

C. A. BIRDSALL.  
 PHOTOGRAPHIC VIGNETTER.  
 APPLICATION FILED DEC. 14, 1907.

900,650.

Patented Oct. 6, 1908.

2 SHEETS—SHEET 1.

Fig. 1.

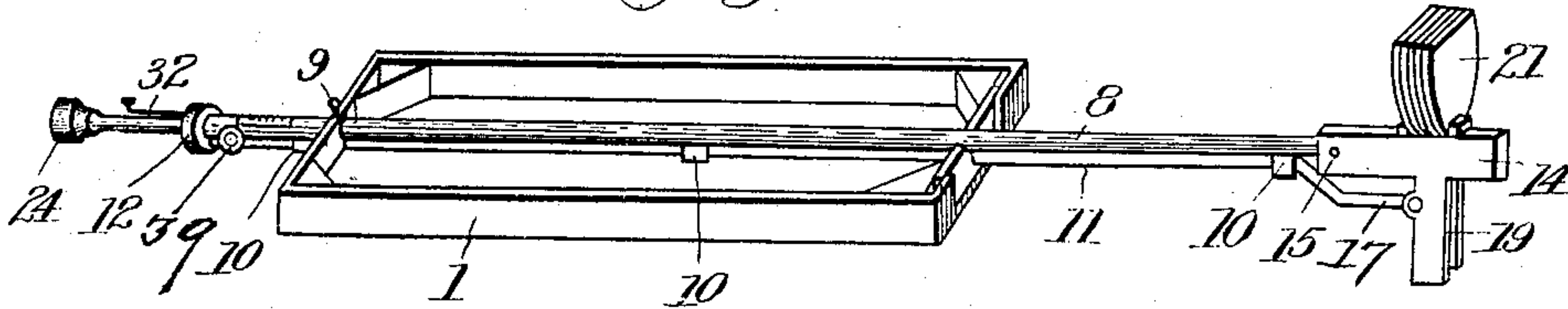


Fig. 2.

