

A. QUIROLO.  
Stereoscopes.

No. 138,930.

Patented May 13, 1873.

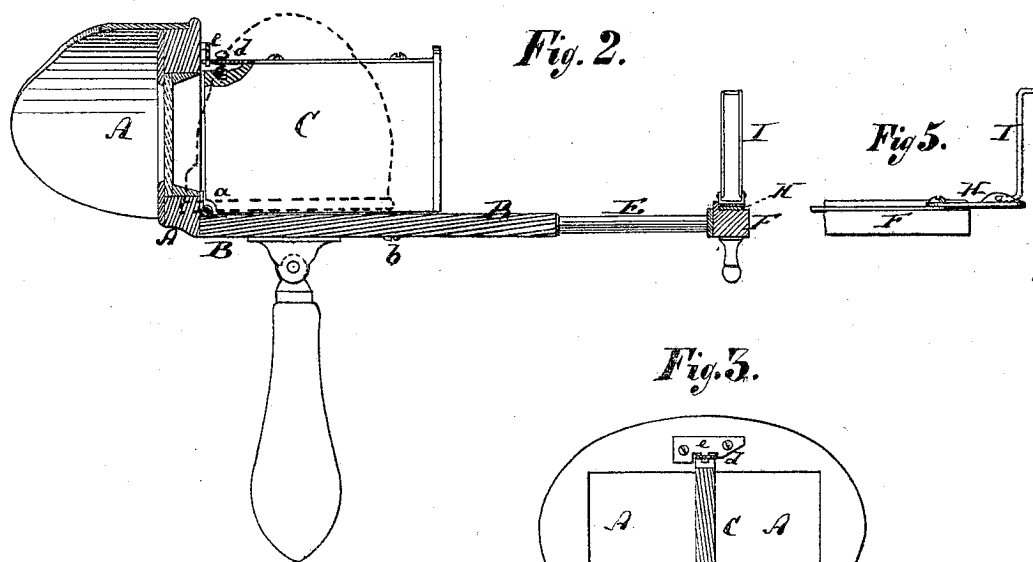
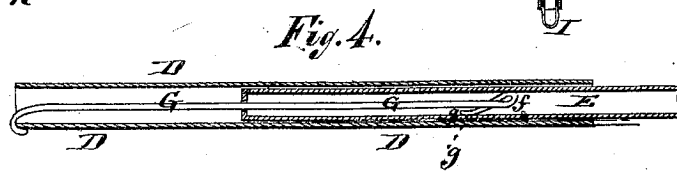
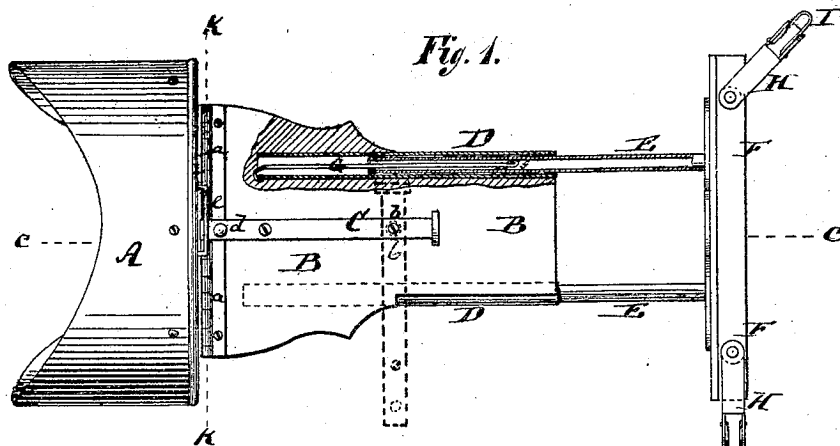
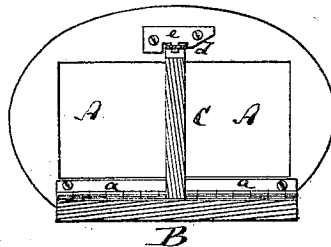


Fig. 3.



Witnesses:  
Fred Haynes  
Fred Church

A. Quirolo  
per Walter Brown & Allen  
attorneys.

# UNITED STATES PATENT OFFICE.

ANTONIO QUIROLO, OF NEW YORK, N. Y.

## IMPROVEMENT IN STEREOSCOPES.

Specification forming part of Letters Patent No. **138,930**, dated May 13, 1873; application filed February 17, 1873.

