(No Model.)

3 Sheets—Sheet 1.

J. A. BROWNELL.

LEATHER ROLLING MACHINE.

No. 584,668. Patented June 15, 1897.

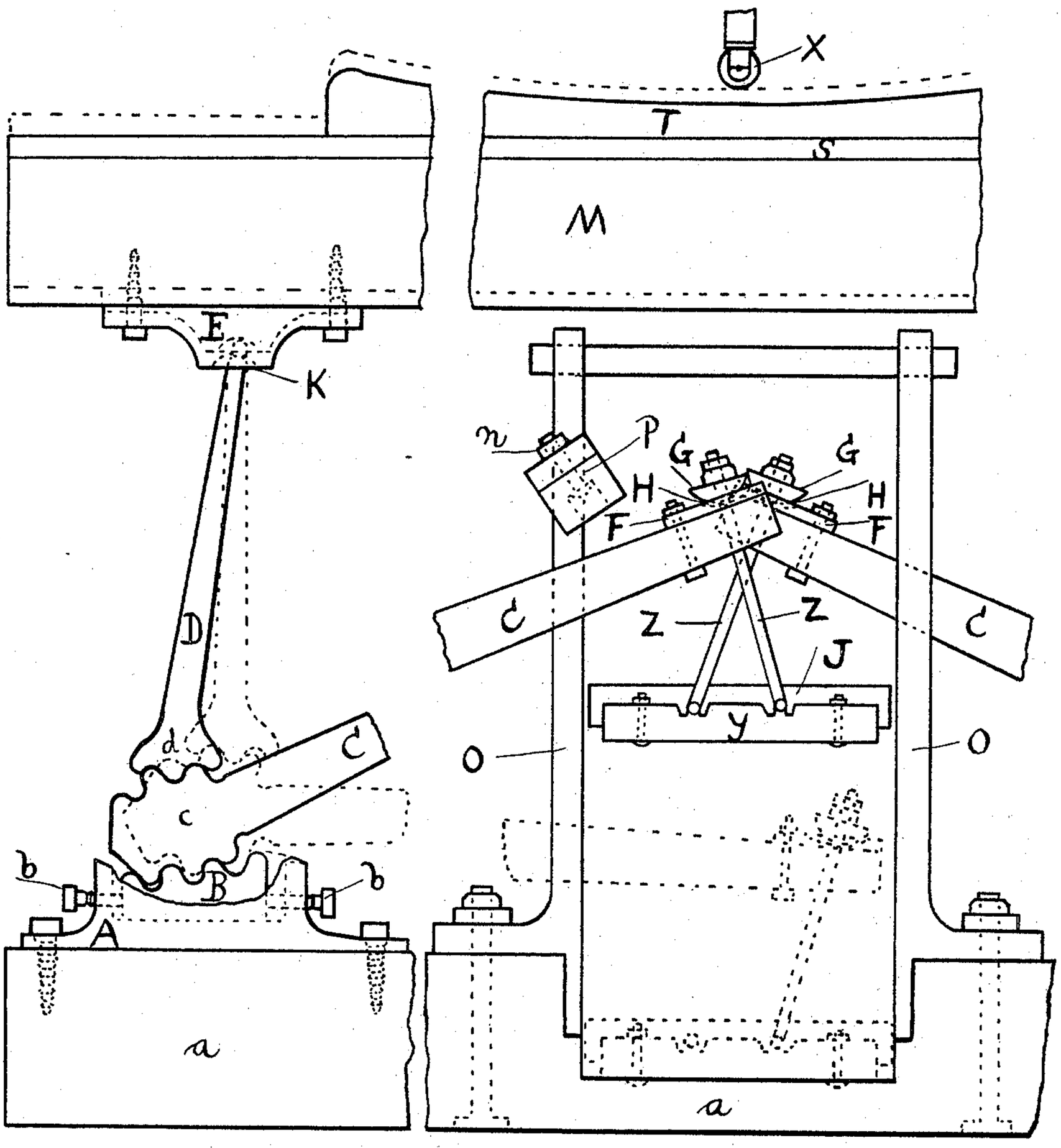

Fig. 1.

Witnesses

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(No Model.)

