

(No Model.)

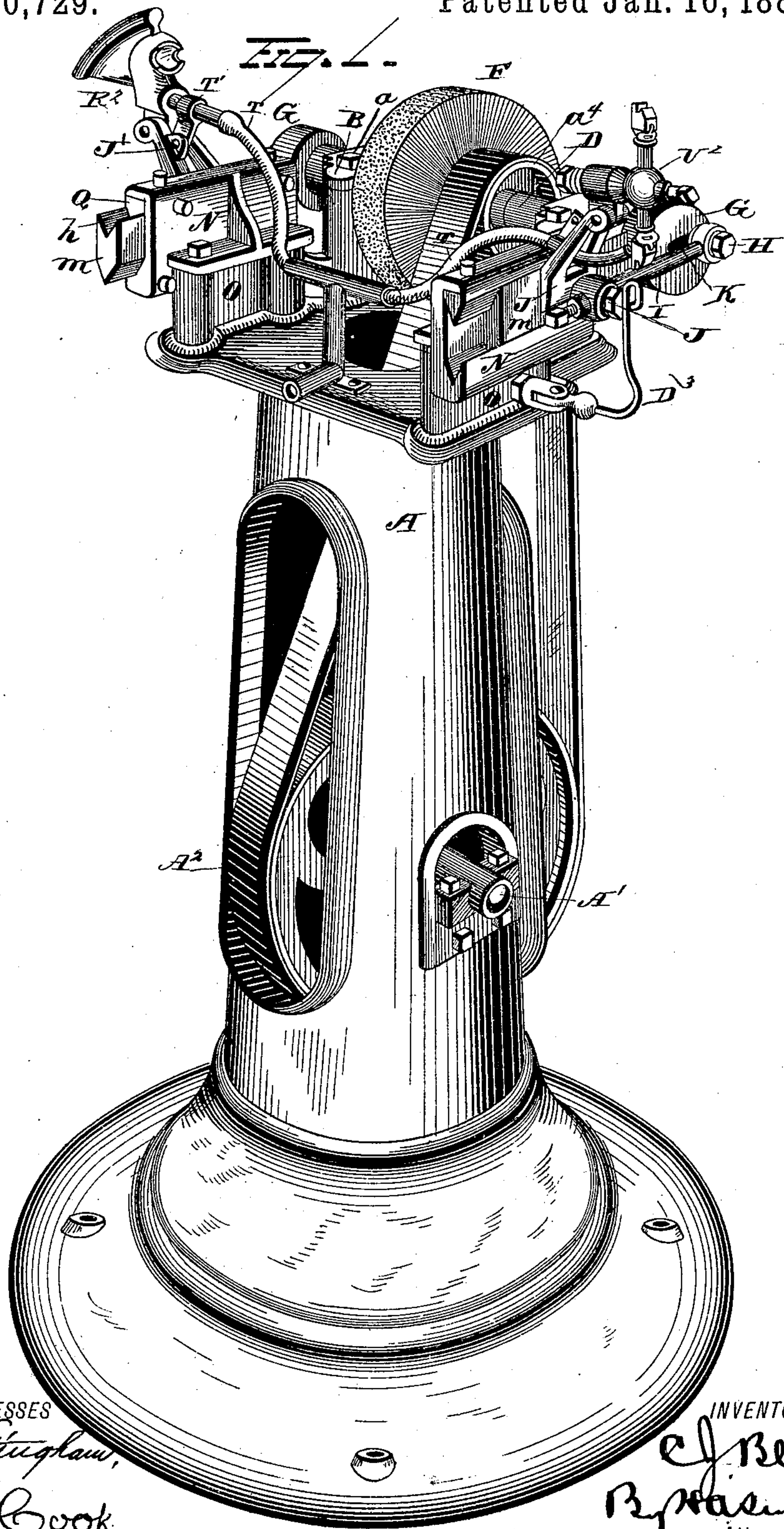
3 Sheets—Sheet 1.

C. J. BLAKELY.

BOOT AND SHOE BURNISHING MACHINE.

No. 270,729.

Patented Jan. 16, 1883.



WITNESSES
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(No Model.)

