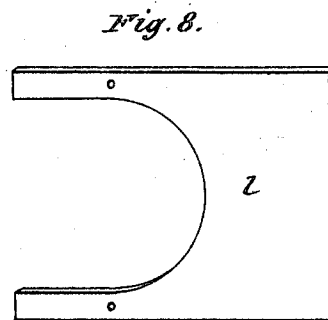
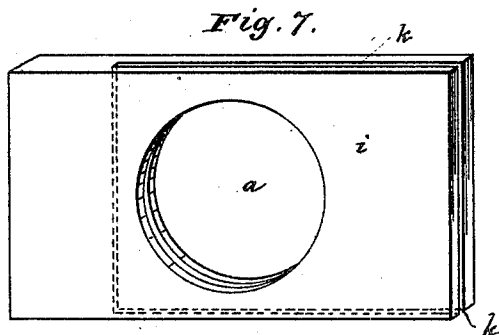
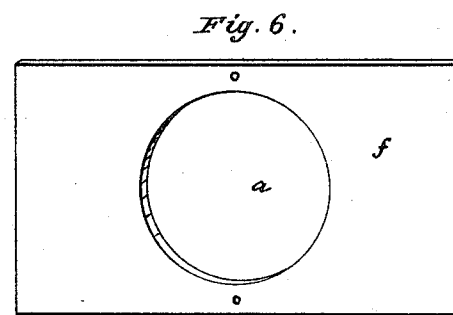
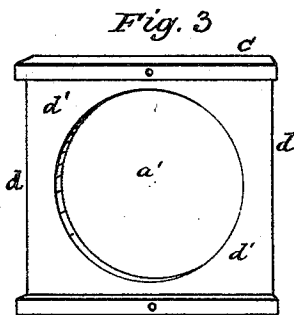
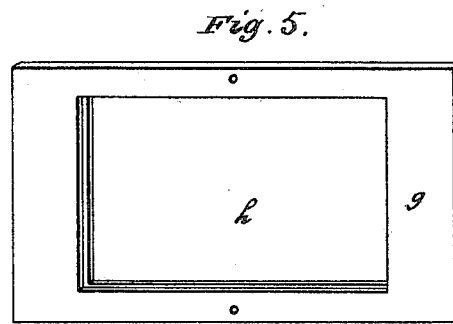
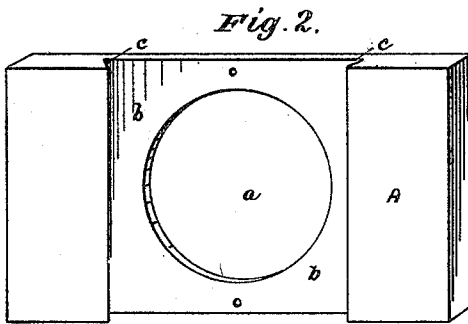
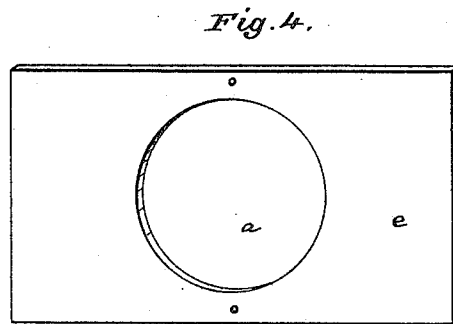
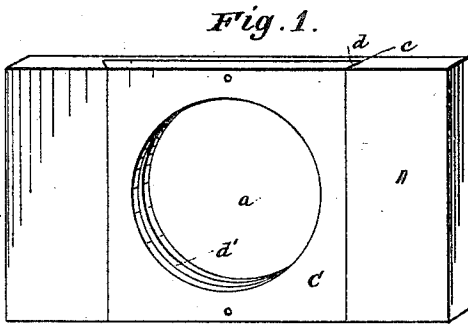


A. H. TIFFT.
MAGIC-LANTERN SLIDE.

No. 172,524.

Patented Jan. 18, 1876.



Witnesses
S. M. Pool
Jno. D. Patten

Inventor:
Alanson H. Tiff by
attys. Poulson & Bailey

UNITED STATES PATENT OFFICE.

ALANSON H. TIFFT, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN MAGIC-LANTERN SLIDES.

Specification forming part of Letters Patent No. 172,524, dated January 18, 1876; application filed January 11, 1876.

To all whom it may concern:

Be it known that I, ALANSON H. TIFFT, of Brooklyn, in the State of New York, have invented certain new and useful Improvements in Magic-Lantern Slides, of which the following is a specification:

My invention relates to the sliding picture-holding frames ordinarily used with magic lanterns.

