

I. Reding,
Button Hole Clamp.

No. 113093.

Patented Mar. 28. 1871.

FIG- 1.

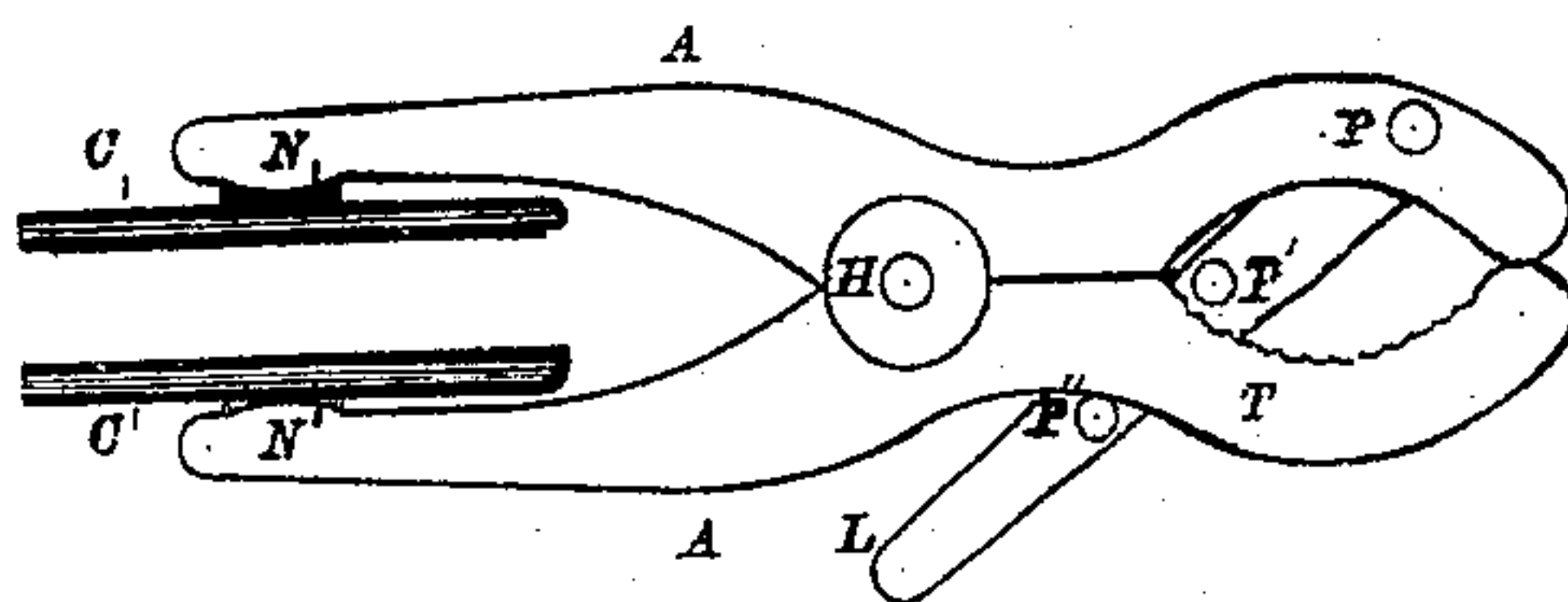
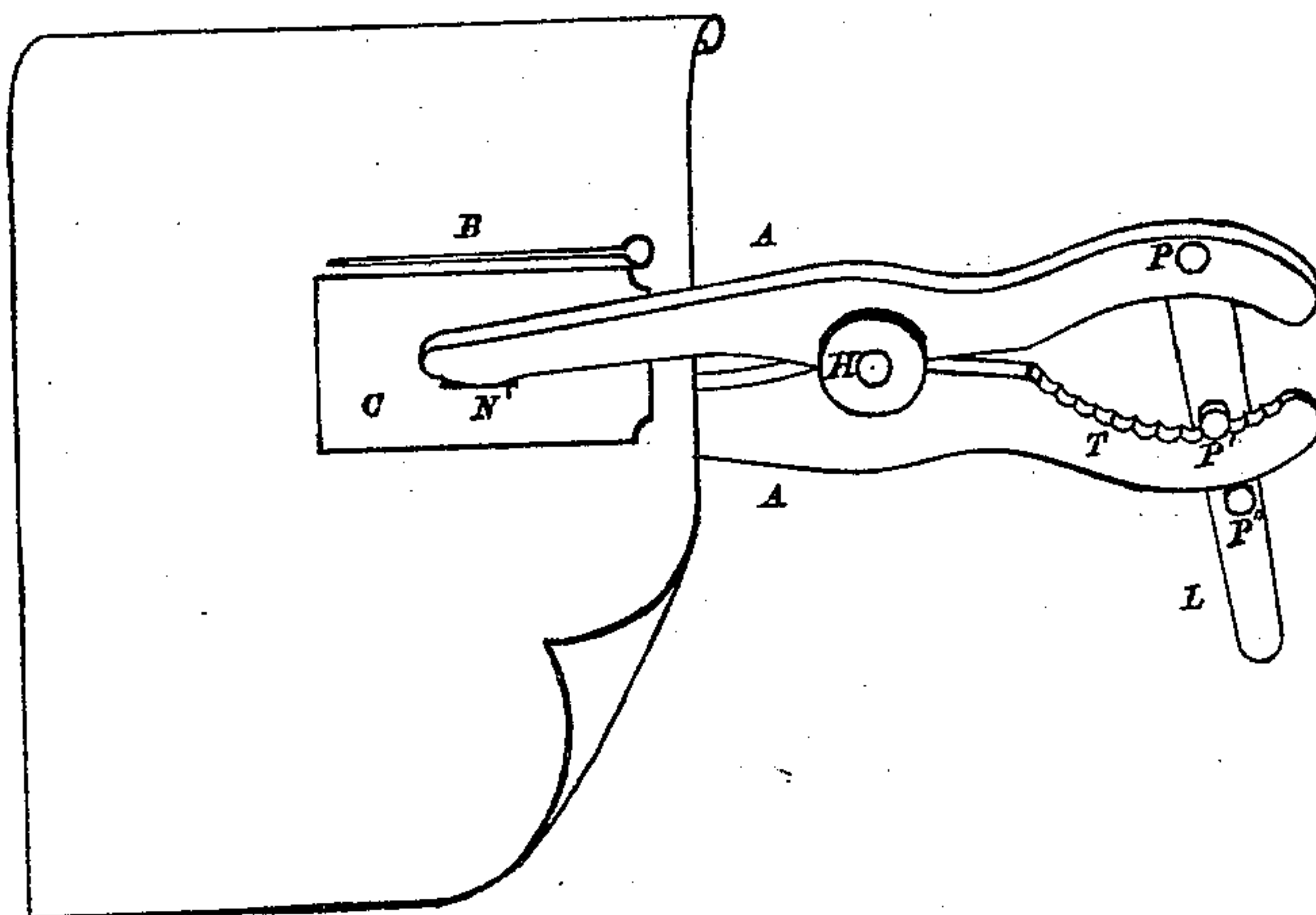


