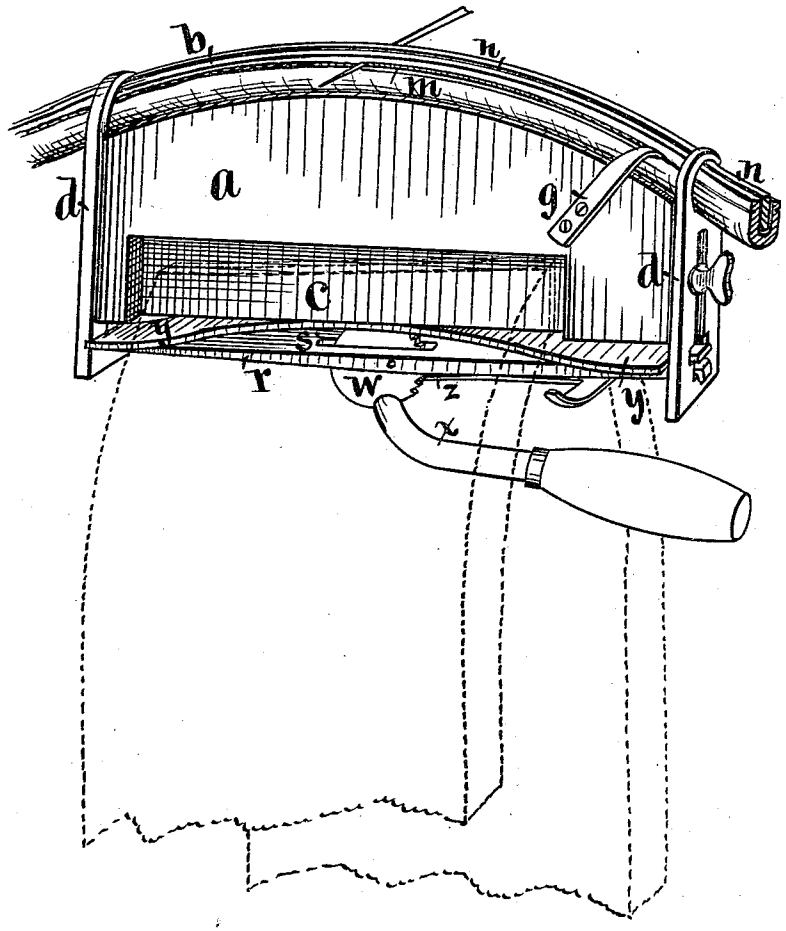
C. G. BURGER & A. D. SHOUP.

MACHINE FOR HARNESS-MAKER'S USE.

No. 192,359. Patented June 26, 1877.



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UNITED STATES PATENT OFFICE.

CHARLES G. BURGER AND AZEL D. SHOUP, OF NEWTON, IOWA.

IMPROVEMENT IN MACHINES FOR HARNESS-MAKERS' USE.

Specification forming part of Letters Patent No. **192,359**, dated June 26, 1877; application filed April 10, 1877.

To all whom it may concern:

Be it known that we, CHARLES G. BURGER and AZEL D. SHOUP, of Newton, in the county of Jasper and State of Iowa, have invented a Harness-Maker's Work-Holder for Making Rounded Lines, &c., of which the following is a specification:

The object of our invention is to facilitate the construction of rounded lines, and similar leather-work, and thereby diminish labor and save time and expense in manufacturing harness.

It consists in a work-holder formed and adapted to be clamped in the jaws of a saddler's horse, to there hold the rounded work, and open the channels of the same, as it is passed through and stitched by the operator, all as hereinafter fully set forth.

Our drawing is a perspective view illustrating the construction, application, and operation of our complete invention.

a is a wooden block forming the base of our work-holder. It has a curved top edge, and that edge is grooved to admit the under portion of the rounded work *b*, while being stitched.

c represents a recess in the side and lower portion of the block *a*, designed to admit the jaw of a saddler's clamp, as represented by the figure in broken lines. A corresponding recess is formed on the opposite side of the block. This block may be made of wood, cast metal, or any suitable material, and vary in size, as desired. *d d* are adjustable holding-hooks and spring-bearers clamped to the ends of the block *a*, by means of set-screws passed through their longitudinal slots, and into the block. The open hooks at the top ends of these pieces *d* are designed to clasp the rounded work *b*, and retain it in a fixed position in the groove formed in the curved top edge of the block *a*, while being stitched.