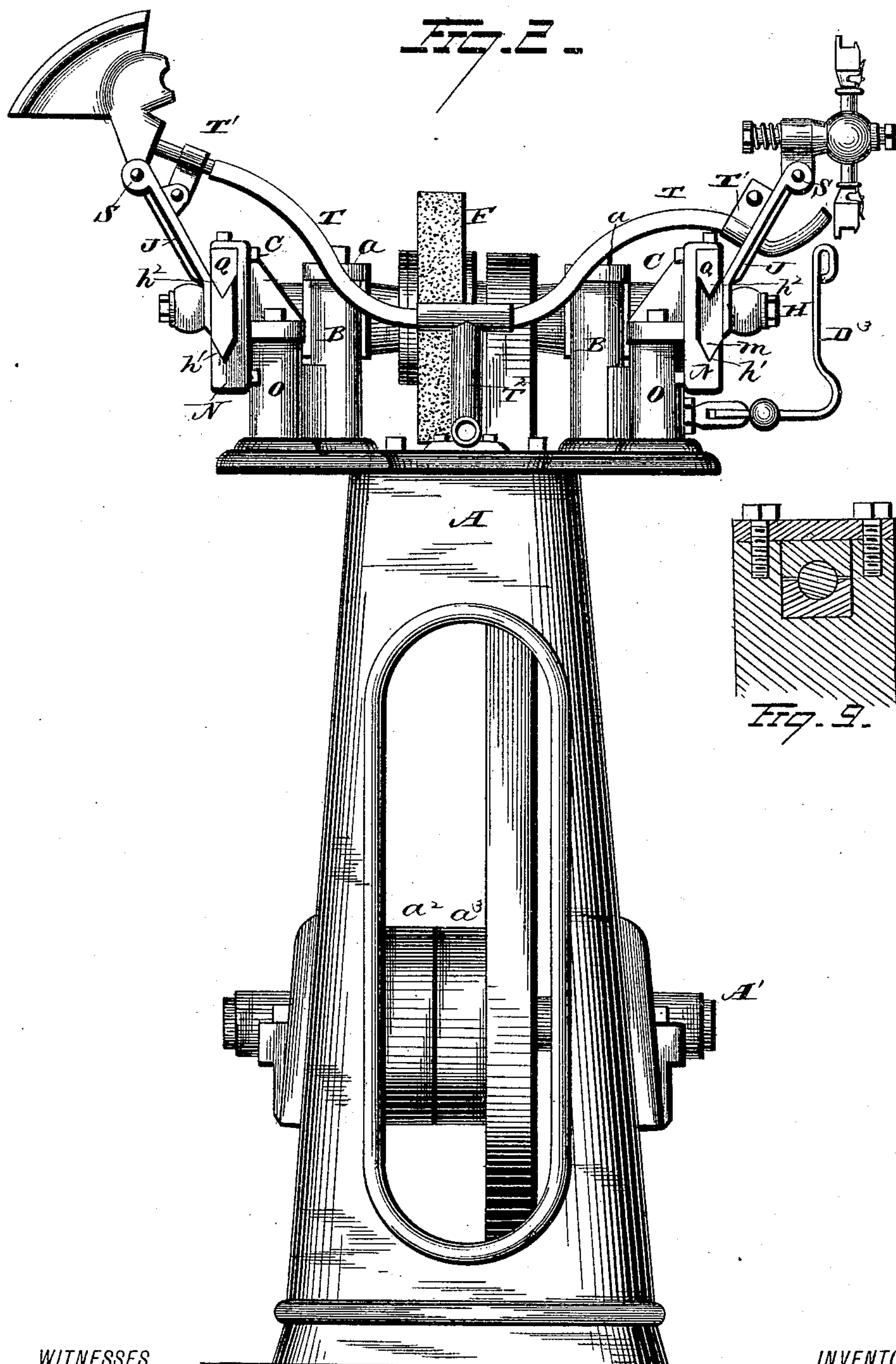
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WITNESSES

