R. E. DE LURY.

MEANS FOR DEVELOPING PHOTOGRAPHIC PLATES.

APPLICATION FILED JUNE 6, 1908.

**920,835.** Patented May 4, 1909.

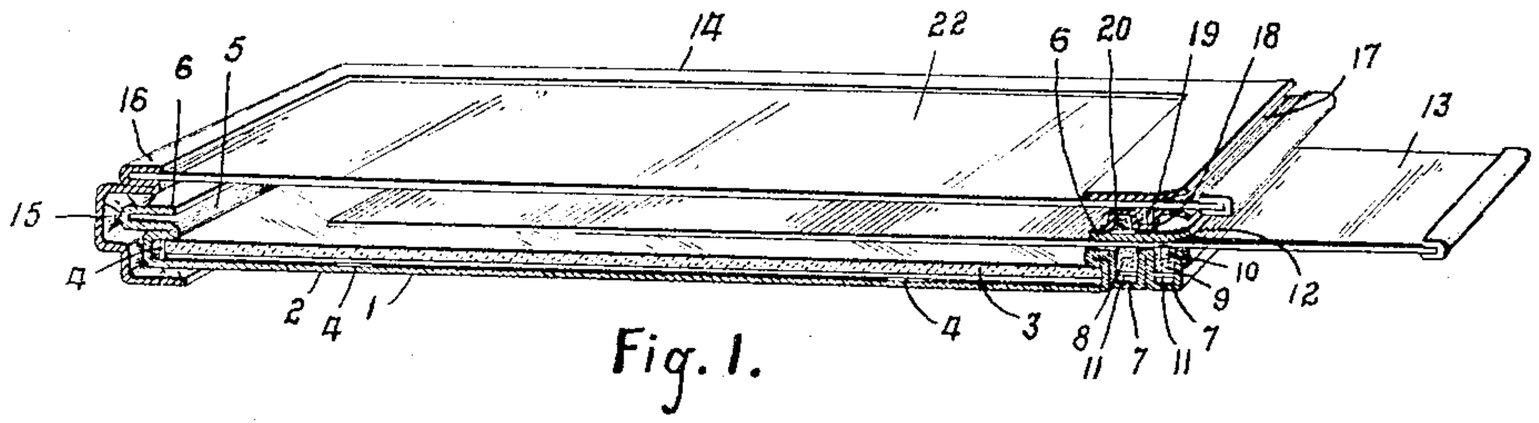


Fig. 1.

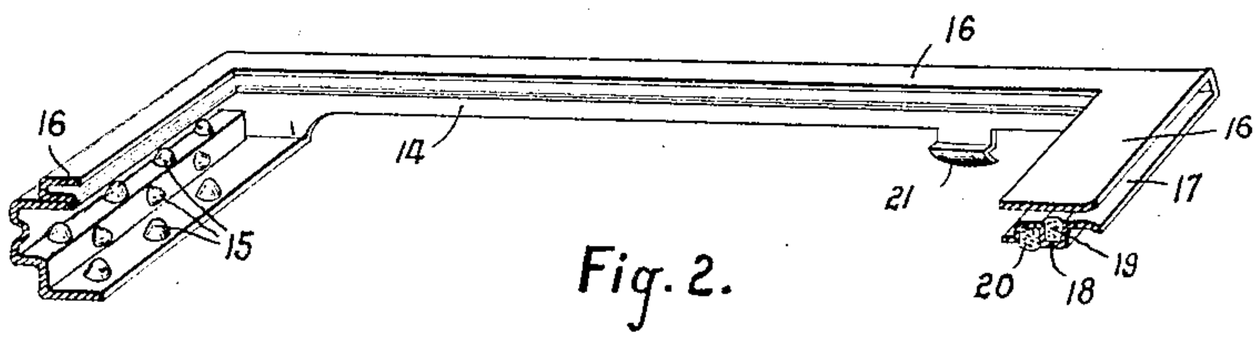


Fig. 2.

Witnesses.

Lloyd Blackmore

R. Pigeon

Inventor

Ralph Emerson De Lury

by E. J. Fetherstonhaugh Atty.

# UNITED STATES PATENT OFFICE.

RALPH EMERSON DE LURY, OF OTTAWA, ONTARIO, CANADA.

## MEANS FOR DEVELOPING PHOTOGRAPHIC PLATES.

No. 920,835. Specification of Letters Patent. Patented May 4, 1909.

Application filed June 6, 1908. Serial No. 437,157.

*To all whom it may concern:*

Be it known that I, RALPH EMERSON DE LURY, a subject of the King of Great Britain, residing at 463 Lisgar street, in the city of Ottawa, in the Province of Ontario, in the Dominion of Canada, have invented certain new and useful Improvements in Means for Developing Photographic Plates, of which the following is a specification.

