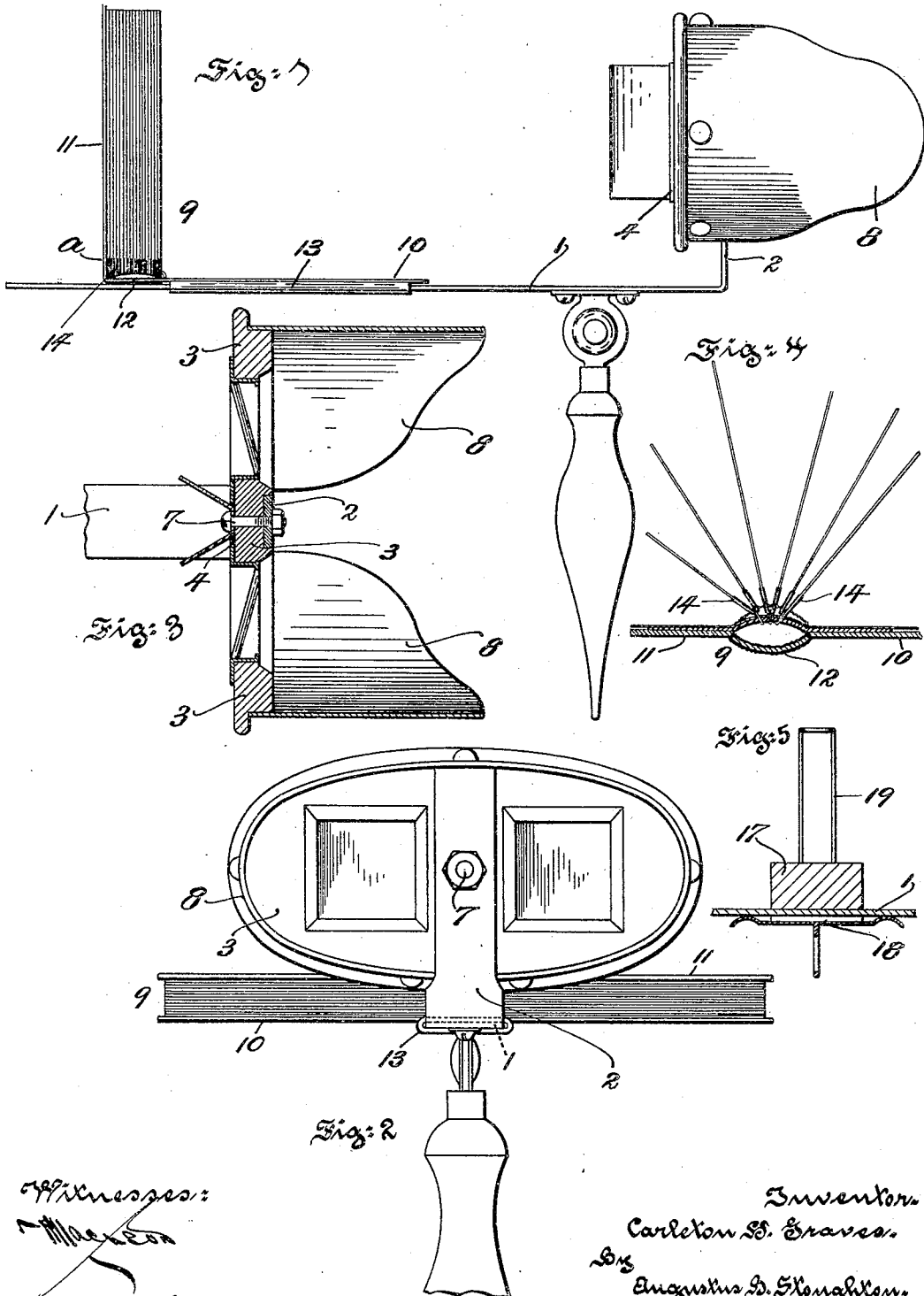


C. H. GRAVES.
STEREOSCOPE.
APPLICATION FILED DEC. 19, 1906.

932,271.

Patented Aug. 24, 1909.



Witnesses:
Maxson
Frank C. French.

Inventor
Carlton S. Graves.
By Augustus D. Stoughton.
Atty.

UNITED STATES PATENT OFFICE.

CARLETON H. GRAVES, OF PHILADELPHIA, PENNSYLVANIA.

STEREOSCOPE.

932,271.

Specification of Letters Patent.

Patented Aug. 24, 1909.

Application filed December 19, 1905. Serial No. 292,434.

To all whom it may concern:

Be it known that I, CARLETON H. GRAVES, a citizen of the United States, and resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Stereoscopes, of which the following is a specification.

