

(Model.)

J. H. APPLEGATE.
Button Hole Sewing Machine.

No. 234,451.

Patented Nov. 16, 1880.

Fig:1.

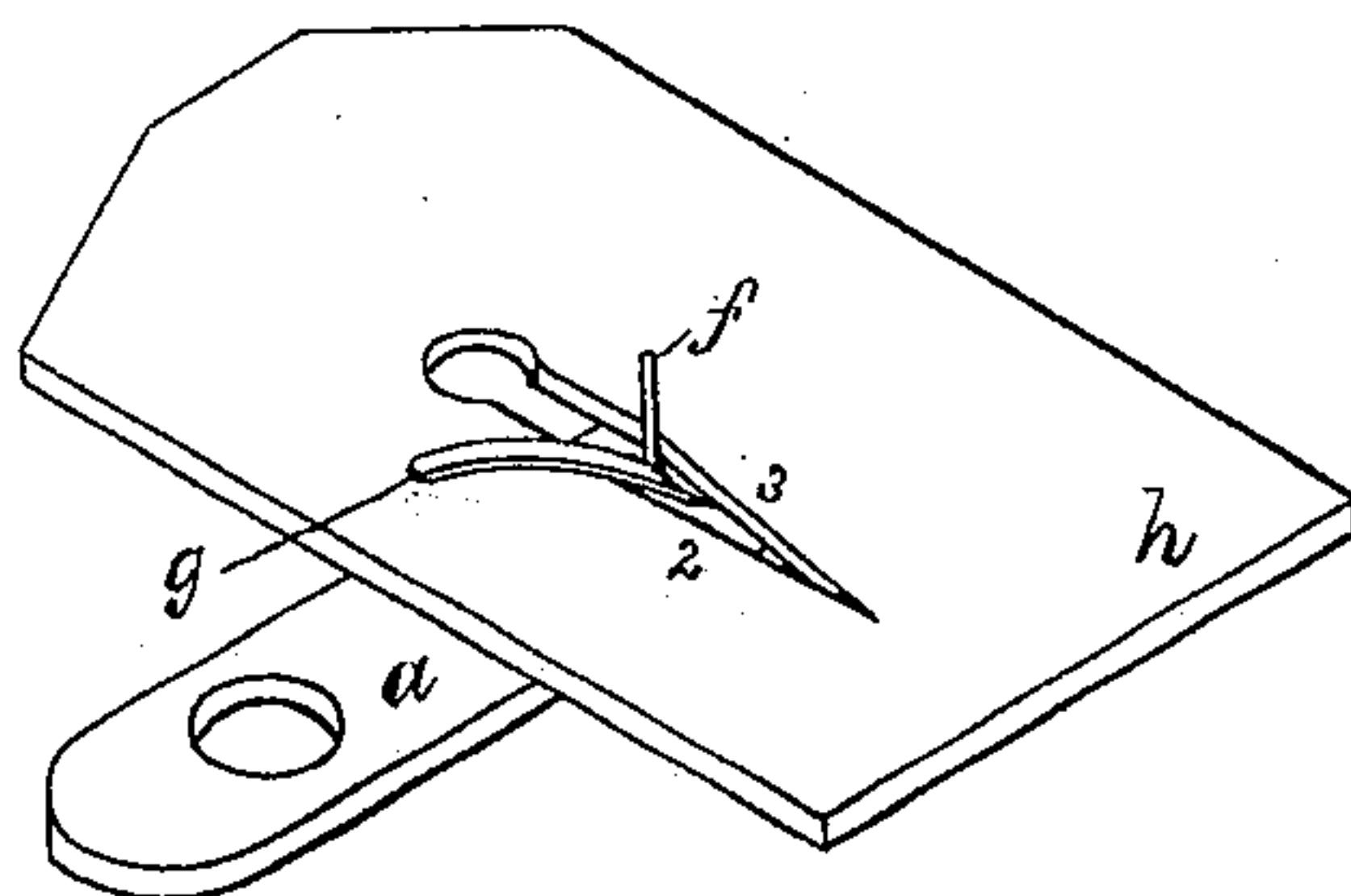


Fig:2.

