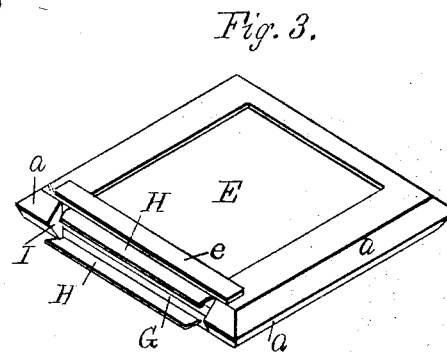
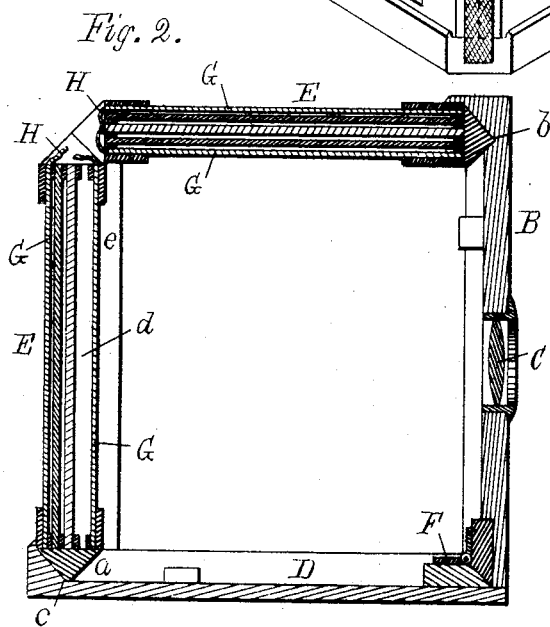
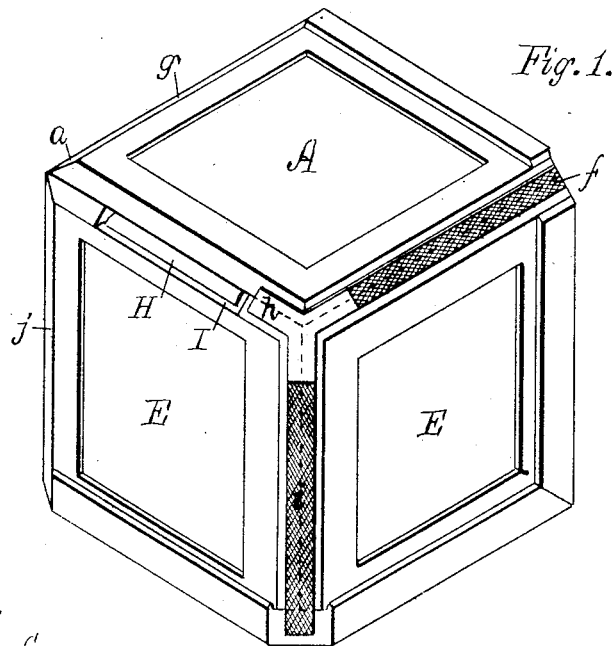


(No Model.)

T. H. BLAIR.
PHOTOGRAPHIC CAMERA.

No. 261,130.

Patented July 18, 1882.



Witnesses.
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UNITED STATES PATENT OFFICE.

THOMAS H. BLAIR, OF CAMBRIDGE, MASSACHUSETTS.

PHOTOGRAPHIC CAMERA.

SPECIFICATION forming part of Letters Patent No. 261,130, dated July 18, 1882.

Application filed March 18, 1882 (No model.)

To all whom it may concern:

Be it known that I, THOMAS HENRY BLAIR, a citizen of the United States, residing at Cambridge, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Photographic Cameras; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a photographic camera of sufficiently low cost to be within the means of all desiring such an instrument; a further object of the invention being to adapt a camera-box to be readily dismembered and packed in a small compass, for convenience in carriage and economy in transportation.

The invention consists in a camera-box the walls of which, with the exception of the bottom and front, are composed of independent interchangeable temporary parietes or plate-holders adapted to be assembled together when the instrument is wanted for use, and confined by elastic bands or other fastenings, which permit the whole to be readily dismembered without the removal of screws or analogous securities. The primary or permanent base of support of the instrument consists of a bottom piece, by which the whole is supported in position upon a tripod or other support, and a front piece carrying the lens, these two being connected by a permanent or detachable hinge, which permits them to be compactly folded or to be distended, as the case may be, while the remaining walls are composed of the removable plate-holders or parietes before named.

