(No Model.) 2 Sheets—Sheet 1.

G. W. HOUGH.

PHOTOGRAPHER'S DRY PLATE HOLDER.

No. 306,618. Patented Oct. 14, 1884.

Fig. 1.

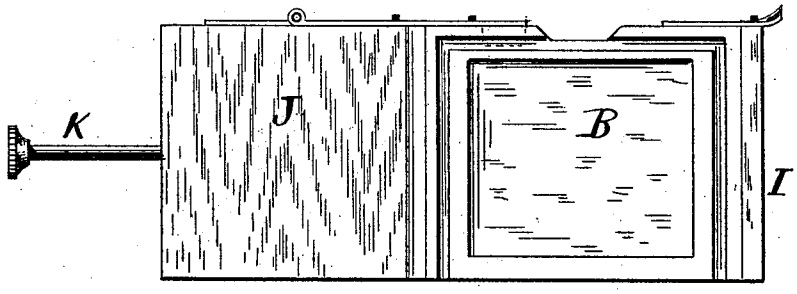


Fig. 2.

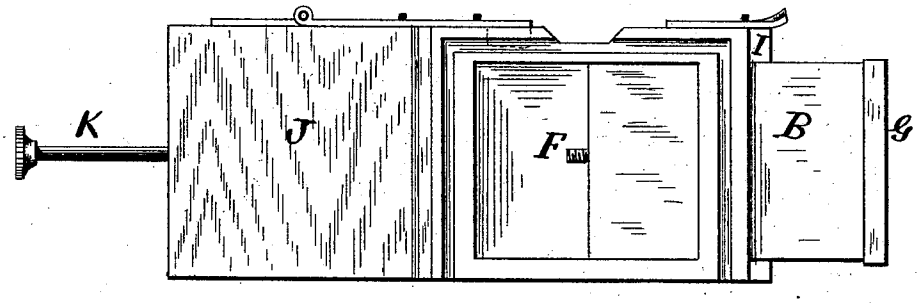
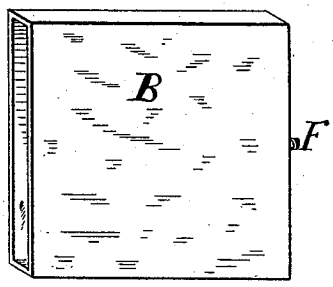
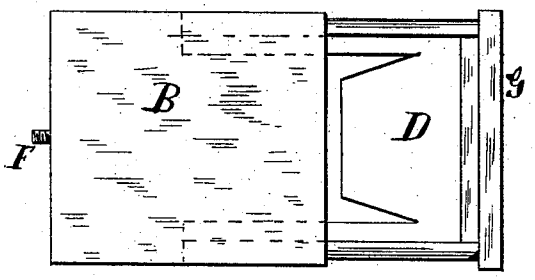


Fig. 3. *Fig 4.*





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(No Model.) 2 Sheets—Sheet 2.

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Fig. 5.

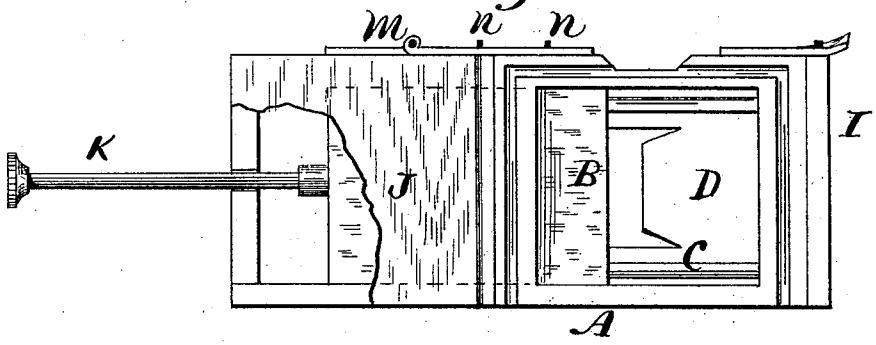


Fig. 6.

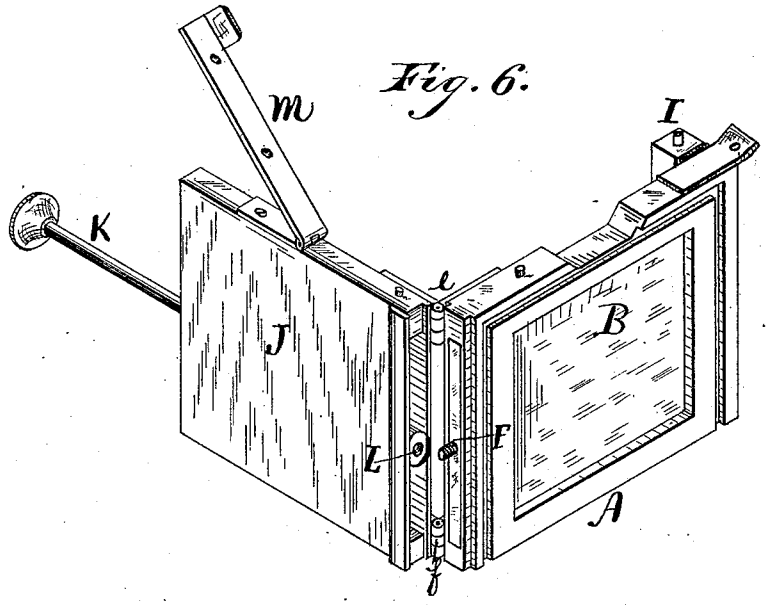
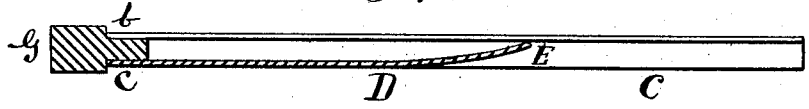


Fig. 7.



