C. C. CLEMENT.

STEREOPTICON.

APPLICATION FILED MAY 15, 1916.

1,218,928.

Patented Mar. 13, 1917.

2 SHEETS—SHEET 1.

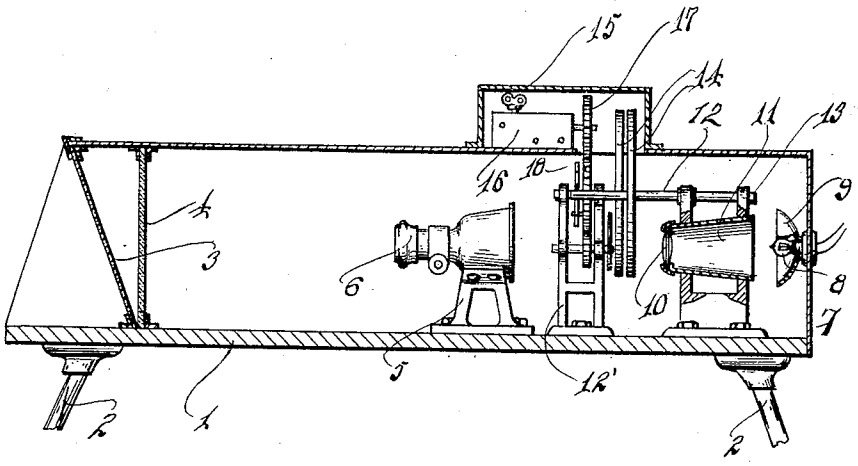



Fig. 1.

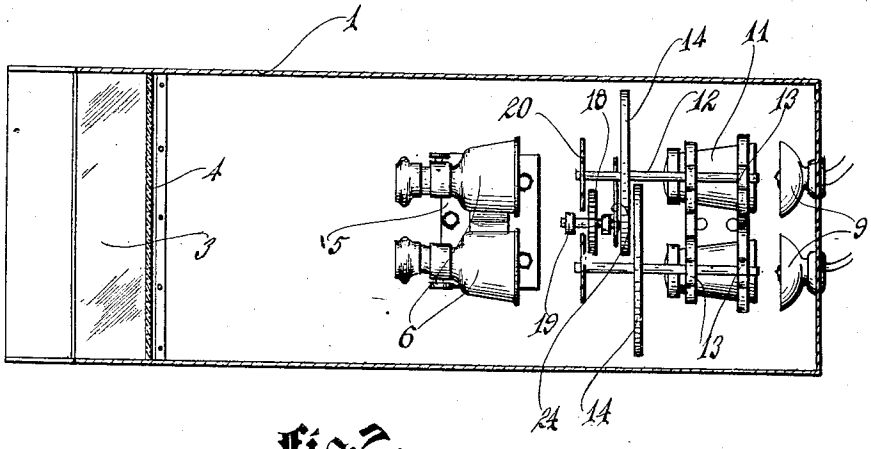



Fig. 2.

Inventor
Cecil C. Clement

By

Herbert E. Smith
Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

C. C. CLEMENT.

STEREOPTICON.

APPLICATION FILED MAY 15, 1916.

1,218,928.

Patented Mar. 13, 1917.

2 SHEETS—SHEET 2.

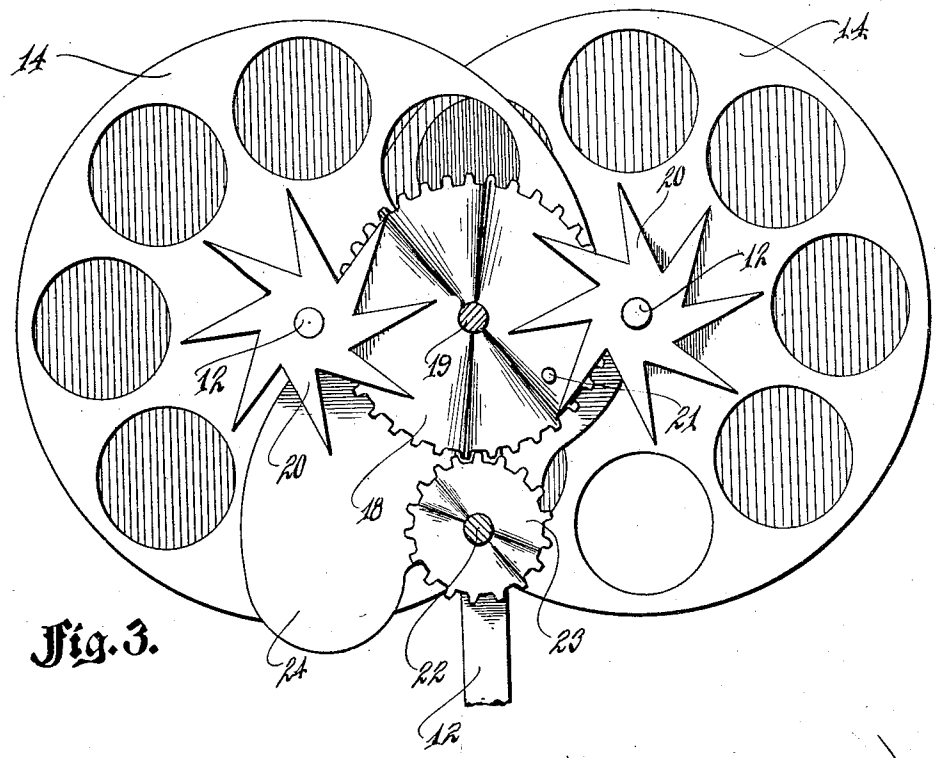



Fig. 3.

