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C. S. MYERS

3,101,844

FILM STRIP PACKAGE

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FIG. 2.

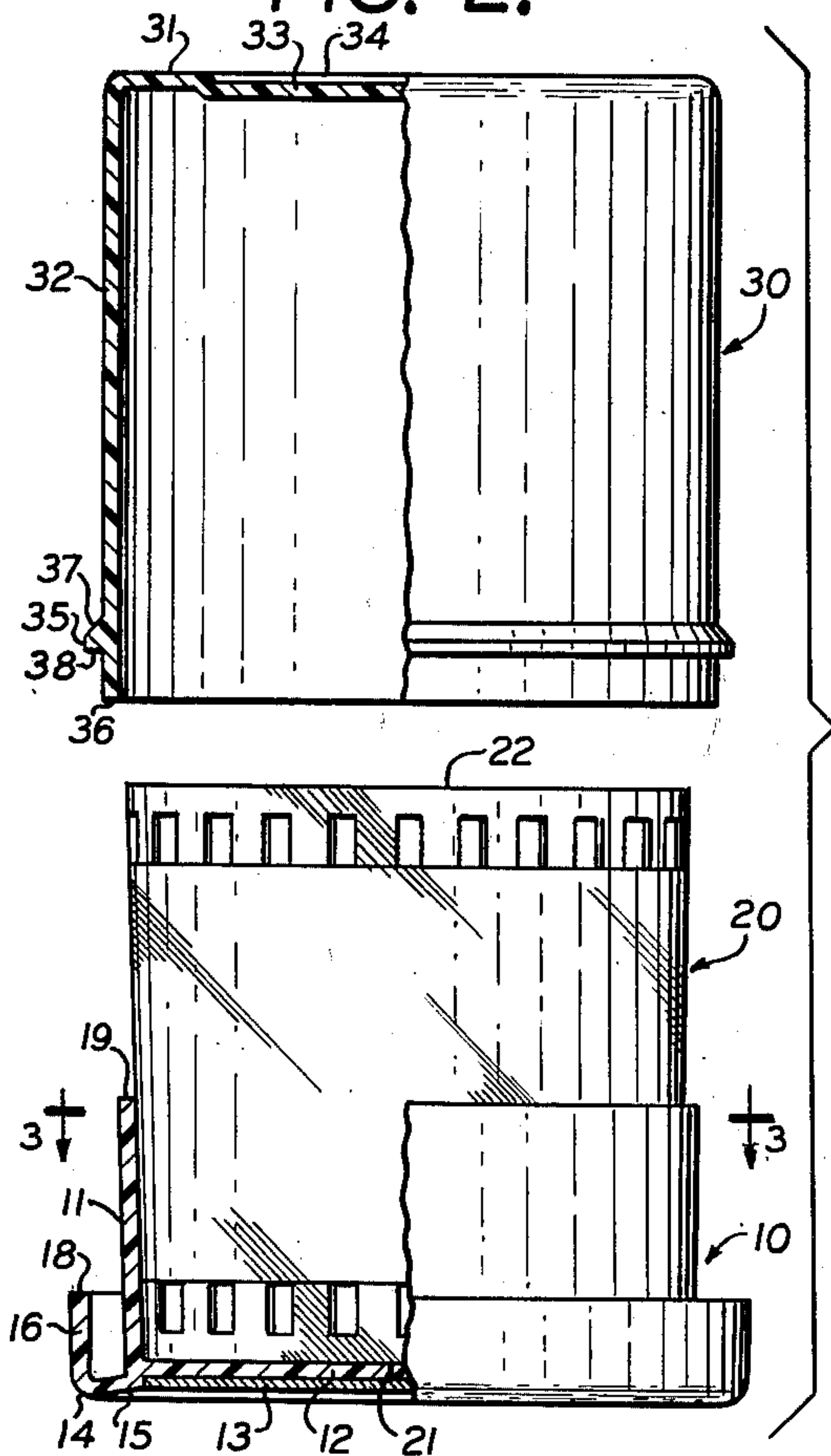


FIG. 1.

