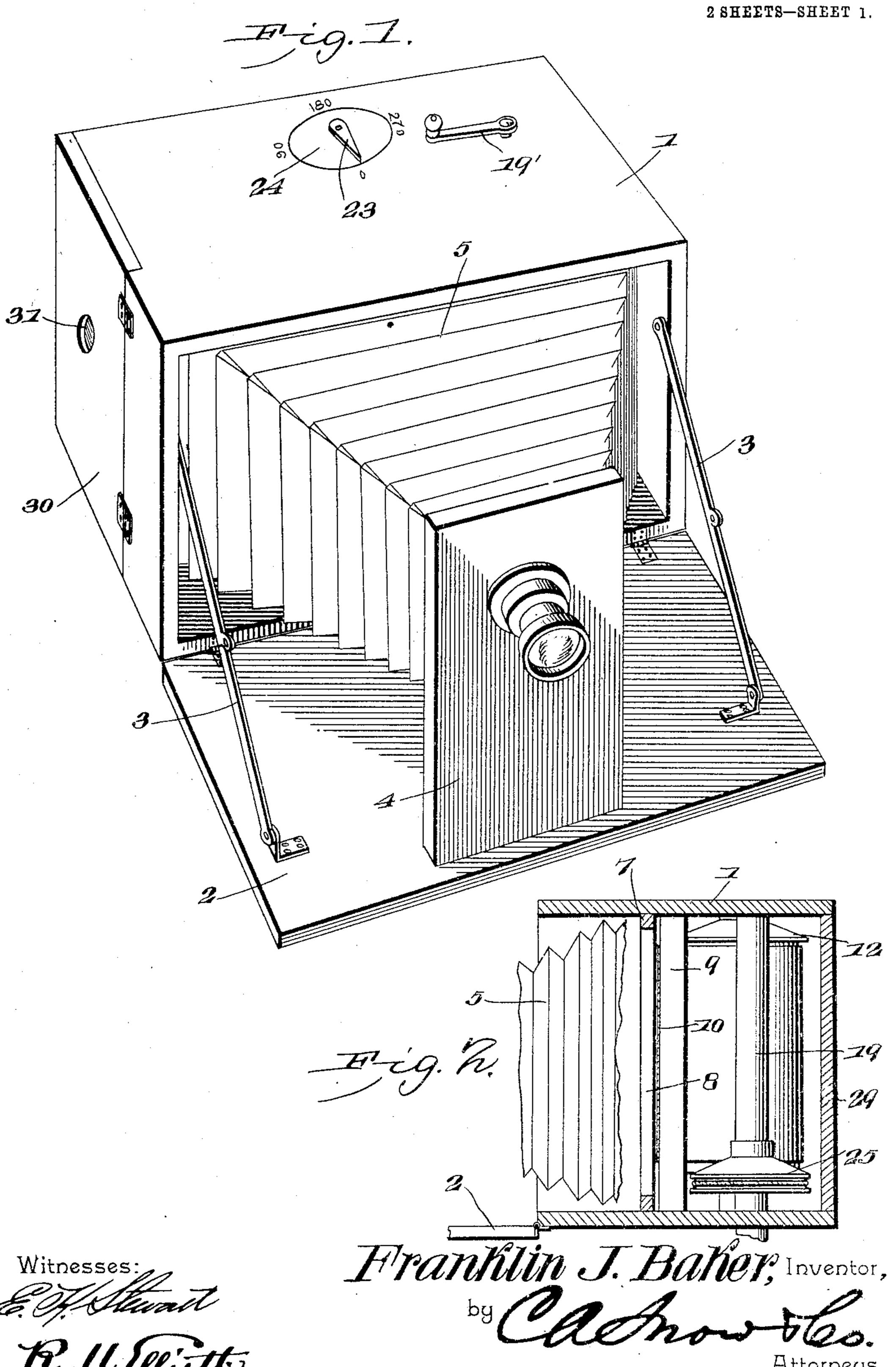
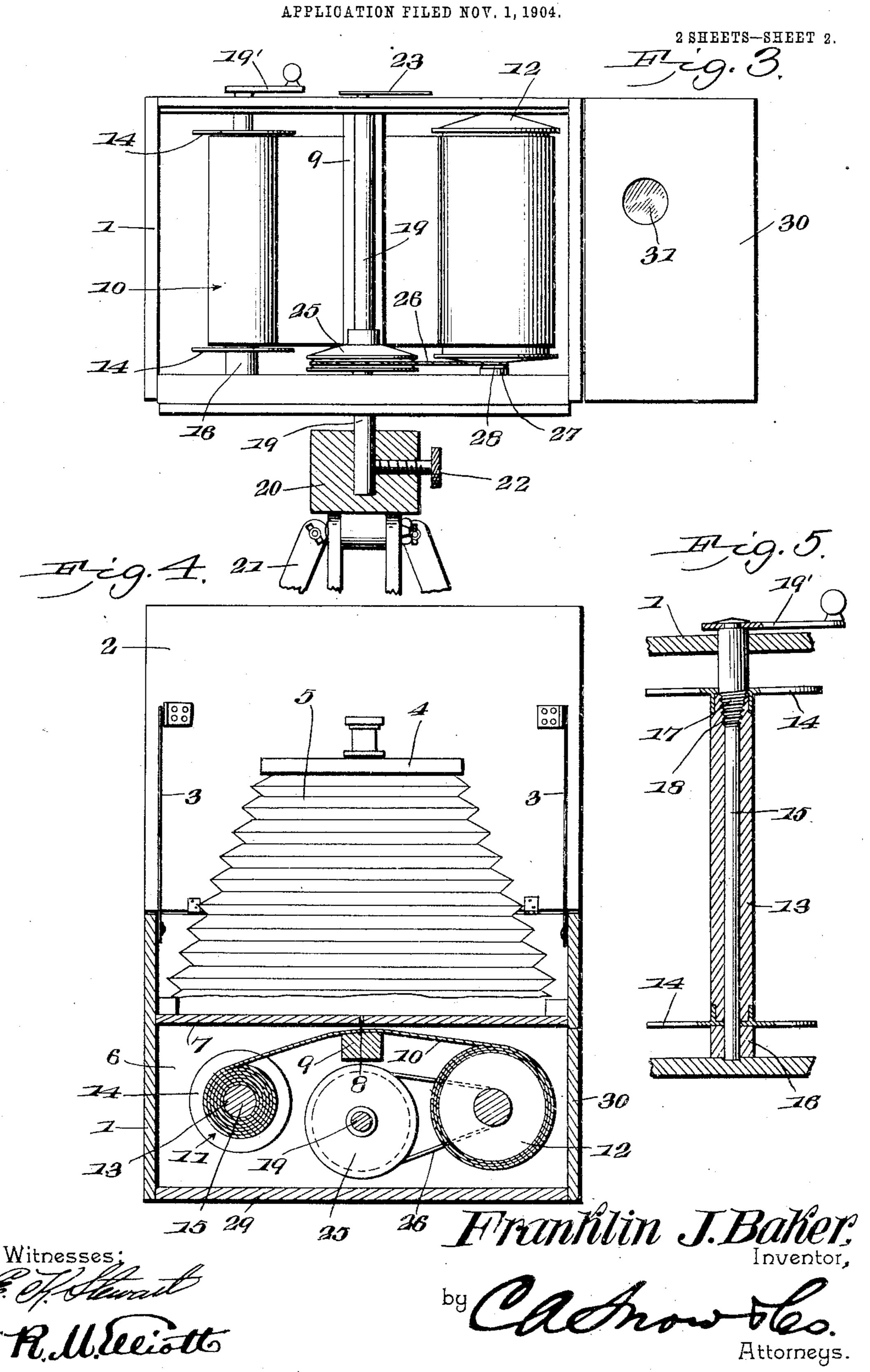
## F. J. BAKER. PANORAMA CAMERA. APPLICATION FILED NOV. 1, 1904.



