(No Model.) 2 Sheets—Sheet 1.

M. CHRISTENSON.

SHOE POLISHER.

No. 524,414. Patented Aug. 14, 1894.

Fig. 1

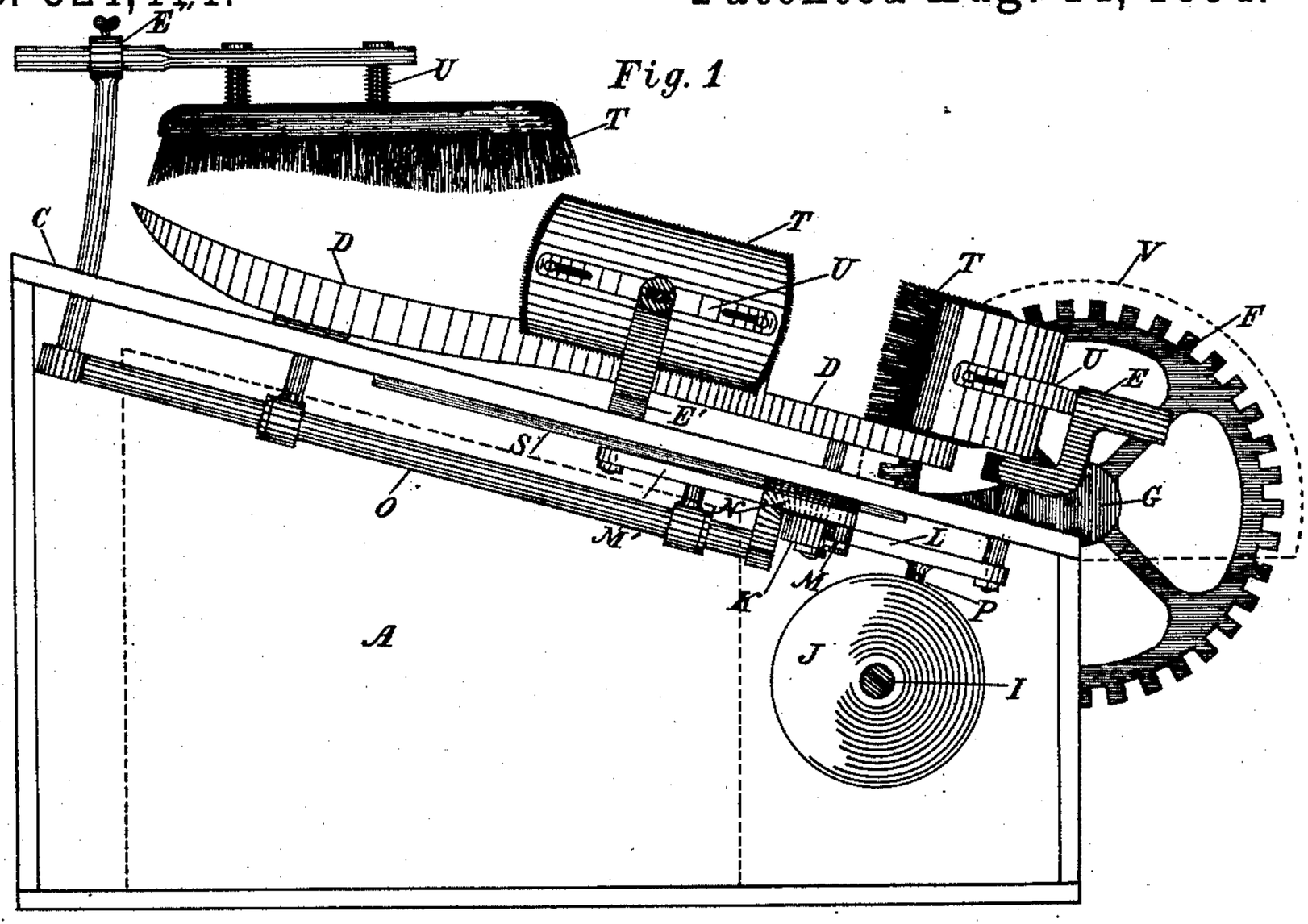
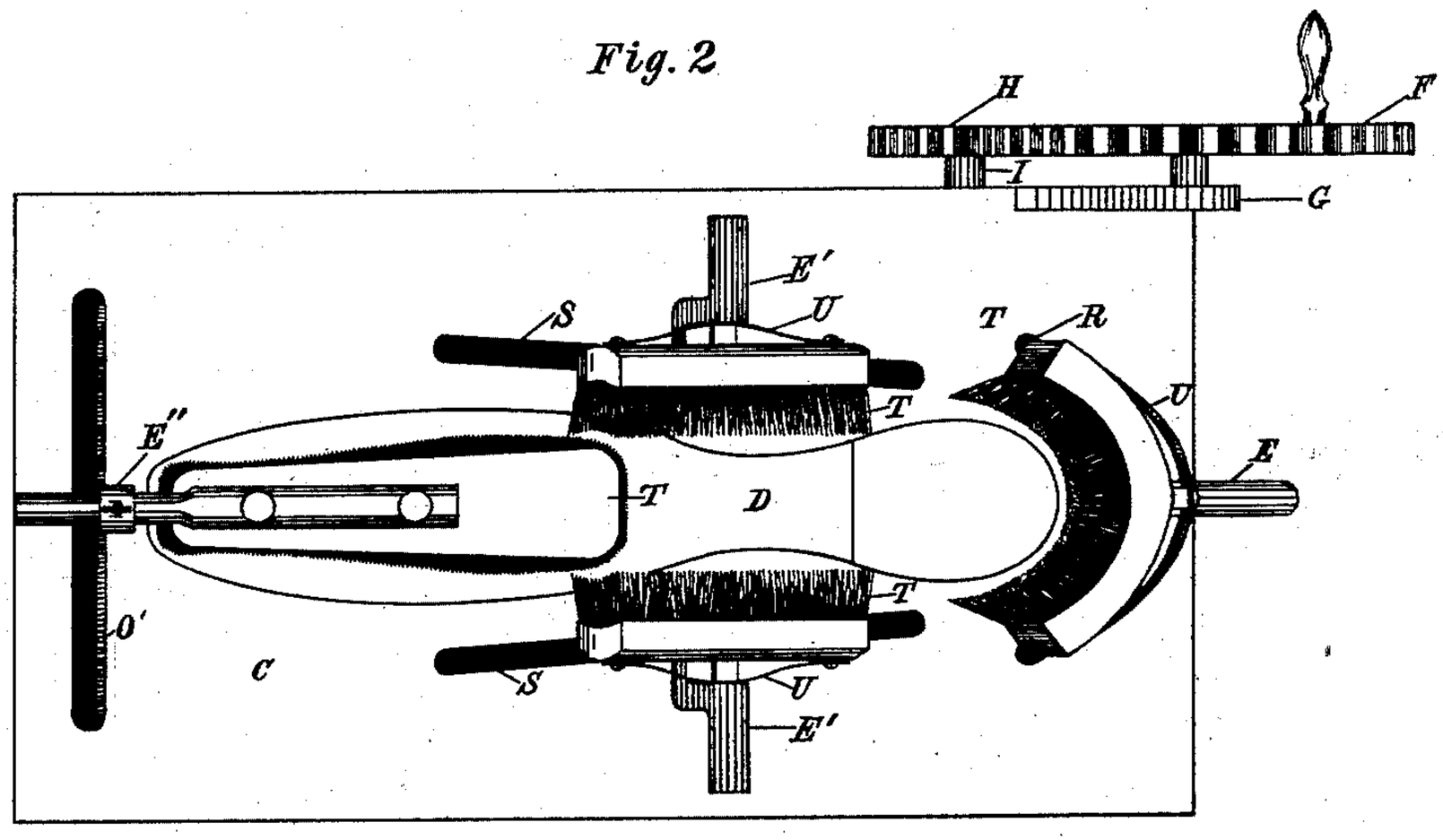