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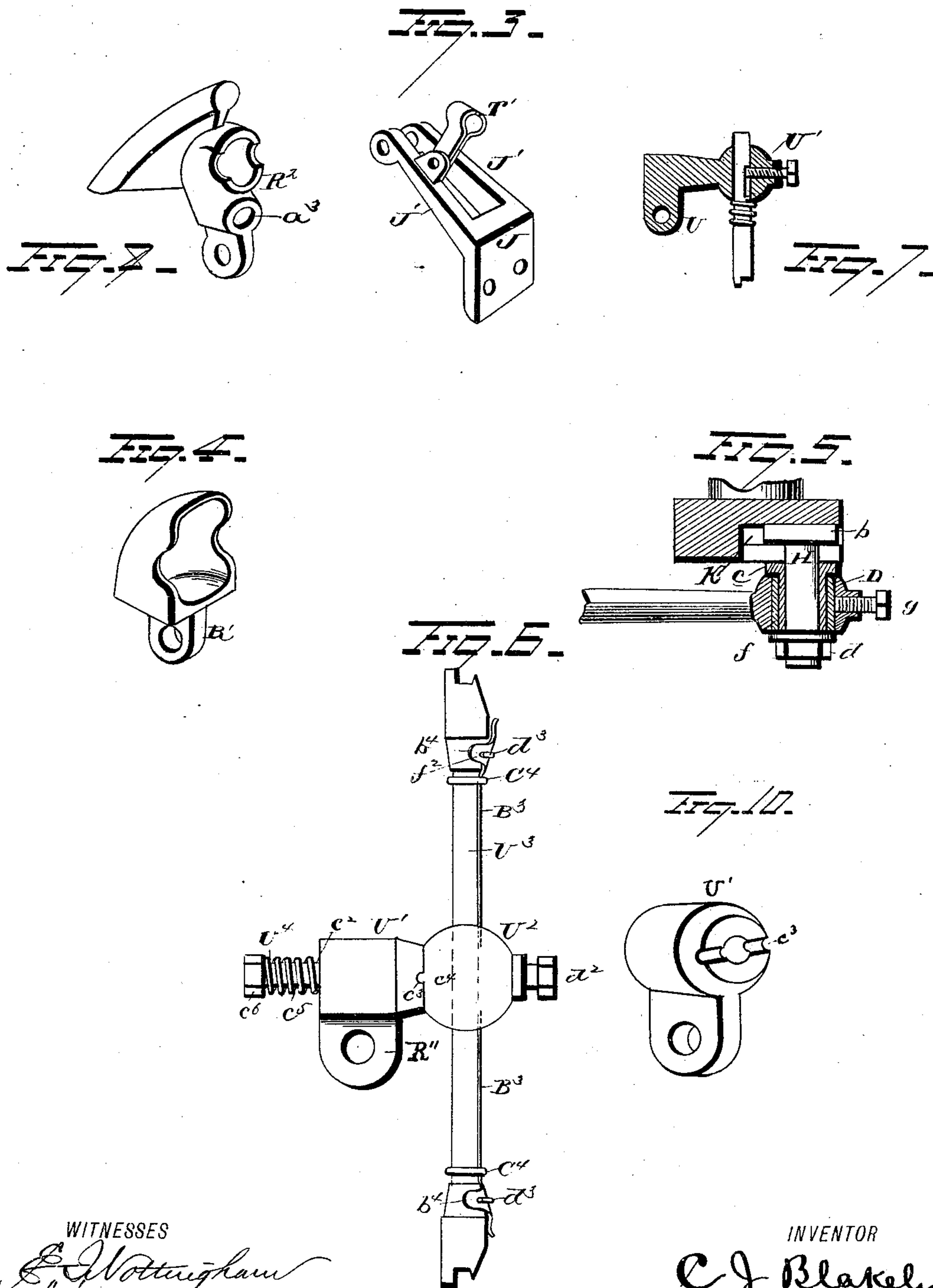
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UNITED STATES PATENT OFFICE.

CALEB J. BLAKELY, OF JANESVILLE, WISCONSIN, ASSIGNOR OF TWO-THIRDS
TO L. N. WILLIAMSON AND W. S. WEBBER, BOTH OF SAME PLACE.

BOOT AND SHOE BURNISHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 270,729, dated January 16, 1883.

Application filed June 6, 1882. (No model.)

