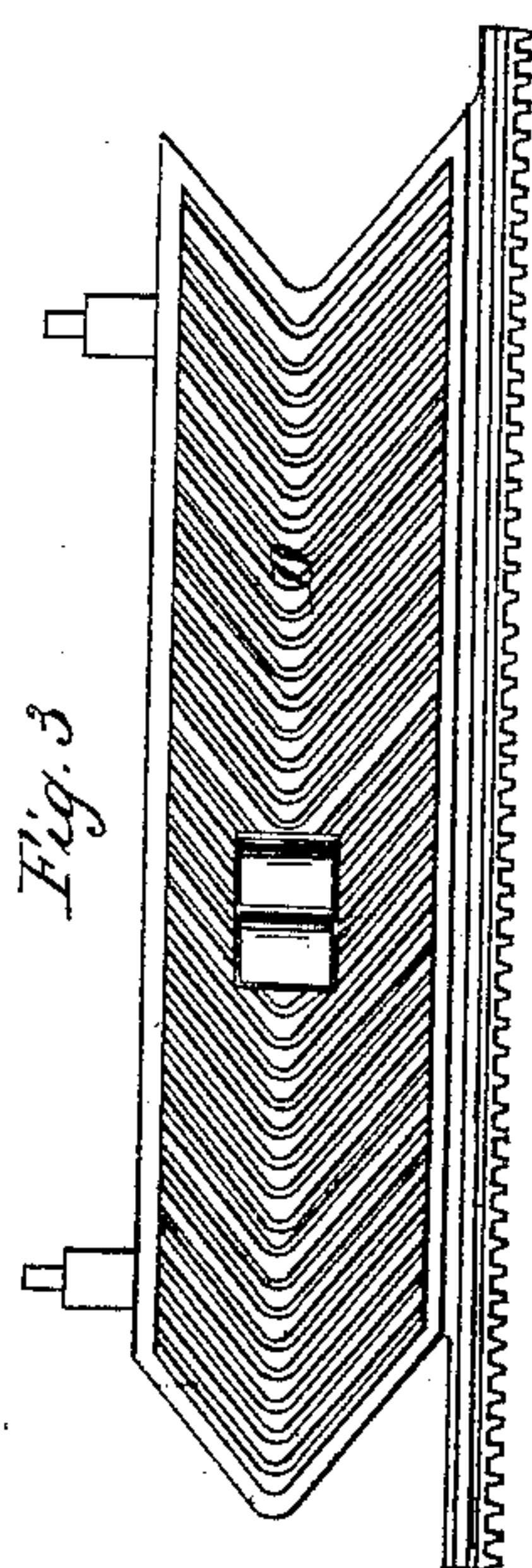
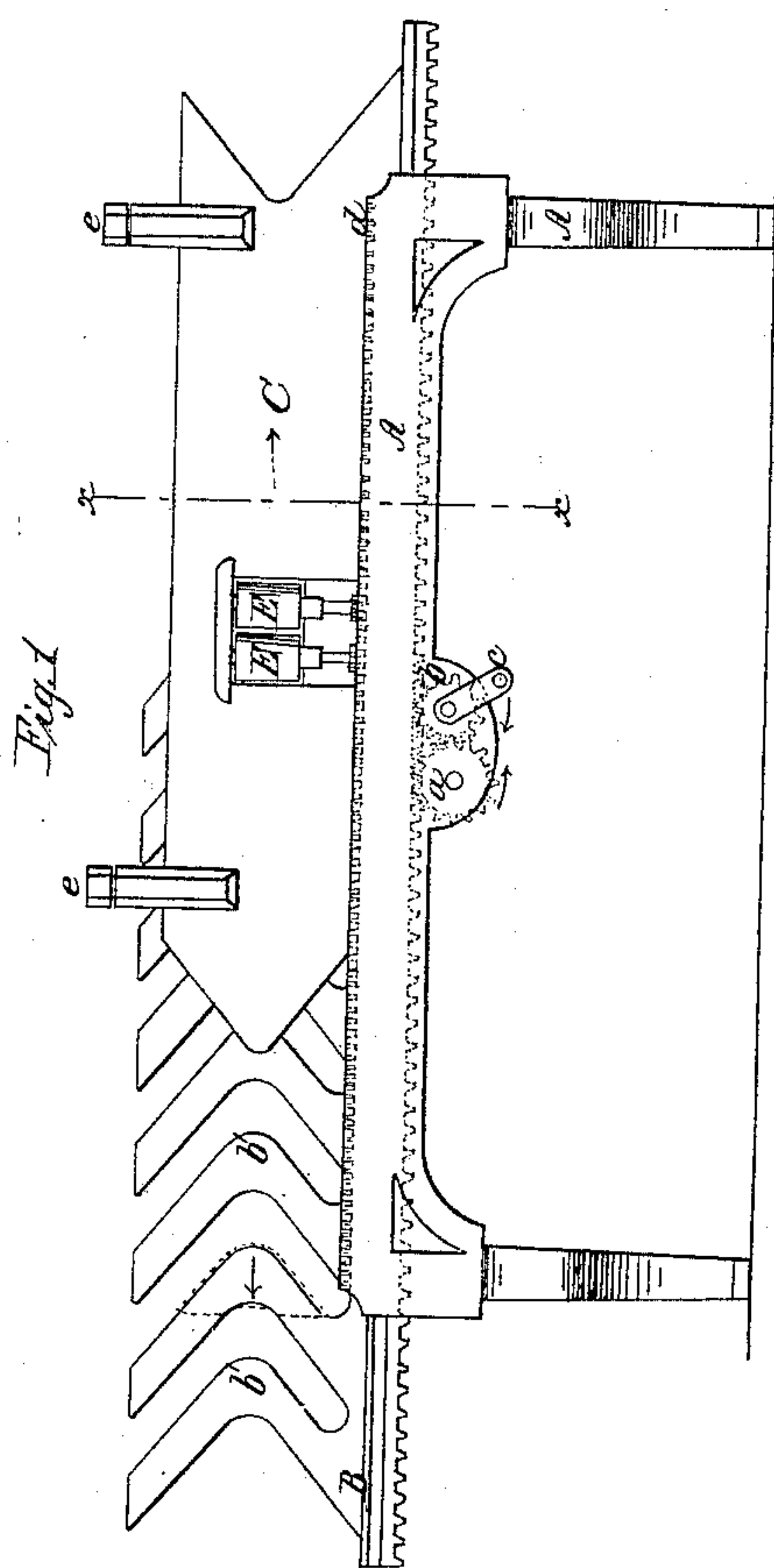
