

(No Model.)

2 Sheets—Sheet 1.

J. A. BROWNELL.
MACHINE FOR ROLLING LEATHER.

No. 441,821.

Patented Dec. 2, 1890.

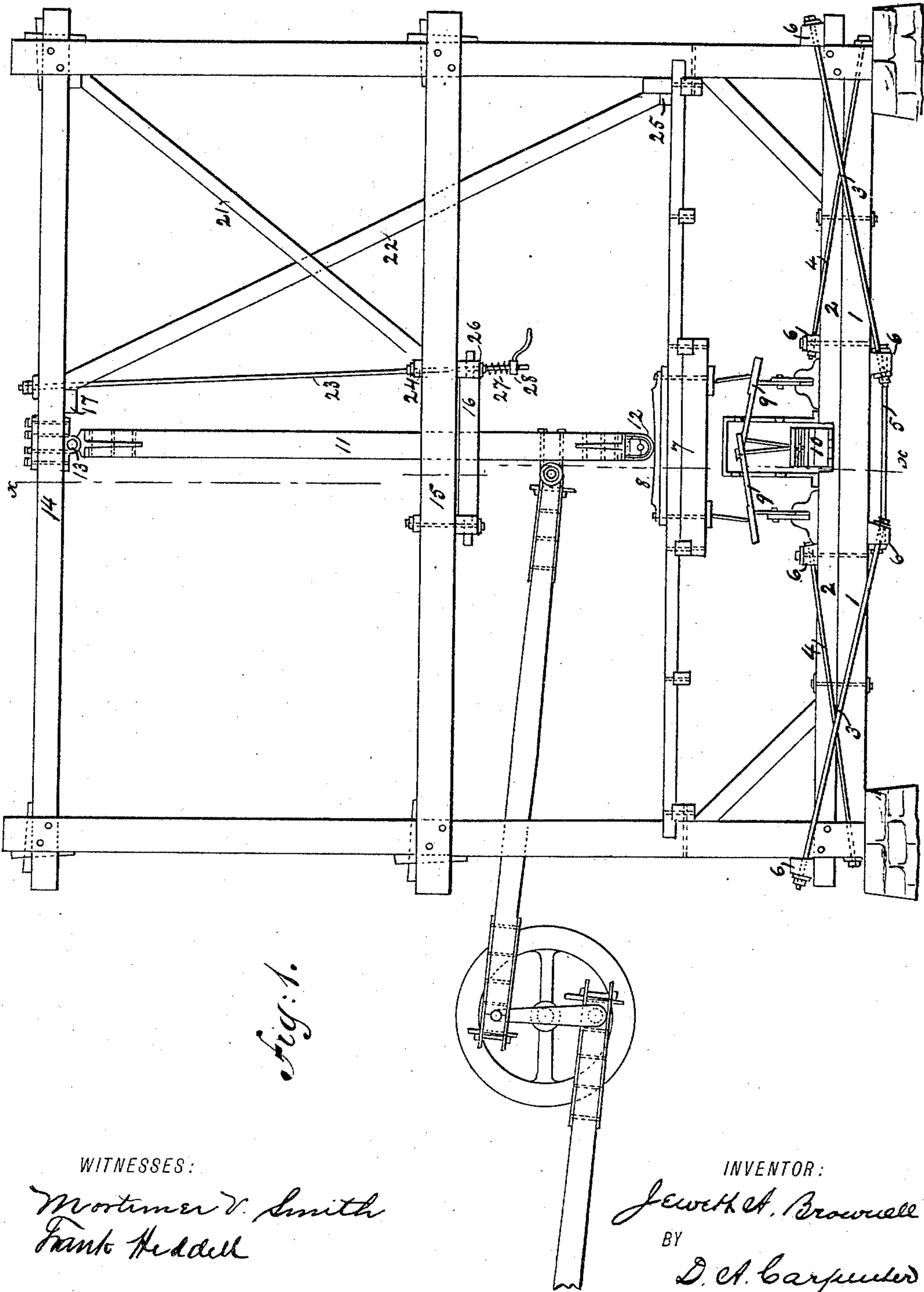


Fig. 1.

