Dec. 28, 1926. 1,612,276

C. L. FITZ

PORTABLE MOTION PICTURE MACHINE

Original Filed Nov. 3, 1922 2 Sheets-Sheet 1

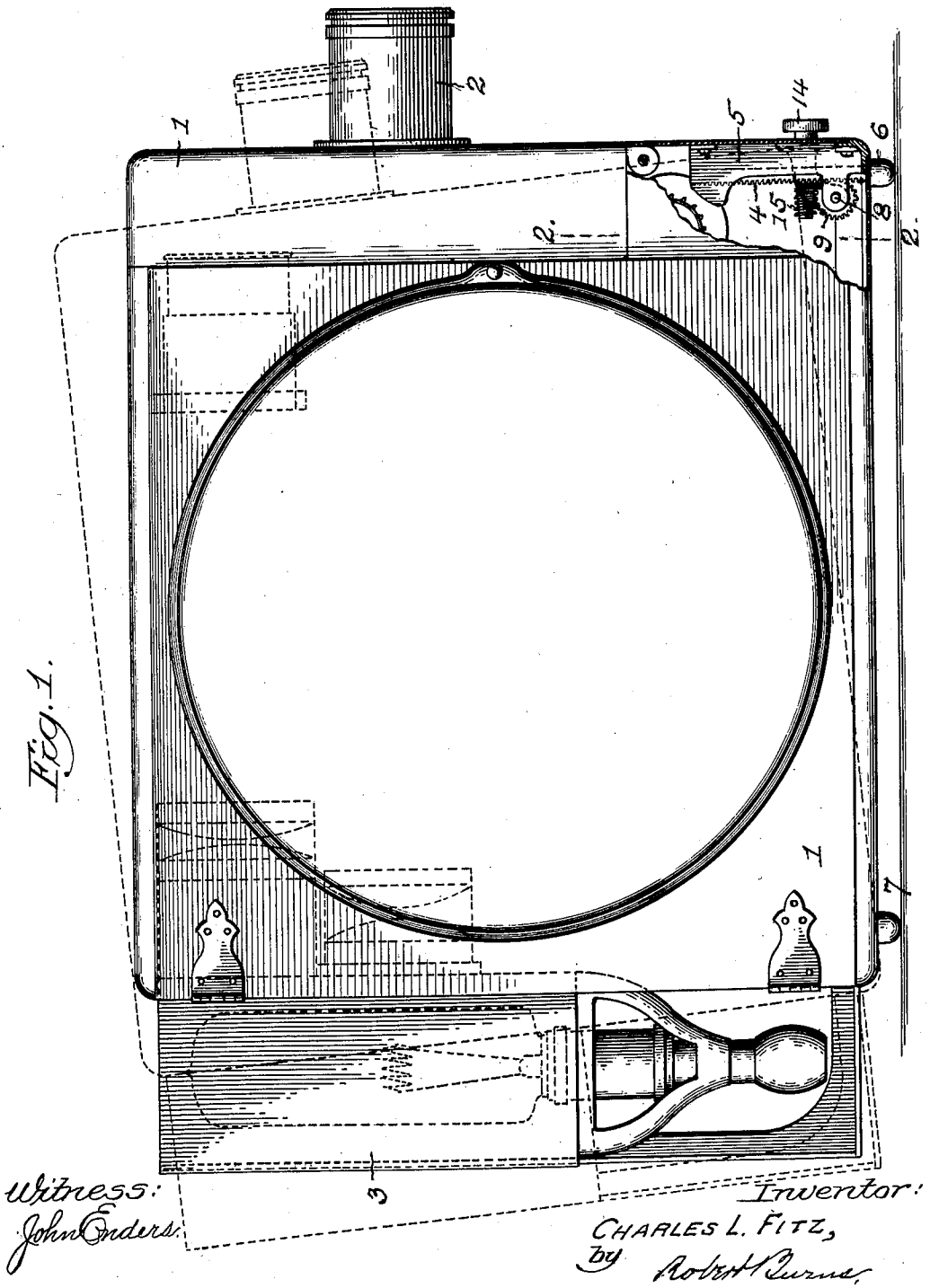


Fig. 1.

Witness:
John Enders.

Inventor:
CHARLES L. FITZ,
by Robert Burns,
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Fig. 2.

