

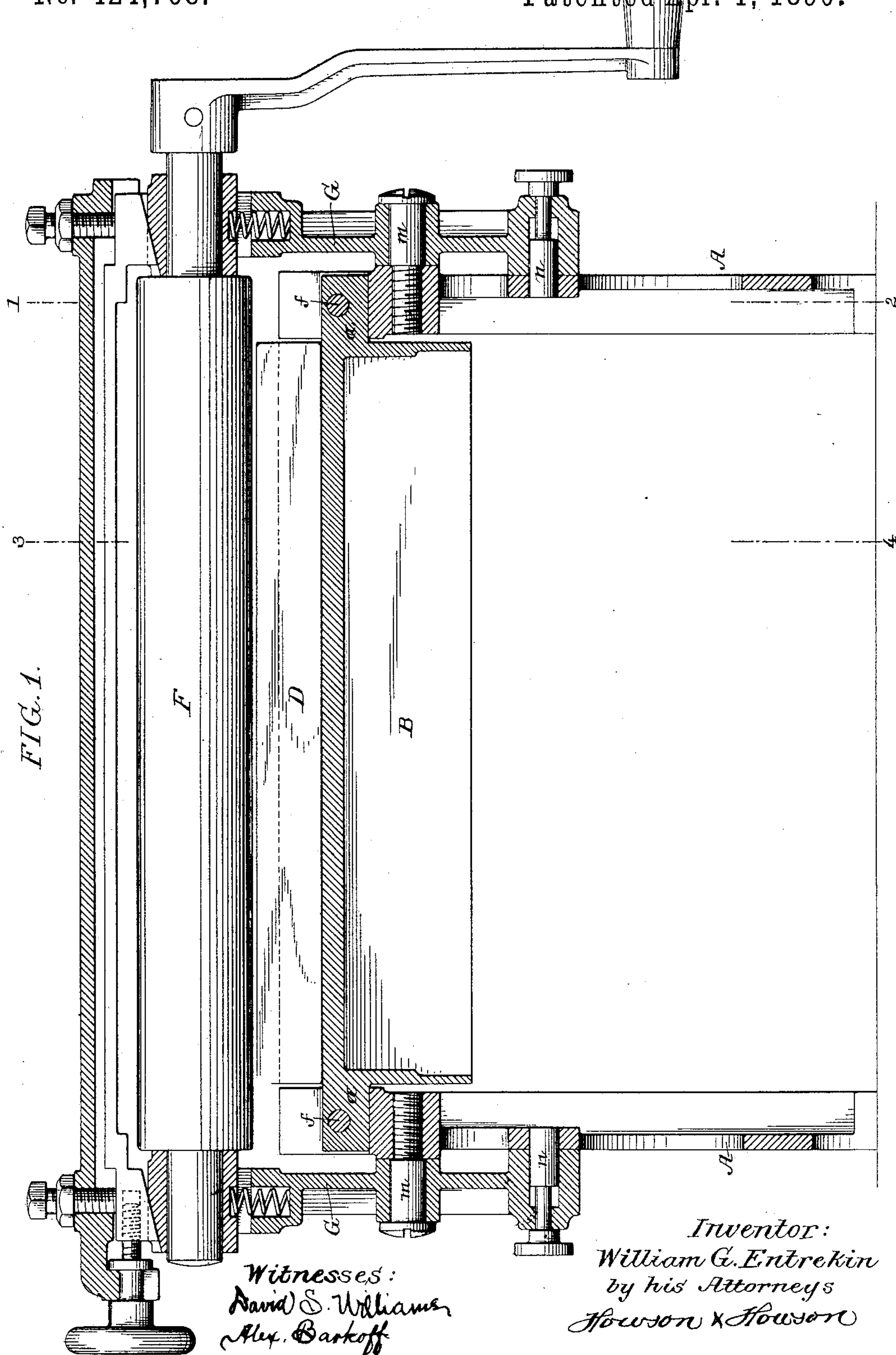
(No Model.)

2 Sheets—Sheet 1.

W. G. ENTREKIN.  
PHOTOGRAPH BURNISHING MACHINE.

No. 424,768.

Patented Apr. 1, 1890.