Fig. 2



Witnesses
P. J. Joyce
C. L. Roesch

Inventor
Martin Christenson
By Erwin Wheeler & Wheeler
Attorneys

(No Model.) 2 Sheets—Sheet 2.

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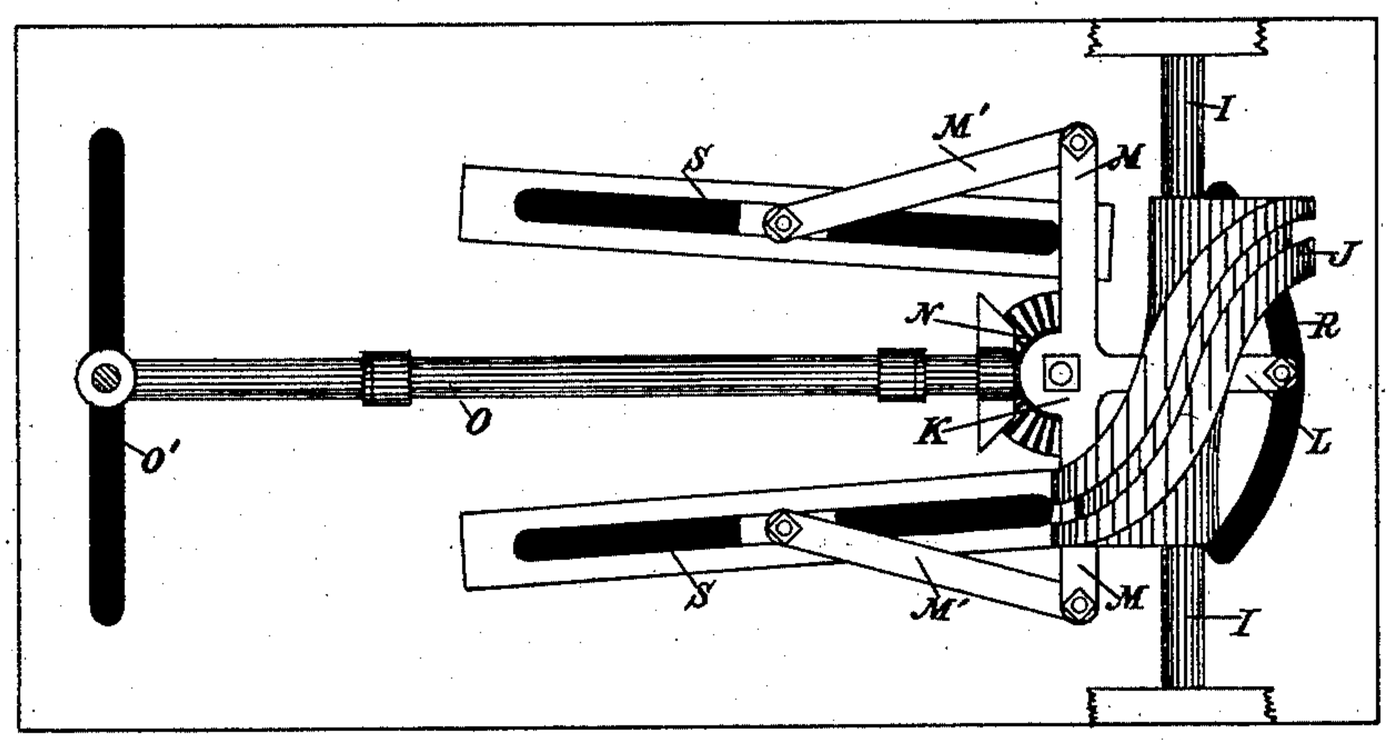
Fig. 3



Witnesses
P. F. Joyce
C. L. Roesch

Inventor
Martin Christenson
By Erwin, Wheeler & Wheeler
Attorneys

UNITED STATES PATENT OFFICE.

MARTIN CHRISTENSON, OF LA CROSSE, WISCONSIN.

SHOE-POLISHER.

SPECIFICATION forming part of Letters Patent No. 524,414, dated August 14, 1894.

Application filed March 10, 1894. Serial No. 503,190. (No model.)

To all whom it may concern:

Be it known that I, MARTIN CHRISTENSON, a citizen of the United States, residing at La Crosse, in the county of La Crosse and State of Wisconsin, have invented new and useful Improvements in Shoe-Polishers, of which the following is a specification.

My invention relates to improvements in shoe polishers.

The object of my invention is to provide a hand-actuated mechanism which will simultaneously operate brushes upon all sides of a boot or shoe, for the purpose of polishing the same.

In the following description, reference is had to the accompanying drawings, in which—

Figure I. is a side elevation with the side of the box removed to show the interior construction. Fig. II. is an exterior plan view, showing the relative position of the brushes. Fig. III. is a detail view of the interior operating parts shown from the under side.

