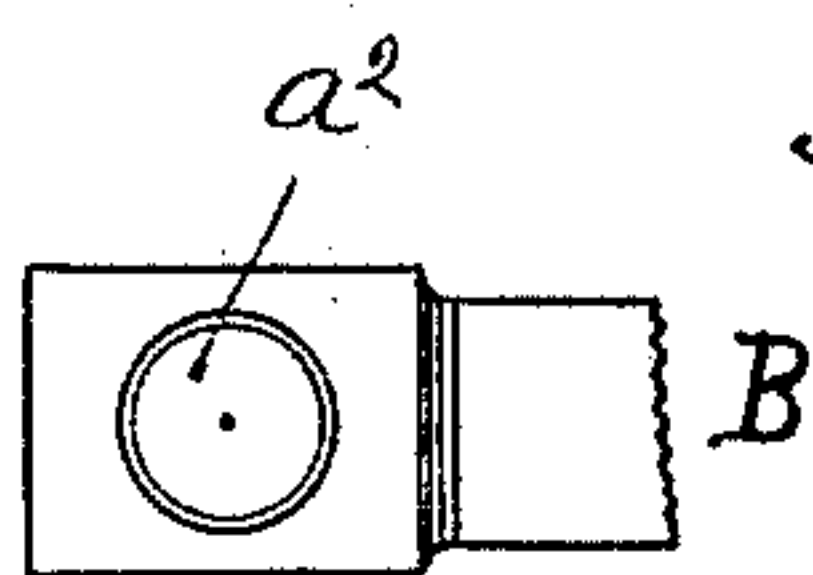
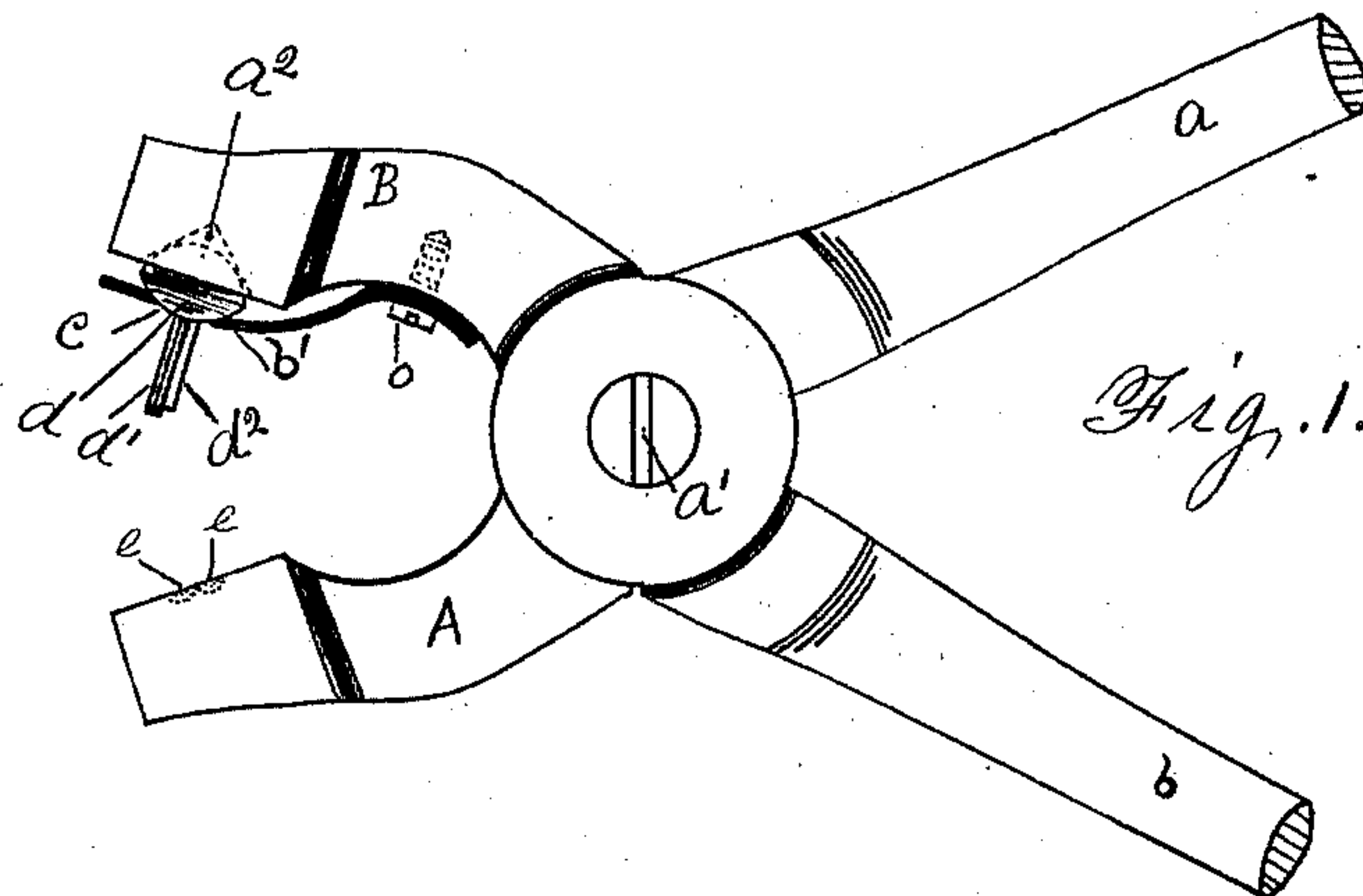
(No Model.)