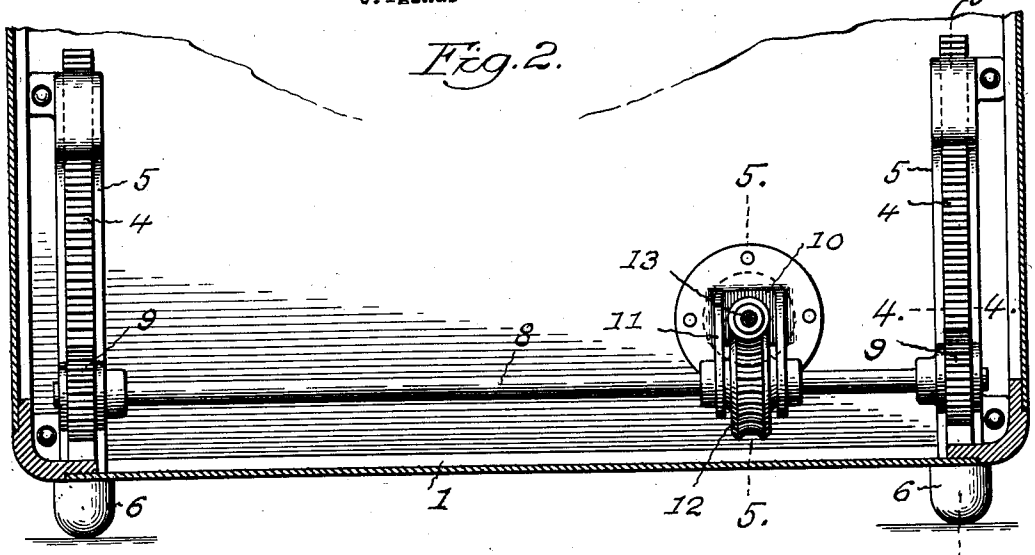


Fig. 4.

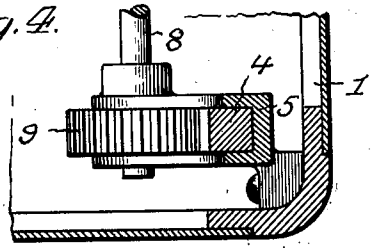


Fig. 3.

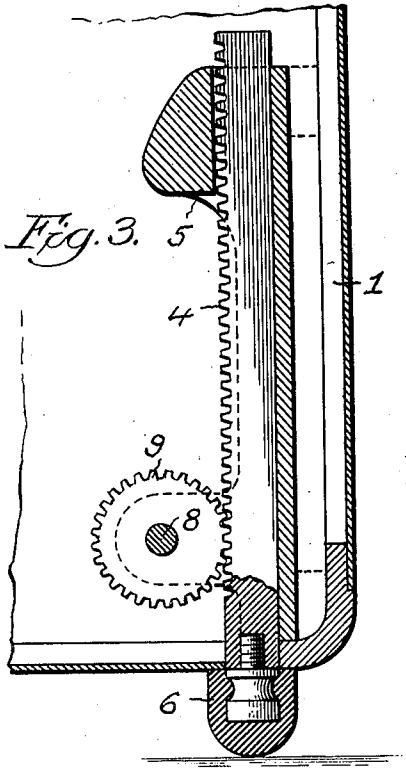
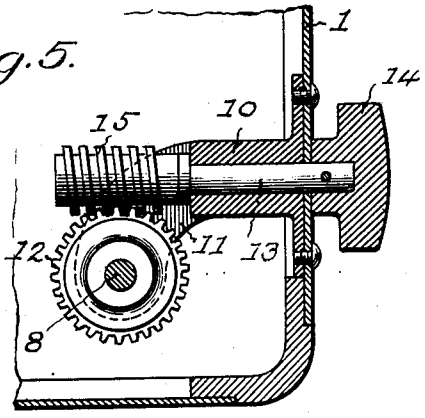


Fig. 5.



Witness:
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Patented Dec. 28, 1926. 1,612,276

UNITED STATES PATENT OFFICE.

CHARLES LEO FITZ, OF FOND DU LAC, WISCONSIN, ASSIGNOR TO DROP HEAD PROJECTOR COMPANY, OF FOND DU LAC, WISCONSIN, A CORPORATION OF WISCONSIN.

PORTABLE MOTION-PICTURE MACHINE.

Application filed November 3, 1922, Serial No. 598,867. Renewed May 29, 1926.

This invention relates to means for effecting a tilting adjustment of a portable motion picture apparatus, in a vertical plane with a view to attain a proper framing of the motion pictures upon the view screen.

And this improvement has for its object, to provide a structural formation and association of parts and mechanisms whereby an accurate and ready tilting of the portable and self contained motion picture apparatus is attained, all as will hereinafter more fully appear.

