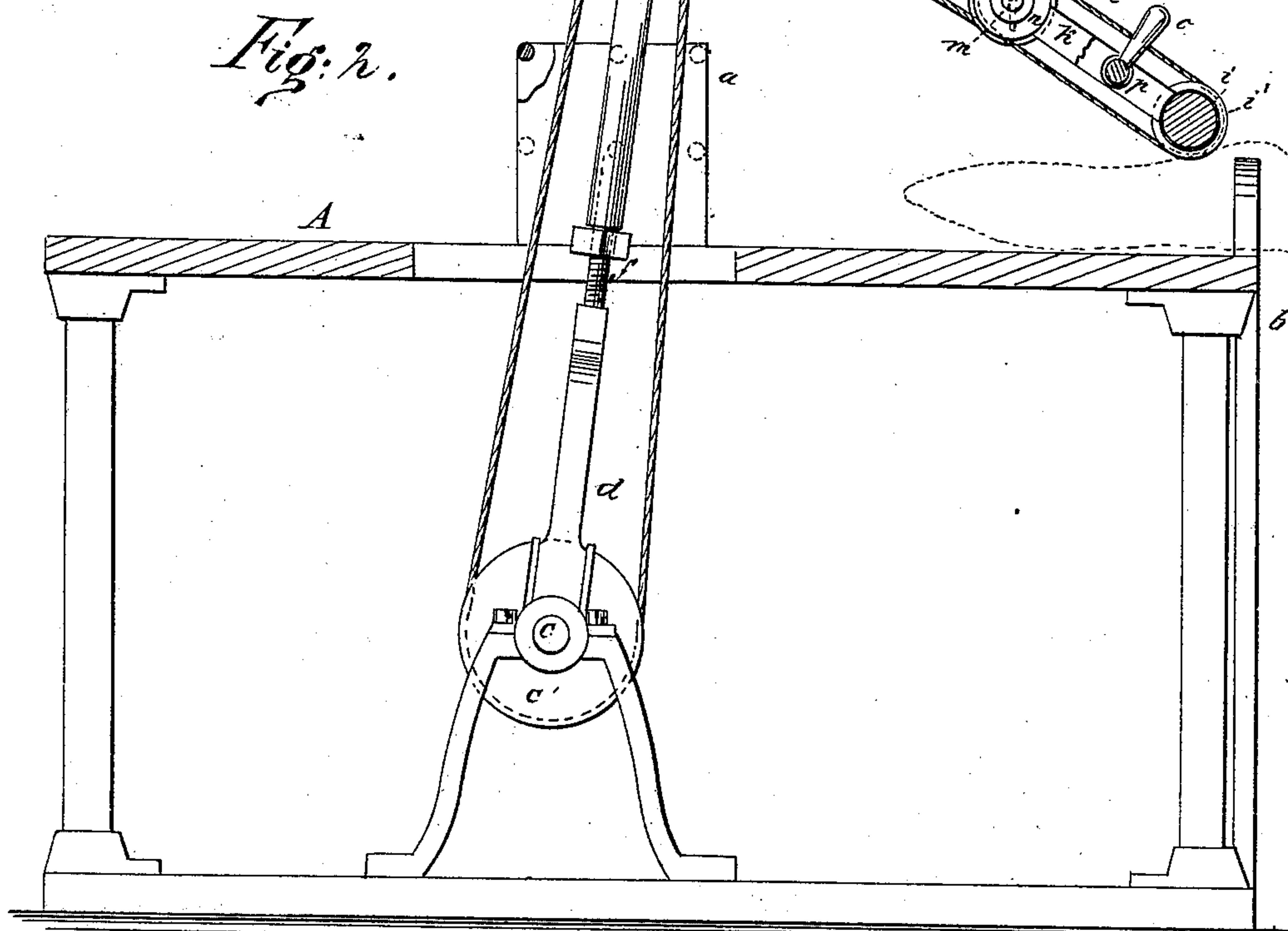
