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J. A. KNORR

ROLL FILM HOLDER

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Fig. 1.

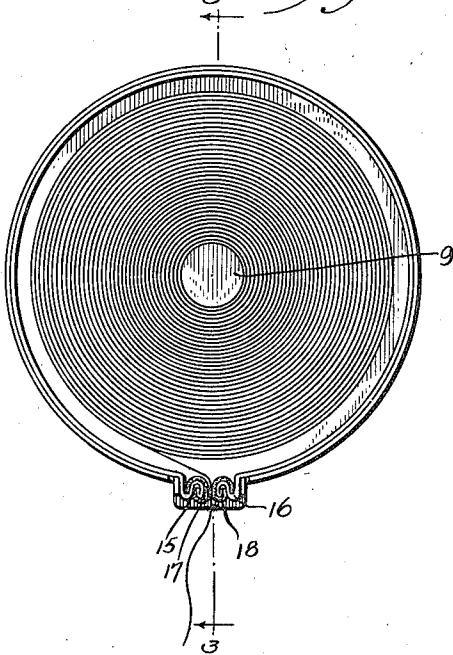


Fig. 2.

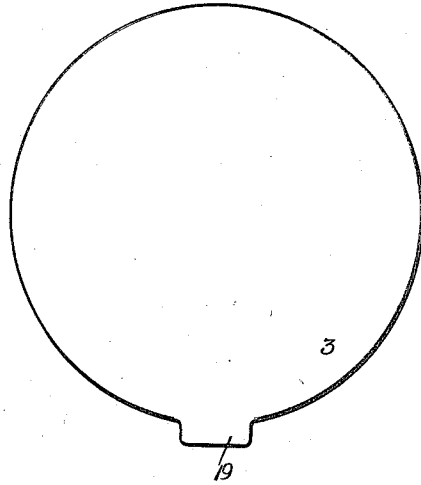


Fig. 3.

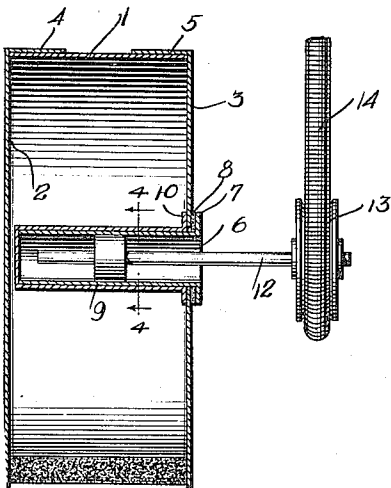
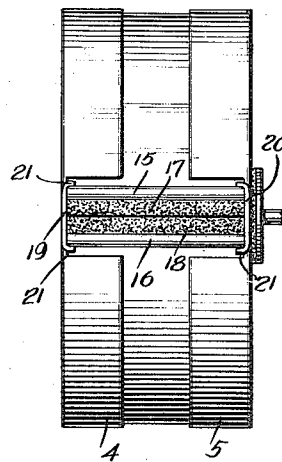


Fig. 4.



Fig. 5.



WITNESSES

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ROLL-FILM HOLDER.

Application filed June 8, 1921. Serial No. 475,952.

To all whom it may concern:

Be it known that I, JOHN A. KNORR, a citizen of the United States, and a resident of Bayonne, in the county of Hudson and State of New Jersey, have invented a new and Improved Roll-Film Holder, of which the following is a full, clear, and exact description.

This invention relates to roll film holders and has for an object to provide an improved, simplified construction which may be used once and then thrown away.

Another object of the invention is to provide a film holder for moving picture cameras which may be readily attached when in use and act as means for supplying unexposed film or as a reel for receiving exposed film.

A further object of the invention is to provide a film holder provided with a barrel or hub structure acting in the double capacity of a reel member on which the film is to be wound and a clutch for interlocking with driving mechanism.

In the accompanying drawing—

Figure 1 is a side view of a film holder disclosing one embodiment of the invention, the same being shown with one side removed.

Figure 2 is a side view of the structure shown in Figure 1.

Figure 3 is a sectional view through Figure 1 on line 3—3.

