

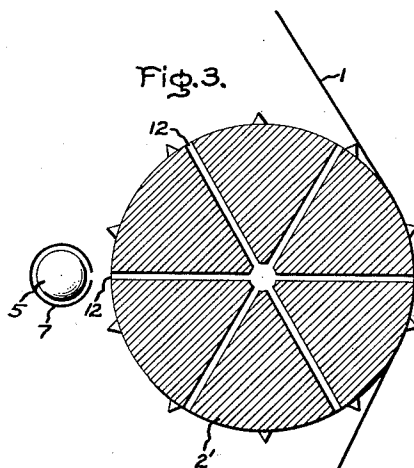
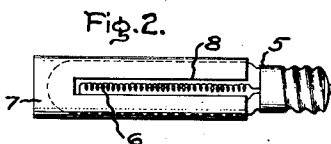
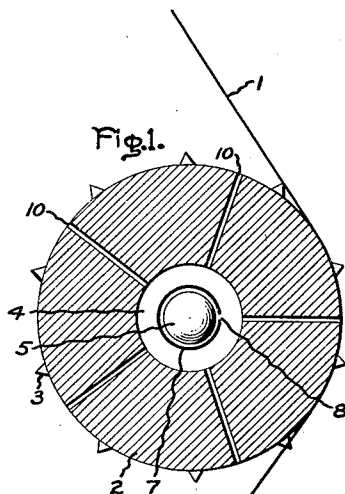
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F. HEHLGANS

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APPARATUS FOR PRINTING TIME MARKS ON A MOVING STRIP

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APPARATUS FOR PRINTING TIME MARKS
ON A MOVING STRIPFriedrich Hehlhans, Berlin-Hermsdorf, Germany,
assignor to General Electric Company, a corporation of New YorkApplication October 19, 1935, Serial No. 45,768
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2 Claims. (Cl. 234—60)

My invention relates to apparatus for printing time marks on a moving light sensitive strip and it is the object of my invention to provide an improved form of such apparatus which is well adapted for use where the strip moves at a relatively slow speed. A further object of my invention is to provide apparatus of that character which is simple in construction and is inexpensive to manufacture.

My invention will be better understood from the following description taken in connection with the accompanying drawing, and its scope will be pointed out in the appended claims.

Referring to the drawing, Fig. 1 is a view in cross section of one embodiment of my invention; Fig. 2 is a side view of the exposing lamp shown in Fig. 1; and Fig. 3 a view similar to Fig. 1 showing a modification.

In the drawing, 1 represents a moving sensitive strip, such for example as a film, upon which a record, such as an oscillograph or cardiograph record, may be made. The strip 1 passes over a portion of the roller 2 which is shown comprising a sprocket wheel having the teeth 3 adapted to engage in suitable openings in the strip. The roller 2 may be arranged to drive the strip or may be driven by the strip. At the central portion of the roller 2 is the large opening 4 in which is mounted the exposing lamp 5. This lamp is represented, see Fig. 2, as a tubular incandescent lamp having the coil filament 6 extending longitudinally of the lamp. The lamp is surrounded by the cylindrical shield 7 having the longitudinal slot 8 through which the light may pass. Extending from the central opening 4 to the periphery of the roller are the narrow light openings 10 spaced at equal angular distances through which the light which emerges from the slit 8 in the shield may pass to the strip where the latter engages the roller to expose the strip in a narrow line transversely of its length. It will be seen that the shield serves to prevent light from passing through but one of the narrow openings 10 at a time thereby preventing exposure of the strip where the same is not in contact with the roller. If the roller 2 rotates at a uni-

form and definite speed, which is controlled, for example, by clock work or a constant speed motor, the exposure marks made on the strip represent equal time intervals.

In the modified form of my invention illustrated by Fig. 3, the exposing lamp 5 with its surrounding shield 7 is arranged exteriorly of the roller 2' and at that side of the roller opposite to the side thereof engaged by the strip 1. The roller is shown in the form of a sprocket as in Fig. 1, but in this case it is provided with the narrow exposing openings 12, which extend diametrically through the roller and which, as in Fig. 1, are spaced at equal angular distances. As in the form shown in Fig. 1, the slit in the shield 7 is arranged to face that portion of the strip which contacts with the roller whereby the strip is exposed only by the light which emerges from the slit and passes through one of the diametrical openings 12.

I have chosen the particular embodiments described above as illustrative of my invention and it will be apparent that various other modifications may be made without departing from the spirit and scope of my invention, which modifications I aim to cover by the appended claims.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. Apparatus of the character described comprising a roller arranged to have its periphery engage a light sensitive strip, said roller having an opening extending therethrough and terminating at its periphery and a lamp arranged adjacent to and outside of said roller whereby light from the lamp may pass through said opening to the strip.

2. Apparatus of the character described comprising a roller arranged to have its periphery engage a light sensitive strip, said roller having a plurality of diametrical openings extending therethrough spaced at equal angles, a lamp arranged adjacent to and outside of said roller and a shield surrounding said lamp having a narrow light opening facing said roller.

FRIEDRICH HEHLHANS.