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F. J. BAKER.

PANORAMA CAMERA.



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## United States Patent Office.

FRANKLIN JAMES BAKER, OF DELRIO, TEXAS, ASSIGNOR OF ONE-HALF TO GUY H. SNEDDON, OF DELRIO, TEXAS.

## PANORAMA-CAMERA.

SPECIFICATION forming part of Letters Patent No. 789,706, dated May 16, 1905.

Application filed November 1, 1904. Serial No. 230,973.

To all whom it may concern:

Be it known that I, Franklin James Baker, a citizen of the United States, residing at Delrio, in the county of Valverde and 5 State of Texas, have invented a new and useful Panorama-Camera, of which the following is a specification.

This invention relates to panorama-cam-

eras.

The object of the invention is to provide a camera of the class described which shall combine simplicity of construction and high efficiency and durability in use, in which the positioning and removal of the sensitized 15 film shall be simplified and rendered easy, in which the correct positioning of the film opposite the lens shall be facilitated without exposure of the film, in which the degrees of the arc traversed by the structure shall be 20 accurately and readily ascertained, thereby preventing double exposures, and in which all the parts shall be constructed with a view to lightness, practical avoidance of breakage in use, and readiness of repair in case of 25 breakage.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts 30 of a panorama-camera, as will be hereinafter

fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like characters of reference indicate correspond-35 ing parts, there is illustrated one form of embodiment of the invention capable of carrying the same into practical operation, it being understood that the elements therein exhibited may be varied or changed as to shape, 40 proportion, and exact manner of assemblage without departing from the spirit thereof.

In the drawings, Figure 1 is a view in perspective taken from the front of a panoramacamera constructed in accordance with the 45 present invention. Fig. 2 is a sectional detail view. Fig. 3 is a view in rear elevation, partly in section, exhibiting the interior of the camera. Fig. 4 is a view in horizontal

section. Fig. 5 is an enlarged detail view of

the film-holding spool.

The camera of the present invention comprises a box 1, having hinged at its front a shelf 2, which is supported in horizontal position by means of braces 3, as usual, the shelf being provided to support the lens-carrier 4, 55 to which is connected an accordion extension 5 of the well-known or any preferred construction. The lens-support and the accordion extension may be folded within the box, as usual, or may be detachably connected 60

therewith, if preferred.

The rear portion of the box is divided into a compartment 6 by a partition 7, having a light-slit8, which extends practically throughout the entire height of the box and is dis- 65 posed in direct alinement with the axis of the lens, and back of this slit is arranged a post or abutment 9, against which rides the film 10, the latter being held out of contact with the wall of the casing to prevent marring. 70 The slit 8 will be just large enough to permit entrance of the proper amount of light to effect the film, and the film travels so close to the wall of the casing that there will be no danger of any lateral diffusion of light which 75 would operate to mar the negative. Disposed within the compartment 6 are two spools 11 and 12, the spool 11 being the storage or film-carrying spool and the spool 12 the feed or unwinding spool. The spool 11 80 comprises a core or body 13 and two end flanges 14, which may be integral with the core or be made as separate elements and secured thereto, as shown in Fig. 5. As it is necessary that the spool 11 be removed at the comple- 85 tion of the operation of the camera, it is made detachable from the box, and this is effected through the medium of a shaft 15, which projects through a bore in the body and works in a bearing 16, secured to the bottom of the box. 90 The upper end of the shaft is provided with a cone-shaped threaded portion 17, which engages a cone-shaped threaded socket 18 in the upper end of the bore, and the upper end of the shaft, which projects above the top of 95 the casing, carries a crank 19'. In the oper-

ation of the camera the film is wound upon the spool 12, and after the camera has been moved through a complete circle, or a part of a circle, as the case may be, the crank is ro-5 tated to rewind the film upon the spool 11, and when the spool is to be removed the crank is rotated in the opposite direction from that necessary to wind the film thereon, whereupon the threaded portion 17 will free 10 itself from the core, and the shaft will then be free to be withdrawn, whereupon the spool

11 may be removed.