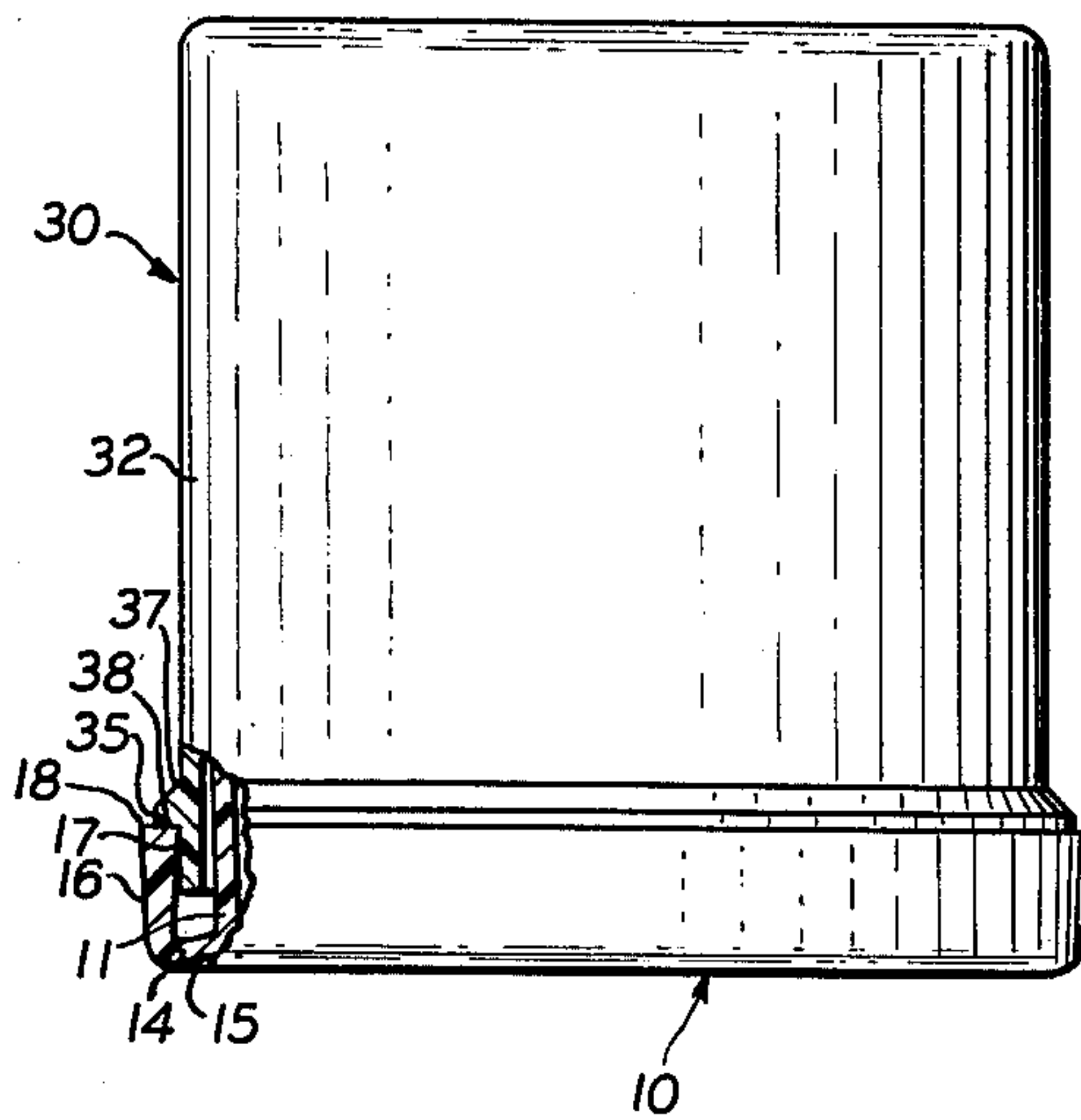


FIG. 4.

