

W. H. LEWIS.  
 GRAPHOSCOPE.

No. 183,579.

Patented Oct. 24, 1876.

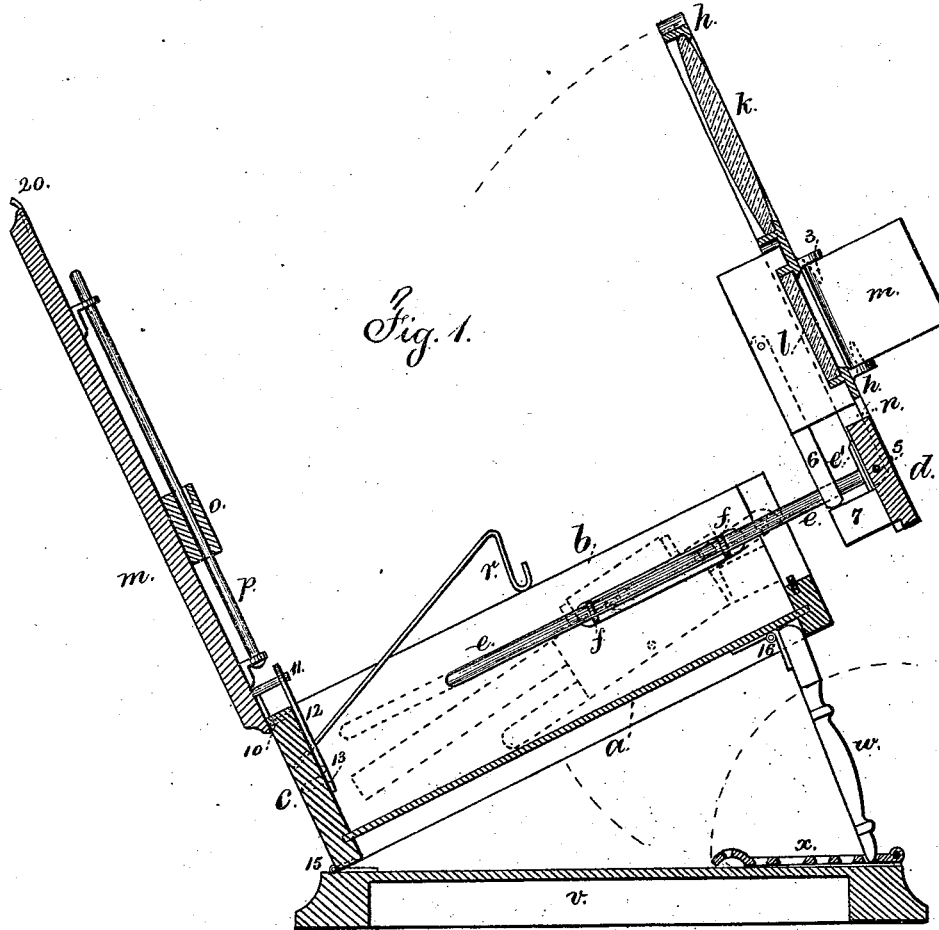


Fig. 1.

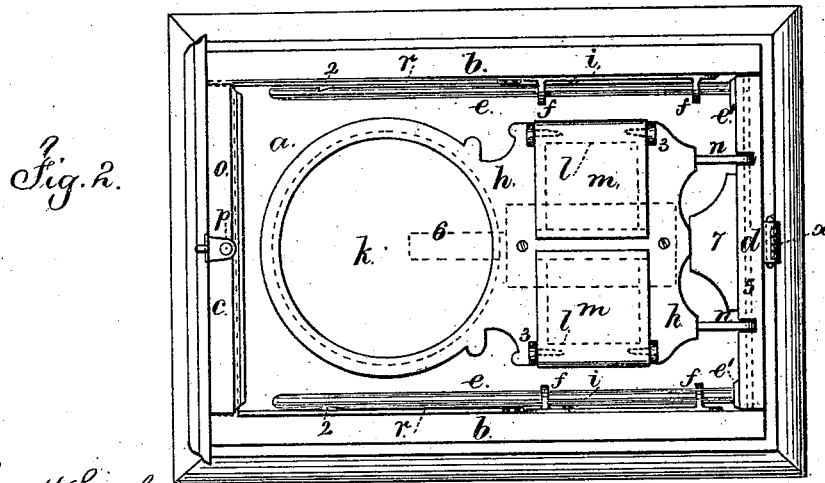


Fig. 2.

Witnesses

Charles Smith  
 Harold Spruell

Inventor  
 William H. Lewis  
 per L. W. Spruell atty.

# UNITED STATES PATENT OFFICE.

WILLIAM H. LEWIS, OF GREEN POINT, NEW YORK.

