

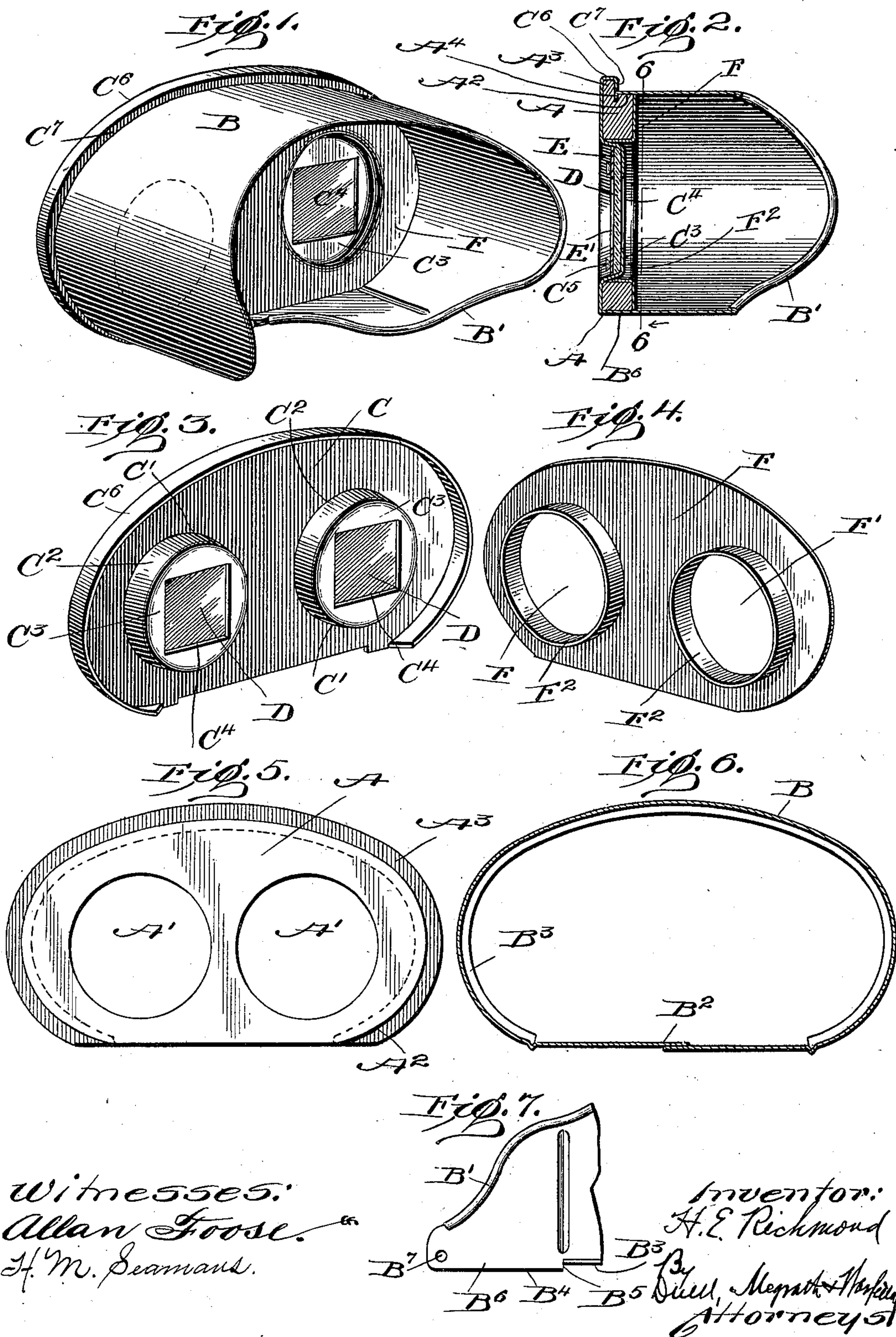
No. 724,044.

PATENTED MAR. 31, 1903.

H. E. RICHMOND.
STEREOSCOPE.

APPLICATION FILED MAR. 20, 1902.

NO MODEL.



UNITED STATES PATENT OFFICE.

