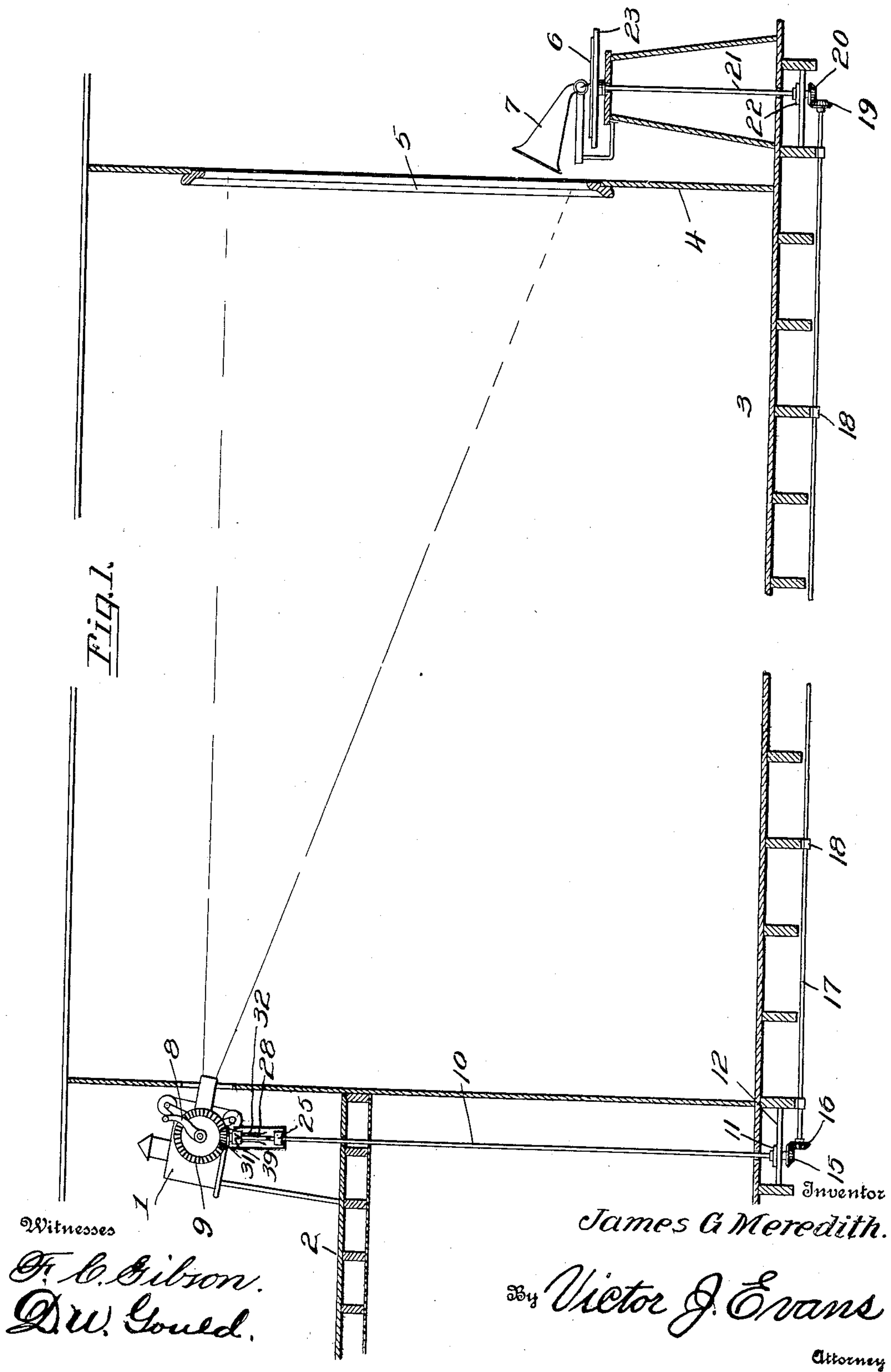


925,933.

J. G. MEREDITH.
MOTION PICTURE APPARATUS.
APPLICATION FILED OCT. 27, 1908.

Patented June 22, 1909.
2 SHEETS—SHEET 1.



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Fig. 4.

