No. 658,974. Patented Oct. 2, 1900.

N. BULL.

PHOTOGRAPHIC PLATE HOLDER.

(Application filed Apr. 16, 1900.)

(Model.)

Fig. 1.

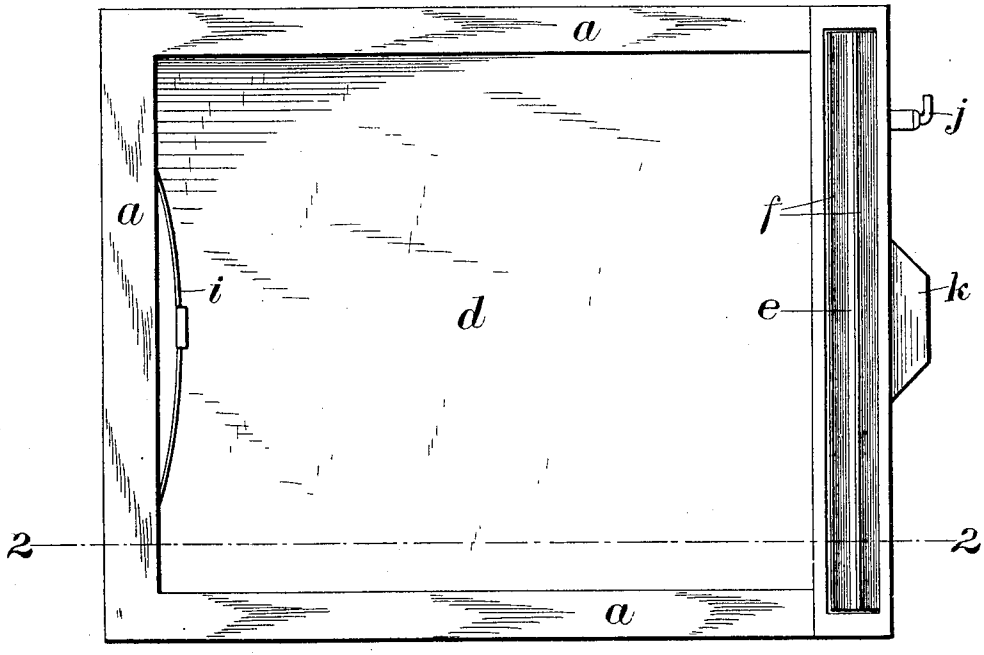


Fig. 2.

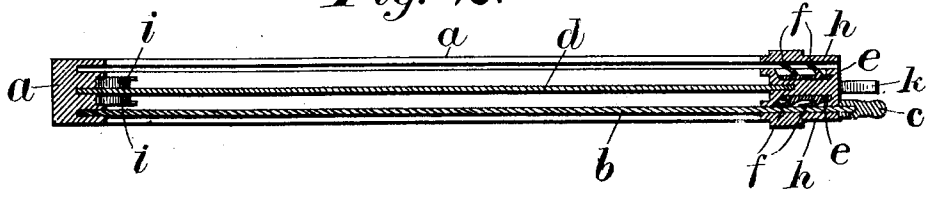
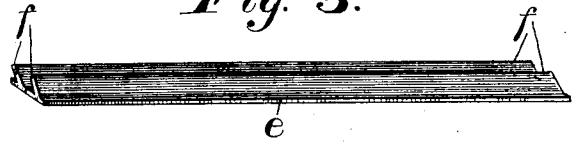


Fig. 3.



Witnesses
Percy C. Bowen
Clarence A. Bateman

Inventor
Norris Bull
by Wilkinson & Fisher
Attorneys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

NORRIS BULL, OF ROCHESTER, NEW YORK.

PHOTOGRAPHIC-PLATE HOLDER.

SPECIFICATION forming part of Letters Patent No. 658,974, dated October 2, 1900.

Application filed April 16, 1900. Serial No. 13,117. (Model.)

To all whom it may concern:

Be it known that I, NORRIS BULL, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Photographic-Plate Holders; 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.

My invention relates to certain improvements in photographic-plate holders whereby the access of light to the plate is absolutely prevented during the removal or insertion of the exposing-slide; and my invention consists in the construction and combinations of parts, as hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan view of the holder with the slide and top piece removed. Fig. 2 is a longitudinal section taken on the line 2 2 of Fig. 1, one of the slides being removed; and Fig. 3 is a perspective view of the closing-strip or double shutter detached from the holder.

It is well known in practical photography that the ordinary plate-holder is liable to leak light when the slide is withdrawn or inserted, especially if the photograph is taken in sunshine.

The object of my invention is to absolutely prevent the entrance of light into a plate-holder during the removal or insertion of the slide even in the strongest light, and this result I secure by the use of a double light-excluding shutter attached to the plate-holder in such a way as not to increase its size or to interfere with any of its ordinary uses.

In the accompanying drawings, *a* represents the frame of a photographic-plate holder of any ordinary size and dimensions, which is provided with grooves in which the exposing-slide *b*, having a handle *c*, works, and *d* the septum between the two slides.

e represents the double light-excluding shutter, and which consists of a plate or base, to which are attached two parallel inclined ribs *f*. This shutter is located in a recess in the frame *a* in such a manner that the ribs *f* constantly bear against the slide. This shutter is made of soft rubber and is placed in a recess underneath the top piece *h*, with the ribs preferably inclined downward, although this is not strictly necessary.

The plate-holder is provided with a spring *i* to hold the plates in position underneath said shutter, turnbuckle or fastening-screws *j* to hold the slides in position, and a handle *k* for convenience in handling, especially when the slides are removed.

In practice the operator with the ordinary plate-holder rarely inserts the slides at exactly right angles with the shutter, and consequently the slide opens the ordinary shutter fully without closing the opening throughout its length, thereby admitting a ray of light upon the plate, which results in the production of fog on the whole or a part of the plate. By my improvement this difficulty is completely obviated, for if the slide be introduced even at a considerable angle only one of the ribs of the shutter will be opened, the other remaining closed and excluding the light under any ordinary condition of use until the whole edge of the slide has passed beyond both ribs. The same state of facts occurs when the slide is withdrawn. Both ribs cannot be opened at the same time unless the slide has been so far introduced that access of light into the interior of the plate-holder is impossible.

The slide when introduced opens first one rib and then the other, and the first rib closes up around the slide before the second rib is opened, even if the slide is introduced at a considerable angle.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination with a plate-holder and its exposing-slide, of the double light-excluding shutter consisting of a base and two parallel inclined ribs of elastic material, said ribs being adapted to bear against said slide, substantially as described.

2. The combination with a plate-holder and its exposing-slide, of a double light-excluding shutter made of rubber and consisting of a base and two parallel inclined ribs, said ribs being adapted to bear against said slide, substantially as described.

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

NORRIS BULL.

Witnesses:
JOHN CHALMERS WILSON,
PERCY C. BOWEN.