

**POOR
QUALITY**

PATENT SPECIFICATION

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178,825

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COMPLETE SPECIFICATION.

Improvements in Picture Strip Toys.

We, **PATHE CINEMA, ANCIENS ETABLISSEMENTS PATHE FRERES**, of 30, Boulevard des Italiens, Paris, France, a company organized under the laws of France, Manufacturers, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to a toy device for the direct viewing or the screen projection of photographic views carried by a flexible band similar to a cinematographic film.

One characteristic feature of this toy device resides in that it comprises a receptacle having three chambers, the central chamber containing an actuating roller or toothed wheel provided with an operating knob, a lens and a lighting aperture which is preferably closed by a ground glass, the picture strip being drawn along by the said roller or wheel and wound up in one of the end chambers while it is unwound in the other end chamber.

This arrangement permits to obtain an apparatus of a very cheap construction which is very convenient in use and in which the picture strip is not liable to be damaged or torn off.

Other characteristic features will be set forth in the following description.

In the accompanying drawing which shows by way of example an embodiment of this invention.

Fig. 1 is an outer perspective view of the device.

Fig. 2 is a cross section, and

Fig. 3 is a longitudinal section of the same.

According to the form of construction herein represented, the device comprises an elongated box 1 divided by partitions 1^a, 1^b into three chambers. The two end chambers 2 and 4 are used to store up the film or picture strip 5 which is unwound from one of said chambers and wound up again in the other after passing through the middle chamber 3. The latter forms a dark chamber of oblong shape having on one side thereof the aperture 6 for lighting the film by transparence, and on the other the viewing lens 3.

The picture strip is made of a resilient material preferably transparent or translucent. It is provided with a series of photographic images arranged one below the other like the images of a moving picture film. Said images may have a correlation with each other or not and form for instance a collection of views of the monuments of a town, etc. Said picture strip may be obtained from a blank cinematographic strip provided with the usual perforations which will permit the same to be fed through the usual machines for printing, fixing, washing, drying cinematographic films and like operations.

The thickness of a box of this kind will correspond to the width of the film which is used, or about 30 millimetres, in the example indicated in which one edge of the film is cut off by the width of a row of perforations in order to reduce the size of the device as far as possible. The

other edge is used for drawing along the film. The band 5, which is supposed to have one meter length in the example herein shown, may be readily placed when formed in a roll, in one of the chambers 2 or 4.

In the middle chamber 3, is disposed a suitable actuating roller 8 whereby only a slight effort is required to cause the film to be unwound from one chamber and wound up automatically upon itself in the other chamber, and *vice versa*, thus causing the successive images of the film to come before the lens 7. The roller 8 may be made of rubber or provided with a rubber rim and it will exert a slight pressure on the picture strip. It is actuated by means of an outer knob 9. Inasmuch as the film travels in either direction according as the knob 9 is turned in one or the other sense, it is preferable to dispose the wheel 8 in the axis of the aperture 6, that is, at the middle of the loose portion of the film, as this will afford the most satisfactory working, and a symmetrical device may be thus constructed. The actuating roller is caused to bear only upon the perforated edge of the band. that is outside the images; and in this manner no scratching of the latter will ensue.

With a rubber roller such as 8, the perforations are not required for effecting the movement of the film, but nevertheless they will facilitate this movement.

The film may also be caused to travel, by the use of teeth engaging the said perforations, for instance by employing a toothed disk. Should a piece of ground glass 10 be provided in the aperture 6, this will have the twofold advantage of preventing dust from entering the box since the latter will now be entirely closed, and also of constituting an excellent bearing surface for the film, inasmuch as the smooth side of the glass will facilitate the sliding of the film.

The two ends of the film 5 may be rolled upon themselves or provided at 11 with a small cylinder of cardboard or like material, in such manner as to prevent the film from leaving the chambers 2 and 4 at the end of the operation.