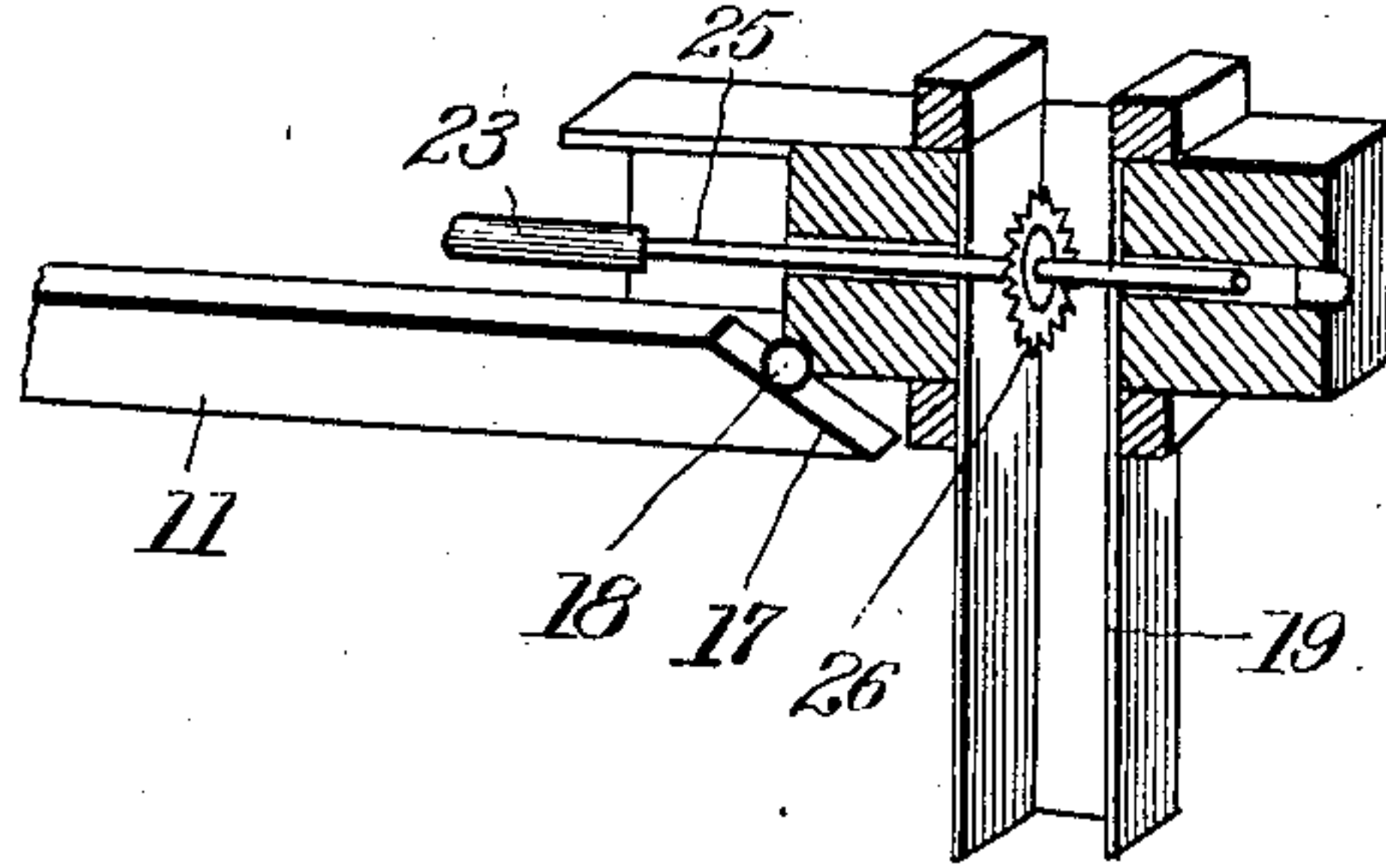


Fig. 3.

