

No. 665,610.

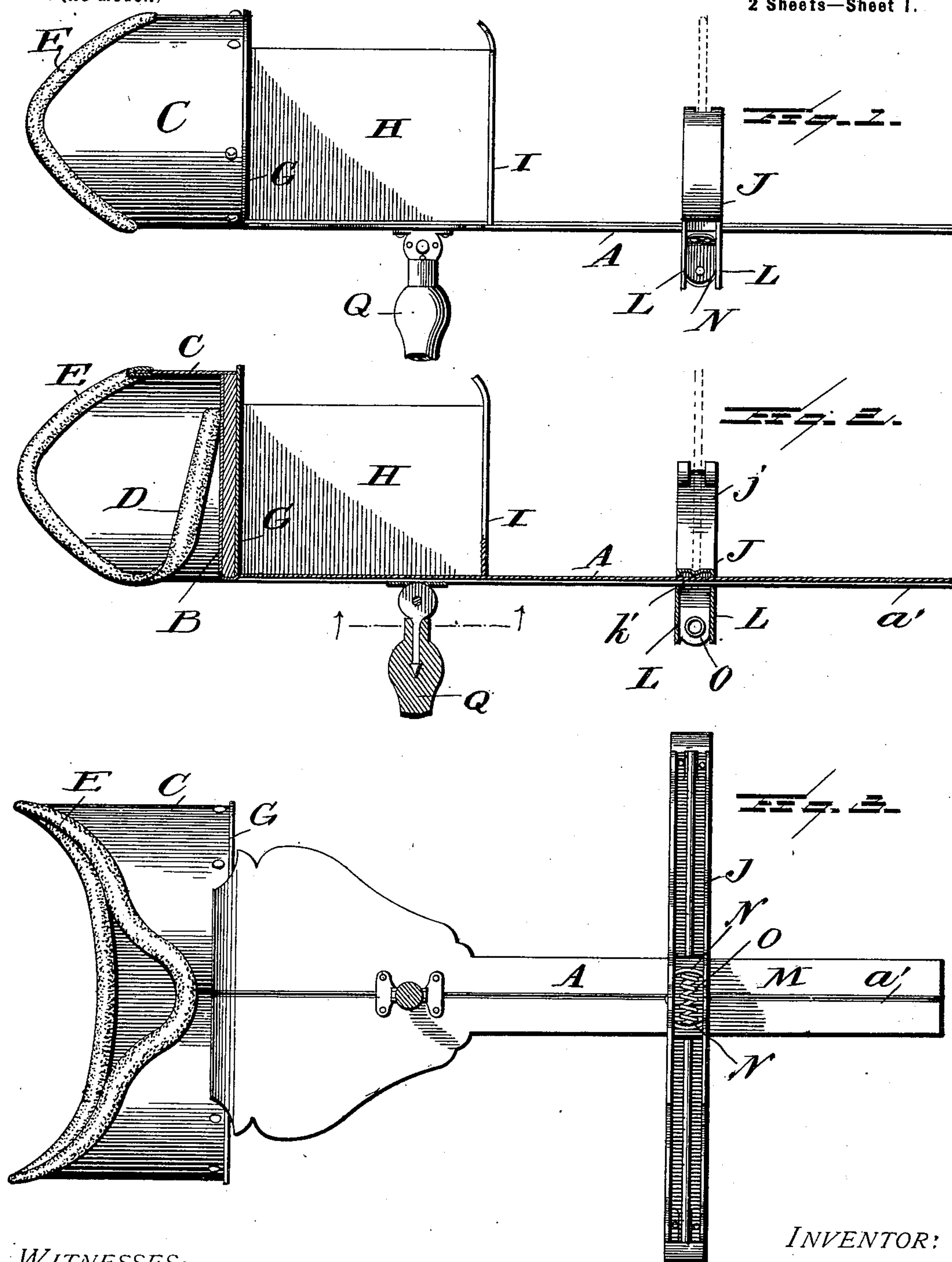
Patented Jan. 8, 1901.

