

No. 819,272.

PATENTED MAY 1, 1906.

C. FRAZER.
STEREOSCOPE.
APPLICATION FILED DEC. 20, 1905.

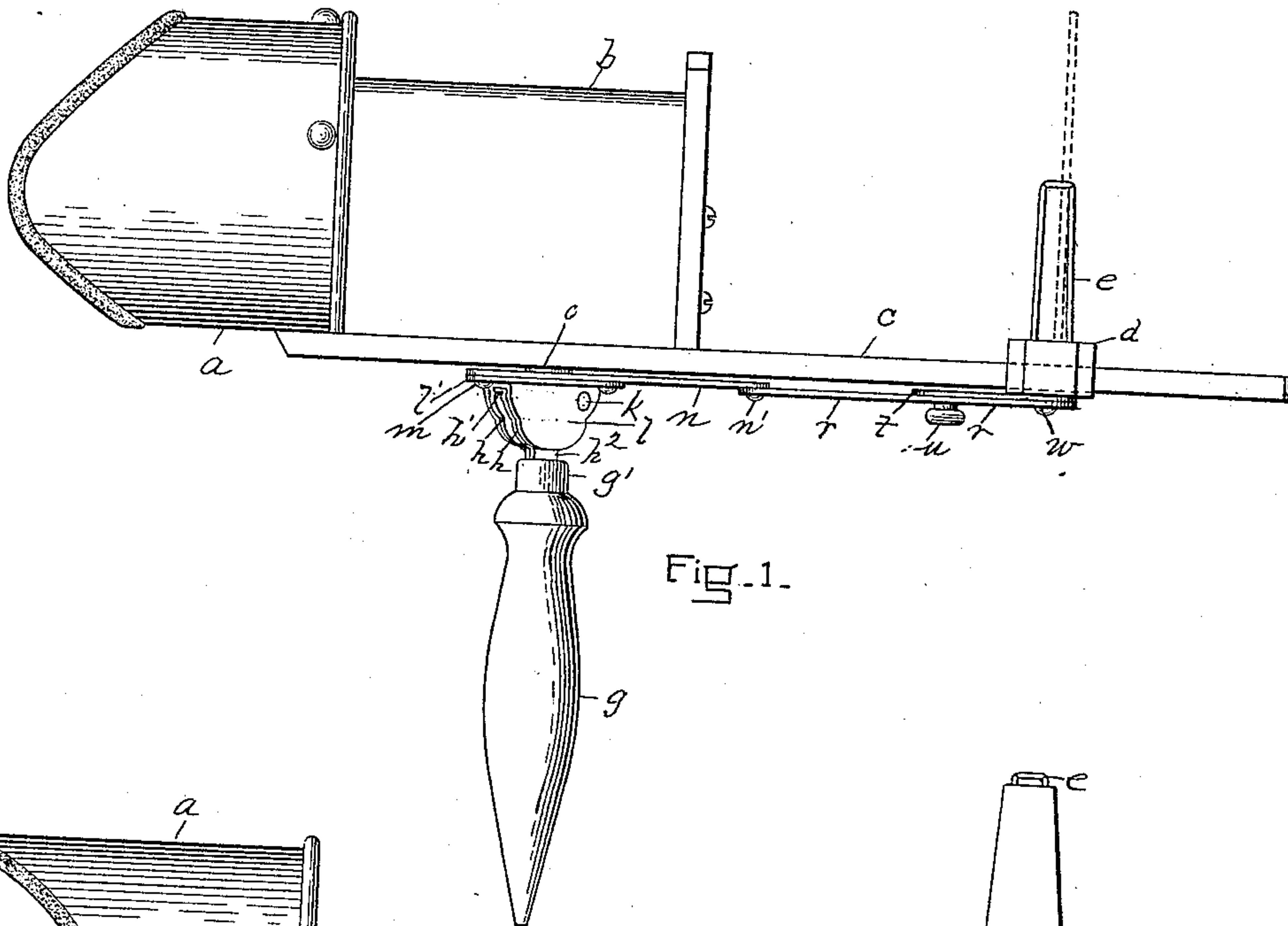


Fig. 1.

