Jan. 3, 1956 V. G. ITALIANO 2,729,401

ROLLFILM CARTRIDGE

Filed Feb. 11, 1952

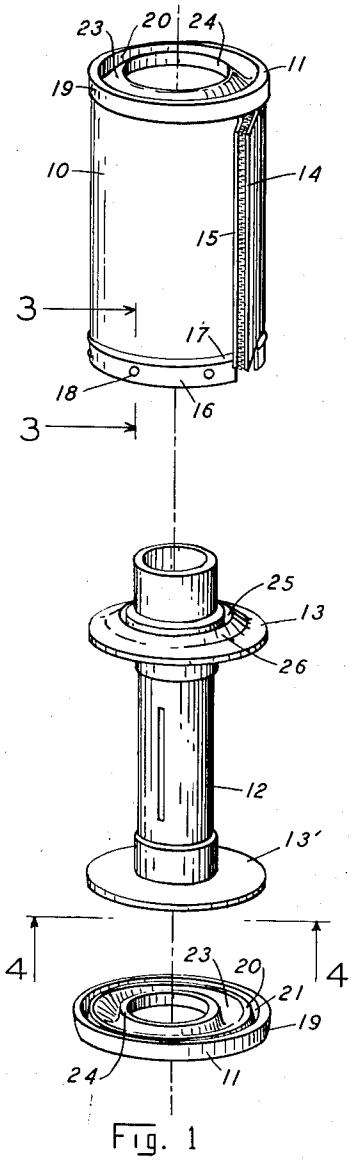


Fig. 1

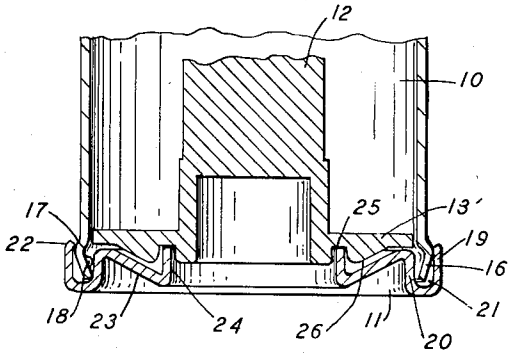


Fig. 2

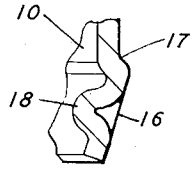


Fig. 3

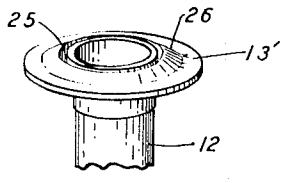


Fig. 4

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ROLLFILM CARTRIDGE

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Application February 11, 1952, Serial No. 270,998

1 Claim. (Cl. 242—71)

This invention relates to light-tight, rollfilm cartridges of a type having a cylindrical shell, and at both ends a detachable cap or cover, a slot being provided in the shell through which the photographic film is dispensed from a spool in the cartridge.

A primary object of this invention is to provide a rollfilm cartridge of this kind which is simple in construction, light-tight, and in which the caps enclosing the ends of the body are held thereon by interengaging means.

A further object of the invention is to provide end caps having a rim for engagement with the shell of the cartridge, and to retain the caps in position on the shell in a positive manner without interfering with the easy withdrawal of the film from the slot formed in the shell.

A salient feature of this invention is the novel cap structure wherein a portion of the cap cooperates with a groove in the flange of the spool to form a light-tight seal.

Further objects and features will be apparent from the following description of the invention, defined in particularity in the appended claim, and taken in connection with the accompanying drawing, in which:

Figure 1 is an isometric and exploded view of a film cartridge assembly, comprising shell, spool and end caps;

Figure 2 is an enlarged fragmentary section illustrating details of the light seals and the means for retaining the caps on the shell;

Figure 3 is an enlarged fragmentary section along lines 3—3 of Figure 1 illustrating the means for expanding the shell; and

Figure 4 is an isometric inverted view of the bottom flange of the spool, shown in Figure 1.

Referring to the drawing, the cartridge comprises a shell or body **10**, and end caps **11**, both formed of metal. It will be understood that the caps are similarly constructed and are interchangeable to fit either end of the shell. Accordingly, the description, directed to one cap, is intended to apply to both.

The spool upon which the film is wound is of a size freely rotatable within the space provided by the shell **10**, and is journaled in the end caps **11**, and comprises a core **12** and flanges **13** and **13'**. The spool is preferably made of plastic or similar suitable material.

The shell **10** is split at one side and has a film slot portion which comprises the lips **14** and **15** extending more or less tangentially from the cylindrical shell itself. The shell thus far described is conventional. Each end of the shell has an expanded portion **16** forming a shoulder **17** with the body of the shell. The portion **16** is slightly inclined inwardly and is provided with a plurality of inwardly directed protuberances **18** for a purpose to be described.

The cap **11** is in the form of an annulus having an outside flange **19** and an inside flange **20** forming therebetween a well or crevice **21** to receive the expanded portion **16**. The width of the expanded portion **16** is slightly greater than the depth of the well **21** so that in assembling the caps to the shell, the flange **20** pressing against the protuberances **18**, forces portion **16** into tight contact with the curled portion **22** of the flange **19**.

Referring to Figures 1 and 2, the cap member **11** is provided with an inclined wall **23** terminating in a flange which is received in a circular groove **25** formed in either one of the spool flanges **13** or **13'**. The flanges **13** and **13'** include an inclined wall portion **26** complementary to the wall **23** in the cap member. The flange **24**, extending into the groove **25**, obstructs the light that may possibly enter the loaded film chamber through the clearance gap between the spool and the caps. The inclined walls **23** and **26** further serve to obstruct the rays of light that might possibly enter between the spool and end caps.

From the foregoing description it will be readily apparent that the present construction is well adapted to accomplish the objects and features set forth. While the invention has been described in detail with respect to a preferred form, it is to be understood that minor changes in the details of construction may be made without departing from the spirit and scope of the invention.

I claim:

A rollfilm cartridge comprising a cylindrical shell and end caps, a spool rotatably received within said shell, said spool having end flanges, a circular groove formed in each of said flanges, and a depending intruding flange formed on each of said end caps receivable in said grooves and complementary inclined wall portions on said caps and on the flanges of said spool, said intruding flange in said groove and said wall portions obstructing from all directions the passage of light into the cartridge.

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