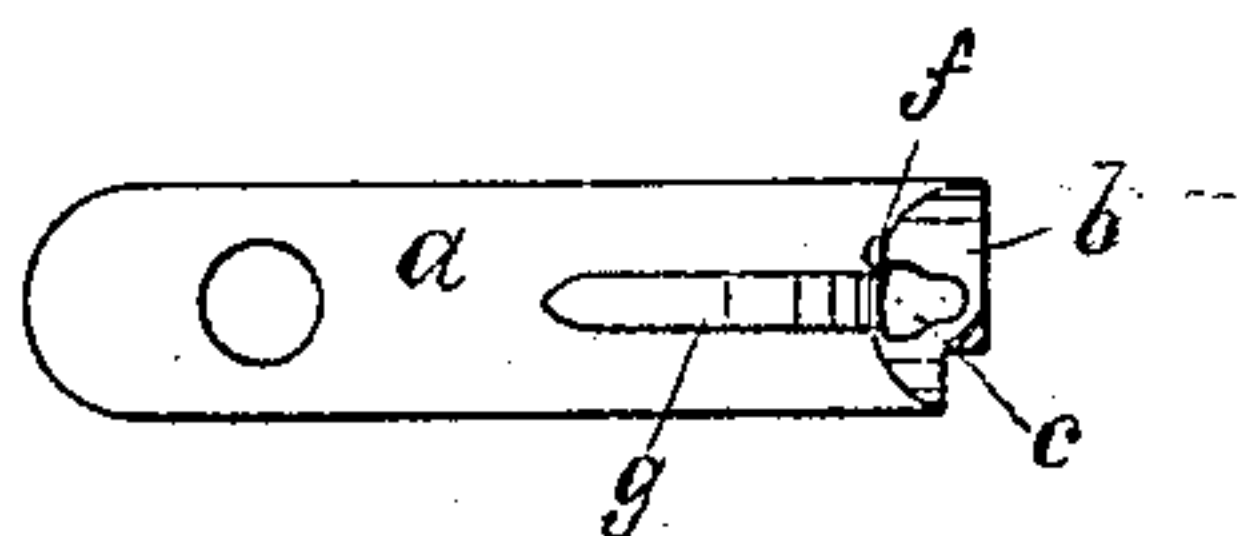


Fig:3.

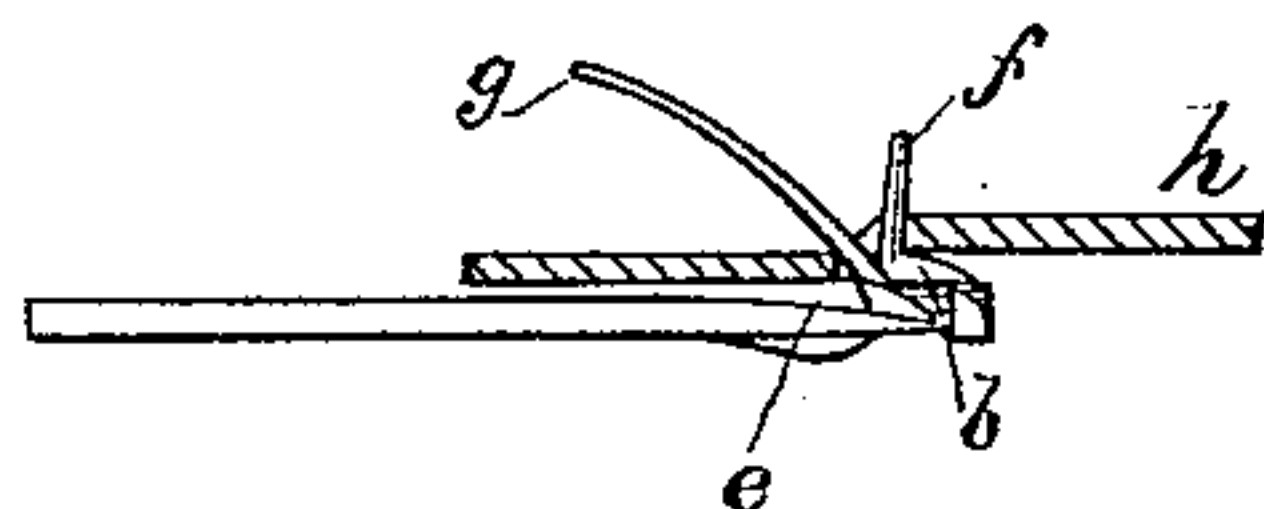
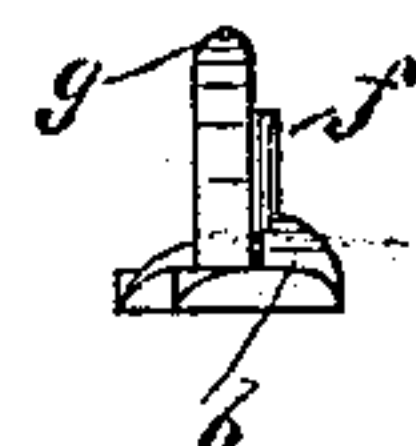


Fig:4.



