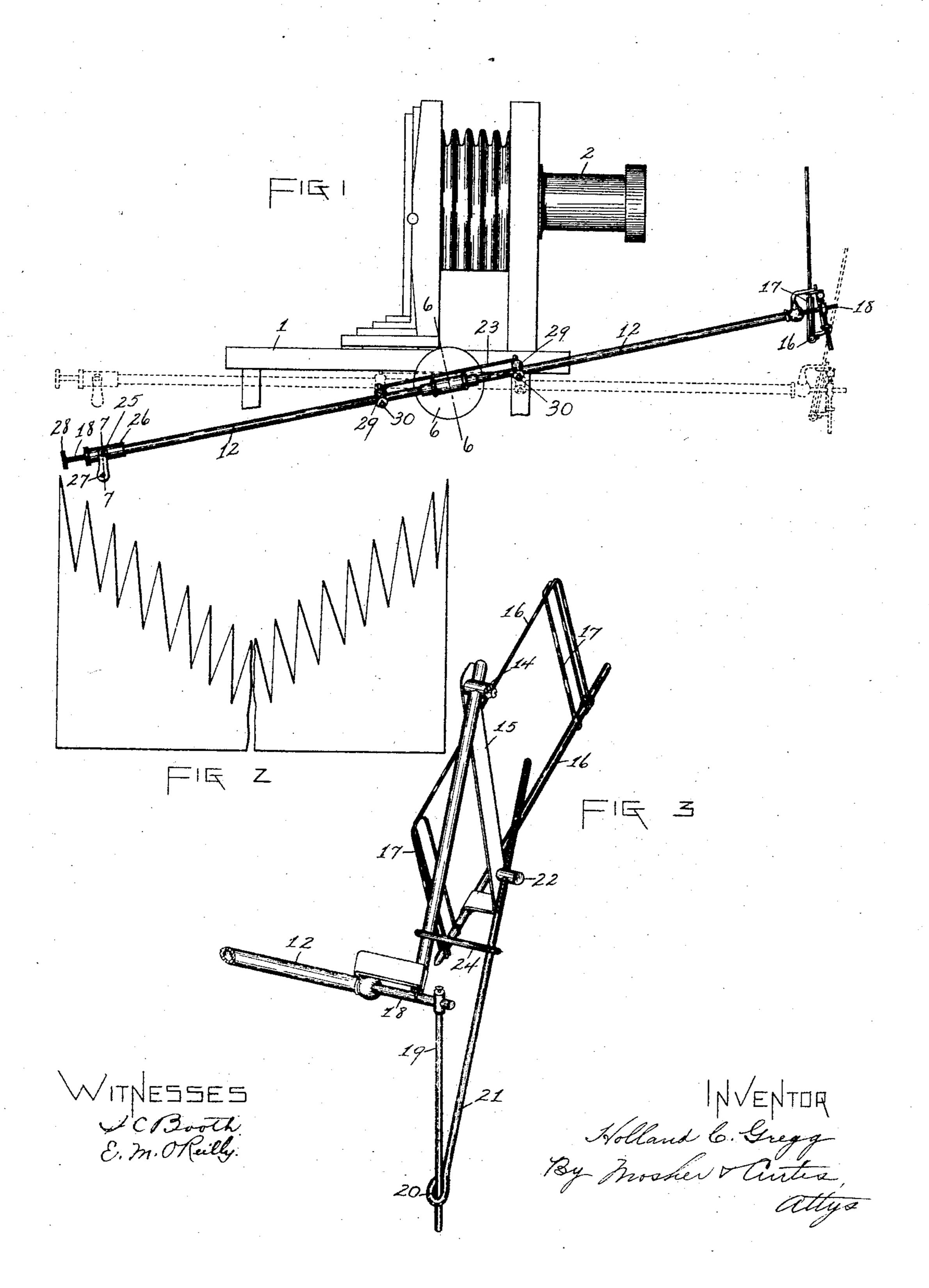
H. C. GREGG. VIGNETTER ATTACHMENT FOR CAMERAS.

APPLICATION FILED JAN. 22, 1904.

NO MODEL.

