

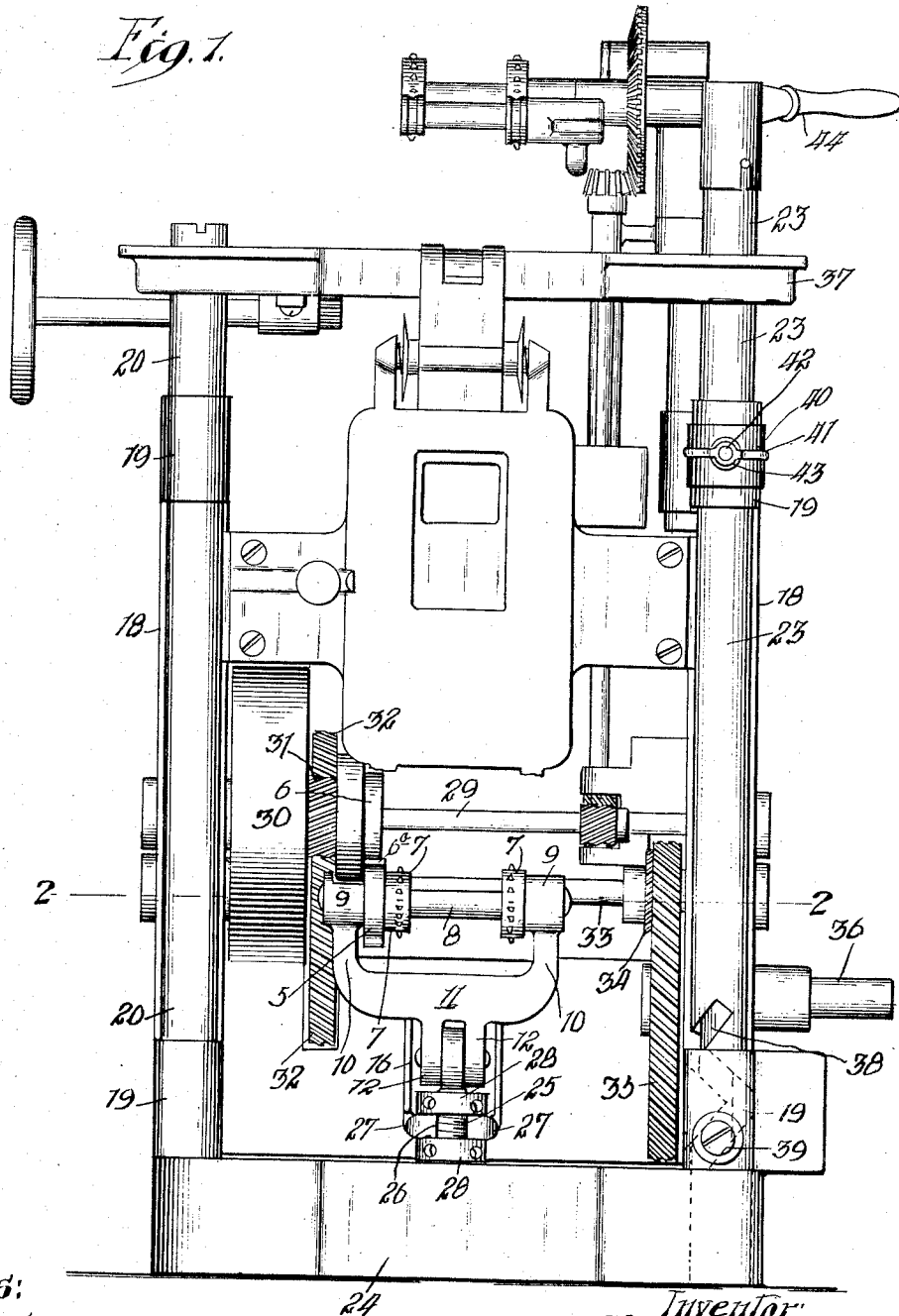
W. N. SELIG.
 ADJUSTING MECHANISM FOR MOVING PICTURE MACHINES.
 APPLICATION FILED APR. 20, 1909.

