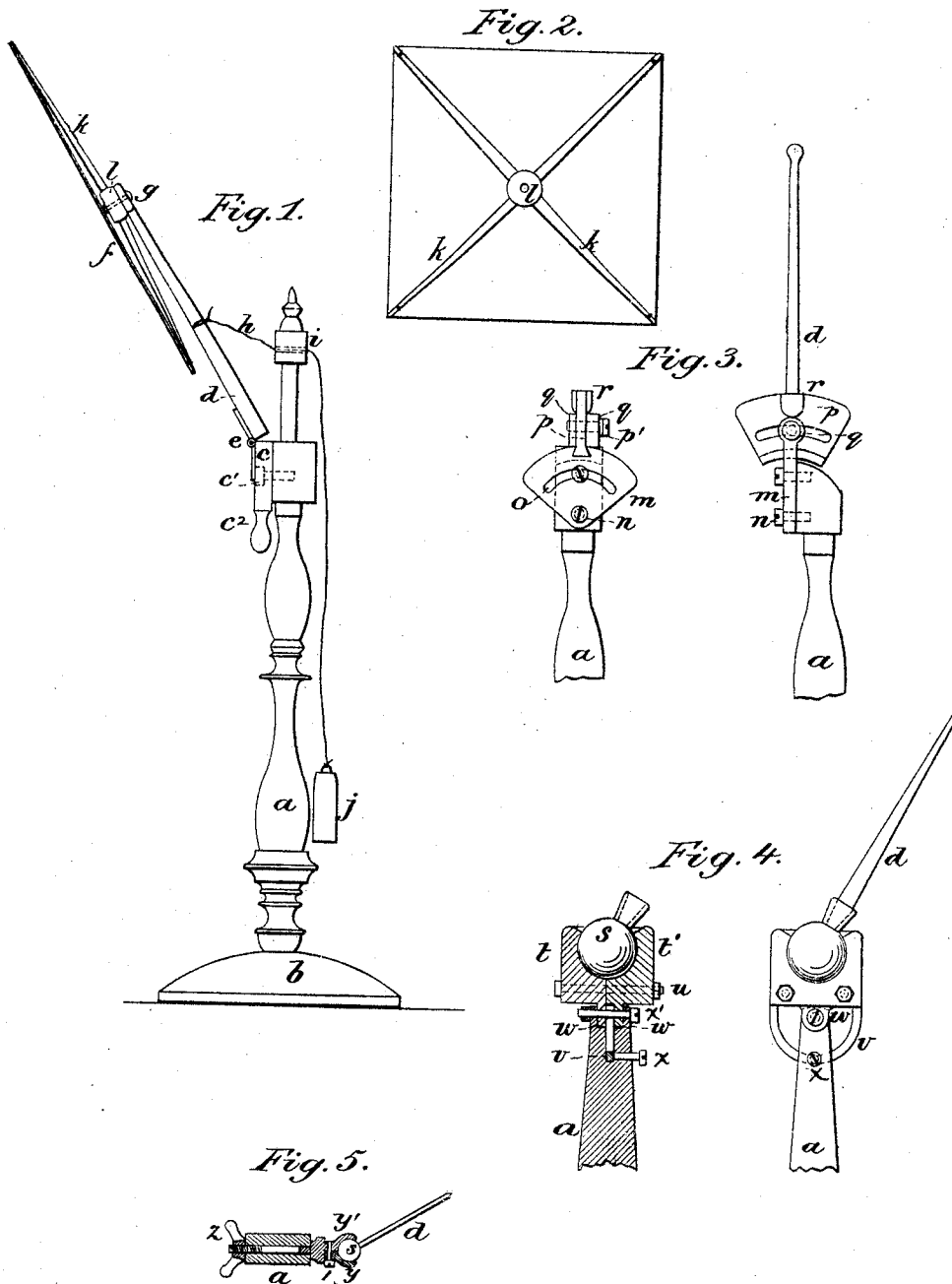


A. M. BIRD.
Photographic Screens.

No. 147,594.

Patented Feb. 17, 1874.



Witnesses.
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ANDREW M. BIRD, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN PHOTOGRAPHIC SCREENS.

Specification forming part of Letters Patent No. **147,594**, dated February 17, 1874; application filed February 9, 1874.