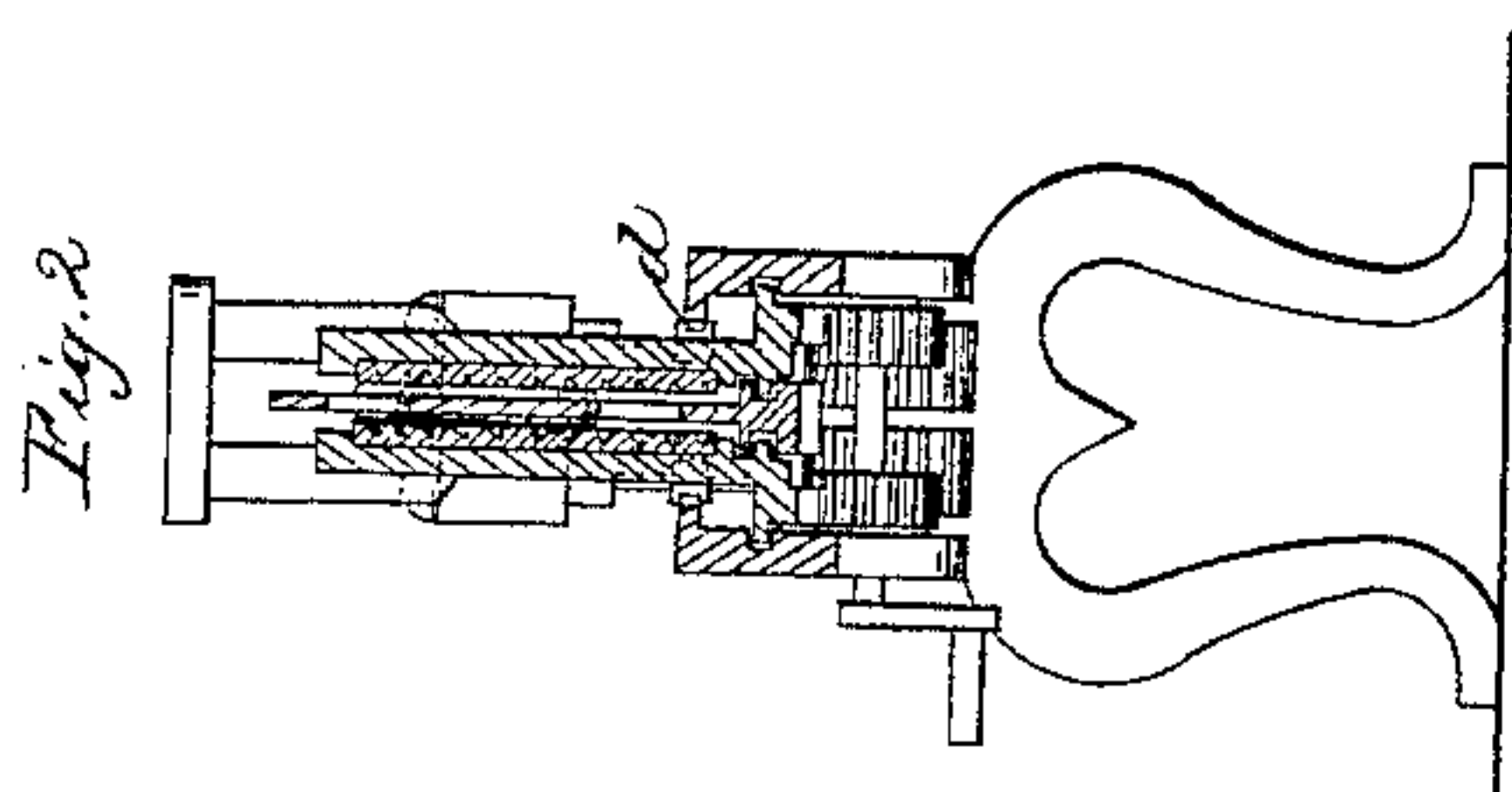