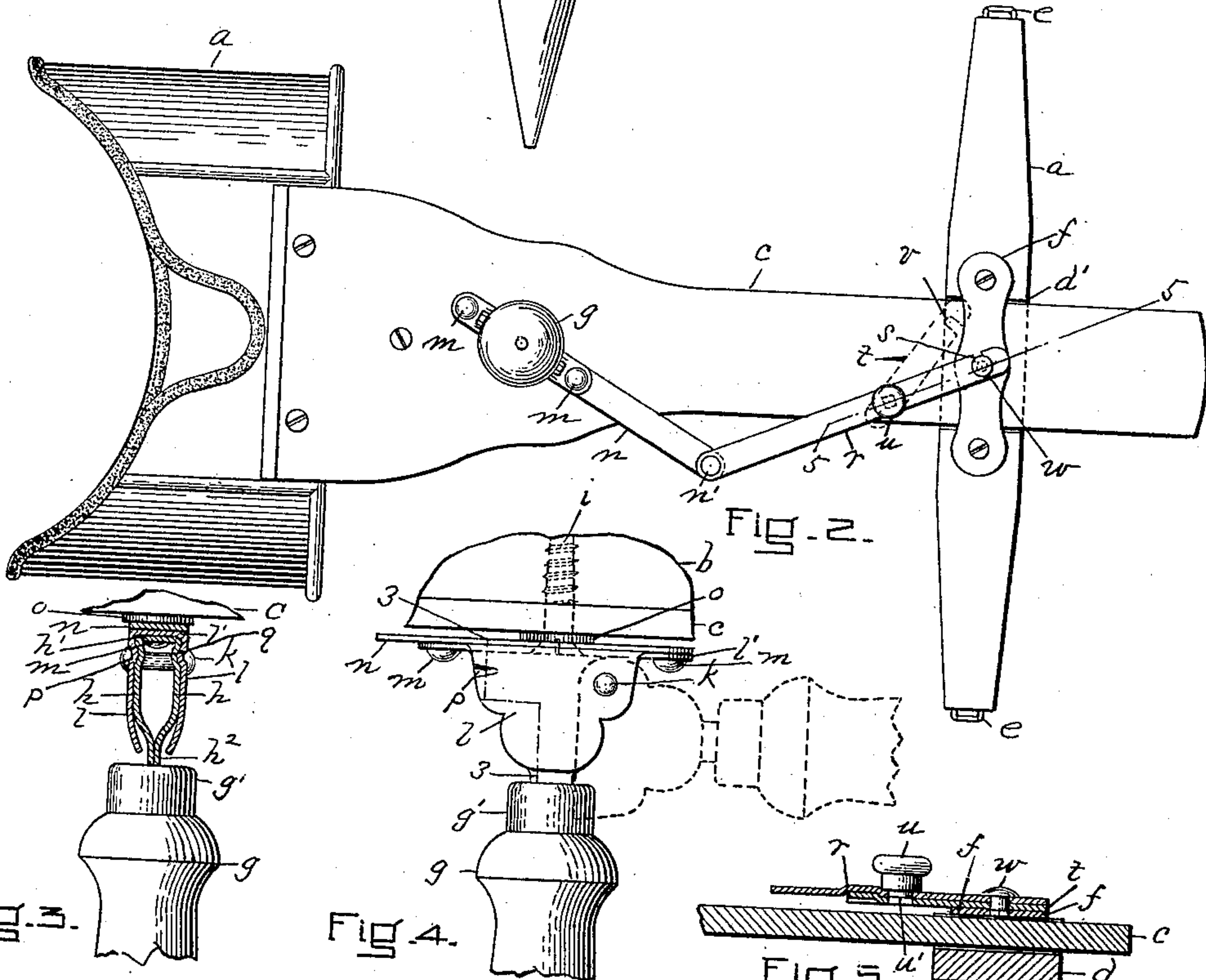


Fig. 3.

Fig. 4.

Fig. 5.

WITNESSES
A. L. Lord.
M. A. Atwood.

INVENTOR
Charles Frazer
By his Atty.
Henry C. Manning

UNITED STATES PATENT OFFICE.

CHARLES FRAZER, OF BENNINGTON, VERMONT.

STEREOSCOPE.

No. 819,272.

Specification of Letters Patent.

Patented May 1, 1906.

Application filed December 20, 1905. Serial No. 292,577.

To all whom it may concern:

Be it known that I, CHARLES FRAZER, a citizen of the United States, residing in Bennington, in the county of Bennington and State of Vermont, have invented certain new and useful Improvements in Stereoscopes, of which the following is a specification.

In stereoscopes as commonly constructed a view is placed on a slide which is adapted to be moved on a bar extending from a box or frame provided with semilenses. A rigid handle is attached to the bar, and the user holds the stereoscope to his eyes with one hand by means of the handle and adjusts the photographic picture or card on which the view is mounted to the proper visual distance from the eyes by moving the slide on the bar with the other hand. This operation of focusing, therefore, practically requires the use of both hands, one to grasp the handle and the other to move the slide.

It is the principal object of this invention to provide a stereoscope with novel fittings whereby the rotation of the handle by the hand which grasps it moves the slide to a greater or less distance from the eyes, and the view is thus focused to suit the eyesight of the individual using the stereoscope.

The nature of the invention is fully described below and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a stereoscope embodying my invention, the position of the photographic card being indicated by dotted lines. Fig. 2 is a plan view of the under side. Fig. 3 is an enlarged detail in section and elevation, this section being taken on line 3 3, Fig. 4. Fig. 4 is a side elevation in detail, dotted lines showing a portion of the handle when swung up into horizontal position. Fig. 5 is an enlarged sectional detail taken on line 5 5, Fig. 2.

Similar letters of reference indicate corresponding parts.

a represents a box or eye-guard, *b* the dividing-plate, and *c* the bar, on which is mounted the slide *d*, provided with the usual rack *e* for holding the card on which is mounted the photograph or view.