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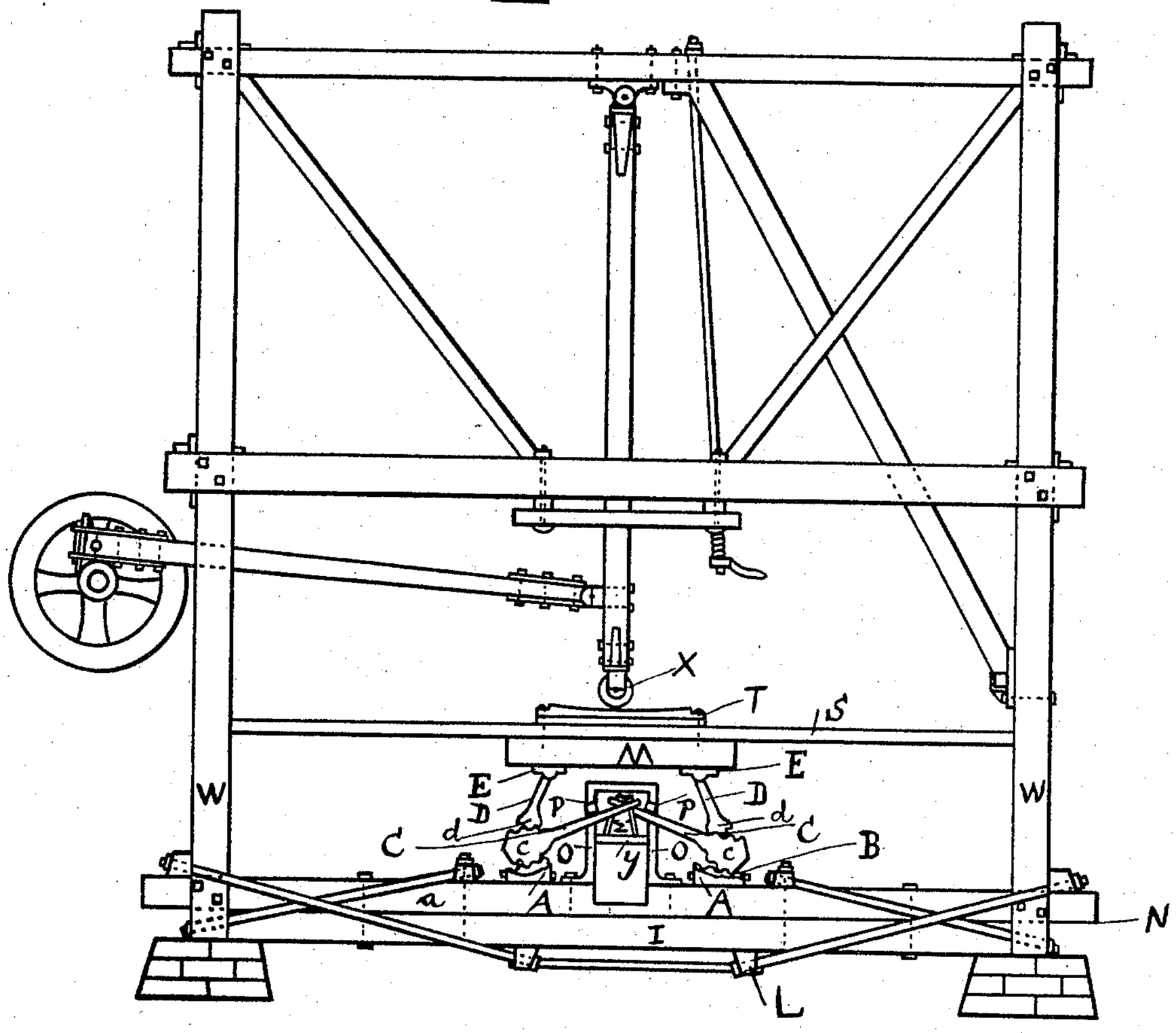
Fig. 2.



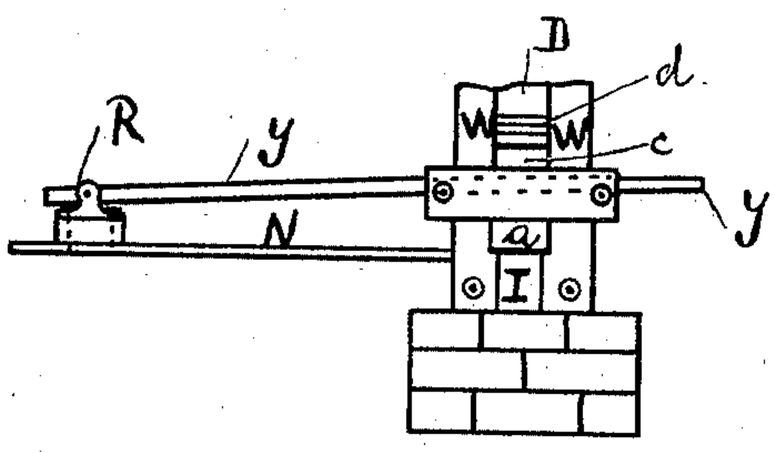


Fig. 4.

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(No Model.) 3 Sheets—Sheet 3.

J. A. BROWNELL.

LEATHER ROLLING MACHINE.

No. 584,668. Patented June 15, 1897.

