

(No Model.)

S. ROSS, Jr.

BURNISHING MACHINE FOR BOOTS OR SHOES.

No. 368,853.

Patented Aug. 23, 1887.

Fig. 1.

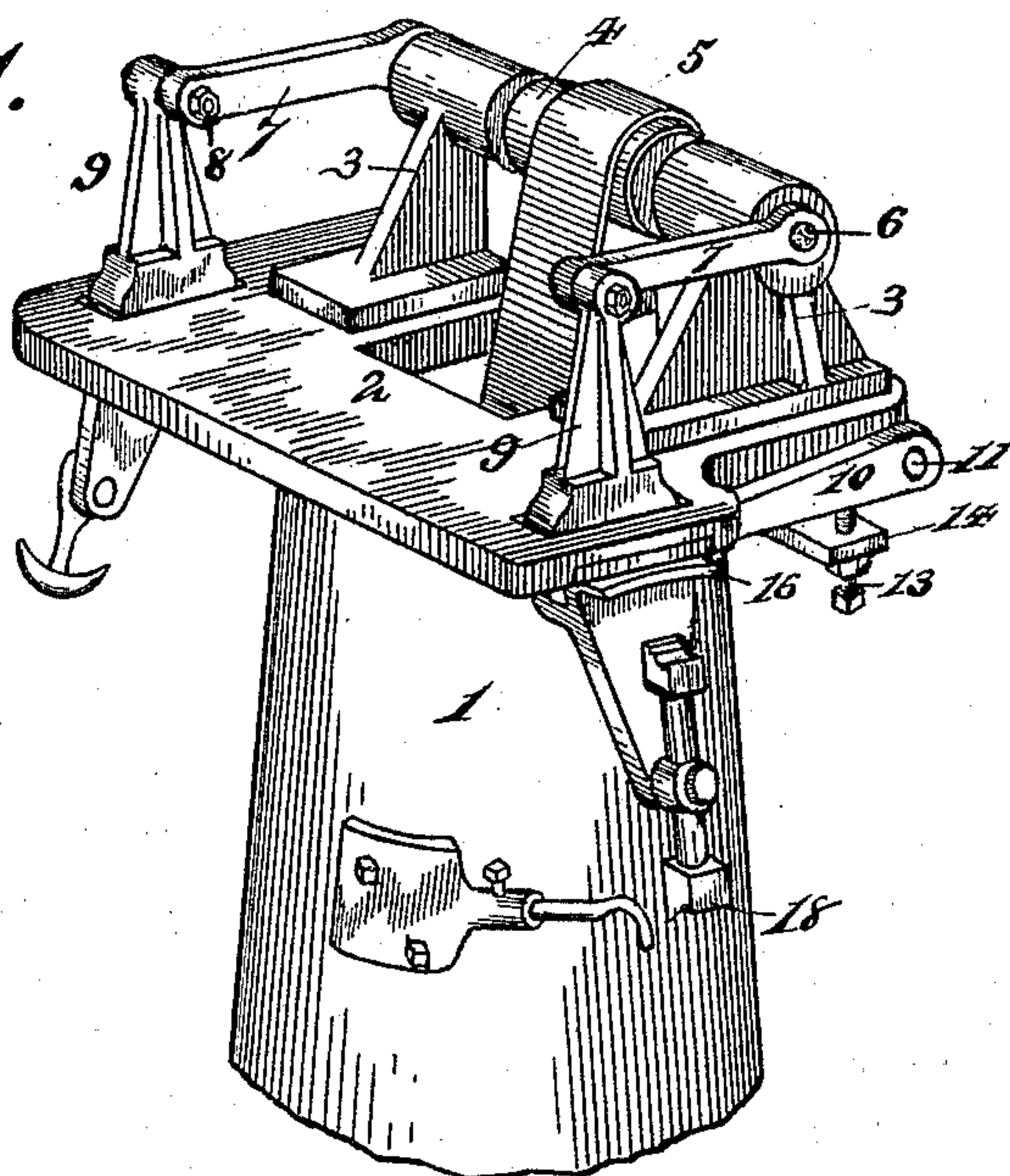


Fig. 2.