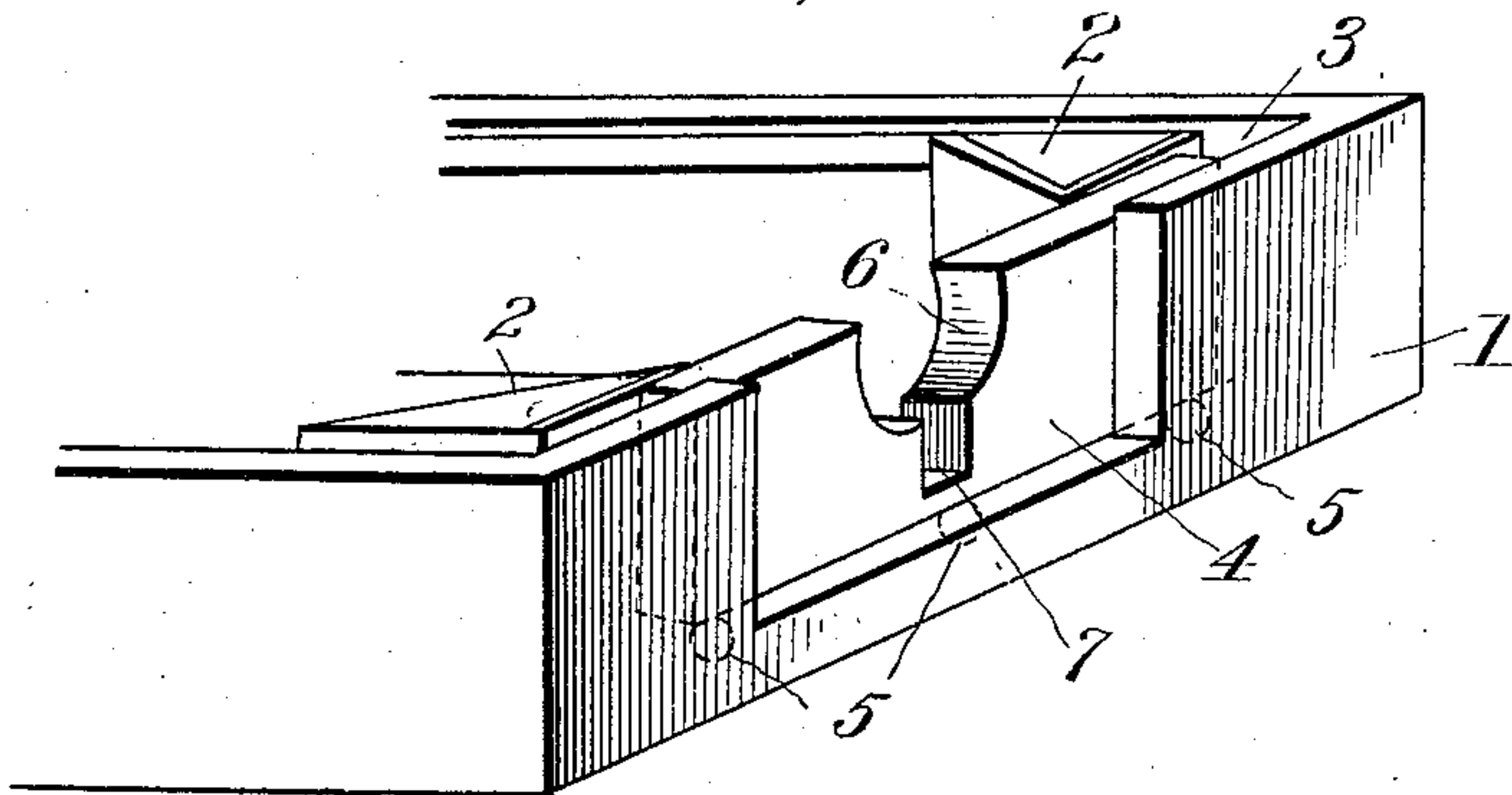
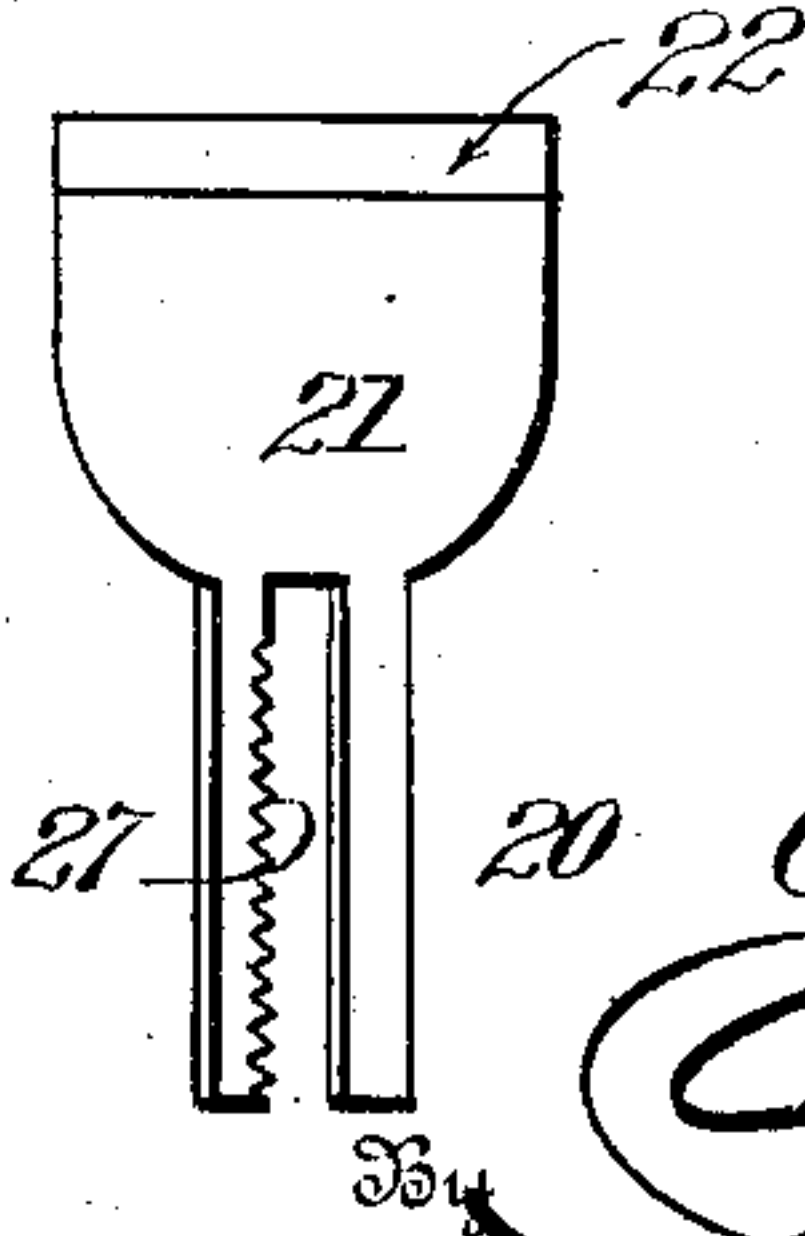


Fig. 4.



Witnesses  
 C. H. Walker  
 M. E. Moore

Inventor  
 Charles A. Birdsall  
 J. M. Moore  
 Attorney

C. A. BIRDSALL.  
 PHOTOGRAPHIC VIGNETTER.  
 APPLICATION FILED DEC. 14, 1907.

900,650.

Patented Oct. 6, 1908.

2 SHEETS—SHEET 2.

Fig. 5.