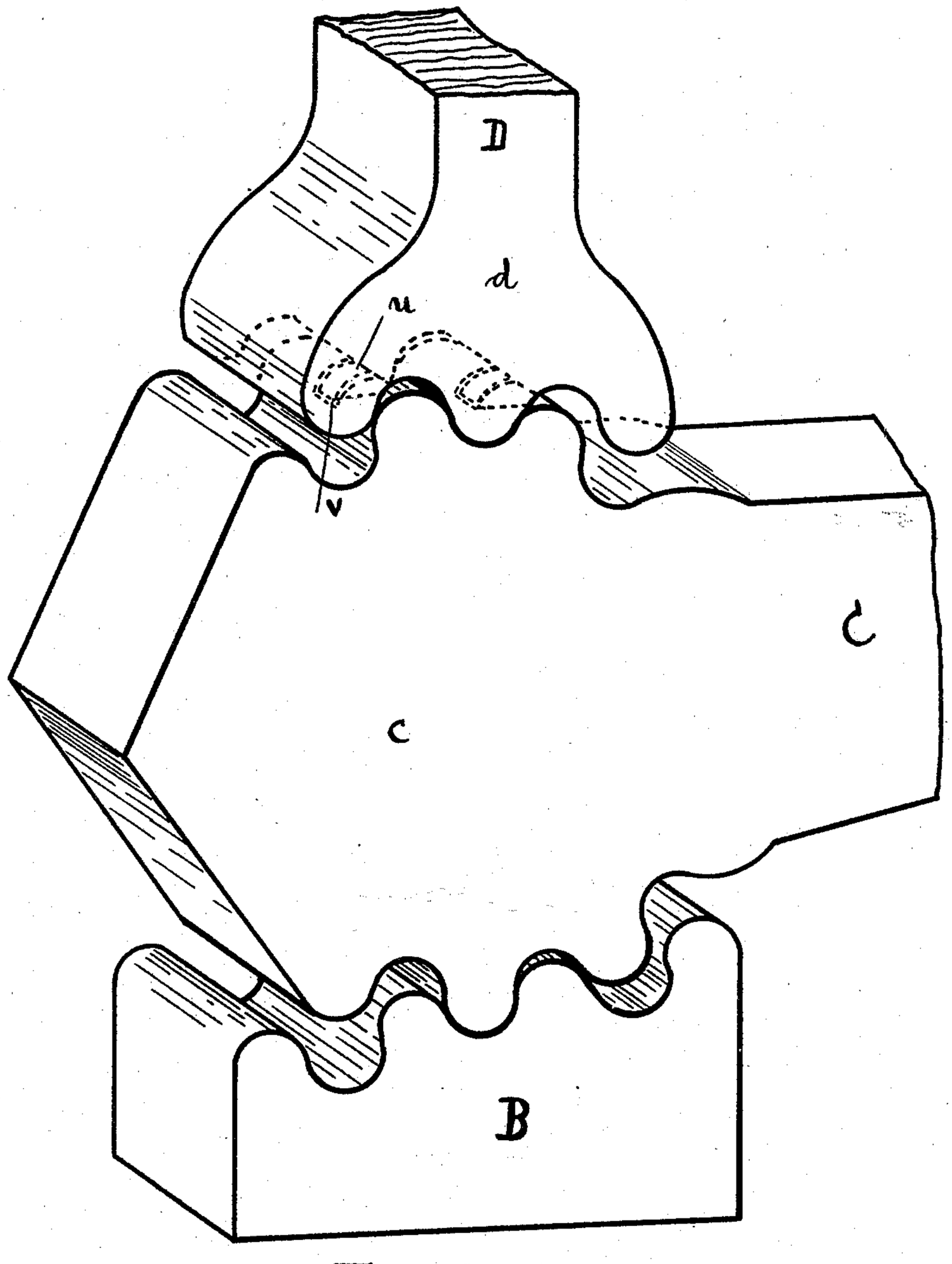

Fig. 3.

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UNITED STATES PATENT OFFICE.

JEWETT A. BROWNELL, OF BINGHAMTON, NEW YORK.

LEATHER-ROLLING MACHINE.

SPECIFICATION forming part of Letters Patent No. 584,668, dated June 15, 1897.

Application filed February 7, 1896. Serial No. 578,359. (No model.)

To all whom it may concern:

Be it known that I, JEWETT A. BROWNELL, a citizen of the United States, residing at Binghamton, in the county of Broome and State of New York, have invented certain new and useful Improvements in Sole-Leather-Rolling Machines; and I do hereby declare that the following specification is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part thereof.

My invention relates to improvements in machinery employed for rolling sole-leather; and the object of my improvements is to provide a device for raising the table and bed-piece from below with even, steady, and sufficient pressure. I attain this object by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents a view of the front elevation of my machine. Fig. 2 is an end view of a portion of the same. Fig. 3 is a perspective view of the corrugated or grooved mechanism.

