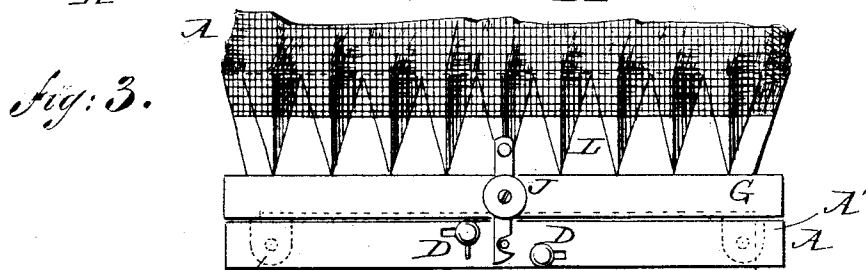
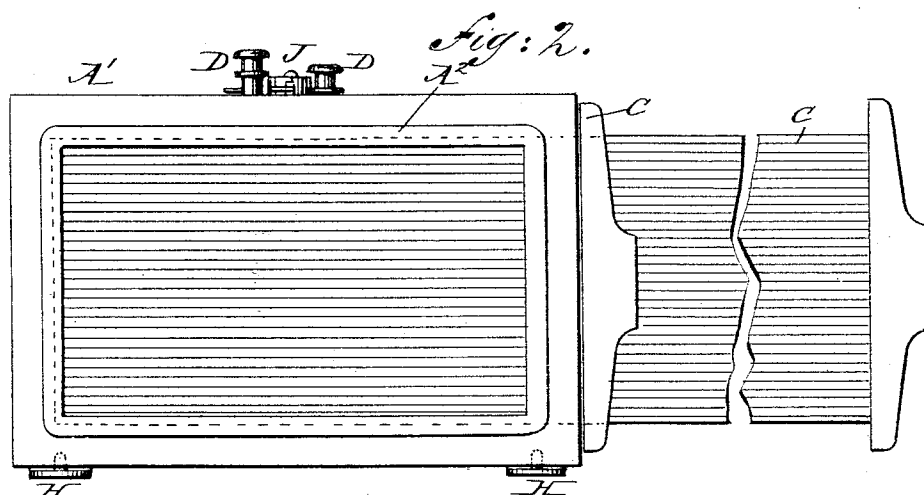
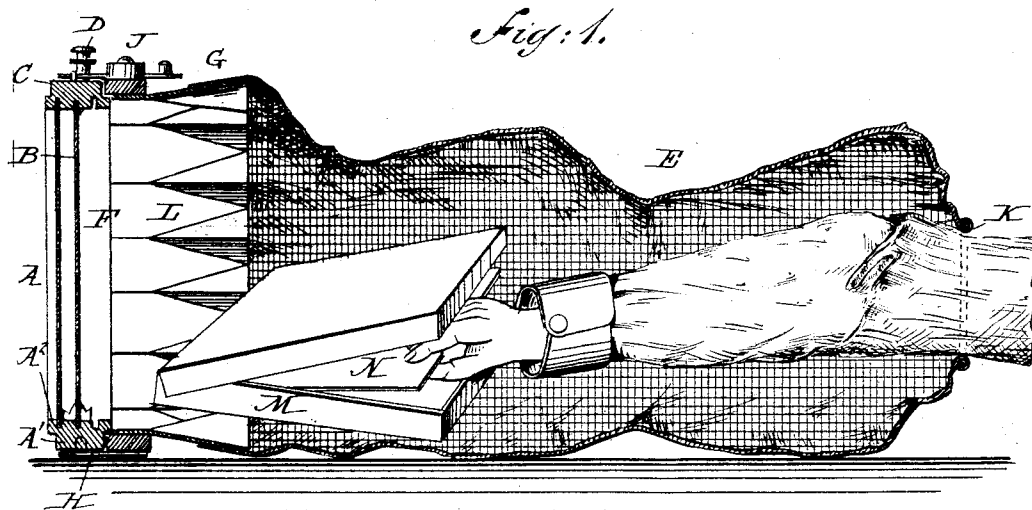


(No Model.)

C. SPIRO.
MEANS FOR FILLING PHOTOGRAPHIC PLATE HOLDERS WITHOUT
A DARK ROOM.

No. 437,630.

Patented Sept. 30, 1890.



WITNESSES:

Henry J. Meisinger
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UNITED STATES PATENT OFFICE.

CHARLES SPIRO, OF NEW YORK, N. Y.

MEANS FOR FILLING PHOTOGRAPHIC-PLATE HOLDERS WITHOUT A DARK-ROOM.

SPECIFICATION forming part of Letters Patent No. 437,630, dated September 30, 1890.

