

J. R. MOFFITT.  
Machine for Trimming Sole-Edges of Boots and Shoes.

No. 212,253.

Patented Feb. 11, 1879.

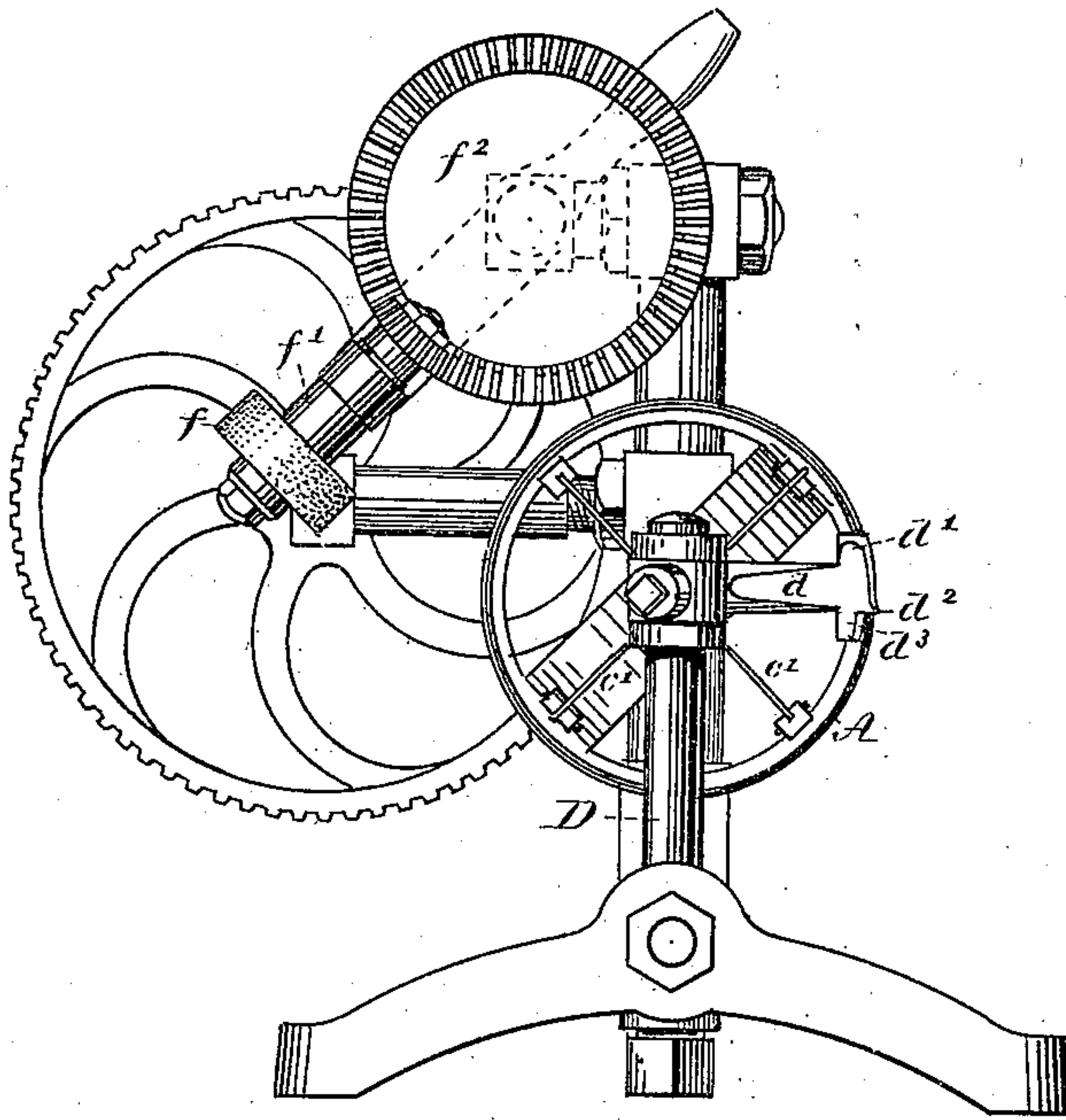


FIG. 1.

