(No Model.)

W. H. LEWIS.

PLATE HOLDER.

No. 437,656. Patented Sept. 30, 1890.

Fig. 1.

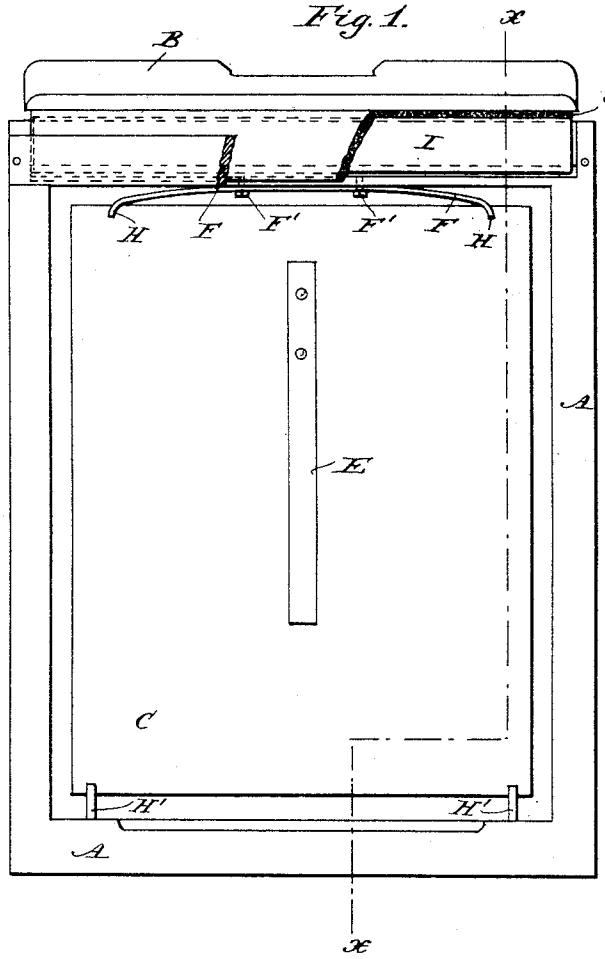


Fig. 2.

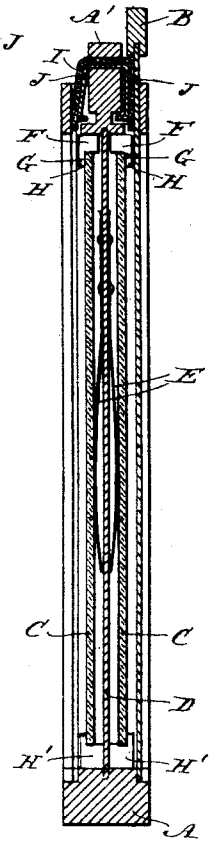
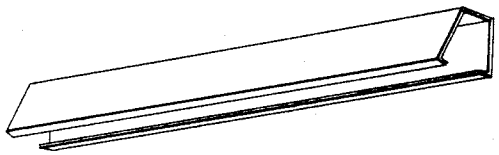


Fig. 3.



WITNESSES:

D. C. Reusch.

F. C. Smith

INVENTOR

William H. Lewis

BY Phillips Abbott

his ATTORNEY.

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

UNITED STATES PATENT OFFICE.

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

PLATE-HOLDER.

SPECIFICATION forming part of Letters Patent No. 437,656, dated September 30, 1890.

Application filed February 28, 1890. Serial No. 342,104. (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 certain new and useful Improvements in Plate-Holders, of which the following is a specification.

My invention relates to improvements in plate-holders for photographic apparatus; and it consists in improvements in the construction of the spring, which gives endwise movement to the plate for its retention when in the holder and to aid in its removal therefrom, and also to improved means whereby light is excluded from entering to the plate through the slit at the end of the holder through which the slides pass.

In the drawings, the same reference-letters indicate the same parts in all the figures.

Figure 1 is an elevation of the front of a double plate-holder, partly broken away, the slide on the side presented to view being removed. Fig. 2 is an edge view of a section of the apparatus shown in Fig. 1 on the line *x x* of that figure. Fig. 3 is a perspective of the spring light-excluder.

It will be obvious that, although I show my improvements as applied to a double plate-holder, they may be equally well employed in single holders.

A is the frame of the plate-holder. It may be constructed in any preferred manner.

B B are the slides.

C C are the plates.

D is the usual diaphragm, (or the back of the holder if it be a single plate-holder.) It is provided with the usual spring or springs E for pressing the plate forward.

F is a spring attached at one end of the holder by screws F′ F′ or their equivalent. This spring differs from those heretofore used in having its ends which engage with the edge of the plate notched or recessed, as shown at G, there being a prolongation of the ends of the springs H H, which are preferably curved outwardly, as shown, so that they will overlap the plate and hold it down during the act of inserting it within the holder.

H′ H′ are narrow lugs fastened at the other end of the plate-holder. They are undercut, as shown, to receive the other edge of the plate beneath them, whereby it will be held firmly by the stress of the spring F. These lugs are narrow, as shown. Thus there is no possibility of dust or other obstruction getting wedged therein, endangering the firm hold of the plate, which has sometimes been the case where continuous rabbets or ledges have been employed, cut in the wood of the end piece of the holder, into which the edge of the plate passed.

By the above construction of the spring I obviate a very annoying incident in the use of such plate-holders as heretofore constructed—to wit, the slipping of the plate off from one or the other end of the spring during its insertion within the holder. This is especially liable to occur, because the plate has to be placed in the holder in the dark room. By my improvement the end of the plate is allowed to drop into the holder, and is then slid along. It passes naturally under the overlapping ends H H of the spring, and cannot thereafter escape from them until drawn intentionally outward again.

I is the light-excluder, which prevents light from entering to the plate through the slits made in the holder for the insertion of the slides B. Heretofore there has been considerable difficulty experienced in getting satisfactory results from light-excluders at this part of plate-holders for various reasons which I need not explain. My present form accomplishes this object in a remarkably effective manner.

I take a very thin piece of metal, and if the plate-holder be a double one I bend it into the form shown in Fig. 3 in perspective. I then fasten it to the end of the frame, as shown in Fig. 2. A part of the frame A′ is preferably placed outside of it, with pins or screws passing through the part A′, and also through the cloth J, (which I prefer to use between the metal I and the slides B,) also through the metal I, entering the end cross-piece of the frame A. Thus all the parts are held properly in position. It may be otherwise secured, however. The metal may be of any suitable kind. I prefer very thin spring brass, and its resiliency should be such

that it will press the cloth against the slides with light-excluding effect, and I prefer to have it so thin that it will follow any curvatures in the slides or unequal pressures upon them during their introduction into the plate-holder.

It is not essential that the metal I should be bent in precisely the form which I show. Any conformation adapted to close the slit light-tight will answer the purpose, and if a single plate-holder be used, of course the metal will not have the double or duplicate sides, as shown, one only being then required.

I do not limit myself to the precise details of construction of the parts as shown and described, because it will be obvious to those who are familiar with this art that various modifications may be employed and still the essentials of my invention be present.

I claim—

A light-excluder for the slide-opening in plate-holders, consisting of a thin plate of resilient metal attached to the plate-holder and pressing toward the slide by its own resiliency, substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 27th day of February, A. D. 1890.

WILLIAM H. LEWIS.

Witnesses:

PHILLIPS ABBOTT,

FREDERICK SMITH.