WITNESSES:

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Frank Heddell

INVENTOR:

Jewett A. Brownell

BY

D. A. Carpenter
ATTORNEY.

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2 Sheets—Sheet 2.

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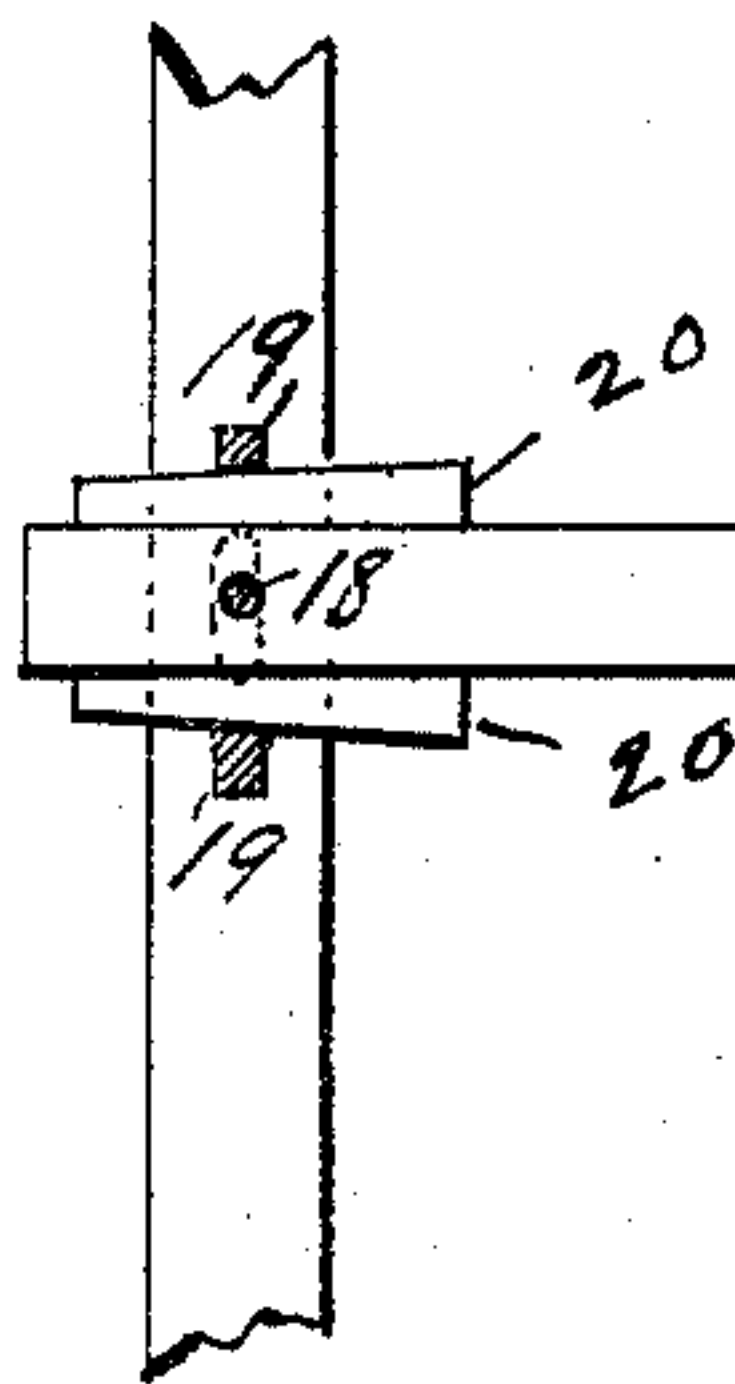


Fig: 3.