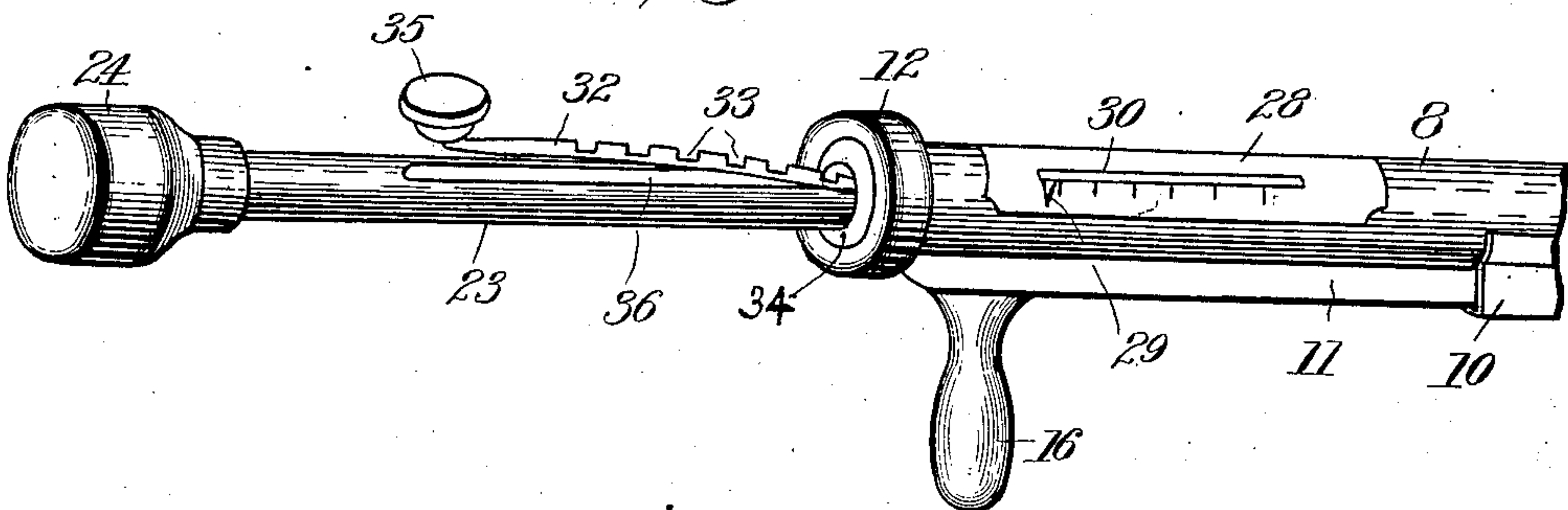


Fig. 6.

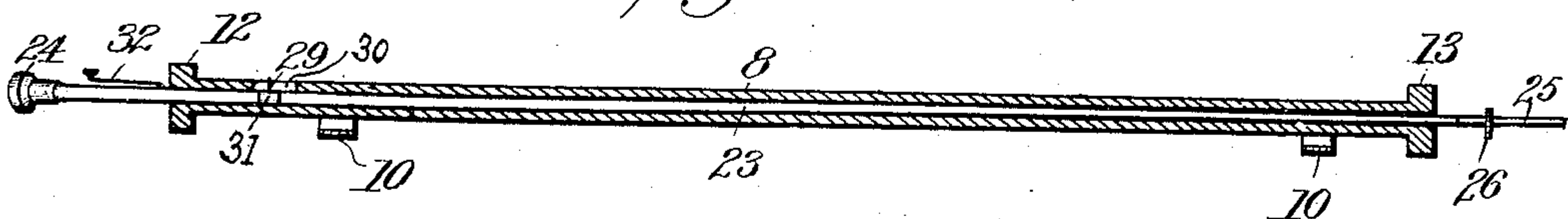


Fig. 7.

