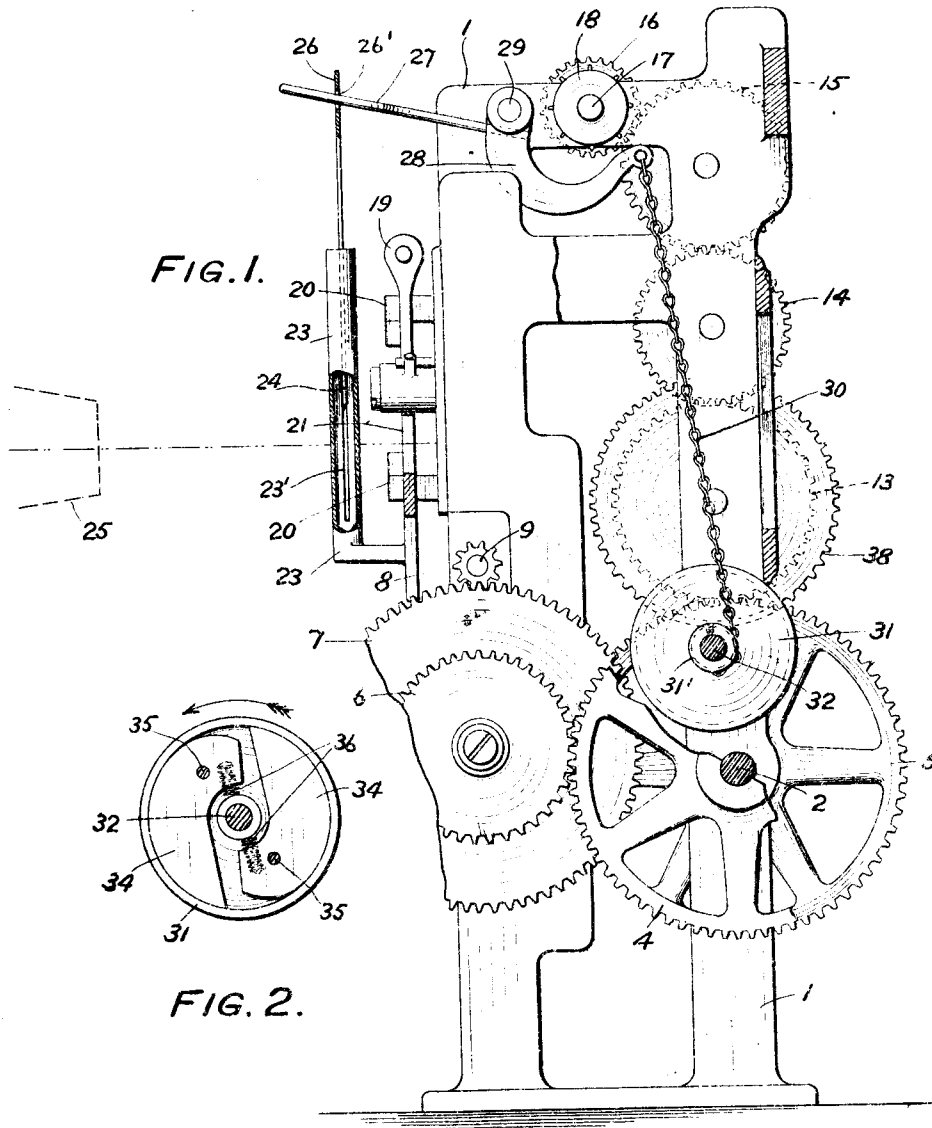


O. T. WEISER.
MOVING PICTURE PROJECTING MACHINE.
APPLICATION FILED JULY 10, 1908.

1,031,750.