The drawings accompanying this specification represent, in Figure 1, an isometric elevation of a photographic camera containing my invention, while Fig. 2 is a vertical section of the same. Fig. 3 is a perspective view of one of the detachable plate-holders.

Reference being had to the above-named drawings, A will be seen to represent my complete camera, as composed of a front piece, B, adapted to contain a lens, C, and a bottom

piece, D, which constitutes the base of support of the instrument, the remaining walls being composed of duplicate plate-holders E E, &c., adapted to be assembled together in such manner as to constitute the rectangular box A. The front corners of the front and bottom B and D of my camera are, as shown, in the present instance connected by ordinary hinges, F F, which constitute a permanent union, and which permit the two to be folded together when the parietes E E are detached. In place, however, of a permanent hinge, a detachable hinge or a clasp of any suitable character may be employed. I prefer the permanent hinge as adding to the strength and rigidity of the box, and as serving to maintain the front and bottom pieces in their proper relative positions.

For convenience in assembling and securing the holders E, I construct each with its edges pyramidal in cross-section—that is, with a bevel, *a*, of forty-five degrees upon each side—and I groove the upper part of the front B and the rear part of the bottom D upon the inside with corresponding horizontal grooves *b c* to receive each the edge of any given holder and constitute a seat to prevent, in a given degree, slipping or misplacement of the assembled holders. Moreover, the beveled edge of one plate-holder constitutes a bearing for that of another plate-holder, while the dual bevels enable any holder to be reversed in position, side for side, in order that when one of its sensitized plates has been exposed the other may be presented to the action of the lens.

I do not confine myself to the double beveled edge upon each holder as a means of insuring the correct positions of the assembled holders, as a tongue and groove or other connection may be employed without losing sight of the gist of my invention, which, in this respect, consists in such a construction of the edges of the holders as shall enable them to preserve their respective positions and to be reversed in position, side for side, to present either plate to the action of the lens. Furthermore, the plate-chamber *d* of each holder has but one mouth or opening, as shown in the drawings, and through this opening the plate is introduced and removed, thereby diminishing the opportunities of leakage of light to the sensitized plate. Heretofore plate-holders

have been provided with openings upon opposite sides, the plate being introduced from one side and removed from the other. This increases the cost of a holder and multiplies the opportunities for admitting light to the sensitized plate. By constructing each plate-receptacle with but one opening and inserting and removing the plate from this opening I gain decided advantages. In addition to this, in my present camera, containing as it does several plate-holders, all of which are subjected to the effects of light in an equal degree, it is important that every possible crevice for light should be closed. Hence it is of especial advantage, in this instance, to have but one opening in each plate-receptacle.

As before stated, the abutting together of the beveled sides of the assembled plate-holders serves to maintain such holders in their relative positions more or less securely; but to provide greater security in this respect I prefer to add to one side of each holder a ledge, *e*, which extends across it near its edge, as shown in Figs. 2 and 3 of the drawings. When the holders are assembled together the ledge of one constitutes a bearing or abutment for the next adjacent one, and adds materially to the security and rigidity of the box. It also serves the more important purpose of closing the crevice against admission of light.

The dark slide or blind of each holder is shown at *G*, and preferably has an elastic flap, *H*, upon its outer edge for convenience in removing it, but principally to permit this end of the slide to be folded or contracted in order that it shall not protrude beyond the beveled edge of the holder and thereby not interfere with a close joint between any two adjacent holders, while to permit the flap *H* to be folded or contracted within the limits of the beveled edge of the holder I cut away a portion of the beveled edge of each upon its open end, as shown at *I* in Fig. 3 of the drawings.

To confine the assembled holders temporarily together when the camera is to be prepared for use and when in use, I have shown in the accompanying drawings an elastic band composed of five sections, *f g h i j*, united together at their ends to form a rectangular clasp, each section overlapping the abutting edges of two adjacent plate-holders to prevent separation, while to secure the compound band to the box I secure the free ends of the upper sections, *f g*, to the front piece, *B*, and the free ends of the lower sections, *i j*, to the bottom piece, *D*. These elastic bands afford sufficient security against detachment of the parietes *E*, and provide a joint sufficiently light-proof to answer all practical purposes, while at the same time permit of ready dismemberment of said parietes. I do not, however, restrict myself in any sense to these elastic bands as a medium for securing the holders together, as various other means for securing the same result will readily manifest themselves to mechanics without the exercise of invention. For instance, the holders or parietes may be con-

nected by hooks and eyes applied to them, or by independent straps, whether elastic or non-elastic, having suitable clasps to engage the holders; or a compound elastic band, similar to that shown in the drawings, may be employed, having corners re-enforced by metallic ears to embrace the corners of the box.