The rotation of the spool 12 is effected through the medium of a shaft 19, the lower 15 end of which projects through the bottom of the box and is secured in a socket 20, carried by a tripod 21, by a set-screw 22, the upper end of the shaft being projected through the top of the box and having connected with it 20 a hand or pointer 23 to traverse a graduated scale 24, which is divided in this instance into three hundred and sixty degrees, the object of which is to notify the operator when the box has made a complete revolution or 25 any desired part of a revolution. Secured near the lower end of the shaft, within the box, is a grooved sheave 25, around which passes a belt or chain 26, that engages the lower portion of the shaft 27 of the spool 12, 30 the shaft being grooved at 28 to receive the belt or chain. The proportions between the sheave 25 and the shaft are, by preference, such that when the camera makes a complete revolution all the film will be unwound from 35 the spool 11 onto the spool 12; but, as will be obvious, these relations may be varied without departing from the scope of the invention.

The back of the box is closed by a door 29, and one side of the compartment 6 consti-40 tutes a door 30, having a red-glass sightwindow 31, through which the end of the film attached to the spool 12 may be inspected to determine when the film is properly positioned thereon. As is well known, the end of 45 a photographic film has attached to it a strip of material, such as celluloid or fabric, which is used to secure the free end of the film to the unwinding-spool, and this end will be provided with a mark by which the operator by 50 inspection through the window 31 will be enabled to determine when sufficient of the film has been unwound from the spool 11 to begin operations.

In the use of the camera the shaft 19 will be 55 secured to the tripod in the manner described and the pointer 23 will be brought to "0" or "360°," as the case may be. As soon as operations are to begin the cap will be removed from the lens, and simultaneously therewith the ro-60 tation of the camera-box will be started. The operator by observing the pointer 23 can

determine when the complete circle has been traversed, and as soon as the pointer comes opposite "0" the rotation of the box will be stopped and immediately the cap may be ap- 65 plied to the lens. The accordion extension will then be housed within the box and the shelf 2 closed, after which the box will be removed from the tripod and the printed film will be removed and the camera again loaded 70 or charged in the manner described.

It will be seen from the foregoing description that although the camera of this invention is exceedingly simple of construction it combines in a practical manner all the 75 essentials necessary for the production of a thoroughly-effective device. Moreover, by the employment of the abutment 9 back of the light-slit 8, the operative face of which is preferably rounded or curved, the film will be 80 smoothed out, and thereby obviate any wrinkling which might otherwise result. Furthermore, the abutment subserves the added function of preventing diffusion of light on each side of the slit, which is essential in cam-85 eras of this character.

Having thus described the invention, what is claimed is—

1. In a panorama-camera, a compartment having a fixed front wall provided with a 90 light-slit, a rigid abutment arranged back of the slit and spaced therefrom, and a feed and a storage roller within the compartment and having their shafts permanently journaled in

a plane in rear of the abutment.

2. In a panorama-camera, a compartment having a fixed front wall provided with a light-slit, a rigid abutment arranged back of the slit and having the face opposing the slit curved or rounded, and a feed and a storage 100 roller within the compartment and having their shafts permanently journaled in a plane in rear of the abutment.

3. In a panorama-camera, a compartment having a fixed front wall, provided with a 105 light-slit, a rigid abutment arranged back of the slit and having the face opposing the slit curved or rounded, a feed and a storage roller within the compartment and having their shafts permanently journaled in a plane 110 in rear of the abutment, and means actuated by the rotation of the camera to drive the feed-roller to cause it to unwind the film from the storage-roller.

In testimony that I claim the foregoing as 115 my own I have hereto affixed my signature in

the presence of two witnesses.

## FRANKLIN JAMES BAKER.

Witnesses:

JAS. McLymont, D. FRED WORTH.