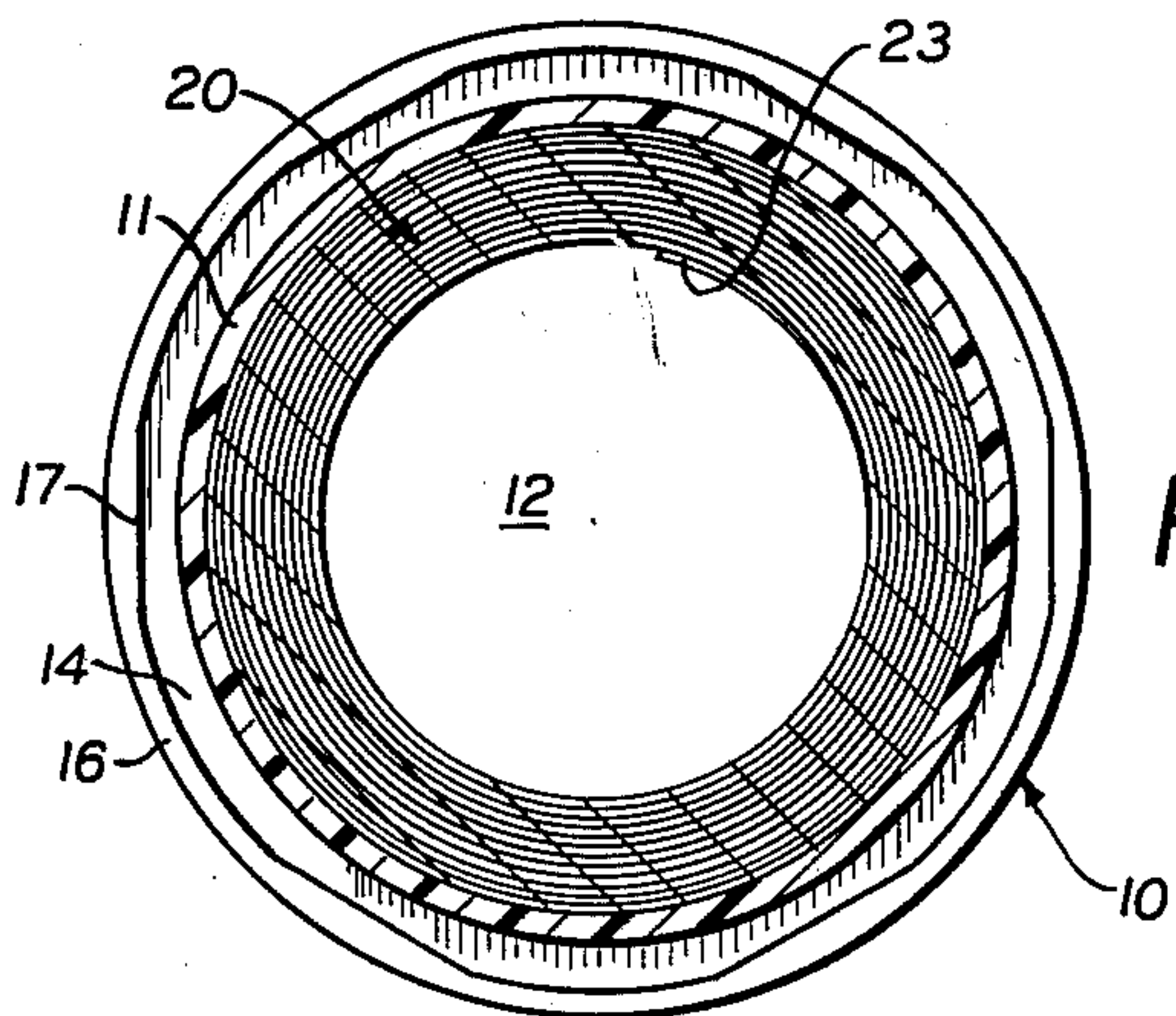
