No. 628,889. Patented July 11, 1899.

W. H. LEWIS.

PHOTOGRAPHIC PLATE HOLDER.

(Application filed Mar. 18, 1899.)

(No Model.)

Fig. 1.

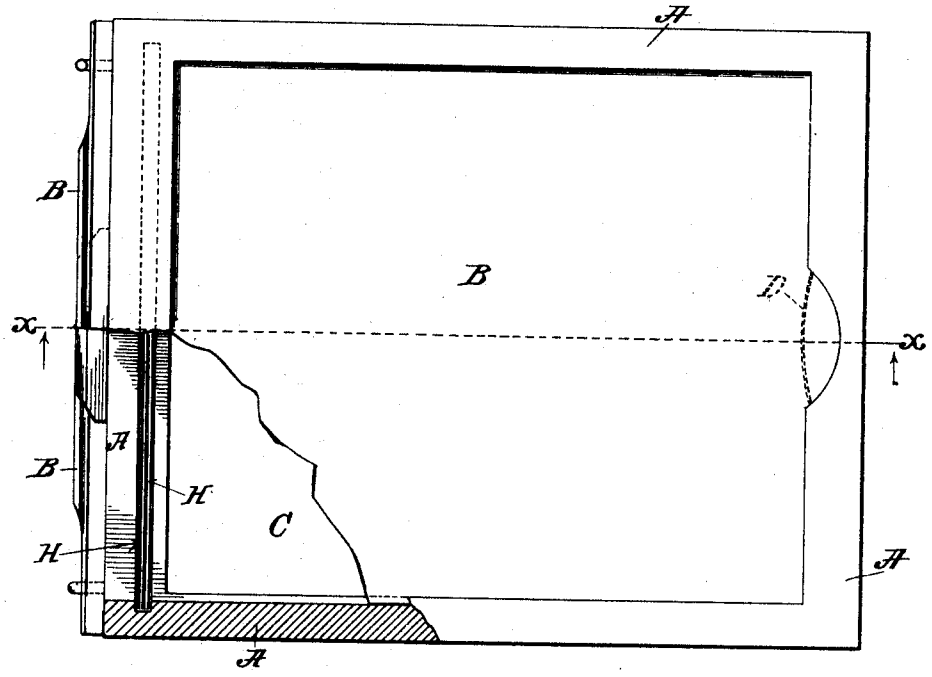


Fig. 2.

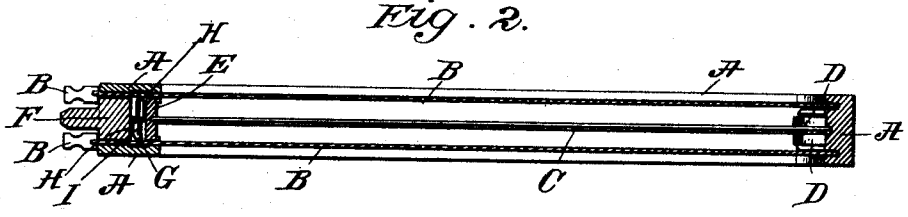
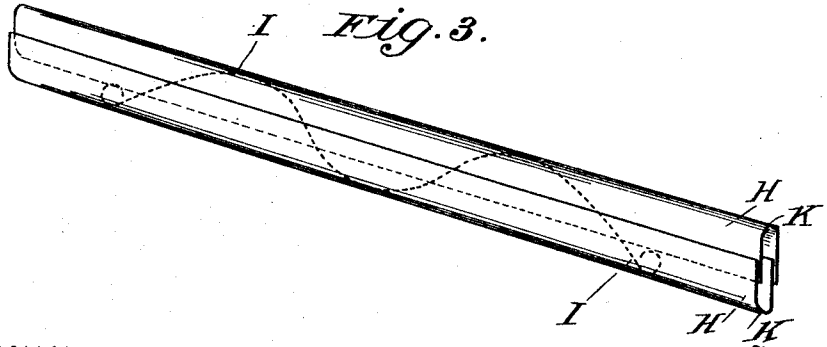


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM H. LEWIS, OF HUNTINGTON, NEW YORK, ASSIGNOR OF ONE-HALF TO THE E. & H. T. ANTHONY & COMPANY, OF NEW YORK, N. Y.

PHOTOGRAPHIC-PLATE HOLDER.

SPECIFICATION forming part of Letters Patent No. 628,889, dated July 11, 1899.

