No. 708,370. Patented Sept. 2, 1902.

W. H. LEWIS.

PHOTOGRAPHIC PLATE HOLDER

(Application filed Dec. 15, 1900.)

(No Model.)

Fig. 1

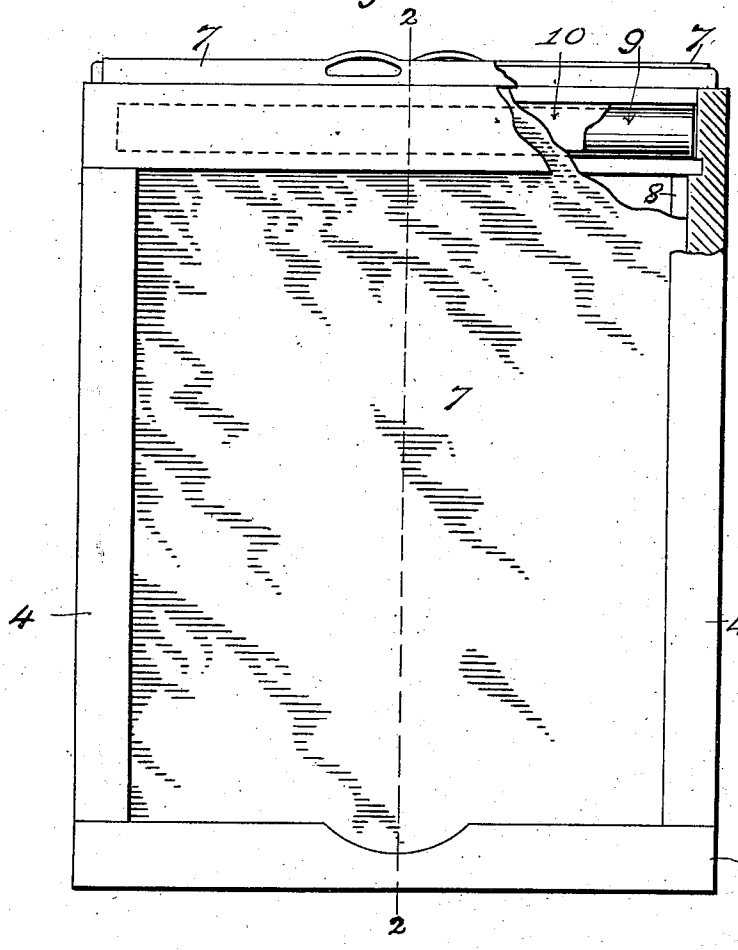


Fig. 2.

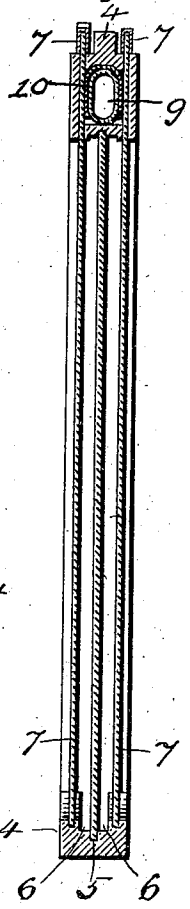
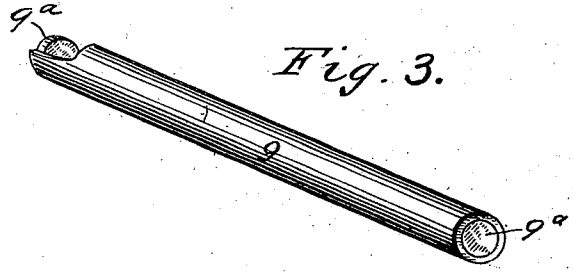


Fig. 3.



Witnesses:
Otto Greenberg
Josiah H. Peck

Inventor
William H. Lewis
By Henry W. Brigham
his Attorney

UNITED STATES PATENT OFFICE.

WILLIAM H. LEWIS, OF HUNTINGTON, NEW YORK, ASSIGNOR TO JAMES H. SMITH, OF CHICAGO, ILLINOIS.