948,654.

Patented Feb. 8, 1910.

2 SHEETS—SHEET 1.

Fig. 1.



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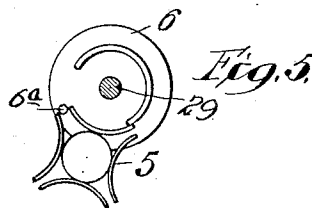
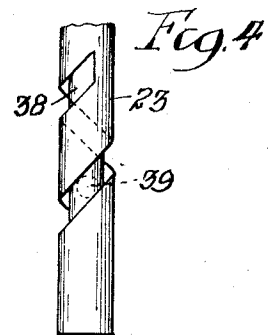
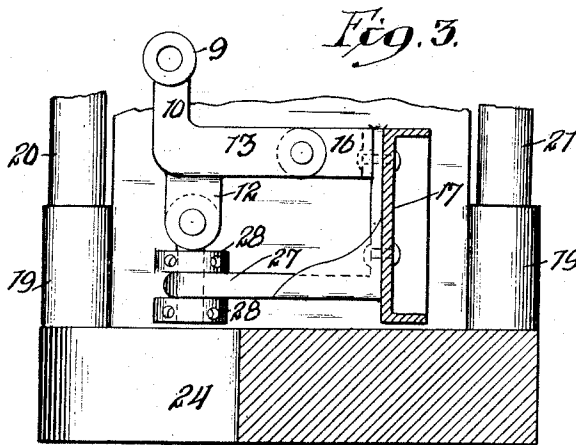
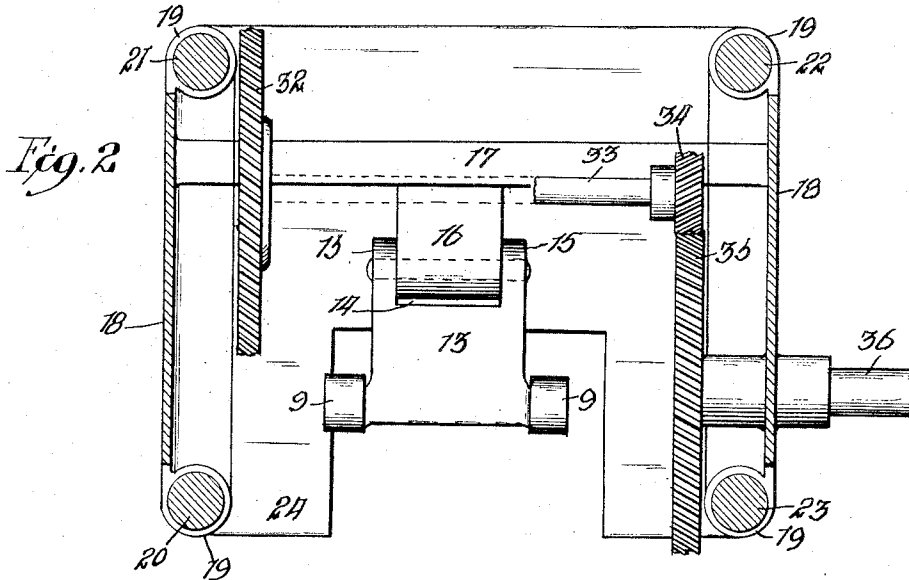
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

WILLIAM N. SELIG, OF CHICAGO, ILLINOIS, ASSIGNOR TO SELIG POLYSCOPE COMPANY,
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ADJUSTING MECHANISM FOR MOVING-PICTURE MACHINES.

948,654.

Specification of Letters Patent.

Patented Feb. 8, 1910.

Application filed April 20, 1909. Serial No. 491,023.

To all whom it may concern:

Be it known that I, WILLIAM N. SELIG, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Adjusting Mechanism for Moving-Picture Machines, of which the following is a specification.