FIG- 2.



Witnessed-
George S. Skilton
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Loyal Reding Inventor
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LOYAL REDING, OF NORWALK, OHIO, ASSIGNOR TO N. S. C. PERKINS AND
M. P. SMITH, OF SAME PLACE.

Letters Patent No. 113,093, dated March 28, 1871.

IMPROVEMENT IN BUTTON-HOLE CLAMPS AND GUIDES.

The Schedule referred to in these Letters Patent and making part of the same.

I, LOYAL REDING, of Norwalk, county of Huron and State of Ohio, have invented certain Devices in Button-Hole Clamps and Guides, of which the following is a specification.

Nature and Object of my Invention.

Many persons object to machine-made and prefer hand-made button-holes. In making the latter, especially in thick cloth, the strain on the thumb and finger, grasping and holding the edge of the button-hole, is very severe.

My invention secures the edges of the cut cloth together firmly, and the whole piece of work may be handled without misadjusting these edges during the process of making the button-hole. Not only the cut edges are held, but a guide is furnished for the needle when applied on the under side to be thrust up through the material.

The plates which clamp the material are secured to tenons on the arms, which are hinged to each other near their centers. The opposite ends of the arms are curved, and in the control of a lever hung to one of the same, and engaging the other by two pins, the inner one of which engages shallow serrations or teeth on the inside of one of the curved arms in such a way as to readily fix and retain both the arms and the curved clamp-plates in position.

Description of the Accompanying Drawing.

Figure 1 is a side elevation of the clamp.

Figure 2 is a top view of the same when in position and clamping a button-hole.

General Description.

The same letters indicate the same parts.

A designates the arms of the clamp.

B, the button-hole slit.

C, the curved clamp-plates, provided centrally with a slot, loosely engaging the tenon N on the arms.

H, the connecting hinge-joint.

L, the lever which controls the position of the arms A.

P, P', and P'', the three pins inserted in said lever.

T, the teeth intended to engage the pin P'.

The curved clamp-plates C engage the cloth at the edge of the slit made for the button-hole and on each side of the material, being pressed and held down by the leverage of the lever L, acting through its three pins, which lever is pivoted to one of the arms eccentrically, so as to have an opening or closing effect upon the curved part of the arms, according to the direction in which it is moved, and, consequently, operating the curved clamp-plates C.

The pin P', being pressed over the tooth upon which

the thickness of the material grasped by the plates C begins to create resistance, will rest and be held between that tooth and the next one thereto, and in return will continue the pressure of the clamps C upon the cloth.

The curved clamp-plates C are attached to the arms A by means of a tenon projection from each toward the other on the same, which enters an oblong slit or slot near the center of the plates.

This tenon is headed or riveted sufficiently to retain the plates in place, but not so firmly as to prevent endwise and sidewise tilting motion, thereby allowing the plates to accommodate themselves to any inequality of thickness which may exist in the material compressed between the same.

The gripe of these plates C upon the material is further assisted by their curved shape, which presents two well-defined edges in each plate opposed to the same in the other.

These two edges are far enough apart—one at the edge of the button-hole and the other at some little distance, say one-half to three-quarters of an inch therefrom—to insure the hold of the clamps upon the fabrics.

The edges of the clamp-plates adjoining the button-hole not only hold the several thicknesses of cloth firmly, but they also form guides for the needle, and thus facilitate the work of making the button-hole.

These edges may further be serrated, if desired, according to the size of the stitch to be made, and thereby give precision and regularity, as well as ease and speed, in making button-holes.

While this device and arrangement are intended specially for use as a button-hole clamp and guide, they may be found useful in other cases, as where a line of stitching is to be made, in which case the clamp may be considerably elongated.

Claims.

What I claim as my invention is—

1. The curved clamp and guide-plates C, provided with holding-edges, and made self-adjusting to each other and to the material between, as described.

2. The hinged arms A, in combination with the self-adjusting clamp-plates C.

3. The arms A, one of them being serrated at one end, provided with the clamp-guides C, when attached by the hinge H, and operated by the lever L and pins P P' P'', or their equivalents.

LOYAL REDING.

Witnesses:

ISRAEL PETERS,

D. H. MANVILLE.