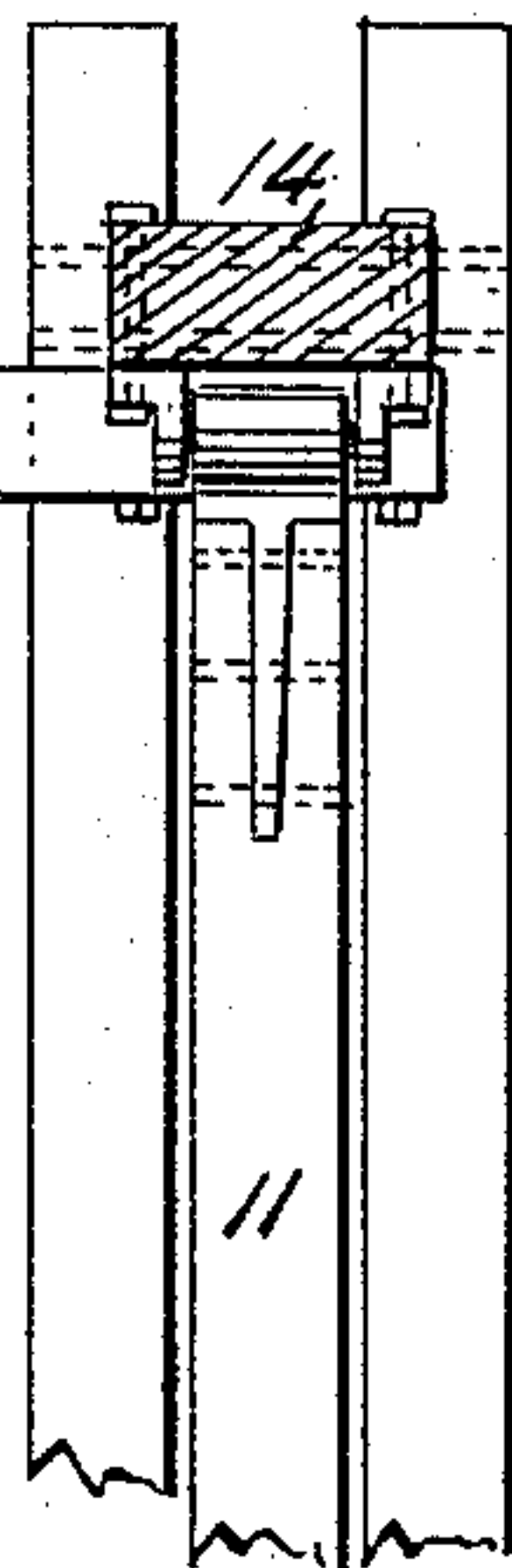
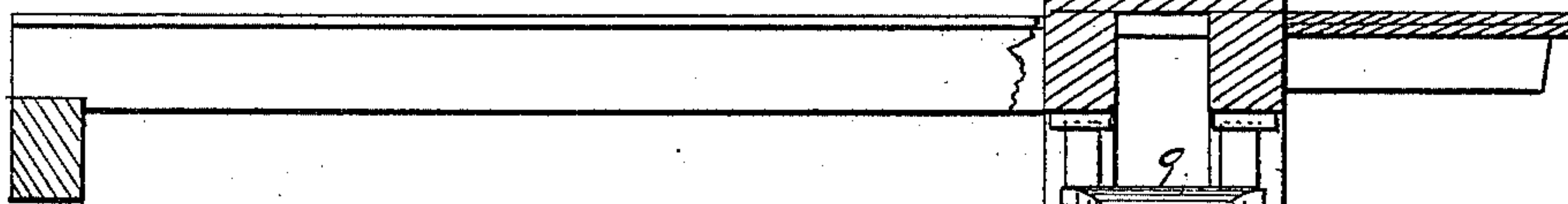