R. H. DORN.
BOOT CRIMPING MACHINE.

No. 78,438.

Patented June 2, 1868.



Witnesses
H. B. Ashtetter
J. A. Fraser

Inventor
R. H. Dorn
per Muniff
attorneys

United States Patent Office.

R. H. DORN, OF PORT HENRY, NEW YORK, ASSIGNOR TO HIMSELF AND
I. G. GREENE, OF SAME PLACE.

Letters Patent No. 78,438, dated June 2, 1868.

IMPROVED BOOT-CRIMPING MACHINE.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, R. H. DORN, of Port Henry, in the county of Essex, and State of New York, have invented a new and improved Boot-Crimping Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The nature of my invention relates to improvements in apparatus for crimping boot-stock, whereby the same may be performed in an expeditious and uniform manner, and it consists in the arrangement, upon a suitable bench, of a slide made to move back and forth by a pinion gearing into a rack on the under side of the same, on which rack a series of right-angled formers is carried on its upper side.

These formers are caused to pass between two clamping or pressing-jaws, which are moved in an opposite direction by gearing in a similar manner, and are provided with smoothing-rollers which bear against that part of the leather which is crimped in the angle of the formers, and turn in a direction so that the surfaces of the said rollers that come in contact with the leather move opposite to that in which the leather is being carried by the formers, so as to produce a smoothing or rubbing action.

The said clamping-jaws are provided, on the inner sides of the same, with iron plates having right-angular grooves or ridges formed within them, and arranged, with reference to the formers, in a direction opposite to the inclination of the formers, so that their action on the leather will be to smooth it from the angle outward in either direction, as will be more fully described on reference to the accompanying drawings, wherein—

Figure 1 represents a side elevation of my improved apparatus.

Figure 2 is a cross-section of the same on the line *xx* of fig. 1; and

Figure 3 represents an inside view of one of the angularly-grooved plates affixed to the clamping-jaws.

Similar letters of reference indicate corresponding parts.

A represents a bench, on which the slide B is caused to move back and forth by means of the pinions *a*, working into a lock, *a'*, on the under side of the same. The pinions *a* are driven by the pinions *b* on the crank-shaft C.

b' b' represent right-angled crimping-formers fixed in a vertical position on the top of said slide B.

c c represent two clamping-plates, which are also caused to slide back and forth on the table by means of the pinions *b b* on the crank-shaft C, but in an opposite direction to that in which the slide B moves, one on each side of the former-slide B.

The said plates *c* are provided on their inner sides with iron plates, D, having right-angled grooves and ridges, but which are set, with reference to the formers *b'*, in a direction opposite to the same.

E E represent vertical rollers fixed in openings in the side-plates *c*, to which rotary motion is communicated by means of pinions on the lower ends of the axles of the same, which gear into stationary racks *d d*, arranged on the top of the bench, as the plates *c c* slide back and forth. The said plates are prevented from separating at the top by the tie-pieces *e e*.

The operation is as follows: The leather to be crimped is placed on the formers, in the proper position, and held in place temporarily by tacks, or it may be placed on by an attendant as each former is about to pass between the plates. Motion being applied to the driving-shaft in the proper direction, the slide B and formers *b'* will be passed between the clamping-plates *c*, by which the parts of the leather lapping around the sides of the formers will be pressed and smoothed hard against them by the ridges on the inner iron plates D, which, being arranged so that their angles of inclination are opposed to those of the crimping-formers, will press the leather from the points or apexes of the angles of the formers in each direction upward and downward from the said points, thereby producing the best effects on the leather to smooth and set the same. As the formers continue in their passage through the said clamping-plates *c*, the leather is brought into contact with the rollers E E on each side, which are intended to act more directly upon that part of the leather which is bent around the angles of the formers.

The surfaces of these rollers which act on the leather are caused to move in the direction opposite to that in which the slide B moves, thereby giving a greater amount of smoothing effect to the same.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

The slide B, provided with the crimping-formers *b'*, in combination with the clamping sliding jaws *c c*, substantially as and for the purpose described.

The slide B, provided with the crimping-forms *b'*, in combination with the clamping sliding jaws *c c*, provided with the ridged plates D, substantially as and for the purpose described.

The combination, with the plates *c c*, slide B, and crimping-forms, of the smoothing-rollers, substantially as and for the purpose described.

The above specification of my invention signed by me, this 14th day of February, 1868.

R. H. DORN.

Witnesses:

JAMES G. GREENE,

JAY L. DORN.