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UNITED STATES PATENT OFFICE.

GEORGE W. HOUGH, OF CHICAGO, ILLINOIS.

PHOTOGRAPHER'S DRY-PLATE HOLDER.

SPECIFICATION forming part of Letters Patent No. 306,618, dated October 14, 1884.

Application filed December 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. HOUGH, a citizen of the United States, residing in the city of Chicago, in the State of Illinois, have invented a new and useful Improvement in Photographers' Dry-Plate Holders and Exposing-Cases, of which the following is the specification.

The object of this invention is to provide a plate-holder light-tight, simple in construction, and convenient to be carried around, together with an exposing-case suitable in construction.

Figure 1 is a front view of the exposing-case and auxiliary case. Fig. 2 is a front view of same with holding-case partially removed through the end of exposing-case. Fig. 3 is a perspective of the holding-case. Fig. 4 is a side view of the holding-case with the plate-holder partially removed. Fig. 5 is a view of the exposing-case and the auxiliary case, with a portion of the auxiliary case cut away to show the rod attached to the holding-case and the holding-case partially drawn into auxiliary case. Fig. 6 is a perspective view of the exposing-case, the auxiliary case, and the end door, and the method of attaching them together. Fig. 7 is a longitudinal section of the plate-holder, showing the spring for holding the plate in position.

Similar letters of reference refer to similar parts in the different drawings.

A is the exposing-case, within which is placed the holding-case B, and in this holding-case is placed the holding-slide C. The holding-slide C holds the glass plate, and is made with grooves in the edges for holding it, and the interior part between the edges is cut away part of the distance, leaving the projection D. The end of this projection D is turned upward slightly, (see E, Fig. 7,) to form a spring for holding the plate in position, thus making the frame of the plate-holder and the spring for holding the plate in position out of one and the same piece, which enables me to use a thin space for the plate-holder and spring.

The holding-case B is made of any suitable material, open at one end and closed at the other. (See Fig. 3.) In the closed end is inserted the screw F. The plate-holder, with the glass plate, is placed within the case-holder B through the open end, with the cross-head G of the plate-holder fitting snugly against the open end of case-holder B. Thus is the glass plate placed within an inclosure that is absolutely light-tight. In Fig. 7 is shown the cross-head G of the plate-holder. The sides of the case-holder fit snugly against the shoulders *b* and *c*.

When the glass plate is placed within the case-holder, as above described, the case-holder is placed in the exposing-case A through one end, as shown in Fig. 2.

I, Figs. 1, 2, and 6, is a door, which closes against the end of exposing-case after the holding-case is placed in position, which further precludes any light from coming into the presence of the glass plate.

J is the auxiliary case, open at one end and hinged to the exposing-case A at the open end by hinges *e f*, Fig. 4.

K is a rod passing through the closed end of the auxiliary case, and terminating in the interior with a recessed end having a screw cut therein. (See L, Fig. 6.)

Figs. 1, 2, and 5 show the exposing-case and the auxiliary case in the same plane and locked by the strap and pins M and N N. The exposing-case is now placed on the camera, and to remove the holding-case B so as to expose the glass plate to the face of the lens in the camera, the recessed end of the rod K is screwed onto the screw F in the closed end of the holding-case B, and on withdrawing the rod the holding-case B is drawn into the auxiliary case J. (See Fig. 5.) In this construction I entirely and absolutely exclude all light from the presence of the dry-plate, excepting what passes through the lens. Thus a clear and distinct negative can be taken without danger of its being fogged by cross-light.

By using the holding-case B, constructed as herein shown, much less room is taken up than in the old form.

I am aware of Patent No. 249,181 and the construction therein shown; but this is not my construction, nor does it work in the same way.

I claim—

1. As an article of manufacture, the holding-case B, provided with the plate-holder C,

and the cross-head G, as and for the purpose shown.

2. The auxiliary case J, in combination with an exposing-case, for the purpose of affording a dark chamber for the case B to be drawn into, as and for the purpose shown.

3. The rod K, in combination with the auxiliary case J and the holding-case B, for the purpose of drawing the holding-case B into the auxiliary case J, substantially as shown.

4. The plate-holder C and spring D, both made from one and the same piece, as and for the purpose shown.

5. The exposing-case, with the light-excluding door I at one end and auxiliary case J at the other end, as and for the purpose shown.

6. The combination of the auxiliary case J, exposing-case A, holding-case B, and rod K, whereby the holding-case B holding the plate can be withdrawn from the exposing-case without exposing the dry-plate to the light, substantially as and for the purpose shown.

GEORGE W. HOUGH.

Witnesses:

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E. J. MCELROY.