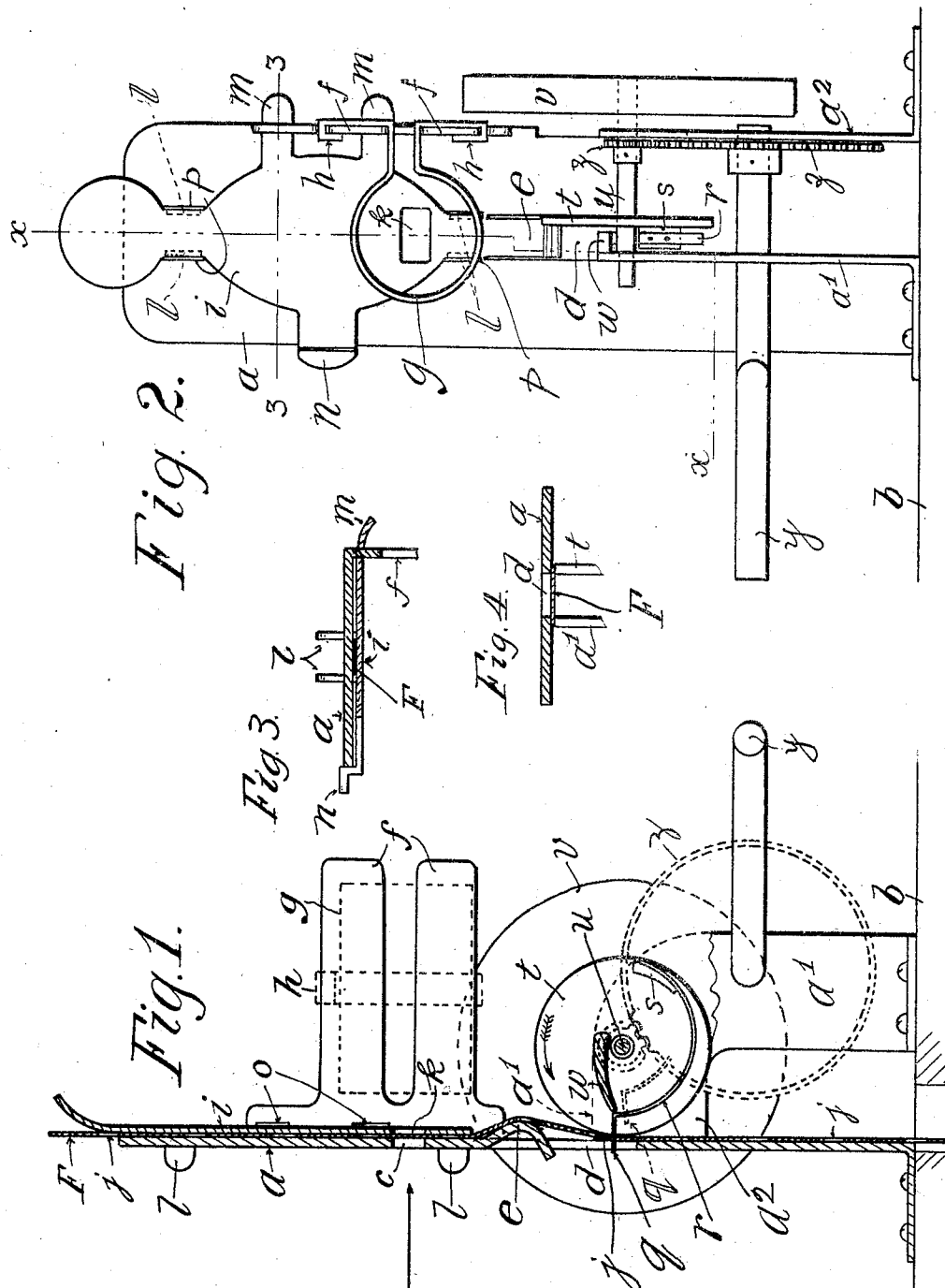


B. A. PROCTOR.
MOVING PICTURE MACHINE.
APPLICATION FILED APR. 2, 1908.

937,174.

Patented Oct. 19, 1909.



Witnesses:
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UNITED STATES PATENT OFFICE

BARTON A. PROCTOR, OF NEW YORK, N. Y., ASSIGNOR TO THE CEE-BAP MANUFACTURING COMPANY, A CORPORATION OF NEW YORK.

MOVING-PICTURE MACHINE.

937,174.

Specification of Letters Patent.

Patented Oct. 19, 1909.

Application filed April 2, 1908. Serial No. 424,821.

To all whom it may concern:

Be it known that I, BARTON A. PROCTOR, a citizen of the United States, and resident of New York city, in the county of New York and State of New York, have invented a certain new and useful Improvement in Moving-Picture Machines, of which the following is a specification.