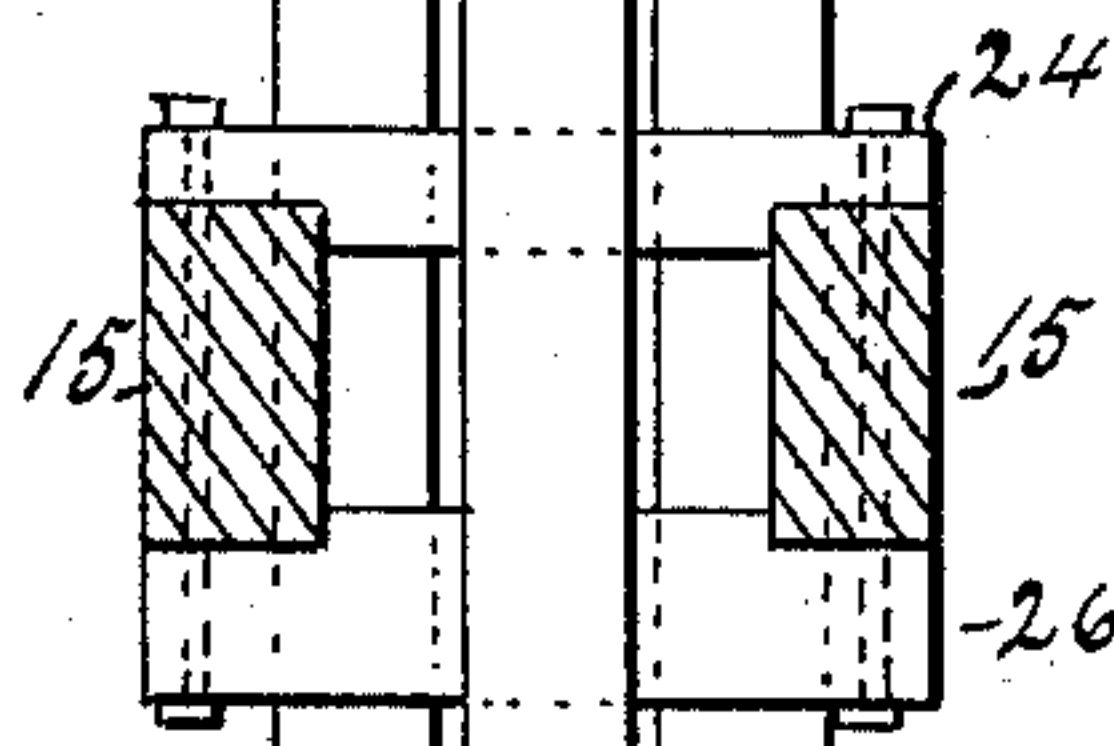
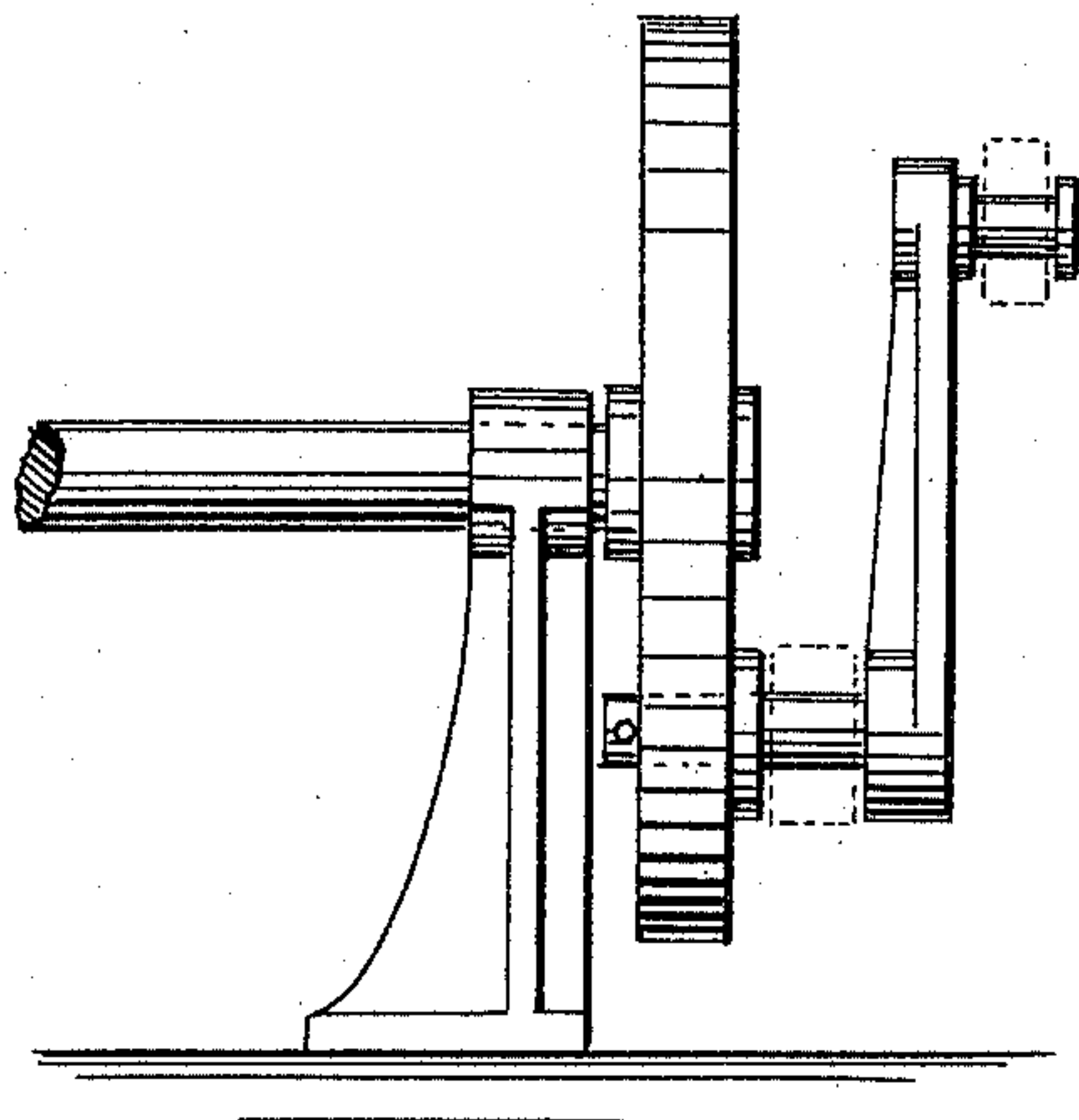