Figure 4 is a detail fragmentary sectional view through Figure 3 on line 4—4.

Figure 5 is an edge view of the structure shown in Figure 3.

Referring to the accompanying drawing by numerals, 1 indicates a tubular body provided with a rear side 2 and a front side 3, said sides having overlapping annular flanges 4 and 5 which snugly fit against the outer surface of the tubular casing 1. If desired, these flanges could be soldered or otherwise rigidly secured to the tubular member 1, though ordinarily the flange 5 is not secured. The side 2 is preferably solid throughout while side 3 is provided with a central aperture through which the tubular member 6 projects, said tubular member having a flange 7 fitting against a felt washer 8. Tubular member 6 snugly fits a second tubular member 9 provided with a flange 10 arranged interiorly of the side 3. By reason of the flanges 7 and 10 and the washer 8, a rotatable structure is

provided and one which will not admit light while the friction between the tubular members 6 and 9 is such that whenever tubular member 6 is rotated, tubular member 9 will also be rotated and will act as a winding drum for winding film thereon, said film being secured to this tubular member in any desired manner.

When the film holder is used as a reel for receiving exposed film, the spring clutch 11 is forced into the tubular member 6 and expands against said tubular member so that whenever the shaft 12, rigidly secured to the clutch 11, is rotated, tubular member 6 and parts associated therewith will also be rotated. The shaft 12 is driven by any suitable means, as for instance, a pulley 13 which in turn is driven by a belt 14. The spring clutch 11 is very important as it readily slips when a considerable quantity of film has been wound on the tubular member 9 but will always provide sufficient grip to secure a proper winding action. It will, of course, be understood that the belt 14 is operated by the moving picture camera at a proportionate speed to the speed of the camera so that the tube 9 will properly take up the film as it passes through the camera.

In order that the film may be properly passed into or out of the tubular member 1, a special arrangement is provided as shown in Figures 1 and 5. This arrangement consists in having part of the tubular member 1 bent back upon itself for forming the gripping jaws 15 and 16, which gripping jaws grip felt members 17 and 18, said felt members fitting rather tightly together by reason of the spring action of the jaws 15 and 16, which spring action not only holds the felt members in close contact but also yields whenever necessary as the film is moved between said felt members. The flanges 4 and 5 of the sides are bent so as to present upstanding end sections 19 and 20, which sections have side portions 21 bent around the jaws 15 and 16 whereby the entrance of light is positively prevented. The term "film" has been used but it will be understood that an ordinary film may be used or a roll of sensitized paper without departing from the spirit of the invention.

What I claim is:—

1. A film holder comprising a tubular casing having an opening and a reel extending from one end of the casing to the other, said casing being bent adjacent the opening

- for forming resilient jaws adapted to press against each other, a padding member carried by each of said jaws and side members connected with the ends of said casing, said side members being formed with portions overlapping the respective ends of said jaws.
2. A roll film holder comprising a tubular body having an opening, said body at the opening being bent upon itself to form resilient gripping jaws, a pair of flanged side members on said body, said side members having portions extending across the ends of said jaws and a hub member extending through one of said side members for revolvably supporting the film holder, said hub member and said side member being removable from the film holder in one unit.
3. A film holder comprising a tubular casing having an opening in the periphery, said tubular casing at the opening being formed with a pair of resilient jaws pressing against each other, and a pair of flanged side members for closing the ends of said tubular casing, said flanges of said side members being slotted adjacent the resilient jaws and provided with members adapted to overlap the ends of said openings at the sides to prevent leakage of light.
4. A roll film holder comprising a tubular body having a slot in its periphery, the edges of said slot being bent outwardly and then inwardly upon itself to form a pair of jaws, said jaws being adapted to press against each other, a piece of felt for each jaw to prevent admission of light in the holder, a side member at each end of the tubular body and each formed with a projection extending beyond the periphery of the tubular body and adapted to lie adjacent the ends of said jaws, said projections at the sides being formed with lateral members adapted to overlap a portion of the outer surface of the jaws whereby to prevent light entering into the holder from the ends of the jaws.

JOHN A. KNORR.