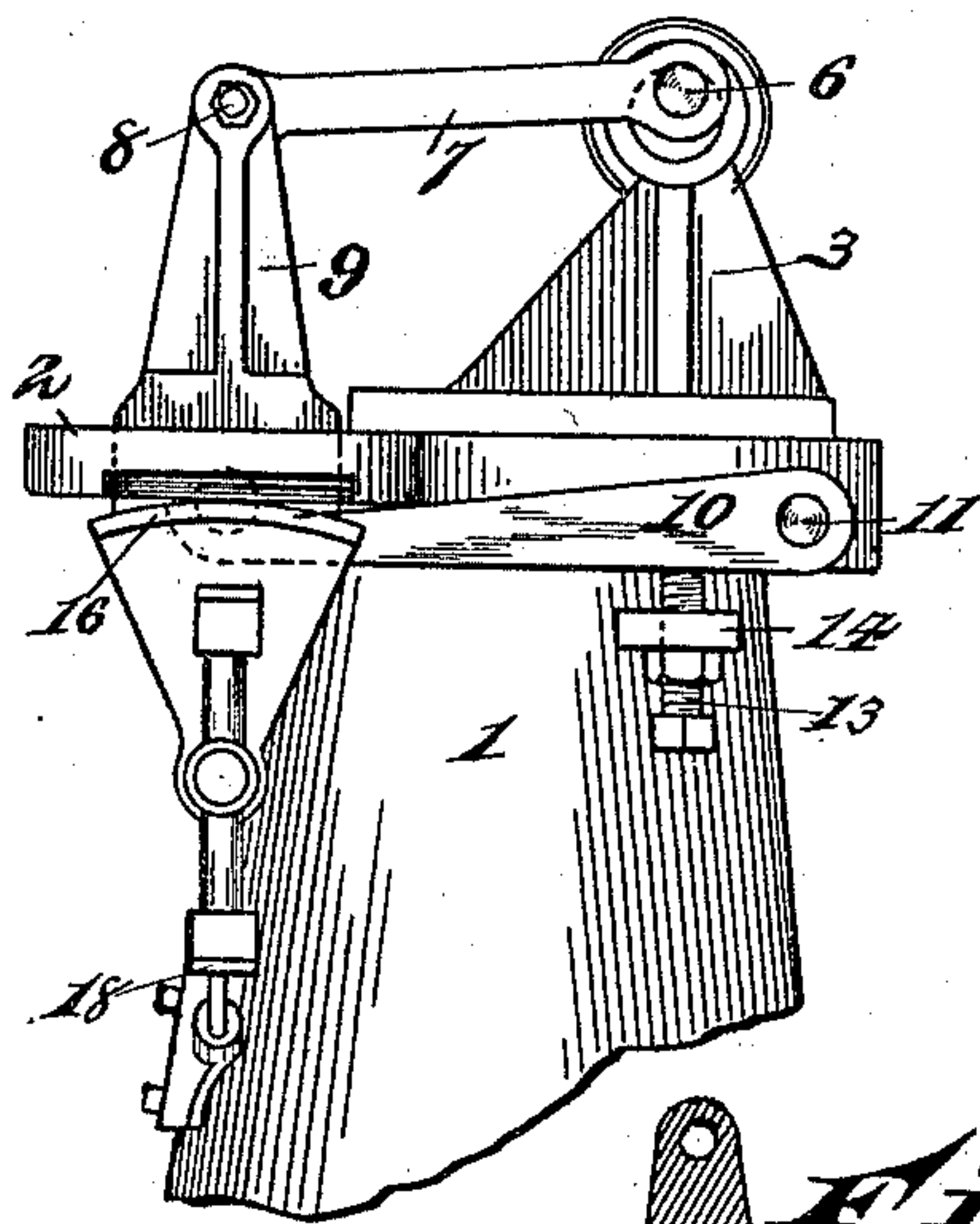


Fig. 3.