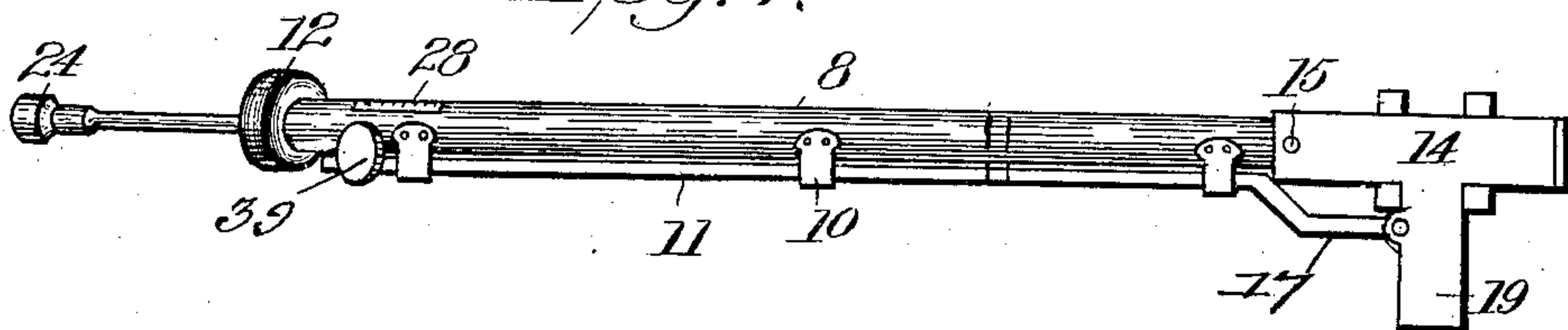


Fig. 8.

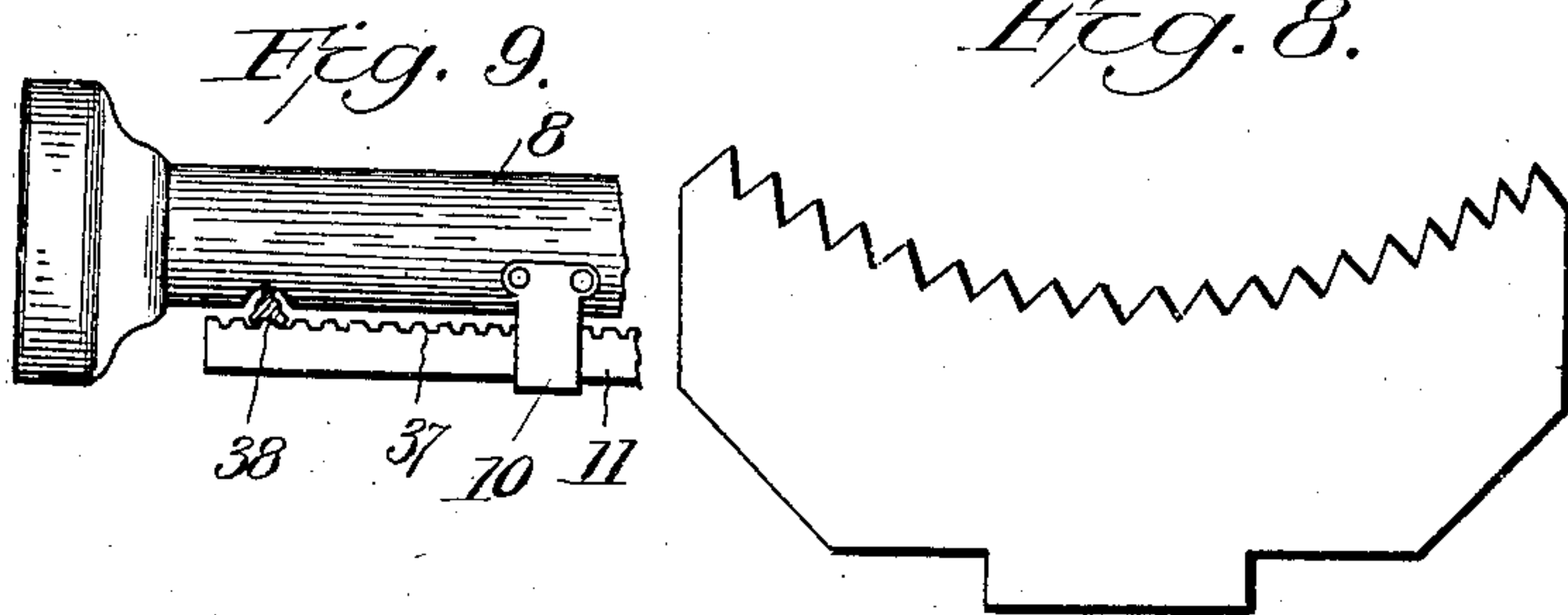
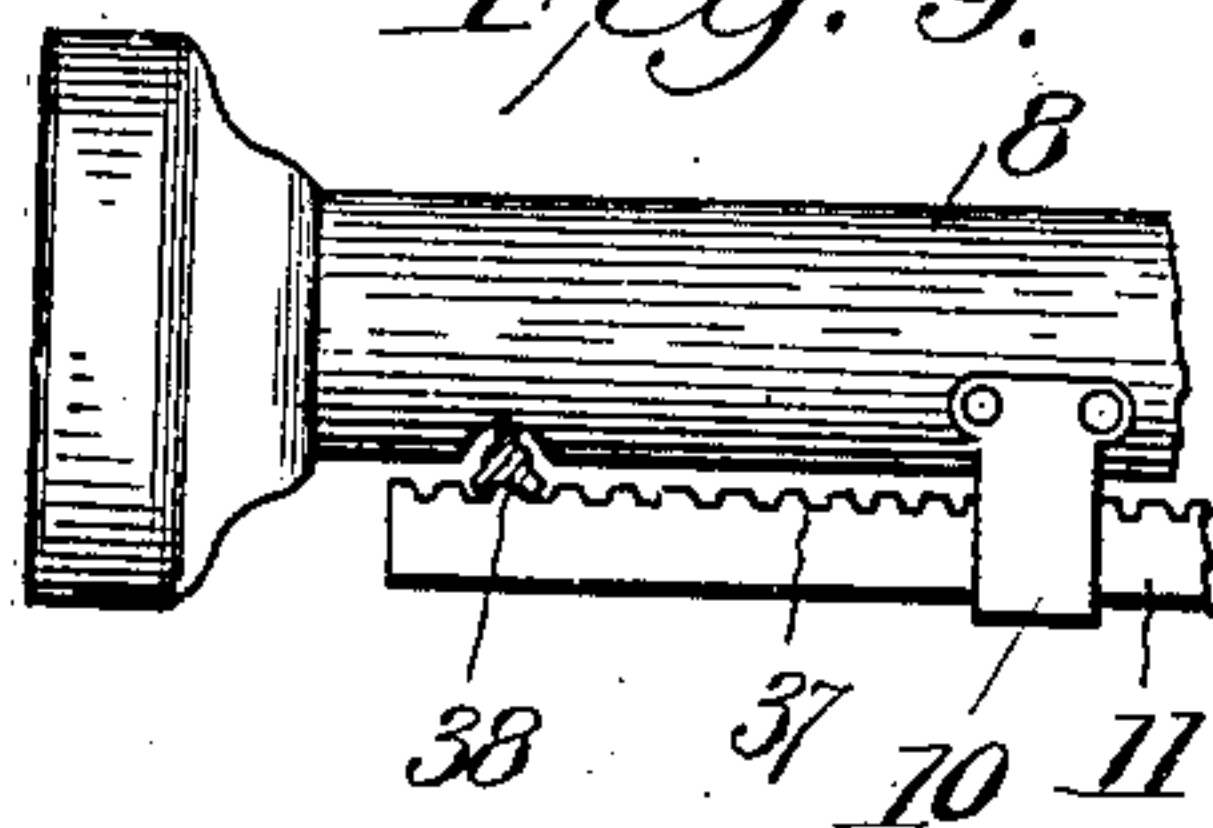


