

J. LIEDTKIE.
Machine for Finishing Leather.

No. 229,895.

Patented July 13, 1880.

Fig: 1.

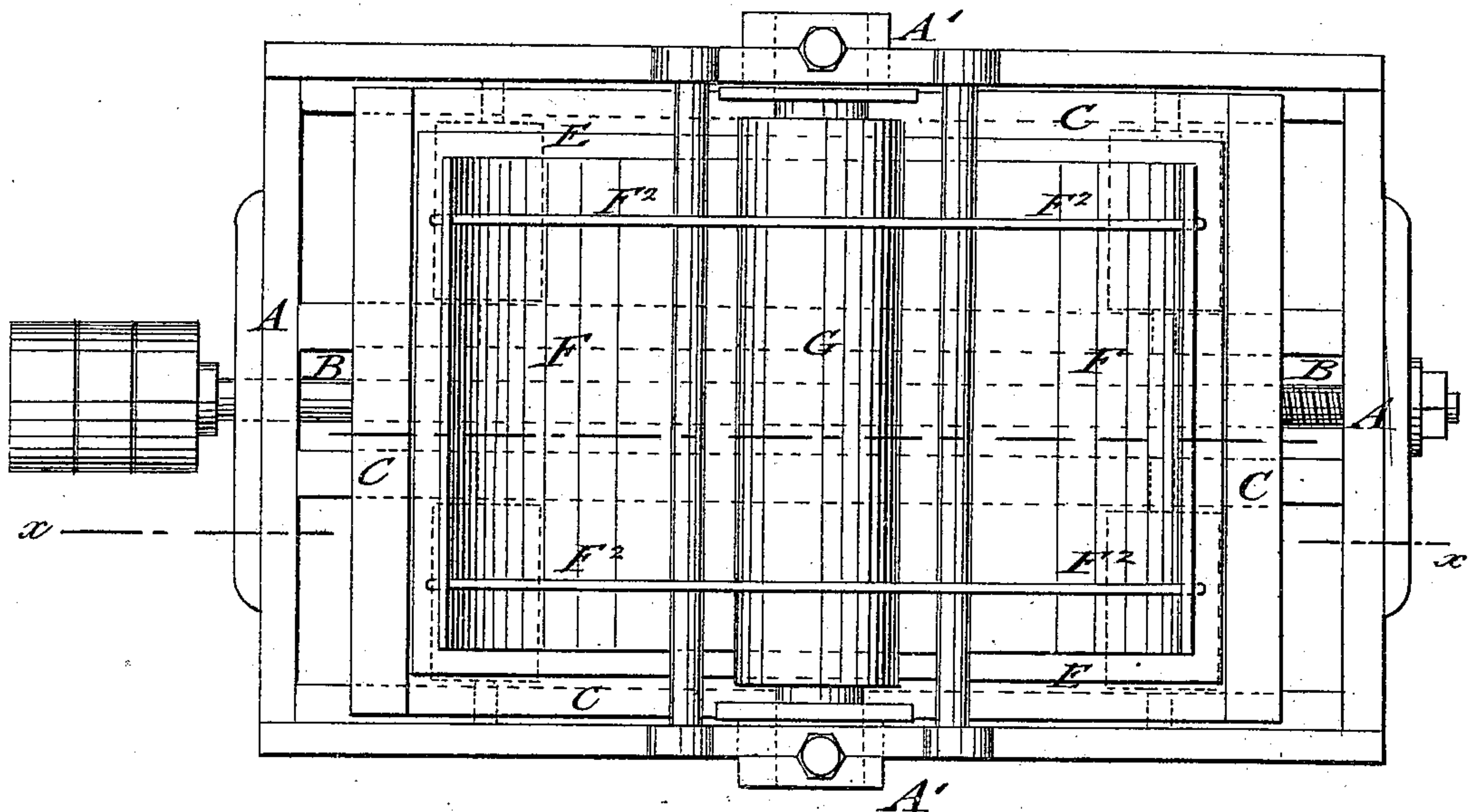
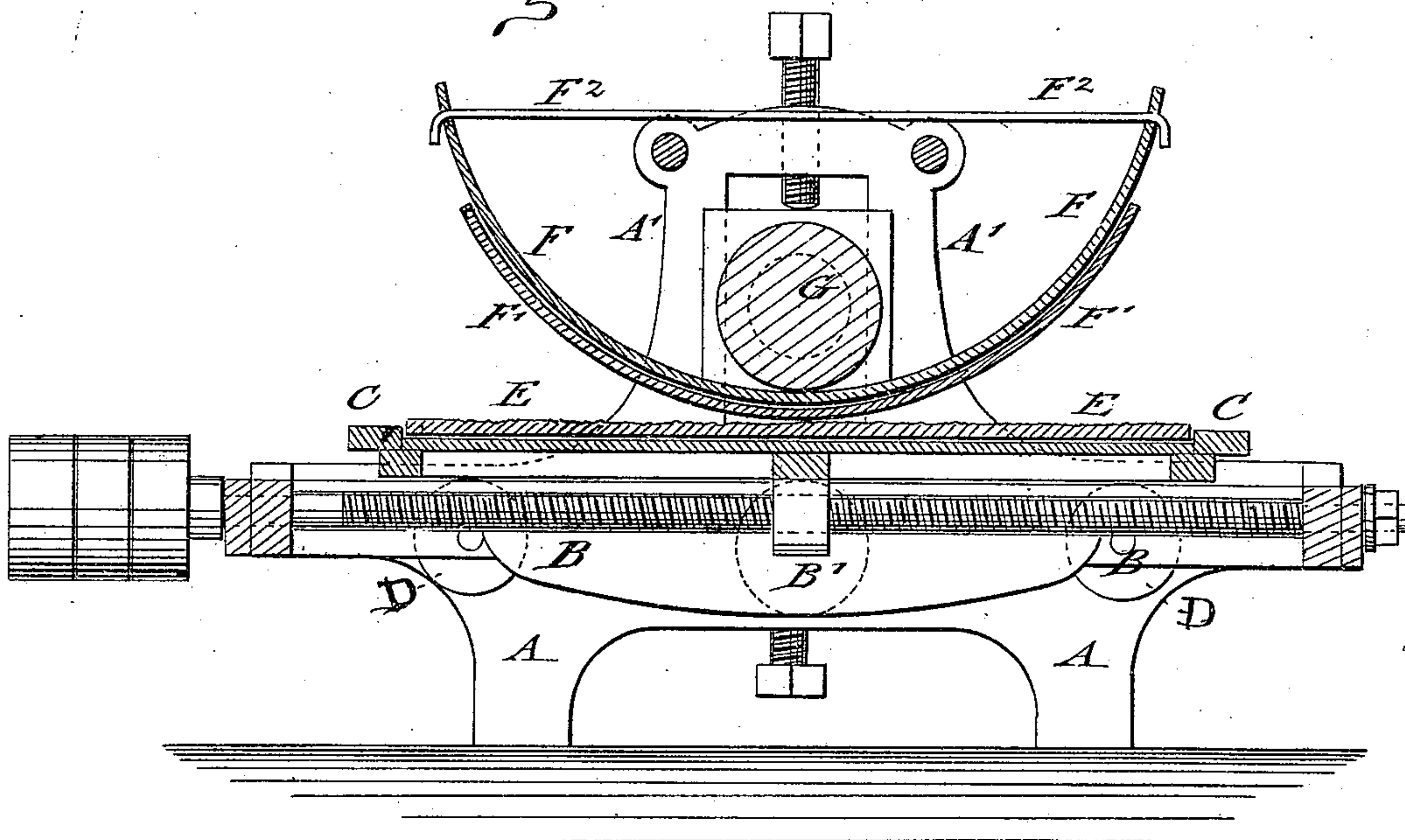