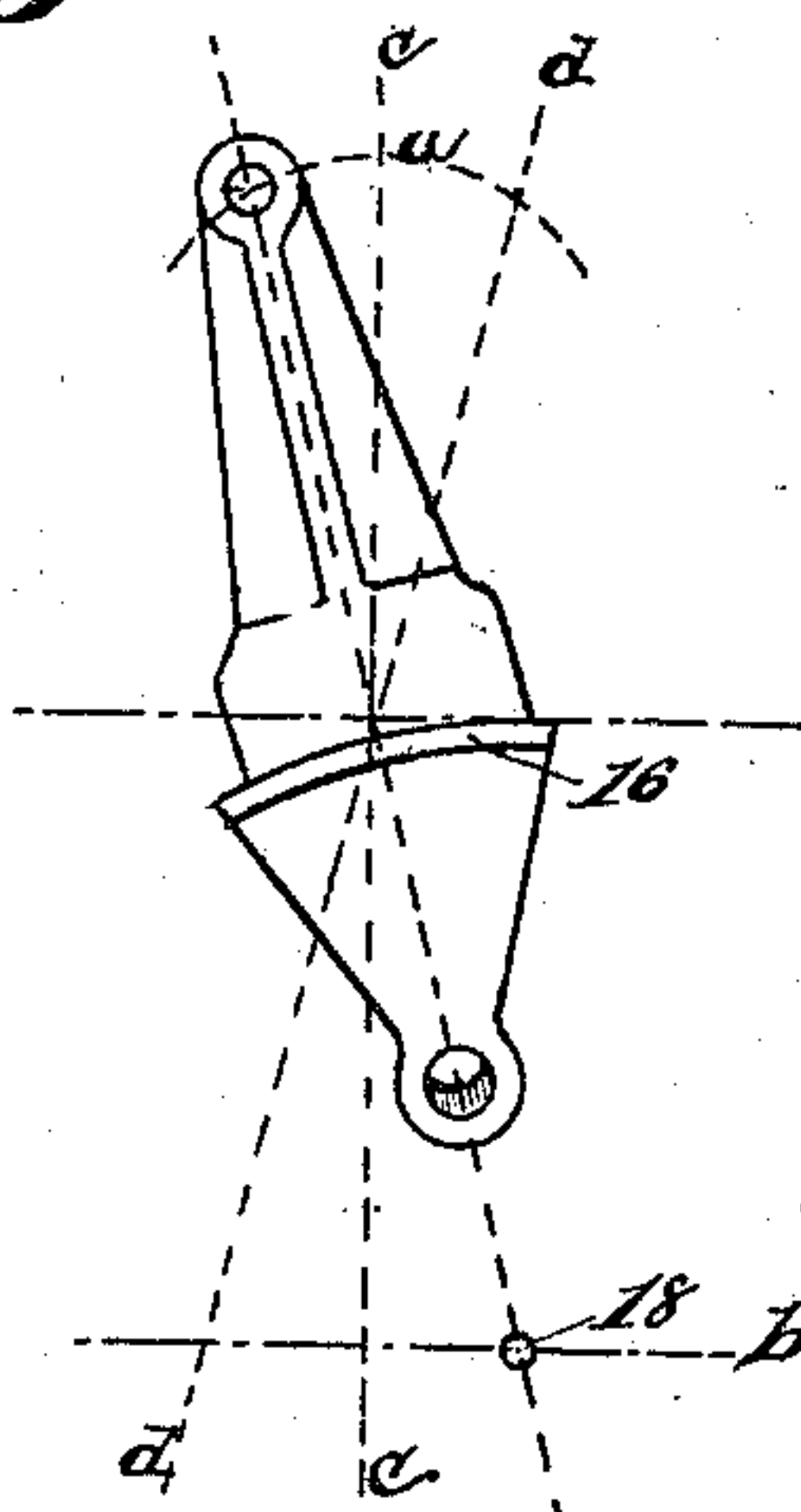


Fig. 4.

