

RESERVE

PATENT SPECIFICATION



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303,354

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COMPLETE SPECIFICATION.

Improvements in Cinematographic Apparatus.

We, PATHE CINEMA, ANCIENS ETABLISSEMENTS PATHÉ FRÈRES, 30, Boulevard des Italiens, Paris, France, a Body corporate organized under the Laws of France, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

It is an observed fact that in all cinematographic cameras or screen projection apparatus, the claws, where such are employed, must be withdrawn from the gate during film-threadings.

In motor driven apparatus, the mechanism can be readily disposed so that the device for stopping the apparatus will be operative in all cases when the claws are withdrawn from the gate, but the shutter will then necessarily uncover the exposure aperture, or will at least have commenced to do so, thus fogging the portion of the film in coincidence with the exposure aperture when the apparatus is stopped between two successive exposures upon a given film.

These defects are obviated in a very simple manner in the device according to the present invention by the use of a gate with beadings forming a film channel of sufficient depth, to ensure that the film is guided laterally by the beadings of the gate and a sufficient clearance exists for the free travel of the film.

In practice, it is advantageous to stop the mechanism when the claws are situated at the lower point upon their operative stroke, at which time the claws commence to be withdrawn, but the shutter is still closed.

The appended drawing shows by way of example an embodiment of the invention.

Fig. 1 is a vertical section of a cinematographic apparatus in the stopped position.

Fig. 2 is a corresponding horizontal section.

In the type of cinematographic apparatus which is given by way of example, a spring barrel 1 rotates a shaft 2 by means of gearing. Upon the said shaft, which traverses the middle plate or par-

tition 3 of the apparatus, is mounted the crank 4 which controls firstly the link 5 carrying the claws 6 which is pivoted at its end 7 to an arm 8 pivotally mounted on a stationary axle 9, and secondly an arm 10 controlling a bell-crank lever 11 with which is connected the shutter 12, which is given a vertical reciprocating motion adjacent the window 13 formed in the plate 14. The claw-operating lever 5 and the shutter-controlling lever 11 are so disposed that the shutter will cover the said window during the whole period of the descent of the claws 6; said claws engage the perforations of the film which travels between the pressing frame 21 and the gate 15 provided in the side of the plate 14 opposite the side upon which the said claws and shutter are disposed. The pressing frame 21 is pivoted about a pivot 22 and bears against the film during the operation of the apparatus; said pressing frame is brought away from the film into the position shown in Fig. 1 when, the apparatus having been stopped, it is desired to thread the film or to remove it from the gate. The mechanism is stopped in the position shown by means of a stud 17 which is brought into the path of a small plate 16 carried by the shaft 2.

To facilitate the loading of the apparatus, it was hitherto necessary that the mechanism should be stopped by means of the plate 16 and the stud 17 at the time when the claws have been withdrawn from the gate and are thus out of contact with the film in order that the film may be freely moved between the gate 15 and the frame 21. The said claws, however, are only completely withdrawn when the shutter is open, and thus the part of the film adjacent the window 13 when the apparatus is in the inoperative position becomes fogged. To obviate this defect, the gate 15 disposed upon the plate 14 comprises in accordance with this invention two symmetrically disposed round flanges or beadings 18 and the film moves in contact with the two alined faces 19 between said beadings, so that a relatively wide space 20 is provided between the faces 19 and the plane 23 which is

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tangent on said beadings. Due to this
 arrangement, the plate 16 and the stud 17
 may be so disposed that the mechanism
 will be stopped at such a position
 5 in the cycle of movements that
 the shutter is still closed and the claws
 have not been entirely withdrawn. A
 sufficient clearance then exists between
 the points of the claws and the pressing
 10 frame, when the frame is in the position
 of Fig. 1, to allow the film to move freely,
 and the beadings are made of sufficient
 height to serve as lateral guides for the
 film when passed through such clearance.
 15 It is advantageous to practice to stop
 the mechanism, when the claws are at the
 lower end of their stroke since at this
 moment, the claws project only slightly
 through the gate.
 20 Obviously, the said invention is not
 exclusively applicable to a cinemato-
 graphic apparatus of the type herein
 represented, but is adapted for use with
 all cinematographic apparatus with claw
 25 control, in which a device for stopping
 the mechanism at a definite position in
 the cycle of movements is employed.

