

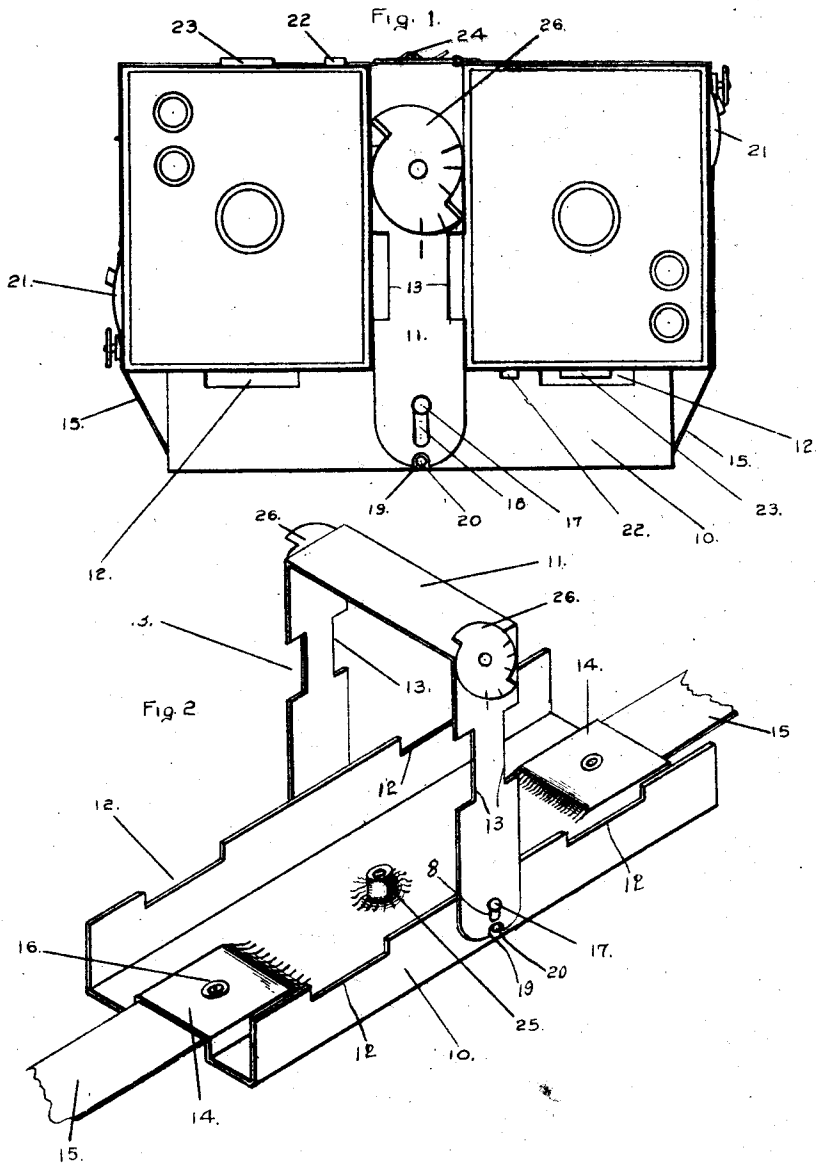
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J. C. N. RICHARDS

DEVICE FOR MAKING STEREOSCOPIC PHOTOGRAPHS

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DEVICE FOR MAKING STEREOSCOPIC PHOTOGRAPHS.

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To all whom it may concern:

Be it known that I, JOHN C. NORMAN RICHARDS, a citizen of the United States, residing at Lincoln, in the county of Lancaster and State of Nebraska, have invented certain new and useful Improvements in a Device for Making Stereoscopic Photographs, of which the following is a specification.

My invention relates to a device whereby a photographer is enabled to produce stereoscopic photographs by the use of two similar cameras.

One of the objects of my invention is the provision of a device which is simple in the extreme and which can be quickly placed in working position and as quickly taken down.

Another of my objects is to produce a device which occupies the minimum amount of space both when in use and when packed.

Another of my objects is the provision of a device which can be manufactured and sold at a price which is within the reach of all owners of cameras.

Another object is the provision of adjusting devices whereby the stereoscopic effect can be increased or decreased at will.

I also provide means whereby the device with the cameras may be mounted on a tripod, or placed on a flat surface, or held in the hands while taking the picture.

Having in view these and other objects which will appear in the description, I will now refer to the drawings, in which—

Figure 1 is a front elevation of my device in operative position with two cameras attached thereto, and

Figure 2 is a view in isometric projection of the device alone.

The device comprises a base 10 and a bail-shaped camera spacer 11. Notches 12 and 13 are cut in the base and spacer respectively, the purpose of which notches will be fully explained in connection with the explanation of the manner of using the device. The base is bent up at both of its ends at 14, leaving a small recess thereunder for the reception of the end of a strap 15. I prefer to secure to the base and in each recess one element of a snap button 16, the companion elements of the buttons being secured to the ends of the strap. The strap 15 may be made of either elastic or inelastic web, or of rubber or similar material, or of a suitable metal.

I have shown the bail-shaped spacer as pivoted to the base 10 at 17, the pivot pin

being secured to the base. At the lower extremities of the legs of the spacer I punch elongated slots 18, and in line with these slots I cut notches 19 to cooperate with pins 20 secured to the base. The spacer would function perfectly if secured in fixed position to the base, but by means of the above described arrangement of parts I provide a compact, folding structure. By slightly raising the spacer from the position shown, the notches 19 are disengaged from the pins 20, after which the spacer can be folded on the base, with the horizontal portion of the spacer extending beyond and in line with the end of the base.