Fig. 9.



Witnesses  
*C. H. Walker,*  
*M. E. Moore*

Inventor  
*Charles A. Birdsall*  
 By *Opus Moore*  
 Attorney



# UNITED STATES PATENT OFFICE.

CHARLES A. BIRDSALL, OF HOLDEN, MISSOURI, ASSIGNOR OF ONE-HALF TO RICHARD HENRY TATLOW, OF HOLDEN, MISSOURI.

## PHOTOGRAPHIC VIGNETTER.

No. 900,650.

Specification of Letters Patent.

Patented Oct. 6, 1908.

Application filed December 14, 1907. Serial No. 406,476.

*To all whom it may concern:*

Be it known that I, CHARLES A. BIRDSALL, a citizen of the United States, residing at Holden, in the county of Johnson and State of Missouri, have invented certain new and useful Improvements in Photographic Vignettters, of which the following is a specification.

My invention relates to improvements in photographic vignettters, and refers to that particular type known as "before-the-lens vignetter", the main and principal object of my invention being to provide a device of this character having a number of vignetting cards or shields of different shapes, sizes and colors to meet with all the requirements of the photographer and to provide practical and simple mechanism for manipulating the various cards or shields.

Another object of my invention is the provision of a device of the character set forth which may be manipulated by the operator during the focusing operation without in any way interfering with such operation, so that the different effects may be observed and studied out while the operator is screened behind the focusing cloth, all adjustments being accomplished while the operator is thus screened so that the operator is enabled to produce the best results possible.

Another object of the invention is to produce a support for the vignetting cards or shields by means of which such shields may be adjusted toward or away from the lens of the camera, angularly in a horizontal plane, vertically or angularly in a vertical plane, and tiltingly with respect to the lens.

A further object of my invention is to provide a device for the purposes stated which may be readily mounted upon the camera stand or support and which will be efficient and satisfactory in every particular.

