

W. WILCOX & J. P. RYAN.

STEREOSCOPES.

No. 181,506.

Patented Aug. 22, 1876.

Fig. 1

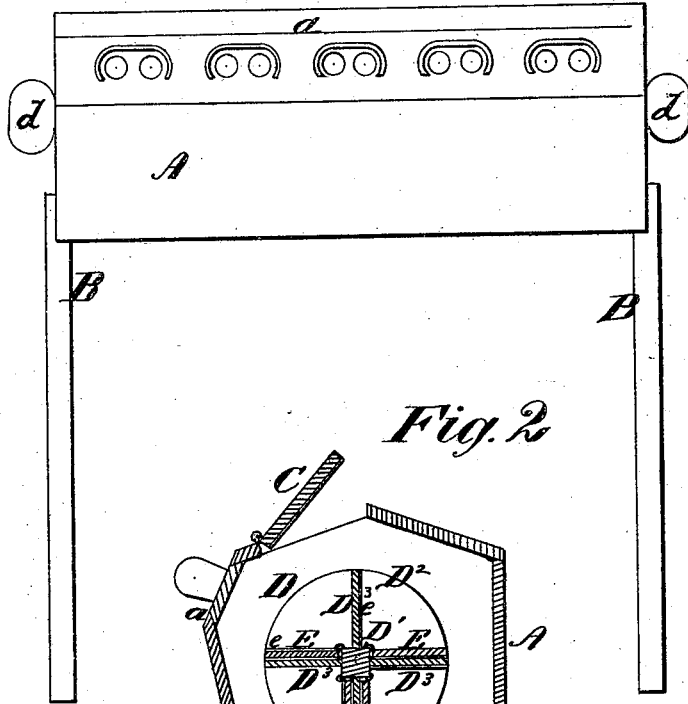


Fig. 2

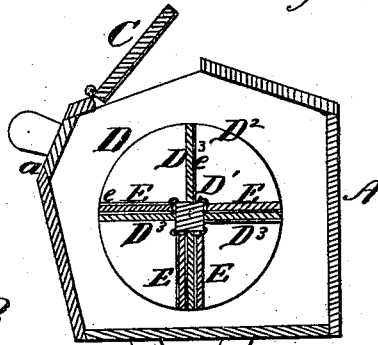
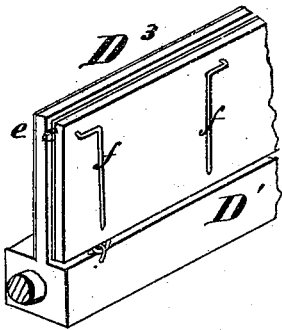


Fig. 3



Witnesses

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UNITED STATES PATENT OFFICE,

WESLEY WILCOX AND JAMES P. RYAN, OF FORT SCOTT, KANSAS.

IMPROVEMENT IN STEREOSCOPES.

Specification forming part of Letters Patent No. **181,506**, dated August 22, 1876; application filed June 13, 1876.

To all whom it may concern:

Be it known that we, WESLEY WILCOX and JAMES P. RYAN, of Fort Scott, in the county of Bourbon and State of Kansas, have invented certain new and useful Improvements in Stereoscopes; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a front elevation of the improved stereoscope. Fig. 2 is a vertical transverse section, and Fig. 3 is a detail view.

The object of this invention is to provide a compact and convenient form of revolving stereoscopes for use in schools and elsewhere; and it consists in the novel construction and arrangement of the cylinder which holds the views, and which, for the purposes of this invention, has four rigid radial wings and a like number of hinged wings, each wing being adapted to hold a number of stereoscopic cards, and to display the same successively, according as the cylinder is revolved forward.

This invention further consists in the arrangement upon the back of each wing of a reflector, which, with the reflector on the lid of the cabinet, serves to highly illuminate the views and enhance the attractiveness of the exhibition.

Referring to the accompanying drawings, A designates a stereoscopic box or cabinet supported upon suitable legs B B, and having six (more or less) regular or irregular sides, preferably arranged as shown in the drawing. One of said sides, constituting the face or front of the cabinet, as *a*, contains the lenses, of which there are several pairs, corresponding to the number of views which each slot is adapted to hold. This will allow the views to be seen by several persons at a time—a feature which renders the stereoscope particularly valuable to schools.

C designates the hinged lid, the inner surface of which is, as usual, provided with a reflector to throw the light upon the views. D designates the cylinder, horizontally arranged, and supported by the ends of the cabinet, through which pass the ends of its shaft D', which latter is provided with knobs *d d* for revolving it.

The cylinder consists chiefly of the shaft D¹, the heads D², and the four radial wings D³. These wings are rigidly attached to the shaft and heads, and do not vary their relative positions.

E represents other wings, corresponding in size and shape with the wings D³, but hinged by their inner edges to the square portion of the shaft upon the corners thereof by means of link or staple hinges, or other suitable contrivances.

The views are held in place by means of wires *f* at each end of the cards. The cylinder is located below the level of the lenses, which are inclined to correspond with the inclination of the side *a*. The observer is thus enabled to look downward upon the views, instead of being compelled, as in some other stereoscopes, to look upward; and hence there is less strain upon the eyes.

According as the cylinder is revolved toward the lenses, the hinged wings are brought before the latter in an upright or slightly-inclined position, nearly parallel with the next succeeding fixed wing which directly follows. Then, upon continuing the movement of the cylinder until the hinged wing passes a vertical position, the latter drops forward upon the preceding fixed wing, exposing the views of the succeeding fixed wing, and so on until all the views have been exposed.

Upon the back of each wing is a reflector, *e*, which reflects light when its wing is in a horizontal position upon the exposed views.

Having described our invention, we claim—

1. In a stereoscope having a revolving view holder or cylinder with radial wings, the combination therewith of hinged wings or view-holders, alternating with the fixed wings, substantially as described.

2. A stereoscopic-view holder having a reflector on its reverse side, substantially as described.

In testimony that we claim the foregoing we have hereunto set our hands this 27th day of May, 1876.

WESLEY WILCOX.
JAMES P. RYAN.

Witnesses:

F. L. McDERMOTT,
I. W. MOODY.