W. H. LEIGH.
STEREOSCOPE.

(Application filed June 2, 1900.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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R. R. Bond

INVENTOR:

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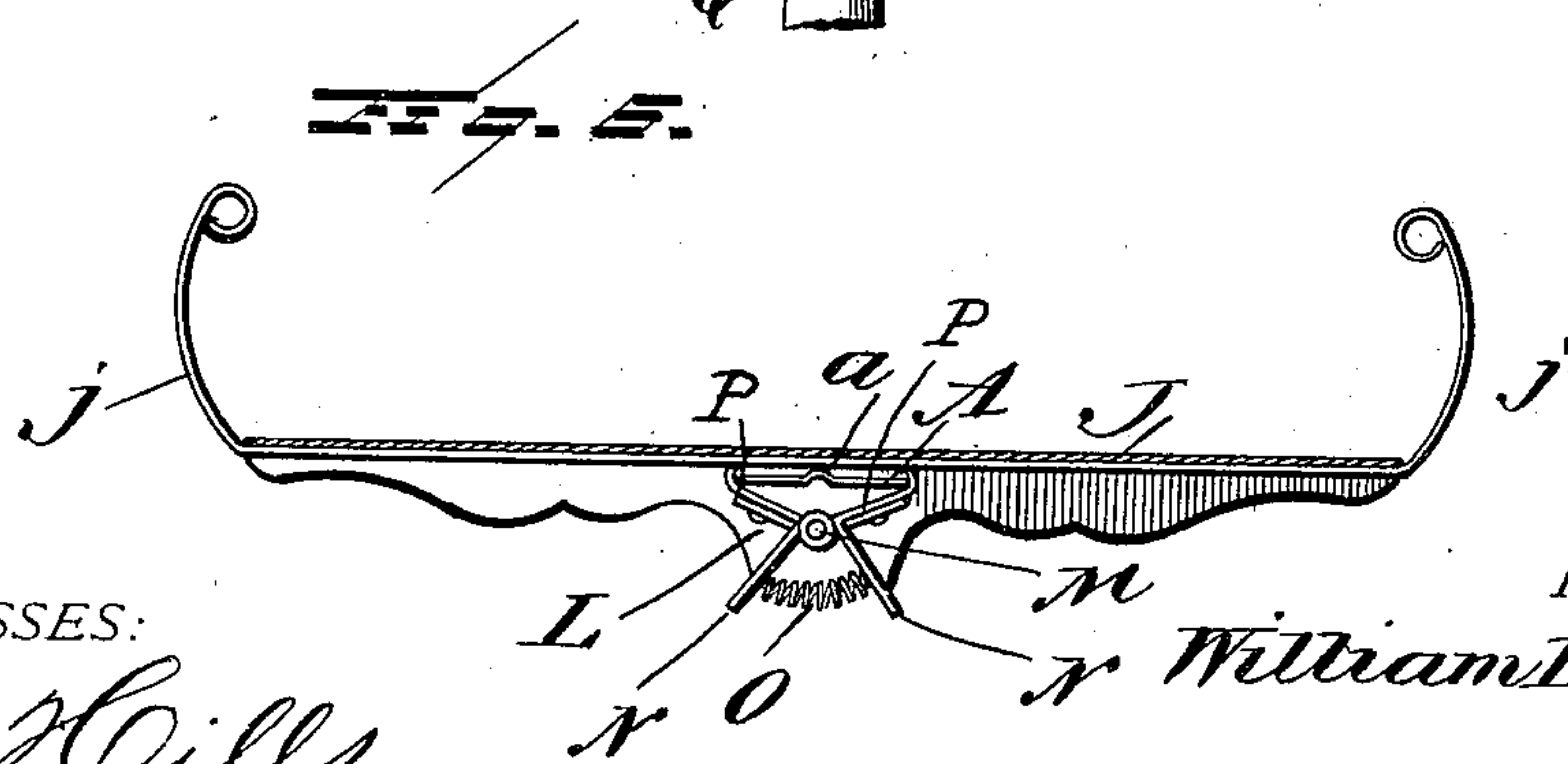
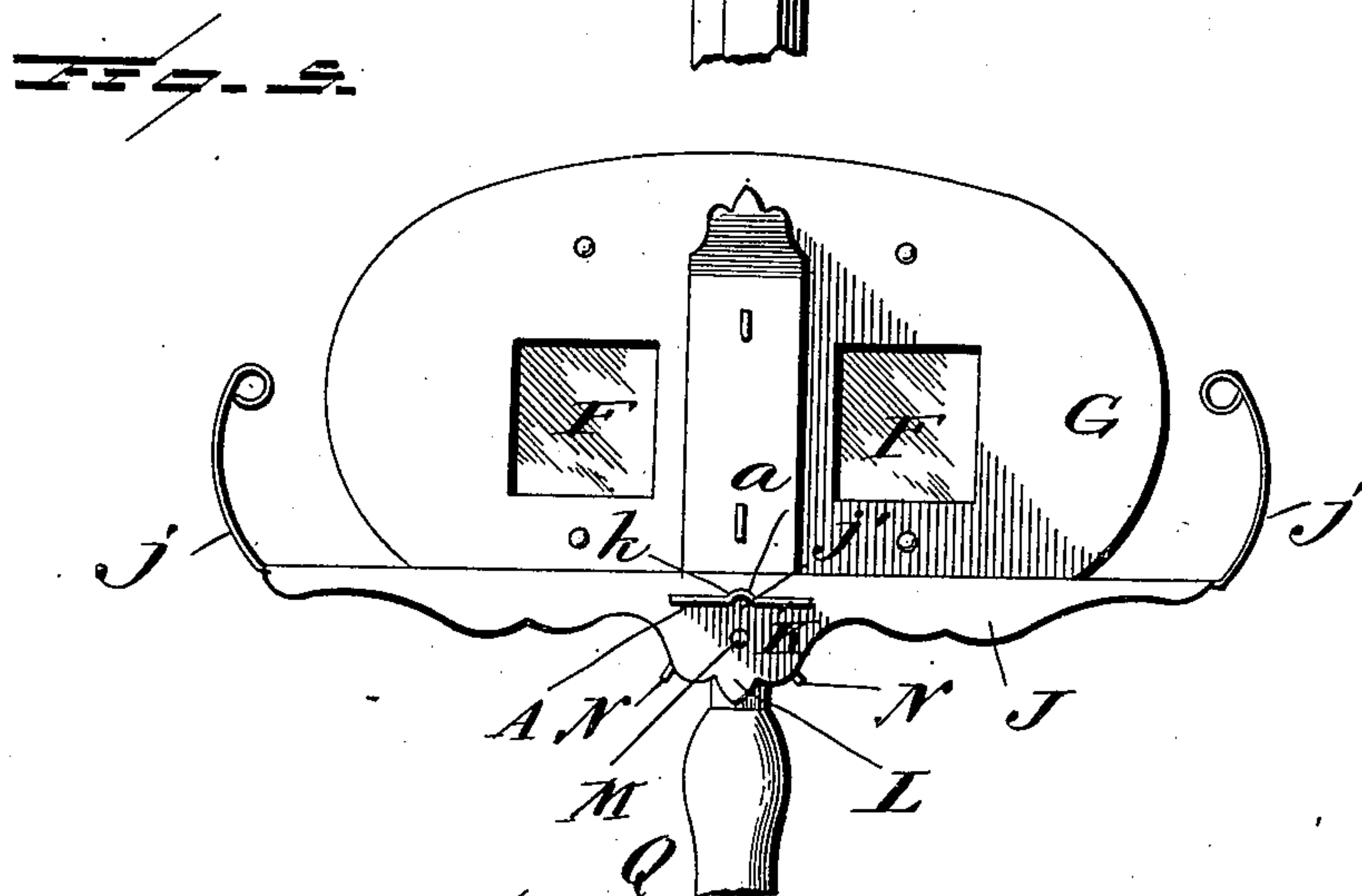
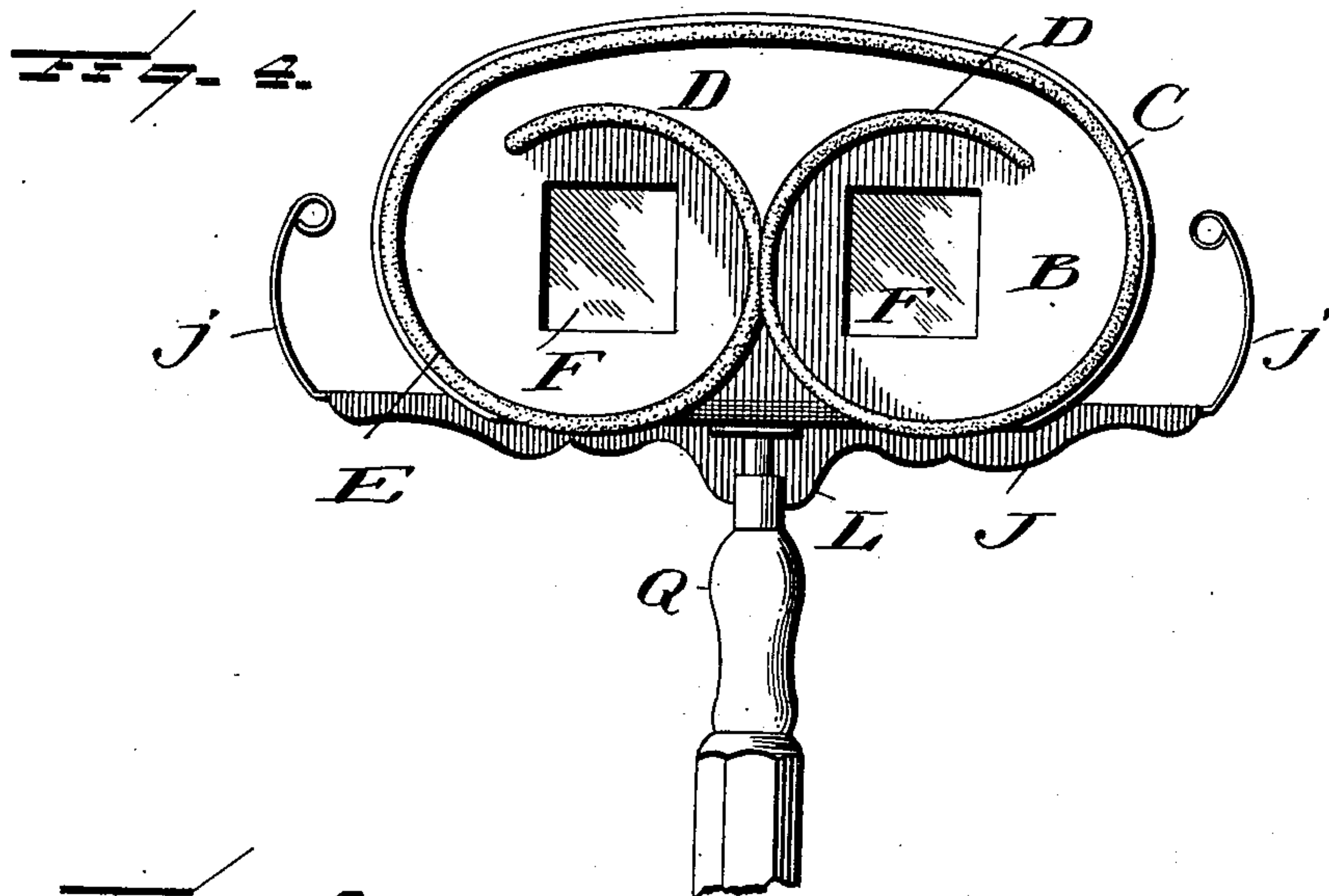
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UNITED STATES PATENT OFFICE.

