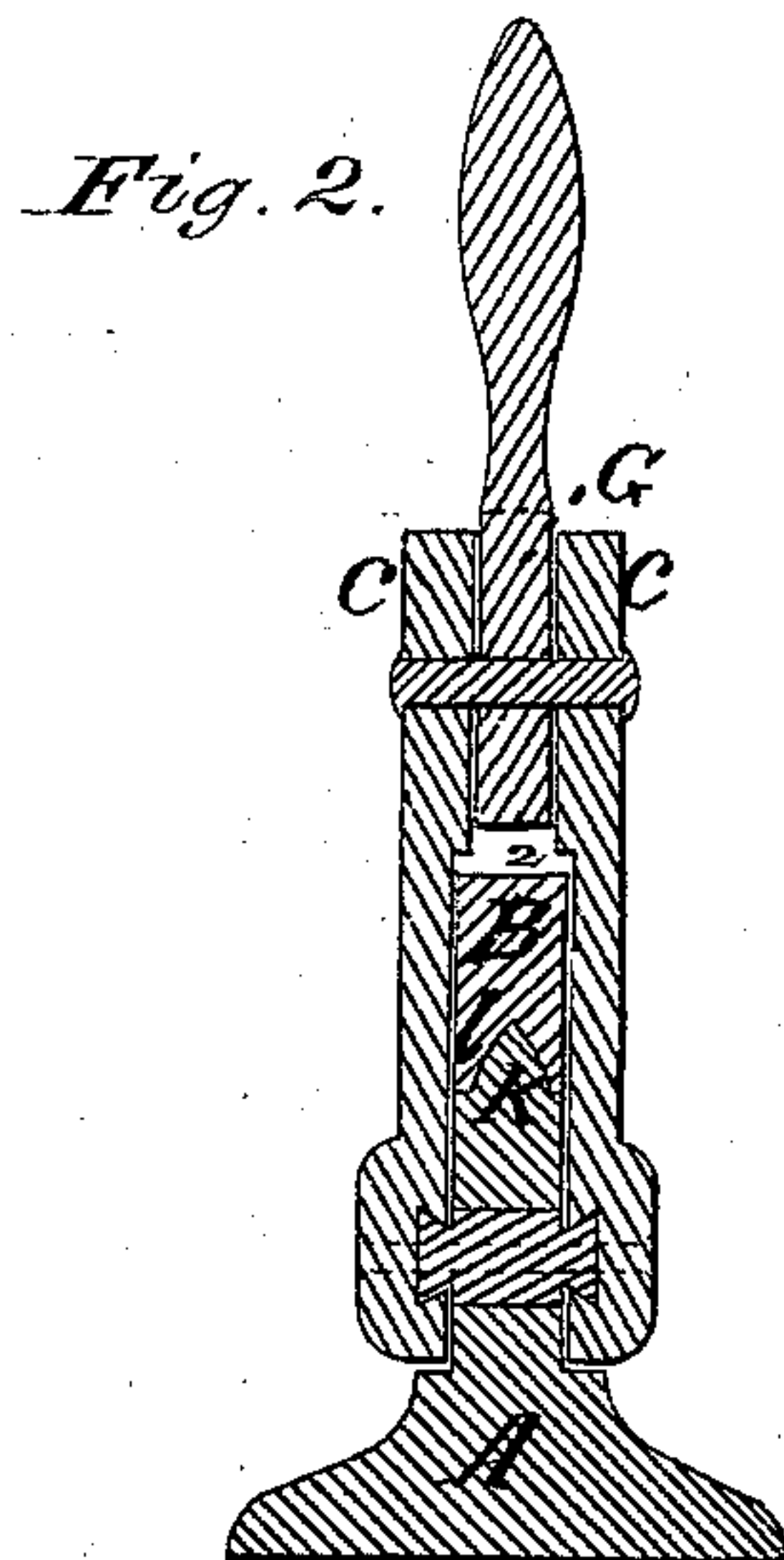
