

PATENT SPECIFICATION

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(54) CINE-FILM CASSETTE

(71) We, BOLEX INTERNATIONAL SA., of 18, avenue des Alpes, CH-1450 Ste-Croix, Switzerland, a Swiss Company, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The present invention concerns a film cassette for a cinematographic projector containing a feed winding and a take-up winding in the same plane.

Film cassettes for cinematographic projectors already exist in which the feed and take-up windings situated in the same plane are mounted permanently on two cores with parallel axes. The cores to which are attached the ends of the film are housed in two cavities in the case of the cassette. On one side of the cassette there is a pressure plate carrying a film gate. The film unwound from the feed winding passes over the pressure plate and winds onto the take-up winding. After the film is introduced into the cassette a lid is screwed onto it.

The inconvenience of such a cassette is that it is practically impossible for it to be utilised by an amateur cine-photographer. Processed films are usually sent back from the processing laboratories on a standard spool and their transfer into such a cassette is very complicated. It is difficult to unwind a film from a spool and to wind it onto a core without special equipment. Therefore, cassettes as described above have to be loaded by a specialised service.

The invention provides a cine-film cassette comprising a case and an openable lid with two spaced shaft openings therethrough opening into the inside of the case, which is provided with a rotatable core having an anchorage for holding a film leader and being axially aligned with one of the drive shaft openings, and which is shaped to receive a flanged film spool in axial alignment

with the other of the drive shaft openings such that a growing winding on the core is guided by film support means inside the case between the flanges of the film spool when in place in the case.

The case may be shaped to receive any desirable film spool, e.g. an 8 mm or a super 8 mm film spool.

The invention thus avoids the difficulties mentioned earlier by providing a film cassette into which any amateur can introduce a standard spool such as those provided by the processing laboratories, as all that is necessary in the preferred embodiment is to pass the leader of the film strip over a pressure plate, in front of a film gate and into a slot provided in the core for supporting the take-up winding.

The invention will now be described in more detail, by way of example, with reference to the accompanying drawing which shows, in partially exploded form, a perspective top view of a case containing a film spool and a core, and its lid.

A film cassette case 1 is shaped to house a film spool 2 of a super 8 film and a core 3. The film spool 2 is provided with a conventional slot 4 for ease of attachment of the film to the spool. The leader of a film strip 8 is introduced into the core via an inclined slot 9 and maintained in position by a tooth 10 which engages a perforation of the film. When the film is being projected it is wound onto the take-up core 3 and unwound from the feed spool 2 and passes between the two, over a pressure plate 6 and in front of a film gate 7.

The case 1 is closed by a lid 11 having two circular openings 12 and 13 which allow driving shafts for the spool 2 and the core 3 to pass through when the cassette case is mounted in a projector. The lid 11 also is provided on its front edge with two projections 14 and has a recess 15 on its back edge. When the lid is fitted to the case the

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projections 14 fit into rebates 16 provided in the front of the case. A spring 17 with a ramp-edged lip 18 is pushed into the recess 15 and snaps over the edge of the lid 11 to hold it in place on the top of the cassette case 1.

Loading the cassette with a fresh film takes place as follows: After removal of the cassette case lid 11, the conventional spool 2 is placed in the cassette case and the leader of the film strip is passed over the pressure plate 6 which holds it against the front wall of the cassette case with the help of a spring (not shown). The leader of the film strip is then introduced into the slot 9 provided in the core 3 and the lid 11 is replaced on the case. These operations, which do not necessitate any particular competence or equipment, can be carried out extremely rapidly by an amateur. Furthermore, if only a restricted number of cassettes is available, it is a simple matter to introduce films stored on conventional spools into the cassette immediately before projection.

The present invention has all the advantages of the cassette, namely its easy manipulation, its reliability and the protection it ensures for the film, in addition to the added versatility of being able to handle conventional spooled film.

It will also be noticed that three radial ribs 19 are provided on the floor of the cavity containing the core 3. The height of these ribs is such that as the film "grows" on the core 3 during projection, the film windings pass actually between the flanges of the spool 2. Thus a compact cassette is obtained as the shafts openings 12 and 13 can be closely spaced. Naturally the spacing is such that there is always some gap left between the "growing" winding on the core 3 and the "shrinking" winding on the spool 2.

WHAT WE CLAIM IS:—

1. A cine-film cassette comprising a case and an openable lid with two spaced drive

shaft openings therethrough opening into the inside of the case, which is provided with a rotatable core having an anchorage for holding a film leader and being axially aligned with one of the drive shaft openings, and which is shaped to receive a flanged film spool in axial alignment with the other of the drive shaft openings such that a growing winding on the core is guided by film support means inside the case between the flanges of the film spool when in place in the case.

2. A cine-film cassette as claimed in claim 1, wherein the film support means comprise ribs extending radially beyond the core.

3. A cine-film cassette as claimed in claim 1 or 2, wherein the core is provided with an inclined slot for receiving the film leader, the slot being accessible when the lid is opened.

4. A cine-film cassette as claimed in claim 3, wherein the core has a tooth for engaging a perforation on the film leader to anchor it, in a readily detachable manner, to the core when the film leader is inserted into the slot.

5. A cine-film cassette as claimed in any one of the preceding claims, wherein the lid is attached to the case by projections on an edge of the lid or case received by rebates in the case or lid respectively, and a resilient clip arrangement, which snaps into position when the lid is pressed into position on the case, holds the lid firmly in place.

6. A cine-film cassette as claimed in any one of the preceding claims, wherein the case is shaped to receive an 8 mm film spool.

7. A cine-film cassette as claimed in any one of the preceding claims, wherein the case is shaped to receive a super 8mm film spool.

8. A cine-film cassette substantially as hereinbefore described with reference to the accompanying drawing.

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