

J. Pyle

Dressing Leather.

N^o 15,816.

Patented Sep. 30, 1856.

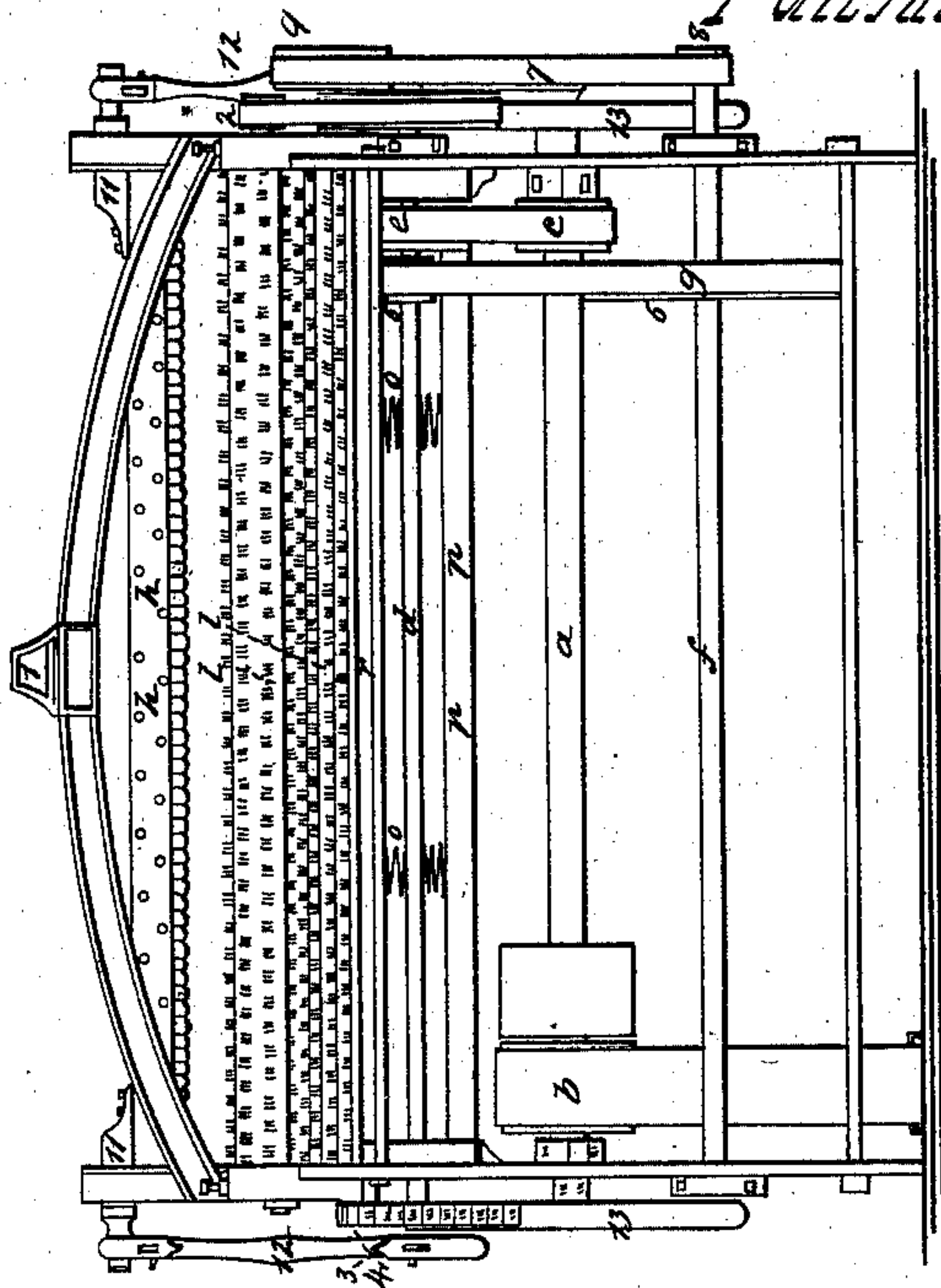


Fig. 2.

