No. 687,862. Patented Dec. 3, 1901.

J. H. SMITH.

LANTERN SLIDE CLAMP.

(Application filed June 7, 1901.)

(No Model.)

Fig. 1

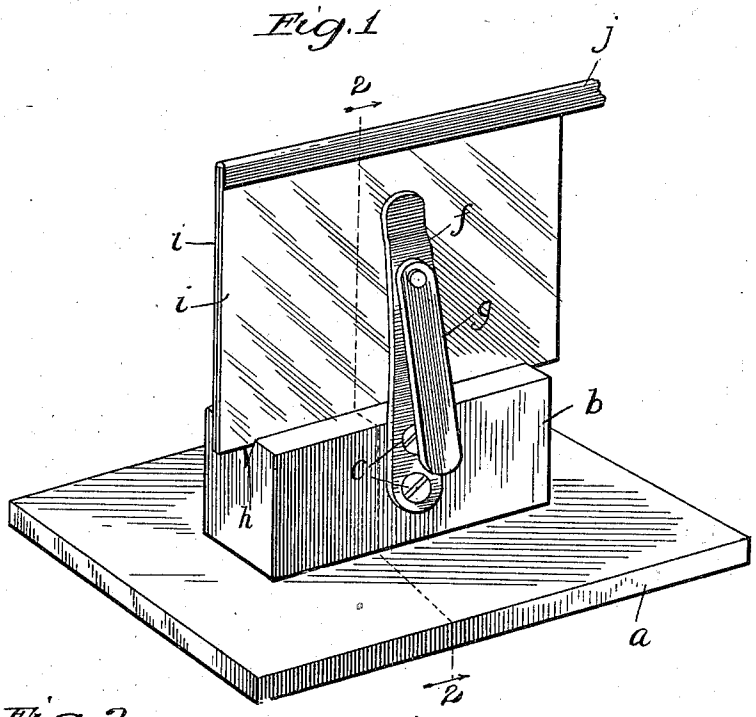


Fig. 3

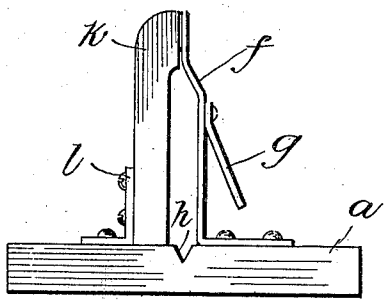
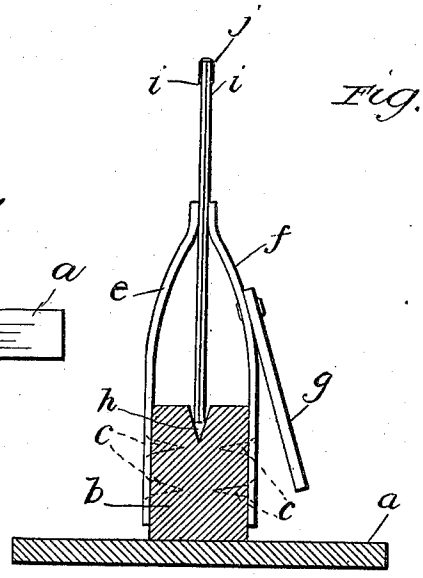


Fig. 2



Witnesses
Harold G. Barnett
Wm. Geiger

Inventor
James H. Smith.
By David H. Fletcher.
Atty.

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

UNITED STATES PATENT OFFICE.

JAMES H. SMITH, OF CHICAGO, ILLINOIS.

LANTERN-SLIDE CLAMP.

SPECIFICATION forming part of Letters Patent No. 687,862, dated December 3, 1901.

Application filed June 7, 1901. Serial No. 63,605. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. SMITH, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Lantern-Slide Clamps, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of a device embodying the features of my invention. Fig. 2 is a transverse vertical sectional view thereof taken upon the line 2 2, Fig. 1, and Fig. 3 is an end view showing a modified construction.

Corresponding letters of reference in the different figures indicate like parts.

The object of my invention is to provide a simple, cheap, and effective clamping device for holding lantern-slide glasses in position while being bound, together with means for readily manipulating the clamp so as to permit the slides to be shifted, so that the several edges may be successively bound without removing the glasses therefrom until the completion of the operation.

A further object is to so construct said clamp that it may without change in adjustment be adapted to glasses of varying thickness.

To these ends my invention consists in the combination of elements hereinafter more particularly described and claimed.

Referring to the drawings, *a*, Fig. 1, represents a flat base, of wood or other suitable material, to which is by preference rigidly attached a block *b* of a length preferably corresponding substantially to the size of the plates to be bound. Rigidly attached, by means of screws *c* or otherwise, upon opposite sides of the block *b* are flat springs *e f*, which are bent substantially as shown, so that the free or meeting ends are parallel. To one of said springs, as *f*, is rigidly secured an arm *g*, which is extended downwardly and outwardly therefrom at an angle to the vertical face of the block *b*. In the same vertical plane with the meeting faces of the springs *e f* is formed a wedge-shaped groove *h*, running lengthwise of the block *b*, which groove is adapted to receive the lower edge of the glass plates *i i* when inserted between the clamping-springs *e f*. The shape of the groove *h* enables glasses of varying thickness to be received therein, while at the same time said glasses conform to the inner faces of the spring-clamps. By pressing the lower end of the arm *g* toward the block *b* the spring *f* is bent outwardly when the glasses *i i* are inserted between the springs, as indicated, and the arm *g* released. The usual binding *j* is then pasted or otherwise secured to the upper edge of the glasses, when by slightly pressing the arm *g* the pressure of the springs may be sufficiently modified to permit the glasses to be moved, so as to bring another edge to the top, and thereby enable the several edges to be successively bound without removing the glasses from the clamp.

While I prefer to employ two springs, as described, it is obvious that a rigid arm or support may be used in lieu of one of them, and it is further manifest that the block *b* may be dispensed with and the groove *h* made in the base-block *a*. Such a modification is shown in Fig. 3, in which the rigid support *k* is substituted for the spring *e*. In either case the groove *h* should be made to conform to the meeting faces of the clamping elements.

My improved clamp enables lantern slides and transparencies to be readily bound without permitting the protecting-plate to slide upon the film which it is intended to cover.

Having thus described my invention, I claim—

1. A device of the class described, in which is combined a suitable base having a central longitudinal wedge-shaped groove in its upper face, and an upwardly-extending spring attached to said base, said spring having a rigid arm extending downwardly and outwardly therefrom, a suitable support for opposing the pressure of said spring, the meeting faces of said support and spring respectively, being in the vertical plane of said groove, substantially as described.

2. A device of the class described, in which is combined a base having a central longitudinal wedge-shaped groove for the reception of the lower edges of the glass plates to be bound, clamping-springs, the meeting faces of which are in the plane of said wedge-shaped

groove and a rigid depending arm attached to one of said springs for actuating the same, substantially as described.

3. The combination with a base of a raised block having a longitudinal wedge-shaped groove in its top, of the springs *e f* and rigid arm *g*, all arranged as and for the purpose, substantially as specified.

In testimony whereof I have signed this specification, in the presence of two subscribing witnesses, this 5th day of June, 1901.

JAMES H. SMITH.

Witnesses:
D. H. FLETCHER,
CHAS. B. DORR.