Patented July 9, 1912

2 SHEETS-SHEET 1.



WITNESSES:

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INVENTOR:

Otwin J. Weiser

BY

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ATTORNEY

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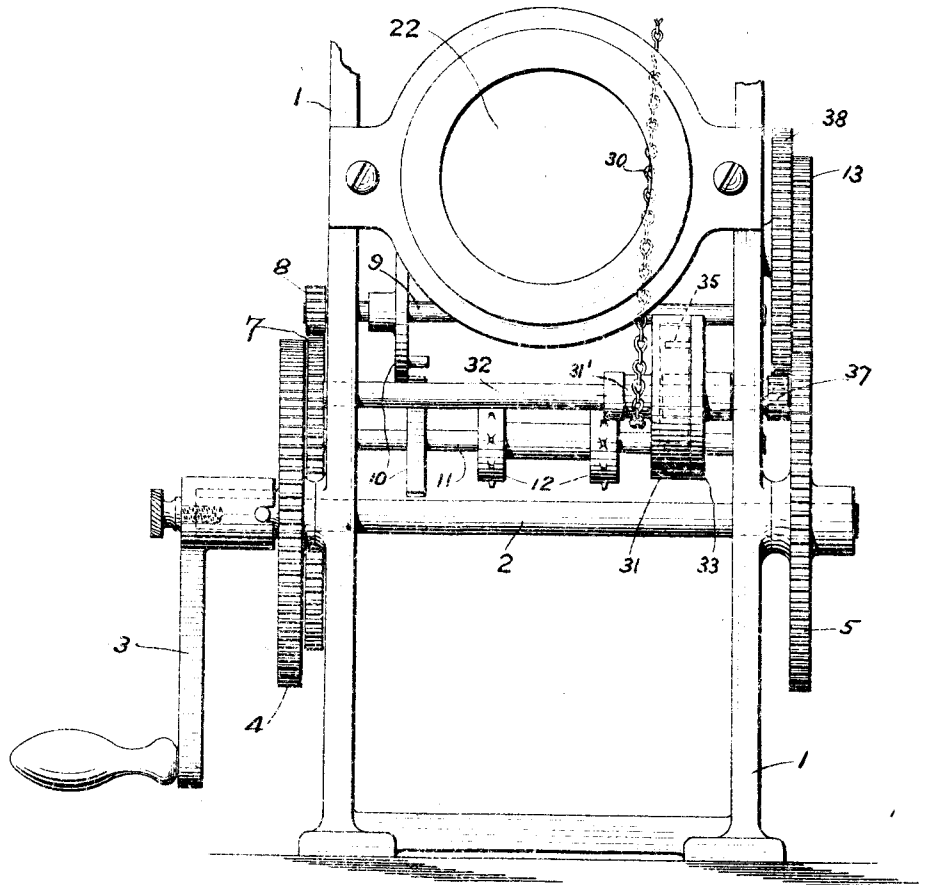
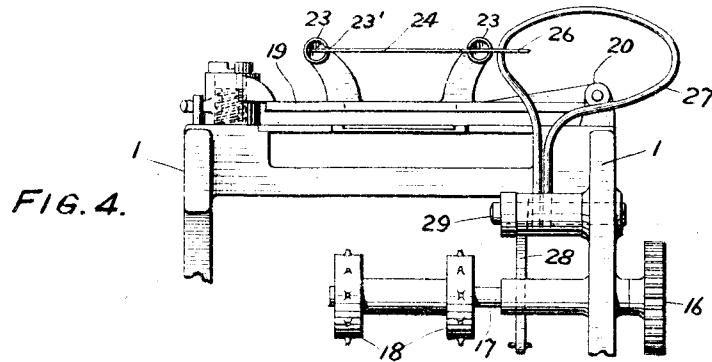


FIG. 3.

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ORVILLE T. WEISER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO SIEGMUND LUBIN, OF PHILADELPHIA, PENNSYLVANIA.

MOVING-PICTURE-PROJECTING MACHINE.

1,031,750.

Specification of Letters Patent.

Patented July 9, 1912.

Application filed July 10, 1908. Serial No. 442,909.

To all whom it may concern:

Be it known that I, ORVILLE T. WEISER, a citizen of the United States, residing in the city of Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented certain Improvements in Moving-Picture-Projecting Machines.

This invention, relating to machines for projecting moving pictures, has for its leading object to provide improved means for automatically closing and opening the passage between the lamp and the film, the passage being maintained open when the film is moved to exhibit the subject and closed when the operation is checked or stopped.

In the accompanying drawings, Figure 1 is a sectional side elevation of a machine embodying my improvements; Fig. 2 is an enlarged view of a detail of construction; Fig. 3 is a front elevation of the lower part of the construction shown in Fig. 1, and Fig. 4 is a broken top view of the machine.