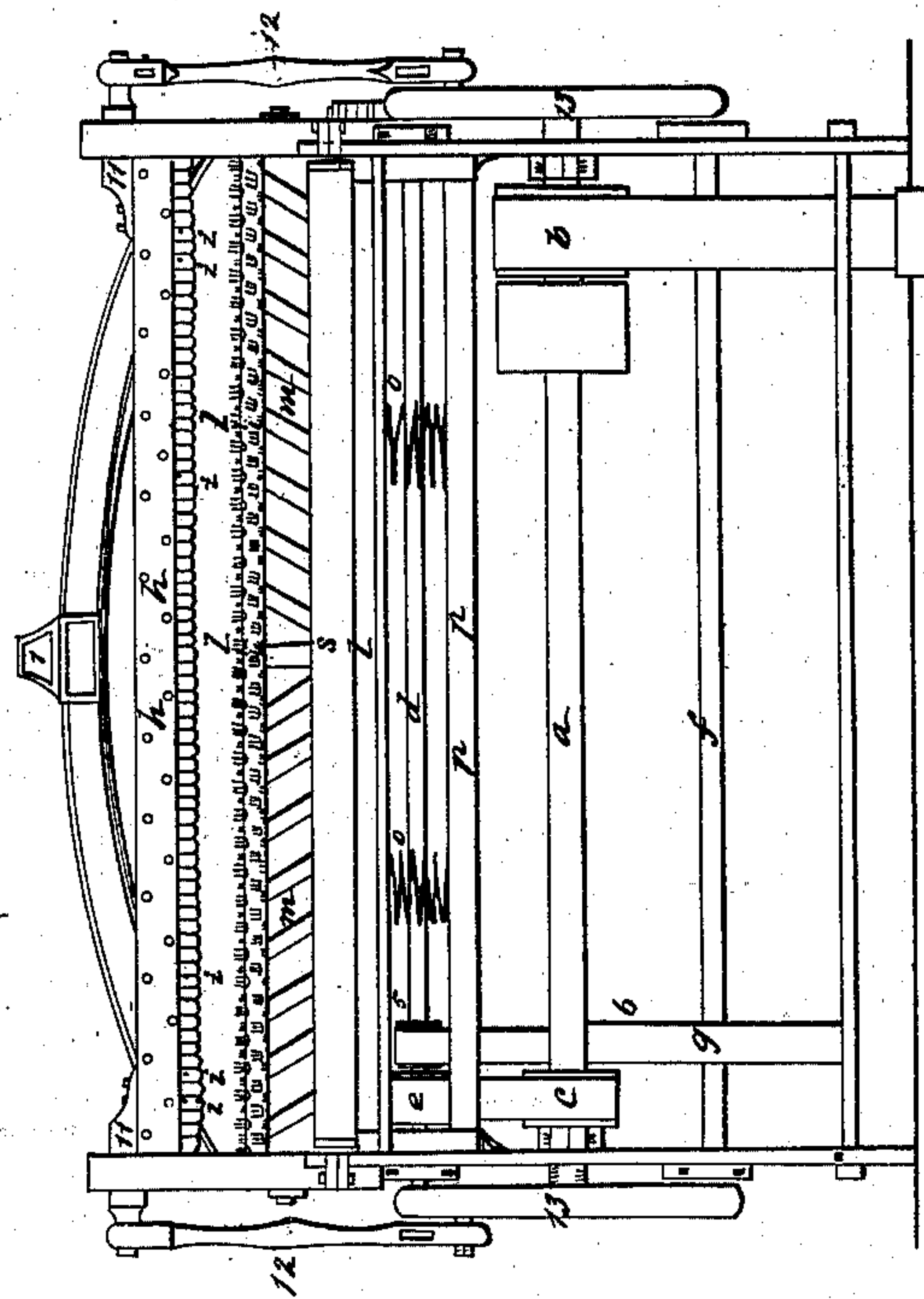


Fig. 1.

