

No. 773,981.

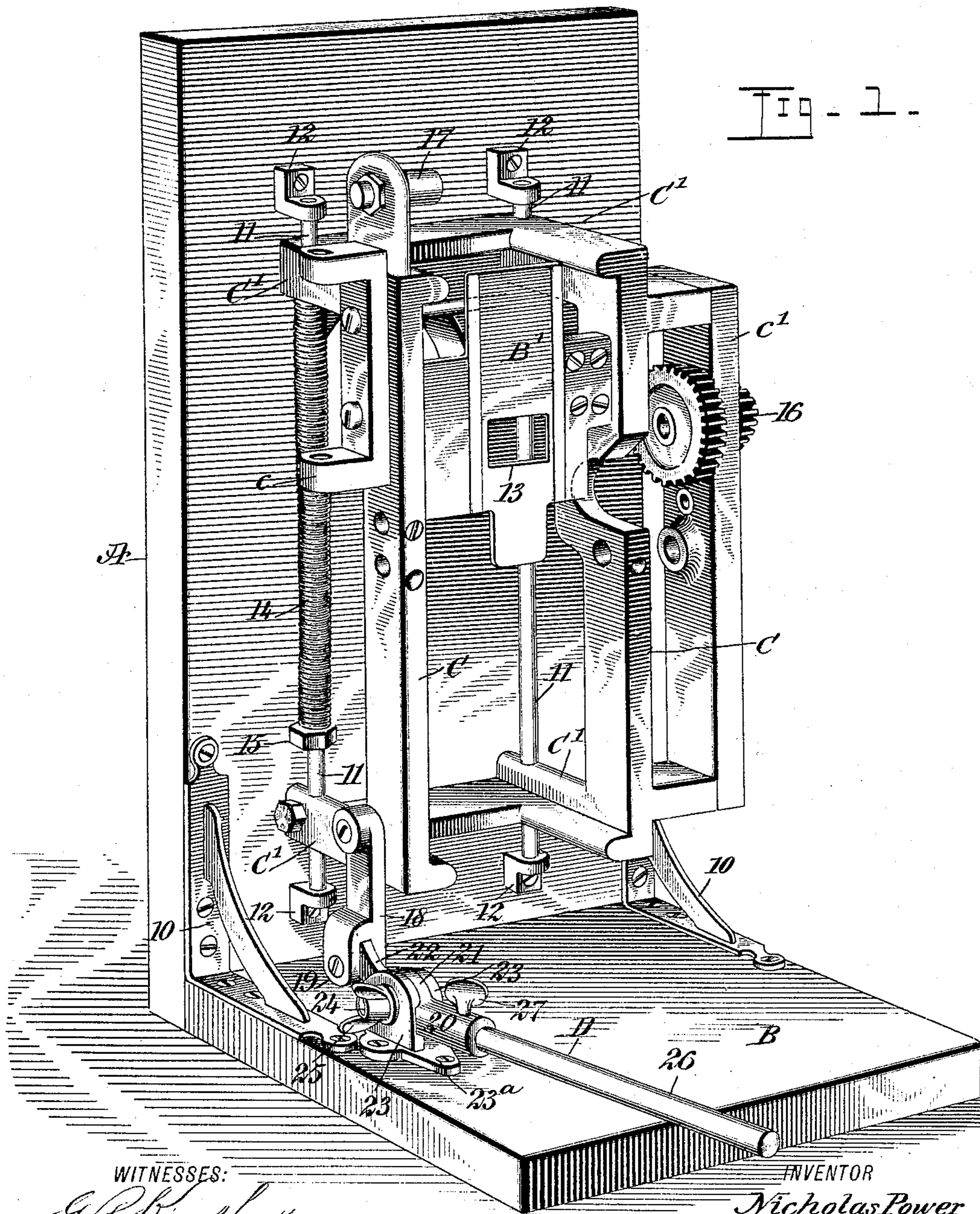
PATENTED NOV. 1, 1904.

