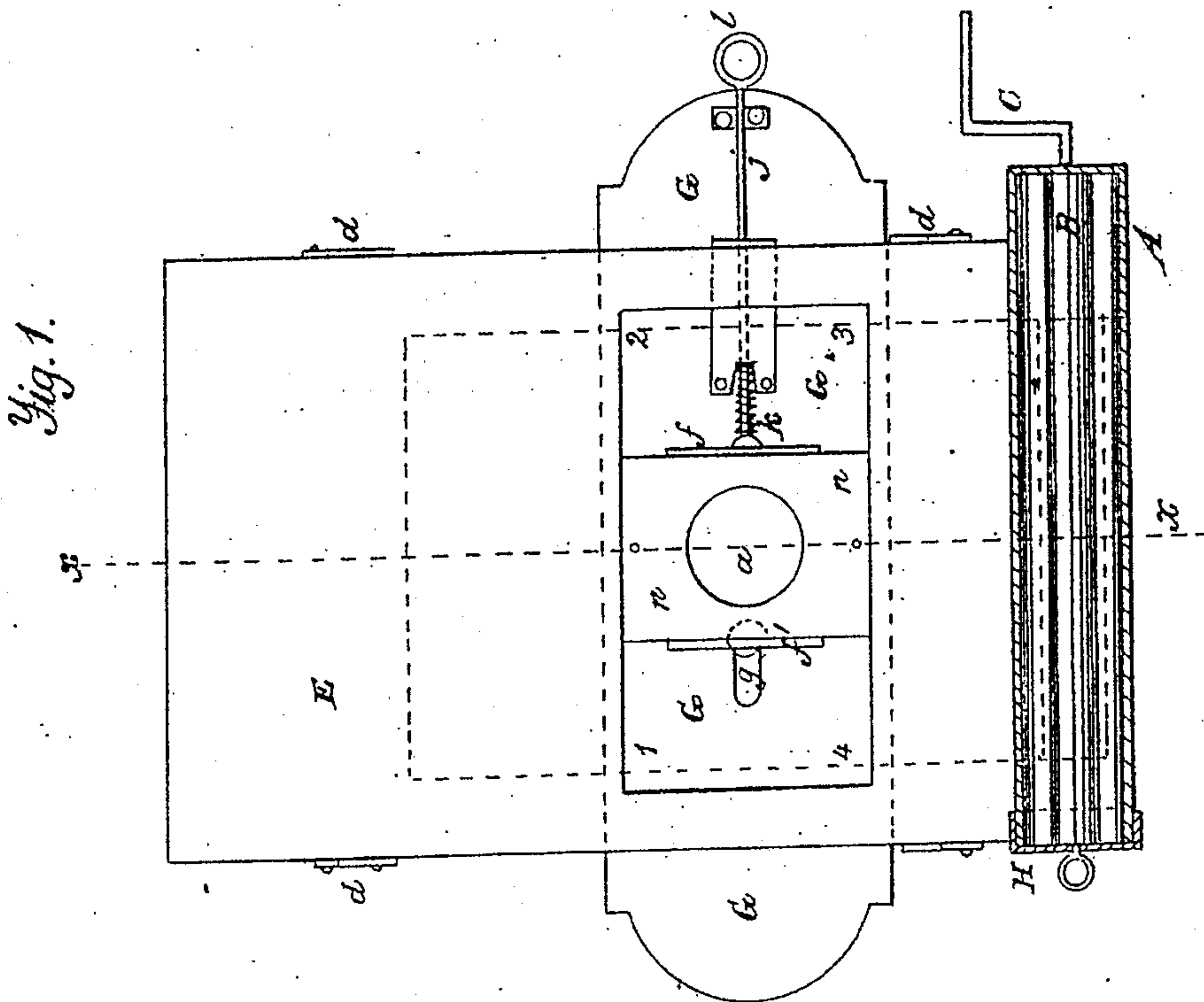
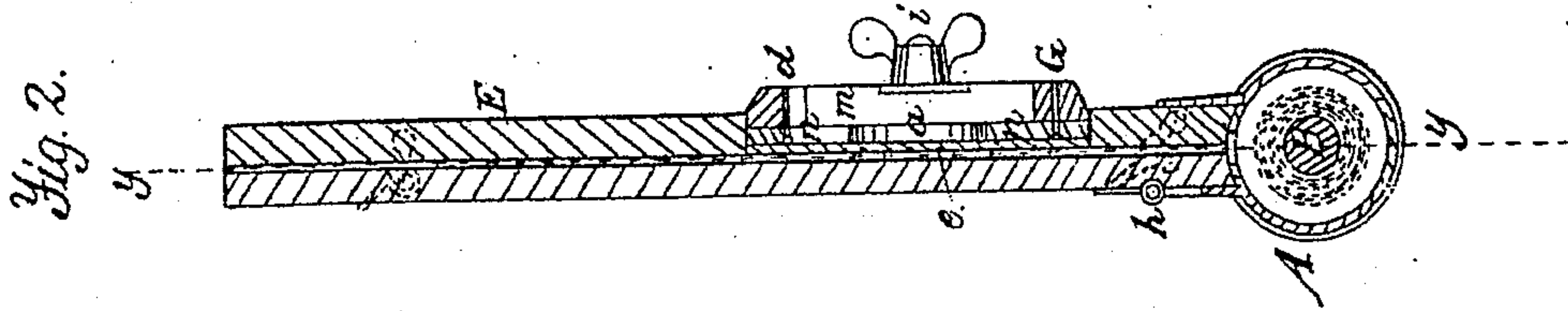