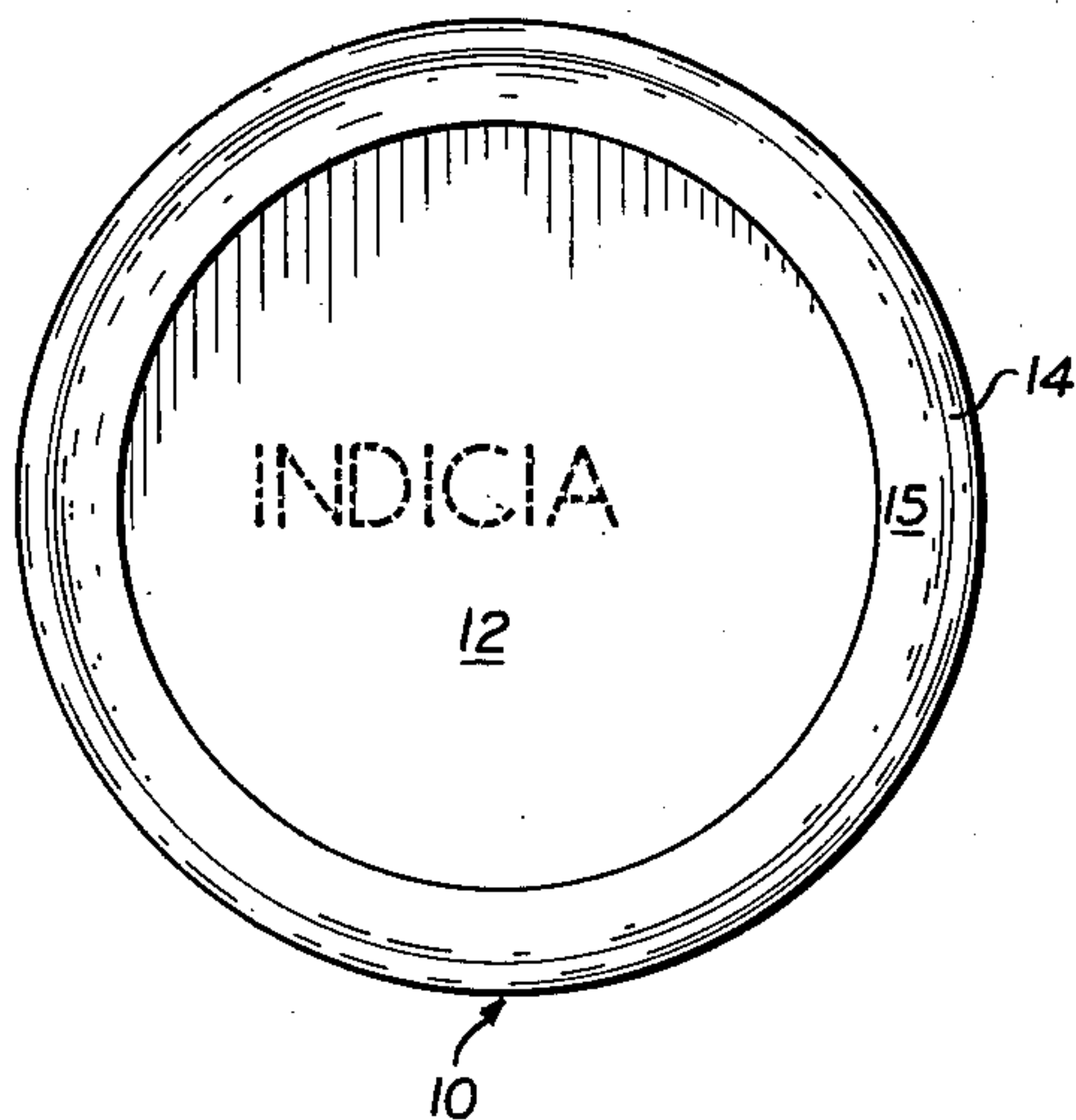