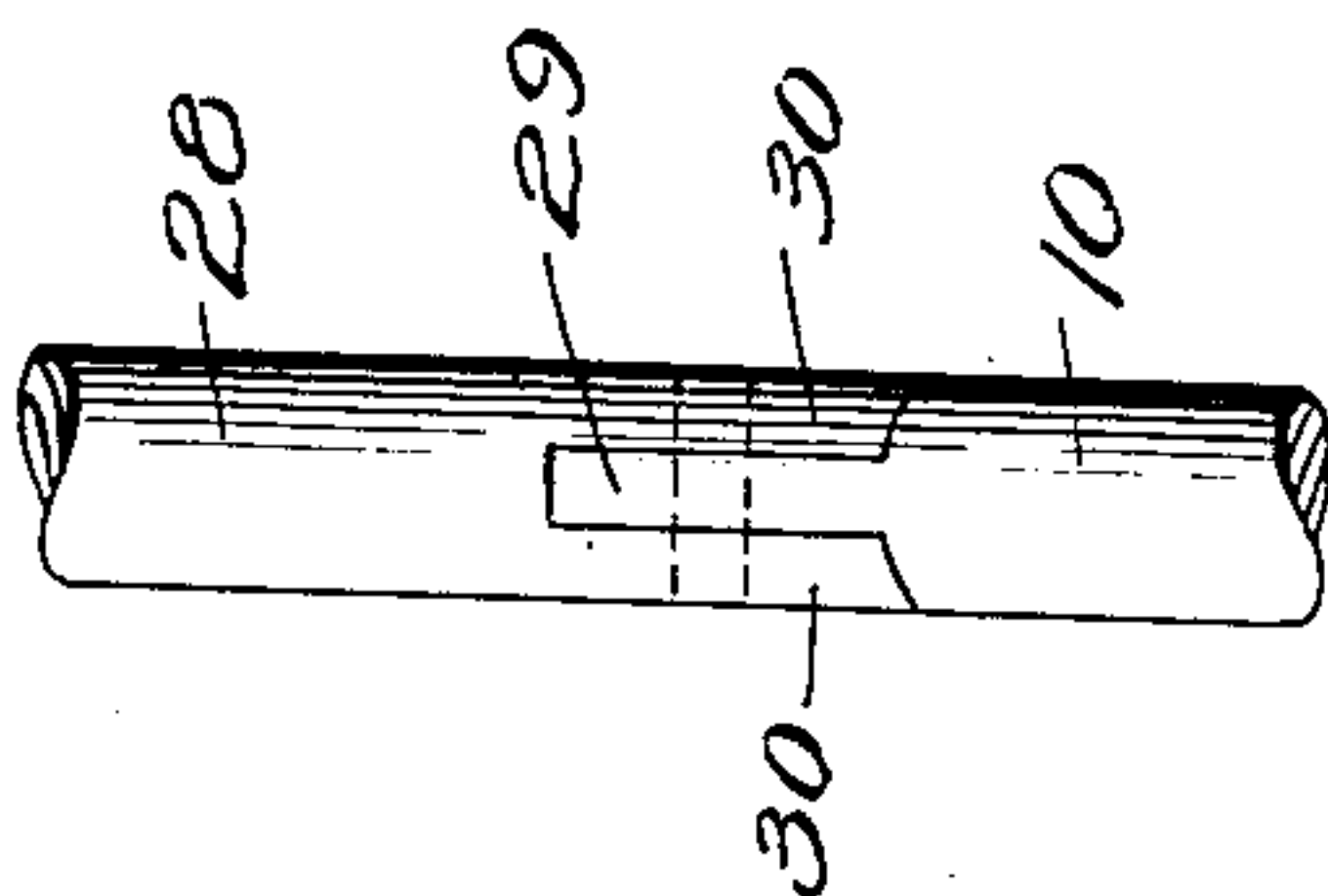


Fig. 3.