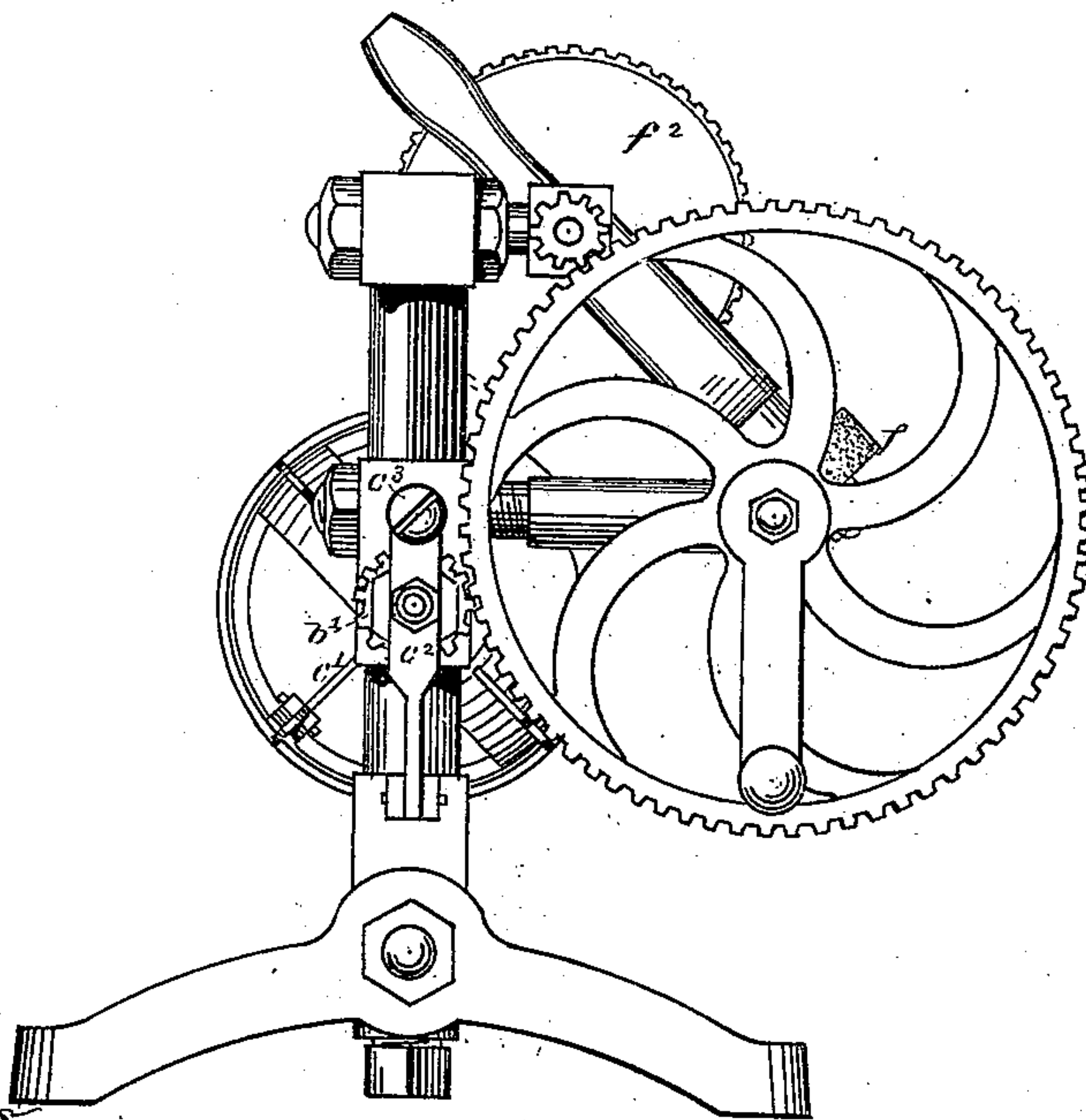


FIG. 2.