In the magic lanterns made by different manufacturers there is very little uniformity in details of construction. They, however, are all alike in this, that they are calculated to accommodate a picture mounted in a wood frame of about four by seven inches, and from three-eighths inch to one-half inch thick. The ordinary way of mounting the picture, which is on glass, in the slide is to cut the glass to fit the round opening, and then to fit it therein, and secure it by a metallic wire hoop, held in place by nails or tacks. The objections to this mode of mounting the picture are many: First, the glass is liable to be broken in the operation of cutting; second, the picture is apt to turn in the frame, which is a serious objection, because when it is projected onto the screen and magnified, say, one hundred times, the least variation is perceptible; third, the nails and hoop are in the way in cleaning the glass; fourth, none but the manufacturer or the expert can mount the pictures, because the picture is formed of two pieces of glass fastened together at the edges by paper or muslin securely glued, and to cut them each must be bent from the surface scratched by the diamond, which would be toward each other.

I propose to retain the picture in the condition in which it is first put on the market—*i. e.*, of square or rectangular shape—and to provide means by which it may be securely held in position in the frame, and in proper relation to the round opening therein. For this purpose I make a wooden frame or slide, in which there is combined, with the usual opening for displaying the picture, a pocket of rectangular form, and of dimensions suited to receive the picture without requiring any cutting or alteration of the latter; and I prefer to so make the slide that one picture can be removed and replaced by another whenever desired.

The manner in which my invention is or may be carried into effect will be understood by reference to the accompanying drawing.

Figure 1 is a perspective view of a magic-lantern slide embodying my invention in its preferred form. Figs. 2 and 3 are perspective views of the two parts—*viz.*, the auxiliary sliding pocket, and the main frame—which compose the slide.

The main frame A is of wood, having the usual dimensions of a magic-lantern slide, and provided with the ordinary opening *a*. On one of its faces it is recessed or cut away around the opening *a*, forming a recess, *b*, the vertical sides of which are undercut, as seen at *c*. The piece C, which I have termed the sliding pocket, is of a size to fit the recess, and has vertical edges *d*, which fit and engage the grooved or undercut sides *c*, and has a round central opening, *a'*. On that face of the piece C contiguous to the face of the main frame A is a pocket or recess, *d'*, with rectangular sides, and of a size to receive the rectangular picture without requiring any alteration or cutting of the latter.

To mount the picture, it is placed in the pocket *d'*, and the piece C is then fitted to the frame A, where it may be secured by screws or otherwise.

The advantages of thus constructing the slide are many: First, it is simple, and can be cheaply made. Second. The glasses being square, there is no possibility of their turning. Third. A picture of any size can be mounted in the frame. The pocket in the piece B is large enough for the largest picture. If a smaller picture is used it can be readily secured in place by pins or other well-known means before the sliding pocket is fitted to the main frame. Fourth. Any one can mount the pictures without cutting or trimming them in any way. Fifth. One picture, if desired, can be readily removed and replaced by another. For this purpose a screw can be used to hold the two parts A C together. If, however, it is desired to hold the picture permanently, the two parts can be glued together. Sixth. A picture thus mounted is uniform with other mounted pictures now in the market, and can be used in any lantern.

I would here remark that while the arrange-

ment of undercut edges is preferable, yet in some instances—*e. g.*, where two or more holding-screws are used, or if the two pieces are glued together—a cut at right angles with the face of the frame would answer.

The prominent feature of the slide will be seen to consist in the combination, in the magic-lantern slide frame made of wood, or of some material the equivalent of the same for the purpose, such as paper molded or papier-maché, of the opening, through which the picture is displayed, with the rectangular pocket, adapted to receive the picture without requiring the same to be altered in any way, and to hold it in its proper relations to the display-opening.

The preferred form of my invention has been above described; but the same general result may be arrived at in other ways, as may be seen by reference to Figs. 4 to 8, inclusive.

Figs. 4, 5, 6 represent three rectangular wooden strips of equal dimensions, which, when put together, form a slide of the usual size. Strips *e f* are counterparts of one another, and have coinciding display-openings *a*. Strip *g* has a rectangular opening, *h*, of a size to receive the picture. When the picture is fitted in the opening *h*, the three strips are put together, the strip *g* in the middle, and are then fastened by glue or otherwise; or I may take a solid slide, *i*, Fig. 7, having a display-opening, *a*,

and cut in it a slot or kerf, *k*, in which the picture can be inserted, and there held by suitable means—as, for instance, a thin wooden piece, *l*, Fig. 8.

Many other ways of constructing the slide might be suggested. The above, however, will suffice to indicate the variety of ways in which my invention may be carried into effect, the essential feature being, as above stated, the slide-frame, having a display-opening and a pocket adapted to receive and retain the rectangular glass without requiring any cutting, trimming, or other alteration of the latter.

Having described my invention, I shall state my claim as follows:

1. The wooden magic-lantern slide provided with a round or oval display-opening, and a pocket to receive and hold a rectangular picture or glass, substantially as set forth.

2. The combination, with the main frame of the slide formed with a display-opening and recess, of the auxiliary picture-holding pocket, substantially as herein described, and illustrated in Figs. 1 to 3, inclusive.

In testimony whereof I have hereunto signed my name this 10th day of January, A. D. 1876.

A. H. TIFFT.

Witnesses:

A. J. ORTON,
J. H. ROMAN.