Application filed June 22, 1889. Serial No. 315,253. (No model.)

To all whom it may concern:

Be it known that I, CHARLES SPIRO, a citizen of the United States, residing in the city, county, and State of New York, have invented a new and useful Improvement in Means for Filling Photographic-Plate Holders Without a Dark-Room, of which the following is a specification.

This invention relates to means for transferring sensitive photographic plates from the original package to the plate-holder without a dark-room, to the end that the need and well-known inconveniences of a dark-room may be obviated and the necessity of a photographer in the field carrying a number of filled plate-holders with him dispensed with.

The invention consists, mainly, of a portable non-actinic envelope having openings adapted, respectively, to fit the plate-holder and admit the hand of the operator light-tight, and of such a character that the closed plate-package being previously introduced into the envelope and the plate-holder slide opened the package can be opened therein by the hand, a plate transferred therefrom to the holder, and the package and plate-holder slide closed again before detaching the holder, all without exposing the plate to the light.

The invention also comprises certain other novel features of construction and combinations of parts, hereinafter particularly pointed out in the claims.

In order that my invention may be fully understood, I shall, previous to claiming it, describe in detail the mode in which it may be carried into effect.

Reference is to be had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a sectional side view of a plate-holder and transfer-envelope applied thereto, embodying my invention and illustrating the manner in which a plate is transferred from the package to the holder. Fig. 2 is an outside view of the same, taken facing the holder. Fig. 3 is a side view of the said plate-holder and part of the attached envelope.

Like letters of reference denote corresponding parts in the several figures.

The plate-holder A, here illustrated, is adapted to contain two plates at one time,

having a middle non-actinic partition B, slides C, working on opposite sides of the partition, and separate plate-retaining devices D, which are here shown only in part, but are fully shown and described in a separate application for "means for transferring photographic plates from the plate-holder to the developing-bath without a dark-room," prepared and filed by me herewith; but my invention is of course as well applicable to single and other plate-holders.

The transfer-envelope E may be made of vulcanized fabric or other flexible non-actinic material, is of a capacity adapted to the plates and plate-holder with which it is to be used, and is formed with an opening F, surrounded by a frame G, which is adapted to fit the plate-holder, as does the frame of the camera-bellows.

In order that the joint between the plate-holder frame A' and envelope-frame G may be perfectly light-tight, I prefer to form the former with a continuous bordering-bead A² on each side, (when a double plate-holder, as in this instance,) which the frame G is adapted to surround.

For fastening the envelope-frame G detachably to the plate-holder any of the usual devices in common use for securing the plate-holder to the camera-frame may be used, as the pin-and-socket catches H, and pin-and-hook catches J. (Shown in the drawings.)

The envelope E is also formed with a preferably self-closing aperture K, apart from the plate-holder opening F, to admit the hand and arm of the operator without at the same time admitting the light, and with series of stiffening-folds L, extending from the plate-holder opening F a part only of the distance to the hand-opening K, so as to keep the forward part of the envelope expanded and free from the operator's hand.

In use the package M of sensitive plates N is introduced while closed within the envelope E, usually through the plate-holder opening F, the plate-holder then applied and fastened to said opening, and the hand and arm inserted through the opening K, as shown in Fig. 1. The inner plate-holder slide C being then drawn out, as best shown in Fig. 2, the cover of the plate-package M is removed by

the inclosed hand, a plate transferred therefrom to the plate-holder, the open slide C pushed in from the outside to cover the introduced plate, and the package-cover replaced.

- 5 The fastening devices H and J are then released and the holder detached to be turned around and its other plate-chamber filled in the same way, if double, or, if single, applied to the camera or stored away until wanted.
- 10 This invention, taken in connection with the novel means of transferring the exposed photographic plate from the plate-holder to the developing-bath, set forth in my other application above referred to, and with a novel
- 15 developing apparatus set forth in another application therefor, executed and filed by me herewith, furnishes a simple, efficient, and inexpensive means of photographing without a dark-room; but the devices herein described
- 20 are of course extremely useful with or with-

out the devices described in my other applications.

I claim as new, and desire to secure by Letters Patent—

1. The combination of a photographic-plate 25 holder, a collapsible transfer-envelope having a hand-opening and a framed opening adapted to the plate-holder, and catches for securing the envelope-frame to the plate-holder frame, substantially as described. 30

2. A collapsible transfer-envelope having a framed plate-holder opening, an adjustable hand-opening, and stiffening-folds extending from the plate-holder opening for a portion 35 only of the envelope, as and for the purpose specified.

CHARLES SPIRO.

Witnesses:

FRANKLIN J. WALL,
CLARENCE L. BURGER.