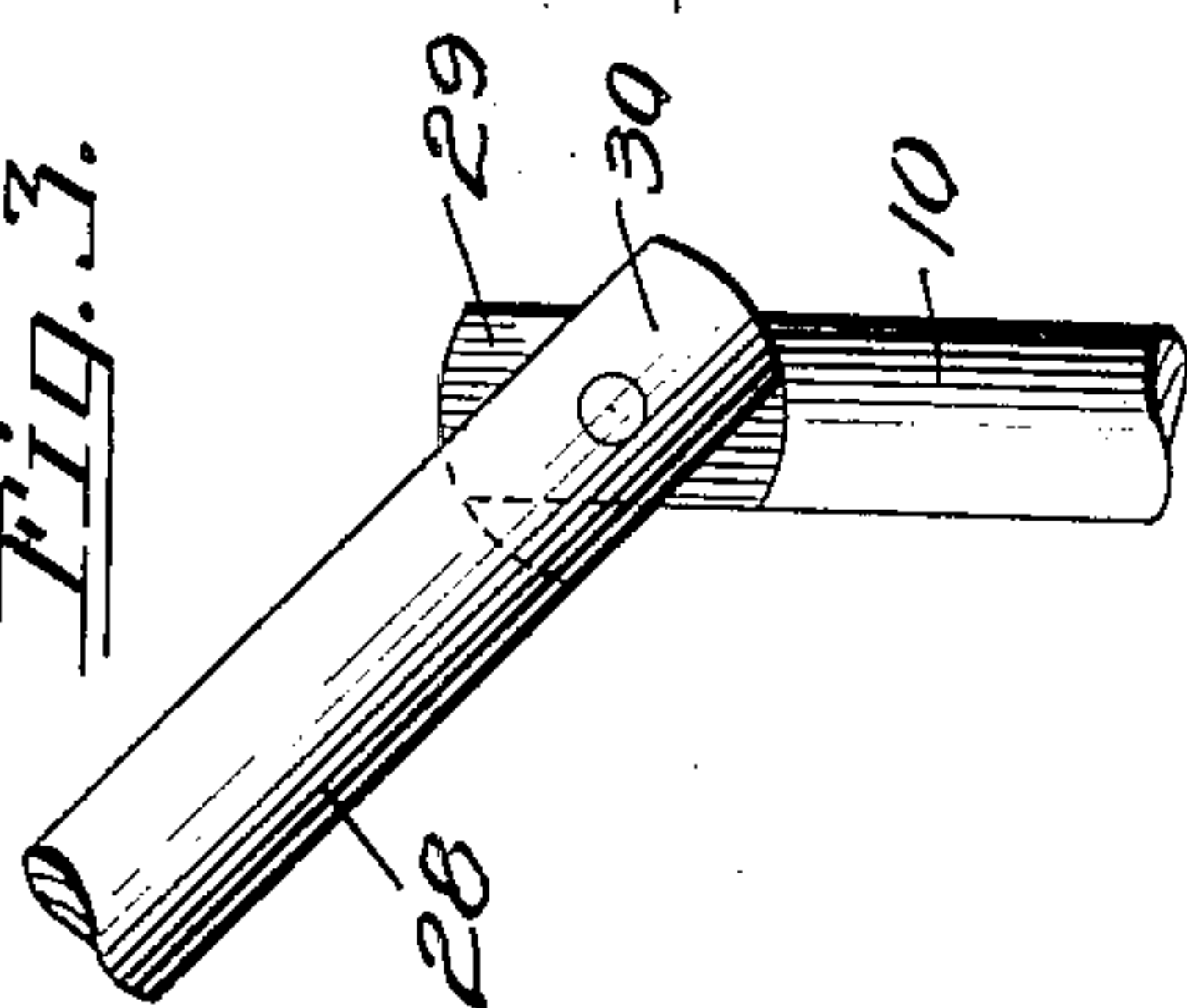


Fig. 5.

