

I. H. STODDARD.
 Photographic-Camera.

No. 208,345.

Patented Sept. 24, 1878.

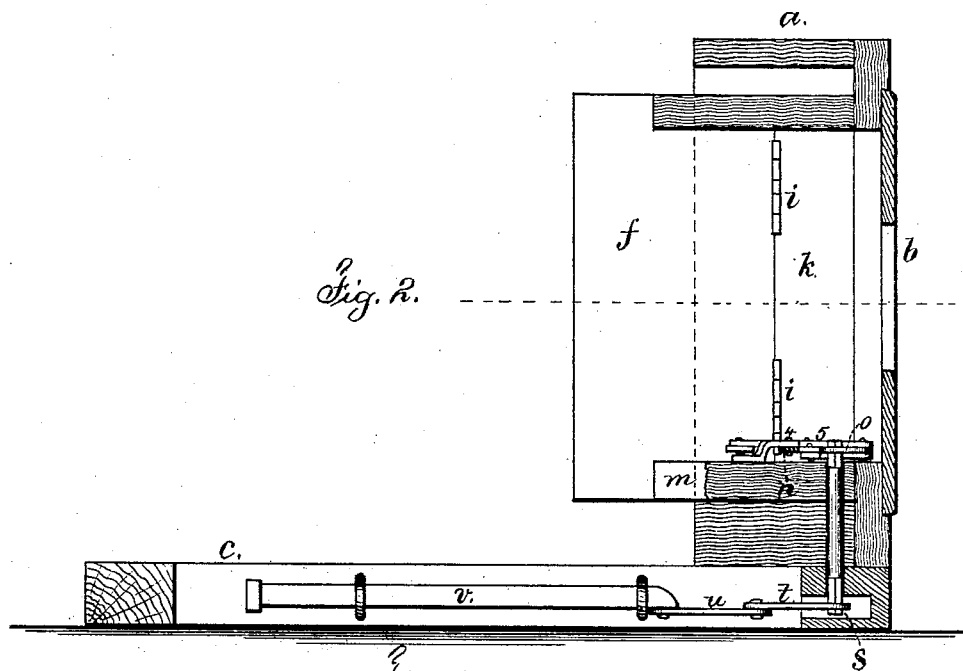


Fig. 2.

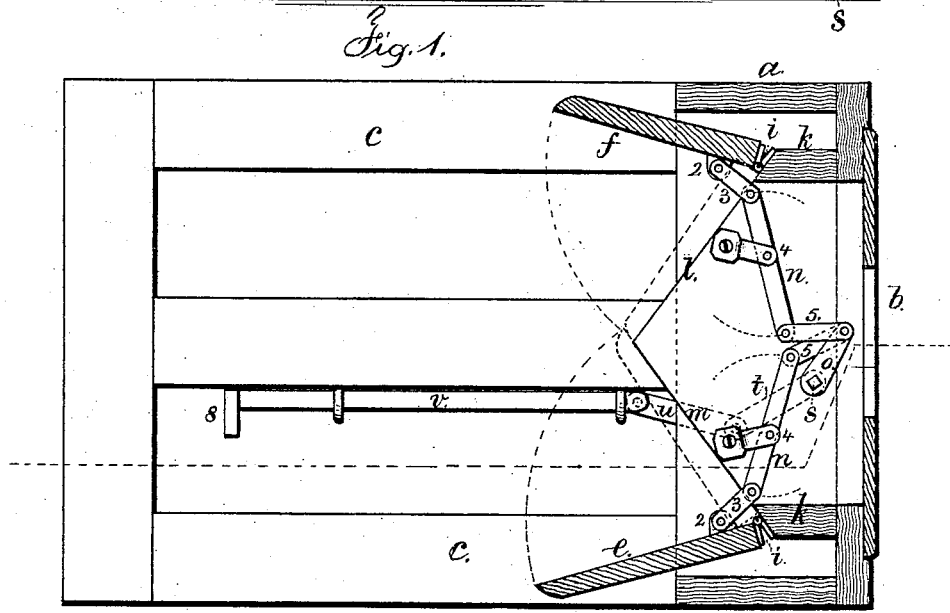


Fig. 1.

Witnesses

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 per Lemuel W. Serrell
 atty

UNITED STATES PATENT OFFICE.

ISAAC H. STODDARD, OF ANSONIA, CONNECTICUT, ASSIGNOR TO E. AND H. T. ANTHONY & CO., OF NEW YORK, N. Y.

IMPROVEMENT IN PHOTOGRAPHIC CAMERAS.

Specification forming part of Letters Patent No. **208,345**, dated September 24, 1878; application filed June 15, 1878.

To all whom it may concern:

Be it known that I, ISAAC H. STODDARD, of Ansonia, in the State of Connecticut, have invented an Improvement in Photographic Cameras, of which the following is a specification:

Cameras have been provided with various devices for admitting light. A black plush thrown over the lens-tube is the most usual; but septums and shutters have been employed outside the camera. Cameras, as usually constructed, have considerable unoccupied space within the box. I avail of this space to introduce a pair of swinging shutters, that are operated by levers and a sliding connection to the back of the instrument, so that the exposure can be instantly made, and there is nothing outside the camera to increase its bulk, and the light can be perfectly excluded when the shutters are closed.

In the drawing, Figure 1 is a sectional plan of the camera-box and attachment, and Fig. 2 is a vertical section of the same.

The camera-box *a* is of usual construction, and receives the lens-tube and lens at *b*. The slide or base *c* is connected with the box *a*.

A folding bellows is provided, that extends from the box *a* to the adjustable frame for the picture-holder. These parts, however, are not shown, as they are well known, and may be of any desired character.

Within the box *a* are two shutters, *e f*, hinged at *i* to the vertical jamb *k*, and these shutters close at top and bottom against the V-shaped bearings *l m*, so that said shutters come together at an angle, and one shutter laps over the edge of the other, as seen in Fig. 1, to effectually exclude light when closed, and I remark that the parts are painted black, as usual in cameras.

Upon each shutter there is a joint-piece, 2, to which a link, 3, is connected, that extends to a lever, *n*, upon the fulcrum 4, and the ends of these levers *n*, that approach each other, are connected by the links 5 5 to the crank-arm *o* upon a vertical shaft, *s*, that passes through the camera-box. At the bottom of this shaft *s*, a second crank-arm, *t*, is attached, with a link, *u*, to the sliding rod *v*, that extends along the base of the camera to near the back end, and terminates with a handle-piece, 8. By moving this slide back and forth the shaft *s* will be partially revolved, and the shutters swung open or closed, and this can be done so instantaneously that the exposure can be made in the camera with the utmost accuracy of time.

I claim as my invention—

1. The combination, with the camera-box, of two swinging shutters within the box, and the slide-rod *v* and connecting mechanism, substantially as set forth, whereby the said shutters are simultaneously opened or closed, as set forth.

2. The combination, with the camera-box, of two swinging shutters, *e f*, levers *n*, links 3 5, crank *o*, shaft *s*, and actuating slide-rod *v*, substantially as set forth.

3. The swinging shutters *e f*, lapping at their edges, in combination with the V-bearings *l m* and camera-box *a*, substantially as set forth.

Signed by me this 11th day of June, A. D. 1878.

ISAAC H. STODDARD.

Witnesses:

CHAS. H. PINE,
FRED. M. DREW.