

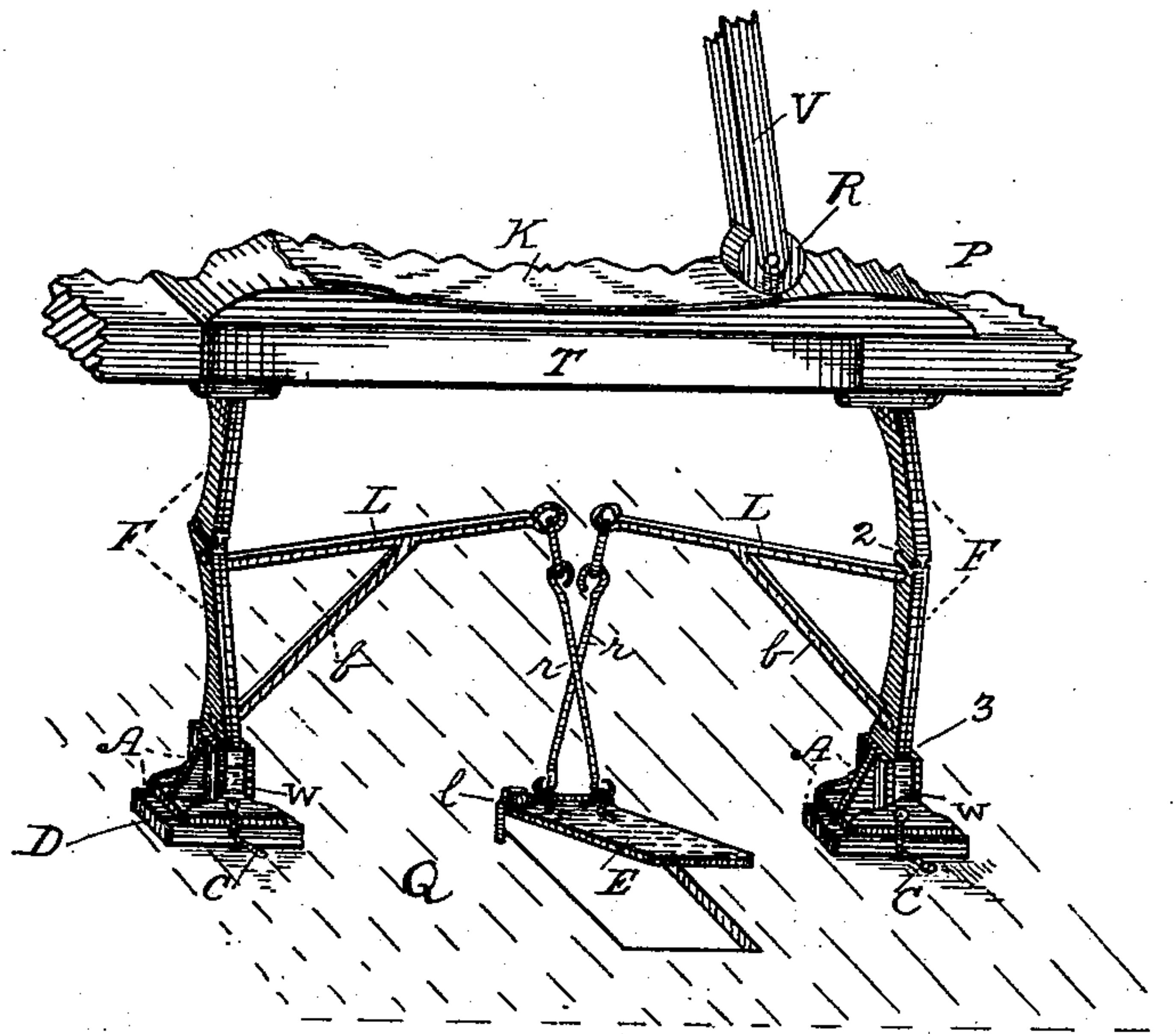
(No Model.)

## LEATHER ROLLING MACHINE.

**No. 352,955.**

Patented Nov. 23, 1886.