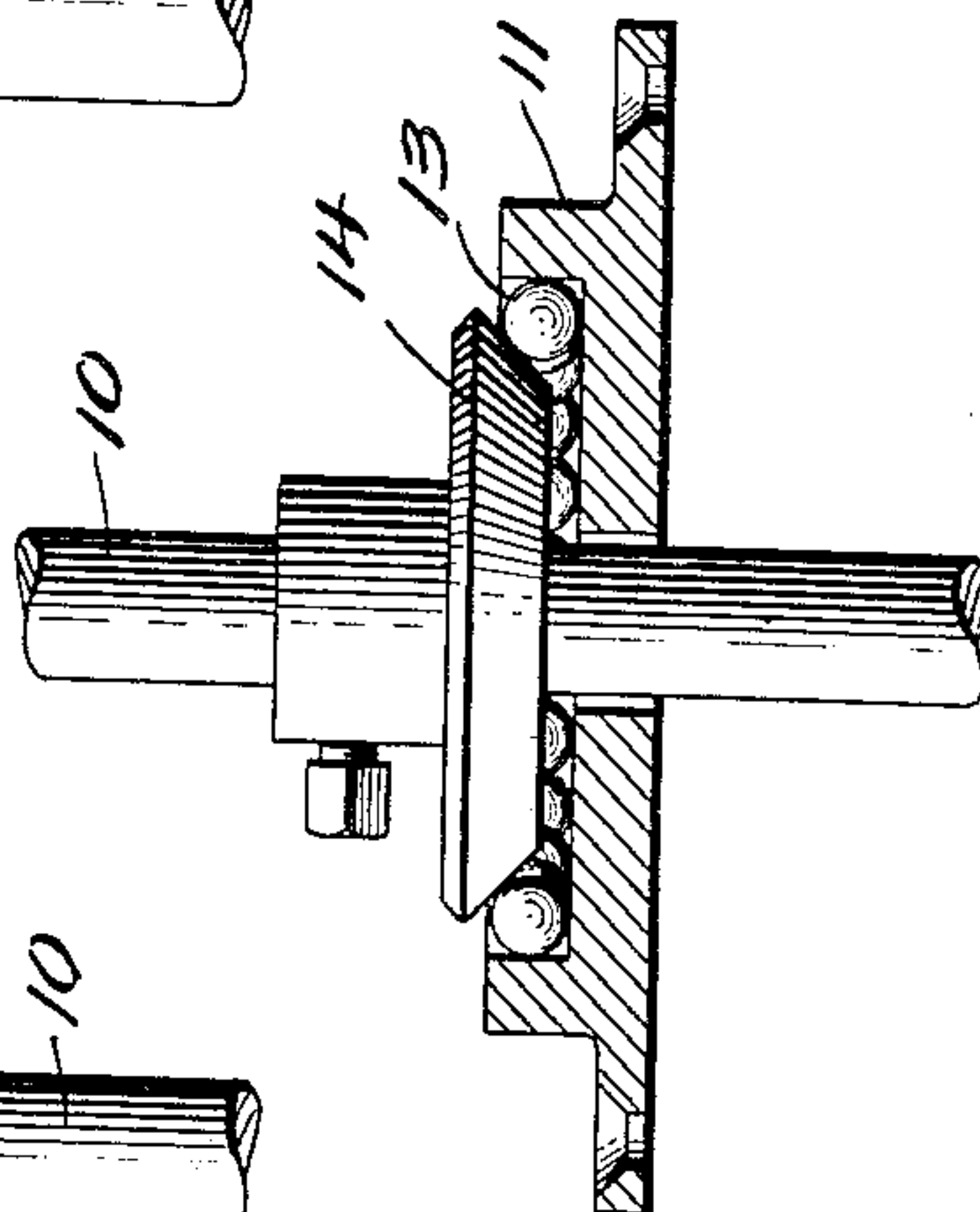
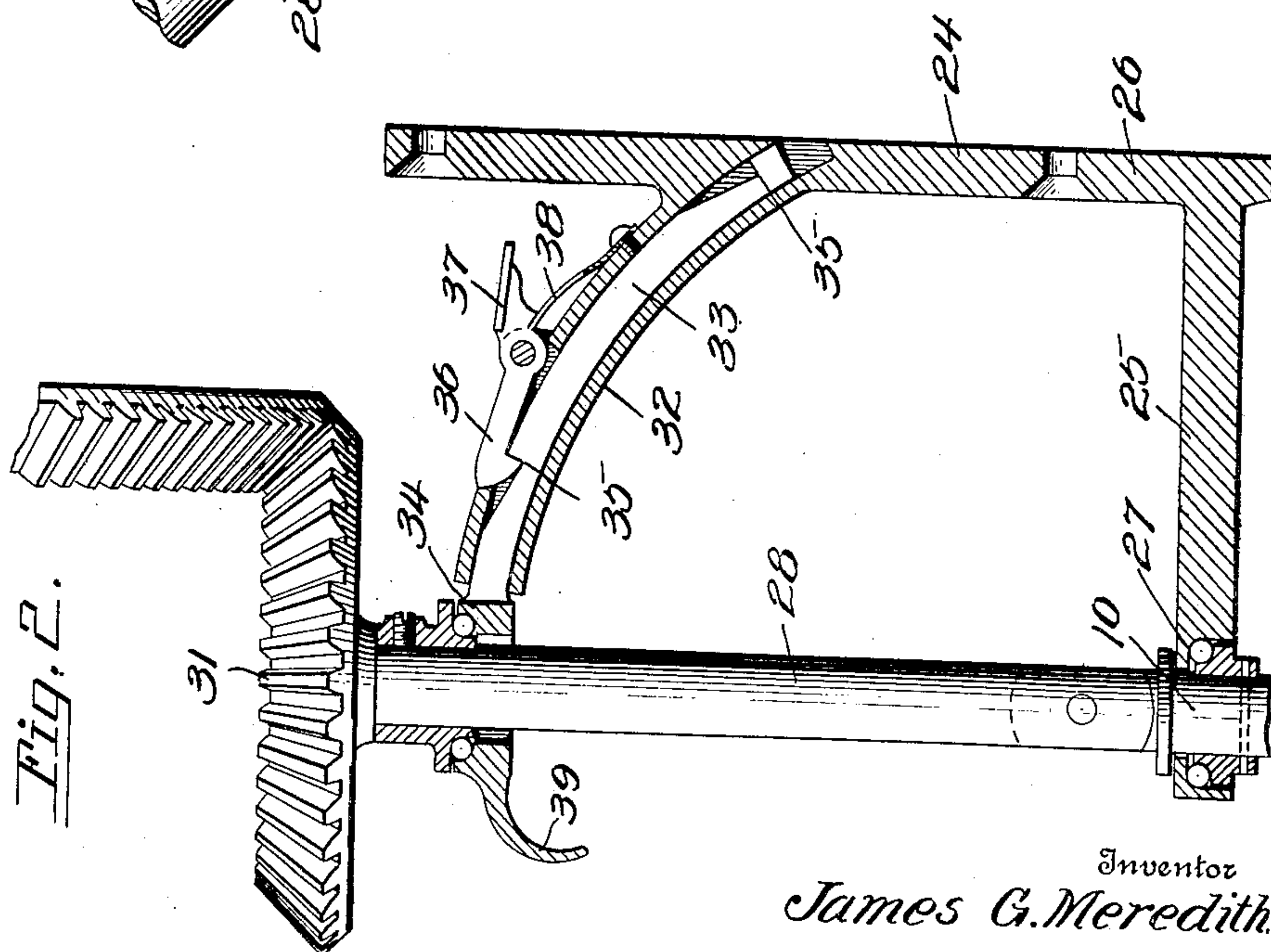