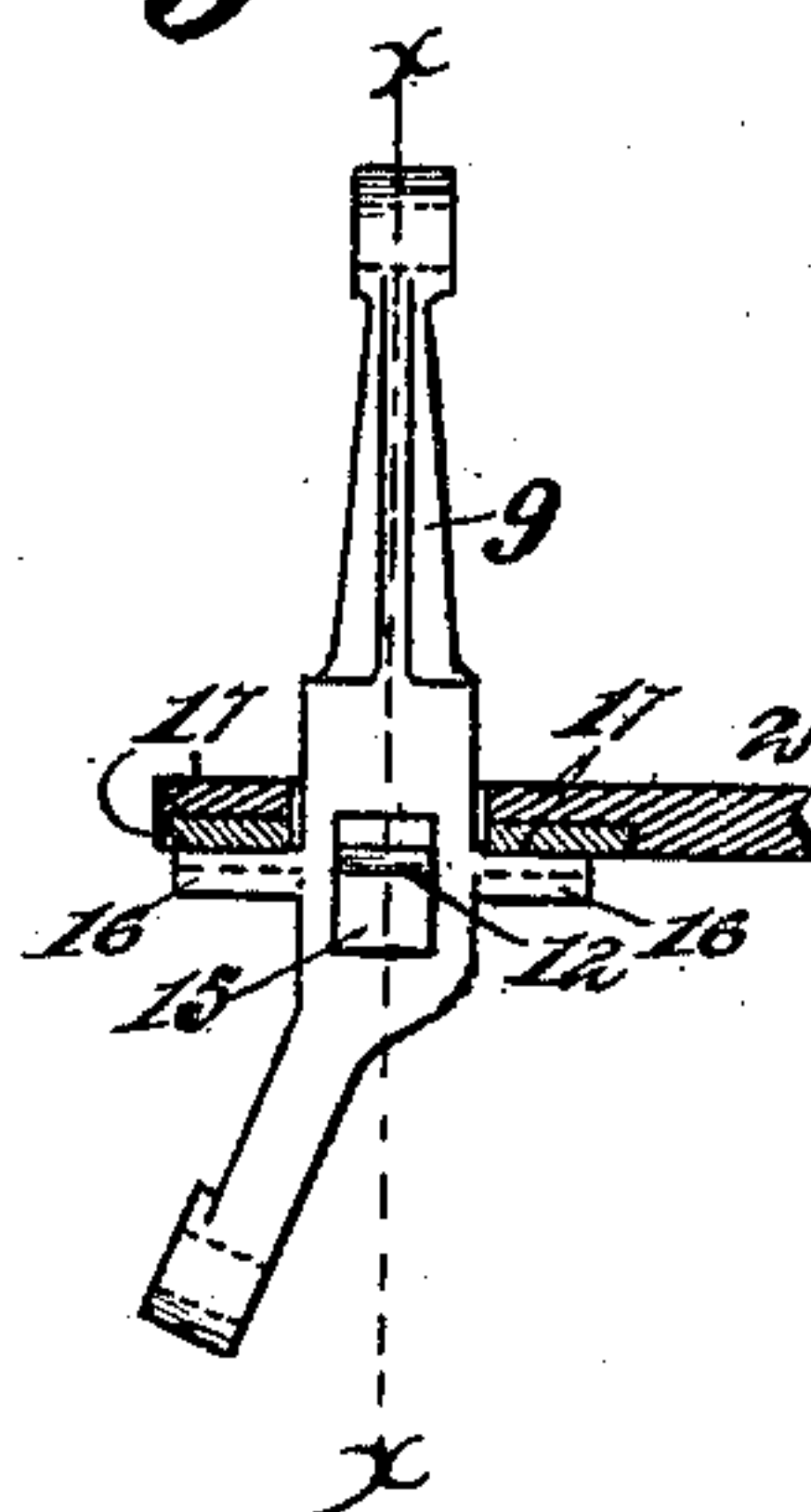