In the use of the device, the spacer is moved to the position shown in the drawings and the cameras are then placed in the position shown in Figure 1. The device which I have particularly shown and described is intended for use primarily with a box camera of the type of the Brownie No. 2 but it has a much wider range of adaptability, and by altering the dimensions and the proportions of parts, it can be made to serve with any type of camera. The two cameras used should however be as nearly alike as possible, especially as regards focal length of lens. The best results are of course obtained by the use of two cameras of the same type and make, since such cameras are practically identical.

Figure 1 shows the two cameras mounted for making pictures whose vertical length is greater than their horizontal width. For this position one of the cameras is mounted in the position in which it would be held in the hand, but the other camera is mounted up side down. By mounting them in this way all camera controls are easily accessible without disturbing the arrangement. Especially is this true of the shutter releases which are thus on opposite sides where they can be actuated simultaneously by the thumbs of the two hands. The film winding keys are on the same sides as the shutter releases and are therefore equally accessible. The "time" controls 22 are both forward of my device and on the top and bottom sides of the respective cameras, and are thus within convenient reach of the operator. The same thing is true of the diaphragm slides, which are located in proximity to the "time" controls and immediately forward of the handles 23. In the upright camera the handle 23 is on the upper side but in the other

camera the handle is on the bottom side. The notches 12 provide ample clearance for the handle which is at the bottom. In this arrangement the view is obtained from the
 5 view finder of the upright camera.

If it is desired to take horizontal pictures, both cameras are turned over so that the shutter releases of both cameras are on the top sides. Both winding keys as well as the
 10 horizontal view finders of both cameras will likewise be on the top sides. The handle of one of the cameras will be adjacent the spacer, but the notches 13 permit the handle to rest therein without disturbing the
 15 adjustment of the cameras. The spacer 11 is wide enough to provide ample clearance for the "time" and diaphragm controls when it is desired to use either or both of these controls.

20 It should also be noted that in most box cameras the film changing devices are at the rear end of the box, thus making it possible to change films without in any way disturbing the arrangement.

25 Regardless of the position of the two cameras, they are held in place by means of the strap 15. One end of the strap is released before putting the cameras in place, and after the cameras are properly positioned
 30 the end of the strap is secured by means of its button. The strap may be passed either under or over the handle 23, as preferred. Primarily for the purpose of taking up slack, I secure a buckle 24 to the strap.
 35 When traveling, my device may be used as a film package. The device is first folded, a row of film spools is then placed therein, and the strap is finally drawn tight over the spools to hold them securely in place.

40 For use of the device with a tripod, I secure a standard tripod screw socket 25 to the base 10. The under side of the base is flat, thus enabling the photographer to mount the device with the cameras on any
 45 convenient level surface.

It sometimes becomes desirable to shift the cameras out of their parallel relation for the purpose of increasing or decreasing the stereoscopic effect or for other purposes.
 50 In order to provide means for thus shifting the cameras I have mounted a double cam 26 on the spacer 11. The cams 26 may be mounted intermediate the ends of the uprights as in Figure 1, or they may be mounted
 55 to protrude above the upper extremities of the uprights as in Figure 2. The turning of the cam 26 spreads the cameras at the ends adjacent the cam. Dial markings are provided to indicate the degree of the spread. I have duplicated the cam device
 60 on both ends of the spacer, having in view two separate objects in so doing. The duplication of the cam preserves the symmetry of my device and enables the photographer to use it without giving thought to

determine which end is the front and which end is the rear. Then too, it is occasionally desirable to space the cameras uniformly but more than the width of the spacer. This can be very easily done by turning both
 70 cams through equal arcs, as indicated on the dial markings.

I have merely by way of illustration, shown and described one form which my invention may take. The form shown is the
 75 preferred one, but it is obvious that it could be varied in a number of ways, and I reserve to myself the right to all equivalents of the structures which I disclose and claim.

Having fully described my invention and
 80 the manner in which it is used, what I believe to be new and desire to secure by Letters Patent of the United States is:—

1. Means for holding two similar cameras spaced in position for producing nega-
 85 tives of a stereoscopic nature, said means including a base for supporting the two cameras and a spacing element secured to said base in perpendicular relation thereto, said spacing element being adapted to laterally space the two cameras.

2. A device for holding two similar cameras in substantial parallelism comprising a base for the cameras, a spacer for spacing
 95 the cameras, said spacer being secured to the base, and a strap extending lengthwise of the base with its ends secured to the ends of the base, said strap being adapted to pass over both cameras to hold them
 100 securely against the base and the spacer.

3. A device for holding a pair of similar cameras in position for producing negatives of a stereoscopic nature, a base for supporting the cameras, a tripod socket in
 105 said base, a spacing element pivotally connected to said base and adapted to hold the cameras in spaced relation, means for latching the spacer in perpendicular relation to the base, said base and spacer being
 110 each provided with notches for the reception of the handles of the cameras, said base being also provided with recesses in its under side, a strap adapted to pass over the cameras to hold the cameras pressed against
 115 the base and the spacer, the ends of said strap being releasably secured in the recesses in the under side of the base, and means for shifting the cameras out of their normal parallel relation.

4. A device for holding a pair of cameras
 120 in position for producing negatives of a stereoscopic nature, said device comprising a base for supporting the cameras, a spacer for spacing the cameras, and means for holding the cameras against displacement
 125 from their position in contact with the base and the spacer, and a double cam device rotatably mounted at each end of the spacer.

In testimony whereof I affix my signature.

JOHN C. NORMAN RICHARDS.