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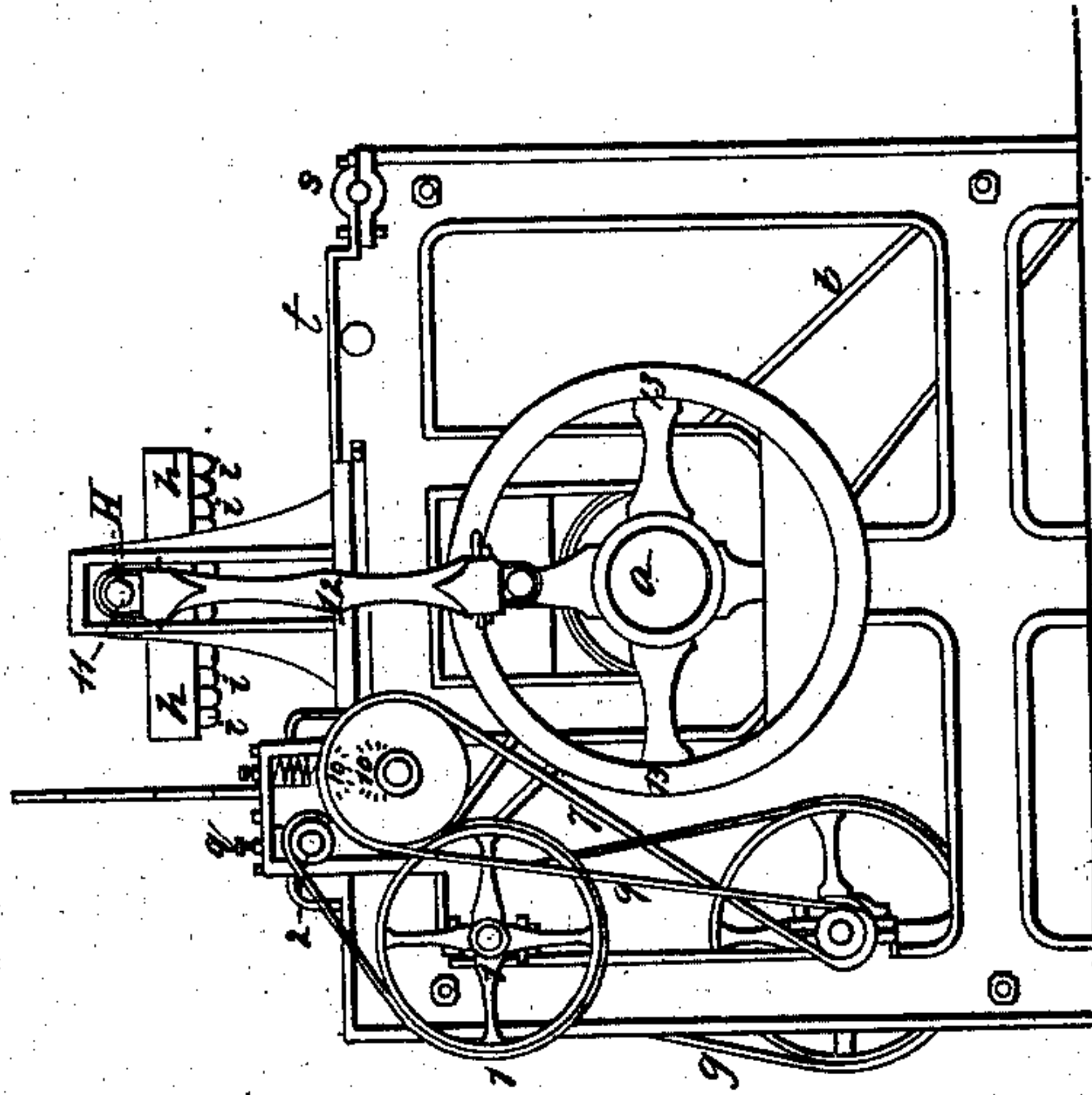


Fig. 4.