With the above and other objects in view my invention comprises an adjustably mounted support, a series of card holders carried thereby, operating mechanism also carried by the support for adjusting any of the card holders at will, indicating means to assist in operating the desired card holders, and means for further adjusting the card holders and support.

My invention also consists of a vignetting appliance embodying certain other novel features of construction, combination and arrangement of parts substantially as dis-

closed herein and as illustrated in the accompanying drawings, in which:

Figure 1, is a perspective view of the complete device. Fig. 2, is a sectional view of the support for the card holders and the mechanism for adjusting the said holders. Fig. 3, is a detail view of the supporting bed or frame of the device. Fig. 4, is a detail view of one of the card holders. Fig. 5, is a detail view of the rear end of the tubular support showing a modified form of tilting rod, the forward end of this form of tilting rod being shown in Fig. 2. Fig. 6, is a longitudinal sectional view of the supporting tube. Fig. 7, is a detached view of the tubular support. Fig. 8, is a detail view of one of the vignetting cards. Fig. 9, is a broken detail view of the rack and pinion mechanism for operating the tilting rod.

In studio photography, a vignetter or vignettters are necessary adjuncts, and it is also necessary to have vignetting shields or screens of different sizes, colors and shapes to match the different subjects and backgrounds to produce the proper effects. It is frequently necessary to change these screens and this changing of screens has always occupied considerable time and caused delay and the photographer has been obliged to readjust the different parts after each change. These objections have all been obviated by my invention as will become evident from an understanding of the invention.

In the drawings: The numeral 1, designates the frame or support for the complete device which is mounted upon the camera stand and forms a base to seat the camera, the camera frame resting upon the cleats 2, carried by such base. A transverse guideway 3, is provided at the forward end of the base in which is slidably confined the supporting block or slide 4, the slide bearing upon the balls 5, so as to have free movement within the guideway. A substantially semi-circular notch or recess 6, is formed in the upper edge of the slidable supporting block, from which leads the narrower angular slot or recess 7. A supporting tube 8, passes through an opening in the rear end of the box and rests in the semi-circular recess in the slidable block. This supporting tube is adjustable longitudinally on the base and may be held in its adjusted position by means of the set screw 9.



Depending brackets or loops 10, carried by the tube serve to slidably support the tilting stick or rod 11, beneath the tube, this rod being received in the angular portion of the seat in the sliding block. The tube is loosely held in the seat in the sliding block and in the opening in the rear end of the base so that by giving the rear end of the tubular support a slight angular movement the slidably support for the forward end of the tube allows the tube to be adjusted laterally with respect to the lens of the camera.

The supporting tube is provided with an annular rim 12, at its rear end for operating the same and with an upstanding pivot lug or extension 13, at its forward end. A head 14, is provided, having sides or wings to embrace the pivot lug on the end of the tube and the pivot pin 15, serves to pivotally hold the head on the end of the tube. The tilting rod is operated by the thumb screw 39, which carries the pinion 38, on its inner end, said pinion meshing with the rack 37, on the rod, and said rod has the downwardly offset forward end 17, connected to the depending portion of the head, so that by sliding the tilting rod in either direction, the head may be tilted up or down. The head is provided with a hollow downwardly projecting angular extension 19, which forms a guideway to receive the bifurcated ends or legs 20, of the card or screen holders 21. These card holders are comparatively thin so that a number of them may be received in the guideway of the head and they are each provided with a band 22, at their upper ends to form a seat for the reception of the vignetting cards 22. The head may be made to accommodate six, twelve, or any other number of card holders and the cards carried by the different holders would of course vary in size, shape and color to suit all the ordinary requirements of the photographer.

A flexible operating shaft or rod 23, is mounted in the tube and is provided on its rearward end with an operating knob or enlargement 24. This rod is preferably made of ratan, tapering in length as shown, but any other shafting possessing the desired flexibility may be used. A short rigid piece of shafting 25, is secured to the forward end of the flexible shafting and is journaled in the head, the rigid piece of shafting carrying the pinion 26. The flexible shafting thus permits angular adjustment of the head with respect to the tubular support. One leg of each of the card carriers or holders is provided with teeth 27, on its inner edge, forming a rack to be engaged by the pinion. The operating rod is shifted longitudinally in the tube to cause the pinion to mesh with the racks on the different card carriers so that in this way the different vignetting cards or screens may be selectively elevated within range of the camera lens, and the cards may

be tilted or inclined toward or away from the lens in a vertical plane by means of the tilting rod. As the means for adjusting the different screens is easily within reach of the operator, it is not necessary for the operator to withdraw his head from the focusing hood to adjust the screens and the effects of the different screens may be observed upon the ground glass at the time of focusing and in this way the operator may experiment with the different screens so as to always obtain the best effects or results.