Like parts are identified throughout by the same reference letters.

My invention is designed for use principally in hotels, barber shops, and other places where shoes are polished in large numbers, and is constructed as follows:

An oblong box A, having side door B, and slanting top C provided with foot-rest D, constitutes the body of my shoe-polisher. Surrounding the foot-rest are a number of machine actuated, brush supporting brackets E, E′ and E″, extending through slots in the top C and adapted to simultaneously operate brushes on all sides of the shoe when the machine is in use. The brush brackets E E′ E″ are operated by means of a large hand-actuated gear wheel F, which is supported upon a bracket G, at the lower or rear end of the box and communicates its motion by means of the pinion H, to the shaft I, which extends through the box near the rear end and carries a reversing cam J in the interior of the box. A three-armed lever K is pivoted to the under side of the top C, having the center arm L projecting rear-ward and the side arms M substantially at right angles thereto. The body of the lever K, opposite the rear arm L, is provided with a half miter gear N which connects it with the shaft O, extending to the forward end of the box. A downward projecting spool P, attached to the lever arm L, is adapted to operate in a groove in the edge of the cam J, so that the revolutions of the cam will communicate a rocking motion to the lever K and a rotary motion to the shaft O.

The brush bracket E is rigidly attached to the rear lever arm L and moves back and forth in the curved slot R, around the heel of the shoe. The brackets E′ are pivotally attached to the lever arms M, by means of the bars M′ and operate reciprocally in a slanting direction along the sides of the shoe through the guide slots S.

The bracket E″ is rigidly attached to the shaft O and operates in a semi-rotation over the toe of the shoe, through the slot O′. The brackets are each provided with a removable brush holder T, adapted to the part of the shoe upon which it operates, and provided with a spring mechanism U for the purpose of adapting the position of the brushes to the size of the shoe to be polished.

The gear wheel F is provided with a guard V, which is attached to the bracket G and extends upward and over the gear wheel in the position indicated by the dotted lines in the drawings, to protect the clothes from becoming soiled by the wheel.

The unused space in the interior of the box may be utilized for storing an extra foot-rest, application brush, blacking box, &c.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a shoe polisher, the combination of a supporting frame or box, a main shaft supported within said frame, a reversing cam located upon said shaft, hand-actuated gearing for communicating motion to said shaft and cam, an oscillating three armed lever located above said shaft and actuated by the revolutions of said cam, together with means for communicating the motion of said lever to a set of brushes operating about a foot rest in such a manner as to simultaneously polish all sides of a boot or shoe resting upon said foot rest, substantially as described.

2. In a shoe polisher, the combination of a supporting box provided with a foot rest, a main shaft running transversely through the rear end of said box underneath said foot rest, hand actuated gearing, for communicating motion to said shaft, a three armed oscil-

lating lever pivoted to the under side of the box cover, means for communicating the motion of said shaft to the lever, and a set of brush supporting brackets connected with the arms of said lever and extending upward through slots in said cover in such a manner as to support and operate brushes on all sides of a boot or shoe resting upon said foot rest, substantially as described.

3. In a shoe polisher, substantially as described, the combination of an oscillating three armed lever pivoted to the under side of a supporting box cover, a rocking shaft connected at one end with the body of said lever by a half miter gear, and a brush supporting bracket rigidly attached to said shaft near the other end thereof and extending upward through a slot in said box cover, together with a brush attached to said bracket and operating above said box cover with the rocking of said shaft, substantially as described and for the purpose set forth.

4. In a shoe polisher, substantially as described, the combination with a supporting box cover, of an oscillating three armed lever pivoted to the under side of the cover, brush supporting brackets operating through guide slots in said cover, brushes supported by said brackets above said cover, and actuating bars pivotally connecting the lower ends of said brush brackets with the side arms of said lever, substantially as described and for the purpose set forth.

5. In a shoe polisher, the combination of a supporting box A, cover C, provided with slots R, S, and O, gear wheel F, pinion H, shaft I, cam J, lever K, spool P, shaft O, half miter gear N, brush brackets E, E′ and E″, and brush holders T, substantially as described.

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

MARTIN CHRISTENSON.

Witnesses:
LYMAN G. WHEELER,
LEVERETT C. WHEELER.