N. POWER.  
APPARATUS FOR EXHIBITING MOVING PICTURES.

APPLICATION FILED MAR. 9, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

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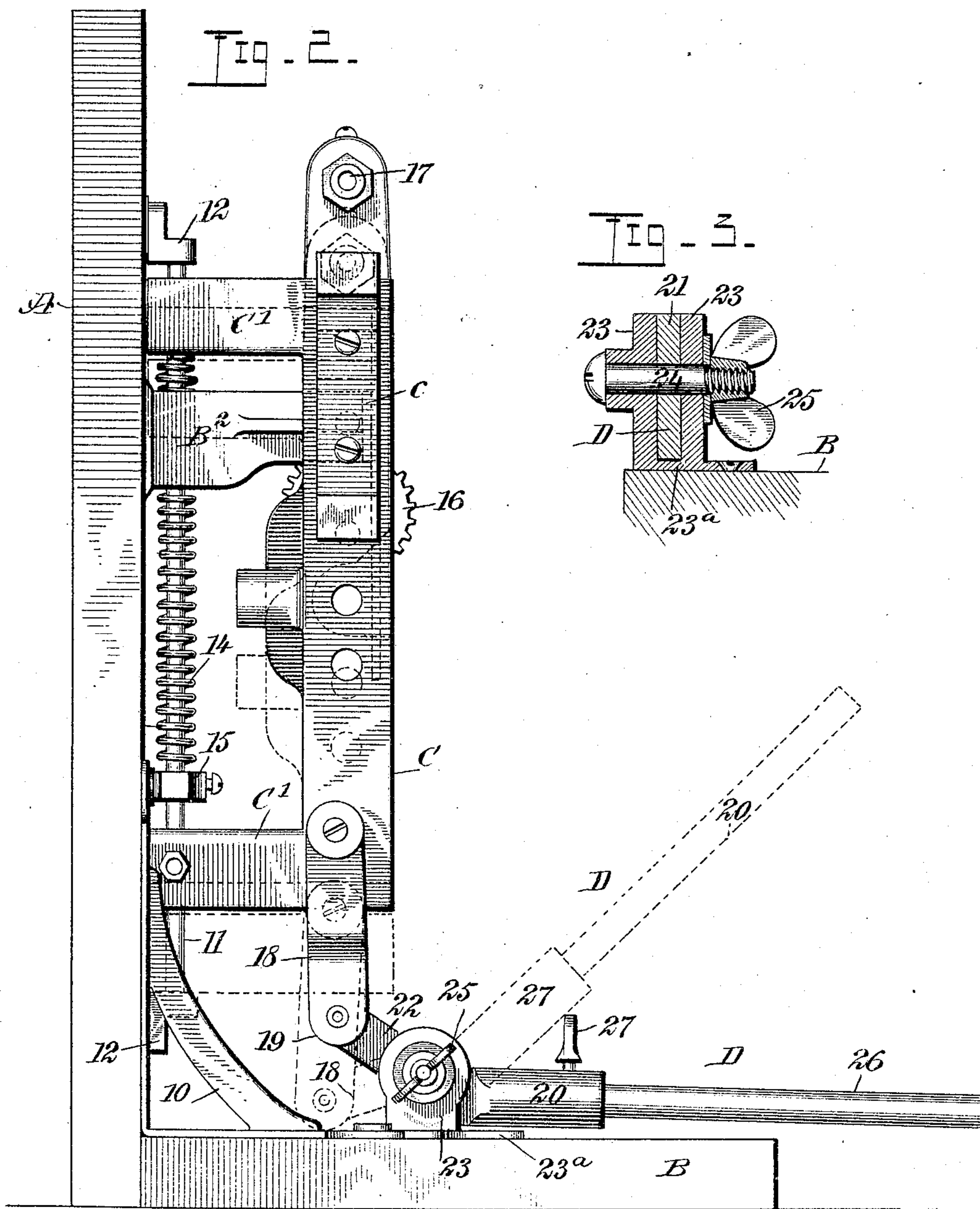
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# UNITED STATES PATENT OFFICE.

NICHOLAS POWER, OF NEW YORK, N. Y.

## APPARATUS FOR EXHIBITING MOVING PICTURES.

SPECIFICATION forming part of Letters Patent No. 773,981, dated November 1, 1904.

Application filed March 9, 1904. Serial No. 197,260. (No model.)

*To all whom it may concern:*

Be it known that I, NICHOLAS POWER, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Apparatus for Exhibiting Moving Pictures, of which the following is a full, clear, and exact description.

My invention relates to vitascopes or apparatus for exhibiting moving pictures; and the purpose of the invention is to provide a registering and changing device of exceedingly simple construction which is conveniently operated during the operation of the machine relative to the framing-opening, the said device operating in such manner that while the picture to be projected may be raised or lowered, as required, for a perfect registry at the said framing-opening the said rectifying mechanism acts independently of the body of the machine and without interfering with the action of any part carried by the said body, and, further, to provide a rectifying mechanism with an operating-lever frictionally held in adjusted position and means for increasing or diminishing the tension.

Another purpose of the invention is to provide a spring-counterbalance for the carrying-frame or frame upon which the film-operating mechanism is located, which spring cushions the said frame and releases the lever from any overburdening influences.

Another feature of the invention is to so construct the adjusting mechanism that an exceedingly slight up or down adjustment of the film may be obtained or a rapid and accurate adjustment of the film to a greater or less extent and whereby as soon as the adjusting mechanism is released all the parts affected by the said mechanism will remain in the position to which they were set.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and 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 figures.

Figure 1 is a perspective view of the carry-

ing-frame of the apparatus, its support, and a lever for operating the frame. Fig. 2 is a side elevation of the parts shown in Fig. 1, and Fig. 3 is a transverse section through the lever and its fulcrum-support.

A represents a vertical support, and B a horizontal support, the two supports being connected by brackets 10 or their equivalents. Parallel vertical rods 11 are located on the vertical support A, being held a predetermined distance from what may be termed the "rear" face of the said support by means of suitable angular brackets 12, secured to the support, which brackets respectively support the top and bottom of the guide-rods 11.

