

1,267,017.

Patented May 21, 1918.

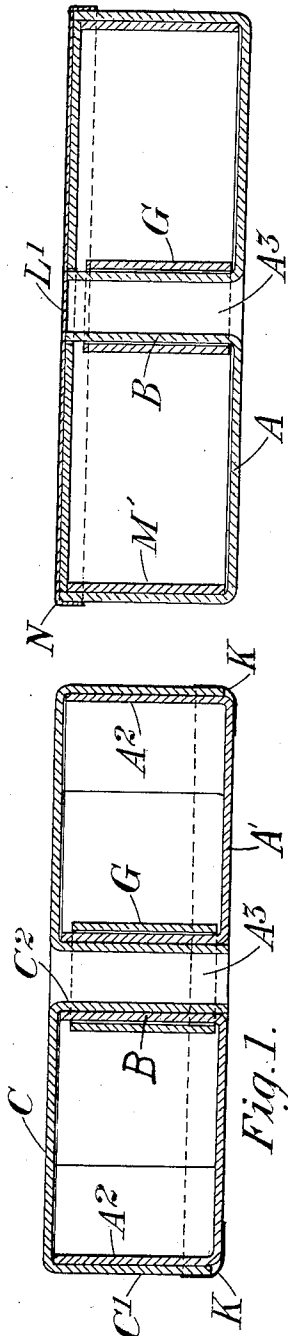


Fig. 5.

Fig. 1.

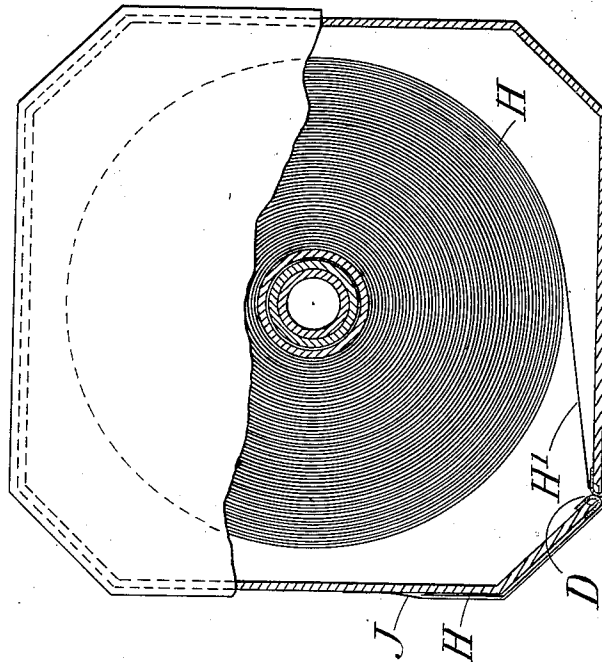


Fig. 2.

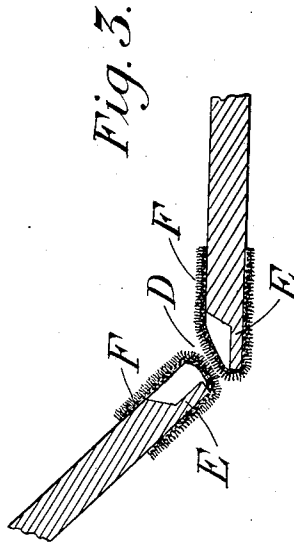


Fig. 3.

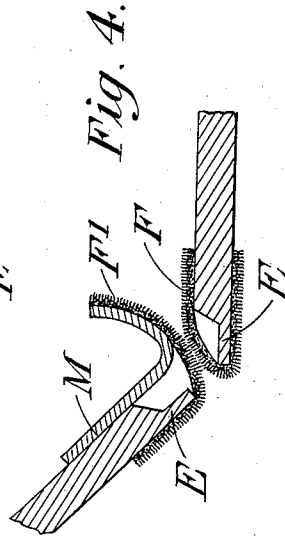


Fig. 4.

Witnesses:
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 attys.

UNITED STATES PATENT OFFICE.

JAMES WARRY VICKERS, OF LONDON, ENGLAND.

PACKAGE FOR CINEMATOGRAPH-FILMS.

1,267,017.

Specification of Letters Patent.

Patented May 21, 1918.

Application filed August 24, 1916. Serial No. 116,662.

To all whom it may concern:

Be it known that I, JAMES WARRY VICKERS, a subject of the King of England, residing in London, England, have invented a certain new and useful Improved Package for Cinematograph-Films, of which the following is a specification.