HENRY E. RICHMOND, OF WESTWOOD, NEW JERSEY.

STEREOSCOPE.

SPECIFICATION forming part of Letters Patent No. 724,044, dated March 31, 1903.

Application filed March 20, 1902. Serial No. 99,042. (No model.)

To all whom it may concern:

Be it known that I, HENRY E. RICHMOND, residing at Westwood, in the county of Bergen and State of New Jersey, have invented certain new and useful Improvements in Stereoscopes, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

- 10 This invention relates to stereoscopes. Heretofore where the lens-frame holder and the hood have been made of wood the edge of the holder has been cut down to leave a flange thereon and the hood tacked to the edge of the frame, with the forward edge thereof abutting against the flange. Stereoscopes constructed in this manner were found to be objectionable because the hood would warp and become detached from the frame-holder.
- 20 Lately both the hood and the frame have been made wholly of metal, preferably of aluminum, with much improved results and appearances. It has been found desirable in some instances, however, to mount the lens in a wooden frame and to make the hood of metal; but even in such cases it is desirable to construct the stereoscope so that it will have the appearance of being made entirely of metal, as a better finish and ornamentation can be produced from metal. Until this invention, so far as I am aware, there has been no cheap and efficient means of securing the hood to the frame and for covering the wooden frame so that it will have the appearances desired.
- 35 It is the object, therefore, of my invention to construct a stereoscope having a wooden frame-holder and a metal hood and to finish the stereoscope so that it shall have all the appearances of being made of metal.
- 40 It is also the object of my invention to construct a stereoscope that will overcome the objections heretofore existing and to make a stereoscope that can be easily, quickly, and cheaply constructed and having all the advantages of the wooden and metal stereoscopes.

Other objects and advantages will appear from the hereinafter description.

- 50 With these ends in view I will now set forth my invention in detail, which is illustrated in the accompanying drawings, which form a part of this specification.

In the drawings, in which similar refer-

ence-symbols indicate the same parts in the different views, Figure 1 is a perspective view of the stereoscope constructed after my invention looking into the rear thereof. Fig. 2 is a section of the stereoscope through one of the lens. Fig. 3 is a perspective view of the front plate, which is constructed of metal and having rings stamped therein to hold the lens. Fig. 4 is a perspective view of the plate, made of metal, that fits inside of the stereoscope and having rings or flanges thereon which surround the other rings and adapted to hold the other plate in place on the frame. Fig. 5 is a rear view of the wooden lens-frame holder. Fig. 6 is a section of the metal hood, taken on the line 6 of Fig. 2. Fig. 7 is a view of one end of the hood to clearly illustrate how the holder or flange is formed out of the blank from which the hood is made.

The part lettered A represents the lens-frame holder of the usual shape and having the circular holes A' therein, into which the lens-frames are mounted and held. The edge of the holder is recessed or cut away at A², leaving a flange A³ on the forward part thereof. This recessed part close up against the flange is provided with a groove A⁴.

B is the hood, made of metal, having the rear edge thereof curved to conform to the shape of the face, this edge being turned in or beaded at B'. The ends of the hood which come under the bottom part of the lens-frame holder which is not recessed and is not provided with a groove overlap each, as shown at B². The forward edge of the hood is bent inwardly to form a flange B³, which fits into the groove A⁴ of the lens-frame.

The rear edge B⁴ of the blank from which the hood is made is straight and the flange is formed by slitting the hood at B⁵ and turning the edge thereof in to form the flange, as stated, leaving the edge on the ends of the blank which come underneath the frame straight, as shown at B⁶.

C is the metal plate which covers the forward part of the lens-frame holder and also supports or carries the lens. The lens frame or support is struck up from this plate, as shown at C', the struck-up portion being formed into a ring C², which is preferably tapered, and a bottom or flat portion C³, which has a square opening C⁴ cut therein.

The lens D rests in the struck-up portion, with one of its faces against the inner face of the part C³. The lens is held in place by a mat E, having an opening E' therein. The mat is held in place against the lens by the indented portion C⁵ of the ring C². The edge of this plate C is bent to the rear at right angles to form a flange C⁶, and when fastened to the frame-holder this edge is bent down, as shown at C⁷, Fig. 2, to entirely cover the wooden flange of the frame-holder.