2 SHEETS-SHEET 1.



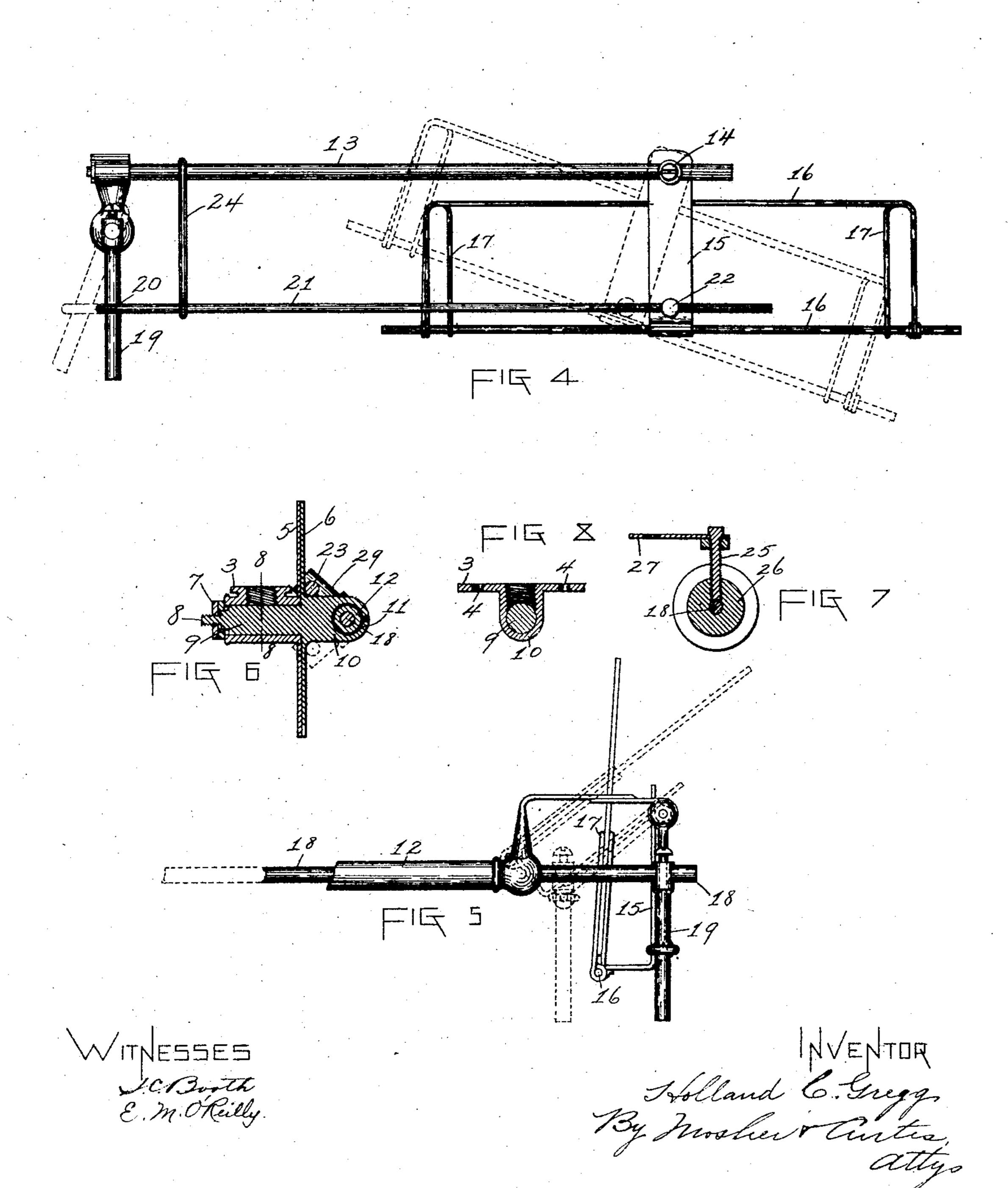
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2 SHEETS-SHEET 2.



United States Patent Office.

HOLLAND C. GREGG, OF TRUMANSBURG, NEW YORK, ASSIGNOR TO DANIEL H. AYERS, OF TROY, NEW YORK.

VIGNETTER ATTACHMENT FOR CAMERAS.

SPECIFICATION forming part of Letters Patent No. 765,477, dated July 19, 1904.

Application filed January 22, 1904. Serial No. 190,110. (No model.)

To all whom it may concern:

Be it known that I, Holland C. Gregg, a citizen of the United States, residing at Trumansburg, county of Tompkins, and State of New York, have invented certain new and useful Improvements in Vignetter Attachments for Cameras, of which the following is a specification.

The invention relates to such improvements; and it consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings and the reference characters marked thereon, which form a part of this specification.

Similar characters refer to similar parts in the several figures.