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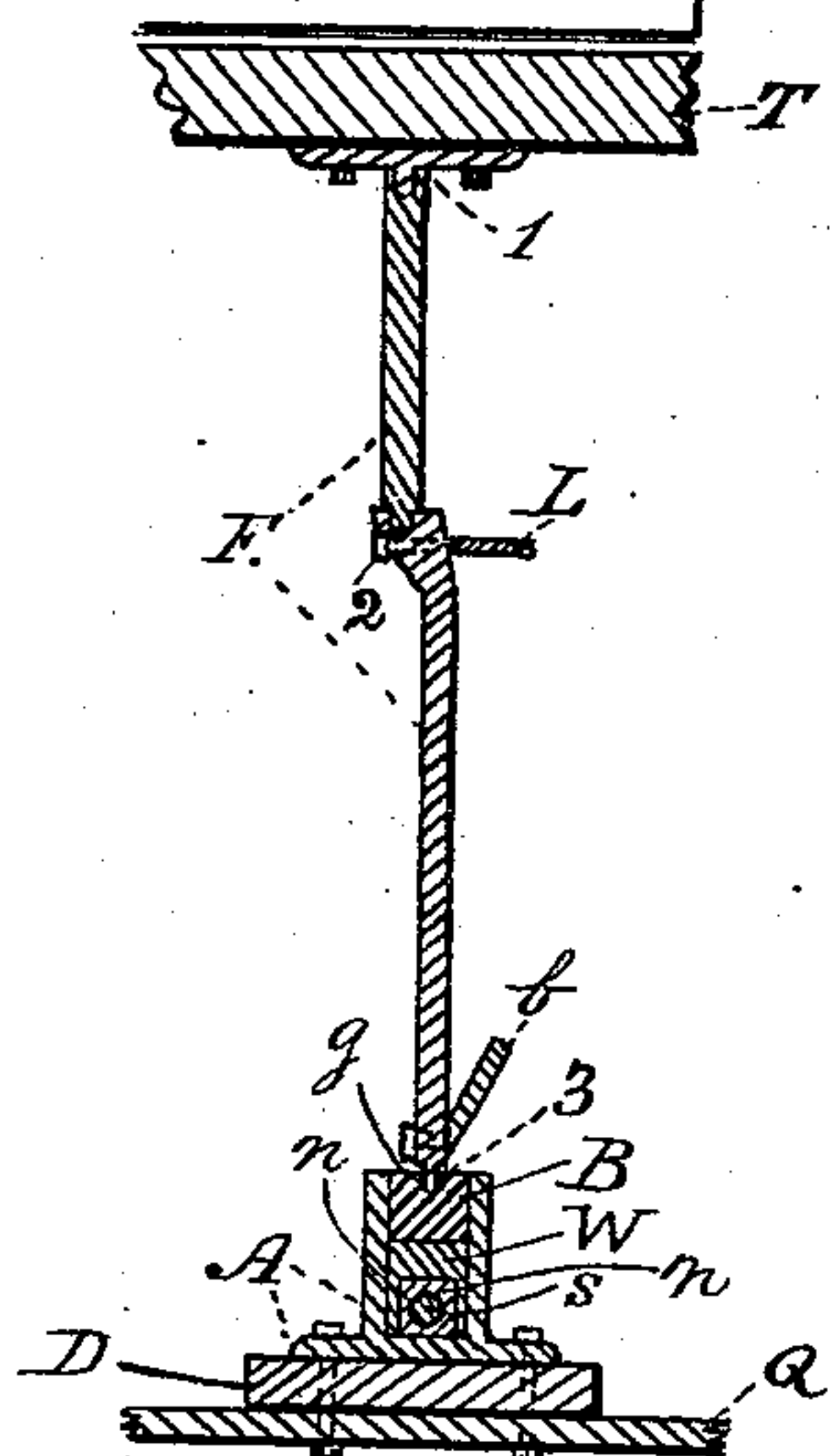
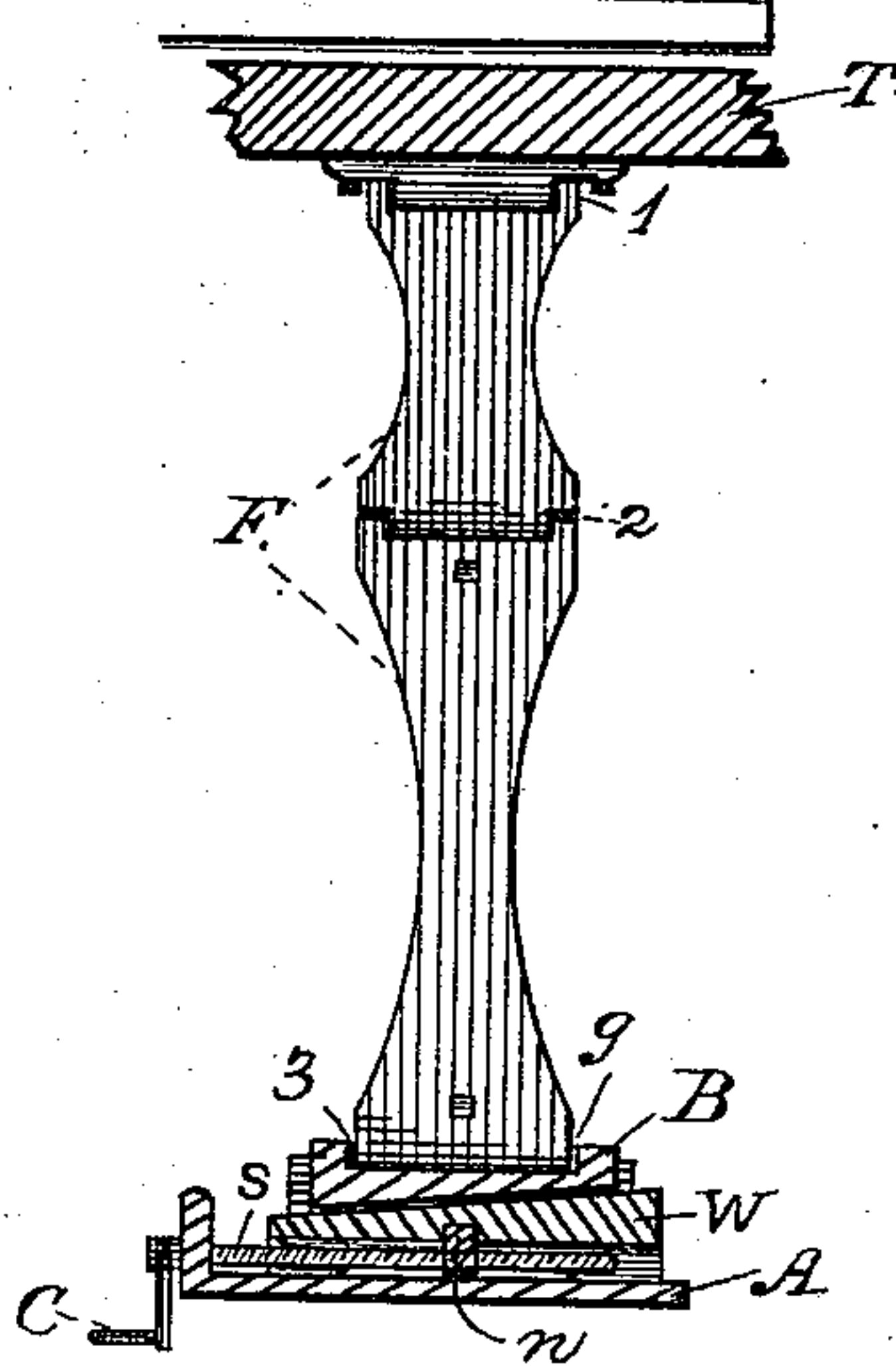