In the accompanying drawings:—

Fig. 1 is a side elevation illustrated in full lines the apparatus in a normally level position and in dotted lines in a tilted position.

Fig. 2 is an enlarged detail transverse section of the lower and forward portion of the machine on line 2—2 Fig. 1.

Fig. 3 is an enlarged detail longitudinal section on line 3—3 Fig. 2.

Fig. 4 is a similar horizontal section on line 4—4 Fig. 2.

Fig. 5 is a similar longitudinal section on line 5—5 Fig. 2.

Like reference numerals indicate like parts in the several views.

Referring to the drawings, 1 designates the usual rectangular box like enclosing casing of a motion picture machine, such as forms the subject matter of the McMillan Letters Patent No. 1,336,407 dated December 30, 1919. Said casing carries at its front end the picture projecting objective 2, at its rear end the longitudinally adjustable lamp house 3, and in its interior the usual film reeling and film feeding mechanisms of the machine.

4 designates a pair of adjustable rack bars or feet arranged in adjacent relation to the front wall of the casing 1, near the respective sides of the same, and moving in vertical guides 5 fixed within said casing. The bars or feet 4 are formed with enlarged and rounded bearing heads 6, and at one side and along their length with gear teeth for operative engagement with the hereinafter described mechanisms by which simultaneous adjustment is imparted to the pair of legs.

7 designates rounded projections fixed to the bottom of the casing 1 near the rear corners of the same and adapted to act as pivot points for the casing in a tilting adjustment of the same.

8 designates a countershaft journalled transversely within the casing 1, preferably in bearing lugs on the vertical guides 5 aforesaid, and carrying on its respective ends gear wheels 9 adapted to operatively engage the gear teeth of the respective rack bars 4, as shown.

10 designates a frame or housing secured to the front wall of the casing 1 and formed at its rear end with orificed ears 11 to afford supplementary bearings for the countershaft 8, and side enclosures for a worm wheel 12 fixed on said countershaft.

13 designates a longitudinal spindle journalled in a bearing in the frame or housing 10 and provided at its forward end exterior of the casing 1 with an operating knob or handle 14. At its rear end the spindle 13 carries a worm or screw 15 adapted to mesh with and drive the worm wheel 12 aforesaid.

In the practical use of the mechanism, a rotation of the knob or handle 14 in one direction or the other is adapted to impart simultaneous adjustment to the pair of rack bars 4 in an upward or downward direction to effect a corresponding adjustment of the light center of the apparatus in relation to the view screen in attaining the proper framing of the motion pictures upon said screen.

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

1. An adjusting means for motion picture machines, comprising a pair of rack bars guided vertically at the front and near the sides of the machine casing, a shaft adapted for manual actuation mounted in the front wall of said casing, and operative connections intermediate of said shaft and said rack bars for imparting simultaneous movement to the rack bars.

2. An adjusting means for motion picture machines, comprising a pair of rack bars guided vertically at the front and near the sides of the machine casing, a shaft adapted for manual actuation mounted in the front wall of said casing, and operative connections intermediate of said shaft and said rack bars for imparting simultaneous movement to the rack bars, the same comprising a worm carried by said shaft, a transverse countershaft having a worm gear meshing with said worm and a pair of gear wheels meshing with the rack bars.

3. An adjusting means for motion picture machines, comprising a housing fixed in the front wall of the casing and having bearing ears on its rear end, a shaft journalled in said housing and having an operating handle on its front end and a worm on its rear end, a transverse countershaft passing through the ears of said housing and having a worm wheel meshing with said worm and a pair of gear wheels meshing with the rack bars.

4. An adjusting means for the motion picture machines, comprising a pair of vertical guides secured to the front and near the sides of the machine casing and formed with bearing lugs, rack bars moving in said guides, a shaft adapted for manual actuation mounted in the front wall of said casing and having at its rear end a worm, a transverse countershaft journalled in the ears of said guides and having a worm wheel meshing with said worm and a pair of gear wheels meshing with the rack bars.

5. An adjusting means for motion picture machines, a pair of vertical guides secured to the front and near the sides of the machine casing and formed with bearing lugs, rack bars moving in said guides, a housing fixed in the front wall of the casing and having bearing ears on its rear end, a shaft journalled in said housing and having an operating handle on its front end and a worm on its rear end, a transverse countershaft journalled in the ears and lugs aforesaid, and having a worm wheel meshing with said worm and a pair of gear wheels meshing with the rack bars.

Signed at Fond du Lac, Wis., this 30th day of October, 1922.

CHAS. LEO FITZ.