Figure 1 of the drawings is a view in side 20 elevation of a camera provided with my improved vignetting apparatus, the lower portion of the camera-standard being broken away. Fig. 2 is a plan view of the vignettercard with the middle portion thereof broken 25 away. Fig. 3 is a view in perspective of the vignetter - card supporting and operating mechanism, partly broken away. Fig. 4 is a view in elevation of said apparatus viewed from the front. Fig. 5 is a view in elevation 30 of the same viewed from the side and partly broken away. Fig. 6 is a cross-section taken on the broken line 6 6 in Fig. 1. Fig. 7 is a cross-section of the same, taken on the broken line 7.7 in Fig. 1. Fig. 8 is a cross-section 35 taken on the broken line 8 8 in Fig. 6.

The object of my invention is to provide a simple and easily-operated apparatus for securing any desired position of a vignetter-card relatively to the lens of the camera.

Referring to the drawings, 1 represents the bed, and 2 the lens-holder, of a camera, which may be of any known type.

The vignetter supporting and operating apparatus is mounted upon the bed of the camera by means of the bracket 3, secured to the under side of the bed adjacent to the right-hand-side edge thereof by means of screws inserted through the apertures 4 in said bracket, upon which bracket is fixed one member, 5, of

a pair of friction-disks, the other member, 6, 50 of which is held tightly against the member 5 by means of a nut 7, screwed upon the screw-threaded end 8 of a spindle 9, fixed upon the disk 6 and extending through a horizontal aperture in the bracket 3. The friction-55 disk 6 is provided with an outwardly-projecting stud 10, formed with a cylindrical aperture 11, the axis of which is in a plane parallel with the plane of said disk 6, said aperture being adapted to receive and form a slide-60 way for the hollow slide-rod 12, which is capable of rotative and longitudinal reciprocative movements therein.

Upon the front end of the slide-rod 12 is mounted a rock-shaft 13, which projects at 65 right angles therefrom, upon the end of which rock-shaft is pivotally mounted at 14 the vignetter-card holder or frame 14, which may be of any desired form adapted to support a vignetter-card. The pivotal connection 4 is such 70 that its axis is in fixed relation to the rockshaft 13. I have shown said card-holder formed in part of a wire frame 16 of general rectangular form, provided near its ends with wire clips 17, between which clips and the 75 ends of the wire frame the lower edge of the card may be inserted and held. Various movements can be imparted to the card-holder by means of the operating-rod 18, which extends through the hollow slide-rod 12 and is capa- 80 ble of rotative and longitudinal reciprocative movements therein. The front end of the operating-rod 18 projects beyond the front end of the slide-rod 12 and is provided on its projecting end with an arm 19, fixed thereon and 85 projecting therefrom at right angles. The arm 19 projects loosely through an eye 20 in one end of rod 21, which passes loosely through a hanger 24, depending from and fixed upon the rock-shaft 13, the end of said rod 21. 90 being fixed to a stud or pin 22, pivotally mounted upon the middle portion of the card holder or frame near the lower edge thereof. A rocking movement of the operating-rod 18 will thus cause oscillating movements of the 95 card-holder through the arm 19 and rod 21, as indicated by dotted lines in Fig. 4, the stud 22 rotating upon the frame of the card-holder

to permit such oscillating movements. Reciprocating movements of the operating-rod 18 impart to the rock-shaft 13 rocking movements through the hanger 24, which rocking 5 movements are imparted to the card-holder, as shown by dotted lines in Fig. 5. It will thus be seen that by means of the operatingrod 18 the vignetter-card can be turned to occupy various positions without changing the to plane of the card, as well as positions in different planes, in all of which said positions the card as a whole remains at the same distance from the axial line of the lens and the same distance from the lens of the camera. The 15 card when thus adjusted to the desired position can be maintained therein by locking the operating-rod 18 securely to the slide-rod 12, as by means of the set-screw 25 inserted through the enlarged end 26 of the slide-rod 20 12 into engagement with said operating-rod, as shown in Fig. 7, whereby the operatingrod is secured against both rotative and reciprocative movements in the slide-rod 12. The set-screw 25 is shown provided with a 25 handle 27, whereby the same may be conveniently operated.

The rear end of the operating-rod 18 projects from the rear end of the slide-rod 12 and is provided with an operating-handle 28.

The vignetter-card may be located at different distances from the lens of the camera by longitudinal reciprocating movements imparted to the slide-rod 12 without changing the position of the card relatively to said slide-rod. The card can also be supported at different distances from the axial line of the lens by rotating the friction-disk 6 upon the disk 5, whereby any desired elevation of the card may be secured. The frictional engage-40 ment of the disks 5 and 6 with each other is sufficient to maintain them in adjusted position.