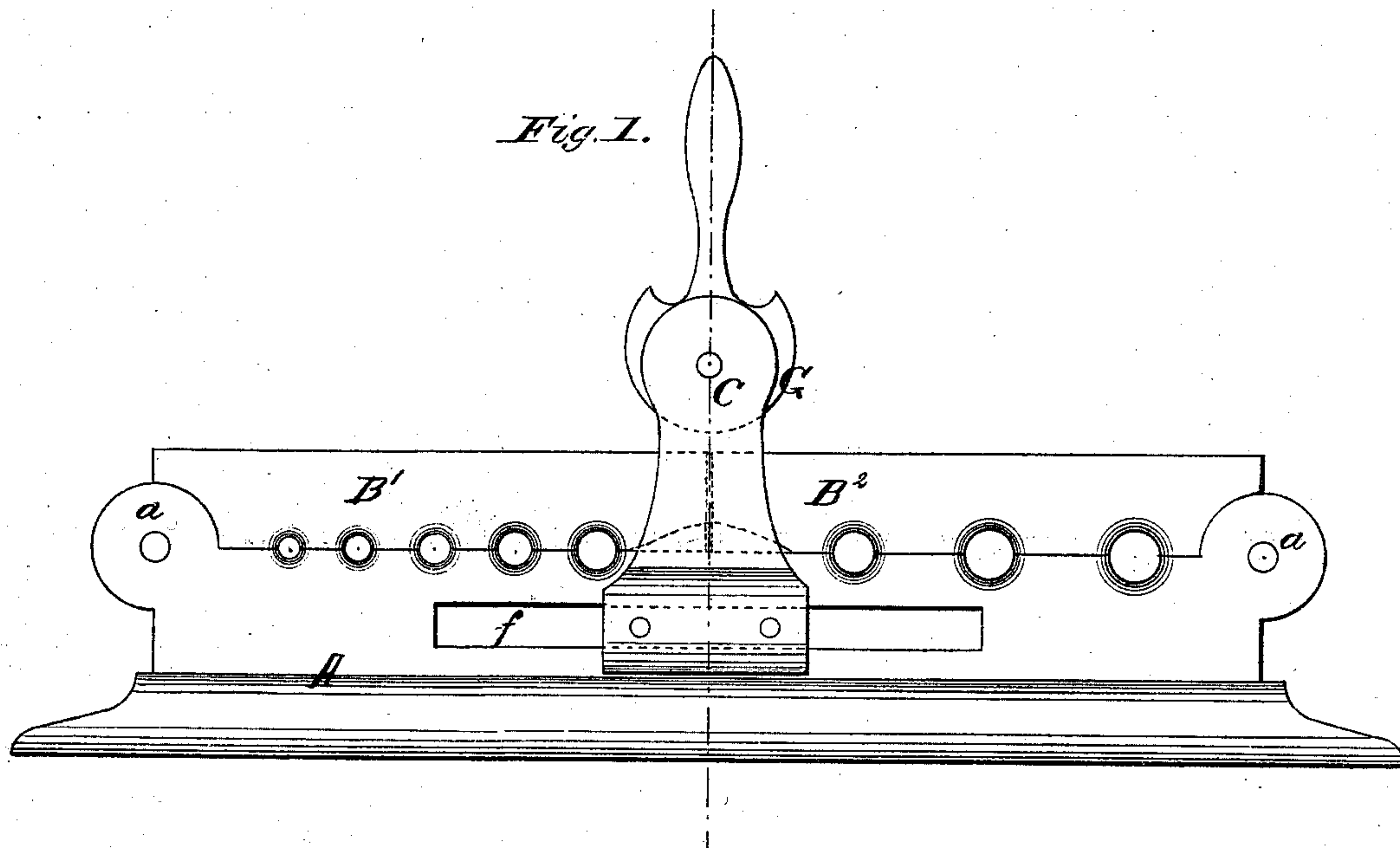