In order to assist the operator in selecting the desired screen, a scale plate 28, is mounted on the rear extended end of the tube provided with marks and numerals to correspond to the number of slides or card carriers carried in the head. A pointer 29 is mounted upon the sleeve 31, which pointer in turn is rotatably carried on the shifting or operating rod which projects through a slot 30, in the scale plate and registers upon the scale. The parts are so adjusted that when the pointer coincides with the proper mark on the scale, the pinion is in mesh with the corresponding slide (which slides may be numbered in harmony with the graduations on the scale) and by rotating the rod, the slide carrying with it the screen may be advanced within range of the lens. When not in use, the slides normally fall back into inoperative position by force of gravity. In order to retain the operating rod in the adjusted position with the pinion in mesh with the rack on the proper slide, a spring latch 32, is secured to the rod which has a series of properly spaced notches 33, therein to interlock with the annular flange 34, on the end of the tube. When shifting the pinion, the latch is depressed by means of the thumb piece or button 35, on the end thereof to disengage it from the annular flange, and when so depressed, the latch is received in the recess or seat 36, formed in the rod.

From the foregoing it will be evident that any of the vignetting screens may be used at will; the screens may be adjusted laterally, vertically, tiltingly in a vertical plane or toward or away from the lens; as the rod is loosely carried in its bearings, it may be partially rotated to accomplish a further angular adjustment and may be held at such adjustment by means of the thumb screw. The screens are thus capable of adjustment in practically all directions and these adjustments may all be managed without necessitating a change of position on the part of the operator.

From the above description taken in connection with the drawings it will be obvious that I have provided a practical and efficient vignetting apparatus for photographic purposes which accomplishes all the results herein aimed at, and which is useful and desirable.



I claim:

1. A photographic vignetter comprising an adjustably mounted support, a plurality of vignetting screens carried thereby and a movable element in said support for selective engagement with any of the screens.

2. Vignetting apparatus comprising a support, a series of vignetting shields carried thereby, means for adjusting the inclination of said shields and means for elevating any of said shields.

3. A vignetting apparatus comprising a support, a series of screens supported thereby, and a shiftable pinion in the support to engage any of the series of screens for selectively adjusting any of the screens.

4. A vignetter comprising a base, a tubular support adjustably mounted therein, a head adjustably mounted on the tubular support, means for adjusting the head, slides mounted in the head and carrying screens of different character, and means inclosed within the tubular support for selectively adjusting the screens.

5. The combination with a base, of a support carried thereby, a guiding element carried by the support and means for adjusting said guiding element, a series of screens supported in the guiding element, means for adjusting any of said screens, and designating means to assist in operating the different screens.

6. A vignetter comprising a support, a head adjustably mounted on said support, means for adjusting the inclination of the head with respect to the support, and a series of independently operable card holders mounted in said head.

7. A vignetter comprising a support, a head adjustably mounted on said support, means for adjusting the inclination of the head, a series of independent card holders mounted in said head, and means for engaging any of said card holders for operating the same.

8. A vignetter comprising a longitudinal support capable of lateral and rotary adjustment, a head adjustably mounted on said support, means for adjusting the inclination

of the head, a series of independently operable card holders mounted in said head, and means for engaging any of said card holders for operating the same.

9. Vignetting apparatus comprising an adjustably mounted supporting member, a series of card holders having portions received and guided in said supporting member, vignetting cards carried by said holders, and means mounted in said support adapted to be shifted to make operative engagement with any of the card holders for moving such holders.

10. A vignetter comprising a support, a head carried by said support having a socket portion, card holders having depending portions received in said socket portion of the head, and means mounted in the head and carrying an element for operative engagement with the depending portions of the card holders for moving such holders.

11. A vignetter comprising a support, a head carried by said support, card holders engaged in said head, means mounted in the head carrying an element for operative engagement with any of the holders for moving the holders, and means for indicating the relative position of the operating element with respect to the different card holders.

12. A vignetter comprising an adjustably mounted support, a head adjustably mounted on the support, a tilting rod connected to the head at one end, means at the opposite end of the rod for shifting the rod, card holders engaged in said head and provided with depending rack portions, shafting in the support, a pinion on the shafting to engage the racks on the different card holders for elevating the same, means for locking the shafting to hold the pinion in engagement with the different card holders, and means for indicating the engagement of the pinion with the respective card holders.

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

CHARLES A. BIRDSALL.

Witnesses:

JAMES T. SIMPSON,  
ARNOTT B. NEWLAND.