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METHOD FOR REMOVING SCRATCHES FROM CELLULOID
MOTION PICTURE NEGATIVE AND POSITIVE FILMS
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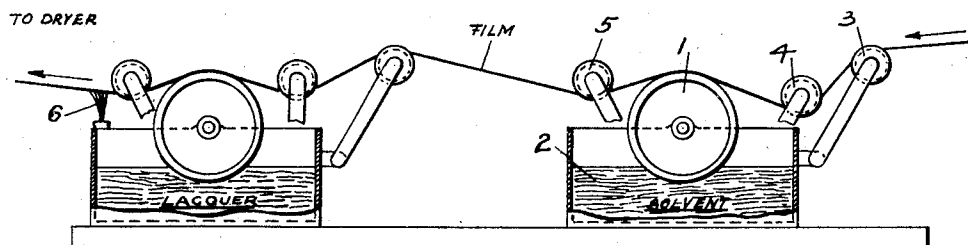


Fig. 1

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METHOD FOR REMOVING SCRATCHES
FROM CELLULOID MOTION PICTURE
NEGATIVE AND POSITIVE FILMSArthur J. Miller, Tenafly, N. J., assignor to Cine-
ma Patents Company, Inc., New York, N. Y.,
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2 Claims. (Cl. 91—69)

This invention relates to a method for removing scratches from celluloid motion picture negative and positive films and includes a formula for a special solvent for that purpose.

5 The method consists first in applying a solvent to the celluloid side of the film, permitting the film to soften slightly and then before the film has hardened, applying a nitrocellulose lacquer, after which the film is passed into a drying cabinet supplied with clean filtered air.

10 The drawing, Fig. 1, illustrates schematically the means used for applying the solvent and the lacquer.

The solvent is applied by means of a polished wheel 1, which dips into the solution 2 and in rotating transfers the solvent to the film. This wheel is externally driven at film speed. Guide rolls 3, 4 and 5 may advantageously be placed in the illustrated positions relative to the brass wheel 1.

20 The film then passes to a second device, substantially identical to the first, in which the lacquer is applied in the same manner. The lacquer-applying device is provided with a camel's hair brush 6, over which the treated surface of the film passes on leaving the lacquer bath, the function of the brush being to remove any excess of lacquer and also to distribute the lacquer evenly over the surface of the film.

30 The device for applying the solvent and the one for applying the lacquer may be moved closer together or farther apart, depending upon the speed at which the film is traveling and the period of time desired to have elapse between the two successive treatments.

35 The apparatus illustrated is suggested, but any other means of treating the film with the agents and in the manner described may be employed.

40 As used here the solvent roller is sufficiently wide to cover the entire picture area and extend into the perforation area slightly.

The roller which applies the lacquer is of the correct width and disposition to exactly fill the area between perforations.

The following have been found to be efficient solvents: cello-solve, methyl-cello-solve and cello-solve acetate. Cello solve is ethylene glycol monoethyl ether; methyl cellosolve is ethylene glycol monomethyl ether; and cellosolve acetate is ethylene glycol monoethyl acetate.

I find that a superior result is obtained and the film made more glossy by using a solvent of the following mixture: cello-solve acetate, 4 parts; butyl cello-solve, 1 part; pure camphor dissolved to saturation. Butyl cellosolve is ethylene glycol monobutyl ether.

Other nitrocellulose solvents have been found to be useful varying in efficiency.

Of several lacquers which may be employed, Eastman Kodak W. P. is most successful, although Eastman Silverdip lacquer, properly diluted, may be successfully used. With some film it is necessary to add a little camphor to the lacquer.

20 The names used to describe the foregoing solvents and lacquers are tradenames or descriptive names known in the art and need not be analyzed here. Such products have, however, always been used in other ways than as described in connection with my invention.

I claim:

1. The method of removing scratches from the celluloid surface of a photographic film, which comprises the steps of, applying a solvent for said film to said surface to soften the same, thereafter applying a lacquer to said surface before said surface has hardened and then drying said film.

35 2. The method of removing scratches from the celluloid surface of photographic film, which comprises the steps of, applying a solvent for said film to said surface, maintaining said solvent on said surface until the same has been softened, applying a nitrocellulose lacquer to said surface before said surface has hardened and then drying said film.

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