To all whom it may concern:

Be it known that I, CALEB JOSHUA BLAKELY, of Janesville, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Boot and Shoe Burnishing Machines; and I do hereby 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 pertains to make and use the same.

My invention relates to an improvement in boot and shoe burnishing machines; and it consists in certain features of construction and combinations of parts, as will be more fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of a machine embodying my invention. Fig. 2 is a front view of the same. Fig. 3 is a detached view of the tool-holder. Fig. 4 is a detached view of a top-lift burnisher adapted to be used on the machine in connection with my improvement. Fig. 5 is a vertical section through one of the disks. Fig. 6 is a side view of my edge-setter. Fig. 7 is an enlarged detached view of an edge-burnisher. Fig. 8 is a view of a shank-burnisher. Fig. 9 is a sectional view of the two-part shaft-bearing, and Fig. 10 is an enlarged view of a portion of Fig. 6.

For the sake of convenience, and also for showing the relative arrangement and the operation of the several parts herein claimed, I will show and describe them in connection with an operative machine, the construction of which will also be described.

A represents an open tapering base, provided with the main driving-shaft A' , the latter having secured thereon the large driving-wheel A^2 and the rigid and loose pulleys a^2 a^3 . This base is provided with the standards B, which latter are released at their upper ends for the reception of the two-part bearing C. These two-part bearings C are held in place by the caps a , and are adapted to support the shaft D, which latter is provided with the brush F, for removing corrosive inks remaining on the sole, and with the pulley a^4 , on which the drive-belt moves to impart a reciprocating motion to my improved tool-holder.

Disks G are secured to the opposite ends of the driving-shaft D, and are provided with a movable crank-pin, H, to which one end of the

pitman I is connected. The disks G are each provided with a T-shaped groove, K, in which the crank-pins H are adjustably secured, and by which the length of the stroke of the tool-holder can be increased or diminished, as circumstances demand. The crank-pin H is provided with a T-shaped head, b , which fits and moves in the groove K, while the shank thereof is round and provided with a screw-threaded end, to which the pitman is secured. One end of the pitman I rests directly on the removable sleeve, which latter is provided with an enlarged collar, c , adapted to bear against the outer face of the disk. To adjust the length of the stroke, it is simply necessary to loosen the nut d , which allows the crank-pin to be moved toward or away from the center of the disk, as necessity demands. When the proper position of parts that will give the desired stroke to the tool-holder has been reached, they are again clamped in position by screwing up the nut d . The opening in the end of the pitman I for the crank-pin H is lined by the annular split collar f , by means of which, together with the screw g , the wear is taken up, which prevents the loss of any movement as well as the waste of any power. The opposite ends of the pitman I are connected to the slides m , which latter have the tool-holders J removably secured thereto. Each slide m moves in the slide-bearings N, which latter are secured to the standards O, and are provided on their upper surfaces with an adjustable bearing-piece, Q, and on its lower surface with a V-shaped groove, h' . Each slide M is provided on its outer side above the pitman-connection with the tool-holder J. This tool-holder J is provided at its lower end with screw-holes for the attachment to the slide m , and at its upper end with the arms J' , between which the burnishing-tools are adapted to be secured. The slot between the arms J' is sufficiently long to allow the arms a slight spring, which is necessary to securely fasten the holders therein.

Substantially the same construction as above described was patented to me July 11, 1882, No. 260,828, and is referred to here simply for the purpose of illustrating the operation of my improved parts in connection with an operating-machine.

My improved edge-setter shown in Fig. 6 consists of a socketed holder, U' , having a