Having now particularly described and
 ascertained the nature of our said inven- 30
 tion and in what manner the same is to
 be performed, we declare that what we
 claim is:—

1.—A cinematographic apparatus hav-
 ing means for stopping the mechanism in
 a definite position in the cycle of move- 35
 ments, characterized in that the mechan-
 ism is stopped when the shutter is closed
 and the claws are partly withdrawn from
 the gate, and that the apparatus comprises
 a gate with beadings forming a film 40
 channel of sufficient depth to ensure that
 the film is guided laterally by the bead-
 ings of the gate and a sufficient clear-
 ance exists for the free travel of the film.

2.—A device as claimed in Claim 1, 45
 characterized in that the mechanism is
 stopped when the claws are at the lower
 point of the film feeding stroke, at which
 time the claws project only slightly in
 the gate, but the shutter is still closed. 50

Dated this 17th day of December, 1928.

MARKS & CLERK.

Fig. 1

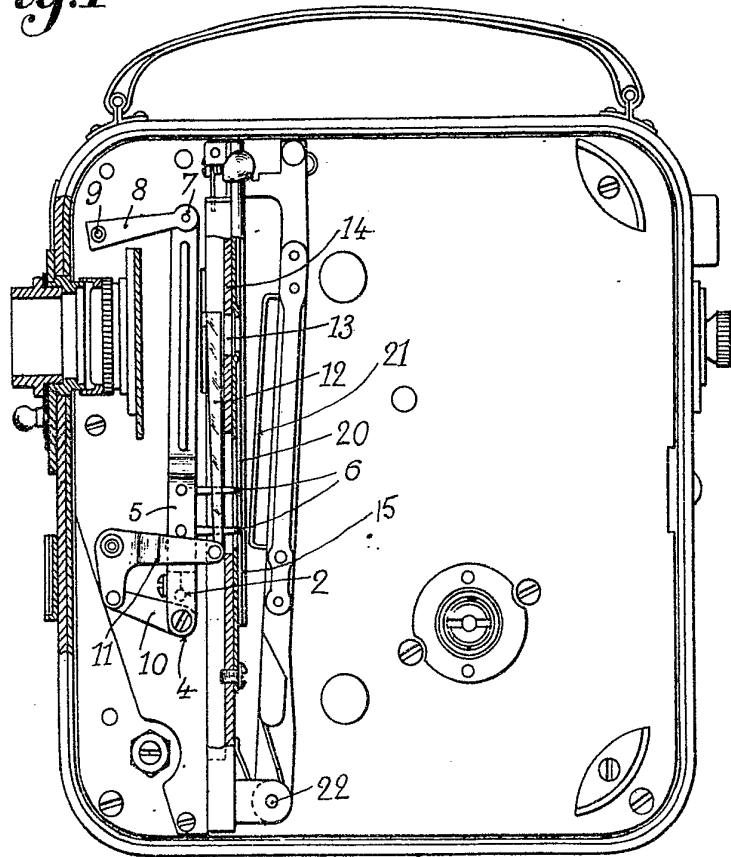
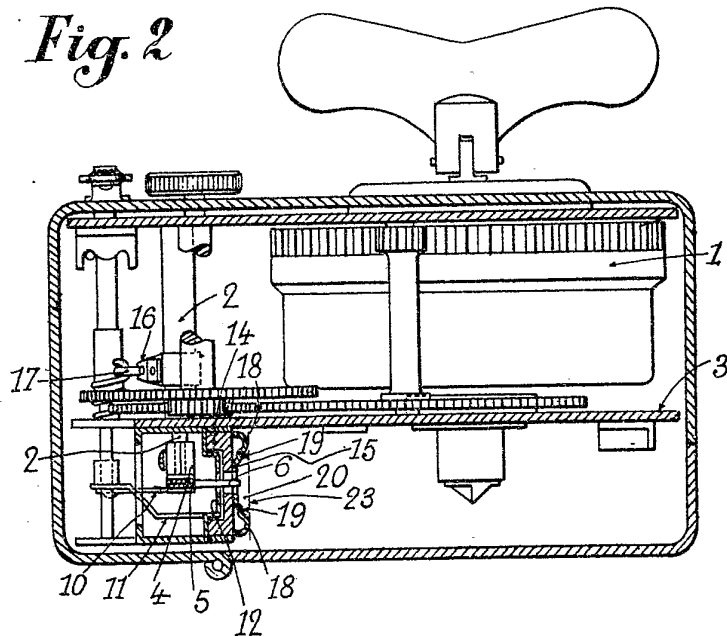


Fig. 2



[This Drawing is a reproduction of the Original on a reduced scale.]