F is the metal plate which fits inside of the hood against the rear face of the frame-holder and covers the same, it being shaped to conform to the shape of the said frame-holder. This plate has the openings F' therein and flanges F² thereon, forming rings which project forward and surround the tapered ring C² of the plate C and hold the said plate carrying the lens in the lens-holder.

When the parts are made they are assembled as follows: The edge or flange B³ of the hood B is inserted in the groove or channel A⁴ of the wooden lens-frame holder A. The ends of this hood are bent down and under the frame-holder, the extreme ends overlapping at B², when a tack or nail may be passed through the openings B⁷ in the end thereof and into the wooden frame-holder A, the portion B⁶ of this hood, which is not turned in to form the flange, extending to the forward face of the said frame-holder. The lens is then put in the holders formed in the plate C and secured thereto. Said plate C is now placed against the front face of the frame-holder A, with the rings C² carrying the lens in the openings A' of the said holder. The flange C⁶ is then turned down at C⁷, with the inturned edge thereof resting against the hood, as shown in Fig. 2. The plate F is then inserted in the hood, with its forward face resting against the rear face of the frame-holder and the rings F² thereof surrounding and clamping the rings C², the said rings F² being of such size as to fit tightly on said tapered rings C².

From what has been stated it will be readily seen that the stereoscope can be easily and cheaply constructed, the hood securely fastened to the frame-holder, and when finished the holder will have all the appearances of having been made entirely of metal.

It is clear that changes may be made without departing from the spirit and scope of my invention, and I therefore do not limit myself to the exact construction and form shown and described; also, other materials and metals may be used—for example, such as celluloid or papier-mâché.

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

1. In a stereoscope, a lens-frame holder having a groove in the edge thereof, and a hood having a flange fitting into said groove as and for the purpose set forth.

2. In a stereoscope, a lens-frame holder hav-

ing a groove in the edge thereof, a flange projecting beyond said edge, and a hood having at its forward edge a flange, said flange fitting into the groove in the frame-holder.

3. In a stereoscope, a lens-frame holder having a groove in the edge thereof and a flange around the forward part of the edge, and a hood having part of its forward edge inturned to form a flange, the said forward edge of the hood bearing against the flange of the frame and the flange of the hood fitting into said groove, the ends of the hood being fastened to the under side of said holder.

4. In a stereoscope, a lens-frame holder having lens-openings therein, and a plate having lens-holders formed thereon, said holders consisting of rings and a flat piece at the bottom of each ring, said piece having an opening therein, the plate fitting against the front face of the lens-holder and the rings in the openings in said holder.

5. In a stereoscope, a lens-frame holder having lens-openings therein, a plate having lens-holders consisting of rings and a flat piece at the bottom of each ring, a flange around the edge thereof, said plate fitting against the front face of the holder and the rings in the opening in said holder, the flange of the said plate being turned down around the edge of the holder.

6. In a stereoscope, a lens-frame holder having lens-openings therein, a plate having lens-holders therein, said holders consisting of rings and flat pieces struck up from the said plate, the said plate having openings therein, the plate fitting against the front face of the holder with the rings in the openings therein, another plate having flanges or rings thereon, said plate fitting on the inside of the hood against the rear face of the holder, and the rings in the openings in said holder around the outside of the rings on the other plate as and for the purpose specified.

7. In a stereoscope, a lens-frame holder having lens-openings therein, a groove around the edge of said holder, a flange projecting beyond the edge of the holder, a hood having an inturned flange fitting in said groove, a plate having rings struck up therefrom with a flat piece at the bottom of each ring, said rings adapted to hold and support the lens, said plate resting against the front face of the holder with the lens-frame in the openings in said holder, the edge of this plate being turned down over the flange of the holder, and another plate having flanges or rings thereon, said plate fitting in the hood against the rear face of the holder, the flanges projecting into the lens-openings in the said frame-holder and around the rings forming the lens-holder.

In testimony whereof I affix my signature in the presence of two witnesses.

HENRY E. RICHMOND.

Witnesses:

H. M. SEAMANS,
E. VAN NESS.