Witnesses

J. E. Maynard  
George O. G. Coale

Inventor:

John R. Moffitt

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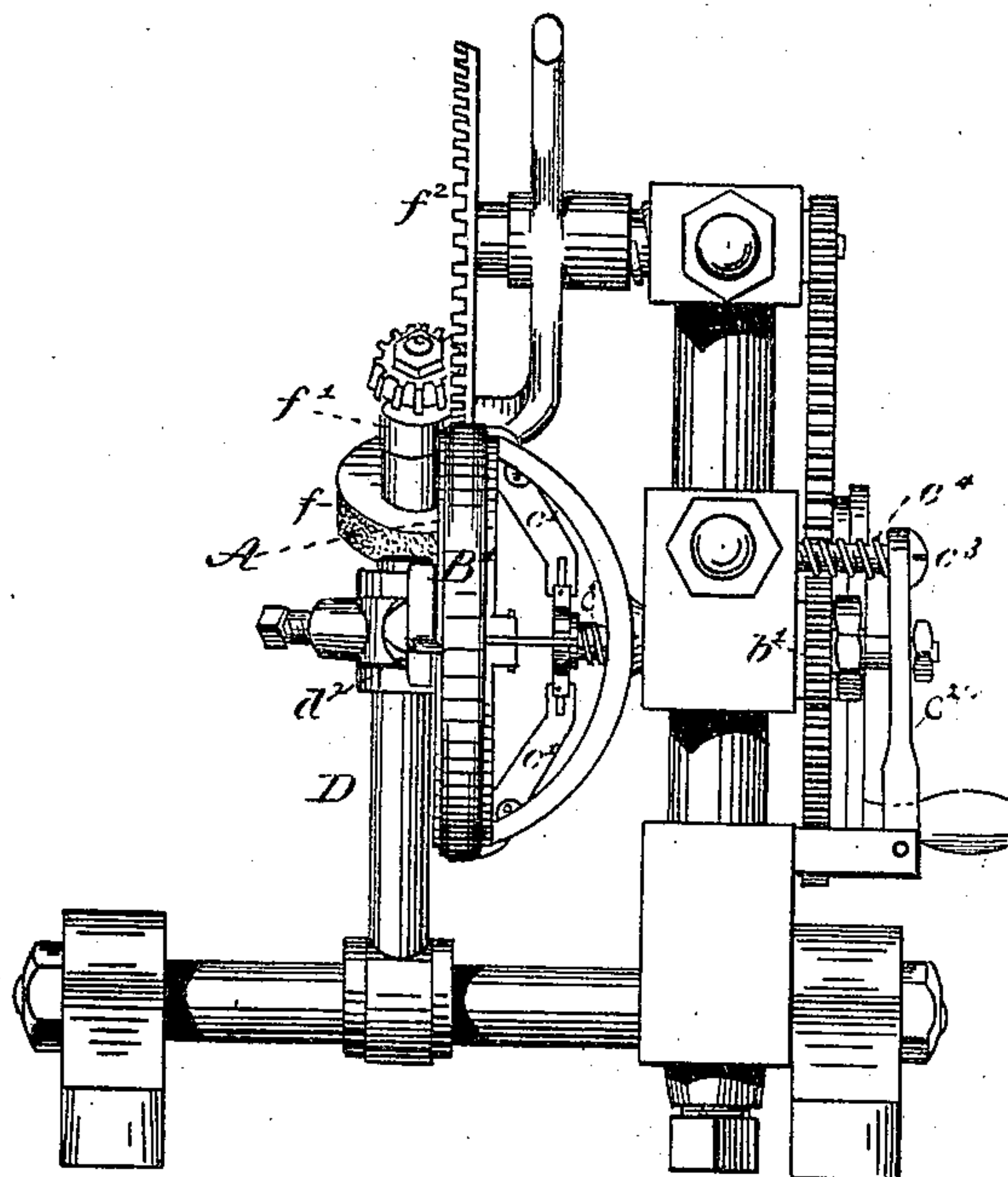


FIG. 3.