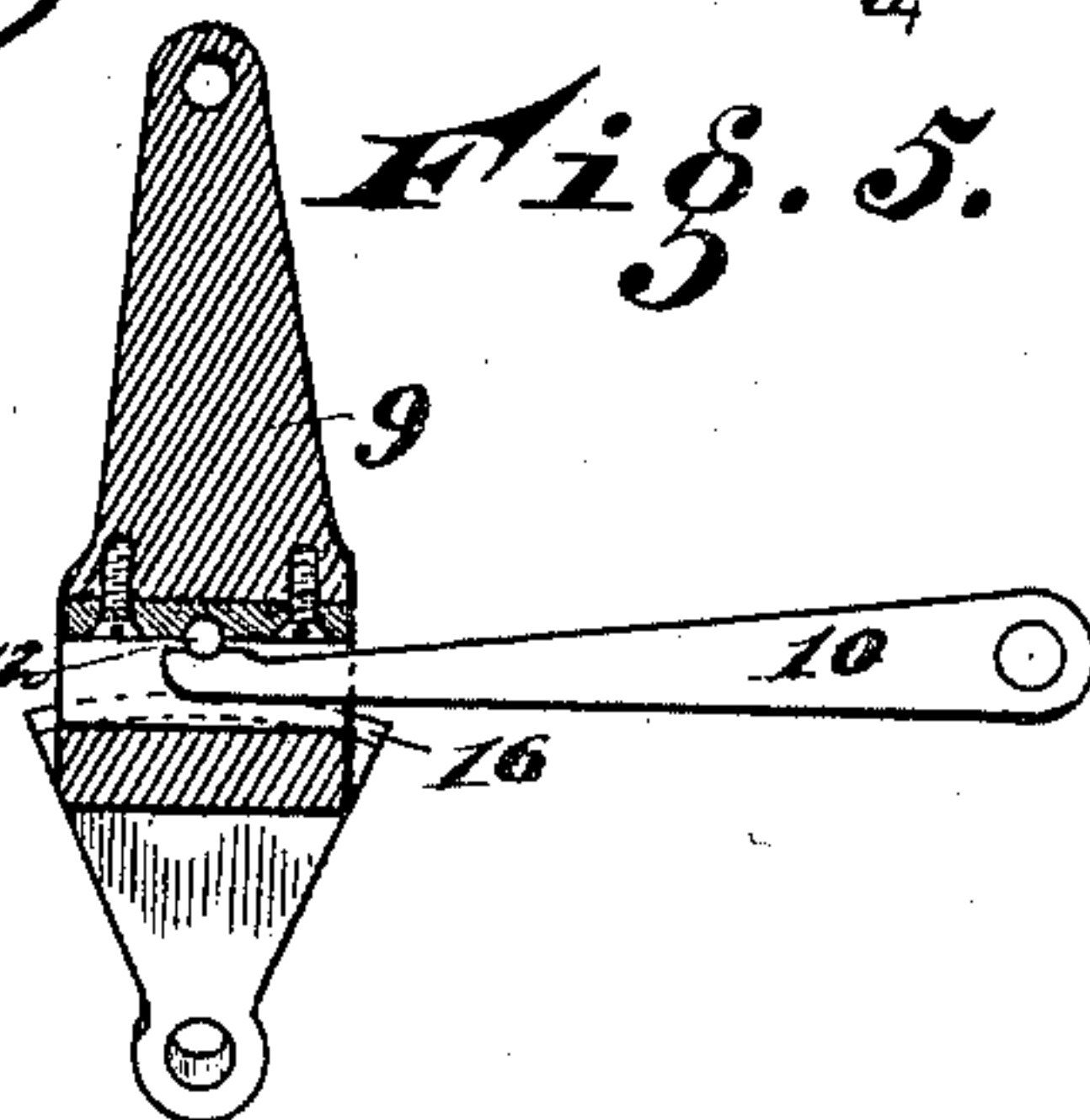