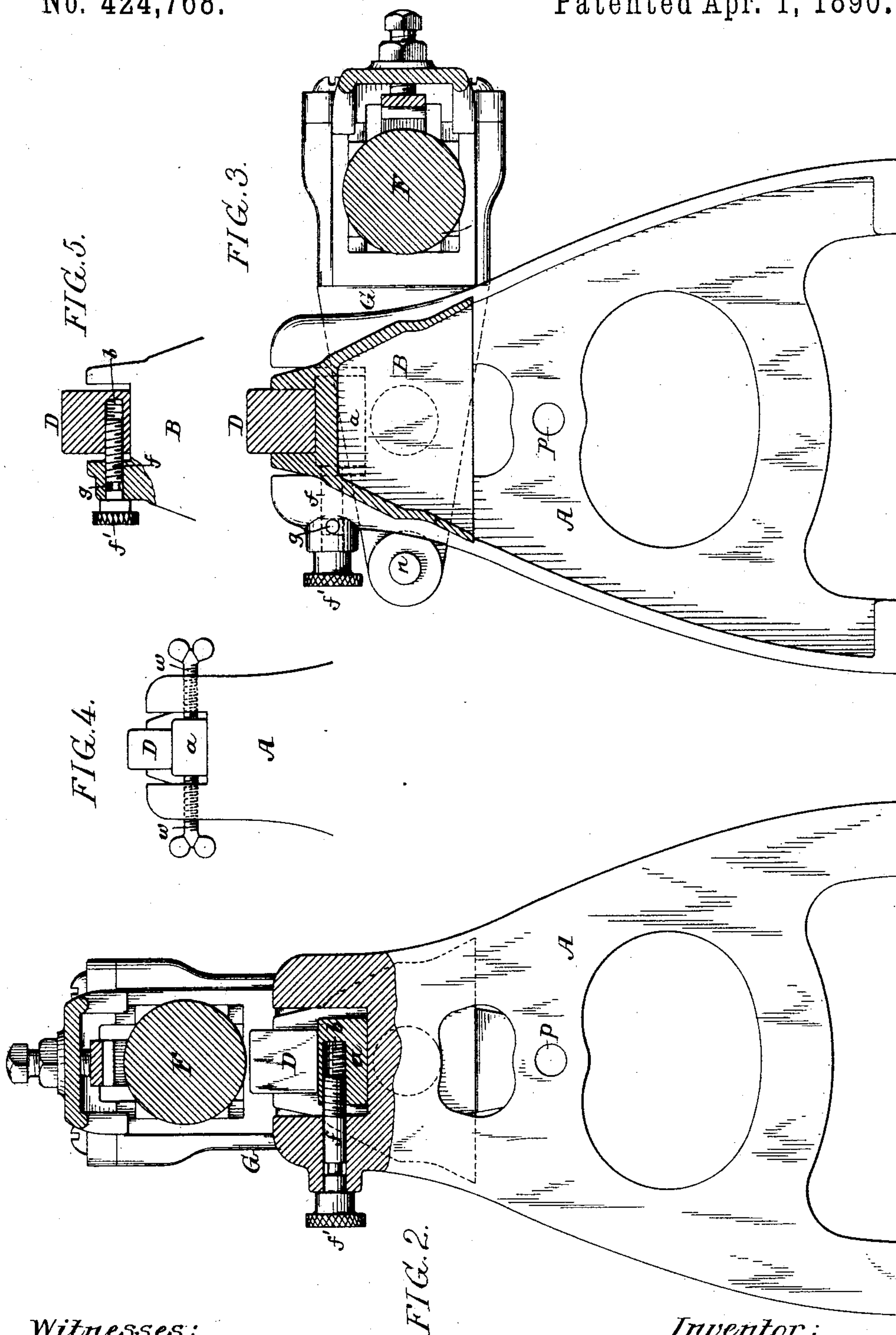


N. PETERS. Photo-Lithographer. Washington, D. C.

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Witnesses:  
David S. Williams  
Alex. Barkoff

Inventor:  
William G. Entrekin  
by his Attorneys  
Howe & Howe



# UNITED STATES PATENT OFFICE.

WILLIAM G. ENTREKIN, OF PHILADELPHIA, PENNSYLVANIA.

## PHOTOGRAPH-BURNISHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 424,768, dated April 1, 1890.

Application filed July 5, 1888. Serial No. 279,091. (No model.)

*To all whom it may concern:*

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

One object of my invention is to so construct a photograph-burnishing machine as to provide for readily bringing a new surface of the burnishing-tool into operative position when desirable, a further object being to permit ready and unobstructed access to all portions of the acting face of the burnishing-tool when it becomes necessary to clean or repolish the same. These objects I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a longitudinal section of a photograph burnishing machine constructed in accordance with my invention. Fig. 2 is a transverse section of the same on the line 1 2, with the side frame, however, shown partly in elevation. Fig. 3 is a transverse section on the line 3 4, Fig. 1, showing the feed-roll-carrying frame adjusted so as to permit access to the burnishing-tool; and Figs. 4 and 5 are views illustrating modifications of part of the invention.

