

C. D. BRIGHAM.

Machinery for Burnishing the Heels of Boots and Shoes.

No. 149,093.

Patented March 31, 1874.

Fig. 1

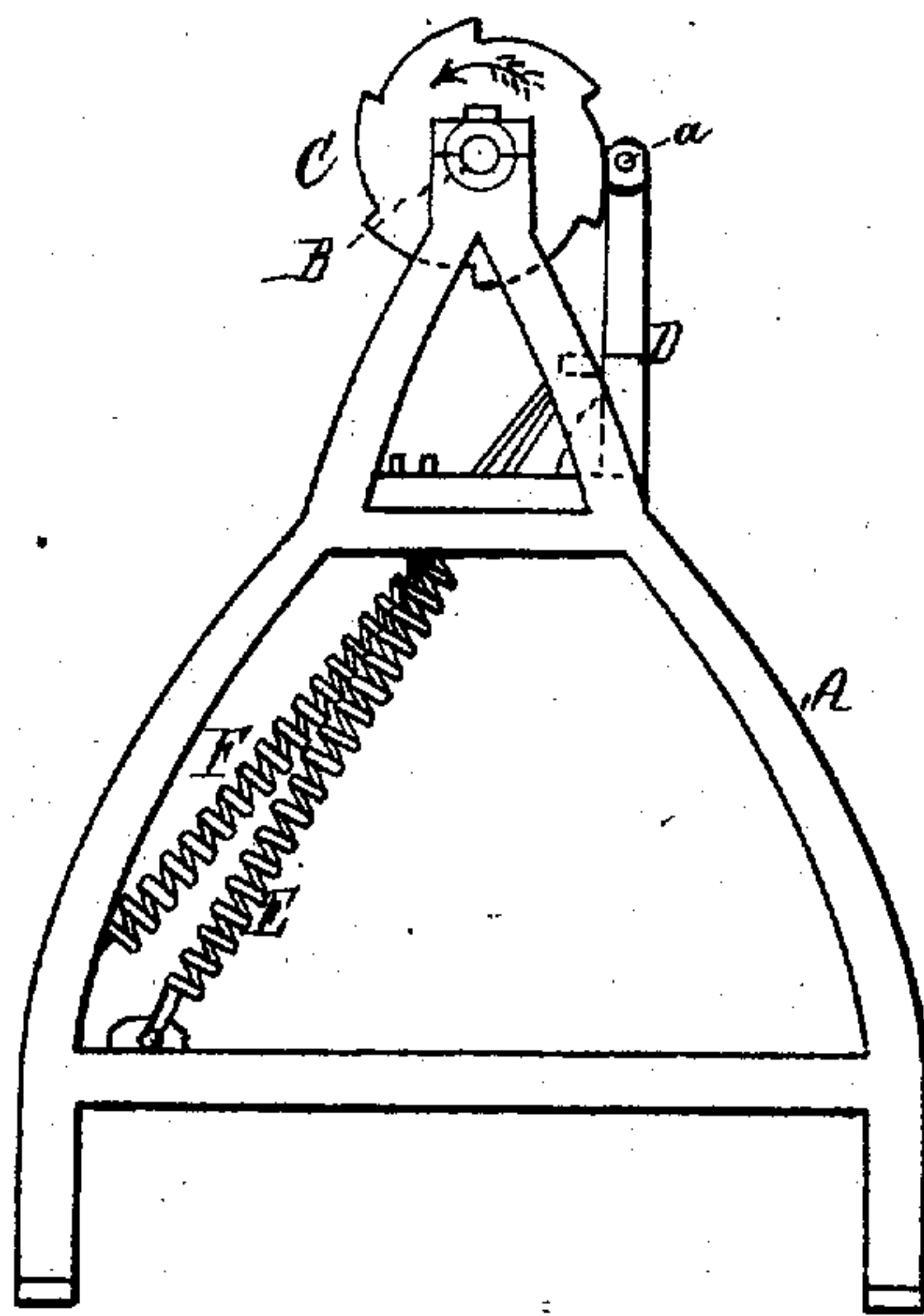
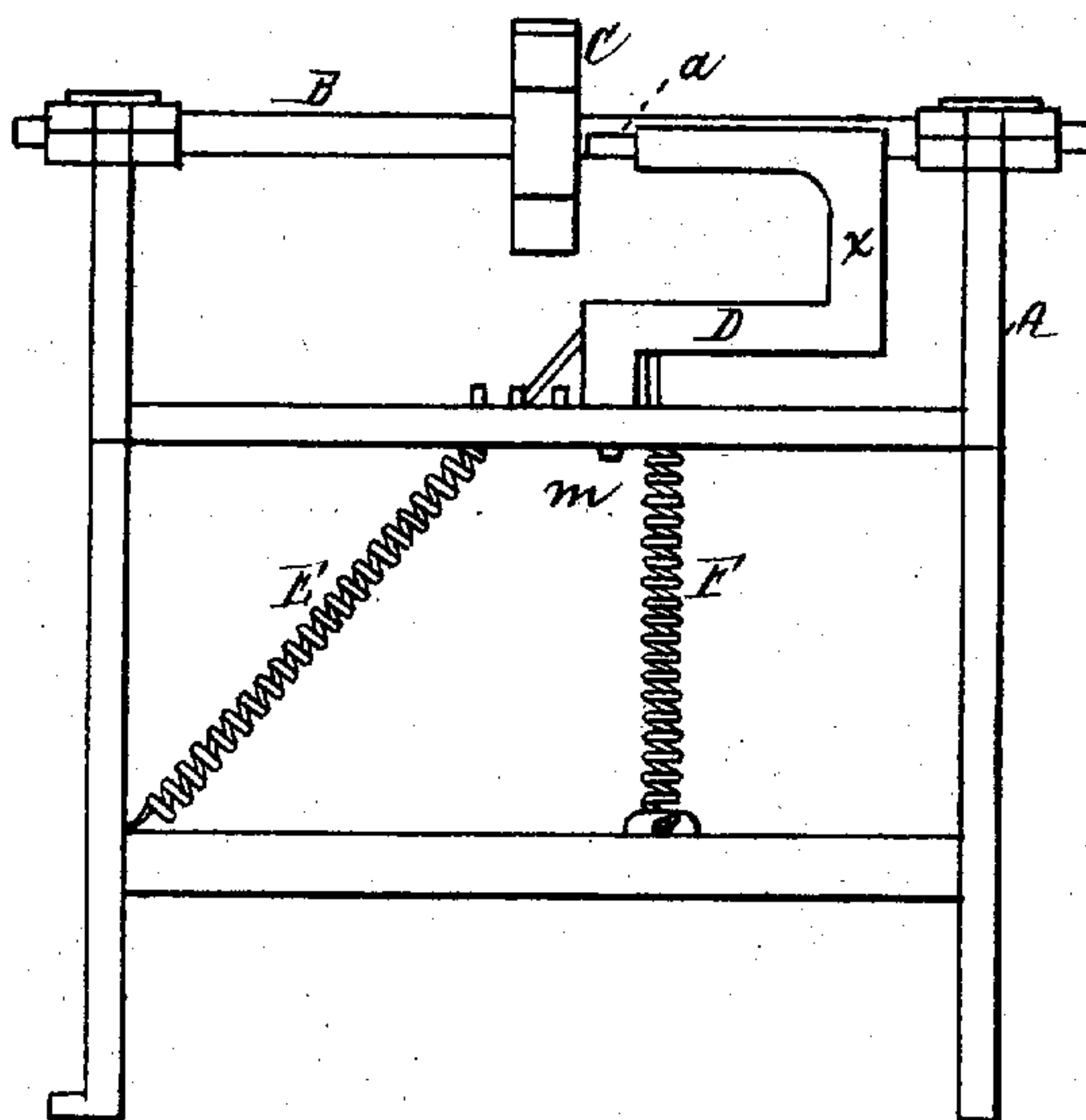