g represents a channel-opener in the form of a metal bar rigidly fixed to the side, and near the end of the block *a*. It terminates at its top and free end in a hook that inclines inward to enter one of the channels *m*, cut into the outside of the piece of leather that is doubled around the welt *n*, and designed to be stitched thereto. A corresponding hook-form channel-opener is attached to the block on the opposite side.

r is a straight bar that has its ends passed through the slots in the adjustable end pieces *d*, and serves as a fulcrum to support an adjusting-lever. It has a slot, *s*, in which an eccentric, *w*, is pivoted. *x* represents a lever and handle rigidly connected with the pivoted eccentric *w*.

y is a strut-spring that has its ends secured in horizontal slots formed in the lower ends of the adjustable end pieces *d*. Its body is bowed over the eccentric *w* to engage the bottom edge of the block *a*.

z is a pawl pivoted to the under side of the bar *r*, and designed to engage a segmental ratchet formed in the edge of the eccentric *w* to lock the bar *r* in a fixed position relative to the lower edge of the block *a*.

In the practical operation of our invention, the pawl or latching device *z* is disengaged from the ratchet in the edge of the eccentric *w*, and the clamping set-screws in the slots of the end pieces *d* loosened sufficiently to allow the force of the strut-spring *y* to elevate the bar *r* and the end pieces *d*, which the bar and spring carry up and down in their movements. The open hooks at the top ends of the pieces *d* are thus brought into proper position to allow the piece of rounded work *b*, to be placed under the hooks, and into the groove of the curved top edge of the block *a*. The hook-form ends of the channel-openers *g* are at the same time inserted into the furrows *m*, cut into the outside piece of leather near its top edges. The handle *x* of the eccentric *w* is then pressed downward, and the bar *r* thereby moved farther away from the block, and the end pieces *d* drawn downward to clamp the rein *b* into the groove of the block *a* by means of the open-ended and adjustable hooks at their top ends. The rein *b*, or any piece of rounded work, can be thus readily inserted, and retained in a fixed position to facilitate the operations of the stitcher. By pulling the work along as the stiching advances, the hook-form channel-openers *g* plow through and spread open the channel *m*, so that the awl and needles can be readily centered in the channel to set and fix stitches in uniform straight lines.

The extended and curved top edge of the block *a* allows the operator to stitch a greater

length of line without adjusting it than any other work-holding device known, and an entire line, or any length of rounded work desired, can, after one end is introduced, be stitched its entire length without freeing it, and by simply pulling it through as the stitching advances.

We are aware that a work-holding bed-piece, having a straight and grooved top edge, sunken sides, and vertical bores through its ends through which adjustable eyebolts were passed to clamp round work in the top groove to facilitate stitching, has been used; but we claim that our block *a*, having a curved, extended, and grooved top edge, and our adjustable hooks and spring-bearers *d*, are novel, and produce advantageous results by allowing the leather *b* to be inserted into the groove of the block, and the open-holding hooks, laterally, and much more readily than longitudinally, as required in the use of eyebolts in a block that has a straight top edge.

We claim as our invention—

1. In the construction of a harness-maker's work-holder, the block *a*, having a curved and grooved top edge, channel-openers *g*, projecting over said curved edge, and recesses *c* in its side faces, substantially as and for the purposes set forth.

2. The adjustable end pieces *d*, having longitudinal slots and openings or hooks at their top ends to receive rounded work, in combination with the block *a*, substantially as and for the purposes shown and described.

3. The channel-openers *g*, in combination with the block *a*, and the adjustable end pieces *d*, substantially as and for the purposes shown and described.

4. The fulcrum-bar *r*, carrying the latching device *z*, the eccentric *w*, having a lever-handle *x*, and the strut-spring *y*, in combination with the block *a*, and the adjustable end pieces *d*, substantially as and for the purposes shown and described.

5. The block *a*, having a rounded and grooved top edge, the channel-openers *g*, the adjustable end pieces *d*, having hooks at their tops, the eccentric *w*, having a ratchet in its edge and a rigid handle, *x*, the movable bar *r*, carrying the latching device *z*, and the spring *y*, all arranged and combined to operate, substantially as and for the purposes shown and described.

CHARLES G. BURGER.
AZEL D. SHOUP.

Witnesses:
Mrs. C. G. BURGER,
P. E. SHOUP

1,250 words.