

(No Model.)

E. R. BULLARD.
PHOTOGRAPHIC PLATE HOLDER.

No. 508,204.

Patented Nov. 7, 1893.

FIG. 1.

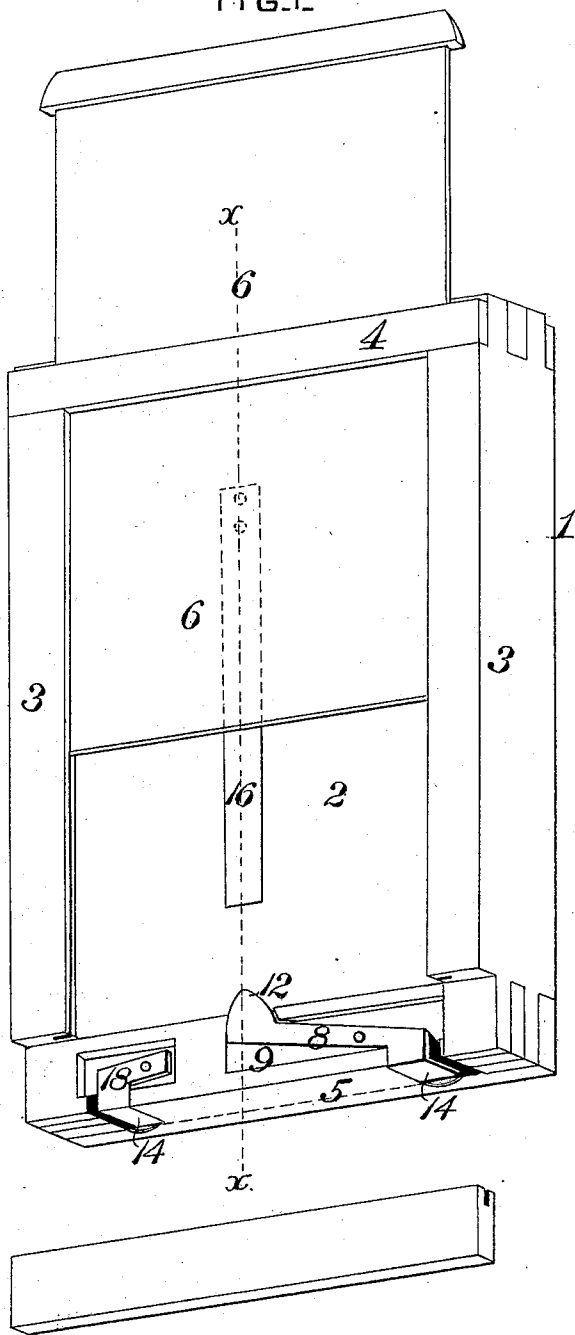


FIG. 2.

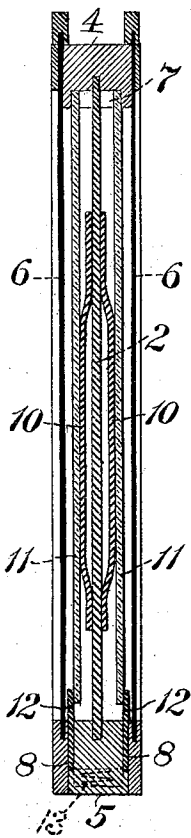
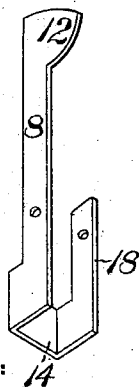


FIG. 3.



WITNESSES:

Darius Wolcott
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INVENTOR,

Edgar R. Bullard,
by George M. Christy
Att'y.

UNITED STATES PATENT OFFICE.

EDGAR R. BULLARD, OF WHEELING, WEST VIRGINIA.

PHOTOGRAPHIC-PLATE HOLDER.

SPECIFICATION forming part of Letters Patent No. 508,204, dated November 7, 1893.

Application filed July 7, 1891. Serial No. 398,676. (No model.)

To all whom it may concern:

Be it known that I, EDGAR R. BULLARD, a citizen of the United States, residing at Wheeling, in the county of Ohio and State of West Virginia, have invented or discovered certain new and useful Improvements in Photographic Plate or Film Holders, of which improvements the following is a specification.