Fig: 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

JEWETT A. BROWNELL, OF BINGHAMTON, NEW YORK.

MACHINE FOR ROLLING LEATHER.

SPECIFICATION forming part of Letters Patent No. 441,821, dated December 2, 1890.

Application filed July 19, 1890. Serial No. 359,251. (No model.)

To all whom it may concern:

Be it known that I, JEWETT A. BROWNELL, of Binghamton, in the county of Broome and State of New York, have invented a certain
5 new and useful Improvement in Machines for Rolling Leather, of which I declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.
10 tion.

This invention relates to improvements in machinery which is employed for rolling sole-leather, and which comprises a bed and a roller attached to a vibrating beam above the
15 bed; and the invention consists of a machine provided with means for producing either a yielding or an unyielding resistance to the thrust of the vibrating beam, and having its various parts constructed, arranged, and combined substantially as is herein described and
20 claimed.

In the accompanying sheets of drawings, Figure 1 is a front elevation; Fig. 2, a vertical section in the plane $x x$, Fig. 1; Fig. 3, a
25 detail of the fly-wheel.

Similar reference-numbers indicate like parts in the different views.

The object of this invention is to enable the pressure of the roller to be made either
30 yielding or unyielding and to be readily changed from one kind to the other, and likewise to strengthen the lower portion of the frame forming the support for the lifting-irons underneath the bed. The frame, which is
35 erected on a suitable foundation, is not essentially different from other frames in use prior to the date of this invention, excepting in the particulars about to be explained, and it is not necessary therefore to describe every part
40 of the frame in detail. It is composed of timbers fitted and bolted together in the form and manner represented in the drawings.

The sill constitutes one portion of the invention. This consists of beams 1 and 2,
45 bolted together, one on top of the other, and strengthened with stay-rods 3, 4, and 5 on the sides and bottom of the sill, passing through block 6 or the timbers of the frame. The sill constructed in this way is practically rigid,
50 even under the great pressure exerted against it by the lifting-irons.