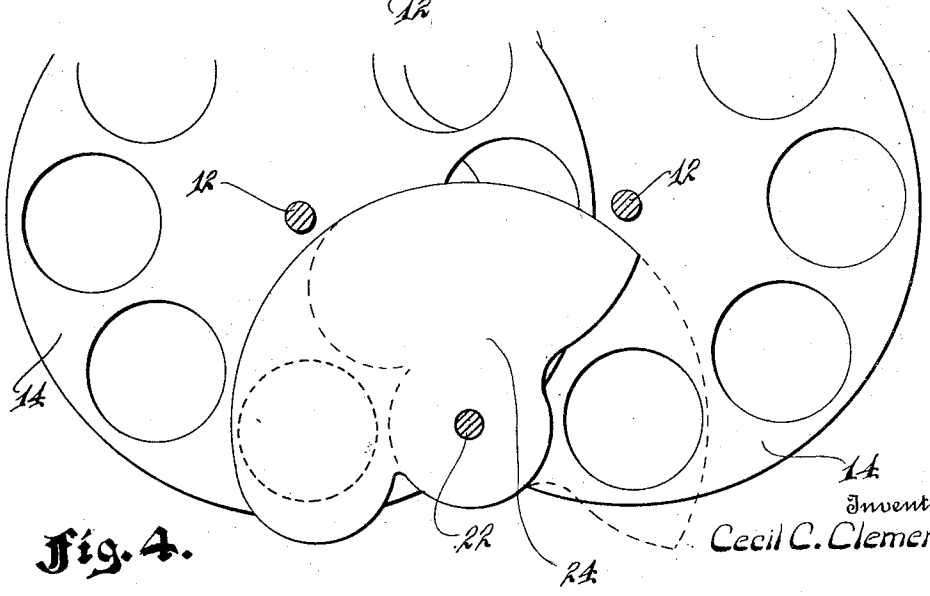



Fig. 4.

Inventor

Cecil C. Clement

By

Herbert E. Smith

Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

CECIL C. CLEMENT, OF SPOKANE, WASHINGTON, ASSIGNOR OF ONE-HALF TO HENRY B. KINGSBURY, OF SPOKANE, WASHINGTON.

## STEREOPTICON.

1,218,928. Specification of Letters Patent. **Patented Mar. 13, 1917.**

Application filed May 15, 1916. Serial No. 97,661.

*To all whom it may concern:*

Be it known that I, CECIL C. CLEMENT, a citizen of the United States, residing at Spokane, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Stereopticons, of which the following is a specification.

This invention relates to new and useful improvements in stereopticons and the principal object is to provide a fade-out stereopticon for use particularly as an advertising medium and for exhibiting views in rotation.

A further object resides in providing a device of this character which may be used for other purposes as may be found desirable and which will be particularly advantageous in school rooms and other seats of learning.

A still further object resides in providing a device which is simple and durable in construction, inexpensive to manufacture and one which will be very efficient and useful in operation.

With these and other objects in view, my invention consists in the novel features of construction, combination and arrangement of parts, as will be hereinafter referred to and more particularly pointed out in the specification and claims.

In the accompanying drawings, forming a part of this application:—

Figure 1 is a vertical section through a device constructed in accordance with my invention;

Fig. 2 is a horizontal section therethrough;

Fig. 3 is an enlarged vertical section through the device showing in elevation the picture wheels and the means for operating same; and

Fig. 4 is an elevation showing the shutter arrangement in connection with the picture wheels.

In describing the invention, I shall refer to the drawings in which similar reference characters designate corresponding parts throughout the several views and in which 1 indicates a casing of substantially rectangular design mounted on the adjustable legs 2 and the forward end of said casing is provided with a clear glass 3 which is disposed at an angle inwardly from its lower to its upper edge whereby to "kill" shadows that would ordinarily be evident, were the glass perpendicularly. Disposed immediately in the rear of the glass 3 is a ground glass or screen 4 upon which the pictures are projected and mounted on a bracket or base 5 about midway of the base of the casing 1 are the adjustable lenses 6 arranged in duplicate. These lenses are designed for the purpose of focusing the pictures upon the screen or glass 4 and in the extreme rear wall 7 of the casing is an electric lamp 8 supporting a reflector 9. The lamp and reflector are also arranged in duplicate, as shown in Fig. 2 of the drawings and the light rays from the lamps 8 are projected through a pair of condensing lenses 10 provided at the forward ends of a pair of frusto-conical light receiving chambers 11.

