

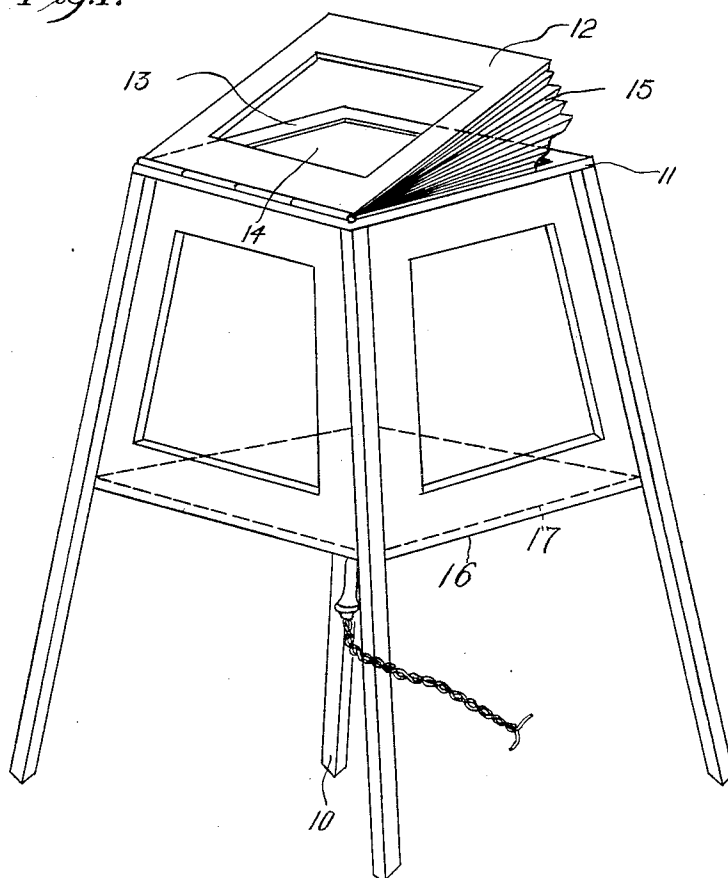
S. GRANT AND L. A. CRICKMORE.
APPARATUS FOR VIEWING CINEMATOGRAPHIC FILMS.
APPLICATION FILED JUNE 24, 1918.

1,372,017.

Patented Mar. 22, 1921.

3 SHEETS—SHEET 1.

Fig. 1.



Inventors

Sybil Grant & Leonard Albert Crickmore.

per.

Rayner & Co.