F. A. SMITH, Jr.

BUTTON-SETTING IMPLEMENT.

No. 301,171.

Patented July 1, 1884.



Witnesses.  
E. Fisher.  
Charles Greene

Inventor.  
Franklin A. Smith, Jr.

# UNITED STATES PATENT OFFICE.

FRANKLIN A. SMITH, JR., OF PROVIDENCE, RHODE ISLAND.

## BUTTON-SETTING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 301,171, dated July 1, 1884.

Application filed April 18, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, FRANKLIN A. SMITH, Jr., 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 Button-Attaching Implements; and I do 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 the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to an implement for attaching buttons of that class provided with integral prongs, by which they are secured to leather or fabrics; and it consists of an implement composed of two members jointed together and terminating in arms or handles, one of said members being provided with a device for holding a combined button and fastener, the one opposite having suitably-formed indentations arranged in the face thereof for clinching the prongs of said button, all as will be hereinafter more fully described, and pointed out in the claim.

Referring to the drawings, Figure 1 represents a side view or elevation of my improved implement with button in position ready for attachment; Fig. 2, a detail bottom plan view of the upper member; Fig. 3, a detail top plan view of the lower member; Fig. 4, a plan view of the spring used on upper member; Fig. 5, a front elevation of a combined button and fastener designed for use in my improved implement; Fig. 6, a view of the under surface of a fabric, showing the position of the clinched prongs.

Similar reference-letters indicate like parts in all the figures.

In carrying out my invention, the implement is composed of two members, A B, pivoted at  $a'$ , and operated by the handles  $ab$ , in a well-known manner. The member B is provided with a conical depression,  $a^2$ , in its lower face, the enlarged portion or base being on the outer surface, as shown by dotted lines in Fig. 1, forming a bearing for the head of the button. The spring  $b'$  (shown in Fig. 4) is secured to the under sur-

face of said member B at  $o$ , as shown in Fig. 1, and consists of a double-curved flat spring having a side slot,  $c$ , at the front end, which encircles the lower portion of the button above the prongs, said slot being located directly under the conical depression  $a^2$ , and secured at its opposite end to member B, as before described, constituting the holding mechanism for the button, retaining it in position in said conical depression during the operation of attachment, as shown in Fig. 1. The opposite member, A, is provided with two elongated indentations,  $e$ , which are wrought in the face of said member, located side by side, with the outer end of each extending beyond the inner end of the opposite, as shown in Fig. 3, said indentations forming the clinching mechanism of the implement. The construction of said holding and clinching mechanism being as described, the operation of attachment is performed by placing the head  $d$  of the pronged button in the conical depression  $a^2$ , the prongs  $d'$   $d^2$  extending downward through the slot  $c$  of the spring  $b'$ , as shown in Fig. 1, said slot encircling the under portion of the button above the prongs, which stand directly over the indentations  $e$  in the opposite member. The parts now being in position, the material is inserted between the members, the prongs  $d'$   $d^2$  are placed on the spot where the button is to be attached, and by a single movement of closing the two members the prongs are pressed through the fabric, and on coming in contact with the indentations  $e$  are caused to pass each other and be clinched on the under surface, assuming the positions to each other as shown in Fig. 6, thus completing the attachment.

It will be observed that the spring does not interfere with the button, being clinched close to the surface of the fabric, as the slot in said spring is of sufficient width to encircle the button, as before described, above the prongs, and therefore is not interposed between the head and material, thus preventing the button from dropping down and rendering the prongs liable to catch into or abrade anything coming in contact with them.

The shape of the depression  $a^2$  being conical renders it self-centering, also admits different-sized buttons, and, having a small bearing, is not



liable to abrade or injure the surface of the button. The peculiar form and arrangement of the indentations *e* cause the prongs of the button to be clinched, as before described, in a strong and efficient manner, not easily disengaged, 5 and allows a free movement in use.

Besides the use in connection with a hand-instrument, as herein set forth, the said holding and clinching mechanism is applicable to 10 organized machines to be operated by treadle or power.

Having described my invention, I claim—

The pronged button-attaching implement

herein described, consisting of the member A, provided with the indentations *e*, formed, as 15 described, in the solid face thereof, in combination with the member B, having the conical depression *a*<sup>2</sup> and slotted spring *b*<sup>1</sup>, the whole arranged and adapted for use substantially as shown and described. 20

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

FRANKLIN A. SMITH, JR.

Witnesses:

GEO. W. PRENTICE,  
CHARLES GREENE.