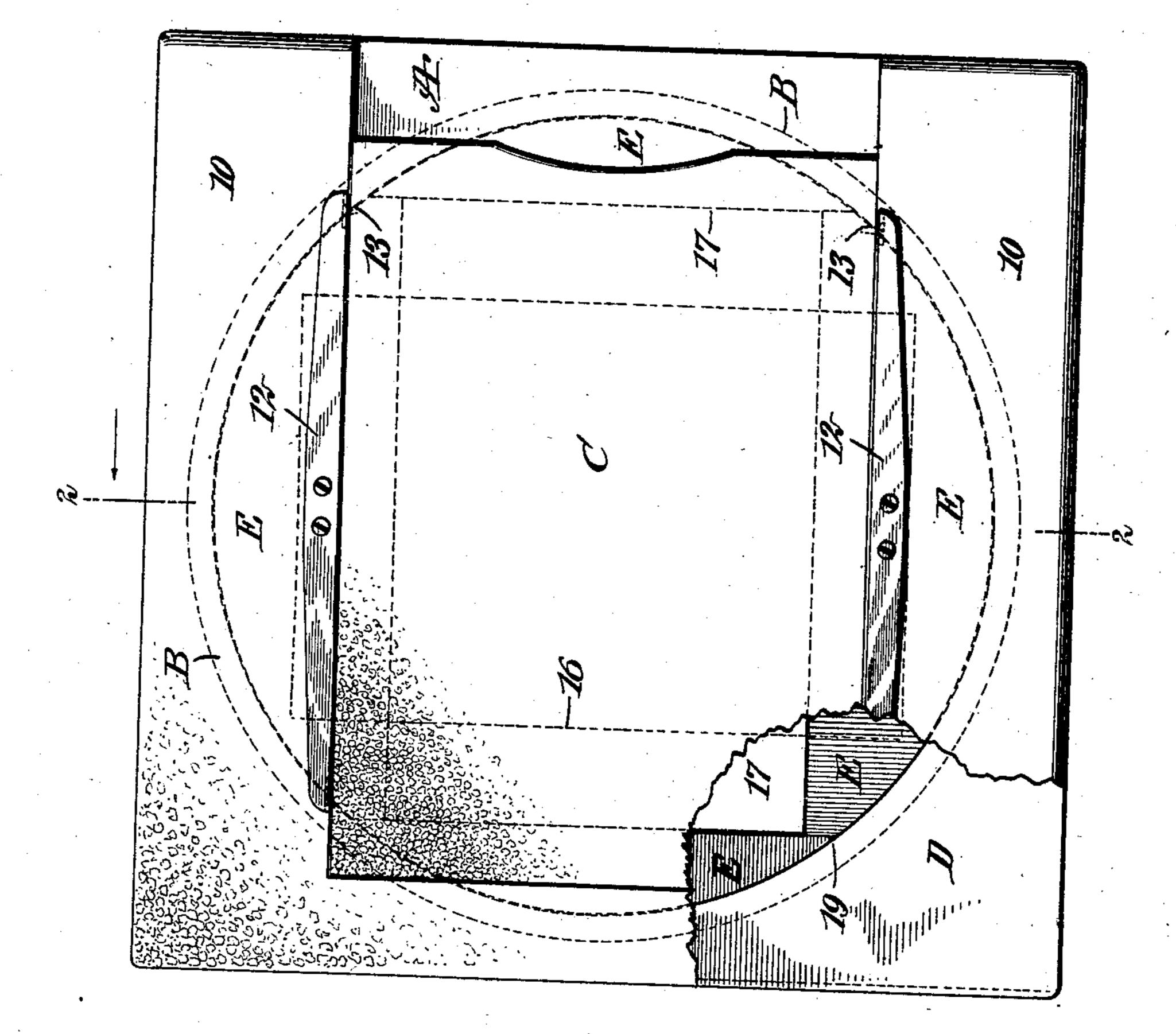
E. L. HALL.
CIRCULAR BACK FOR CAMERAS.
APPLICATION FILED AUG. 17, 1907.

900,526.

Patented Oct. 6, 1908.