This invention relates to a package for a cinematograph film, its object being to provide means whereby the long length of unexposed negative film used in cinematographic cameras may be loaded into the film-box of the camera in daylight. Heretofore it has been customary to wrap the film in paper and tinfoil which have to be stripped from the film before it is loaded into the film-box of the camera, with the result that the operation of loading can only be effected in the dark. This invention provides a package which is light-tight, cheap, and such as enables the operation of loading the camera with a negative film to be effected by daylight. This result is achieved by preparing a box whose cost of manufacture is sufficiently low to warrant its being thrown away, if need be, when done with, and which yet shall be light-tight while permitting of access to an end of the film which can be drawn out and engaged with the feed mechanism.

This invention is to be understood by reference to the accompanying drawings in which—

Figure 1 is a central sectional elevation of one construction of box-form of packing for film;

Fig. 2 is a plan of the same in part section showing the film in position in the box;

Fig. 3 is a sectional view of a detail to a larger scale than that of Figs. 1 and 2;

Fig. 4 is a view similar to Fig. 3 showing a modification, and

Fig. 5 is a view similar to Fig. 1 of an alternative construction of packing.

Referring to Figs. 1 and 2, the box is formed of two portions or elements of which one comprises the bottom A_1 , side walls A_2 , and a tubular pillar B rising from the center of the bottom of the box, the bore of the pillar B being continued through the bottom of the box so as to constitute a central aperture A_3 therein. The shape of the box is eight-sided in plan although it is not that of a regular octagon, the shape and dimen-

sions being such that the box fits comfortably in the usual film-box of a cinematographic camera.

The other portion or element of the box is made as the counterpart of the first and comprises a top C which is formed with walls C_1 and a central tubular pillar C_2 similar to the central tubular pillar in the bottom. The two portions of the box have their parts so dimensioned that the walls of the top slip with a sliding fit outside the walls of the bottom and the tubular pillar of the top slips slidingly within the tubular pillar of the bottom. A light-tight joint is thus formed around the walls and also at the center where the pillars engage with one another.

The wall of the bottom is slotted as shown at D, to provide egress for the film from the box while the box remains closed. The wall of the top is similarly slotted so that when the top and bottom are placed together the two slots are in register with one another. On each side of the slot in the bottom wall the material of the wall immediately adjacent thereto is weakened, as indicated at E in Fig. 3. The sides of the slot are also faced with pieces of velvet F in the customary manner to prevent abrasion of the film and yet to afford a substantially light-tight closure.

The slot in the wall of the top may be similarly constructed and also faced with velvet, or it may be made sufficiently wide so that its edges entirely clear the film as it is drawn out of the box in use.

A loosely fitting sleeve G is provided to surround the pillar B of the bottom.

When the box is loaded at the factory, the film, as indicated at H in Fig. 2, is slipped over the sleeve G, the outer end H_1 of the film is passed through the slot D of the bottom and the top is then slipped on to the bottom so closing the box. The end H_1 is sealed with a black paper light-tight seal J which may be readily torn off just before use and the joint between the top and bottom is preferably sealed by adhesive material, as indicated at K, all around.

As the film is used the diameter of the roll diminishes and this tends to cause a sharper bend in the film as it passes through the slot; to prevent this a piece of card.

as seen at M in Fig. 4, faced with velvet F₁ may be secured to the inside of the wall just to one side of the slot.

In the modification shown in Fig. 5, the top is not made as a counterpart of the bottom but is a plain eight-sided disk L which may either be solid, in which case the pillar B may be made of such height from the bottom as to butt against the underside of the top L and help to support it, or the pillar B may enter an aperture L₁ in the top. A slip of card M' is passed around the inside of the wall of the bottom, extending to a short distance on either side of the slot D and so serves to support the edges of the top L. Loading in this case takes place in a manner similar to that above-described and the lid is sealed with adhesive material N laid right across the whole top of the box including the hole L₁, if such be present. Alternatively the sheet N of sealing material may be pierced with a hole to register with a hole L₁ if such be employed, or the sheet may be in the form of an eight-sided ring to fit the top edges of the wall of the box. Preferably it is made slightly to overlap these edges as shown.

Whereas the above constructions are described by way of illustrations of this invention, this invention is not limited precisely to the constructions shown. Thus, for example, the shape of the box may be circular if preferred, or of any other desired shape and the top may be made with walls of less depth than is indicated at C₁ in Fig. 1; again the top shown in Fig. 4 at L as being housed within the wall of the bottom may rest upon the top edges of such wall and light-tightness may be obtained by means of an adhesive, similar to that shown at K, but applied to the joint thus formed at the top edge of the bottom wall.