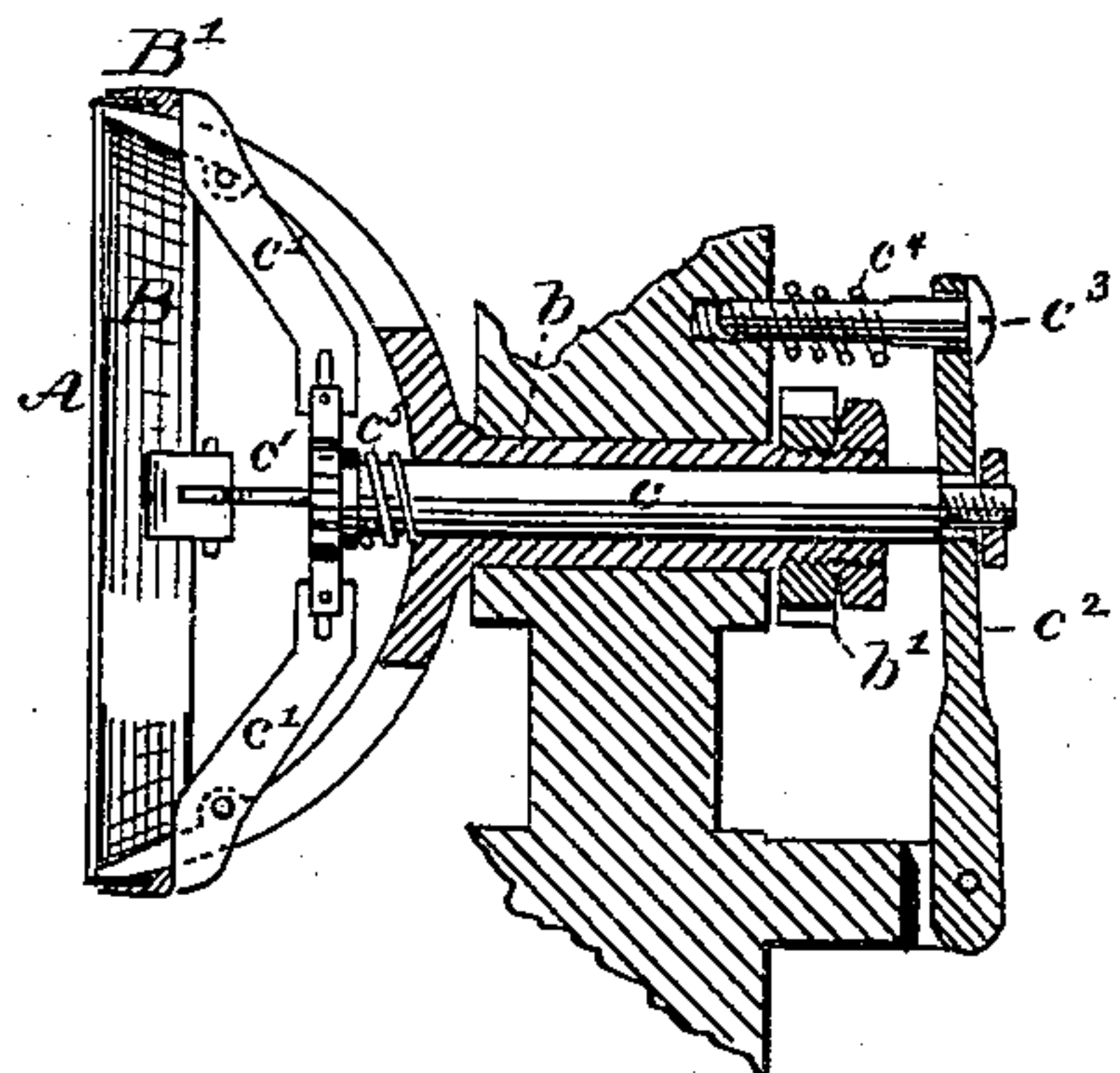


FIG. 4.