H. F. OSBORNE.

Machines for Rounding Leather.

No. 150,704.

Patented May 12, 1874.



Witnesses:

A. K. Du Hamel  
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Inventor:

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by.

H. J. Abbott.

his Atty.



# UNITED STATES PATENT OFFICE.

HENRY F. OSBORNE, OF NEWARK, NEW JERSEY.

## IMPROVEMENT IN MACHINES FOR ROUNDING LEATHER.

Specification forming part of Letters Patent No. **150,704**, dated May 12, 1874; application filed October 24, 1873.

*To all whom it may concern:*

Be it known that I, HENRY F. OSBORNE, of Newark, county of Essex and State of New Jersey, have invented certain new and useful Improvements in Machines for Rounding Leather, of which the following is a specification:

My invention relates to certain improvements in machines for rounding leather for reins, traces, &c., whereby the bars between which the leather is passed are effectually prevented from springing apart, creasing of the rounded leather is avoided, and the bars may be opened, closed, and adjusted with ease and celerity. The invention consists in a lower bar, provided with two upper bars, hinged at its ends and meeting at its center, the bars having their rounding-holes formed in the usual manner. The invention consists, further, in a clip, sliding in a slot in the lower bar. The invention consists, further, in a cam, for holding the upper bars in contact with the lower one.

The accompanying drawing represents a side elevation of my invention, partly in section.

A represents the lower bar, which may be attached to a base, so as to rest upon or be secured to the bench; or it may be formed with tongues or ribs projecting from the bottom, so as to be held in a vise in the usual manner. B<sup>1</sup> B<sup>2</sup> represent the upper bars, having their outer ends hinged to the ends of the bar A by rule-joints *a a*, and their inner ends meeting at the center of the lower bar. The bars have the rounding-holes formed in them in the usual way—that is to say, one half of the hole is formed in the lower bar, and the other half in the upper bar. C is a clip, composed of two upright standards, one on each side of the bars, having their lower ends connected and secured together by means of a flat bar, whose ends engage with dovetailed grooves in said standards, the three parts being fastened by screw-bolts or rivets; or I may secure these parts by means of a rod or screw alone, as shown in Fig. 3. This flat bar, thus forming the lower part of the clip C, slides in a slot, *f*, which is formed in the bar A, by which means the clip may be moved from one point to another. Between the upper ends of the standards a cam, G, is pivoted, in such a manner

that when its handle is in an upright position the clip may be moved from one point to another, and when the handle is pressed down the upper bar is held closely and firmly in contact with the lower bar. At the center of the upper edge of the lower bar A is formed a tongue or rib, *k*, which projects upward and engages with grooves *l* formed in the lower edges of the upper bars, near their inner ends.

In rounding-machines, as heretofore constructed, the upper half consists of a single bar, equal in length with the lower bar, hinged at one end, and fastened at the other. In some cases the fastening consists simply of a heavy weight; and in other cases it consists of a clip pivoted to the end of the lower bar, and having a thumb-screw in its upper portion, bearing upon the upper bar; and in still other cases the fastening consists of a pin or bolt, passing through eyes formed on the ends of the upper and lower bars.

In all these cases, where the bars are fastened only at the ends, there is a tendency to spring apart when the rounding-holes near the center are being used. To obviate this difficulty the clip has been made capable of adjustment to different points by means of a pin or bolt passing through its lower portion, and through perforations at different points in the lower bar; but this arrangement requires considerable time for adjustment, especially as it is provided with a thumb-screw at the upper end; and, in many cases, the workmen, particularly when working piece-work, remove the clips altogether, and use a weight at the end, and the result is a springing apart or lateral displacement of the bars, and consequent creasing and marring of the work.

All the disadvantages above referred to are avoided by my invention. By having the upper half composed of two bars, hinged at their ends and meeting in the center, they are opened and closed with more ease and celerity, and occupy less space when open than a single long bar. The distance between their bearing-points is not so great, and hence there is less tendency to spring apart, and the tongue and grooves at the center prevent lateral displacement. By having the clip arranged to slide in the slot, it may be moved from point to point with ease and rapidity, so that the

pressure may be brought to bear upon the upper bar at a point immediately or nearly over the hole containing the work, thus relieving the hinge of all strain upon it; and, by having the pressure applied by means of a cam instead of a thumb-screw, the upper bar is pressed down instantaneously instead of gradually, and the close fitting of the parts is rendered certain, and they are securely and firmly held in position.

What I claim as new, and desire to secure by Letters Patent, is—

1. A rounding-machine consisting of a lower bar, provided with two upper bars, hinged to

its ends, and meeting at or near its center, substantially as shown and described.

2. In a rounding-machine, a clip arranged to slide longitudinally in a slot in the lower bar, substantially as shown and described.

3. In a rounding-machine, a cam for holding the upper half in contact with the lower one, substantially as shown and described.

In testimony that I claim the foregoing as my invention I hereunto affix my signature this 17th day of October, 1873.

Witnesses: HENRY F. OSBORNE.

JAMES S. OSTRANDER,

ELWOOD C. HARRIS.