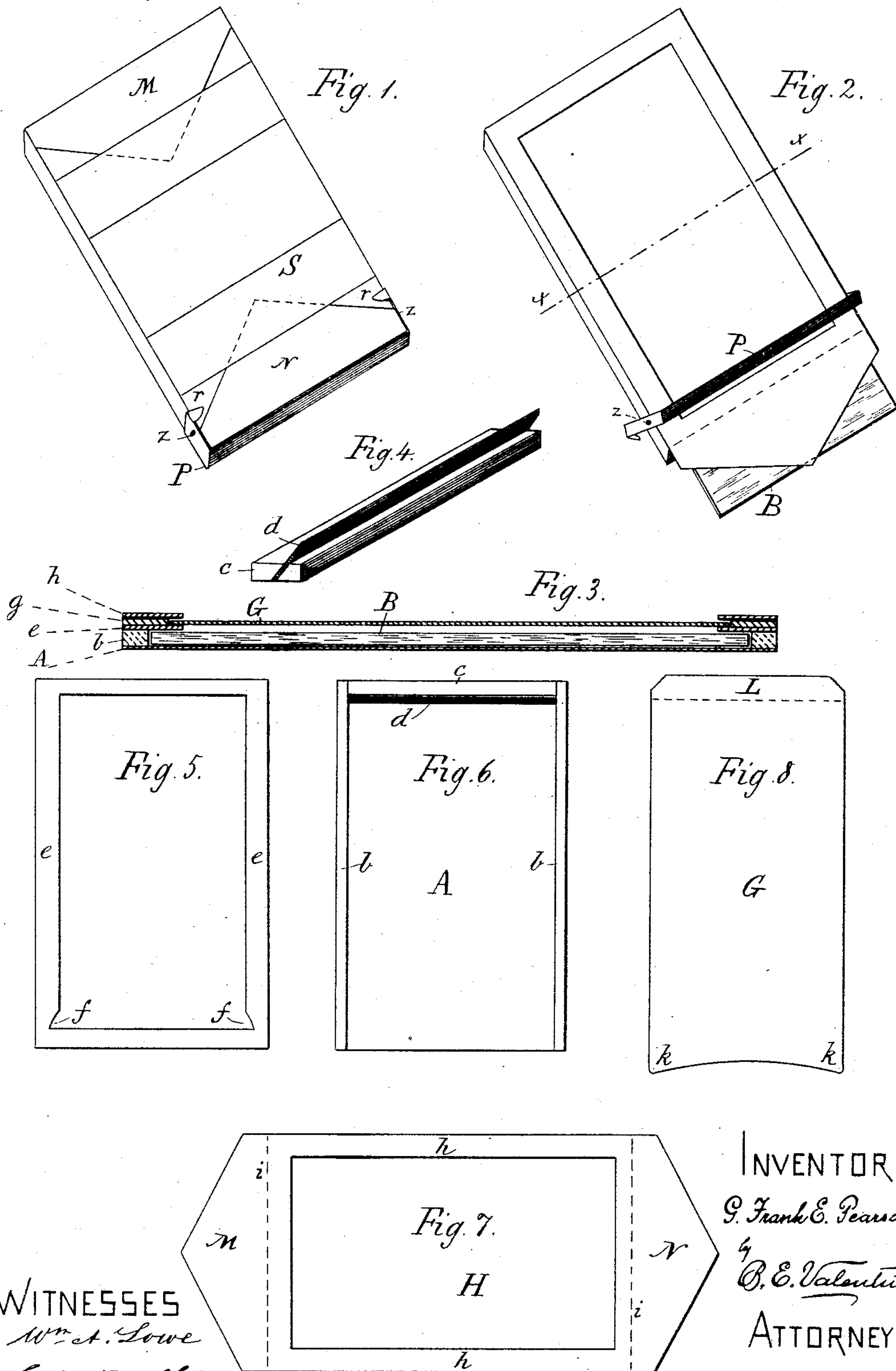


(No Model.)

G. F. E. PEARSALL.  
PHOTOGRAPHIC DRY PLATE HOLDER.

No. 287,857

Patented Nov. 6, 1883.



WITNESSES

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## PHOTOGRAPHIC DRY-PLATE HOLDER.

SPECIFICATION forming part of Letters Patent No. 287,857, dated November 6, 1883.

Application filed May 24, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, G. FRANK E. PEARSALL, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Photographic Dry-Plate Holders; and I do hereby declare that the following specification, taken in connection with the drawings annexed to and forming part of the same, furnishes a full and clear description thereof sufficient to enable those skilled in the art to which it pertains to make and operate the same.

My invention has for its object to furnish a holder for protecting a very sensitive plate—such as is used in a photographic camera during its transmission from the chemical room to the place of use in the camera. Sensitive plates, which are used in photographic studios, are usually what are known as “wet” and “dry” plates. These plates are usually held and exposed in a wooden frame; but for use in places other than the photographic studio, and especially in out-of-door photography, it is extremely difficult to carry any number of wooden holders with sensitive plates in them, therefore not more than two or three can be used at any time without again going to the chemical room for more plates. To carry a large quantity of these plates, holders different from the wooden or metal plate-holders are necessary, to economize weight and space, and as any substance which will thoroughly exclude the light and protect the sensitive plate from injury is sufficient, paper has been found to furnish an excellent envelope for such sensitive dry plates. A great difficulty to be overcome in the use of the paper envelope for such purpose is the liability of rays of light to enter along the crevices or corners of the envelope, and much labor has been spent in vain in the endeavor to adequately protect such plates from false rays of light. This object I have accomplished by means of my invention, hereinafter described, which combines in itself both an envelope, to preserve and to carry the sensitive dry plates before use, and a plate-holder, to be used in the camera in place of the bulky frames heretofore used in the instrument to hold the plates.