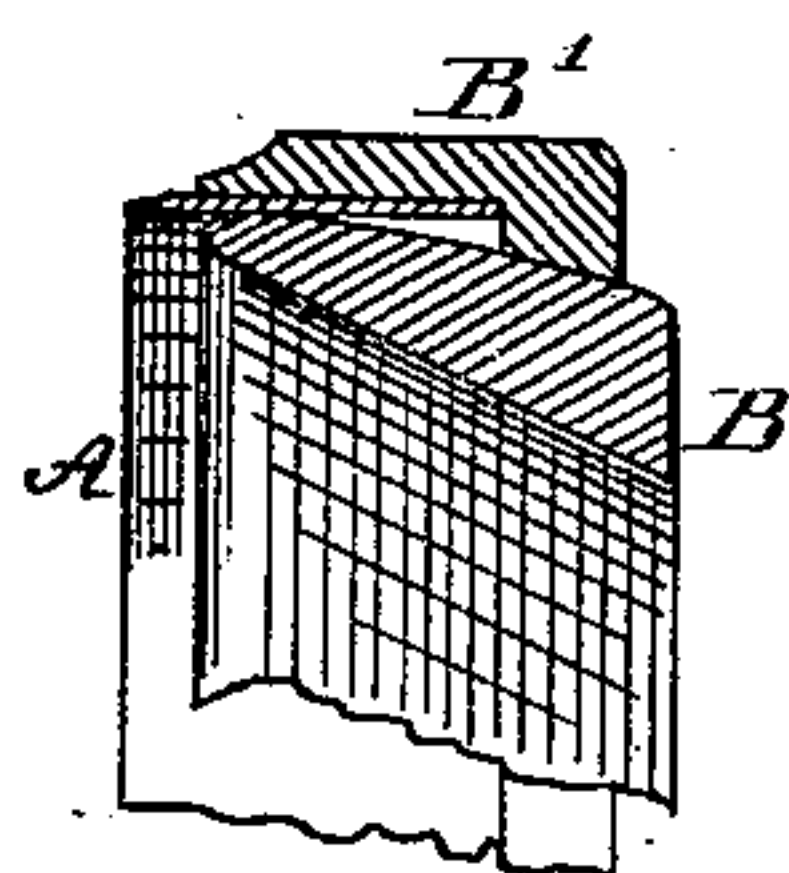


FIG. 5.