Fig. 2



Witnesses
Cyrus Wilson
H. E. Metcalf

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UNITED STATES PATENT OFFICE.

CHARLES D. BRIGHAM, OF MARLBOROUGH, MASSACHUSETTS.

IMPROVEMENT IN MACHINERY FOR BURNISHING THE HEELS OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. **149,093**, dated March 31, 1874; application filed February 2, 1874.

To all whom it may concern:

Be it known that I, CHARLES D. BRIGHAM, of Marlborough, in the county of Middlesex, State of Massachusetts, have invented a certain new and useful Improvement in Heel-Burnishing Machines, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is an end elevation of my improved burnishing-machine. Fig. 2 is a front elevation of the same.

Like letters refer to like parts in the different figures of the drawing.

My invention relates to that class of burnishing-machines known as "hot iron burnishers," in which the polishing-wheel is kept hot while in use; and consists in a burnishing wheel or disk of novel construction, as hereinafter more fully described, the object being to provide a more effective machine for the purpose than is now in common use. The simplicity of my invention renders an elaborate description unnecessary.

In Fig. 1, C is the polishing-wheel, mounted on the shaft B, and disposed in the frame-work A. In Fig. 2, D is the jack, provided with the springs E F and the stud *a*, and joined to the frame-work by a swivel-joint at *m*. The springs E F act contractedly to draw the jack D toward the shaft B. The periphery of the polishing-wheel C is cut into shallow, pallet-shaped teeth, and is heated in any convenient manner. The shoe of which the heel is to be polished is fitted upon the polishing-last, the last being fixed upon the round stud *a*, so as to be easily turned to bring the heel into contact with the wheel, which, when in use, is caused to revolve rapidly in the direction of the arrow, Fig. 1, by power applied to the shaft B. In ordinary machines for this purpose the face of the polishing-wheel is grooved diagonally, the direction of the

grooves being reversed in alternate sections, forming a series of short semicircular teeth, against which the heel of the shoe is pressed with an even pressure in polishing it; but I have found that where the wheel is so constructed the result is not as satisfactory as when the pressure is intermittent or unequal. I therefore construct the wheel of my improved burnishing-machine with its periphery cut into a series of curved or evolute teeth, as described, or so that an intermittent or constantly-varying pressure will be exerted on the heel; for instance, the heel of the shoe being forced against the wheel, as the wheel revolves it will drop over the point of the tooth. From the base of the tooth over which it so falls to the point of the next tooth being an upward incline, the pressure will constantly increase, until the heel falls over the next succeeding tooth, during which fall there will be a moment when the heel will be entirely out of contact with the wheel, the same operation being repeated as the wheel revolves.

By forming the jack D crank-shaped, with its center of motion at *m*, as shown in Fig. 2, the workman is enabled to control the work to much better advantage than can be done where the ordinary jack is used, the part *x* being grasped in the right hand to move it laterally, while the last on which the shoe is disposed is held in the left hand and revolved, as required, on the stud *a*.

I am aware that a wheel having pallet-teeth similar to the wheel C has been used in other mechanisms, but in a different manner and for an entirely different purpose, and I therefore do not claim the same when in and of itself considered; but

What I claim is—

The heel-burnishing wheel or disk C, provided with a series of curved or evolute teeth, constructed as shown, for the purpose described.

CHARLES D. BRIGHAM.

Witnesses:

HENRY H. NOURSE,
EDWARD S. CROCKER.