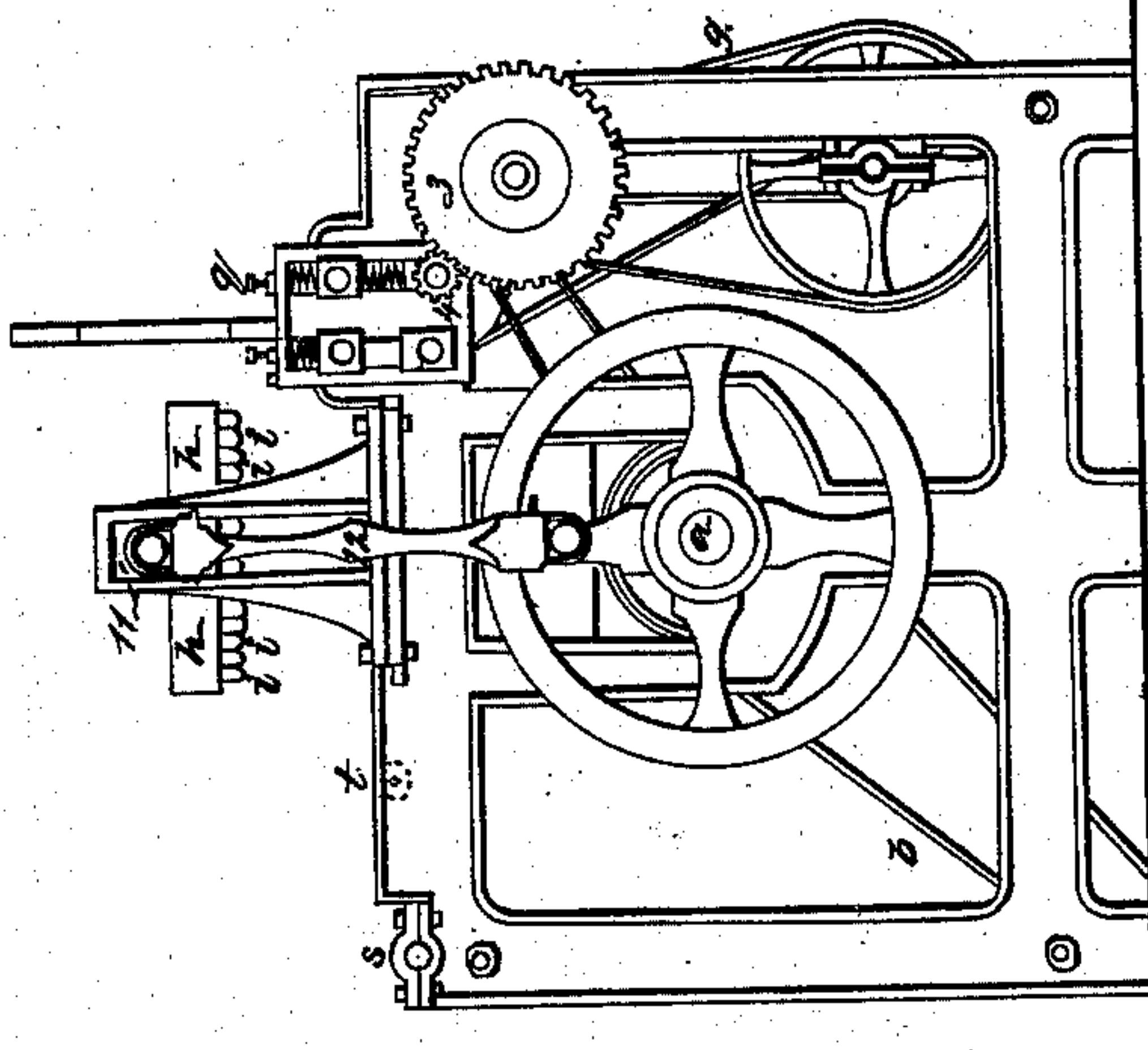


Fig. 3.

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3 Sheets - Sheet 3.