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INVENTOR
Edward Lander Hall

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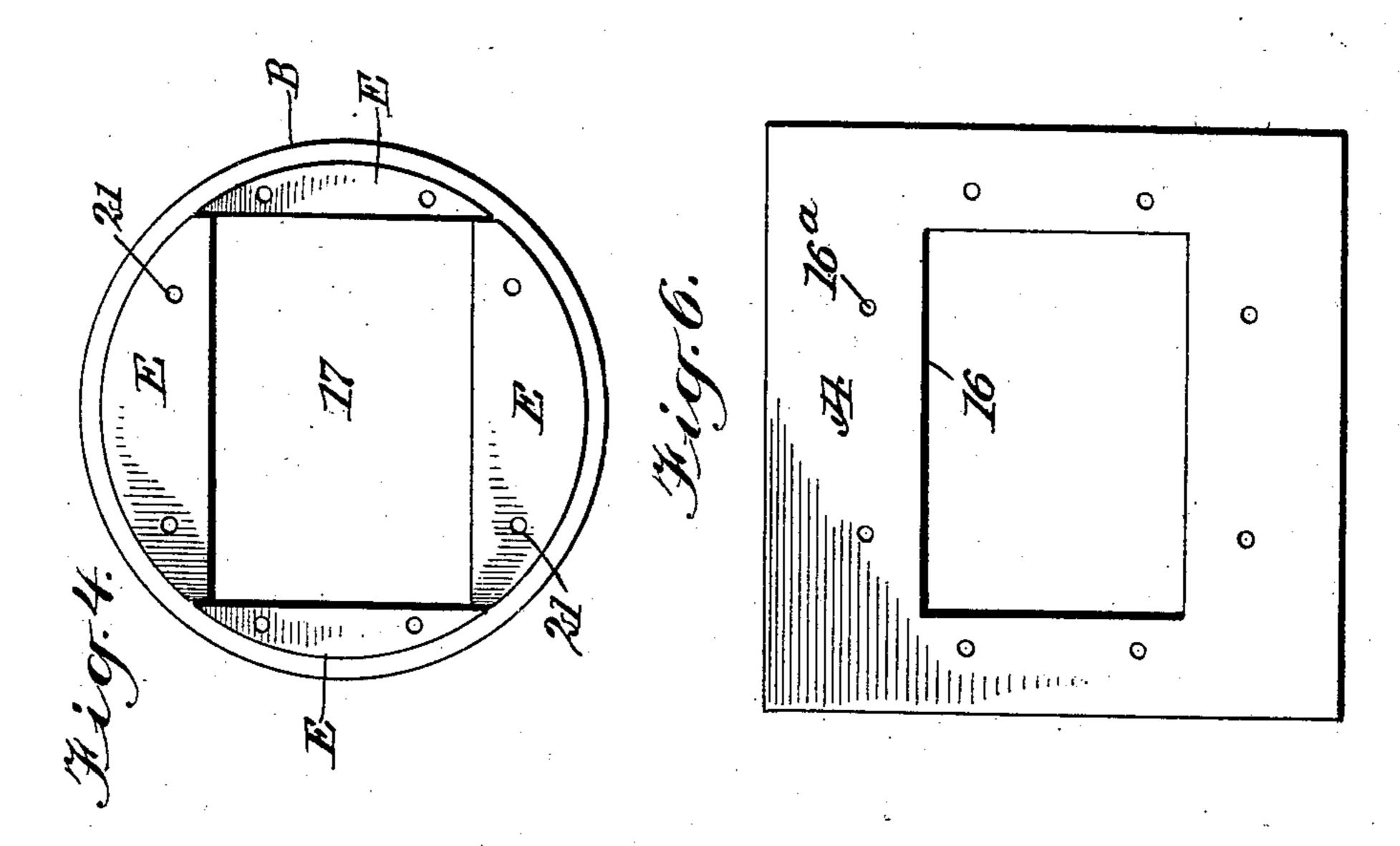
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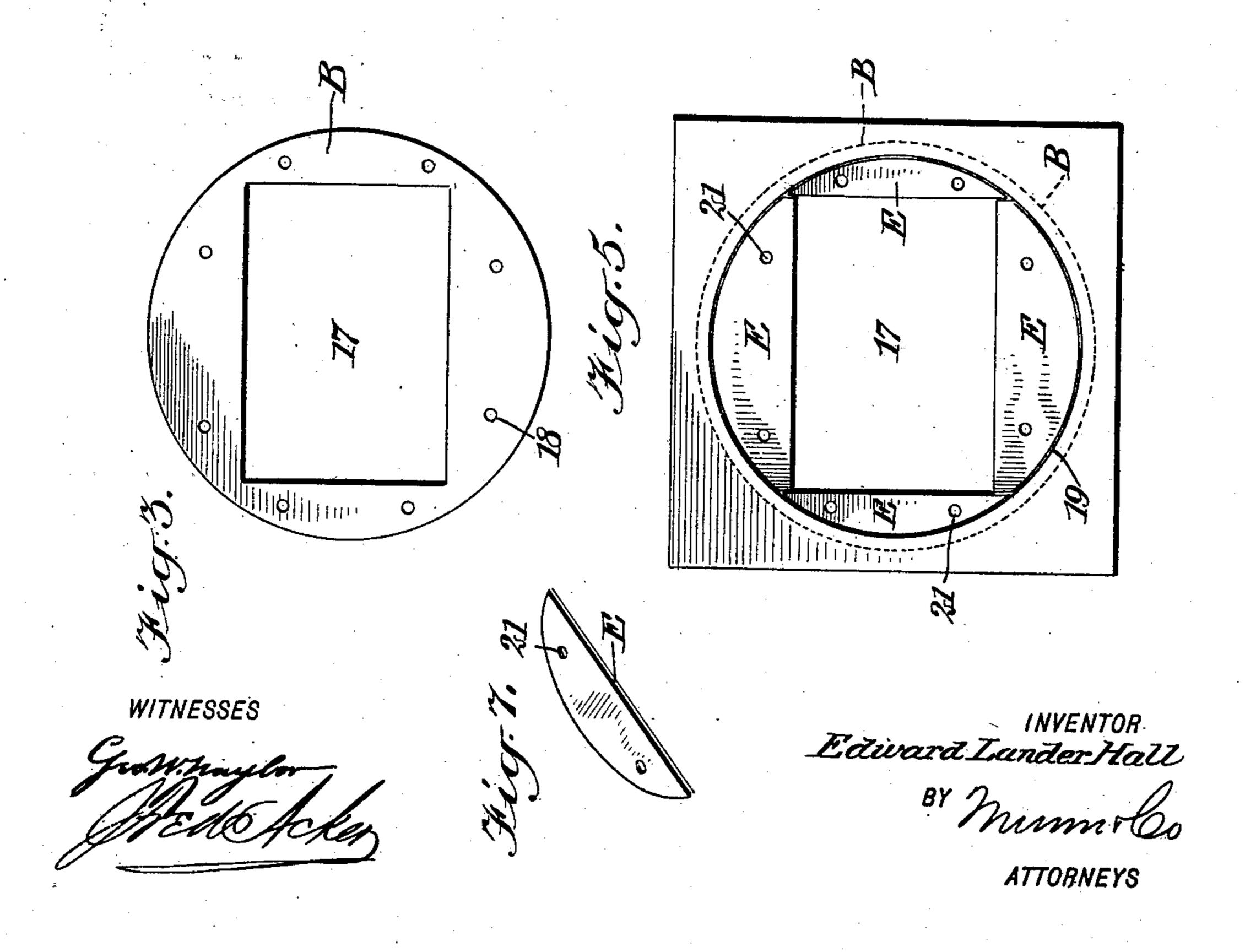
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2 SHEETS-SHEET 2,