The shape given to the end chambers 2 and 4 is not indifferent for obtaining a perfectly smooth and satisfactory winding up to the picture-strip, which is essential for a good working and durable use of the apparatus. It has been ascertained that it is desirable to give to said end chambers a form similar to that shown in the drawings, especially in Fig. 3. As a matter of fact, it is necessary that the

inner wall of each end chamber 2 and 4 should have at *a* a curve which will progressively merge into the straight portion of the middle chamber containing the aperture 6, said curve being such that when the strip begins to protrude into the end chamber, the end of said strip in creeping along said wall *a* under the action of the roller 8 forms immediately a first coil. The succeeding coils will then be formed in the required sense as shown in Fig. 3 and in no case in the opposite direction which would give rise to jars in the operation of the actuating knob and cause the strip to be jammed or wound irregularly upon itself whereby risks of breakage would appear. Moreover, the angles should be rounded as shown at *b* and *c* in order to permit a smooth and regular guiding of the band. The walls of the casing of the apparatus having a reduced thickness so as to obtain a construction as cheap as possible, the outer shape of the casing will preferably correspond approximately to the shape of its inner wall.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A picture strip toy for the direct observation or the projection of photographic views carried by a flexible band, characterized in that it comprises a casing, divided into three compartments or chambers, the middle chamber containing a toothed wheel or a roller (8) adapted to feed the band and provided with a driving knob, a lens (7) and a lighting aperture (6) preferably provided with a ground glass, the picture band, drawn along by the toothed wheel or the roller being automatically wound upon itself in one of the end chambers at the same time as it is unwound automatically in the other.

2. A picture strip toy according to Claim 1, characterized in that the feeding roller has a smooth peripheral part, for instance of rubber, and draws the band along by mere friction upon one edge of the latter, the usual perforations being preferably left in said edge if the picture strip is constituted in a manner similar to ordinary cinematographic films.

3. A picture strip toy according to Claim 1, characterized in that the picture band is so constructed at its ends that it is provided with a thickened part (1) adapted to arrest the band when it has been entirely unwound.

4. A picture strip toy according to

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Claim 1, characterized in that each end chamber comprises a rounded wall and two other walls substantially at right angles to each other with a rounded corner for the purpose of facilitating the automatic winding of the picture strips.

substantially as described and as shown in the accompanying drawing.

Dated this 10th day of April, 1922.

For the Applicants,
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5. A picture strip toy for the direct observation or the projection of photographic views carried by a flexible band,

Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1922.

[This Drawing is a reproduction of the Original on a reduced scale.]

Fig.1

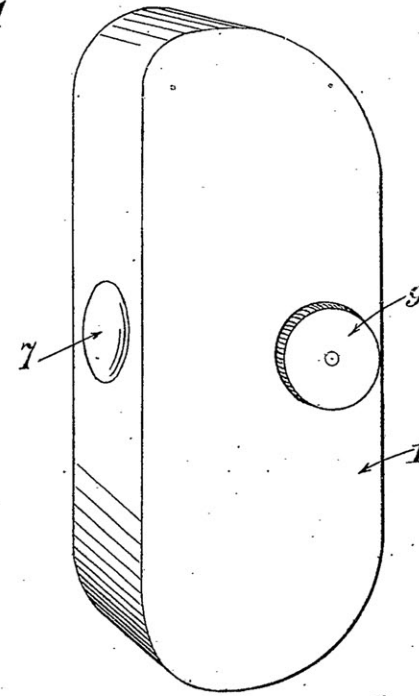


Fig.2

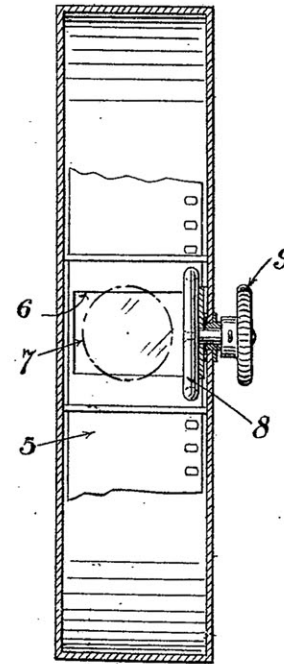


Fig.3

