(No Model.) 2 Sheets—Sheet 1.

W. G. ENTREKIN.

PHOTOGRAPHIC BURNISHING MACHINE.

No. 355,922. Patented Jan. 11, 1887.

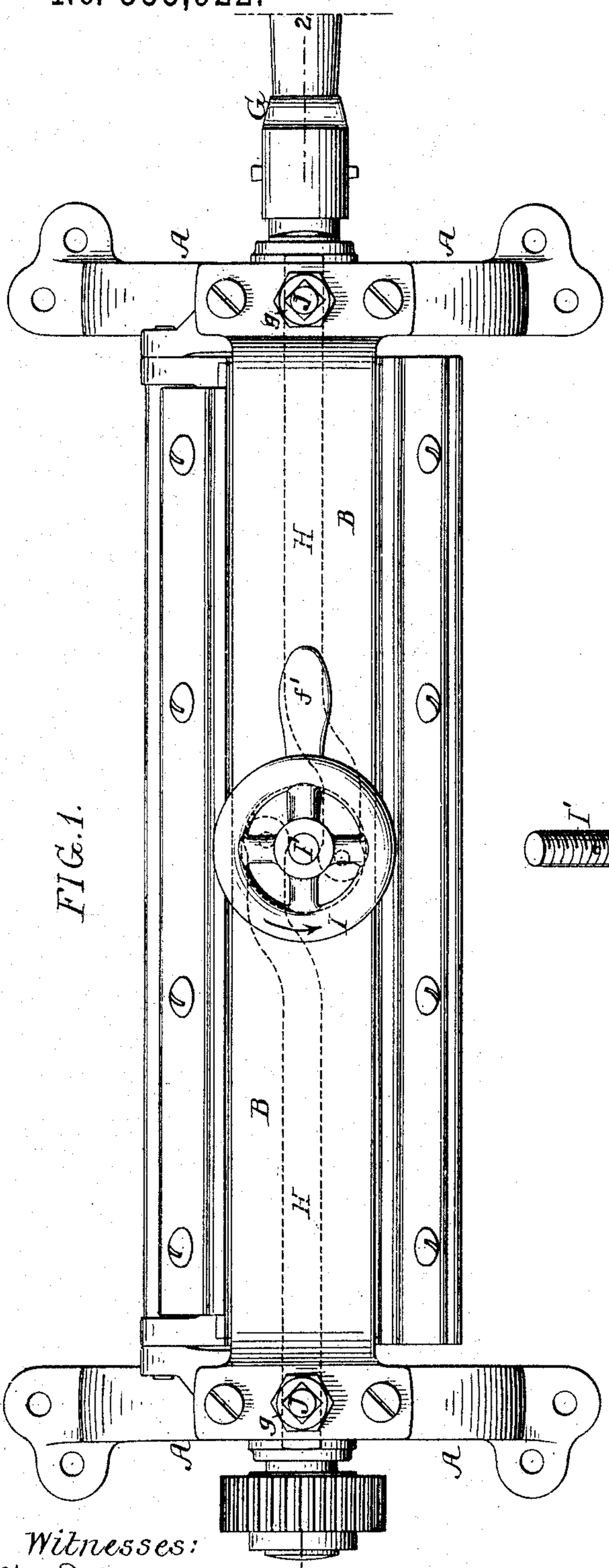

FIG. 1.