Application filed March 18, 1899. Serial No. 709,630. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. LEWIS, a citizen of the United States, and a resident of Huntington, in the county of Suffolk and State of New York, have invented a new and useful Improvement in Photographic-Plate Holders, of which the following is a specification.

Heretofore considerable difficulty has been encountered in constructing the devices which make the joint between the slides and the plate-holder light-tight because of the delicacy of the parts and their liability to become disarranged and in some instances broken. This difficulty has particularly arisen in cases where the apparatus is used by amateurs, who frequently do not appreciate the delicacy of the parts and the care with which they should be used.

In the drawings hereof, Figure 1 is a plan view, partly broken away, of a plate-holder embodying my invention. Fig. 2 is a vertical sectional view on the line X X of Fig. 1. Fig. 3 is a presentation showing the detail of the light-excluding devices.

A illustrates the frame of the plate-holder. It may be made in any of the usual forms.

B B are the two dark slides.

C is the diaphragm dividing the plate-holder into two parts, that illustrated in the drawings being a double plate-holder.

D D are the springs at the rear of the plate-holder, which are compressed when the plates are inserted and which press them forwardly to enter the rabbet in the cross-bar E at the front end of the holder.

F is the usual cross-bar, between which and the cross-bar E a space G is left. Within this space the light-excluding devices which form the subject-matter of this invention are located. They are best illustrated in Fig. 3 and are composed of two deep gutter-like parts H H, which are rolled or swaged from thin metal (preferably brass, aluminium, or the like) into the form shown. The rolling or swaging operation is done with such accuracy that the edges of these metal parts which come in contact with the dark slides B are absolutely straight, so as to preclude the passage of light, and I prefer to locate on the dark slides at the places where the edges of the metal parts H rest against them a thin layer of velvet or similar material to aid in the more complete exclusion of the light. These metal parts H H are inverted relatively to one another, so that their edges will interlock, as shown in Fig. 3, and between the interlocking edges I locate a spring I, the ends of which are preferably curled up somewhat, as shown, so they may slide lengthwise of the parts H, when desired. The function of the spring is to force these metal parts H outwardly at all times and into contact with the dark slides B. I prefer to bevel the upper and under edges of these metal parts, as shown in Fig. 3—that is to say, having an inclined surface K K presented outwardly—so that as the dark slides are inserted they will impinge upon this inclined or beveled surface and press backwardly the metal parts H with greater smoothness and certainty of action. By reference to Fig. 2 it will be seen that these metal strips H H are located within the chamber G, above referred to as being between the cross-bars E and F.

The operation is obvious from what has been already said, and a further description is unnecessary. I desire to call attention to the fact, however, that the sides of the gutter-like parts H H may be nearly as deep as the depth of the chamber G. They are guided and sustained in their movement by impingement against one another and against the sides of that chamber; also, that the spring interposed between them, being supported laterally by the inner surfaces of the interlocking portions of these metal strips H, will be prevented from displacement and be sustained in proper position, so that it may more effectively exert its pressure upon the parts H H.

For the above reasons this light-excluding device is much more durable and certain in its action than any heretofore known to me, and owing to the fact that the parts are or may be all made of metal they are not affected by atmospheric changes. There is no swelling or contraction, at least none similar to that which occurs when these devices embody wood in any form, and they are practically imperishable.

It will be obvious to those who are familiar

with this art that, if desired, the parts H H may be made of wood and also that a spring or springs of considerable variety of shapes and construction may be employed instead of that shown by me and that various other modifications may be made in the details of construction without departing from the essentials of the invention. I, however, do not approve of the employment of wood in any form, preferring to use metal for the reasons stated.

Having described my invention, I claim—

1. In a double plate-holder the combination of two gutter-shaped devices located within a recess in the plate-holder and supported by its sides and so arranged that their edges interlock, and a spring adapted to separate said gutter-shaped devices, for the purposes set forth.

2. In a double plate-holder the combination of two gutter-shaped devices located within a recess in the plate-holder and supported by its sides and so arranged that the edges of the said devices interlock, and a spring located between and confined by said interlocking edges adapted to separate said gutter-shaped devices, for the purposes set forth.

3. In a double plate-holder the combination of two gutter-shaped devices located within a recess in the plate-holder and supported by its sides, the portions of said devices which come in contact with the side of the plate-holder being beveled or inclined outwardly, and a spring interposed between said gutter-shaped devices, for the purposes set forth.

Signed at New York, in the county of New York and State of New York, this 16th day of March, A. D. 1899.

WILLIAM H. LEWIS.

Witnesses:

PHILLIPS ABBOTT,

D. S. RITTERBAND.