I consider the essential features of my invention to consist, first, in a photographic camera-box composed of independent interchangeable parietes capable of ready dismemberment and package; second, in constructing these detachable parietes to enable them to be used as plate-holders; third, in constructing these plate-holders each with two plates containing recesses, and adapting the edges of each holder to take such hold upon its neighbor as shall permit each to aid in the security of the whole structure while being adapted itself to be reversed in position, side for side, to present either of the plates carried by it to the action of the lens and the plates to be readily dismembered and packed; fourth, in connecting these holders or parietes by elastic bands or other clasps which permit of ready dismemberment of the whole.

In preparing my camera for use the front and bottom portions are unfolded and the lens added to the first. The parietes or holders *E* are now (provided none of their sensitized plates have been exposed) assembled together regardless of the positions they occupy relatively to each other and the front and bottom pieces, except that in all instances the rearmost holder must stand with its opening uppermost or to one side in order that its dark-slides (shown at *G* in Figs. 2 and 3 of the drawings) may be readily manipulated, and, finally, the elastic bands are passed about the corners of the entire box, as shown in Fig. 1, when the camera is ready for use. As fast as the plates of one holder have been exposed such holder is to be exchanged for one whose plates have not been exposed, and so on until the entire series of plates have been exposed, when the whole box is to be dismembered and closely packed in a suitable case provided for the purpose.

From the above it will be seen that I provide a camera containing four plate-holders and eight plates, which, when distended and ready for use, occupies a space no larger than that required for the ordinary camera-box without the plate-holders, and which, when dismembered and packed, occupies considerably less space than either.

By adapting the plate-holders to constitute, when assembled, the parietes of the box I lessen the cost of the latter to a corresponding degree, at the same time lessening the weight as well as the bulk of the whole.

It will be seen that in placing the rearmost plate-holder in position it may be adjusted with its plate-opening at the top or at either side of the camera. By this means the plates may be presented to the lens either in a horizontal or vertical position, at the pleasure of

the operator, without loss of time or adjustment of any other part of the camera—an advantage of much importance.

While I have described the front of the box as composed of a piece connected with and adapted for use with the bottom piece, it is obvious that this front may be formed with edges similar to those of the plate-holders or parietes, and be made interchangeable with the latter and with the bottom piece. As the front piece, however, can in no event be a plate-holder, nothing would be gained by such a construction, while the whole structure would be less secure.

I claim—

1. A photographic camera-box the walls of which, with the exception of the front and bottom, are composed of temporary, independent, and interchangeable parietes.
2. A photographic camera-box the walls of which, with the exception of the front and bottom, are composed of interchangeable temporary parietes, each of which is a holder for sensitized plates.
3. A photographic camera-box the walls of which, with the exception of the front and bottom, are composed of independent interchangeable plate-holders or parietes, the edges of said plate-holders being beveled and arranged as shown, whereby the edge of each plate-holder constitutes a bearing or abutment to sustain the other when the whole are assembled together, substantially as explained.
4. In a photographic camera-box the walls of which, with the exception of the front and bottom, are composed of independent interchangeable parietes or plate-holders, the com-

bination, with said plate-holders, of bands which confine said holders together and permit of ready dismemberment, substantially as set forth.

5. In a photographic camera-box a portion of whose walls are composed of independent interchangeable parietes or plate-holders, the edges of such parietes or holders constructed with dual bevels of forty-five degrees angle, for purposes stated.

6. A photographic camera-box composed of a permanent front piece to support the lens, a permanent bottom piece to uphold the entire box and hinged or connected to the first, and remaining walls composed of independent interchangeable parietes or plate-holders.

7. In a photographic camera-box, a series of parietes or plate-holders, each provided on one side with a ledge or ridge which extends across near its edge, substantially as and for the purposes set forth.

8. In combination with the front B and bottom D, having beveled grooves on their inner faces, the plate-holders, having their ends beveled to sit into said grooves and fitting together, substantially as set forth.

9. A plate-holder having a portion, I, of its edge cut away, in combination with flap H, adapted to be folded or contracted within the recess thus formed.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS HENRY BLAIR.

Witnesses:

H. E. LODGE,
F. CURTIS.