In the drawings, Figure 1 is a view in perspective of my improved plate-holder closed,

and containing a plate ready for use. Fig. 2 represents the reverse side of said plate-holder with the flap open, to show method of introduction of sensitive plate. Fig. 3 is a cross-section upon the line *x x* of Fig. 2. Fig. 4 is a view in cross-section of the elastic strip used for closing the aperture at which the slide enters. Figs. 5, 6, 7, and 8 show parts which go to make up the envelope.

Similar letters of reference in the different figures indicate corresponding parts.

To construct my improved envelope or plate-holder, I take a piece of soft paper or other suitable material which is impervious to the light and dampness and cut it, as shown at A, Fig. 6, of substantially the same shape as the sensitive plate. The dimensions of this paper back A are a trifle larger than the plate for which it is intended. Along the sides of this back A, I glue narrow strips of wood, *b*, about an eighth of an inch thick and a quarter of an inch wide. At one end I also glue a strip of similar thickness, *c*; but the latter strip, *c*, is constructed with a piece of rubber, *d*, or similar elastic material let into a groove along its center at an angle of about forty-five degrees, so as to raise the rubber strip above the surface, as shown in Fig. 4. A frame, *e*, having its sides a little wider than the strips *b*, and constructed of paper or other suitable material, is glued upon the strips *b c*, so that its inner edges will project over the edges of the sensitive plate B and hold it in position. This frame is constructed in the shape shown in Fig. 5, with two notches, *f f*, at the lower end, which notches allow the ends of the rubber strip *d* to protrude without having the working of the rubber strip interfered with by said frame-work. Along the two sides and across the top of this frame-work *e* are glued other strips of card-board or other suitable material, *g*, Fig. 3, of substantially the same width as the strips *b*. Upon the strips *g* is glued the cover of soft paper *h*, which completes the envelope. This cover is shown in the drawings by Fig. 7. It has removed from its center H a portion large enough to allow the desired exposure of the sensitive plate, and along the dotted lines *i i* each end of the same is bent to form a flap or tuck for folding over the top and bottom of the previously-described frame-



work, for the purpose of completely closing the ends of the envelope after the sensitive plate and the slide have been inserted.

Fig. 8 shows a slide, which is made of stiff paper, and which is intended to be inserted at the top end of the envelope between the layers *h* and *e*. The inwardly-projecting edges of the strips *h* and *e* furnish a groove or guide for the edges of the slide *G*. The lower end of this slide *G* is cut in a concave form, so that the points *k k*, entering the groove formed by the strips *h* and *e* across the bottom of the envelope, feed the slide down into place without the edge of the slide catching upon the edge of the strips. The upper end of the slide *G* is bent across at the part indicated by the dotted lines, to form a small flap, *L*, which serves as a hand-piece with which to insert and withdraw the slide *G*, and which is folded down along the dotted line and over the end of the envelope under the flap *M*.

After the parts *A*, *b*, *e*, *g*, and *h* are glued together, a cloth binding is put along the edges and across the hinges *i i* of the flaps *M N*.

A narrow band of metal, constructed as shown at *P*, is affixed to the lower end of the envelope by screws or pivots at *z z*. This band fits tightly over the hinge *i*, to close the flap *N*, holding it firmly down and affording a rigid end for the bottom of the envelope. Two projections, *r r*, prevent the strip *P* from being pushed back beyond the edge of the plate-holder, but allow the strip to be brought forward, when desired, to open the lower end, to withdraw the plate. Two bands *S*, or their equivalents, are glued across the back of the envelope *A* in such a manner that the ends of the flaps *M N* can be tucked under them and held down in place.

The mode of using my improved plate-holder is as follows: The band *P* being turned forward, and the flaps *M N* being opened, the slide *G* is inserted to cover the opening *H*. The sensitive plate is then inserted at the bottom of the envelope at the opening afforded under the flap *N* and between *A* and *e*, Fig. 3. The flap *N* being then turned over and its band

tucked under the strap *S*, the band *P* is turned back into place and the opening through which the sensitive plate is inserted is held tightly closed and protected from any rays of light entering at the corners and edges. The slide *G* being wider than the aperture *H*, and the notches *f* allowing the elastic strip *d* to rise up to a width wider than the opening between *e e*, insures a close contact at all times, which prevents the entry of any false rays of light at the upper edge of the envelope at the place where the slide is inserted. An exposure of this sensitive plate in the camera is made by simply grasping the slide *G* at the part *L* and drawing out the same, sliding it in again after the exposure is completed.

Having thus described my invention, I do not claim, broadly, a paper envelope or plate-holder for a dry plate; nor do I claim an envelope which can be used both as a protector for a sensitive plate and as a plate-holder in the camera; but

What I do claim, and desire to secure by Letters Patent, is—

1. The combination of the layers and strips *A b e g* with a slide, *G*, and a cover, *h*, so that the sensitive plate can be introduced and secured at one end and the slide *G* at the other end, substantially as and for the purposes described.

2. In combination with an envelope for a sensitive plate provided with a slide, *G*, substantially as described, the combination of a rubber strip, *d*, arranged, substantially as described, to form a close contact with the slide *G* while being inserted or removed, and with the inside of cover *h* when the slide is out.

3. In an envelope or holder for sensitive dry plates, the construction and combination of the side strips, *e e*, provided with the recesses or notches *f f*, acting in conjunction with the elastic rubber strip *d* and slide *G*, substantially as and for the purposes described.

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Witnesses:

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