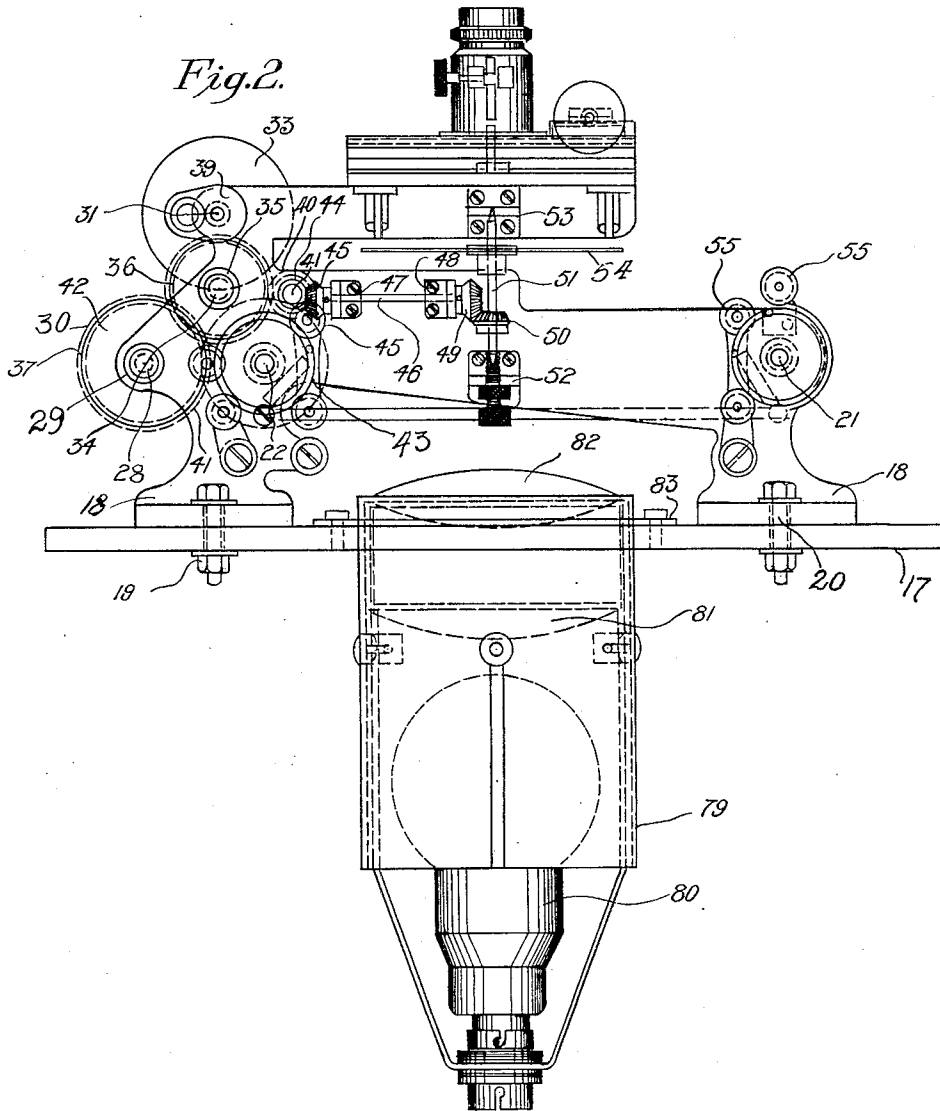
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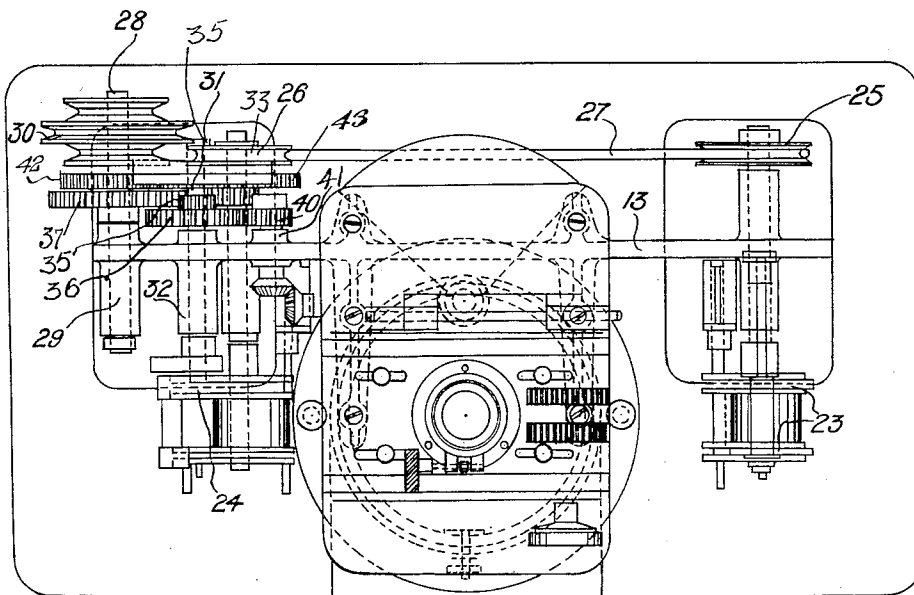
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3 SHEETS—SHEET 3.

Fig. 3.



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UNITED STATES PATENT OFFICE.

SYBIL GRANT, OF ROEHAMPTON, LONDON, AND LEONARD ALBERT CRICKMORE, OF
WATFORD, ENGLAND.

APPARATUS FOR VIEWING CINEMATOGRAPHIC FILMS.

1,372,017.

Specification of Letters Patent.

Patented Mar. 22, 1921.

Application filed June 24, 1918. Serial No. 241,630.

To all whom it may concern:

Be it known that we, Lady SYBIL GRANT and LEONARD ALBERT CRICKMORE, subjects of the King of Great Britain and Ireland, residing at, respectively, Primrose House, Roehampton, in the county of London, England, and Hazelmere, Monmouth Road, Watford, in the county of Hertfordshire, England, have invented certain new and useful Improvements in Apparatus for Viewing Cinematographic Films, of which the following is a specification.

Our invention relates to an apparatus for viewing cinematograph films comprising a folding and portable table constructed to contain comfortably cinematograph machines for exhibiting motion pictures to a small group of spectators.

The object of our invention is an improvement in cinematograph viewing apparatus comprising a table having means for holding a picture projecting apparatus, a perforated tiltable top for viewing the picture therethrough and inclosing sides for inclosing the projecting apparatus for safe handling in shifting.