Fixed upon the middle portion of the sliderod 12 is a rod 28, parallel therewith, adapted 45 to be forced into engagement with the upper portion of the friction-disk 6 by the weight of the card-support when located in a position for use in front of the camera and to be forced into engagement with the lower por-50 tion of said disk, as indicated by dotted lines in Fig. 6, by the weight of said holder when the same is moved out of operative position by a rocking movement of the slide-rod 12, whereby the card-holder is swung around to 55 one side of the camera out of the field of the lens.

12, with its slideway, in the stud 10, assisted by the frictional engagement of the rod 23 60 with the disk 6, serves to maintain the sliderod 12 against longitudinal movement, whereby said rod is supported in the desired position of adjustment secured by forcible longitudinal movement thereof.

The rod 23 is mounted upon the slide-rod

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12 by means of clips 29, secured by set-screws 30, permitting the rod 23 to be secured to the rod 12 at various points in the length of the latter as well as in various positions of rotative adjustment thereupon.

It will be understood that the position of rotative adjustment in which the rod 23 is secured upon the rod 12 is such that when the rod 23 rests against the upper portion of the disk 6 the vignetter-card will be supported 75 in the desired position in the field of the lens.

It will thus be seen that every possible adjustment of the vignetter-card can be accomplished through the handle 28 of the operating-rod 18, which when released by the set- 80 screw 25 can be rotated and reciprocated relatively to the slide-rod 12 and when locked by the set-screw 25 can be used to impart the desired movement to the slide-rod 12.

What I claim as new, and desire to secure 85 by Letters Patent, is—

1. In an apparatus of the class described, the combination with a slideway adapted to be mounted upon a camera; of a hollow slide-rod adapted to be reciprocated in said slideway; 90 an operating-rod extending through said sliderod capable of rotative and reciprocative movements therein, and having on its rear end an operating-handle located exteriorly of said slide - rod and movable independently 95 thereof both rotatively and reciprocatively; detachable means for locking said operatingrod to said slide-rod in different positions of rotative and reciprocative adjustment; an offset on the front end of said slide-rod; a vign- 100 etter-card holder movably mounted upon said offset; and operating connections between the front end of the operating-rod and said cardholder.

2. In an apparatus of the class described, 105 the combination with a slideway rotatively mounted upon a camera; of a hollow slide-rod adapted to be reciprocated in said slideway: an operating-rod extending through said sliderod capable of rotative and reciprocative 110 movements therein, and having on its rear end an operating-handle located exteriorly of said slide-rod; detachable means for locking said operating-rod to said slide-rod in different positions of rotative and reciprocative ad- 115 justment; an offset on the front end of said slide-rod; a vignetter-card holder movably mounted upon said offset; and operating connections between the front end of the operating-rod and said card-holder.

3. In an apparatus of the class described, The frictional engagement of the slide-rod | the combination with a slideway adapted to be mounted upon a camera; a hollow sliderod movable in said slideway; an operatingrod extending through said slide-rod and ca- 125 pable of rotative and reciprocative movement therein; detachable means for locking said operating-rod to said slide-rod in different positions of rotative and reciprocative adjustment; a rock-shaft offset from the front end 13°

120

of said slide-rod; a vignetter-card holder pivotally mounted upon said rock-shaft to swing on an axis at right angles to said shaft; an arm on the front end of said operating-rod; a connection between said arm and said card-holder whereby rocking movements of the operating-rod cause movements of oscillation of said card-holder; and a connection between said operating-rod and said rock-shaft whereby reciprocating movements of the operating-rod cause rocking movements of said shaft.

4. In an apparatus of the class described, the combination with a rod; means for rotatively mounting said rod upon a camera, and means for imparting a rotative movement to said rod; of vignetter-card supporting and operating mechanism offset from said rod; and stop mechanism for limiting the rotative movement of said rod.

o 5. In an apparatus of the class described, the combination with a slideway; and a pair of friction-disks rotatively secured together, one fixed to said slideway and the other adapt-

ed to be mounted upon a camera; of a hollow slide-rod adapted to be reciprocated in said 25 slideway; an operating-rod extending through said slide-rod capable of rotative and reciprocative movements therein, and having on its rear end an operating-handle located exteriorly of said slide-rod and movable inde- 30 pendently thereof both rotatively and reciprocatively; detachable means for locking said operating-rod to said slide-rod in different positions of rotative and reciprocative adjustment; an offset on the front end of said slide- 35 rod; a vignetter-card holder movably mounted upon said offset; and operating connections between the front end of the operating-rod and said card-holder.

In testimony whereof I have hereunto set 40 my hand this 6th day of January, 1904.

HOLLAND C. GREGG.

Witnesses:

GEO. B. TURNER, F. P. ERNSBERGER.

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