The invention relates to improvements in means for developing photographic plates, as described in the present specification, and illustrated in the accompanying drawings that form part of the same.

The invention consists essentially in the novel arrangement and construction of parts whereby means are provided for the admission of fluids to the photographic plate in the plate holder without the admission of light thereto.

The object of the invention is to provide a means whereby photographic plates may be developed or otherwise treated in day light without removal from the holder in which they were exposed.

In the drawings, Figure 1 is a sectional perspective view showing a plate holder containing a plate and clamped to an outer frame for developing purposes. Fig. 2 is a sectional perspective view of the outer frame.

Like numerals of reference indicate corresponding parts in each figure.

Referring to the drawings, 1 is a plate holder, preferably made of metal or other material unaffected by the chemicals used in the development of the photographic plate. The holder 1 is here shown with the body portion 2 containing the plate 3, said plate being suitably held in place by the springs 4, as customary in photographic plate holders.

5 is the frame extending around the body portion 2 of the holder, and having the inwardly-turned U-shaped flange 6 extending around said frame 5.

7 are grooves in the frame 5 across the top thereof, and in which are inserted the bars 8 and 9, the bar 9 being capped with a cloth strip 10 along the upper edge thereof.

11 are springs inserted in the grooves 7 at the back of the bars 8 and 9, and pressing said bars upwardly against the flange 6 where it extends across the top of the frame 5, the said frame being slotted at 12 along the top thereof for the insertion of the regular opaque slide 13.

14 is an outer frame having the bottom thereof corresponding in shape to the plate holder 1, and incasing the lower end of said plate holder. 15 are teats or indentations along the bottom of said casing and spacing said holder therefrom. 16 is an inwardly-turned U-shaped flange extending around said outer frame, said frame being slotted along the top thereof at 17. 18 is a groove along the top of said frame on the front side thereof, said groove having a felt strip 19 inserted therein to close the recess between the flange 16 and said outer frame along the top thereof. 20 is a felt strip inserted in a suitable groove along the top of said outer frame on the back thereof, and pressing against the top of the plate holder to prevent the admission of light between said outer frame and said holder.

21 are spring clips projecting rearwardly from the sides of the outer frame 14, said clips springing behind the plate holder 1, and securely holding the same against the outer frame 14.

22 is a transparent colored slide inserted through the slot 17 in the top of the outer frame 14, and sliding in the U-shaped recess formed by the flange 16, and completely covering in the plate holder 1 at the front thereof.

To develop a plate in day light, after it has been exposed in a camera, the holder containing the plate and having the regular opaque slide 13 covering the plate is placed in the outer frame 14 by fitting the bottom of the holder into the correspondingly formed bottom of the outer frame, and then springing the top of said holder between the clips on the sides of the outer frame, so that said clips spring behind the holder and hold it in place. The slide 13 is then withdrawn from the plate holder, leaving the transparent colored slide 22 protecting the plate from any injurious rays of light. The outer frame with the holder secured thereto is then immersed in a developing solution, the teats along the bottom of said outer frame spacing it from the holder, so that the developing solution may enter from the back around the bottom of the holder, and in over the top where it will spread over the plate in the interior thereof, and develop the same, the transparent colored slide enabling the operator to determine when the plate is properly developed and ready for removal to the fixing solution.

What I claim as my invention is:

1. In means for developing photographic

plates, a plate holder, an auxiliary frame fitting thereover, and forming with said holder a tortuous fluid passage impenetrable to rays of light.

2. In means for developing photographic plates, a plate holder, an auxiliary frame having an open front and fitting over said holder, said frame being spaced from said holder at the bottom to form a tortuous fluid passage to the interior of said holder, and a transparent colored screen covering the opening in the front of said auxiliary frame.

3. In means for developing photographic plates, a plate holder, an auxiliary frame fitting thereover the lower end of said frame incasing the lower end of said holder and having a plurality of teats spacing said frame from said holder and an open front, spring clips secured to the sides of said casing and engaging said holder at the back thereof, and a transparent colored screen covering the front of said frame.

4. In means for developing photographic plates, a plate holder, an auxiliary frame fitting thereover and incasing said holder at the lower end thereof, and having a plurality of teats projecting therefrom and spacing said frame from said holder at the lower end thereof to form a tortuous passage around the bottom of said holder to the interior thereof, and an open front and a plurality of grooves extending along the top thereof, spring clips secured to the side of said frame and engaging said holder at the back thereof, a transparent colored slide covering the front opening in said frame, and a plurality of felt strips inserted in said grooves.

Signed at the city of Ottawa, in the Province of Ontario, in the Dominion of Canada, this 22nd day of May, 1908.

RALPH EMERSON DE LURY.

Witnesses:

LLOYD BLACKMORE,

K. F. MACGIBBON.