Interposed between the focusing lenses and the condensing lenses is the mechanism for operating the device which consists of a bracket or supporting base 12′ which supports one end of a pair of rods 12, the opposite ends of said rods being supported respectively in bearings 13 on the light receiving chambers 11. Mounted on each of the rods 12, which are rotatable, is a picture wheel 14 which is provided to support pictures which may consist of negatives or preferably positives taken from negatives, which may be colored as desired. Mounted on the upper portion of the casing 1 is a box-like auxiliary casing 15 which supports a spring or other motor 16, the latter having a drive shaft carrying a gear 17. The latter gear is adapted to mesh with a gear 18 carried on the stub shaft 19. Mounted on the shafts 12 carrying the picture wheels 14 are star wheels 20 which are adapted to be engaged by a pin 21 carried on one face of the gear 19, as clearly shown in Fig. 3 of the drawings. It is obvious that the picture wheels may be rotated upon the rotation of the gear 18 and each picture wheel moves sufficiently each turn of the star wheel to permit another picture to be displayed therefrom. In order to obtain the fade-out and the fade-in feature of the device, an additional shaft 22 is rotatably mounted in the bracket or support 12′ which carries a pinion 23, the latter meshing with the gear 18. Also carried by the shaft 22 is a shutter 24 which rotates with the shaft 22 upon the rotation of the gear 18 and in revolving, said shutter will gradually cut off the light rays passing through one picture and gradually open a

path for the light rays of the opposite set to pass through the picture being exposed in that set.

The above apparatus is particularly adapted as a stereopticon in which picture wheels may be obtained and introduced into the machine bearing any desired types of pictures. The same may be used as an advertising medium and may be equally well used for showing processes of a manufacture, step by step, or the device may be used for any purpose wherein the projection of pictures upon a screen is desired.

From the foregoing it will be seen that I have provided a simple, inexpensive and efficient means for carrying out the objects of the invention, and while I have particularly described the elements best adapted to perform the functions set forth, it is obvious that various changes in the form, proportion, and in the minor details of construction may be resorted to, without departing from the spirit or sacrificing any of the principles of the invention.

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

1. In a device of the class described, a casing, a screen arranged at one end thereof, lamps arranged at the opposite ends of the same, a pair of adjustable lenses provided intermediate of the ends of the casing, light receiving chambers arranged in duplicate adjacent the lamps, condensing lenses mounted in the forward ends of said light receiving chambers, a pair of picture wheels rotatably mounted in overlapping relation to one another intermediate the condensing and adjustable lenses, and a rotatable shutter operated upon the rotation of said wheels to fade-out the picture in one wheel and fade-in the picture of the other wheel.

2. In a device of the class described, a casing, a screen arranged at one end thereof, lamps arranged at the opposite ends of the same, a pair of adjustable lenses provided intermediate of the ends of the casing, light receiving chambers arranged in duplicate adjacent the lamps, condensing lenses mounted in the forward ends of said light receiving chambers, a pair of rotatable shafts arranged longitudinally of the casing, a pair of picture wheels carried by said shafts and arranged in overlapping relation for disposition between the condensing and adjustable lenses, star wheels carried by said shafts, a central rotating means adapted for alternate engagement with said star wheels to alternately operate said picture wheels and a shutter rotatable upon the operation of said central rotating means whereby to fade-out the picture in one wheel and fade-in the picture in the other wheel.

3. In a device of the class described, a casing, a screen arranged at one end thereof, lamps arranged at the opposite ends of the same, a pair of adjustable lenses provided intermediate of the ends of the casing, light receiving chambers arranged in duplicate adjacent the lamps, condensing lenses mounted in the forward ends of said light receiving chambers, of a pair of rotatable shafts arranged longitudinally of the casing, a pair of picture wheels carried by said shafts and arranged in overlapping relation for disposition between the condensing and adjustable lenses, star wheels carried by said shafts, a central rotating gear carrying a laterally extending pin adapted for engagement alternately with said star wheels to alternately rotate said picture wheels, means for rotating said gear, an additional shaft having connection with the aforesaid gear for rotation therewith, and a shutter carried by the latter shaft for rotation therewith to fade-out one picture and fade-in the other.

4. In a device of the class described, a casing arranged on an adjustable support and provided at its one end with a clear glass inclined inwardly from its upper to its lower edge, a ground glass arranged perpendicularly in the casing immediately in the rear of the aforesaid clear glass and designed to form a screen therein, lamps arranged at the rear of the casing, condensing lenses disposed forwardly of said lamps, adjustable focusing lenses disposed between the condensing lenses and said screen and rotating picture wheels interposed between said lenses in the path of the light rays.

In testimony whereof I affix my signature.

CECIL C. CLEMENT.

**Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."**