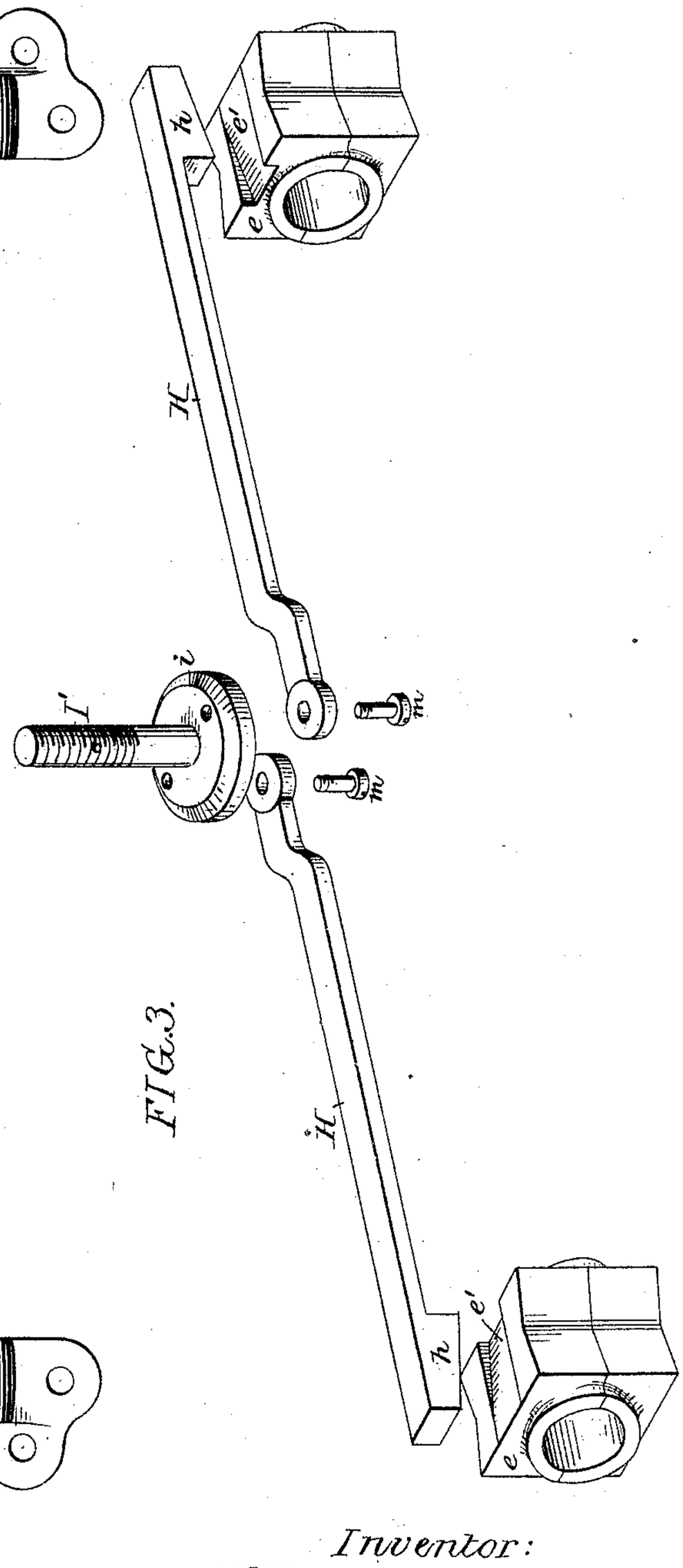

FIG. 3.

Witnesses:
Wm. D. Conner.
Harry Drury

Inventor:
William G. Entrekin
by his Attorneys
Howson & Sons

(No Model.) 2 Sheets—Sheet 2.