This invention relates more particularly to certain features of improvement in the apparatus for adjusting the mechanism of a moving picture machine, and especially to the means for adjusting the action of the star wheel, which furnishes an intermittent movement to the film feeding wheels. In the use of mechanism of this class, it is highly desirable that the surface of the star wheel should fit snugly and firmly against the rotating circular flange with which it co-operates, in order that there may be no appreciable vibration in the movement, which would produce a flickering appearance in the projected picture.

A further object of the invention is to provide a bracket for the star wheel and the connected feed wheel, which can be readily adjusted to maintain the working parts in proper relation, so that such vibration and consequent flickering may be eliminated.

The invention also relates to the means provided for vertically adjusting the mechanism as a whole, which is necessary in order to properly center the picture on the screen.

Other objects will appear from a detailed description of the invention, which consists in the features of construction and combination of parts hereinafter described and claimed.

In the drawings, Figure 1 is a rear elevation of the machine as a whole; Fig. 2 a sectional plan view taken on line 2—2, Fig. 1, showing the adjustable bracket in elevation; Fig. 3 a side elevation of the adjustable bracket; Fig. 4 a detail of the spirally grooved post for regulating the vertical adjustment of the mechanism; and Fig. 5 a face view of the star wheel and slotted disk.

Referring to Fig. 1, 5 represents the star wheel and 6 the slotted disk with which it coöperates. The movement of the star wheel

is obtained by a pin 6^a, located on the face of the slotted disk, contacting the teeth. The pin 6^a must at all times come into perfect contact with the teeth of the star wheel, in order to get the desired movement; therefore, the pin is not formed integrally with the slotted disk but is screw-threaded into its body, so that when it becomes worn to a point where it affects the proper movement of the star wheel it may be easily removed and a new one inserted in its place. The star wheel is located at one end of and connected with a toothed film feeding wheel 7 which receives an intermittent rotation from the star wheel. The film feeding wheel and the star wheel are rotatably mounted upon a fixed shaft 8, the ends of which are entered through a pair of heads 9 on the upper ends of arms 10, which unite together in a cross head 11 provided with a pair of depending ears 12.

The structure which supports the feeding wheel is in the general form of a Y bracket provided with a forwardly extending tongue 13, best shown in Fig. 2, which is provided, in its front edge, with a recess 14, which leaves a pair of ears 15 which embrace a lug 16 attached to and extending rearwardly from a cross wall 17, forming a part of the frame of the machine. In using the terms "front" and "rear" it will be understood that Fig. 1 shows the rear end of the machine.

The cross wall 17 is integrally formed with and extends between a pair of side walls 18, each of which is provided, at each of its corners, with a sleeve 19. The sleeves are slidably mounted upon four posts, 20, 21, 22 and 23, mounted at the four corners of a base plate 24. The ears 12 serve as a pivotal mounting for a depending screw 25, which passes through the recess 26 in a tongue 27 which lies below the lug 16 and rearwardly extends from the cross wall 17. The lug 16 and the tongue 27 are integrally cast in the form of a bracket, which is bolted or otherwise secured to the cross wall 17, although, obviously, these parts might be integrally formed with the wall. The screw 25 has threaded thereon upper and lower

jam nuts 28, which permit the Y bracket to be vertically adjusted and locked by the action of the jam nuts.

The disk 6 is mounted upon a power transmission shaft 29, which carries a fly wheel 30 and a gear wheel 31, which latter meshes with a driving gear wheel 32 mounted upon a shaft 33 having a pinion 34 meshing with a driving gear wheel 35 on a power shaft 36. The details of the gearing form no part of the present invention, and it is not deemed necessary to refer to them further.