WILLIAM HARVEY LEIGH, OF MEADVILLE, PENNSYLVANIA.

STEREOSCOPE.

SPECIFICATION forming part of Letters Patent No. 665,610, dated January 8, 1901.

Application filed June 2, 1900. Serial No. 18,834. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HARVEY LEIGH, a citizen of the United States, residing at Meadville, in the county of Crawford and State of Pennsylvania, have invented certain new and useful Improvements in Stereoscopes; and I 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 appertains to make and use the same.

This invention relates to certain new and useful improvements in portable stereoscopes; and it has for its objects, among others, to provide an improved device of this class which shall be light, strong, and durable and in which the light will be excluded from the hood, which latter is provided with bridge-pieces or coils and having means for controlling the movements of the view-slide and preventing its wobbling from side to side.

The stereoscope is made throughout of aluminium frosted or provided with a satin finish to prevent any reflection, and the shaft and lens-frame are formed of a single piece which embodies great strength with lightness. The hood and its coils also I form of a single piece, so shaped that it fits the face and excludes the light from the interior of the hood, thus making the view through the lenses very brilliant. The view-slide is so constructed and adjusted to the shaft as to slide thereon freely without wobbling laterally, and a novel form of spring holding device is provided for holding the slide in its adjusted position and serving to prevent the lateral movement above mentioned. The lenses are held in position between the lens-frame and a plate, which latter serves to stop the light from going through into the hood between the same and the lens-frame.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a side elevation of my improved stereoscope. Fig. 2 is a substantially central vertical longitudinal section through the

same. Fig. 3 is a bottom plan. Fig. 4 is an end view looking into the hood. Fig. 5 is a view looking at the opposite end. Fig. 6 is a vertical cross-section through the view-slide with other parts removed, showing a modified form.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates the shaft, and B the lens-frame. They are formed of one and the same piece stamped or otherwise shaped to the required form and preferably of aluminium, which is frosted to prevent any reflection which would tend to destroy the efficiency of the scope.

C is the hood. It is likewise formed of a single piece of metal, preferably aluminium, so shaped as to fit the face, and formed integral therewith are the coils or bridge-pieces D, which are of the shape shown best in Fig. 4, being sprung into place and bearing on the outer face of the lens-frame and against each other, where they are securely held by friction and require no other fastening means. The edge of the hood, as well as the edge of these coils, may, if desired, be covered with some soft material, as velvet or the like, as seen at E. The hood is secured to the lens-frame in any suitable manner.