FIG. 3.

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## FILM STRIP PACKAGE

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5 Claims. (Cl. 206—52)

This invention relates to improvements in film strip containers. Specifically, this invention relates to a novel film strip container which permits more convenient removal of a film strip being stored and/or conveyed than containers constructed heretofore.

An object of this invention is to eliminate the inconveniences normally associated with the removal of film strips from containers and the related likelihood of damage by incorporating novel constructional features in film strip containers. These features reduce the possibility of damaging the film strip, for example, by chipping or scratching.

Another object of this invention is to reduce the possibility of damage to the roll of film when the cover is being secured to or removed from the container.

A still further object of this invention is to reduce the likelihood of damage to the roll of film while it is in storage and/or transit.

In accordance with the preferred embodiment of the present invention, applicant's film strip package comprises a base member or container having a bottom wall and an upstanding peripheral wall. A roll of film is removably inserted into the container in the accustomed manner, the roll in its tensioned state tends to uncoil and frictionally engage against the peripheral wall.

An important feature of the present invention is the provision that the roll extends above the top of the peripheral wall sufficiently to permit the extension portion of the roll to be grasped for convenient removal of the roll from the container and relatively free from damage.

Lastly, the present invention comprises a cover having a top wall and a depending peripheral wall. The cover is further adapted so that upon being lowered to removably secure it to the container by frictional means, the cover peripheral wall extends removably around the outside of the container peripheral wall with the cover top wall clearing the top of the roll.

A further object of this invention is to provide a film strip container which may be manufactured by molding plastic material in an efficient and economic manner.

With the above and other objects in view that herein-after appear, the nature of the invention will be more clearly understood by reference to the following detailed description, the appended claims, and the several views illustrated in the accompanying drawing.

In the drawing:

FIG. 1 is a side elevation of the container partly broken away;

FIG. 2 is a partly exploded view of the film strip package partly in side elevation and partly in vertical section;

FIG. 3 is a section taken along the line 3—3 of FIG. 2;

FIG. 4 is a plan view of the bottom wall of the container.

As shown in the drawing, the film strip package comprises a base member or container, generally indicated as 10, having a bottom wall 12 and a cylindrical peripheral wall 11 extending integrally and upwardly therefrom. The outer surface of bottom wall 12 is provided with a cylindrical depression 13 which is adapted to receive labels or the like. These labels may be affixed within depression 13 to the outer surface of bottom wall 12 by any suitable means, such as glue. Also, the labels may be marked as is clearly illustrated in FIG. 4. An annular flange 14 integrally molded to container 10 and substan-

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tially coplanar with bottom wall 12 extends outwardly of peripheral wall 11. Optionally, the lower surface 15 of flange 14 is bevelled toward depression 13. A cylindrical peripheral flange 16 extends upwardly and integrally from annular flange 14 and is spaced concentrically outwardly of peripheral wall 11. Preferably, the juncture of flange 16 and flange 14 is rounded.

The inner surface of flange 16 is provided with circumferentially equiangularly spaced chordal flats 17. Further, flats 17 extend the entire height of flange 16.

The film strip package also comprises an elongated film strip wound spirally upon itself into a coiled tensioned roll, generally indicated as 20. By continuing to wind the film upon itself spirally, in a generally known manner, a roll is formed which permits of its removable insertion into the container for storage and/or conveyance thereof. Preferably, the bottom end 21 of the roll is brought into abutment with the bottom wall 12. In its tensioned state, roll 20 has a tendency to uncoil and upon its release following its removable insertion into the container, the roll begins to uncoil until its outer surface encounters the inner surface of wall 11. Thereupon, roll 20 is prevented from further uncoiling and the remaining coil tension causes the outer surface of roll 20 to frictionally adhere to cylindrical side wall 11. This is clearly shown in FIG. 3. The adherence of the outer surface of roll 20 to wall 11 is of sufficient strength to retain the entire roll within container 10 even though container 10 be inverted.

In its final position for conveyance, roll 20 extends above the upper edge 19 of peripheral wall 11. Therefore, the extended portion of the film may be readily grasped for sliding removal of roll 20 from the container. The sliding removal of roll 20 may be further facilitated by advancing the inner end 23 of roll 20 an additional fraction of a turn.

The film strip package further comprises a cover, generally indicated as 30, having a top wall 31 and a cylindrical peripheral wall 32 depending integrally therefrom. Preferably, the juncture of wall 31 and wall 32 is rounded. Top wall 31 is provided with a shallow cylindrical boss 33 which depends from the central portion of the cover top wall inner surface. The top wall of the surface has a corresponding depression 34. An annular flange 35 integral to cover peripheral wall 32 extends outwardly thereof and is spaced from the peripheral wall bottom edge 36. Optionally, the upper surface 37 of flange 35 is bevelled.