To all whom it may concern:

Be it known that I, ANDREW M. BIRD, of Syracuse, in the county of Onondaga and State of New York, have invented certain Improvements in Photographic Screens, of which the following is a specification:

My invention consists in a translucent photographic screen attached to an arm, so connected with a standard that the screen may have a universal movement under the control of the operator, so that the said screen may be easily placed in any desired angle with reference to the seat or position occupied by the "sitter," in order to intercept or deflect the rays of light, thereby softening the light or reflecting it to such portions of the sitter as may be desired to reduce the shadows.

Figure 1 is a side elevation of my invention; Fig. 2, a top view of the screen detached. Figs. 3, 4, and 5 are modifications in the method of adjustment.

In the drawing, *a* represents a standard with a base or foot, *b*. An arm, *d*, having at one end a block, *l*, with screen-holding arms *k*, is connected by hinge or joint *e* with a movable piece, *c*, pivoted to the standard by a pin, *c*¹. A cord, *h*, attached to arm *d* passes through a hole, *i*, near the top of the standard, and has attached to it a weight, *j*. A piece, *f*, preferably of fine white cambric, is secured to arms *k*.

The operator places the screen at any suitable position between the camera and the sitter, and he then raises or lowers the arm *d*, or moves it sidewise or in the arc of a circle about the pin *c*¹. To accomplish this last-mentioned movement, the operator has only to take hold of the handle *e*². The weight *j* acts as a counterpoise for the arm *d*, and retains it wherever the operator places it. It will be seen that the arm carrying the screen has practically a universal movement about the side of the standard, and it may be adjusted high or low, so as to place the face of the screen at any angle with reference to the sitter, and in the path of any strong light, or to reflect it as the operator may desire.

Fig. 1 shows one way of carrying out my invention; but it is obvious that the screen-supporting arm *d* may be connected to the standard by other means, so that the arm may have vertical and lateral movements in the

arc of a circle, or a universal movement, without departing from my invention; and I do not desire to limit myself to any particular connection between such arm and standard, only so far that the connection shall allow of the movements specified.

Fig. 3 shows a front and side view of a modified arm and standard-connecting device. *m* is a sector-like piece of metal pivoted at *n*, and provided with a slot, *o*, through which passes a pin or screw to hold the piece *m* in position. Rising from *m* are standards *q*, between which a curved piece, *f*, may move about pin *p*¹, and also in the opposite direction on the pivot *n* as a center. A washer in this instance takes the place of the cord and weight, shown in Fig. 1, and the screen-supporting arm is fitted to the socket *r*. In Fig. 4, a socketed ball-like piece, *s*, receives the arm *d*, but the arm instead may have a ball turned on it, as shown at Fig. 5. This ball is fitted between the spherically-concaved jaws *t t*¹. These jaws have ears *w*, through which, and a curved piece, *v*, and the top of the standard, passes a screw, *x*¹, which pivots the jaws to the standard. The curved piece *v* passes into a slot in the top of the standard, and when the jaws are turned on the pivot *x*¹ the screw *x* may be used to keep them in position. The ball-like end may be split or cut out, as shown by the dotted lines in the sectioned Fig. 4, and in this way the pressure of the compressed ball within the sides of the jaws will retain the jaws and arm *d*, which is to carry the screen in any angular position to which it may be adjusted.

Fig. 5 shows a section of a further modification. One portion, *y*¹, of a jaw has a rod extending from it through the standard, where it is confined by a thumb-nut, *z*. The second portion *y* of this jaw is secured to *y*¹ by a screw, *l*, and between the jaws is placed the rounded end of the screen-supporting arm *d*. Between the thumb-nut *z* and the standard may be placed a wedge-piece, *a*¹, with one face inclined, and this may be moved between the face of the nut and the standard, so as to quickly tighten or loosen the rod and allow it to be turned in the standard. For the screen I prefer fine white cambric, but any other thin translucent fabric or material may be employed, and it may be square or round. The

standard may be made of metal pipe, or a rod of metal, if desired, and be made detachable from the base; and the block 7 might be made a little longer or larger, be provided with a hole transversely to receive the rounded end of the arm 4, and be secured on said arm 4, so that it could be moved about it. A spring-washer or other friction device could be used between the arm and block to hold the screen in any adjusted position. This last-suggested movement of the screen about the end of the arm would, in a measure, take the place of the movement of the arm about the pin or screw entering the standard.

I am aware that a screen has been used on a rigid horizontally-projecting arm.

Having described my invention, I claim—

A translucent photographic screen combined with its standard, and connected and adapted to permit the screen to rise and fall in the arc of a circle, and to move in curved lines substantially at right angles with such movement, substantially as described.

ANDREW M. BIRD.

Witnesses:

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W. L. SUTTON.