F represents the lenses. They are secured in position by the plate or piece G, also of aluminium and between which and the lens-frame the lenses are retained. This plate or piece G is preferably secured in place by screws, as seen in Fig. 5, so that it may be readily removed to allow access to the lenses when required.

The shaft A is preferably of the shape in cross-section seen in Figs. 5 and 6, being provided longitudinally with the central elevation a and the recess a' on its under side, which serves to strengthen the shaft and further serves as a means for guiding and preventing side-to-side movement of the view-slide, as will be readily understood.

H is a partition secured to the upper face of the shaft centrally between the lenses and secured further, if necessary, to the plate G. It is made of frosted aluminium and prevents confusion when looking through the lenses at the views. It may be braced at its outer end

by the vertical piece I, to which it is secured and which is also by preference of frosted aluminium.

J is the view-slide. It is provided at the
5 ends with the yielding curved portions *j*, which are bifurcated at their upper ends, and the side portions of the bifurcations coiled or curved, as shown, to form elastic holders for the views. This slide is formed of aluminium
10 and is provided centrally with the aperture K, which is of a shape corresponding to the cross-section of the shaft, having the central recess *k* to receive the rib or elevation of the shaft, which serves to prevent wobbling of
15 the slide in its movements along the shaft or when in its fixed position. The upper face of the slide is provided with the groove or depression *k'*, extending its full length, and into which the lower edge of the view is designed
20 to drop and be held. This groove or depression is in alinement with the bifurcations at the ends of the slide. Depending centrally from the slide are the portions L, in which is held the pivot-pin M, in vertical alinement
25 with the groove in the slide, and on this pin are pivoted the two thumb-pieces N, between the free ends of which is arranged the spring O, while their other ends carry the jaws P, which are designed to grasp and en-
30 gage the opposite edges of the shaft A, as seen clearly in Fig. 6. The slide is preferably formed with an upwardly-extending lug *j'* to enter the groove *a'* on the under side of the shaft to aid in steadying the slide in its move-
35 ments.

Q is the handle, which may be of any desired form and attached to the shaft by a hinge or pivot of any well-known or preferred form, so the handle may be moved to any
40 angle desired or folded against the under side of the shaft for packing or storage purposes.

From the foregoing it will be seen that I have devised a novel, strong, and attractive
45 stereoscope; but while the structural embodiment herein illustrated and described is believed at this time to be preferable I do not desire to limit myself thereto, but reserve the right to effect such changes, modifications, and variations as may come properly within
50 the scope of the protection prayed.

The portions *j* may be in one piece with the slide, as seen in Fig. 5, or separate therefrom, as in Fig. 6.

What I claim as new is—

55 1. In a stereoscope a lens-frame having a hood of aluminium with coils frictionally held within the hood with the adjacent portions of

the two coils bearing against each other with spring tension.

2. In a stereoscope a lens-frame having a 60 hood with coils integral therewith and frictionally held therein by contact of their adjacent portions.

3. In a stereoscope a shaft with lens-frame and hood, and a slide movable along the shaft 65 and means pivoted on the slide to engage the edges of the shaft for preventing lateral movement of said slide.

4. In a stereoscope a shaft with a longitudinal rib, and a view-slide movable along the 70 shaft and having a recess to receive said rib.

5. In a stereoscope a shaft having a rib and a longitudinal groove, and a view-slide having a groove to receive said rib and a lug to engage said groove. 75

6. In a stereoscope, a shaft, a view-slide movable therealong, and spring-controlled devices pivoted on the said slide for engaging the opposite edges of the shaft.

7. In a stereoscope, a shaft and lens-frame 80 formed integral, with the frame at substantially right angles to the shaft, a hood secured to the lens-frame, and coils integral with the hood and sprung into position and bearing on the outer face of the lens-frame 85 and against each other, as set forth.

8. In a stereoscope, a shaft and lens-frame formed integral, with the frame at substan- 90 tially right angles to the shaft, a hood secured to the lens-frame and coils integral with the hood and sprung into position and bearing on the outer face of the lens-frame and against each other and held solely by frictional contact of their adjacent curved portions, as set forth. 95

9. An aluminium stereoscope consisting of a shaft and a lens-frame in a single piece of aluminium, an aluminium hood secured to the lens-frame and having formed integral therewith coils or bridge-pieces bearing on 100 the outer face of the lens-frame and against each other and frictionally held, a lens-securing plate of aluminium, a partition on the shaft between the lenses and secured to said plate, and a view-slide of aluminium adjust- 105 able on the shaft, all substantially as shown and described.

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

WILLIAM HARVEY LEIGH.

Witnesses:

JAS. J. PALMER,
J. A. SPITLER.