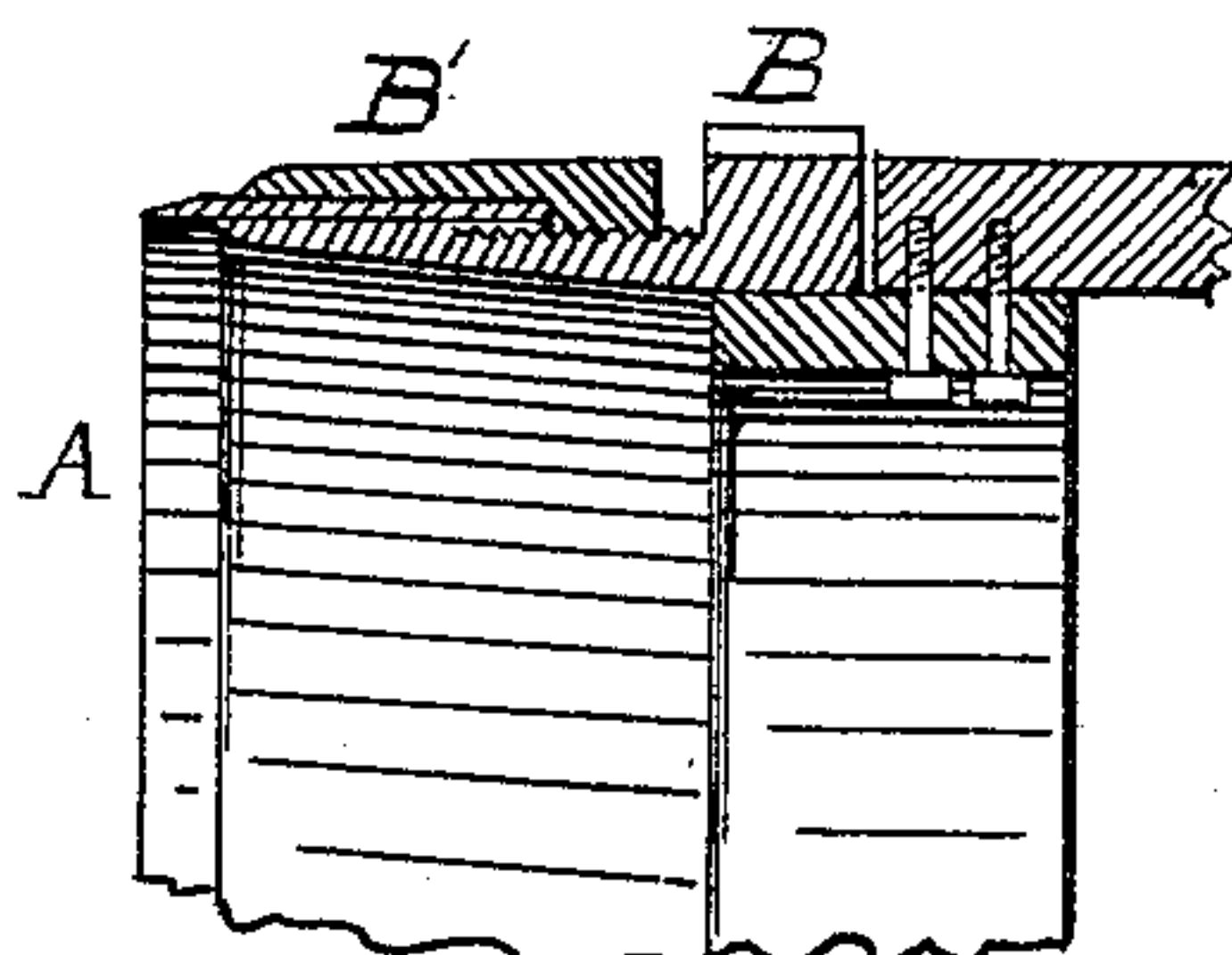


FIG. 7.