Fig. 2.



Witnesses

F. C. Gibson.
D. W. Gould.

Inventor
James G. Meredith.

By *Victor J. Evans*

Attorney

UNITED STATES PATENT OFFICE.

JAMES GUSTAVUS MEREDITH, OF LYNCHBURG, VIRGINIA.

MOTION-PICTURE APPARATUS.

No. 925,933.

Specification of Letters Patent.

Patented June 22, 1909.

Application filed October 27, 1908. Serial No. 459,753.

To all whom it may concern:

Be it known that I, JAMES GUSTAVUS MEREDITH, a citizen of the United States, residing at Lynchburg, in the county of Campbell and State of Virginia, have invented new and useful Improvements in Motion-Picture Apparatus, of which the following is a specification.

The invention relates to an improvement in motion picture apparatus, being particularly directed to combining a moving picture machine and a talking machine and adapting both machines for synchronous operation in order to imitate the talking as well as the action of the pictured figures.

The main object of the present invention is the production of means arranged intermediate the picture machine and talking machine, whereby the manual operation of the picture machine in the usual manner will induce synchronous operation of the talking machine, the construction including a means whereby the talking machine may be readily disconnected from or connected with the power means.

The invention will be described in the following specification, reference being had particularly to the accompanying drawings, in which:—

Figure 1 is a sectional view partly in elevation, illustrating the construction and arrangement of the improvement. Fig. 2 is an enlarged broken view in elevation partly in section, illustrating the means whereby the talking machine may be disconnected from the picture machine. Fig. 3 is a broken elevation, showing the shaft construction for permitting the disconnection. Fig. 4 is an elevation of the same taken at right angles to the view shown in Fig. 3. Fig. 5 is a broken elevation partly in section, showing one of the supports for the shaft.

Referring particularly to the accompanying drawings, the present improvement is directed to a mechanical means whereby the operator at will may cause the talking machine to be operated synchronously with a picture machine, and in illustrating the preferred form of the invention I have shown a conventional picture machine 1 arranged in a compartment 2 at one end of an exhibition room as 3, which, near the opposite end contains a partition 4, carrying the screen 5 on which the pictures from the machine are focused. In rear of the partition 4 is arranged

horn 7 directed toward and in close proximity to the screen 5 so that in operation of the phonograph the sounds emanating therefrom will appear to come from the screen.

