Dec. 12, 1950 F. J. KRONFIELD 2,533,819

FASTENER FOR CINEMATOGRAPHIC FILMS

Filed Dec. 22, 1948

FIG. 1.

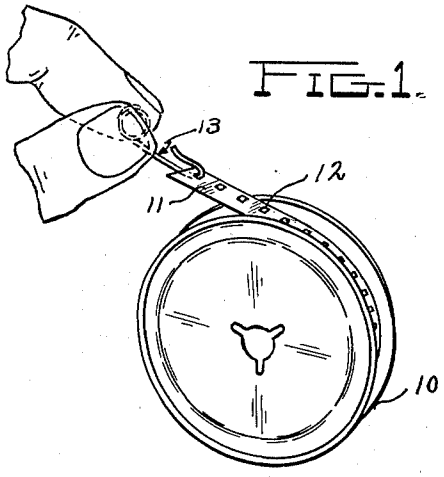



FIG. 2.

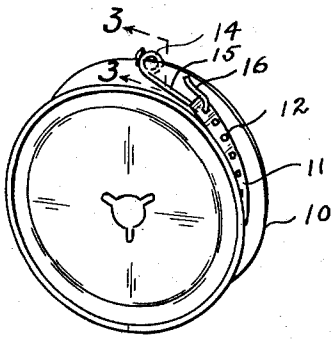



FIG. 3.

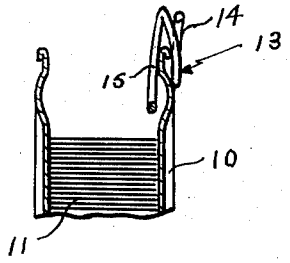



FIG. 4.

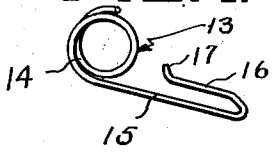



FIG. 5.

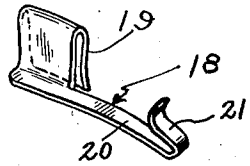
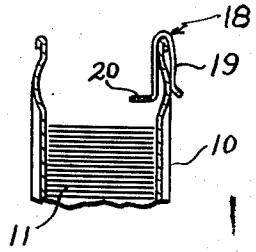



FIG. 6.




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## FASTENER FOR CINEMATOGRAPHIC FILMS

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Application December 22, 1948, Serial No. 66,770

1 Claim. (Cl. 206—53)

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This invention relates to fastening devices but more particularly to fasteners for cinematographic films.

Heretofore, considerable difficulty has been experienced anchoring the free ends of cinematographic films. Numerous devices have been used for this purpose, but in the main, they are troublesome and objectionable for one reason or another. For example, some of them damage the film, whereas others are cumbersome and awkward to apply and remove due to the lack of sufficient space between the reel flanges.

It is a desideratum to overcome the above objections and to produce a simple and efficient fastener for this purpose which can be readily and conveniently attached to the reel and film, regardless of the size of the reel or the amount of film on it; militates against unwinding of the film; does not injure the film even though used for a long period of time; does not interfere with the packaging or storing of the reels in closely fitting cases; and provides a convenient means concomitantly releasing the free end of the film and bringing it to a position accessible for handling.

Other objects and advantages will hereinafter appear, and for purposes of illustration but not of limitation, embodiments of the invention are shown on the accompanying drawing, in which

Figure 1 is a perspective view of a reel containing a cinematographic film and showing the fastener connected thereto and being manually pulled out from between the reel flanges;

Figure 2 is a perspective view similar to Figure 1 but showing the fastener attached to one of the reel flanges;

Figure 3 is an enlarged transverse sectional view on the line 3—3 of Figure 2;

Figure 4 is a perspective view of the fastener;

Figure 5 is a perspective view of an alternate form of fastener formed from sheet material: and

Figure 6 is a sectional view similar to Figure 3, but showing the fastener according to Figure 5.

The illustrated embodiment of the invention comprises a double flanged reel or spool 10 of the well-known type on which is wound a cinematographic film 11 provided with the usual row of perforations 12. So far as this invention is concerned, the size of the reel or the amount of film wound upon it, is immaterial.

The free end portion of the film 11 is retained in place against unwinding by a fastener 13, which in this instance, is formed from a relatively light, small wire having some springiness or resilience. The fastener has a laterally disposed

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clip 14 at one end formed by looping the wire, and the clip is readily slipped over the outer edge portion of one of the reel flanges. The resilience of the wire is sufficient to grip the reel and retain the fastener 13 firmly attached, although it can be removed easily when desired. Integral with the clip is an elongate arm 15 which extends toward the hub of the reel between the flanges but preferably in close juxtaposition to the inner side of the flange to which the clip 14 is attached. On the inner end of the arm 15 and co-planar therewith is a hook 16, the free end of which curves or flares outwardly to facilitate hooking engagement in one of the perforations 12. Manifestly, the arm 15 can rock to any desired position depending upon the amount of film on the reel. It can be in a radial position or in a position approximately tangent to the reel, for example, when the reel is completely filled with the film.

In use, it will be apparent that the hook 16 is first hooked into one of the film perforations 12 and then the clip 14 is snapped or engaged over the edge portion of one of the flanges of the reel 10. The film 11 is thus prevented from unrolling but is positively retained in rolled position. The surface of the film is in no way damaged, thus obviating a very serious objection to many similar devices presently in use. When it is desired to use the film, the clip is grasped and disengaged from the reel, the clip serving as a hand-hold to lift the free end of the film to a position convenient for handling, thereby dispensing with the necessity of trying to get at the film with the fingers between the narrow space between the reel flanges. When in use, it will be observed that the fastener 13 occupies a minimum amount of space and does not interfere with the placing of the reel in the usual closely fitting storage can.

Figures 5 and 6 illustrate an alternate form of fastener 18 which is made from sheet material such as metal. As shown, this fastener has a reel flange engaging clip 19, an elongate arm 20 and a hook 21 for engaging a film perforation 12. This fastener is also of one piece construction and can be produced quite economically on a production basis as, for example, by stamping.

It is to be understood that numerous changes in details of construction, arrangement and operation may be effected without departing from the spirit of the invention especially as defined in the appended claim.

What I claim is:

In combination with a spool having a reel of cinematographic film provided with a series of

perforations and side flanges, a wire clip having a coil at one end firmly to clamp over one of the side flanges, an arm integral with said coil and projecting between said flanges, an open hook on the opposite end of said arm projecting upwardly with respect to the film reel and in engagement with the film through an adjacent perforation whereby the coil serves as a handle for attaching and removing the clip and the clip holds the film against unwinding.

FRANK J. KRONFIELD.


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