## UNITED STATES PATENT OFFICE.

EDWARD LANDER HALL, OF NEW YORK, N. Y.

## CIRCULAR BACK FOR CAMERAS.

No. 900,526.

Specification of Letters Patent.

Patented Oct. 6, 1908.

Application filed August 17, 1907. Serial No. 389,031.

To all whom it may concern:

Be it known that I, Edward Lander Hall, a citizen of the United States, and a resident of the city of New York, borough of 5 Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Circular Backs for Cameras, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a very simple, effective, and durable circular back adaptable to almost any type of camera, by means of which a plate holder may be quickly and readily shifted from one position 15 to another without removing it from the in-

strument.

The invention consists in the novel construction and combination of the several parts as will be hereinafter fully set forth and 20 pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the fig-25 ures.

Figure 1 is a rear elevation of a camera having the improvement applied, showing a plate holder in position, a portion of the back being broken away; Fig. 2 is a vertical sec-30 tion taken practically on the line 2—2 of Fig. 1; Fig. 3 is a plan view on a smaller scale of the inner plate; Fig. 4 is a plan view of the inner plate shown in Fig. 3 with the spacing plates applied, the said figure being also 35 drawn on a smaller scale; Fig. 5 is a reduced plan view of the intermediate plate of the attachment and the inner and attached spacing plates applied thereto; Fig. 6 is a reduced plan view of the rear or outer plate; and Fig. 7 is a perspective view of one of the spacing members.

The attachment consists primarily of a rear plate A, an inner plate B, an intermediate plate D, and spacing plates E. The rear 45 plate A is rectangular in general contour, and | the spacing plates E practically corresponds battens 10 are secured to its rear face at opposite sides, as is shown in Figs. 1 and 2, suitable screws 11 being employed for the purpose, and each batten 10 carries a spring 50 keeper 12 provided usually at its end portions with spurs 13 adapted to engage with the opposing edges of the plate holder C when said plate holder is introduced between the battens 10. The intermediate plate D is 55 also rectangular and is secured by means of screws 14, or their equivalents, to the rear liner plate B can turn together, the spacing

end portion of the camera box 15, as is

clearly shown in Fig. 2.