After inserting roll 20 into container 10 for storage and/or conveyance thereof, cover 30 is removably secured to the container. Cover 30 is adapted to encompass clearly both roll 20 and container peripheral wall 11. Cover 30 is lowered until the upper edge 18 of upwardly extending container flange 16 abuts the lower surface 38 of cover annular flange 35. This is shown in FIG. 1. In this position, cover top wall 31 clears the top edge 22 of roll 20. Also, boss 33 extends into the upper opening of roll 20 thereby aiding in the positioning of roll 20 in axial alignment with container peripheral wall 11. In this position also, the outer surface of cover peripheral wall 32 intermediate annular flange 35 and bottom edge 36 engages frictionally against flats 17 thereby removably securing cover 30 to container 10. This is shown in FIG. 1.

It is to be noted that there is no physical contact between cover 30 and peripheral wall 11. Rather, cover 30 is secured to the container by means of flange 16 and flats 17, as described above. The spaced relationship of cover peripheral wall 32 from container peripheral wall 11 is significant for it allows cover 30 to be lowered for securement to or raised for removal from container 10 without any of the previously accompanying dangers of



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chipping or cracking the removably inserted roll of film 20. In addition to removing this source of damage to roll of film 20, the area of frictional contact between cover 30 and container 10 is reduced so that less force is required to secure the cover to or remove the cover from the container thereby resulting in a decreased wearing of the respective contact points.

While I have shown and described but a single embodiment of this invention, it will be seen that it is capable of many modifications. Changes, therefore, may be made in the construction and arrangement which do not depart from the spirit and scope of the invention as defined in the appended claims.

What is claimed is:

1. Container for an elongated film strip wound spirally upon itself into a coiled tensioned roll, said container comprising a receptacle having a receptacle cylindrical peripheral wall open at the top, a receptacle bottom wall closing the bottom of said receptacle peripheral wall, a receptacle annular flange extending outwardly from the bottom of said receptacle peripheral wall, and a receptacle cylindrical flange connecting with the outer edge of said receptacle annular flange and extending upwardly therefrom concentrically with and to a lesser height than said receptacle peripheral wall, said receptacle peripheral wall being of diameter and height to receive said film strip releasably in end abutment with said receptacle bottom wall with the outer peripheral surface of said roll bearing frictionally against the inner surface of said receptacle peripheral wall and with said roll extending above the top of said receptacle peripheral wall sufficiently to permit the extension portion of the roll to be grasped for removal of the roll from the receptacle, and a cover having a cover peripheral wall open at the bottom, a cover top wall closing the top of said cover peripheral wall, and an annular cover flange extending outwardly from said cover peripheral wall intermediate its ends, said cover being releasably mountable upon said receptacle with said cover peripheral wall extending frictionally slidably into said receptacle cylindrical flange and

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said cover flange resting upon the top of said receptacle peripheral flange, the bottom edge of said cover peripheral wall being then spaced from said receptacle bottom wall and said cover peripheral wall being radially spaced from said receptacle peripheral wall and said cover top wall being spaced from the top of said cover peripheral wall so as to clear the top of said roll and thereby accommodate said roll.

2. Container in accordance with claim 1, the inner surface of said receptacle cylindrical flange having circumferentially equiangularly spaced integral chordal flat, said cover peripheral wall being generally of diameter to extend loosely into said container cylindrical flange but frictionally engaging said flat for the removable securing of said cover to said receptacle.

3. Container according to claim 2, said flat extending the entire height of said receptacle cylindrical flange.

4. Container according to claim 3, said container also comprising a central boss on the lower surface of said top wall having a diameter slightly less than the inner diameter of said roll and extending frictionally into the interior of said roll to center said roll within said container.

5. Container according to claim 1, said container also comprising a central bore on the lower surface of said top wall having a diameter slightly less than the inner diameter of said roll and extending frictionally into the interior of said roll to aid in positioning said roll within said container.

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