PHOTOGRAPHIC-PLATE HOLDER.

SPECIFICATION forming part of Letters Patent No. 708,370, dated September 2, 1902.

Application filed December 15, 1900. Serial No. 39,987. (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 Photograph-Plate Holders, of which the following is a specification.

The subject of my invention is an improved packing device for the opening at the end or side of a plate-holder for cameras through which the sliding shutters are introduced.

My improved packing device consists of a tube of elastic material, such as soft india-rubber, hermetically closed at its ends, so as to confine a body of air inclosed therein. This is preferably covered by a sheet or strip of woven fabric, as hereinafter described.

In the accompanying drawings, Figure 1 is a front view of a plate-holder, illustrating my invention, partly broken away at one corner to expose the interior structure. Fig. 2 is a section on the line 2 2 of Fig. 1. Fig. 3 is a perspective view of the packing-tube, with a portion broken away to disclose the manner of inserting the closing heads of said packing-tube.

The invention is applicable to either single or double plate-holders, and I have shown a double plate-holder for the purpose of illustration.

4 4 4 are parts of the frame containing a central opaque partition 5, with a space 6 6 on each side thereof for the reception of the plates.

7 7 represent shutters of common form sliding on grooves 8 in the sides of the frame, so as to inclose and cover the plate-spaces 6.

In the head of the frame or in one side thereof (as the case may be) I provide a chamber for the reception of the packing-tube 9 and a sheet or strip 10, which may be of felt or any suitable woven fabric. Black velvet is a desirable material for this covering-strip, being well adapted to close the joint and exclude light. The tube 9 is made of soft elastic material, such as soft semivulcanized india-rubber, and when not compressed normally assumes the cylindrical form shown in Fig. 3. Its ends are tightly and hermetically closed by heads 9^a, preferably of similar material, so that the entire tube, with its closed ends, effectually confines the body of air inclosed therein and constitutes a highly flexible, elastic, and compressible packing device. This closed packing-tube is of such diameter that when placed in the chamber provided for it in the top or one side of the plate-holder frame it will yield to the shutters 7 as these are slid into place to cover the plates, the said packing-tube 9 and covering-strip 10 assuming under the lateral pressure of the shutters the approximately elliptical form shown in section in Fig. 2, presenting to the plates flat surfaces of considerable breadth and by reason of the flexibility of the tube 9 and its cover 10 and the elasticity of the tube and the air confined therein closing and filling any inequalities in the surfaces of the shutters in the most effective manner. The cloth covering-strip 10 permits the shutters 7 to slide more freely and prevents their catching against the edge of the recess or groove in which the packing is inserted.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. The combination with a plate-holder having the usual double slides between which is formed a closed chamber, of a hermetically-sealed flexible air-tube secured in said chamber between and adapted to cushion said slides, and a suitable fabric covering secured over said tube against which the slides bear.

2. The combination with a plate-holder, having the usual slide, of a closed chamber in the head of said holder, of a tubular cushion positioned in said chamber, said cushion being closed at both ends by heads and a suitable fabric covering secured over said tube and adapted to be pressed by said tube against said slide.

3. In a plate-holder for photographic cameras, the combination of a suitable frame 4 a sliding shutter 7 and a packing device consisting of a tube 9 of elastic material, hermetically closed at its ends so as to confine an inclosed body of air and inserted in a recess in the frame in position to be compressed by contact with the sliding shutter and to form a tight joint with the inner surface

thereof so as to exclude light, substantially as described.

4. The combination of the frame 4, sliding shutter 7, the packing device consisting of a hermetically-closed tube 9 of elastic material and a covering-strip 10 for said tube, substantially as, and for the purposes described.

5. The combination of the frame 4, partition 5, shutters 7, 7, and a hermetically-sealed elastic packing-tube 9 interposed between the opposed surfaces of the shutters 7, 7, substantially as and for the purposes set forth.

Signed at Huntington, in the county of Suffolk and State of New York, this 11th day of December, A. D. 1900.

WILLIAM H. LEWIS.

Witnesses:
HIRAM A. BAYLIS,
ADDISON W. SAMMIS.