The cross-bar or slide *d*, which fits slidably over the bar *c* by means of the usual recess or groove *d'*, is provided with a connecting-bar (preferably metallic) *f* on its under side, which extends across the under side of the bar *c*, said connecting-bar taking the place of the ordinary spring commonly used

in stereoscopes to hold the slide in place by friction.

g represents the handle, which is usually secured rigidly to the under side of the bar *c*. This handle is provided at its upper end with a ferrule *g'*, and extending from the handle up through this ferrule are the two comparatively narrow legs or prongs *h*², which are integral with a plate comprising a horizontal central portion *h'* and side members *h*, said members spreading, as illustrated, and bending toward each other at the upper ends of the portions *h*², with which they are integral. These members *h* are hinged by means of a pin or pintle *k* to the members *l* of a corresponding plate whose central portion *l'* is secured at *m* to a horizontal bar *n*. The two plates, one consisting of the portions *l l'* and the other comprising the portions *h h'*, constitute, in connection with the pin or pintle *k*, a spring-hinge, and the plates are held normally in rigid engagement by means of the correspondingly-indented portions *p* and *q* on the outer members *l* and the inner members *h*, respectively, as indicated in Figs. 3 and 4. As these indentions *p* and *q* are horizontal, it is evident that when the members are prevented from relative movement by their interlocking or coincidence, the handle *g* is vertical, as illustrated in full lines in the drawings. The spring members, however, will yield sufficiently to allow the handle to be swung up into a horizontal position, as indicated in dotted lines in Fig. 4, in case the stereoscope is to be packed or placed in a cabinet or small receptacle.

The portion *l'* is pivotally connected by a suitable screw *i*, which extends through a washer *o*, with the bar *c*, and the forward end of the bar *n* (rigid with the portion *l'* by means of the bolts *m*) is pivotally connected at *n'* with a bar *r*, provided near its outer end with a notch *s*, cut in its edge. A short latch or arm *t* is pivotally connected at its rear end with the bar *r* by means of a thumb-screw *u*, and said latch is formed near its outer end, on its inner edge, with a notch *v*. These notches *v* and *s* are of suitable width and suitably located to be adapted to embrace from opposite sides the neck of the headed pin *w*, which extends downward from the central portion of the bar *f*.

In the different figures in the drawings the parts are shown in full lines in their normal position, in which the handle *g* is vertical or at right angles with the bar *c*, being securely

locked in such position by the coincident interlocking indentations *p* and *q* on the members *l* and *h*, and the bar *f* of the slide *d* being pivotally engaged by means of the slots *s* and *v* on the bar *r* and latch *t*, respectively, which embrace the neck of the pivot or pin *w*. To operate the device, place the eye-guard or box *a* in its proper position next the eyes and rotate the handle *g*, thus moving the slide *d* to a greater or less distance from the eyes by means of the pivotal connection *n r* until the picture is properly focused. This can be easily done with one hand—the hand which is holding the handle and supporting the stereoscope against the forehead.

If it is desired to pack the stereoscope into as small a compartment or receptacle as possible for shipping purposes or for convenience, as would be the case where the stereoscope is placed in a cabinet, the handle can be swung up into horizontal position, as indicated in dotted lines in Fig. 4, the spring of the plate *l l'* allowing the plate *h h'* to spread it sufficiently, and by swinging the latch *t* out of engagement with the pivot-pin *w*, as indicated by dotted lines in Fig. 2, said latch being operated by rotating the thumb-screw or handle *u*, which has a squared connection at *u*, Fig. 5, with the latch, and then moving the notch *s* in the bar *r* out of such engagement, the slide *d* can be removed from the bar *c* and laid longitudinally therewith.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a stereoscope, in combination, the box or eye-guard *a*; the bar or frame *c* extending from said box or eye-guard; a slide mounted on said bar and provided with means for holding the photograph or view; a handle rota-

tively supported by said bar or frame; the bar *f* secured to the under side of the slide and extending across the under side of the frame *c*; a pivot-pin extending downward from said bar *f*; the bar *n* rigidly connected at one end with the handle; the bar *r* pivotally connected at one end with the forward end of the bar *n* and provided near its outer end with the notch or screw *s*; the latch *t* pivotally connected at one end with the bar *r* and provided near its outer end with the notch or recess *v*; and means for swinging said latch from its connected end whereby its notch may be moved into engagement with said pivot-pin.

2. In a stereoscope, in combination, the box or eye-guard *a*; the bar or frame *c* extending from said box or eye-guard; a slide mounted on said bar and provided with means for holding the photograph or view; a handle; the plate comprising the spreading portions *h*, central portion *h'* and prongs *h²* by which it is connected with the upper end of the handle; the plate consisting of the spring-jaws *l* and central portion *l'*, said jaws *l* and portions *h* being coincidently indented and held normally together; a pivotal connection between the said central portion *l'* and the bar or frame whereby the handle may be rotated; and mechanism intermediate of said portion *l'* and the slide, whereby said slide is reciprocated by the rotation of the handle for the purpose of focusing the picture.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES FRAZER.

Witnesses:

J. B. MORSE,

JOHN S. FRAZER.