shank, R^2 , by means of which it is secured in position in the tool-holder, the head U^2 , with its connected shank U^4 , and the double reversible edge-setter U^3 . The socketed holder U' is secured in position between the arms J' by the bolt S , and is provided with an opening or socket for the passage of the head U^2 , and is also provided on its outer face with one or more grooves, c^3 , in which the corresponding lugs, c^4 , on the inner face or edge of the head U^2 rest. The shank of this head passes through the socket, and is encircled near its free end by the spiral spring c^5 , which latter is held in position by the nut c^6 . By pulling outward on the head U^2 the lugs c^4 are withdrawn from the grooves c^3 , which leaves the head U^2 free to be given a part turn, so as to bring the opposite edge-setter down into an operative position. The head U^2 is perforated vertically for the passage of the shank or body of the double edge setters, and is provided with the set-screws d^2 , adapted to engage a cut-away portion of the said shank and prevent the same from making a complete rotation, but allow it to make a part turn, so as to accommodate itself to the curves of a shoe. Instead of constructing these parts as above described, the shank or body portion can be rigidly secured to the head U^2 , and the operative ends thereof be pivotally secured to the said body or shank, as shown in the drawings. In this instance the edge-setting attachments U^3 are each provided with a lug, d^3 , adapted to rest and move in the oblong slot f^2 of the flexible arms B^3 . These flexible arms are each provided at its outer or free end with curved fingers b^4 and a lip, the former adapted to bear on the sides of the attachment and by frictional contact therewith prevent the same from turning unnecessarily, while the lug d^3 in the slot f^2 , before mentioned, limits the extent of the said movement. The arms B^3 are held down in position and prevented from releasing the attachment by the rings C^4 .

The peculiar construction of the tool-holder and the manner of heating the tools enable other styles of burnishing and edge-setters—such, for instance, as those shown in Figs. 4, 7, and 8—to be worked with satisfactory results.

The top-lift burnisher R (shown in Fig. 4) is curved, as shown in the drawings, and the shank thereof can be secured in the tool-holder in the ordinary manner.

The shank-burnisher R^2 (shown in Fig. 8) is shaped like the top-lift burnisher, and is provided with a recess or cavity, a^3 , in which the end of the gas or heating pipe terminates.

The edge-burnisher shown in Fig. 7 shows another form of tool, which can, if desired, be employed in connection with my tool-holders and heating attachments. This burnisher is secured to the arms of the tool-holder in the ordinary manner, and by its peculiar construction allowed to yield when pressure is brought to bear thereon, and also to partly turn in its head, which enables it to follow the curves in the shank of the boot or shoe.

The edge setters and burnishers are heated by gas conveyed thereto by the T-shaped pipe T^2 and the flexible pipes T , the latter being securely held in position by the spring-clamps T' , which latter are pivotally secured to one arm of my improved tool-holder, and are adapted to be so adjusted as to direct the flame against the operative setter or the idle setter, as desired.

D^3 are curved hand-rests, pivotally secured on opposite sides of the machine directly under the tool-holders, and provided at their upper ends with hand-loops, into or through which the hand is introduced while holding a shoe against the edge-setter. This construction affords means for holding the shoe firmly and steadily against the tool, and by pivotally connecting the hand rest to the frame the operator is enabled to follow the curves of the shoe without removing his hand from the hand-rest.

The machine shown and described is double—that is to say, is provided on opposite sides with tool-holders, which latter move simultaneously, thereby enabling two shank-burnishers, or two edge-setters; or an edge-setter and a burnisher can be employed simultaneously on the machine with good results.

I do not claim in this application the burnishers shown and referred to, as they are also shown and described in my previous patent; but,

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

1. In a boot and shoe burnishing machine, the combination, with a tool-holder constructed of two arms forming an intervening space, of a clamp pivoted to one of the arms of the tool-holder and adapted to hold the gas-pipe so as to connect it with the tool at a point above or below the upper end of the tool-holder.

2. The combination, with a holder, U' , adapted to be removably secured to the holder J , said holder U' being provided with a groove, c^3 , of the shank provided with the head U^2 , having a lug, c^4 , a nut secured to the stem of the shank, a spring, c^5 , encircling the stem, and a reversible shank, U^3 , secured in the head U^2 , substantially as set forth.

3. In a boot and shoe burnishing machine, the combination, with the driving-shaft, a reciprocating slide, tool-holder, and tool located at opposite ends of the shaft, of a T-shaped gas supply pipe, and flexible gas supply pipes connected with each of the horizontal arms of the T-shaped pipe and with the reciprocating tool-holders on opposite sides thereof, substantially as and for the purpose set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CALEB JOSHUA BLAKELY.

Witnesses:

ED. F. CARPENTER,

WILLIAM SHERRIN WEBBER.