A. S. Kilby,

Photographic Printing Frame.

N^o 81,277.

Patented Aug. 18, 1868.



Witnesses:

Wm A Morgan
G. C. Collier.

Inventor.

A. S. Kilby.
Perman & Co.
Attys.

UNITED STATES PATENT OFFICE.

A. S. KILBY, OF HUNTINGTON, INDIANA.

APPARATUS FOR PRINTING PHOTOGRAPHS.

Specification forming part of Letters Patent No. 81,277, dated August 18, 1868.

To all whom it may concern:

Be it known that I, A. S. KILBY, of Huntington, in the county of Huntington and State of Indiana, have invented a new and Improved Apparatus for Printing and Grouping Photographs; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 is a bottom view of the upper fixed portion or cover from a section through the line *y y*, Fig. 2, which latter is a vertical central section through the line *x x*, Fig. 1.

The object of this invention is, as its name imports, for the purpose of printing photographs, whereby the same are grouped and printed in a rapid and convenient manner.

The apparatus is constructed, mainly, of a leaf hinged to a fixed portion of corresponding size. D represents the leaf, and E the fixed portion. These parts are made preferably of wood, and one, E, is affixed to a cylindrical case, and the other hinged to the case by means of any suitable hinged device, *h*, whereby the parts may be separated broadly from each other when occasion requires. The case is preferably of sheet metal, and contains a roller, B, provided with a crank, C. This roller is for the purpose of rolling up the sensitized paper on which the photographs are printed by the sun's rays acting through the lights of a negative plate placed in the leaf E, which is above the paper. This portion E is made with a large rectangular opening, 1 2 3 4, which is covered by a slider working with easy contact on a broad dovetailed groove made in the upper face of the said leaf. The motion of this slider is parallel with the cylinder, or at right angles to the movement of the paper when being wound on the roller B.

The slider is formed with an opening, *m*, to admit the sun's rays upon the negative plate *e* just beneath it. The negative plate is held by a clamp, *f*, the shank of which passes through the slot *g* in the slider, the said shank being threaded, and provided with a burr, *i*. This clamp is adjustable to the extent of the slot to clamp different-sized negative plates.

The opposite clamp *f'* is actuated by a spring, *k*, coiled around the stem *j*, affixed to

the shank, which stem passes outward to the end of the slider, and terminates in a handle, *l*, of any suitable form.

When card-photographs, or photographs of small size, are to be printed, a condensing-lens, of the proper focal distance, may be employed in the manner well known to those skilled in the art of photographing.

n is a diaphragm placed beneath the opening *m* of the slider, and attached thereto by dowel-pins, or other means which will permit its easy removal when not required.

The diaphragm is made with a central circular opening, *a*, for the purpose of excluding the sun's rays from a portion of the negative, allowing only a part, as a person's head, to be printed. This diaphragm may be used or removed at will; but when removed the light will be admitted upon the negative through the full opening *m*, and the whole of the negative printed.

To use my invention, the sensitive or photographic paper is placed between the leaves, and beneath the negative plate, the front edge of the paper being attached to the roller B.

The apparatus is placed in the sunlight, with the leaf E uppermost. The grouping of the heads or other pictures is accomplished by moving the slider to obtain a lateral arrangement of the impression, the longitudinal arrangement being obtained by winding up the paper on the roller.

The case is slotted for the passage of the paper through it, which latter is shown in both figures. Clasp-hooks *d d* serve to hold the leaves together. The cylinder is provided with a cap, H, by means of which the roller is withdrawn, as the crank O fits within a square socket in the same. The case excludes the light from acting upon the paper.

I claim as new and desire to secure by Letters Patent—

The leaves D E, slider G, case A, roller B, and suitable clamps *f f'*, all substantially as described, when contributing to form an apparatus for printing photographic pictures, all as set forth.

A. S. KILBY.

Witnesses:

F. P. LUCAS,
T. L. LUCAS.