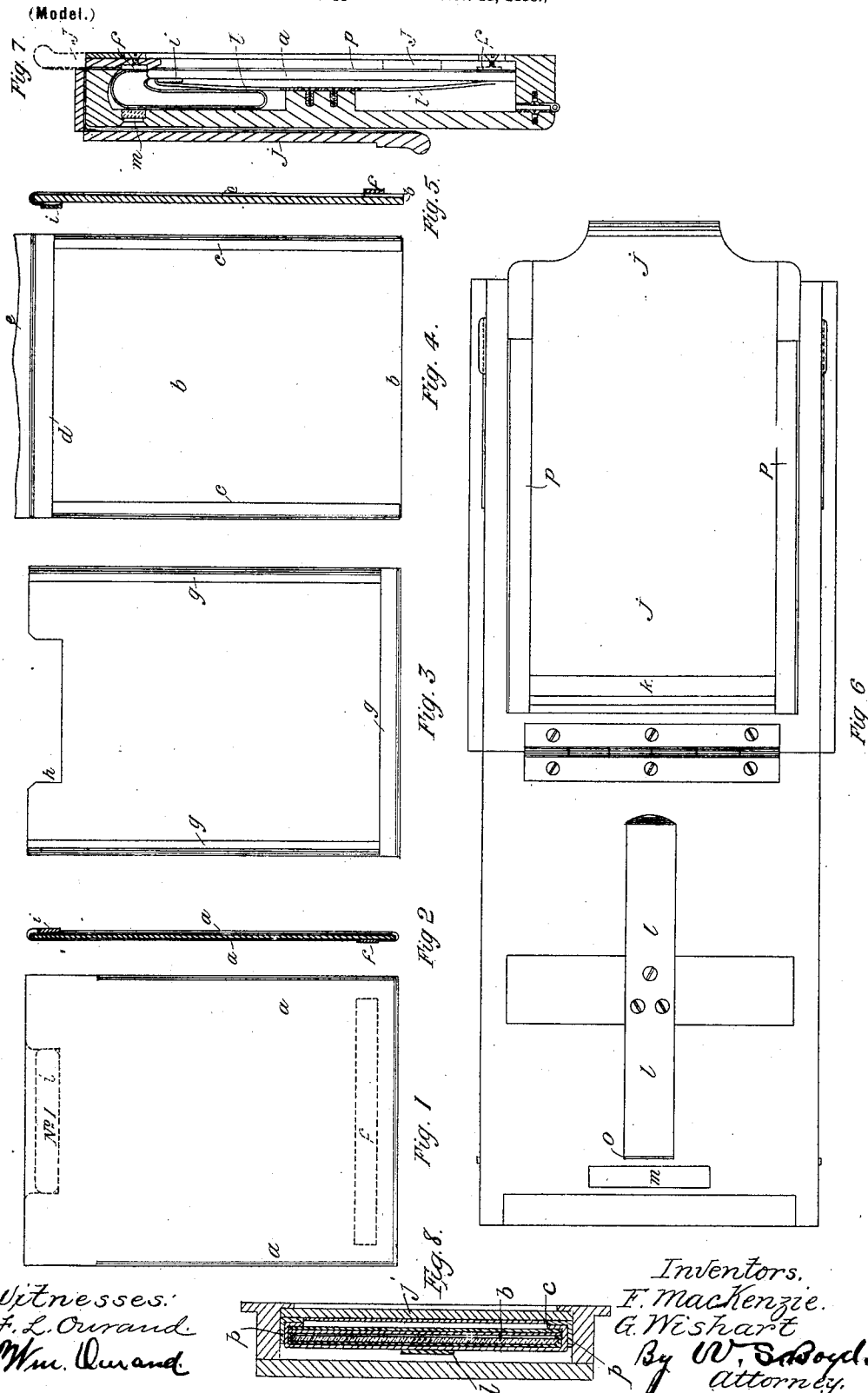


No. 663,578.

Patented Dec. 11, 1900.

F. MACKENZIE & G. WISHART.
PHOTOGRAPHIC PLATE HOLDER.

(Application filed Nov. 13, 1899.)



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UNITED STATES PATENT OFFICE.

FREDERICK MACKENZIE AND GEORGE WISHART, OF GLASGOW, SCOTLAND.

PHOTOGRAPHIC-PLATE HOLDER.

SPECIFICATION forming part of Letters Patent No. 663,578, dated December 11, 1900.

Application filed November 13, 1899. Serial No. 736,780. (Model.)

To all whom it may concern:

Be it known that we, FREDERICK MACKENZIE and GEORGE WISHART, citizens of the United Kingdom of Great Britain and Ireland, residing in Glasgow, Scotland, have invented a new and useful Appliance for Carrying and Exposing in the Camera Sensitive Photographic Dry Plates or Films, (for which we have obtained a patent in Great Britain, dated April 13, 1899; in Germany, dated May 8, 1899, and in France, dated October 13, 1899,) of which the following is a specification.

This invention has reference to and comprises improved appliances for carrying and exposing in a camera sensitive photographic dry plates or films in a convenient manner and without danger of exposure to the ordinary daylight.

In carrying into practice our improvements we use an actinic light-proof envelop and a special dark cell or slide for exposing the plate or films in the camera.