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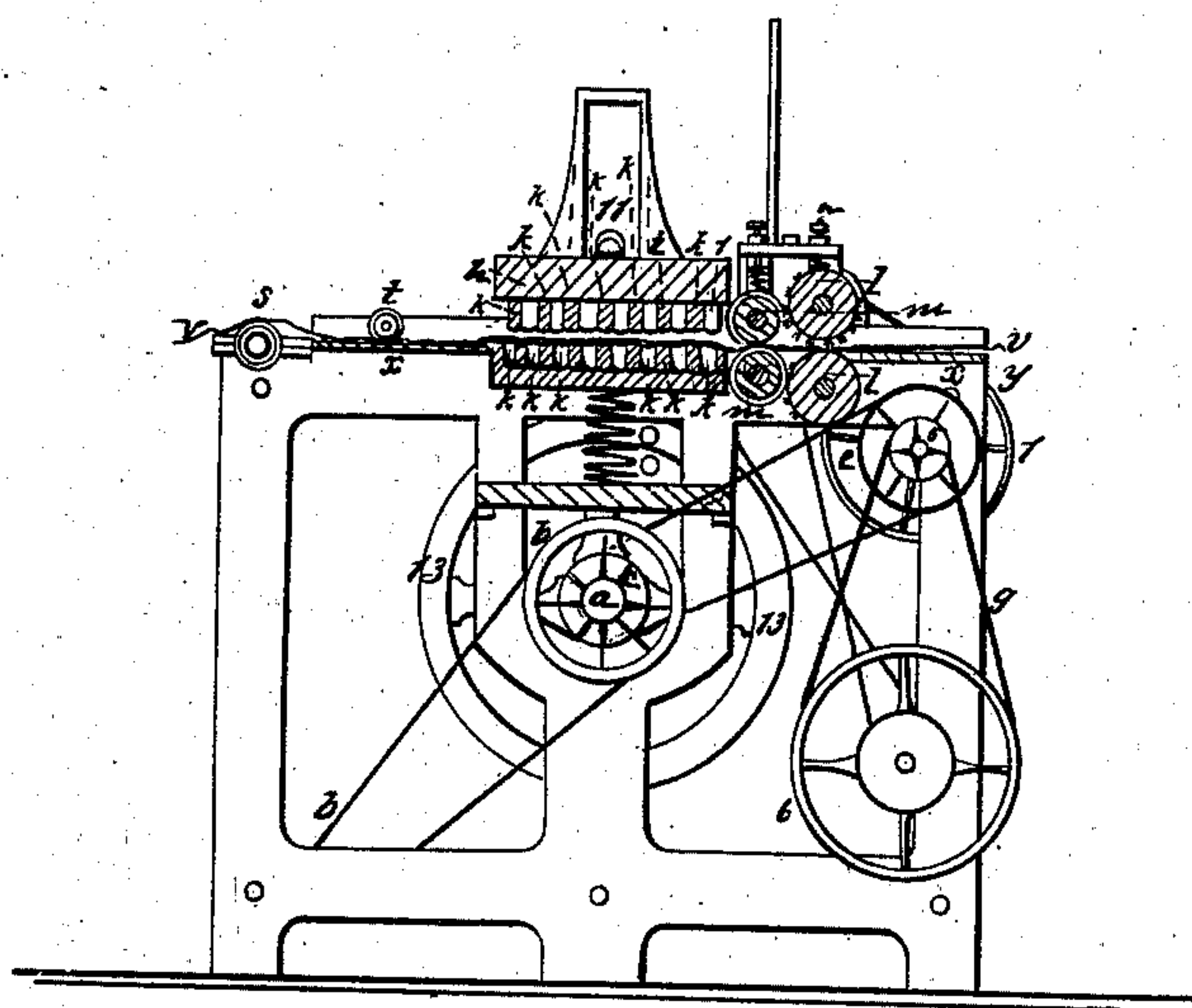


Fig. 5.

Inventor:

Joseph Pyle

UNITED STATES PATENT OFFICE.

JOSEPH PYLE, OF WILMINGTON, DELAWARE.

MACHINE FOR FINISHING LEATHER.

Specification of Letters Patent No. 15,816, dated September 30, 1856.

To all whom it may concern:

Be it known that I, JOSEPH PYLE, of the city of Wilmington, in the county of New-castle and State of Delaware, have invented
5 a new and useful Machine for Softening Leather; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed
10 drawings, making a part of this specification, in which—

Figure 1 is a front elevation, Fig. 2 is a rear or end elevation, Fig. 3 is a right side elevation, Fig. 4 is a left side elevation and
15 Fig. 5 is an elevation of the machine bisected laterally, showing the blocks, rollers, &c.