Fig. 3.



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# UNITED STATES PATENT OFFICE.

THOMAS W. McKEE, OF TOWANDA, PENNSYLVANIA.

## LEATHER-ROLLING MACHINE.

SPECIFICATION forming part of Letters Patent No. 352,955, dated November 23, 1886.

Application filed January 30, 1886. Serial No. 190,323. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS W. McKEE, a citizen of the United States, residing at Towanda, in the county of Bradford and State of Pennsylvania, have invented certain new and useful Improvements in Adjustable Leather-Roller Presses; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in adjustable leather-roller presses; and the objects of my improvements are to provide a simple and convenient mode of applying pressure to sole-leather while it is being rolled, and one by means of which much greater pressure is produced on the leather than by the other methods in common use, thereby improving its quality.

My invention consists in raising the table and bed-piece, by suitable adjustable means, against the roller, as hereinafter described and particularly claimed, whereby I attain any pressure desired and that which is unyielding, and thereby produce a uniformly smooth-rolled piece of leather, which need not be subsequently hammered to prepare it for use.

In the accompanying drawings, Figure 1 represents a perspective front view of my machine without the pressure applied; Fig. 2, an enlarged vertical cross-section through the middle of the fulcrum F, taken in the position it assumes when the pressure is applied to the leather, showing a middle section of the knuckle-joints and other adjacent parts from the top of the table resting on my device to bottom of the floor supporting it, the table, lever, brace, and floor being partly broken away. Fig. 3 represents an end view, partly in section, of a portion of my machine, and with parts broken away to show the knuckle-joints 1, 2, and 3 and screw S.

Like letters refer to like parts in all the figures.

A represents a metal box firmly bolted to the planks D and floor K.

B represents blocks with grooves *g* in their

upper and level sides, their under sides being an inclined plane; W, wedges, with their upper planes inclined to match the under sides of the blocks B, so that when joined together the tops of blocks B are level.

*n* represents nuts firmly fixed within wedges W, and S screws passing along grooves in the under side of the wedges W and through the nuts *n*. Screws S are provided with cranks C, by turning which the wedges W are moved back and forth within the boxes A.

F represents fulcrums provided with three knuckle-joints at 1, 2, and 3; L, levers extending from the middle joints and connected to a treadle, E, by rods *r*.

*l* is a staple or loop, which fastens the treadle E to the floor and frame.

T represents a table, partly broken away; P, a bed-piece with a concave upper surface, on which a side of sole-leather, K, is placed to be rolled; and V, the lower end of a beam carrying a roller, R.

The parts F, A, B, W, S, *n*, L, *b*, *r*, and *l* are all made of metal of sufficient size and strength for the purpose required.

In the boxes A the wedges W are placed, and slide under the inclined planes of blocks B, which are provided with grooves *g* on their upper and level sides. The fulcrums F rest in the grooves *g* of the blocks B, and are provided with upper, middle, and lower knuckle-joints, 1, 2, and 3. Twin levers L are attached at one end to the corresponding fulcrums F, near the middle knuckle-joints of the latter, and firmly braced thereto, and connected at their other ends to the rods *r*. The rods are secured to the treadle E, which is connected to the bed-timber of the pressure-frame by the adjustable loop or staple *l*.

The form of the several knuckle-joints 1, 2, and 3, as shown, is such as to make them convenient receptacles for oil to lubricate them, thereby answering the double purpose of joint and oil-cup. The knuckle-joints 2 are placed outside of the vertical center lines of the two sections of the twin fulcrums F, to give them "throw" when weight or power is removed from the treadle E. The rods *r* are crossed to give better leverage.

By my machine the pressure is applied to the leather from the bottom by forcing by the pow-



erful leverage described the table T, carrying the bed-piece P, on which a side of sole-leather is placed, up against the roller R, which is set in the bottom end of a vibrating beam, V, under which the leather K is placed and moved at will by an operator. This beam V, carrying the roller R, is suspended by its upper end at a point which is the center of a circle to which the concave surface of the bed-piece P conforms, and is vibrated to and fro, thereby rolling the leather pressed against it from underneath.

My machine is operated as follows: A person acting as operator first adjusts the machine to suit the thickness of the particular side of leather in place under the roller, by raising or lowering the fulcrums F, which is done by moving the wedges W in or out by means of the screws S, turned by cranks C. The foot and weight of the operator are now placed upon the treadle E, which brings the two fulcrums F from the position shown in Fig. 1 to the perpendicular position shown in Figs. 2 and 3, and thus raises the table T, thereby bringing powerful pressure to bear on the leather in place between the bed-piece P of the table T and the roller R, and with the exercise of comparatively a very little force on the part of the operator.

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

1. In a leather-roller machine, in combination with a vibrating roller and the table carrying the curved bed-piece, the knuckle-jointed fulcrum and treadle mechanism, substantially as and for the purpose described.

2. In a leather-roller press, the wedges W, in combination with the inclined blocks B, screws S, cranks C, boxes A, and fulcrums F, substantially as described.

3. In a leather-rolling press, the twin fulcrums F, provided with the middle knuckle-joints, the said joints being outside of the vertical center line of the fulcrums, in combination with the levers connected to the fulcrums near the said joints, substantially as described.

4. In a leather-roller press, the combination of the boxes A, the blocks B, the wedges W, the triple-jointed fulcrums F, the levers L, rods r, treadle E, and table T, as and for the purposes herein described and set forth.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS W. McKEE.

Witnesses:

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JOHN G. CULVER.