May 19, 1925. 1,538,510

F. BONK, JR

METER AND SIGNAL FOR MOVING PICTURE REELS

Filed Jan. 27, 1922

Fig. 1.

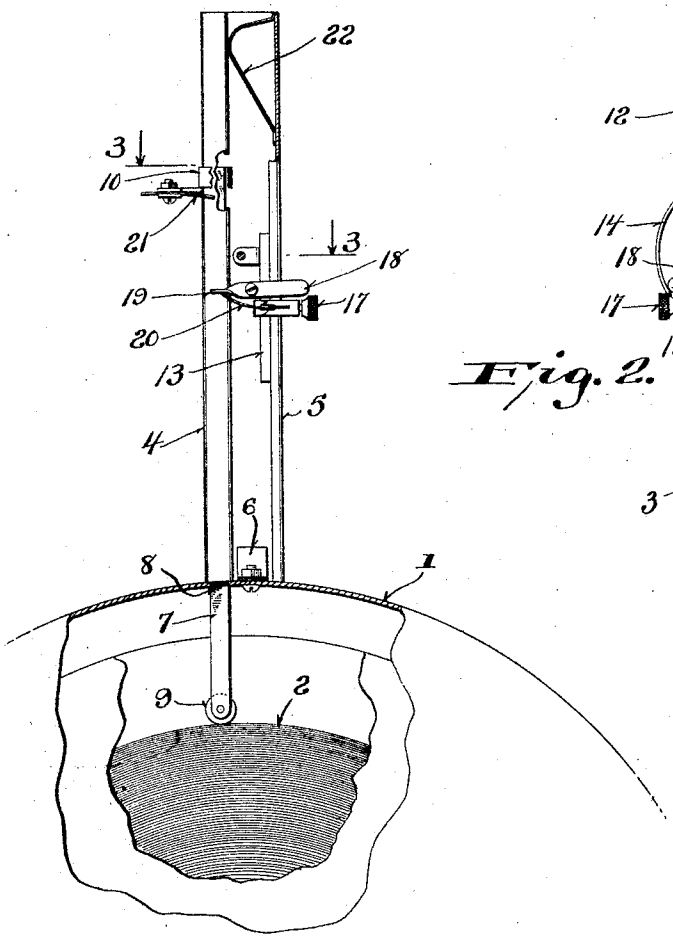


Fig. 2.

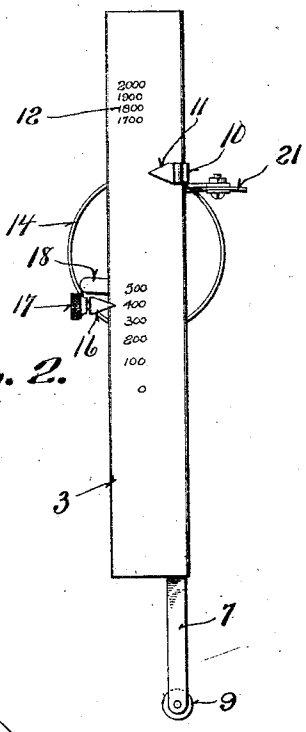
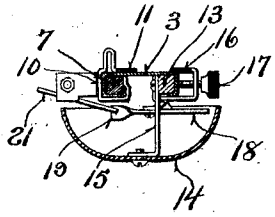


Fig. 3.



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Patented May 19, 1925. 1,538,510

UNITED STATES PATENT OFFICE.

FRANK BONK, JR., OF RIPON, WISCONSIN.

METER AND SIGNAL FOR MOVING-PICTURE REELS.

Application filed January 27, 1922. Serial No. 532,341.

To all whom it may concern:

Be it known that I, FRANK BONK, Jr., a citizen of the United States, and resident of Ripon, in the county of Fond du Lac and State of Wisconsin, have invented certain new and useful Improvements in Meters and Signals for Moving-Picture Reels; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to a new and useful meter and signal device which is adapted to be attached to the upper magazine of a moving picture machine to indicate how many feet of film still remain in the magazine, and to give an audible signal when the amount of film has become reduced to a predetermined point.

In operating the usual moving picture machine it is necessary for the operator to open the magazine from time to time to determine how much film is left on the roll, and if his attention is diverted for a time, it often happens that the film is run out before he has another reel ready for operation. This causes a discontinuity in the picture and consequent annoyance to the spectators.