I construct the frame (and cross head guides) of cast iron or wood either five feet in width, three feet six inches high to square
20 and about four feet in length or sides.

"a" is the principal shaft driven at b and drives the shaft d by means of a six inch band pulley c, its band passing over an eight inch pulley e on shaft d, which drives the
25 two brush rollers l, l, which I set in rear of and close to feed rollers m m. These brush rollers I make about five and a half inches in diameter. The india rubber feed rollers set in front of brush rollers, as shown in
30 Fig. 5, I compose of wood about three inches in diameter. The upper one I strip with stout india rubber strips about one inch in width and running from the center in a spiral manner, as shown on the drawing.
35 The under or lower one I cover solidly or entirely with india rubber cloth. I set my pin block n, n, in the center of the machine and a corresponding block beneath it resting upon a ledge in the sides of the frame.

40 This lower block I perforate with holes corresponding to the pins "i i," as shown at k k k, and receives the pins i i i when the machine is in motion. This may be a pin block similar to the upper; but I consider
45 the perforated block preferable when the apertures are beveled at the upper edge. By means of the four spiral springs o o resting upon the wooden shelf p p I prevent sagging of the lower block. I place
50 springs in the slots between the axles of the brush rollers l, l, with set screw g, g, so as to raise or lower the top roller. I also set a spring on top of feed roller m, m, so as to keep the leather secure, drawing it gently
55 through the pin blocks h, r. I set a three inch roller in front at s to run the leather

over and a movable roller at t one and a half inches in diameter in order to pass the leather under, keeping it in place and causing it to run or feed smoothly under
60 pin blocks. This roller t may be so adjusted by side perpendicular bearers passing between the sides of the machine and reaching below the floor by means of cords and weights with their pulleys so as to raise it
65 for the introduction of the leather and by means of a catch kept suspended as long as necessary and then by a slight touch of the catch brought down by said weights upon the leather, or it may be so set in the ma-
70 chine that one end of its axis so set in the bearing as to shift or raise for the passage of the leather under it. By means of 12 inch band pulley 1 with band pulley 2 on the left side of frame and twelve inch cog-
75 wheel 3 and three inch pinion wheel 4 I drive the brush rollers l, l. This axle d by means of a 3 inch band pulley 5 passing over fourteen inch pulley 6 drives the two
80 feed rollers m m by a band 7 passing over three inch pulley 8 and 10 inch pulley 9 by means of pinion wheels 10, the band being crossed to give the proper movement. A cross head 11 is attached to both ends of the upper pin block h, to which the connect-
85 ing rod 12 is also attached, driving the pin block h up and down by means of the driving wheel 13.

To fully describe the operation of softening leather I will refer to Fig. 5. The
90 leather is represented by red line v, which is thrown over roller s, passed under roller t, the end of the leather being placed so that the feed rollers m m will bite and receive it and draw it gently and smoothly,
95 as necessary for proper finishing, through and under the described pin block h, descending upon corresponding block r and between brush rollers l l and delivers it over
100 shelf x at y.

I have a machine in operation in this city which works admirably. It does the work of 7 men.

By this process the leather does not shrink but rather stretches and finishes better than
105 by the old and tedious method of beating by hand over a stationary pin block.

I do not claim the form of pin block or the pin block at all; but

What I claim as my invention and desire
110 to secure by Letters Patent is—

The combination of the pin block h with

its corresponding block similar to the one shown in the drawing or same as upper block composed of wood or any malleable metal, the feed rollers *m m* composed of like
5 materials or of wood covered by india rubber cloth as shown upon drawings with the corresponding brush rollers *l l* geared and arranged set and driven as set forth in this specification and delineated upon the draw-

ing for the purpose of softening leather or 10 skins ready for finishing or any other materials substantially the same upon which it will perform the same operation.

JOSEPH PYLE.

Witnesses:

WM. B. WIGGINS,

GEO. H. P. SIMMONS.