The present invention relates to moving picture machines, more especially the film-moving and guiding means, and has for its primary object the simplification of the mechanism and the improvement of the operation therefor.

The preferred form of the invention is illustrated in the accompanying drawing, forming part hereof, in which—

Figure 1 is a vertical longitudinal sectional view on the plane $x-x$ of Fig. 2, showing the lens-holder in dotted lines, and the frame a^1 broken away in order to show more clearly certain working parts behind the same; Fig. 2 is a front elevation of the mechanism shown in Fig. 1; Fig. 3 is a plan, sectional, view on the plane 3-3 of Fig. 2, but omits certain parts; and Fig. 4 is a plan view, partly in section, to illustrate the action of certain parts.

In the drawing, the reference symbol a designates an upright plate, which is secured in any suitable manner to a base b , and which is provided with the picture framing opening c and with a slot d . Above the slot d is a tongue e , bent forward and then backward as shown in Fig. 1, by means of which the film F is guided toward the film-mover hereinafter described. The plate a is provided with a pair of parallel arms f on which slides a lens-holder g . The lens-holder g is formed of a strip of sheet metal bent into circular form in the middle portion thereof and having its ends bent into hooks h which embrace and slide upon the guide-arms f aforesaid, thus providing means for the adjustment of the focusing lenses (not shown).

The reference i marks a clamping plate provided with a framing opening k which registers with the opening c aforesaid. The plate i is provided with parallel lugs l , between which the film F moves, which lugs pass through perforations or slots p in the plate a , and with the curved ears m which pass through the holes o in the arms f or in metal connecting said arms with the plate a .

The plate i is also provided with a spring catch n for coaction with the edge of the plate a to lock the clamping plate i in place thereon. The film F is provided with perforations j between the photographs thereon, for coaction with a film-mover q , which is carried by a rotating carrier t . The said film-mover q is normally retracted from its working position, and is conveniently made by mounting it upon, or having it form a continuation of, a wire or leaf spring r whose end is fastened to the carrier t , or to a lug s thereon, which spring r is tensioned to withdraw the film-moving finger q from its operative position, shown in full lines in Fig. 1, to its normal or inoperative position, shown in dotted lines in Fig. 1. The film-mover is protruded to cause it to engage with the perforations j in the film F as shown, by means of a cam w which is fixed to a side-plate a^1 , and this cam is so located that the film-moving finger q snaps inwardly of the carrier t at right angles, or thereabouts, to the plane of the film F , as the said finger slips off the end of the said cam w . The carrier t is fast on the shaft u which is journaled in the side-plates a^1 a^2 , and which also has fast thereon a fly-wheel v and a pinion or gear z of the train of gearing z connecting the shaft u with the crank shaft y , which is also journaled in said side-plates.

In the operation of the machine, the crank-shaft y is turned, by hand or otherwise, to cause the carrier t to revolve in the direction of the arrow thereon, thus carrying the finger q around in a path which, for the most part, lies wholly within the periphery of the carrier t , in the particular instance illustrated, but which path, at the moment when the cam w protrudes the finger q to cause it to engage with and move the film F , passes beyond the said periphery and so remains until the finger q snaps off the cam, during which time the finger moves the film downward to bring the succeeding picture thereon opposite the framing opening c . The finger q will also move the film upward if the crank-shaft y be turned the other way, since the block s where the spring r is secured to the carrier is so placed with relation to the end of the cam w that the end q is cammed off by the cam w and into engagement with the film. The carrier t and the side-plate a^1 may be used as guides for the film f by bringing them close to the plate a , as shown more

clearly in Fig. 4, the end of the plate being in the arc of a circle concentric with the disk of the carrier t and of the same radius. The side plate a^2 is made fast to the plate a , preferably, as well as to the base b .

What I claim as new and desire to secure by Letters Patent of the United States is—

1. In a moving picture machine, a film-mover consisting of a rotary carrier, a spring-retracted film-mover mounted thereon, and a cam for protruding said film-mover.

2. In a moving-picture machine, the combination of a rotary carrier, a spring-retracted film-mover mounted thereon, said mover being a continuation of the said spring, and a cam for protruding said film-mover.

3. In a moving-picture machine, the combination of a rotary carrier provided with a lug on one face thereof, a spring fast to said lug and having its free end bent at an angle to the body thereof to form a film-mover, and a cam for forcing said finger outward relatively to said carrier.

4. In a moving-picture machine, a film-guide consisting of a circular carrier and a round-end side-plate coacting with said film near its edges.

Signed at New York in the county of New York and State of New York.

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Witnesses:

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