The picture machine 1 is operated in the usual manner, that is by manual manipulation of a crank 8, whereby the film is directed past the lens, and for the purposes of the present invention the crank shaft is arranged to carry a bevel gear 9. Depending from the picture machine is a shaft 10 which extends below the floor of the exhibition hall, being supported at its lower end in a bearing plate 11 mounted upon a platform 12 secured between two stringers, the bearing 11 being formed to provide a ballway 13 to receive the balls upon which a cone 14 secured upon the shaft rests, as clearly shown in Fig. 5.

Immediately beneath the platform 12 the shaft 10 is provided with a bevel gear 15 arranged to mesh with a bevel gear 16 carried upon one end of the shaft 17 extending longitudinally beneath the floor of the exhibition hall and supported in appropriate bearings 18, the opposite end of the shaft terminating beneath the talking machine at which point it is provided with a bevel gear 19. The gear 19 is in mesh with a gear 20 carried upon the lower end of a shaft 21, which adjacent the gear is supported in a bearing 22 similar to the bearing 11. The shaft 21 forms the operating shaft for the phonograph, being connected directly or indirectly as desired to the table 23 on which is supported the disk record.

Adjacent the picture machine the shaft 10 is supported in a bracket 24 including a horizontal arm 25 and a vertical arm 26, which latter is adapted to be secured to the partition immediately in front of the machine. The terminal of the arm 25 is formed with a bearing 27 with which the shaft 10 engages, and immediately above the bearing the shaft is divided to provide an upper section 28, which at its lower end is bifurcated to provide ears 30 adapted to receive between them an ear 29 on the end of the shaft 10, a pivot pin uniting the parts to permit independent lateral movement of the section 28 relative to the remainder of the shaft, as clearly shown in Figs. 3 and 4. The upper end of the section 28 is provided with a bevel gear 31 arranged to mesh with the bevel gear 9 on the picture machine.

From this construction it will be obvious that in the operation of the crank 8 to move

the films, motion will be transmitted through the gears 9 and 31 to the shaft 10; through the gears 15 and 16 to the shaft 17; through the gears 19 and 20 to the shaft 21 for operating the phonograph disk. As it is necessary in some conditions to disconnect the talking machine from the picture machine I have provided a means whereby such effect may be gained in a simple and convenient manner. To this end the vertical section 26 of the bracket 24 is formed with a curved outwardly projecting hollow guide arm 32, in which is mounted a slide bar 33 formed adjacent its outer end with a bearing opening 34 for the reception of the upper end of the shaft section 28. At spaced points the upper surface of the slide bar is formed with notches 35 designed to be engaged by a pawl 36 mounted on the arm 32 and carrying a finger strip 37 to permit manual operation, the pawl being normally pressed in the closing or operative position by a spring 38. The respective notches 35 are arranged at the opposite limits of travel of the bar 33, one of the notches when operatively engaged with the pawl serving to hold the gear 31 in mesh with the gear 9, while with the pawl engaged with the remaining notch the section 28 is swung at an angle to the main length of the shaft 10 and the gear 31 is separated from the gear 9. The outer or free terminal of the rod 33 is formed with a finger piece 39, whereby the rod may be conveniently moved to and from the operative position.

From the above described construction it will be obvious that the operator may, in the actuation of the picture machine, synchronously operate the phonograph while the latter may be thrown out of operation at any time without interfering with the operation of the picture machine by disengaging the pawl from the particular notch 35

and drawing the arm 33 to its outer limit of movement.

Having thus described the invention what is claimed as new, is:—

1. The combination with a picture machine adapted for manual operation and having a driving gear thereon, of a talking machine, a shaft connected with the record disk carrier of said talking machine, a connecting shaft in operative connection with said shaft, a drive shaft arranged to drive said connecting shaft and having a gear adapted to mesh with said driving gear, said drive shaft including pivotally connected sections, a slide bar connected to one of said sections, a fixed guide to receive the slide bar, and means to secure the slide bar in adjusted position within the guide, whereby to dispose the movable section of the drive shaft in operative or inoperative position relative to the gear.

2. The combination with a picture machine adapted for manual operation and having a driving gear thereon, of a talking machine, a shaft connected with the record disk carrier of said talking machine, a connecting shaft in operative connection with said shaft, a drive shaft arranged to drive said connecting shaft and having a gear adapted to mesh with said driving gear, said drive shaft including pivotally connected sections, a slide bar connected to one of said sections, a fixed guide to receive the slide bar, said slide bar being formed with notches, and a pawl carried by the guide arm to engage said notches.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES GUSTAVUS MEREDITH.

Witnesses:

V. C. HARWOOD,

JULIA A. SULLIVAN.