Objects of the present invention are to provide for satisfactorily presenting to the public a stereoscopic outfit having its views in book form so that they may be viewed in appropriate succession and in connection with descriptive matter for educational, commercial and other purposes; to so construct the stereoscope proper that it may be used not only with views in book form, but also in connection with ordinary card mounts; to provide for mounting or arranging the views in a book form well adapted for use in connection with a stereoscope; and to simplify, improve and strengthen the construction of the stereoscope whereby it is adapted for use in connection with a book of views.

To these and other ends hereinafter set forth the invention comprises the improvements to be presently described and finally claimed.

The nature, characteristic features and scope of my invention will be more fully understood from the following description taken in connection with the accompanying drawings forming part hereof and in which—

Figure 1, is a side elevational view of a stereoscope embodying features of the invention. Fig. 2, is a rear elevational view of the same. Fig. 3, is a horizontal sectional view illustrating features of construction. Fig. 4, is a sectional view illustrating the bending of the leaves of the book, and Fig. 5, is a sectional view illustrating a holder adapted for use in connection with ordinary card mounts.

In the drawings 1, is a slender shaft preferably of metal. At its rear end 2, this shaft is bent upwardly. The lens carrier 3, is shown as rabbeted or grooved for the reception of the end 2 of the shaft. The divider 4 consists of a plate bent to form two diverging wings. The bolt or rivet 7, passes through the up-turned end 2 of the shaft, the lens carrier and the plate 4 and when the nut of the bolt is screwed on, or rivet headed, the bolt or rivet serves to firmly secure together the lens carrier, shaft and di-

vider. The hood 8, is carried by the lens holder 3, and the latter is of the form of a complete oval and presents an attractive appearance.

The book 9, consists of stiff covers 10 and 11 connected together by a flexible back 12. The cover 10, is provided with a metallic strap or loop or guide, as of metal, 13, through which the shaft 1 passes in such a way that the book may slide back and forth on the shaft so as to attain the proper focus and retain proper adjustment. It is desirable that the book should open in such a way that its leaves may stand at a right angle to the shaft in order to obtain the best optical effects. It is also desirable that the leaves and their connections should be comparatively thin so that the various views may be presented at as near as possible in the same position in respect to the line of vision. These results can be accomplished by securing the leaves in pairs at their edges by means of binders' tape 14, sewing together the various pairs through the connecting tapes. The tapes of the outside leaves are sewed to the covers, and the tapes are sewed to the flexible back. Upon the face of each leaf a stereoscopic view appears, while upon the opposite leaf may appear a description of the scene portrayed in the view, so that the observer may look through the stereoscope at the view and read in connection with the view the description of it, all of which tends to promote education.

The fact that the lens holder 3, is arranged upon the up-turned end of the shaft 2, at an appreciable elevation above the shaft, enables the instrument to be used in connection with a book which is thereby disposed below the line of vision. The book may be removed from the shaft by sliding the loop 13 off the end thereof and an ordinary holder 17 may be slid onto the shaft which enters between its wooden bar and the spring 18.

19, are the wires or holders which rise from the base and serve to receive the loose card mounts.

Of course, a great number of books of views may be used in connection with a single stereoscope and they are placed upon the shaft 1 as may be required. Inasmuch as only one of the covers is secured to the shaft the edge *a*, of the book, or rather of the other cover is free to rise and fall as the various pages are presented to view, so that the book may automatically adjust itself for the

various pages as they are presented in vertical position and for this reason it is possible to bind the pages very near to their edges, whereby there is relatively little difference in the positions of the various pages in respect to the line of vision.

It will be obvious to those skilled in the art to which my invention relates that modifications may be made in details without departing from the spirit thereof, hence the invention is not limited further than the prior state of the art may require, but

Having thus described the nature and objects of my invention what I claim as new and desire to secure by Letters Patent is—

1. The combination of a lens holder having a groove, a shaft provided with an up-turned end arranged in said groove, a divider consisting of a plate having diverging wings, a bolt or rivet for connecting the up-turned end of the shaft and the lens holder and divider, and the book having one of its covers in slidable engagement with the shaft and the other of its covers free, substantially as described.

2. In combination a shaft having an up-turned end, a stereoscopic lens holder, means for immovably and rigidly securing the up-turned end and the holder together, a book of stereoscopic views having upon one of its covers means for the adjustable reception of the shaft whereby the other cover of the book is free and can adjust itself to the opening of the various leaves, substantially as described.

3. The combination of a shaft, a stereoscopic lens holder arranged at one end thereof, a book of stereoscopic views having one of its covers slidably mounted upon said shaft and having its other cover free whereby the latter cover and the leaves are free to rise and adjust themselves when the various leaves are turned, substantially as described.

In testimony whereof I have hereunto signed my name in the presence of witnesses.

CARLETON H. GRAVES.

Witnesses:

W. J. JACKSON,
FRANK E. FRENCH.