The machine comprises the housing 1 having journaled therein the shaft 2, which is revolved by the handle 3 and revolves the spur gears 4 and 5. The gear 4 engages a revoluble pinion 6 which is fixed to a spur gear 7 engaging a pinion 8, the latter being fixed on a journaled shaft 9 which drives the usual mechanism 10 for revolving the shaft 11 carrying the lower film feeding sprocket wheels 12. The spur gear 5 drives the journaled idler gears 13, 14 and 15 through which it is engaged with the revoluble pinion 16 fixed on the journaled shaft 17, the latter carrying the upper film feeding sprocket wheels 18.

The door 19, carried by the hinges 20 at the rear of the machine, is provided with the light aperture 21, which, when the door is closed, is in line with the machine's light aperture 22 wherethrough the picture is projected from the film carried by the sprockets. The door carries the guides or posts 23 having ways 23' for the shutter 24, the latter being adapted to move vertically in the ways to open and close the passage from the lamp 25 through the light apertures of the machine. This shutter has thereon a lug 26 containing an opening 26' wherethrough extends a loop 27, which, with an arm 28, forms a lever adapted to rock on the fulcrum 29, the loop having such curvature that the door can be opened and the

shutter revolved without being disengaged from the lever.

The arm 28 is connected by a tie member 30, suitably a chain, with the hub 31' of a drum 31 which is loose upon the journaled shaft 32. Fixed to this shaft is a disk 33, on the face of which and within the drum 31 are the friction shoes 34 carried by the eccentrically disposed arbors 35, the latter being carried by the disk. Springs 36, disposed between the heels of the shoes 34 and the shaft 32 with which they revolve, normally hold the shoes out of frictional contact with the interior of the drum's periphery.

A pinion 37 is fixed on the shaft 32 and engages a spur wheel 38 fixed to the idler gear 13, so that the shaft 32 and the shoes carried thereby are revolved in the direction of the arrow on Fig. 2 when the machine is operated to feed the film.

When the machine is operated at the speed requisite for exhibiting the subject of the film, the centrifugal action causes the shoes 34 to frictionally engage the periphery of the drum 31 which is revolved thereby to the extent required for depressing the arm 28 and elevating the arm 27, whereby the slide is raised and light permitted to pass from the lantern 25 through the machine. When the operation is stopped or checked so that the film is not moved at the rate requisite for exhibition, the shoes do not engage the drum so as to move or hold it and the shutter drops.

Having described my invention, I claim:

1. In apparatus of the class described, a shutter having a straight line movement of reciprocation, means whereby said shutter revolves, and an arm adapted to oscillate, said arm and shutter being connected so that said shutter can revolve without being disconnected from said arm.

2. In apparatus of the class described, a shutter, ways in which said shutter is adapted to reciprocate, means whereby said shutter and ways revolve, and an arm adapted to oscillate, said arm and shutter being connected so that said shutter can revolve without being disconnected from said arm.

3. In apparatus of the class described, a movable shutter, a lever comprising a loop connected with said shutter, a revoluble shaft, and means for connecting said shaft

and lever, said means comprising a centrifugal friction device and a drum engaged by said device whereby the revolution of said shaft effects the movement of said lever.

5 4. In apparatus of the class described, a revoluble shaft, a friction shoe, means on said shaft whereby said shoe is fulcrumed so that it is caused to move outwardly when revolved, a device loose on said shaft and
10 adapted to be engaged by said shoe when revolving, a movable shutter, and means for connecting said device and shutter.

5. In apparatus of the class described, a revoluble shaft, a handle for revolving said
15 shaft, a second revoluble shaft, means con-

necting said shafts so that they revolve together, a fulcrumed frictional shoe, means whereby said shoe is connected with said second shaft, a device loose on said second shaft and adapted to be frictionally engaged
20 by said shoe, a shutter adapted to reciprocate, and means for connecting said device and shutter.

In witness whereof I have hereunto set my name this 24th day of June, A. D. 1908, 25 in the presence of the subscribing witnesses.

ORVILLE T. WEISER.

Witnesses:

ROBERT JAMES EARLEY,

JOS. G. DENNY, Jr.