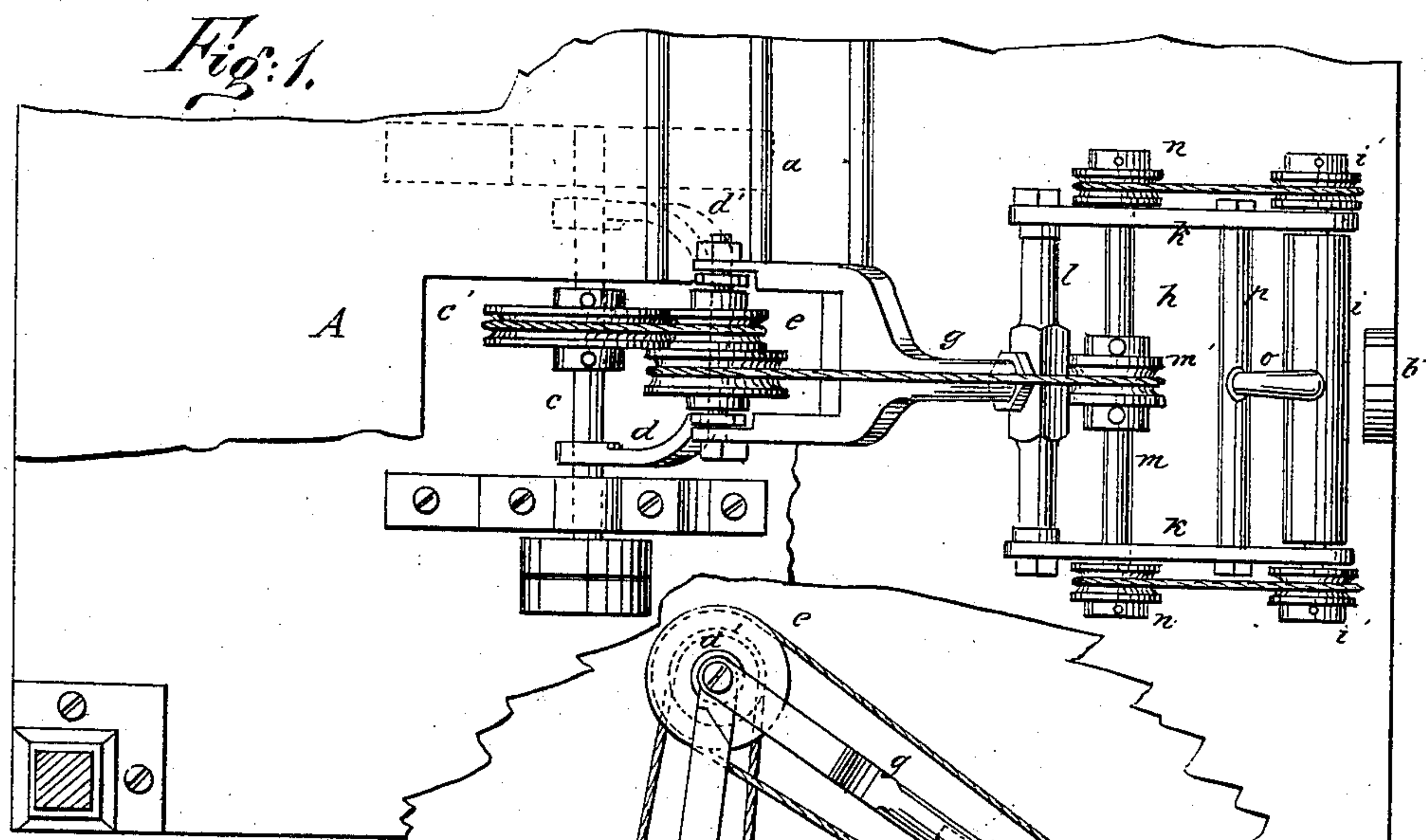