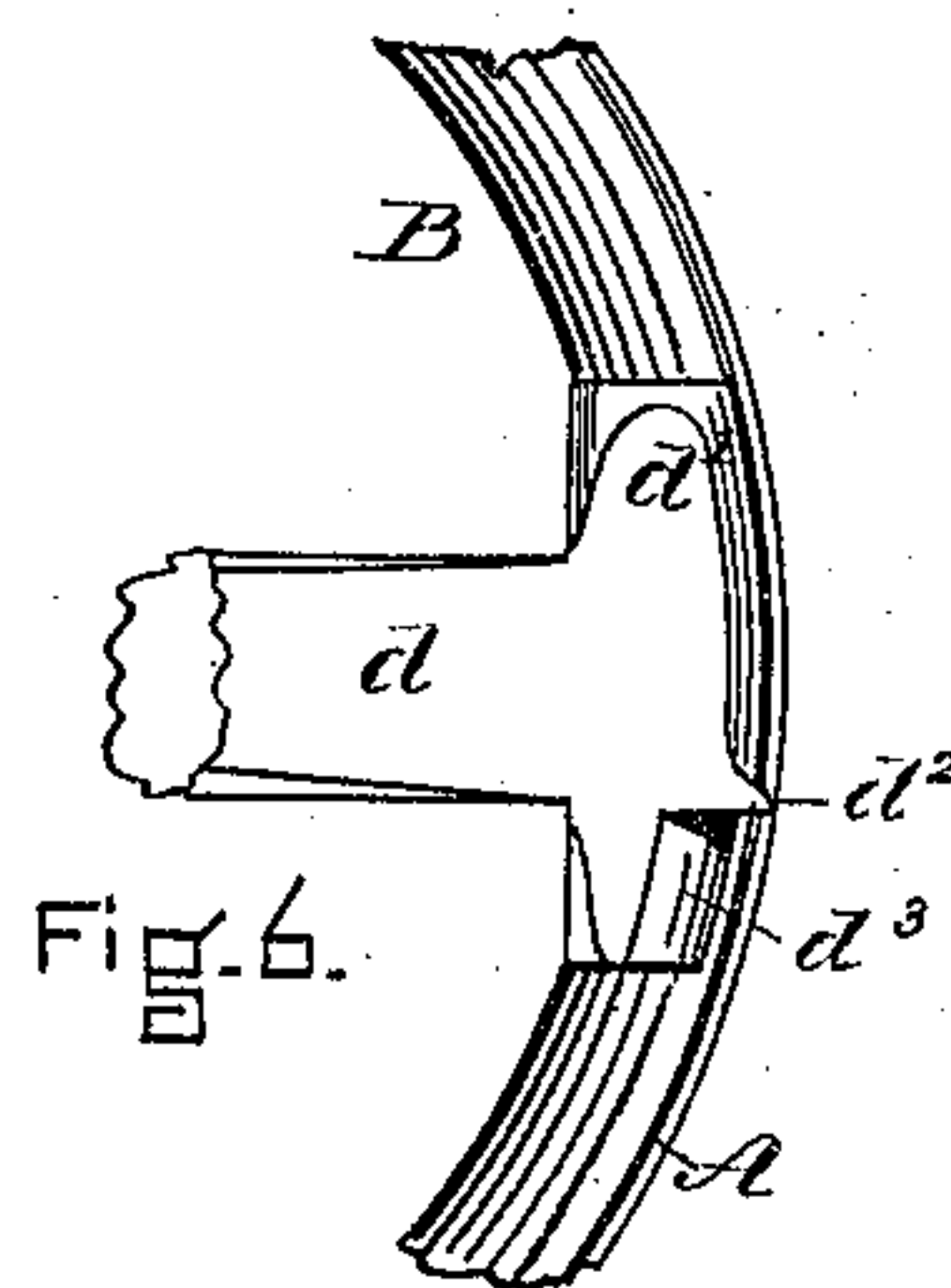


FIG. 6.

Witnesses:

J. E. Magruder  
Geo. O. G. Coale

Inventor:

John R. Moffitt



# UNITED STATES PATENT OFFICE.

JOHN R. MOFFITT, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR TRIMMING SOLE-EDGES OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. 212,253, dated February 11, 1879; application filed May 6, 1878.

*To all whom it may concern:*

Be it known that I, JOHN R. MOFFITT, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Machines for Trimming the Edges of Soles and other Articles, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, making a part hereof.

In the drawings, Figure 1 is a front elevation; Fig. 2 a rear elevation, and Fig. 3 a side elevation, of a machine embodying my invention. Figs. 4 and 5 are details of the cutter and its holder. Fig. 6 is a front view (enlarged) of the rand-guide, upper-guard, and knife-edge; and Fig. 7 is a modification.

The main feature of my invention is the cutter; and this part of my invention is applicable not only to edge-trimmers, but to skivers and other like machines.