No change from the ordinary construction and arrangement is made in the table or bed 7 and 8, and the lifting-irons 9 and treadle 10 may be like those in use in other machines. 55

The numbers 11 and 12 designate the vibrating beam and the roller, the beam being hinged at 13 to the timber 14, which forms the top of the frame, and extending down between the intermediate cross-timbers 15 and the sides
60 of the guides 16 attached to these timbers. The vibrating beam is actuated in the usual manner by a pitman connected with a fly-wheel, which may be turned by any suitable power. 65

The beam 17 is employed to facilitate the adjustment of the roller into its true position with respect to the bed. This beam is firmly bolted at its front end to the timber 14 and at its rear end is fastened to a post or other
70 support by a sliding bolt 18, between lugs 19, and in the spaces between the lugs and the beam are inserted wedges 20. By driving one of these wedges outward and the other inward the timber 14 is twisted slightly one way
75 or the other and the vibrating beam shifted accordingly, so that any variation of the roller from a horizontal position can be corrected by properly adjusting these wedges. The pressure of the roller is made both yielding and
80 unyielding by adapting the frame to be stiffened in such a manner that the thrust of the vibrating beam can be wholly overcome by it whenever this is necessary, or to be relaxed so that the force exerted against it by the
85 beam will cause it to yield each time the roller passes over the bed. This result is effected with the braces 21 and 22 and the stay 23. The brace 21 abuts against the block 24 near the middle of the cross-timbers 15, and is
90 adapted to resist pressure from below against these timbers. The brace 22 rests upon a key 25 and abuts at the top against the side of the beam 17 and the timber 14. The stay 23 extends from the timber 14 down through the
95 block 26, and is provided with a coil-spring 27 and nut 28.

The roller is adjusted at the proper distance from the bed by means of the key 25, the brace 22 being raised or lowered as the key is driven
100 inward or outward, and either forcing upward the middle portion of the timber 14 or allow-

ing this to settle, so that the vibrating beam with the roller is lifted or depressed. In case it is desired to apply an unyielding pressure to the leather, the roller being adjusted at the right distance above the bed, the nut on the stay 23 is tightened until the coils of the spring 27 are in contact with each other. Then the timbers 14 and 15, the braces 21 and 22, and the stay 23 are firmly bound together into a truss, the spring becoming practically a rigid sleeve. If under these circumstances a piece of leather placed on the bed and raised with the bed by the treadle and lifting-irons is subjected to the action of the machine the pressure of the roller is unyielding, since the thrust of the vibrating beam is received by the strong truss just described. Yet to make the pressure yielding all that needs to be done is to loosen the nut 28 until the coils of the spring 27 separate slightly, and then the resistance offered to the thrust of the beam will be only from the timber 14 and the spring, and this will allow the roller to yield either to a very limited or to a considerable extent, according to the distance afforded for the action of the spring. The operator, therefore, can instantly adapt the roller to exert either a yielding or an unyielding pressure, as well while the machine is in use as when it is at rest, simply by turning the nut on the stay 23 in the proper direction.

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

1. In a leather-rolling machine, the combination, with the frame having uprights and

cross-timbers 14 and 15, the vibrating beam, and the roller, of braces 21 and 22 and an adjustable stay 23, the several parts being arranged and operating substantially as described.

2. In a leather-rolling machine, the combination, with the frame having uprights and cross-timbers 14 and 15, the vibrating beam, and the roller, of braces 21 and 22, a key or suitable means for vertically adjusting the brace 22, and an adjustable stay 23, the several parts being arranged and operating substantially as described.

3. In a leather-rolling machine, the combination, with the frame having uprights and cross-timbers 14 and 15, the vibrating beam, and the roller, of braces 21 and 22, an adjustable stay 23, and a spring 27, all arranged and operating substantially as described.

4. In a machine for rolling leather, the sill composed of the timbers 1 and 2, bolted together, one on top of the other, the blocks 6 on the upper and under faces of the sill, and the stay-bolts 3, 4, and 5, extending diagonally across the sides of the sill from each end upward and downward to the blocks near the middle and between the under blocks, combined with the lifting-irons resting on the sill, the table and bed, and the roller, and means for operating the same, substantially as shown and described.

JEWETT A. BROWNELL.

In presence of—

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K. LYONS.