Fig. 5.



Attest

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UNITED STATES PATENT OFFICE.

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BURNISHING-MACHINE FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 368,853, dated August 23, 1887.

Application filed July 2, 1887. Serial No. 243,245. (No model.)

To all whom it may concern:

Be it known that I, SIMON ROSS, Jr., of Linwood, in the county of Hamilton and State of Ohio, have invented certain new and useful
5 Improvements in Burnishing-Machines for Boots or Shoes, of which the following is a specification.

My invention relates to a device for operating a reciprocating burnishing-tool principally
10 adapted for burnishing shoe soles.

Another object of my invention is to provide means for reciprocating the rubbing-edge of the tool in a direct horizontal plane.

Another object of my invention is to lessen
15 the jar and noise occasioned by the rapid reciprocation of the burnishing-tool, all of which I accomplish with the devices shown in the accompanying drawings, making a part of this specification, in which—

20 Figure 1 is a perspective view of my invention applied to an ordinary supporting-post. Fig. 2 is a side elevation of the same. Fig. 3 is a diagram illustrating the movement of one of the parts. Fig. 4 is a side elevation of the same, showing the guides in section. Fig. 5
25 is a central vertical section on line *x x*, Fig. 4, with the tension-arm in elevation.

1 represents the post of an ordinary supporting-frame; 2, the bed-plate of the machine
30 mounted thereon.

3 represents journal-brackets rigidly secured to the table.

4 represents the driving-pulley attached to the shaft journaling in said brackets.

35 5 represents the driving-belt, which receives its motion from any ordinary transmitter.

I have shown two burnishing mechanisms and tools mounted on opposite sides of the machine. They are both operated in the same
40 manner. It is desirable to have the burnishing-tools reciprocate in a direct horizontal plane. To accomplish this it is necessary to convert rotary motion into a rectilinear reciprocating motion, and to accomplish this, and
45 to prevent jar, owing to the change of motion, I provide a vibrating arm which accomplishes this movement.

The parts are constructed as follows:

50 6 represents a crank-pin projecting out from the end of driving-shaft. 7 represents a pit-

man journaling thereon. The wrist-pin 8 is journaled in front end of said pitman. It also passes through a journal in the top end of the arm 9, which has a compound vibrating reciprocating movement, which is produced by
55 the pitman and spring tension-arm 10, one end of which is journaled on stud 11 to the table 2, and the other end forms a journal-support for the arm 9 by means of stud 12.

13 represents the spring tension-screw, which
60 taps up through bracket 14 and forms a step-support for the tension-arm 10. The stud 12 is located centrally within the gain or opening 15, formed in the arm 9, so as to have the support centrally within said arm. The arm
65 9 passes freely through a gain or slot in the table. It is provided with segmental guide-wings 16, formed on either side of said arm, which bears against guides or ways 17, formed on the under side of the table. I prefer to
70 make the guides of anti-friction material inserted in recesses formed in the table, as shown in section, Fig. 4.

18 represents the face or working-edge of the burnishing-tool, which moves in a direct
75 horizontal plane, the operation of which is as follows: The wings 16, being in contact with the guides 17, depress the arm 9 as it is moved by the wrist-pin. The curve of the wings 16 is determined by a radius struck from point
80 18, which is the face of the working-tool, so that the point 18 is at all times on the line *b*, with the arm in the position shown in full lines in Fig. 3, or in the lines *c c* or *d d* of said
85 figure, the spring tension-arm 10 being forced down as the wings 16 are rocked from the center in either direction, and as the guide moves in either direction from the center; hence it is the yielding and retractile force of the arm
90 10 that gives the arm 9 its compound and rectilinear motion and moves point 18 in a direct horizontal plane, (represented by line *b*.)

By a proper adjustment of screw 13 the tension-arm can be adjusted so as to yield to the movement of arm 9 and cushion or take up
95 the shocks or jars due to the change of motion.

Having described my invention, what I claim is—

1. The combination, with the pitman 7 and its driving-shaft, of the arm 9, provided with 100

the wings 16 and having a journal-support upon the spring tension-arm 10, with a bearing on guides 17, substantially as specified.

2. The combination, with the pitman 7 and its shaft, of the arm 9, provided with the wings 16 and having a journal-support upon the spring tension-arm 10, and the burnishing-tool 18, supported on and carried by arm 9, substantially as specified.

3. The combination, with the pitman 7 and its driving mechanism, of the reciprocating arm

9, driven by said pitman, provided with segmental wings 16 and supported on the adjustable spring tension-arm 10, substantially as specified.

In testimony whereof I have hereunto set my hand.

SIMON ROSS, JR. [L. S.]

Witnesses:

EDMUND K. STALLO,
J. WATSON SIMS.