The object of my invention is to provide a simple device which may be easily attached to the magazine, and may be readily observed by the operator so that he will know at all times just how much film there is left in the magazine.

A further object of the invention is to provide a signal which may be set at any predetermined point, and will be actuated to produce an audible signal when the amount of film reaches that point. The signal is to be set at a point which will give the operator plenty of time to get the next reel ready, so that the picture may continue without any appreciable interruption.

With the above objects in view, my invention consists in certain details of construction which are illustrated in the accompanying drawing, in which:

Figure 1 represents a rear elevation of my invention attached to the upper magazine, parts being broken away to better illustrate the details of the invention.

Figure 2 is a front elevation of my invention detached, and

Figure 3 is a horizontal sectional view on the line 3—3 of Figure 1.

Referring specifically to the drawing, the numeral 1 indicates the upper magazine of a moving picture machine, and 2 indicates the roll of film which is being unwound. My device comprises a casing 3, which is formed with side channels 4 and 5, and is provided with a lug 6 at its base, which may be attached to the periphery of the magazine, as indicated in Figure 1. A bar 7 is mounted to slide in the channel or guideway 4 and projects through a hole 8 provided for the purpose in the magazine 1.

A roller 9 is provided at the lower end of the bar 7, and rides along the periphery of the roll 2, as the latter is rotated.

A clip 10 is attached to the bar 7 near its upper end, and is bent around the outer side of the channel 4, and provided with an indicating point 11, which extends in front of the casing 3 and in connection with the graduations 12 on the front of the casing indicates the number of feet of film still left in the magazine.

A block 13 is mounted in the channel 5 and carries a bell 14, which is attached thereto by means of the arm 15. An indicator 16 is also attached to the block 13, and in connection with the set screw 17 serves to secure the bell at any point to which it may be adjusted. A striker 18 is pivotally connected with the block 13 and is provided with a heel 19, which is urged in one direction by the spring 20, and is moved in the other direction by the trip arm 21, carried by the clip 10 when the latter rides downwardly past the signal device. A bow spring 22 is provided in the casing 23 near its upper end. When a new reel is being placed in the magazine, therefore, the bar 7 may be raised to its upper-most position, and the clip 10 will be held by the spring 22 out of the way, while the new reel is being put in.

It will be understood that the bell may be adjusted at any point desired. For example, as shown in Figure 2, it is adjusted at four hundred, consequently when the number of feet remaining in the magazine reaches four hundred, the trip arm 21 will move past the heel of the striker, and cause the latter to produce an audible signal. While the last four hundred feet are being run off, the operator may get the next reel ready.

While I have shown the casing 3 graduated for a two thousand foot film, it will be understood that this graduation is only illustrative and a second graduation, for in-

stance, for a thousand foot film, may be provided on the same casing or on a strip which may be attached to the outside of the casing.

It will also be understood that other modifications may be made within the scope of what is claimed, without departing from the spirit of the invention.

I claim:

1. An indicating device comprising an elongated casing having a longitudinal guideway therein, means for attaching said casing to the film magazine of a moving picture machine, a bar slidable in said guideway and having a roller on one end and adapted to extend through the wall of the magazine with the roller contacting with the surface of the film roll therein, an indicator attached to the bar and extending outside of the casing and a scale on the casing provided with numbers so graduated that the number opposite the indicator will indicate the amount of film on the roll.

2. An indicating device comprising an elongated casing, having a longitudinal guideway therein, a bar slidable in said guideway, an indicator attached to the bar and extending outside the casing, a signal device adjustable longitudinally of the casing, and means carried by the indicator for operating the signal device when the indicator moves past the same.

3. An indicating device comprising an elongated casing having a longitudinal guideway therein, means for attaching said casing to the film magazine of a moving picture machine, a bar slidable in said guideway and having a roller on one end and adapted to extend through the wall of the magazine with the roller contacting with the surface of the film roll therein, an indicator attached to the bar and extending outside of the casing and a scale on the casing provided with numbers so graduated that the number opposite the indicator will indicate the amount of film on the roll, a signal device adjustable longitudinally of the casing, means carried by the indicator for operating the signal when the indicator moves past the point for which the signal is set, and means for securing the bar in its outermost position while a new film roll is being inserted.

In testimony that I claim the foregoing I have hereunto set my hand at Ripon, in the county of Fond du Lac and State of Wisconsin.

FRANK BONK, JR.