Fig: 2.



WITNESSES:

Carl Karp
Otto Busch

INVENTOR

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UNITED STATES PATENT OFFICE.

JOHN LIEDTKIE, OF BROOKLYN, NEW YORK, ASSIGNOR TO HIMSELF AND
PHILIP F. LENHARDT, OF SAME PLACE.

MACHINE FOR FINISHING LEATHER.

SPECIFICATION forming part of Letters Patent No. 229,895, dated July 13, 1880.

Application filed December 1, 1879.

To all whom it may concern:

Be it known that I, JOHN LIEDTKIE, of the city of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Machines for Finishing Leather, of which the following is a specification.

In the accompanying drawings, Figure 1 represents a top view of my improved machine for finishing leather, and Fig. 2 is a vertical longitudinal section of the same on line *xx*, Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to an improved machine for finishing leather by which all the surface-finishing operations, such as graining, lining, dicing, "putting out" or "calf-facing," &c., may be accomplished in a quick and reliable manner without creasing or folding the leather in its passage through the machine.

The invention consists of a reciprocating table that supports the finishing-plate, in combination with an oscillating arc-shaped or cylindrical sheet-metal shell which is faced with a layer of elastic material and acted upon by a central transverse pressure-roll.

Referring to the drawings, A represents the supporting-frame of my improved leather-finishing machine, which frame is rigidly braced by longitudinal and transverse stays and provided with upright side standards, A'. A central screw, B, extends longitudinally through the frame A, and turns in bearings at both ends of the same. Said screw is adapted to be revolved to the right or left either by a hand-crank wheel or, preferably, by two loose pulleys and a fixed pulley, and by a belt and cross-belt, which may be alternately shifted from one of the loose pulleys to the fixed pulley, so as to change the direction of motion of the screw.

The central driving-screw, B, passes through a nut, B', at the under side of a table, C, which is supported on a larger or smaller number of anti-friction rollers, D, according to the size of the machine, the rollers being arranged at both sides of the central propelling-screw. By revolving the screw in one direction the table is moved forward, while by turning the screw

in opposite direction the table is moved backward, the reciprocating motion being alternately imparted by the shifting of the belts from the loose pulleys to the fixed pulley.

On the reciprocating table is supported a plate, E, the surface of which is either smooth or engraved with a suitable design, according as the leather is either to be put out or calf-faced, or to be grained, lined, diced, or otherwise finished. When the table has arrived at one side of the machine the leather to be finished is placed face downward on the plate E, and then the table moved forward or backward, as the case may be.

Above the table, and in contact therewith, is arranged an arc-shaped or cylindrical shell, F, of suitable sheet metal, which is provided with a more or less elastic facing, F', of felt, pasteboard, leather, or other suitable material, according to the work to be done. The shell F is braced by stay-rods F², which connect the ends or diametrically-opposite points of the same. These stays may be threaded and attached by screw-nuts or otherwise to the shell, so as to impart a certain stiffness and rigidity thereto and keep the facing taut on the lower surface of the shell. A pressure-roll, G, extends across the shell and turns in journal-bearings of the side standards, A' A'. The bearings are adjusted by set-screws, by which the pressure of the roller upon the shell and plate is regulated.

The leather is carried by the table through below the shell and pressure-roll, the shell spreading it upon the finishing-plate and preventing it from forming folds. The shell follows the motion of the table and plate and oscillates slowly from one side to the other, exerting an equal pressure on the leather along the line of pressure below the roll, so as to avoid creasing or drawing it into folds. Inequalities in the thickness of the leather are compensated for by the elastic facing. The grain of the plate is by the powerful pressure uniformly transferred to the surface of the leather. When the leather has passed through below the pressure-roll and the table arrived at the other end of the machine, the finished piece is removed, an unfinished piece of leather

placed thereon, the motion of the table reversed, and the leather finished during the return motion of the table.

5 The leather can thus be quickly finished and any desired surface design obtained by simply changing the finishing-plate and adapting the facing of the shell to the work to be performed.

The machine may also be used for finishing paper, imitation leather, or other material.

10 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

15 1. In a leather-finishing machine, the combination of a reciprocating table carrying a surface-finishing plate with an adjustable transverse pressure-roll and with an intermediate oscillating shell having an elastic facing, substantially as and for the purpose specified.

2. In a leather-finishing machine, the combination of a supporting-frame, A, having anti-friction rollers, and of a reciprocating table, C, carrying the surface-finishing plate E, with a transverse pressure-roll, G, and with an intermediate shell, F, having an elastic facing, F', substantially as set forth. 20 25

3. In a leather-finishing machine, the sheet-metal shell F, having the stay-rods or braces F², substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 17th day of November, 1879. 30

JOHN LIEDTKIE.

Witnesses:

PAUL GOEPEL,
ADOLF DENGLE.