A is the knife-blade, made from a clock-spring, one edge being sharpened. It is held by the holder B, which is fast upon the shaft *b*, which is revolved by the pinion *b'*. The outer holder, B', serves, in connection with the inner holder, B, to keep the knife-blade in place. This knife or cutter is made up of the thin cylindrical knife-blade and a holder to support the blade, so that the cutting-edge shall form a circle or an arc of a circle, and the blade does not move on the holder, except in the direction of its axis. The holder may revolve on ways, as in Fig. 7, instead of on a shaft.

Cylindrical knives and saws have been long well known; but, so far as I have any reason to believe, I am the first to use a thin sheet of steel bent into the form of a cylinder, (or other thin tube of suitable metal for a knife-blade,) but too weak in itself for use as a cylindrical knife, in connection with a holder, on which it is mounted, so that its edge can be moved forward on the holder as the blade wears; and a cylindrical cutter formed of such a blade and such a holder not only differs from all other cutters known to me, but is much cheaper and can be as easily kept sharp. Moreover, (and this is the distinguishing characteristic of my invention,) the knife-blade can be adjusted on the holder, thus enabling the knife-edge to be adjusted and readjusted as it wears with ex-

treme accuracy by moving the knife-blade on its holder in the direction of the axis.

The shaft *c* is for the purpose of moving the knife-blade forward as its edge wears away. By this shaft *c* the inner ends of the lever *c'* may be moved away from the knife-edge, and when this is done the outer ends of these levers press forward the outer holder, B', which carries with it the knife-blade, as will be clear from the drawings. In the machine shown the shaft *c* is controlled by the lever *c''*, the upper end of which is forced in one direction by the screw *c'''*, and in the other direction by the spring *c''''*. *c''''* is a light spring, much weaker than *c'''*, to prevent play of the shaft endwise.

In Fig. 7 the outer holder screws onto the inner holder, as shown, and the knife-edge is adjusted by turning the outer holder on the inner holder, as will be clear. This inner holder also may have gear-teeth upon the part of its periphery farthest from the knife-edge, by means of which the cutter is revolved.

D is a post, to which is attached adjustably the arm *d*. This arm carries a guard, *d'*, to prevent the upper of the boot or shoe from being cut by the knife-edge, and also a rand-guide, *d''*, to aid the workman in keeping the edge of the sole in proper relation to the knife. The guide *d'''* is not essential, but is desirable. It is shown fast to the rand-guide *d''* and upper-guard *d'*, but when used should be adjustable independently of these guides. All three of these guides may be made adjustable on the arm *d*. The upper-guard may be so formed as to make it both a rand-guide and an upper-guard, and so of the rand-guide, these two parts blending one into the other.

The operation is as follows: The attendant holds the shoe in his hands, with the rand-guide between the upper and the sole, and moves the shoe forward, determining by his eye the amount to be trimmed off. As the knife is revolving the power required to move the sole against it is very slight. The cut is clean and smooth. The shoe is easily held steady. The work done by any one portion of the cutting-edge is very slight, and the edge is readily kept sharp without stopping the machine by means of the emery-wheel *f*, mounted on a spindle, *f'*, driven by the gear *f''*, and so

hung upon the shaft of  $f^2$  that it can be readily brought in place to sharpen the knife.

What I claim as my invention is—

1. The improved cutter above described, consisting of the thin cylindrical blade A and the holder B B', arranged together so that the blade moves with the holder, and yet is adapted to be moved on the holder in the direction of its axis, substantially as described.

2. In combination, the improved cutter above described, consisting of the blade A and holder B B', arranged together substantially as described, and the upper-guard  $d^1$  and rand-guide  $d^2$ , substantially as described.

3. In combination, the improved cutter above described, consisting of the blade A and holder B B', arranged together so that the knife-blade can be moved on its holder in the direction of its axis, and the grinder  $f$ , which grinds away all that part of the blade projecting beyond the desired plane, thereby not only sharpening the knife-edge, but, in addition, keeping all parts of it on the same plane.

JOHN R. MOFFITT.

Witnesses:

J. E. MAYNADIER,  
GEORGE O. G. COALE.