The sleeves 19 are slidable upon the posts 20, 21 and 22, the upper ends of which are fixed in a top plate 37, which forms the roof of the machine. The post 23, however, differs from the others, in that it is rotatably mounted at top and bottom, and is provided, near its lower end, with a spiral slot 38 which receives the end of an adjustable screw pin 39 entered through the lowermost of the two sleeves 19 which ride upon the post 23. The upper of said two sleeves is provided with a slot 40, which receives a ring 41 having outwardly projecting therefrom a screw stud 42, which receives a wing nut 43 adapted to be screwed down against the edges of the sleeve, adjacent to the slot, with sufficient firmness to draw the ring into gripping contact with the rotatable post and lock the parts together. The post 23 is provided, at its outer end, with a handle 44, whereby it may be rotated.

In use, the machine is operated in the usual and well known way, and the parts are adjusted to bring the recessed surface of the star wheel into smooth and firm contact with the disk with which it coöperates, so that the film feeding wheel will be positively moved forward the distance required for each movement of the film, and thereafter firmly and securely locked against vibration or additional movement during the required interval of time, which, of course, is very short. If, in the operation of the machine, the surface of the star wheel, or the disk, should become worn to such an extent as to permit vibration of the star wheel, during the intended intervals of rest, the parts can be adjusted by loosening the jam nuts and swinging up the Y bracket to the extent necessary, and again bring the parts into proper register, after which the bracket will be locked by the jam nuts and the play taken up. When it is desired to vertically adjust the entire sliding frame, the post 23 can be turned, which causes the screw stud 39 to ride up the spiral groove in the post to any desired distance. The construction is one which holds the frame in elevated position, after adjustment, without the necessity for locking the

frame, although the frame can be locked, if desired, by means of the wing nut 43. 65

The arrangement and construction of the adjusting mechanism above described is such that the machine, as a whole, will be very compact and easy of manipulation.

What I regard as new and desire to secure by Letters Patent is: 70

1. In a moving picture machine, a film feeding wheel, coöperating members for imparting intermittent movement thereto, one of which members is connected with the film feeding wheel, and an adjustable bracket upon which the film feeding wheel and the connected member are mounted, substantially as described. 75

2. In a moving picture machine, a film feeding wheel, coöperating members for imparting intermittent movement thereto, one of which members is connected with the film feeding wheel, a bracket upon which the film feeding wheel and the connected member are mounted, a frame mounting the other coöperating member, to which frame the bracket is pivoted, and means for adjusting the free end of the bracket, substantially as described. 80 85 90

3. In a moving picture machine, the combination of a frame, a bracket pivoted to the frame, a film feeding wheel carried at the free end of the bracket, a member outwardly projecting from the frame, a member depending from the free end of the bracket and adapted to be adjusted vertically in the outwardly projecting member, and coöperating members for imparting intermittent rotation to the film feeding wheel, one of said members being mounted on the bracket and the other wheel in fixed position on the frame, substantially as described. 95 100

4. In a moving picture machine, the combination of a frame, a bracket pivoted to the frame, a film feeding wheel carried at the free end of the bracket, a member outwardly projecting from the frame, a member depending from the free end of the bracket and adapted to be adjusted vertically in the outwardly projecting member, a star wheel connected with the film feeding wheel, and a disk mounted upon the frame and adapted to coöperate with the star wheel for imparting intermittent rotation thereto, substantially as described. 105 110 115

5. In a moving picture machine, the combination of a frame, a bracket of substantially Y shape and having a forwardly projecting tongue pivoted to the frame, a screw depending from and pivoted to the bracket, a member connected to the frame through which the screw is entered, nuts on the screw for locking the screw to said member, a film feeding wheel carried by the bracket, and coöperating members for imparting in- 120 125

termittent rotation to the film feeding wheel, one of said members being connected with the film feeding wheel and the other being mounted upon the frame, substantially
5 as described.

6. In a moving picture machine, the combination of a base plate, posts upwardly extending from the base plate, one of said posts being revoluble and provided with a

spiral groove, a frame slidable upon said posts and provided with a projection entering the spiral groove in one of said posts, and means for revolving said post, substantially as described.

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