## IMPROVEMENT IN GRAPHOSCOPES.

Specification forming part of Letters Patent No. 183,579, dated October 24, 1876; application filed March 1, 1876.

*To all whom it may concern:*

Be it known that I, WILLIAM H. LEWIS, of Green Point, Kings county, New York, have invented an Improvement in Graphoscopes, of which the following is a specification:

The lenses are set in a metal frame, that is hinged to the front piece of a box, and this front piece is upon slides, so that it can be drawn out to adjust the focus of the lenses. The view-board is made of the lid of the box turned up to a stop. The stereoscope-holder is composed of spring-hooks, that are pressed down as the lid is closed. The box is hinged to a bed so as to be inclined, and the link that connects the cover to the bed when the box is folded also forms a step for the hinged strut that sustains the box in its inclined position.

In the drawing, Figure 1 is a vertical section of the graphoscope as open for use. Fig. 2 is a plan as folded, except that the lid is open.

The box of the graphoscope is made of the bottom *a*, sides *b*, and ends *c d*. The bottom, sides, and end *c* are firmly connected together; but the end *d* is movable. It can be drawn away from the box, but remain attached by the slide-bars upon the insides of the box-sides *b*. These slides may be of any desired character; but I prefer and use the metal bars *e*, that have plates *e'* at their ends, screwed to the inside of the end *d*, and the bars *e* pass through eyes *f*, that are of metal, attached by a plate to the inner faces of the sides *b*, and springs *i* press against the bars *e*, producing the necessary friction to retain the parts in the positions to which they may be adjusted, and the notches 2 2 in the bars *e* catch against these springs and prevent the slide-bars *e* being pulled out too far. The lens-frame *h* is preferably of metal. It is adapted to receive the lens *k* and the stereoscopic lenses *l l*, and there are swinging shields *m m*, that are pivoted to the lugs 3 3, and can be turned out, as in Fig. 1, to intercept side rays from the stereoscope views, or be turned down, as in Fig. 2, when the graphoscope is folded. This lens-frame *h*, has legs *n* that pass into grooves in the back of the box end *d*, and the wire 5, passing through such legs, forms the hinge. This allows the lens-frame to be turned down

within the box, as shown by dotted lines, Fig. 1, or to stand upright and be held by a suitable stop. I have shown the swinging leg 6, resting upon the block 7, as the means for holding up the lens-frame firmly when in use. The cover *m'* of the box is hinged at 10, and its projecting portion forms a stop against the outer surface of *c* when open. I also provide a stud, 11, and a spring-link, 12, attached by a screw, 13, to hold up the cover firmly; but when this spring-link is drawn back from off the stud 11, and turned aside upon its screw 13, the cover can be turned down. This cover makes the view-board, and upon it is the picture-holder *o*, sliding upon the bar *p*, and there is to be sufficient friction of the holder upon the bar to retain the holder when moved to position. The stereoscope views are sustained by the spring-holders *r*, that are made of wire in the form of hooks, and attached to the inner surfaces of the box-sides *b b*. These spring picture-holders are depressed by the lid when it is shut down, and they spring up ready to receive against them the stereoscope view. The entire box is hinged at 15 to the base *v*, that can be more or less ornamental around the edges, and the strut *w* is hinged at 16 to the under side of the box, and folds back out of the way when the graphoscope is folded; but when raised for use the end of the strut rests in one of the openings or cavities in the hinged step *x*, that is turned down upon the base for that purpose, so that the strut will not slip. When the box is folded this step *x* is turned back, and then forms a fastening for the box by clasping this step over the stud 20 upon the lid.

If desired, the cover forming the picture-holder may be attached to the sliding end of the graphoscope-box, and the lens-frame be attached to the other end of the box.

I claim as my invention—

1. The graphoscope-box, made with one of the ends to slide, in combination with the lens-holder, substantially as set forth.

2. The lens-holder, formed of metal, with legs, in combination with the graphoscope-box, to which the legs of the lens-holder are connected, and a holding-stop, to retain such lens-holder in position when in use, substantially as set forth.

3. The combination, with the lens-holder and movable box end, of the metallic slides *e*, sustained by the eyes *f*, and the friction-springs *i*, substantially as set forth.

4. The view-board, made of the hinged box-lid, in combination with the sliding picture-holder, substantially as set forth.

5. The spring picture-holders *r*, made hook-ended and applied within the box, as and for the purposes set forth.

6. The hinged step *x*, with openings for the end of the swinging strut *w*, and forming also a catch for holding the cover of the graphoscope and base together, substantially as specified.

Signed by me this 21st day of February, A. D. 1876.

WM. H. LEWIS.

Witnesses:

GEO. T. PINCKNEY,  
CHAS. H. SMITH.