*To all whom it may concern:*

Be it known that I, ANTONIO QUIROLO, of the city, county, and State of New York, have invented an Improved Stereoscope, of which the following is a specification:

Figure 1 is a top view partly in section of my improved stereoscope. Fig. 2 is a longitudinal section of the same on the line C C, Fig. 1. Fig. 3 is a transverse section of the same on the line K K, Fig. 1. Fig. 4 is a detail longitudinal section, on an enlarged scale, of the telescope-tubing employed on my improved stereoscope. Fig. 5 is a detail back view of one end of the picture-holder.

Similar letters of reference indicate corresponding parts in all the figures.

This invention has for its object to permit the compact folding together of stereoscopes, so that for purposes of transportation and storage they will occupy the least possible amount of room. My invention consists, first, in connecting the picture-holder with the bed-plate of the stereoscope by means of sliding tubes, which contain within them tension springs or wires, so shaped as also to constitute the stops for limiting the outward motion of the picture-holder. My invention consists, secondly, in pivoting the wire clasps between which the pictures are placed to short plates, which in turn are pivoted to the sliding picture-holder in such manner that said plates can be folded in to shorten the picture-holder, and thereby reduce the width of the instrument for transportation or storage.

In carrying out my invention, I prefer to form on the diaphragm, which is placed back of the lens-holder, a spring-catch locking into a projecting tooth of the lens-holder, and to pivot the said diaphragm at its back to the bed of the stereoscope, so that when the aforementioned spring-catch is disengaged from the lens-holder, the diaphragm may be swung aside on its vertical pivot, and the lens-holder then folded back on the bed-plate. By these several means the stereoscope is made contractible lengthwise from both ends, and also laterally on the picture-holder, so that for transportation it will occupy scarcely half the room which it does when ready for use.

In the accompanying drawing, the letter A represents the lens-holder of this stereoscope.

It is, by hinges *a*, connected with the front end of the bed-plate B, which bed-plate serves also as a support for the diaphragm C that abuts against the back of the lens-holder. This diaphragm is, by a vertical pin, *b*, pivoted near its rear end to the bed-plate B, and has, at its front end on top, a spring-catch *d*, which locks under or into a plate or projection, *e*, formed at the back of the lens-holder, that is more clearly shown in Figs. 1, 2, and 3. By this spring-catch *d* and projection *e* the diaphragm is locked into position. When it is desired to throw the lens-holder back into the position indicated by dotted lines in Fig. 2, the spring-catch is disengaged by a slight depression from the tooth or projection *e* and the diaphragm C, then swung aside on the pivot *b* into the position shown by the dotted lines in Fig. 1. The lens-holder can then be folded back on its hinge in the desired manner. Near the sides of the bed-plate B are firmly imbedded in the same two tubes D D, into which are fitted smaller tubes E E, whose rear ends connect with the picture-holder or cross-bar F. The tubes E sliding in the tubes D, permit the longitudinal contraction and extension of the instrument. Into each tube E is fitted a wire, G, which, at its front end, hooks over or connects with the tube D, as is more clearly shown in Fig. 4. This wire G, extends also into the tube D, and has, at its back end, a bend, *f*, formed on it, which causes it in the first place to constitute a spring, or exert a spring pressure against the interior of such tube E, for the purpose of retaining the picture-holder in any suitable position, and which furthermore, with its forwardly bent end *g*, constitutes a stop to limit the outward or backward extension of the picture-holder. The front end of the tube E is contracted around the wire G, as shown in Fig. 4, so that when the tube D is entirely drawn back, such contracted front end strikes the end *g* of the wire G, and thereby finds its limit of motion. The cross-bar F, or picture-holder, is made shorter than usual, the requisite additional length being produced by pivoted plates H H, which are applied at or near its ends, and which carry the hinged or folding clasps or wires I I between which the pictures to be displayed are fitted. By swinging these plates

H outwardly, substantially as in Fig. 1, the wires I will be in position to receive the picture, while for contracting the instrument the plates H are swung inwardly upon the middle part of the cross-bar F, and the wire clasps are then folded down upon them to lie flat thereon.

What is here claimed and desired to be secured by Letters Patent is—

1. The wire G containing the hook *f g*, and applied through the tubes D E, to constitute

a tension and stop, substantially in the manner set forth.

2. The cross-bar or picture-holder F, combined with the pivoted plates H H which carry the picture clasps I I, substantially as herein set forth.

ANTONIO QUIROLO.

Witnesses:

A. V. BRIESEN,  
MICHAEL RYAN.