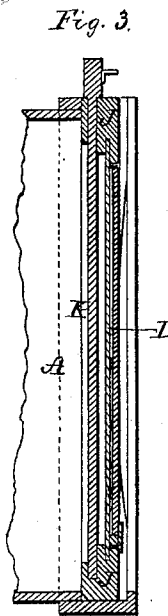
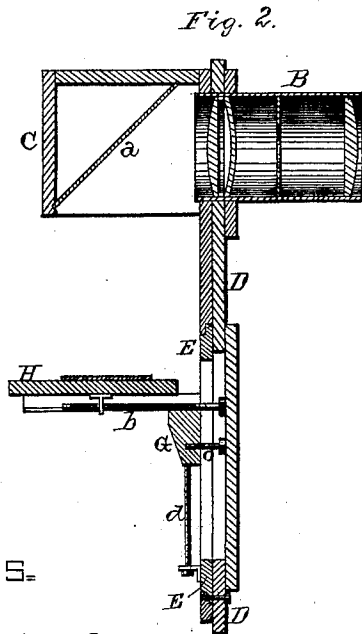
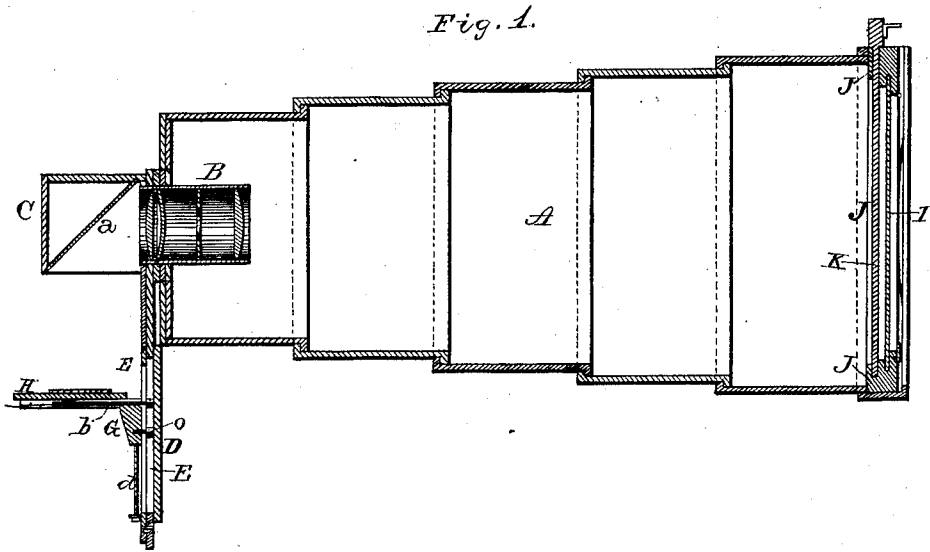


T. S. FELLOWS.
OUTLINING CAMERAS.

No. 176,464.

Patented April 25, 1876.



WITNESSES:

J. W. Garner,
F. M. Burnham,

INVENTOR=
T. S. Fellows
per
F. A. Lehmann,
att'y.

UNITED STATES PATENT OFFICE

THOMAS S. FELLOWS, OF WELLS, MINNESOTA.

IMPROVEMENT IN OUTLINING-CAMERAS.

Specification forming part of Letters Patent No. **176,464**, dated April 25, 1876; application filed March 2, 1876.

To all whom it may concern:

Be it known that I, THOMAS S. FELLOWS, of Wells, in the county of Faribault and State of Minnesota, have invented certain new and useful Improvements in Photographers' Enlarging-Cameras; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

The nature of my invention consists in combining an outlining-camera, such as described in Letters Patent No. 170,271, and a camera box and shield, so as to produce a new and useful instrument for enlarging photographs or other pictures, making a direct and exact copy of the same of any desired size.

My invention is fully illustrated in the accompanying drawing.

A represents a camera-box of telescopic or bellows form, with lens B and hood C over the outer end thereof, the hood having an inclined mirror, *a*, therein. The outlining-camera attached thereto consists of the base D, laterally-adjustable frame E held thereon by set-screw *o*. On the frame E is the longitudinally-adjustable foot G, carrying the adjustable table H, on which the picture to be copied is fastened. *b* and *d* are the regulating or adjusting screws, respectively, of the foot G and table H.

To use the instrument, attach the outlining-camera to the front of the camera-box, so as to exclude all light, except what passes through the lens. Fasten the picture to be copied upon the adjustable table H. Place the instrument where the sun can shine upon the picture. Loosen the thumb-screw *d*, draw out

the camera-box, and raise the table by means of the focusing-screw *b* until the image is of the desired size, and fix its position upon the ground glass I by means of the screw *d* and the screw *o*. Then focus the camera by means of the screw *d*, when the image will appear bright upon the ground glass, a focusing-cloth being passed over the camera-box and head of the operator. Next, remove the ground glass, and put a sensitized plate in its place, and return the shield J to its place in the camera-box. Withdraw the slide K, and expose from fifteen to thirty seconds, according to the light. Then return the slide, develop, fix, and finish in the usual manner.

By this means any person skilled in the art can make a ferrotype, melainotype, ambrotype, or photograph, the size of which is limited only by the size and length of the camera-box, and the size of lens used in the outlining-camera.

This invention is intended as an improvement upon and supplementary to the patent to T. A. Kellett, November 23, 1875, and No. 170,271.

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

The combination of the table H, a mirror, *a*, hood C, and lens B with the camera A, ground glass I, and shield J, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of February, 1876.

THOMAS S. FELLOWS.

Witnesses:

D. BAKER,
GEO. A. BARNES.