(No Model.)

R. D. GATES.

NEEDLE FOR ATTACHING BUTTONS.

No. 263,890. Patented Sept. 5, 1882.

FIG. 1.

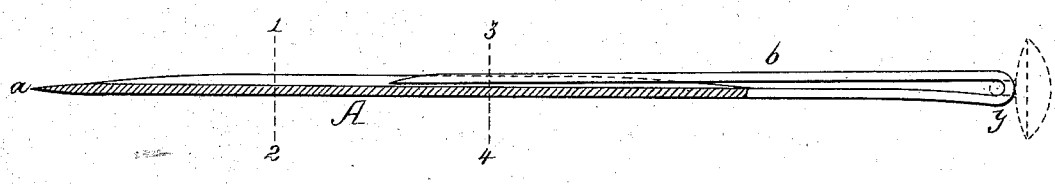


FIG. 2.

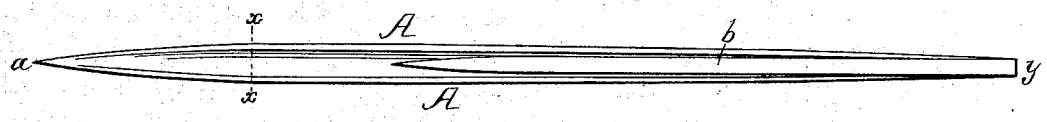


FIG. 3

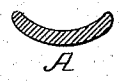
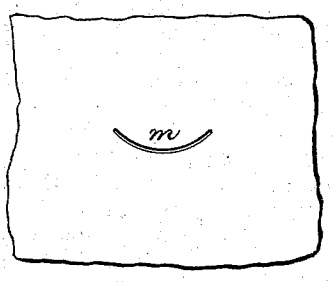


FIG. 4



FIG. 5



Witnesses:
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H. L. Fulenwider.

Inventor
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by his Attorneys
Howson and Sons

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

ROBERT D. GATES, OF PHILADELPHIA, PA., ASSIGNOR, BY MESNE ASSIGNMENTS, TO HIMSELF, AND SAMUEL STERNBERGER, JULIUS HIRSHFELD, AND RICHARD F. DONOVAN, ALL OF SAME PLACE.

NEEDLE FOR ATTACHING BUTTONS.

SPECIFICATION forming part of Letters Patent No. 263,890, dated September 5, 1882.

Application filed April 7, 1881. Renewed May 25, 1882. (No model.)

To all whom it may concern:

Be it known that I, ROBERT D. GATES, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented an Improvement in Needles for Attaching Buttons, of which the following is a specification.

My invention relates to an improvement in that class of needles which have, in place of the usual eye, a loop formed by bending over the end of the shank; and the object of my invention is to so construct a needle of this class that it will be especially available for attaching buttons to shoes, &c.

In the accompanying drawings, Figure 1 is a side view, partly in section, of my improved needle drawn to an enlarged scale; Fig. 2, a plan view of Fig. 1; Figs. 3 and 4, transverse sections on the lines 1 2 and 3 4, Fig. 1, and on a still larger scale than said figure; and Fig. 5, a diagram showing the character of the incision made by the needle.

A is the shank of the needle, having at one end the point *a*, and bent over at the opposite end to form the loop *b*. The shank A is widened gradually from the point to about the line *x*, from which point it tapers to the point *y*, where it is bent to form the loop *b*. As the shank widens from the point it assumes the dished or concavo-convex form shown in Fig. 3, and this dished form is preserved throughout almost the entire length of the shank, the pointed end of the loop and the part adjacent thereto occupying a position in the recess formed by thus dishing the shank, as shown in Fig. 4. The concavo-convex or dished shape of the body of the shank is the main feature of my invention, for when the needle so shaped is passed through the leather or fabric to which the button is to be applied a segmental incision is formed in said material, as shown in Fig. 5, and the flap *m* thus produced is at liberty to yield in either direction to accommodate the eye of the button or the loop of the metallic fastener employed to secure the same, there being no tendency to tear the leather as there is when a straight incision is formed therein.

The button is applied to the needle by slipping the eye of said button under the loop until it occupies the position shown by dotted lines in Fig. 1.

I claim as my invention—

The within-described button-attaching needle, having the point *a*, concavo-convex or dished shank or body A, and bent end forming a loop, *b*, adapted to enter the eye of the button, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

R. D. GATES.

Witnesses:
JAMES F. TOBIN,
HARRY SMITH.