The rear plate A is provided with a rectangular opening 16 of suitable size and a 60 series of apertures 16<sup>a</sup> is circularly arranged around the said opening, as is illustrated in Fig. 6. The inner plate B is circular, but it is also provided with a rectangular opening 17 that is of the same dimensions as the 65 opening 16, and when the plates are assembled these two openings 16 and 17 are in registry, and the inner plate B is also provided with a series of apertures 18 circularly arranged around the opening 17 therein, and 70 adapted when the plates are properly grouped to register with the apertures 16a of the rear plate A. The intermediate plate D which is secured to the camera box is provided with a circular opening 19, as is shown in Figs. 1 75 and 5, which opening is of such size that it will receive within it the inner portions of the openings 16 and 17 in the rear and in the inner plates, as is clearly shown in Fig. 1, but the circular opening 19 in the intermediate 80 plate D is of lesser diameter than is the circumference of the inner plate B, so that when the plates are brought together the inner plate B will extend over the opening 19 in the intermediate plate D, as is shown by 85 dotted lines in Figs. 1 and 2.

In connection with the plates above described, segmental spacing plates E are employed, and these segmental spacing plates are located upon the rear face of the inner cir- 90 cular plate B, being located adjacent or in fact in registry with the marginal portions of the rectangular opening 17 in the said inner plate, as is shown in Fig. 4, and when these spacing plates E are properly grouped, 95 their outer edges form a circle which is of practically the same radius as the circle of the opening 19 in the intermediate plate D, since the spacing plates E are to be received within said opening 19, and the thickness of 100 to the thickness of the intermediate plate D. The spacing plates E are provided with apertures 21 and when the said spacing plates are in position these apertures 21 register 105 with the apertures 18 in the inner plate B.

After the plates have been properly assembled, rivets 20 are passed through the registered openings 16a, 18, and 21, of the rear, inner, and the spacing plates, as is shown in 110 Fig. 2, therefore the rear plate A and the inplates E serving as guides moving in the circular opening 19 in the intermediate plate D. Thus when the plate has been placed in position between the battens 10 which can be carried readily from a horizontal to a vertical position, or vice versa, without removing the plate holder from its seat at the back of the camera.

This improved circular back is exceedingly simple in its construction and it is evident that it can be readily adapted to almost

any type of camera.

Having thus described my invention, I claim as new and desire to secure by Letters

15 Patent,—

1. In a circular back for cameras, a movable rear plate and a movable inner plate, both of which have corresponding openings, a fixed intermediate plate having a circular opening therein of greater diameter than the greatest length of the openings in the rear and inner plates, segmental spacing plates located between the rear and inner plates surrounding the openings therein, their outer convex surfaces being adapted for engagement with the wall of the circular opening in the fixed plate, and means for connecting the

rear, inner, and spacing plates.

2. In a circular back for cameras, a camera box, a plate fixed thereto and having a circular opening therein, connected rear and inner plates adapted for circular movement at opposite sides of the fixed plates, and provided with corresponding and registering openings of lesser size than that in the fixed plate, and spacing plates located between the rear and inner plates, being secured thereto, which spacing plates are approximately of the same thickness as the fixed plates and enter the opening therein and act as guides for the connected inner and rear plates.

3. In a circular back for cameras, the combination with the camera box, a plate secured

thereto, which plate is provided with a circular opening therein, of a circular inner plate 45 of greater diameter than the diameter of the circular opening in the fixed plate, the said circular inner plate having a rectangular opening therein, an outer or rear plate located at the rear face of the fixed plate, which outer 50 or rear plate is provided with a rectangular opening corresponding to and adapted to register with the opening in the inner plate, the openings in both the inner and the rear plates being of lesser size than the size of the 55 said circular opening, and segmental spacing plates located between the rear and the inner plates around the opening therein, the convexed edges of the said spacing plates forming a combined circular edge removed from the 60 outer edge of the inner plate, the edge formed by the outer portions of the spacing plates being adapted to enter and engage with the wall of the circular opening, and means for connecting the inner, rear, and the spacing 65 plates.

4. The combination with a camera box, of a back therefor consisting of a fixed plate having a circular opening and secured to the camera box, a rear plate having a rectangu- 70 lar opening and constructed to receive and hold a plate holder, a circular inner plate having a rectangular opening, and segmental spacing plates secured to and between the rear and inner plates around the openings 75 thereof, said spacing plates being approximately the same thickness as the fixed plate

and fitting in the opening thereof.

In testimony whereof I have signed my name to this specification in the presence of 80 two subscribing witnesses.

## EDWARD LANDER HALL.

Witnesses:

J. FRED. ACKER, JOHN P. DAVIS.