A A represent the opposite side frames of the machine, on which is mounted the usual petticoat-bar B, carrying the burnishing-tool D, the upper face of which is highly polished, so as to have a burnishing effect upon photographs fed across the same by the action of the feed-roll F.

The petticoat-bar B has at its opposite ends projecting lugs *a*, which are seated upon the fixed frames A of the machine, each of these lugs having a threaded opening *b* for the reception of a threaded stem *f*, which is adapted to and is free to turn in an opening in the frame A, but is confined longitudinally to said frame by means of a pin *g* adapted to a groove in the stem, the outer end of the stem having a milled head *f'*, by which it may be readily turned.

The upper or acting face of the burnishing-tool D is in a plane at right angles to a radial line drawn through the point at which the roll F comes in contact with the card, and the screw-stem *f* provides for the adjustment of

the petticoat-bar B and the burnishing-tool in a plane parallel with the face of said tool.

The only portion of the face of the burnishing-tool which is operative in burnishing is that part immediately beneath the bearing-point of the feed-roll; hence if this portion of the tool becomes rough or otherwise incapable of effecting the proper burnishing of the photograph a new burnishing-surface may be readily brought into action by simply shifting the tool in one direction or the other by means of the screw-stem *f*.

The burnishing-tool, however, is normally fixed during the operation of the machine, and hence differs from those burnishing-tools which have a constant movement during the burnishing operation, such constantly-moving tools being incapable of attaining the object of my present invention, for any defect in a portion of the burnishing-surface of such a tool must necessarily be repeatedly brought into action during the burnishing operation, whereas the sole purpose of the adjustment of the burnishing-tool in the present machine is to remove such defective portion of the burnishing-surface from an active position and thereby bring a new and perfect burnishing-surface into action, so that when a batch of photographs is being burnished the operation of burnishing the entire batch can be completed without the necessity of stopping the machine and repolishing the burnishing-surface of the tool. In all photograph-burnishing machines, however, facilities must be afforded for repolishing the surface of the burnishing-tool at suitable intervals, and in order that ready and unobstructed access may be had to all portions of the burnishing-surface of the tool, I adapt the feed-roll F of the machine to bearings carried by opposite side frames G, pivoted to studs *m* on the fixed frames A of the machine, these studs being located some distance below the top of the burnishing-tool, so that when the frames carrying the feed-roll are swung around to a horizontal position, as shown in Fig. 3, all portions of said frames and of the roll carried thereby are below the level of the upper or burnishing surface of the tool, so that the polishing of the same can be effected without difficulty.

When the roll-carrying frames G are ad-



justed to the vertical position, so as to bring the feed-roll into operative relation to the burnishing-tool said frames are locked by bolts *n*, which are carried by the frames *G* and are adapted to engage with openings *p* in the fixed frames *A* of the machine, as shown in Fig. 1.

Although I prefer in carrying out my invention to use the threaded stems *f*, adapted to threaded openings in the lugs *a* of the bar carrying the burnishing-tool, other means may be adopted for effecting the adjustment of said bar, if desired. For instance, in Fig. 4 I have shown set-screws *w*, carried by the fixed frame *A* of the machine, and bearing upon the opposite sides of the lug *a* for accomplishing the purpose, or the bar may be stationary and the tool adjusted laterally therein, if desired, as shown, for example, in Fig. 5.

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

1. The combination, in a photograph-burnishing machine, of the fixed frame, a feed-roll, a burnishing-tool normally fixed in its relation to said roll, and set-screws carried by the fixed frame and acting on the burnishing-tool, whereby said tool may be shifted in a direction transversely to the action of the roll

and a new burnishing-surface thus brought into action when desired, substantially as specified.

2. The combination, in a photograph-burnishing machine, of the feed-roll, the burnisher, and a fixed frame, said burnisher having threaded openings, and the fixed frame having screw-stems adapted to said threaded openings, but confined longitudinally to and free to turn in their fixed bearings, all substantially as specified.

3. The combination of the main frame and burnishing-tool of the machine, with a feed-roll and opposite roll-carrying frames pivoted below the top of the burnishing-tool, and having portions extending beyond the pivots and carrying locking-bolts engaging with openings in the side frames, whereby, when the feed-roll is thrown down, all parts of the carrying-frame are below the top of the tool, all substantially as specified.

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

W. G. ENTREKIN.

Witnesses:

WILLIAM D. CONNER,  
HARRY SMITH.