The invention described herein relates to certain improvements in photographic plate or film holders, and has for its object a construction whereby the method of insertion and removal of the sensitive plate or film is greatly facilitated.

In general terms, the invention consists of a suitable holder provided with a lever catch, so arranged as to retain the plate or film in position, and to be conveniently operated from the outside, substantially as more fully hereinafter described and claimed.

In the accompanying drawings forming a part of this specification, Figure 1 is a perspective view of my improved holder, one of the slides being partially removed. Fig. 2 is a sectional view on the line *x, x*, Fig. 1, and Fig. 3 is a detail view of one of the retaining catches.

As regards its general features the holder may be constructed in the usual or any suitable manner, and consists of the frame 1 and the central partition 2 having its edges secured in grooves formed in the inner walls of the sides 3 and end pieces 4 and 5 of the frame, as shown in Fig. 2. Through the end piece 4 are formed slots for the slides 6 which move in grooves in the sides 3, and enter when closed the grooves in the end piece 5. In order to prevent the entrance of light through the slots in the end 4 when the slides are withdrawn, any suitable form of light excluding shutter or curtain known in the art may be employed.

If desired springs 10 may be attached to the back board 2 for forcing the lower portions of the plates or films 11 outward so as to facilitate the removal of the sensitive plate or film from the holder. In order to prevent the sensitive plate from dropping out or being forced out of the holder by the spring 10 when used, on the withdrawal of the slide I arrange levers or pivoted catches 8 in longitudinal recesses 9 in the opposite sides of the

end piece or cross-bar, 5, said levers or catches being provided at their inner ends with lugs or projections 12, projecting up through small slots or transverse recesses into the interior of the frame so as to engage the lower edges of the plates or films, while their outer ends are accessible to the fingers of the operator. These levers or catches are held so that the engaging lugs 12 will project through their slots, by springs, which are preferably made in the form of a spiral as shown at 13, and interposed between a presser plate 14 formed on the outer end of the catch or lever and the bottom of the recess or notch in which the presser plate works. As shown a lever or catch is provided for each plate in case of a double holder, so that one may be removed without interference with the other. In order to prevent any twisting or straining of the lever or its pivot pin it is preferred to form the lever with auxiliary arm 18 extending a little beyond the pivotal point of the lever, and connected to the outer end of the lever. This auxiliary arm is constructed to fit in the recess on the opposite side of the end piece or cross-bar 5 from that on which its lever is placed, thereby inclosing the wall formed by the recesses in the said cross-bar 5, as shown in Fig. 2, the pivot passing through said wall and having the lever and its arm mounted in its opposite ends. This catch serves to hold the lower portions of the plates or films, their upper edges being held by grooves 7 on the top bar, and can be easily withdrawn from engagement therewith, the finger of the operator pressing on the plate 11, which is located, as shown, wholly within the frame, and is not therefore liable to be accidentally shifted, and as there is no projection beyond the periphery of the frame, the improved holder can be readily used in box cameras.

It will be readily understood that while it is preferred to arrange the catch on the bottom piece of the holder it can also be placed on the side.

I claim herein as my invention—

1. In a photographic plate-holder, the combination, with the cross-bar having a main longitudinal side recess, a transverse recess leading from the said longitudinal recess into the interior of the frame, and a notch formed

in the outer edge of said cross-bar near one end, of the lever pivoted lengthwise within said side recess, having a lug or projection at one end operative within the transverse recess, and a presser-plate at the other end fitting within the said notch and held normally flush with the outer face of the frame, and a strip to cover the recess and lever, as and for the purpose set forth.

10 2. In a photographic plate-holder, the combination with the cross-bar having each of its sides provided with a main longitudinal recess with a transverse recess leading therefrom into the interior of the frame, and a notch
15 formed in the outer edge of said cross-bar near each end, of the levers pivoted length-

wise within the main recesses, one on each side, having a lug or projection at one end operative within the transverse recess and a presser-plate at the other end fitting within
20 its respective notch, a spring located within each of said notches to keep the presser-plate normally flush with the outer face of the frame, and a strip secured on each side of the cross-bar, whereby to cover the recess and
25 lever, as and for the purpose set forth.

In testimony whereof I have hereunto set my hand.

EDGAR R. BULLARD.

Witnesses:

SAMUEL KRAFT,
R. J. BULLARD, Jr.