B' represents a guide-plate for the film, which is of the usual construction or may be of any approved construction, and this guide-plate for the film is rigidly attached to the vertical support A by a suitable horizontal arm or arms B<sup>2</sup>, as is shown in Fig. 2, and in this guide-plate B' for the film the framing-opening 13 is located.

A carrying-frame C or a frame on which the operative mechanism for the film is located is mounted to slide at each side of the guide-plate B' for the film, and this carrying-frame is provided with horizontal arms C', apertured to receive the guide-rods 11, upon which the said frame C is mounted for sliding movement. A spring 14 is coiled around one of the rods 11—the left-hand one, for example—which spring has bearing against the upper left-hand arm C' of the frame and against a collar 15, secured to the guide-rod near its lower portion. This spring 14 is adapted to cushion the frame C in its movement and is further and primarily adapted to counterbalance the weight of the said frame and the parts which may be attached thereto, so as to relieve the adjusting-lever D, to be hereinafter described, from overpressure.

I have shown the frame C as provided at its left-hand side with an attached bracket c, and this bracket is intended to be a partial support for the shafting connected with the driving mechanism for the film, and at the opposing side I have shown a bracket c', and in this bracket several of the gears 16, forming a portion of the driving mechanism for

the driving or controlling devices for the film are shown. At the upper portion of the frame I have shown a spindle 17, on which one of the guide and feed wheels for the film is usually mounted.

At the lower end, preferably, of the left-hand front portion of the frame C a downwardly-extending arm 18 is rigidly secured, having a bifurcated lower portion 19. The said frame is raised and lowered, so as to bring a film carried thereby in proper registry with the framing-opening 19 by means of the lever D above referred to. The body portion of this lever consists of an end socket 20, an intermediate disk-section 21, and an opposite upwardly-curved member 22, which at its outer end is made to enter the space at the bifurcated portion of the arm 18 and is suitably pivoted in said bifurcated end of the said arm. The intermediate disk-section of the body of the lever is frictionally held between opposing cheek-pieces 23 of a bracket 23<sup>a</sup>, secured in any suitable or approved manner upon the horizontal support B. The lever is pivoted by a bolt 24, having a head at one end and a thread at the other, the plain portion of the bolt being passed through suitable apertures in the cheek-pieces 23 of the bracket 23<sup>a</sup> and the intermediate disk-section 21 of the said lever, as is shown best in Fig. 3. The frictional engagement between the cheek-pieces 23 of the bracket 23<sup>a</sup> and the central disk-section 21 of the said lever may be rendered greater or less by turning the thumb-screw 25 or its equivalent in one or the other direction, the said thumb-nut being located on the threaded portion of the bolt 24. The construction of the lever D is completed by the addition of a handle member 26, removably introduced into the socket-section 20 of the body of the lever, and is removable from the said socket-section and adjustable therein, being held in position by means of a set-screw 27, which passes into the bore of the said socket member.

The lever when carried downward will raise the frame C as far as may be desired and can raise the said frame instantly and while the machine is in operation without detriment to the moving parts of the machine. When the lever is carried upward, as shown by dotted lines in Fig. 2, the frame C is carried downward, and adjustment up or down of the frame may be made as minutely as desired or within the full range of the lever, and the very moment that the lever is released or is carried to the proper position to bring the picture in proper registry at the framing-opening the lever will remain in that position,

and as the spring 14 counterbalances the weight of the frame C and parts carried thereby there is no tendency for the lever to be carried out of its said position. Therefore under these circumstances the frictional engagement is sufficient, particularly so since the portion of the lever that is attached to the frame is given an upward curvature, so that all tendency to drop on the part of the frame will only create a pressure bearing on the pivot of the lever and will of itself tend to check any tendency of the part of the lever to move from its position.

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

1. In an apparatus for exhibiting moving pictures, a guide-plate for the films provided with a framing-opening, a tension-controlled carrying-frame within which the said guide-plate is located, the frame having vertical guided movement, a lever for operating the said carrying-frame, and means for frictionally locking the lever in adjusted positions, as described.

2. In an apparatus for exhibiting moving pictures, a carrying-frame, guides upon which the said frame has movement, a counterbalancing-spring located on one of the said guides and having controlling action relative to the carrying-frame, a lever, frictional bearings between which the lever is pivoted, and pivotal connection between the lever and the carrying-frame, as described.

3. In a device for exhibiting moving pictures, supporting-rods, a carrying-frame slidable on the said supporting-rods, a counterbalancing-spring for the carrying-frame, coiled around one of the said rods, having bearing against the upper portion of the carrying-frame and against a stop located on the rod, an arm extending downward from the lower portion of the carrying-frame, opposing bearings, a lever having a disk-section located between the bearings and in frictional engagement therewith, a pivot for the said lever, passed through the said bearings and provided with a tightening device, a handle at one end of the said lever, and an upturned member at the opposite end, which upturned member is pivoted in the said arm extending from the carrying-frame, as set forth.

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

NICHOLAS POWER.

Witnesses:

JNO. M. RITTER,  
J. FRED. ACKER.