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P. FROST ET AL

2,043,612

ROLL FILM CAMERA

Filed Nov. 16, 1934

Fig. 1

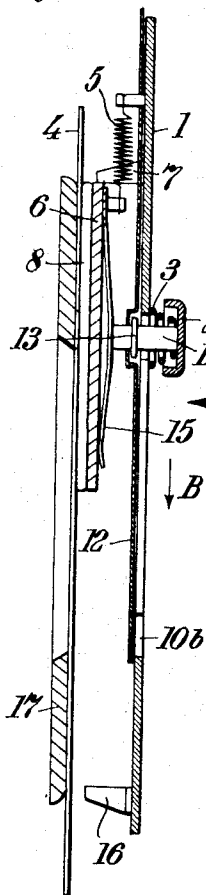


Fig. 2

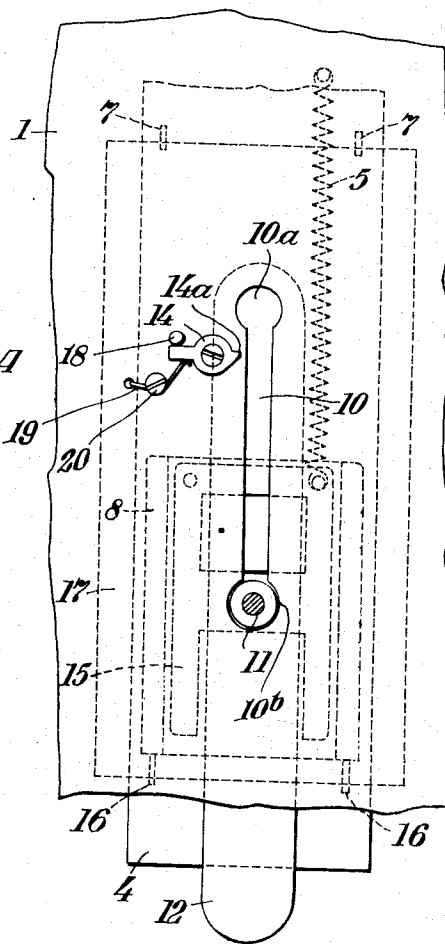


Fig. 3

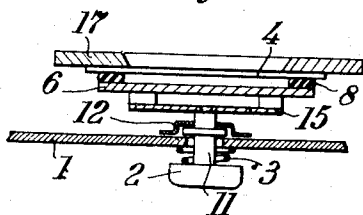
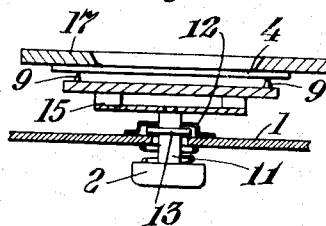


Fig. 4



By

Inventors:
Paul Frost,
Ludwig Beckenbauer,
Philip S. Hopkins,
 Attorneys.

UNITED STATES PATENT OFFICE

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ROLL FILM CAMERA

Paul Frost, Munich-Neuharlaching, and Ludwig Beckenbauer, Munich, Germany, assignors to Agfa Ansco Corporation, Binghamton, N. Y., a corporation of New York

Application November 16, 1934, Serial No. 753,394
In Germany November 14, 1933

4 Claims. (Cl. 95—31)

Our present invention relates to a roll film camera.

One of its objects is an improved camera of this type. Further objects will be seen from the detailed specification following hereafter. Reference is made to the accompanying drawing in which:

Fig. 1 shows a sectional side elevation of the rear of the camera, wherein the pressing frame has already been removed from its normal position and pressed against the film,

Fig. 2 shows a part elevation of this wall,

Fig. 3 shows a plan of the pressing frame having rubber engaging bars, and

Fig. 4 shows a plan of the pressing frame having engaging points.

In the co-pending application Ser. No. 751,776 filed November 6, 1934 by Goldhammer a roll film camera has been described in which the film is advanced by means of one or more chains provided with teeth and is thereby pushed into the take-up box, so that it rolls up upon itself.

The present invention substitutes for this chain a pressing frame positively guided to move in a rectangular path. On the face which is to make contact with the film this frame carries a narrow bar of flexible material which makes frictional engagement with the film, for instance a bar of rubber. Alternatively, the face of the frame may carry a number of points to engage the film. This device is more cheaply made than the aforesaid chain and by a simple locking device it can be prevented from accidental movement so that a false advance cannot be made. The device may also be used for advancing film provided with perforations.

In the rear wall 1 of the camera the button 2 is capable of sliding in a slot 10. A spring 3 presses this button outwardly so that the pressing frame 6 is normally out of engagement with the film 4. A spring 5 attached to the pressing frame normally holds the frame and button in the position shown in Fig. 1, in which the frame is against the stops 7.

In Figs. 1 and 3 the frame 6 carries bars of rubber or the like 8, and in Fig. 4 there are substituted points 9 for these bars.

The slot 10 in the rear wall of the camera is covered by a plate 12 which slides with the button. At each end of the slot there is an enlargement permitting passage of a collar 13 on the stem 11 of the button. In all other positions in the slot this collar prevents outward movement of its stem. In the normal position the pawl 14 is pressed against a stop 16 by means of a spring 19

mounted on the casing 1 by means of the pin 20, and prevents downward movement of the button in the slot by engagement with the collar 13. For advancing the film 4 the button is pressed in the direction of the arrow A against the pressure of the blade spring 15 carried by the back of the pressing frame. The latter is thus brought into engagement with the film. The button is then slid downwards in the slot 10 in the direction indicated by the arrow B, and the film is thus advanced to the extent of the height of a picture. This downward movement is limited by contact of the pressing frame with the stops 16. When the pressing frame reaches the stops 16, the button 2 arrives at the enlargement 10b and the collar 13 rides outside the back on the side of the slot and the spring 5 returns the pressing frame, now out of engagement with the film, into the original position in which it abuts against the stops 7. The position of the parts in Fig. 1 is that which they have when the button 2 has been pressed to engage the pressing frame of the film. The collar 13 in the aforesaid upward movement is able to pass the nose 14a of the stop 14 but is prevented from downward movement by engagement with the stop as soon as it has arrived in the enlargement 10a. The frame of the picture gate on which the film rests is indicated by 17.

As an alternative to the rectangular path in which the pressing frame is moved, the arrangement may be such that when the button is moved downwards in the slot the pressing frame is guided by inclined slots against the film, which it engages by means of a free-wheel clutch, and when subsequently it is returned to normal position the clutch runs lightly on the film and does not move the latter. Instead of the button there may be used a crank with a lever transmission.

What we claim is:

1. In a roll film camera in combination, means for guiding a roll film, a casing, and means sliding in said casing normally out of engagement with said film and adapted to frictionally engage said film for advancing the latter.

2. In a roll film camera in combination, means for guiding a roll film, a casing, and a frame sliding in said casing normally out of engagement with said film and adapted to frictionally engage said film for advancing the latter.

3. In a roll film camera in combination, means for guiding a roll film, a casing, a frame normally out of engagement with said film and adapted to frictionally engage said film for advancing the latter, and means sliding in said casing adapted

to engage elastically said frame for pressing said frame against said film.

4. In a roll film camera in combination, means for guiding a roll film, a casing, a frame normally
5 out of engagement with said film and adapted to frictionally engage said film for advancing the latter, and means sliding in said casing adapted

to engage elastically said frame for pressing said frame against said film, and means for automatically bringing said frame back to its rest position after a film-advancing movement of said frame.

PAUL FROST.
LUDWIG BECKENBAUER.