In Fig. 1, A represents a metal plate; *a*, the sill of the frame; B, a corrugated bed; *b b*, set-screws; C, metal levers; *c*, lever-heads; D, upright levers; *d*, upright lever-head; E, contact-plate; F, concave plates; G, convex washers; H, point of rocker-joint; I, beam below the floor; J, the guide-plate; K, the point of contact of rolling-joint; L, braces; M, pressure-block; N, floor-line; O, guide-frame; P, rubber stop; S, table; T, bed-plate; X, roller; Y, treadle-lever; Z, rods.

In Fig. 2 the same letters indicate the same parts, R indicating the fulcrum of the treadle.

In Fig. 3 the same letters indicate the same parts.

In Fig. 1, A represents a metal plate securely fastened to the timber sill *a* of the rolling-machine frame; B, a metal corrugated plane bed resting on plate A and held firmly in place by set-screws *b b*.

C represents ridged metal levers, their large ends corrugated to engage the corrugations on B and their small ends provided with openings or slots larger at the lower than the upper side, through which the upper ends of the rods Z Z pass, and concave plates F bolted over said slot. The bolts Z Z pass up through the plate F and are fitted with a convex washer G, secured by nuts, thereby forming a rocker-joint at H.

D represents a metal upright lever, its large end corrugated to engage the corrugations on the top side of C, its top end rounded, thereby forming a rolling joint at K, with inverted metal plate E bolted to the wooden pressure-block M. The treadle Y is bolted to the floor N at its inner end, as shown at R. The plate J is fastened to the treadle Y and serves for a guide therefor by sliding in the guides O O. The bolts Z Z are pivoted at their lower ends to the treadle-lever Y.

The operation of my machine is as follows: With the small end of the lever C resting up against the rubber stop P, said stop being held in place by being bolted to guide-iron O at *n*, the operator places a side of leather to be rolled upon the table S, between the bed-plate T and the roller X, with the operator's foot and weight now placed upon the wood treadle Y, to which the treadle-plate J is bolted, which operates the two levers C C, connected by the bolts Z Z, and thus raises the bed-plate F, thereby bringing powerful uniform pressure at any stage of the treadle to bear upon the surface of the leather in place between curved bed-plate T and the roller X.

I wish particularly to describe and explain the lever mechanism of the lever-heads shown in Fig. 3. I make the bed B adjustable and securable by the screws *b b*. In this case it is simply held level. It is about six inches wide and its surface is an inclined plane receding outwardly from the machine, but may be used in other forms in other machines. Across this inclined plane are two or more corrugations or grooves with rounded surfaces.

The head *c* of lever C is circular in form and the same width as bed B. Its outer circumference is grooved or corrugated with the same size and shaped grooves as in the face of the bed and made to engage them. The head *d* of the upright piece D has a face inclined in the same manner as the face of the bed B, but in a different angle, the incline of *d* being about one and a half in twelve, while that of the face of the bed B is about four in twelve. However, I do not confine

myself to these proportions except in this case, as I shall reserve the right to vary them to produce other effects. These grooves in the head *d* are made to engage the grooves of the head *c* of C. The head *c* is not pivoted, but is kept in place on the bed B by means of the sides A, which project above the connecting-line of *c* and B, as shown in Fig. 1, and the upright D is kept in position on the head *c* by the lug U, meshing with the recess V in the face of the grooves of *c*.

It will be found that by pressing the lever C down the upright D is carried forward and upward with a powerful and steady force.

The levers C, upright D, and beds B are in pairs, one on each side of the machine, both connected with the foot lever or treadle. The levers C are narrower than the heads *c* and are placed a little to opposite sides, so that while the lever-heads *c* are in a line with each other the levers C are enabled to pass each other.

Having thus described my invention, what I claim as new, and desire Letters Patent for, is—

1. In a leather-rolling machine, the combination of the table M, the lever D loosely engaging said table as at E, said lever being provided at its lower end with corrugations *d*, the inclined corrugated bed-plate B, and the lever C provided with the corrugated head *c* adapted to engage the corrugations on plate B, and lever D, and means for depressing or moving said lever; substantially as described.

2. In a leather-rolling machine, the table M, the levers D D loosely engaging said table as at E E, said levers being provided at their lower ends with corrugations at *d*, *d*, the inclined corrugated bed-plates B, B, and the levers C, C provided with the corrugated heads *c*, *c* adapted to engage the plates B, B, and levers D, D, in combination with the frame O, O, the plate J sliding in said frame, the tie-rods Z, Z connecting said levers C C with the plate J and the treadle Y fulcrumed as at R and attached to said plate J; substantially as described.

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Witnesses:
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