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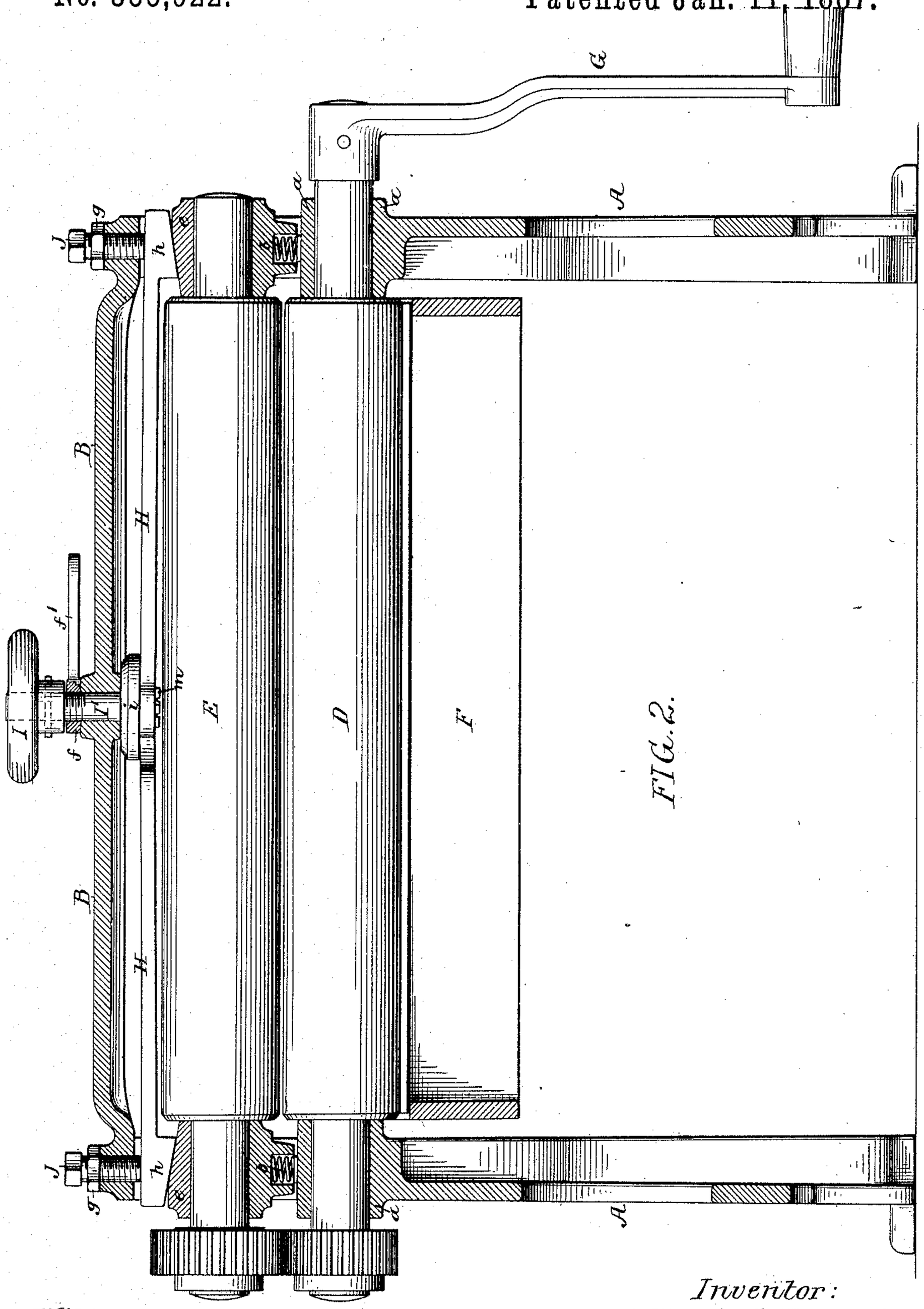

FIG. 2.

Witnesses:
William D. Conner.
Harry Drury

Inventor:
William G. Entrekin
by his Attorneys
Howson & Sons

UNITED STATES PATENT OFFICE.

WILLIAM G. ENTREKIN, OF PHILADELPHIA, PENNSYLVANIA.

PHOTOGRAPHIC BURNISHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 355,922, dated January 11, 1887.

Application filed October 15, 1886. Serial No. 216,319. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. ENTREKIN, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Photographic Burnishing-Machines, of which the following is a specification.

My invention consists of certain devices for adjusting and regulating the extent of movement of the movable roll of a photograph-burnishing machine, the object of my invention being to provide for the accurate and uniform adjustment of both ends of the roll.

In the accompanying drawings, Figure 1 is a plan view of a photograph-burnishing machine with my improvements. Fig. 2 is a view, partly in elevation and partly in section, on the line 1 2, Fig. 1. Fig. 3 is a perspective view of the improved adjusting devices detached from the machine.

A A are the opposite end frames of the machine, connected at the top by a cross-bar, B, and D is the lower or burnishing roll, having its journals in fixed bearings *a* on the end frames, A.

