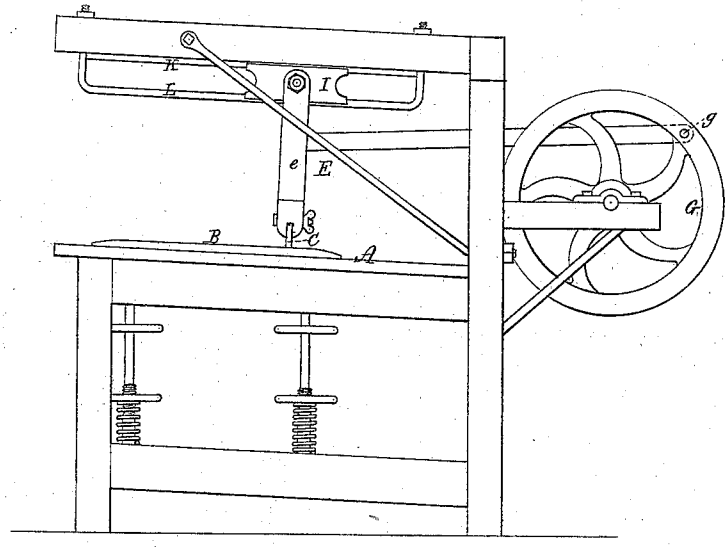
W. ELLARD.

Machines for Finishing Leather.

No. 150,849. Patented May 12, 1874.



Witnesses.
S. N. Pipe
L. N. Miller.

William Ellard,
by his attorney.
R. M. Eddy

AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

WILLIAM ELLARD, OF WOBURN, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR FINISHING LEATHER.

Specification forming part of Letters Patent No. **150,849**, dated May 12, 1874; application filed August 9, 1872.

To all whom it may concern:

Be it known that I, WILLIAM ELLARD, of Woburn, of the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Machinery for Glassing or Finishing Leather; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawing, which exhibits a side elevation of my improved machine.

The improvement has reference to the machine explained and represented in the United States patent granted to me on the 2d day of April, A. D. 1861, and numbered 875.

In the drawings, A denotes the table or frame of the machine, and B the bed upon which the sheet of leather to be glassed is to be laid, such bed being generally straight on its upper surface, except at or near the ends thereof, where it is slightly curved, as shown.

In my patented machine the T-lever for working the glassing-tool or its carrier was hinged to the latter, and had its cross-head arranged at right angles, with its shank or part pivoted to the crank-wheel; and I employed a roller at the upper part of the cross-head, to run upon a bent rail and bear at top against a curved rail or cover.

My present improvement enables me to fix the glassing-tool directly in the lower end of the cross-head, as shown at C in the drawings, in which E denotes the T-lever; *e*, the cross-head. Also, to dispense with any lengthwise curve of either the rail or retainer, and to use a straight rail and retainer to support the roller or slider I, to which the cross-head of the T-lever is pivoted or hinged.

In carrying out my improvement, I arrange the shank of the T-lever at an obtuse angle with the cross-head, in manner as shown in the drawing, the obtuseness of the angle being generally about five degrees from a right angle; and I also employ or use a straight rail, L, a straight retainer, K, and a slider, I, instead of an anti-friction roller, the said slider being grooved on its opposite horizontal edges to receive the rail and retainer. The shank of the T-lever is pivoted to a crank-pin, *g*, projecting from the driving or fly wheel G.

I have discovered that by arranging the cross-head at an obtuse angle with the shank all necessity of curving the rail and retainer is avoided; the glassing-tool, while advancing or moving in one direction, being caused to travel in a horizontal plane, it being moved off the bits in a curve while returning.

What I claim, and desire to secure by Letters Patent, as an improvement on my glassing-machine, patented April 2, 1861, is—

The solid T-lever, formed with its shank at an obtuse angle with the cross-head, and having the glassing-tool fixed to the lower end of said cross-head, as shown and specified, in combination with driving-wheel G and straight stationary guide-rail and retainer L K, under the arrangement and for operation as set forth.

WILLIAM ELLARD.

Witnesses:
R. H. EDDY,
S. N. PIPER.