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UNITED STATES PATENT OFFICE.

JOHN H. APPLGATE, OF MALDEN, ASSIGNOR TO GORDON McKAY, TRUSTEE,
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BUTTON-HOLE SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 234,451, dated November 16, 1880.

Application filed June 4, 1880. (Model.)

To all whom it may concern:

Be it known that I, JOHN H. APPLGATE, of Malden, county of Middlesex, State of Massachusetts, have invented an Improvement in

5 Button-Hole Sewing-Machines, of which the following description, in connection with the accompanying drawings, is a specification.

This invention relates to sewing-machines for button-hole work; and my invention consists in a throat-plate provided with a guide and a depressing device to force one edge of the button-hole to be stitched below the other edge, to thus enable the looper or other device which operates within the slit to work

15 readily through the slit, and not be interfered with in its movements by the part of the fabric forming the button-hole held down by the depressing device.

This my improved throat-plate is adapted to be applied to a Howe or other machine, instead of the throat-plate now commonly used when the said machine is employed for overseaming or button-hole work, and has applied to it overseaming devices of the class

25 represented by United States Patents No. 103,745 and No. 146,000, to which reference may be had.

Figure 1 represents my improved throat-plate with a piece of fabric having a button-hole cut therein placed in position about the guide and edge depressing device. Fig. 2 is a top view of the throat-plate. Fig. 3 is a side elevation of the throat-plate with a piece of fabric thereon in section, and Fig. 4 is a front-

35 end view of Fig. 2.

The throat-plate *a* has at its front end a small rest-plate, *b*, in which is made the needle-hole *c*. This throat-plate, at its rear or left-hand side, is reduced in thickness, as

40 at *e*, (see Fig. 3,) thus producing a shoulder and leaving a surface lower than the rest-plate *b*.

This rest-plate *b*, or highest surface, supports that edge of the button-hole which is being penetrated and stitched by the needle, whereas the opposite edge of the button-hole is supported upon the lower surface, *e*.

At the extreme left-hand edge of the highest surface *b*, and at the left of the needle-

hole *c*, I have placed a vertically-projecting guide, *f*, and directly in the rear of the needle-hole a backwardly-extended depressing device, *g*.

When a piece of fabric, *h*, or leather having a button-hole cut therein is placed in position about the said guide and depressing device, one edge (see edge 2) of the button-hole is forced or drawn down into the acute-angled recess formed between the thin part of the throat-plate *e* and the base of the depressing device *g*, causing the edge 2 to be forced down so as to occupy a position below the level of the opposite edge, 3, then supported upon the rest *b*, or highest part of the said throat-plate.

A throat-plate constructed as described holds open the button-hole slit substantially as shown in Fig. 1, thus affording ample opportunity for the easy passage through the said slit of the usual looper, or other device that co-operates with the needle and shuttle, or threads, to form the usual over-edge or button-hole stitch.

Prior to this my invention the material provided with the button-hole slit has had the said slit held or stretched open or expanded laterally by means of moving clamps. So, also, as in the American button-hole machine, a curved horn or stud has been projected upward at the needle-hole, and about this horn the button-hole slit has been placed, the horn serving as an edge-gage for the slit, and also as a guide for a curved thread-carrying needle, which is made to pass upward through the slit from below the cloth-plate. In this American button-hole machine it is necessary to keep the slit stretched open in order to produce proper stitching.

I claim—

1. In a button-hole sewing-machine, the throat-plate provided with the raised rest *b*, needle-hole *c*, and the guide *f*, all substantially as described.

2. In a button-hole sewing-machine, the throat-plate provided with the raised rest *b*, the needle-hole *c*, and the backwardly-inclined depressing device *g*, the throat-plate being reduced in thickness at the base of the depress-

ing device and at the edge of the rest-plate
in which the needle-hole is made, to permit
one edge of the cloth or other material in which
the button-hole slit is made to be depressed
5 and retained at a lower level than that edge
of the button-hole slit upon the said rest-plate,
as and for the purpose described.

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

JOHN H. APPLEGATE.

Witnesses:

GEO. W. GREGORY,
ARTHUR REYNOLDS.