E is the upper or feed-roll, which is carried by bearings *e*, adjustable vertically in guides formed by the upper portions of the end frames, A, and F is the hood which embraces the lower portion of the burnishing-roll.

The journals of the feed and burnishing rolls are connected by spur-gearing at one side of the machine, and motion is imparted to the rolls by means of a handle or crank, G, preferably attached to one of the journals of the lower or burnishing-roll. Springs *b*, beneath the journal-boxes *e*, tend to elevate the latter and the feed-roll E, the depression of the boxes and the roll being effected by the action of wedges *h h*, which are secured to or form part of rods H H. (See Fig. 3.)

The rods H are operated from a small hand-wheel, I, which is secured to a spindle, I', having its bearing in the cross-bar B, at or about the center of the latter, said spindle I' having at the lower end a disk, *i*, to which the inner ends of the rods H H are secured by pins *m*, located on opposite sides of the center or axis of the disk.

The wedges *h* are adapted to grooves *e'* in the tops of the boxes *e*, the bottoms of these grooves being inclined to correspond with the wedges, and on the back of each wedge bears the lower end of a set-screw, J, adapted to a threaded opening in the cross-bar B, and provided with a jam-nut, *g*. It will be seen, therefore, that when the parts are in the position shown in Figs. 1 and 2, any movement of the wheel I, shaft I', and disk *i* in the direction of the arrow, Fig. 1, will cause the rods H to be moved outward, and the wedges *h* will cause the depression of the boxes *e* and upper roll, E, to an extent dependent upon the extent of movement of the disk.

The spindle I is threaded for the reception of a jam-nut, *f*, which has a handle, *f'*, whereby it can be conveniently manipulated in order to lock the spindle and its disk *i* in any desired position after adjustment.

The set-screws J being so adjusted that the rolls are a like distance apart at each end in the first instance, it follows that the adjustment of the rolls by the movement of the wedges *h* will not affect this alignment except in case of uneven wear of the wedges and boxes *e*, and this can be at once compensated for by a proper adjustment of the set-screws.

The rods H may, if desired, form racks for engaging with teeth on the disk *i*; but the construction shown is preferred.

I am aware that the device carrying the burnisher or equivalent movable member of a burnishing-machine has been acted upon by wedges located at the opposite ends of the burnisher and interposed between the carrier and bearings on the fixed frame, and that said wedges have been connected for joint operation, and have been simultaneously adjusted by the manipulation of a single screw-stem, such construction being shown in the patent of Entrekin and Bramble, No. 139,132, May 20, 1873; but in machines having the long rolls now used a connection extending transversely across the machine from one wedge to the other is objectionable on account of its tendency to spring unless made inordinately heavy. This objection I overcome in my present machine by providing each wedge with a short rod, and by locating the adjusting device between the wedges so that it can act simultaneously upon these independent rods.

I claim as my invention—

1. The combination of the fixed frame of a burnisher having a top cross-bar, the movable

roll and its boxes, wedges acting on said boxes, rods connected to said wedges, and an adjusting device acting on said rods and occupying a position on the cross-bar between the opposite end frames of the machine, all substantially as specified.

2. The combination of the movable roll of a burnisher and its boxes with wedges acting on said boxes, independent set-screws, serving as bearings for said wedges, and mechanism for imparting movement simultaneously to both wedges, all substantially as specified.

3. The combination of the movable roll of a burnisher and its boxes with wedges acting on said boxes, rods carrying said wedges, and an operating-spindle having a disk with crank-pins, to which said rods are connected, all substantially as specified.

4. The combination of the movable roll of a burnisher and its boxes having beveled grooves, the wedges adapted to said grooves, and means for simultaneously imparting a longitudinal movement to said wedges, all substantially as specified.

5. The combination of the movable roll of a burnisher and its boxes, wedges acting on said boxes, rods carrying said wedges, an operating-spindle with disk connected to said rods, and a jam-nut on said spindle, all substantially as specified.

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

WILLIAM G. ENTREKIN.

Witnesses:
WILLIAM D. CONNER,
HARRY SMITH.