J. L. COPP.  
Buffing-Machine for Boots and Shoes.  
No. 221,286.      Patented Nov. 4, 1879.



WITNESSES:

*Chas. N. Kista*  
*C. Sedgwick*

INVENTOR:

*J. L. Copp*  
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# UNITED STATES PATENT OFFICE.

JOHN L. COPP, OF ROCHESTER, NEW HAMPSHIRE.

## IMPROVEMENT IN BUFFING-MACHINES FOR BOOTS AND SHOES:

Specification forming part of Letters Patent No. **221,286**, dated November 4, 1879; application filed September 3, 1879.

*To all whom it may concern:*

Be it known that I, JOHN L. COPP, of Rochester, in the county of Strafford and State of New Hampshire, have invented a new and Improved Buffing-Machine for Boots and Shoes, of which the following is a specification.

My improvements relate to machines for sandpapering the soles of boots and shoes; and they consist in a swinging standard hung upon a driving-shaft, and extending over the bench, to the upper end of which is jointed an arm that carries the sandpapering-roll, and is capable of movement to bring the roll to the positions required. The roll is driven, by pulleys and belts, from an intermediate cone-pulley on the standard, which is driven by a belt from the driving-shaft.

The construction will be more particularly described with reference to the accompanying drawings, and the invention pointed out in the claims.

In the drawings, Figure 1 is a sectional plan view of the machine as applied to a bench. Fig. 2 is a vertical longitudinal section of the same.

Similar letters of reference indicate corresponding parts.

A is a section of a work-bench fitted with a rack, *a*, for lasts and tools, and a finishing-post and head-block, *b*, these parts being as usual.

Upon the floor beneath the bench, in suitable bearings, is the driving-shaft *c*, provided with a fast and loose pulley, and carrying the driving-pulley *c'*. To the shaft *c* is hung loosely a standard, *d*, which extends upward through a slot in bench A, the slot being near one end of the bench, and about midway of its width. The upper end of standard *d* is forked, as shown, and is fitted with a shaft, *d'*. On the shaft *d'*, in the fork of standard *d*, is fixed a cone-pulley, *e*, from which a belt passes to pulley *c'* on the driving-shaft.

The standard *d* is made in two parts, united by a dowel-joint, and adjusted by a nut and screw, *f*, whereby the length of standard *d* may be varied and the upper part of the standard may turn axially upon as well as swing with the lower portion.

At the upper end of standard *d*, on shaft *d'*,

an arm, *g*, is hung so as to swing vertically on shaft *d'* as an axis, this connection forming a knuckle-joint. The arm *g* carries at its outer end a rectangular frame, *h*, that is hung, as hereinafter described, so as to have universal movement, and carries the sandpapering-roll *i* in suitable journals at its outer end.

The side bars, *k*, of frame *h* swing on the end piece, *l*, which is fitted to swivel on arm *g*. In the bars *k* is fitted a cross-shaft, *m*, that carries a pulley, *m'*, from which a belt passes to the cone-pulley *e*, and also carries, at its outer end, pulleys *n n*, that are connected by belts with pulleys *i' i'* on the shaft of the sandpapering-roll *i*.

By this construction the frame *h* can be moved to the position required for applying the sandpapering-roll, and the roll at the same time will be continuously revolved.

The frame *h* is fitted with a handle, *o*, projecting from a rigid cross-bar, *p*, to assist in the manipulation of the frame.

The machine is to be driven by power or by a foot-treadle, and when driven by power a suitable lever will be fitted for operation by the workman to throw the machine in and out of action.

In operation, the workman places the shoe or boot that is to be buffed and sandpapered upon the head-block of post *b*, starts the machine, and, by means of the handle *o*, brings the roll *i* down upon the sole and manipulates it as required.

The connections described permit the roll to be turned in any required direction, and the work may be done thoroughly and rapidly, and without dust from the pumice-stone that is required in hand-work.

I do not limit myself to the connections exactly as described, nor to the manner of sustaining the machine.

The frame may be hung to the wall or ceiling above the bench, the arm *g* in that case hanging downward and fitted with suitable connections for obtaining the necessary movements.

The sandpapering or buffing roll is a rigid roller, covered with a surface of sand-paper or other abrading material, more or less fine, according to the work to be done.



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

1. In sandpapering-machines for boots and shoes, the swinging standard *g*, made in two parts, united by a dowel-joint, and adjustable by means of the screw and nut *f*, substantially as and for the purposes set forth.

2. The frame *h*, consisting of the side bars

*k*, end piece *l*, cross-bar *p*, and handle *o*, fitted with the shaft *m* and roll *i*, and jointed to the swinging arm *g*, substantially as and for the purposes described.

JOHN L. COPP.

Witnesses:

O. B. WARREN,

E. L. KIMBALL.