In order that our invention may be properly understood, we have hereunto appended one sheet of illustrative drawings, in which—

Figure 1 is a plan, and Fig. 2 a section, of the actinic light-proof envelop. Fig. 3 is a plan of one part of said envelop, and Fig. 4 is a plan of the other part, while Fig. 5 is a section of same. Fig. 6 is a plan of the dark cell or slide for exposing the plate in the camera opened up. Fig. 7 is a section of same closed with the exposing-door drawn open and also showing in dotted lines the door closed, and Fig. 8 is a broken section taken at right angles to Fig. 7.

The light-proof envelop *a*, Figs. 1 and 2, is made in two parts, one (the inner part, shown in Figs. 4 and 5) composed of a piece of stiff actinic light-proof cloth or strong paper or other suitable material of the size of the plate *b* to be used, having its sides *c* and one end *d* turned over, so as to form grooves, into which the plate *b* is slipped. To the back of end *d*, having the groove, a covering-flap of light-proof cloth or paper (shown broken away in Fig. 4 and turned over in Fig. 5) is secured, which folds over the face of the dry-plate *b*, placed in the grooves. A small bar *f*, (also indicated in Figs. 1 and 2,) of wood or other suitable material, is secured on the end of this covering-flap *e* outside. The other or

outer part of the envelop (shown in Fig. 3) consists of a carrier, also formed of actinic light-proof cloth or other material, having turned-over edges *g* at the sides and one end to form grooves, which may be strengthened in any well-known manner. A small portion at *h* is cut away at the ungrooved end to receive a small bar *i*, Figs. 1, 2, 5, and 7, to act as a stop, secured on the end of the inner part, which is slipped within the outer part. The plate *b* is placed while in the dark room within the grooves of the inner part and covered by the flap *e*, the whole being inserted within the grooves *g* of the outer part, the uncovered end of the plate entering the groove at the end, so that all light is completely excluded from the plate, the bar *i* entering the recess *h*.

The dark cell or slide, Figs. 6 and 7, for exposing the plate in the camera is made of book form, one side being fitted with the usual sliding door *j*. The plate and its envelop are laid within the cell on the sliding door, which has a groove *k* near its end to engage with the bar *f* on the covering-flap *e* of the envelop. The other side of the cell is fitted with a blade-spring *l* to hold the plate in position and may be fitted with a celluloid or glass peep-hole *m*, by which any number or other mark on the plate-envelop may be read. The end *o* of the blade-spring is turned at an angle, so that it engages with the bar *i* to prevent the envelop and plate from being lodged on the drawing out of the door *j*.

Angled metal strips *p* are used to form the grooves for the door *j* and at the same time support the plate.

When the cell is placed in the camera and the door *j* drawn, its groove *k* engaging with the bar *f* on the envelop-flap *e* draws it and the flap off the face of the plate and rolls it within the cell, all as shown in Fig. 7, and on the closing of the door recovers the plate. The plate and its envelop can then be taken out of the cell and placed in the pocket or otherwise disposed of. Prepared in this way any number of plates can be carried by the operator, while only one cell is required. Instead of employing a separate cell it may be built to the end of the camera and form an integral part of the same.

Having described our invention, we claim—

1. In a plate-cover for cameras, the combination, with an envelop, the front of which is open, of a flexible shield secured at one end to the top thereof in position to cover
5 the opening, and a bar of material permanently secured to the free end of the shield in position to be engaged by the door of the plate-holder.

2. In a plate-cover for cameras, the combination, with an envelop comprising two
10 parts, one within the other, each of which is flanged upon its sides and at one end to form grooves, the ungrooved ends being arranged opposite to each other, and a flexible shield
15 secured to the flanged end of the inner part and having its free end provided with means for engaging with the door of the plate-holder.

3. In a plate-cover for cameras, the combination, with an envelop, comprising two parts,
20 one within the other, each of which is flanged upon its sides and at one end, the lower end of the inner part and the upper end of the outer part being ungrooved and the outer part being cut away at its ungrooved end, a
25 stop on the inner part for fitting within the cut-away portion of the outer part, and a flexible shield secured to the grooved end of the inner part, the free end of which is provided with a strip for engaging with the door of the
30 plate-holder.

4. In a plate-holder for cameras, the combination, with a grooved frame adapted to hold a plate-envelop, of a back hinged thereto, a
spring-catch secured to the back for engaging with the envelop, and a sliding door.
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5. In a plate-holder for cameras, the combination with a grooved frame adapted to hold

a plate-envelop, of a back hinged thereto, a spring-catch secured to the back, the upper end of which is bent at an angle to engage
40 with the envelop, and a sliding door.

6. In a plate-holder for cameras, the combination, with a grooved frame, of a hinged door provided with a spring-catch, of a flanged
45 plate-cover in the groove of the frame, a flexible shield secured thereto at one end in position to be moved in front of the plate, and a sliding door in the frame, the inner surface of which is adapted to engage with the free
50 end of the shield and move it over the plate.

7. In a plate-holder for cameras, the combination, with a grooved frame, of a plate-cover therein consisting of two flanged parts secured, one within the other, the inner one being provided with a flexible shield, a strip on
55 the free end of the shield, a back hinged to the frame, a hooked catch thereon in position to engage with the top of the cover and prevent its movement, and a sliding door, the inner face of which is provided with a groove
60 for the reception of the strip on the shield.

8. In a plate-holder for cameras, the combination, with a frame adapted to hold a plate-envelop, of a back for the same provided with a transparent peep-hole, a hooked catch on
65 the back for engaging with the envelop, and a sliding door in front of the frame.

In testimony whereof we affix our signatures in presence of two witnesses.

FREDERICK MACKENZIE.
GEORGE WISHART.

Witnesses:

JOHN FRASER,
DONALD SINCLAIR.