I prefer to construct my package of card or paper so that each of the two elements, namely the bottom with its wall and pillar, and the top with its wall and pillar if it have such, are each formed of a single piece of material. If preferred, however, the bottom may be formed by taking a piece of material, such as cardboard, and gluing the pillar to the one face of it over the central aperture, the wall being placed in position by gluing it around the outer edge of the bottom. The top may be similarly constructed, if desired. I am not, however, limited to the use of card or paper, although I prefer to use a material which can be stamped or molded into shapes which will provide the said two elements each as a single piece of material. Moreover the card or paper is of such low price that the package may economically be thrown away when done with. I may, however, use such material as celluloid, which is either opaque or colored so as only to permit safe light

to reach the film. Thus ebonite may be molded, or thin sheet metal may be stamped to the required shapes. It is not essential that the pillar or pillars should extend across the whole depth of the box, but if two pillars are used they should engage with one another, and if only one pillar is used it should butt against the top of the box or enter a hole therein in order to secure a light-tight construction. The pillar may have a solid end, however, where the length of spindle on which it is to operate will permit of the use of such a construction.

In use the seal J is torn off and the package placed upon the spindle ordinarily existing inside the film-box of the camera, the spindle being inserted into the bore of the pillar B, and the slot D being placed in register with the usual slot in the camera film-box. The free end H₁ of the film is then passed through this slot and made to engage with the feed mechanism in the usual manner. These operations may be safely carried out in broad daylight, whereas heretofore the film was put, unprotected, direct on to the said spindle and could only, therefore, be so placed in the dark, or in a photographic dark room.

By weakening the wall, as at E in Fig. 3, I reduce the resistance of the wall at this point to deformation and so minimize the friction between the edges of the slot and the film so that the total friction, of which some necessarily occurs at the slot in the film-box, is not seriously augmented by the friction at the slot in the package.

What I claim as my invention and desire to secure by Letters Patent is:—

1. In a box package for a cinematograph film, the combination with a bottom having a central aperture, of a tubular pillar rising from the bottom with the axis of its bore concentric with said aperture, walls around the bottom provided with a slot to constitute a mouth for the egress of the film, a top to the box having its margins coöperating with the walls of the bottom and made light-tight, said top having a central aperture, and a pillar carried by the top and having its axis concentric with the axis of the aperture thereof, said pillars of the top and bottom telescoping to provide an open passageway through the box package.

2. In a box package for a cinematograph film, the combination of a bottom that has a central aperture, a tubular pillar rising from the bottom with the axis of its bore concentric with the said aperture, walls to the bottom slotted to provide egress for the film and faced with non-abrasive light-tight material at the slot, and a top that is a counterpart of the bottom constructed so that its walls slip over the walls of the bottom and its pillar telescopically engages

with the pillar of the bottom, substantially as described.

3. In a box package for a cinematograph film, the combination of a bottom that has a central aperture, a tubular pillar rising from the bottom with the axis of its bore concentric with the said aperture, walls around the bottom slotted to provide egress for the film and thinner in their substance on either side of and immediately adjacent to the slot than elsewhere, and a top to the box engaged with the said pillar and light-tight, said top having an aperture registering with the bore of the pillar and alined with the bottom aperture.

4. In a box package for a cinematograph film, the combination of a bottom that has a central aperture, a tubular pillar rising from the bottom with the axis of its bore concentric with the said aperture, walls around the bottom formed with a slot to constitute a mouth for the egress of the film, a top to the box engaged with the said pillar and light-tight and whose wall is provided with a slot to register with the said first slot, and an adhesive sealing flap for the second slot, secured at one edge to the outside of the box and having its other edge free in readiness for sealing, and means to render light-tight the said engagement of the pillar and top with one another, substantially as described.

5. In a box package for a cinematograph

film the combination of a bottom that has a central aperture, a tubular pillar rising from the bottom with the axis of its bore concentric with the said aperture, walls connected to the bottom slotted to provide egress for the film and weaker in their substance on either side of and immediately adjacent the slot and faced with non-abrasive light-tight material at the slot, and a top that is a counterpart of the bottom constructed so that its walls slip over the walls of the bottom and its pillar telescopically engaged with the pillar of the bottom.

6. In a box package for a cinematograph film the combination of a stamped or molded bottom in one piece having a tubular pillar rising centrally from the bottom with its bore opening through the bottom, walls around the bottom formed with a slot to constitute a mouth for the egress of the film and a top that is a counterpart of the bottom constructed so that its walls slip over the walls of the bottom and its pillar telescopically engages with the pillar of the bottom.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES WARRY VICKERS.

Witnesses:

HAROLD H. SIMMONS,
HARRY MIDGE.