In the accompanying drawings illustrating our invention,

Figure 1 is a perspective view of the supporting table and inclosing box for the projecting apparatus erected and ready for use.

Fig. 2 is a side elevation of the projecting apparatus.

Fig. 3 is a plan view of the projecting apparatus.

Referring now to Fig. 1 the numeral 10 designates the supporting legs of the table, 11 the top thereof, and 12 a hinged cover. The cover 12 is perforated as shown at 13, and this opening may be so small that but a single person may see the picture therethrough, or large enough for a small group of people to see therethrough. The top 11 is provided with a screen 14 of ground or frosted glass on which the picture is projected. The top 11 and hinged cover 12 are connected as shown by an accordion bellows 15. Intermediate the ends of the supports 10 is a framework 16, on which rests the carrier plate 17 of the projector.

Referring now to Figs. 2 and 3, 18 designates the projector frame fastened to the carrier plate 17 by bolts and nuts 19 and 20. Mounted in suitable bearings in the frame 18 are shafts 21 and 22 carrying at

one end the sprockets 23 and 24 respectively. The other ends of the said shafts carry pulleys 25 and 26 respectively on which runs a belt 27 of rubber or leather. The pulleys 25 and 26 being equal in diameter as are also the sprockets 23 and 24, the sprockets rotate at equal speeds.

A shaft 28 mounted in bearings 29 on the frame 18 adjacent the sprocket shaft 22 has fastened thereto a cone pulley 30 over which runs a belt to transmit power to the shaft 28 from any suitable source of power such as an electric motor. An intermediate shaft 34 mounted in a bearing on the frame 18, carries a spur and pinion 35 and 36 the spur 35 meshing with a pinion 37 on the main shaft 28, while the pinion 36 meshes with a spur 39 on a dog shaft 31. This dog shaft is mounted rotatably in a bearing 32 on the frame 18 and carries a balance wheel 33 to insure even running of the apparatus. The pinion 36 on the shaft 34 also meshes with a spur 40 on the shaft 41 which is likewise mounted in a bearing on the frame and drives the shutter gear. A second pinion 42 on the main shaft 28 meshes with a pinion 43 on the sprocket shaft 22. A bevel gear 44 on the shaft 41 meshes with a like bevel gear 45 on the shaft 46 mounted in bearings 47 and 48 on the frame 18. The other end of the shaft 46 carries a bevel gear 49 meshing with a bevel gear 50 on the vertical shaft 51. This shaft 51 is mounted in bearings 52 and 53 on the frame 18, and carries the shutter 54. Idler rollers 55 are mounted adjacent the sprockets 23 and 24 to keep the moving film in position.

A lamp cylinder 79 carrying at its lower end a lamp 80 and at its upper end the condensers 81 and 82 is provided with a flange 83 by means of which it is attached to the carrier plate 17.

The entire mechanism above described with reference to Figs. 2 and 3 is mounted on the upper surface of the carrier plate 17, which in turn is secured to the base of the framework 16 as shown in dotted lines in Fig. 1.

The usual film carrying reels or spools are mounted in any convenient position on the machine, but since these or their position form no part of our invention they will not be further described.

The apparatus is provided with any suit-

able mechanism for causing intermittent movement of the film but as this mechanism forms no part of our invention, same is not shown in the drawings.

5 With the various parts in position as above described, a film moving from one spool to the other over the sprockets 23 and 24 has the picture thereon projected on to the frosted glass screen 14 where said picture may be viewed by a person or persons 10 looking through the opening 13 in the hinged top 12. The space between the top 11 and hinged top 12 being practically closed to light by the accordion bellows 15, the device 15 may be operated in daylight without seriously detracting from the visibility of the pictures. The whole structure carrying the picture giving apparatus may be formed either in light wood framing or steel tube 20 the boxed inclosure being formed of either light wood paneling or sheet metal and the whole device made in a light portable manner occupying the smallest possible space.

What we claim as our invention and desire to obtain by Letters Patent is:—

25 In apparatus for viewing cinematographic films the combination of a framework, a carrier plate mounted at the base of said framework, a projecting apparatus mounted on said carrier plate, inclosing sides to said 30 framework for inclosing said projecting apparatus for safe handling during shipment, supporting legs secured to the bottom of said framework, an aperture in the horizontally disposed top of said framework, a 35 ground glass screen mounted in a horizontal plane in said aperture, a perforated cover hinged at one edge to the top of said framework through which the image projected onto the screen may be viewed, said 40 cover arranged to be opened fanwise, and accordion bellows connecting said cover to the top of the framework to exclude light from the screen.

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