





# UNITED STATES PATENT OFFICE.

WILLIAM FREDERICK MAULICK, OF COLUMBIA, PENNSYLVANIA.

## PHOTOGRAPHIC-FILM-PROTECTING STRIP.

SPECIFICATION forming part of Letters Patent No. 702,575, dated June 17, 1902.

Application filed January 29, 1902. Serial No. 91,791. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM FREDERICK MAULICK, a citizen of the United States, residing at Columbia, in the county of Lancaster and State of Pennsylvania, have invented a new and useful Photographic-Film-Protecting Strip, of which the following is a specification.

The object of my invention is to provide an improved form of photographic-film-protecting strip in which the divisional marks designating the extent of movement necessary for the exposure of successive portions of the film are so arranged as to avoid injurious contact with the sensitized surface of the film.

With these and other objects in view the invention consists in the novel construction and combination of parts hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims.

In the drawings, Figure 1 is a sectional plan view of a portion of a photographic camera, illustrating my invention. Fig. 2 is a detail perspective view of a portion of the protective strip looking from the rear face. Fig. 3 is a sectional view drawn to an exaggerated scale, illustrating the arrangement of the backing-strip for rendering visible the designating-marks formed by perforations in the protective strip. Fig. 4 is a detail perspective view illustrating the construction of protective strip employed for carrying a number of separate films.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

The photographic films in ordinary use are formed in a continuous strip having a backing or protective strip of flexible sheet material of an opaque nature to prevent the passage of actinic rays, the two strips being wound together on a roller and placed in the camera. The end of the protective strip is of sufficient length to extend past the exposure-point and connect with a receiving-roller, on which it is gradually wound to successively expose portions of the film in the usual manner.

On the back of the protective strip are designating-marks to indicate to the operator the position of the film, such marks usually taking the form of numerals or letters and being arranged at equidistant points to insure the exposure of a proper surface area at each operation, the receiving-roller being turned until a mark is directly opposite a visual opening at the rear of the camera-casing.

The designating-marks are usually formed on the protective strip by printing or stamping the same with ink or similar material which comes into contact with the sensitized surface of the film as the strips are rolled together, resulting in many cases in the transfer of a portion or all of the ink or other marking material to the surface of the sensitized film and destroying or reducing the value of the negative. This objectionable marking of the film is a matter of frequent occurrence in films in ordinary use, and one of the principal objects of the present invention is to provide for the marking of the protective strip in such manner as to prevent any transfer of the mark to the film regardless of exposure to varying weather and temperature.

In the drawings is illustrated an ordinary form of camera comprising a box or casing 10, having a lens 11 and a suitable chamber having an exposure-opening 12, over which the film is traveled from a holder 13 to a second holder 14, successive portions of the film being wound upon the receiving-holder as the negatives are made.

The sensitized film 15 is formed of a long strip of celluloid or similar material and is attached at one end to a protective strip 16 by means of a small strip 17 of paper or similar material, as indicated in Fig. 1. The protective-strip 16 is formed of opaque material to prevent the passage of actinic rays to the sensitized film while on the roller or holder and to prevent any such exposure through the visual opening 18 while in the camera. At suitable intervals throughout the length of the film-protecting strip are designating-marks 19, which may be in the form of numerals or letters, such marks being formed by a line or lines of perforations extending



entirely through the strip, as indicated at Fig. 3. As the strip is generally black in color, the marks are rendered visible by pasting or otherwise securing on that face of the strip next to the film a strip 20 of paper or other material of a contrasting color—such as, for instance, white or red—or ruby paper may be employed for the purpose in order to prevent the passage of actinic rays through the perforations to the film. Where the material employed as a backing is of such nature as to permit of the passage of light-rays, that surface next to the film may be blackened or coated with opaque material, or an additional strip 21 of a material similar to that forming the body of the protective strip may be employed for the purpose. The designating-marks may be placed at the center of the protective strip or along one or both edges of the same, and additional marks, as indicated at 22, may be employed to designate the cutting-lines of the strip.

With a strip marked in the manner described it becomes absolutely impossible to injure the film by transferring the designating-marks thereto. The designating-marks are much plainer than when printed, and the expense is but little greater than the cost of the ordinary strip.

In order to provide for the carrying of a number of separate film-sections each of the proper size for one exposure, I provide the protective strip with a second strip 23, pasted or otherwise secured to the main strip, as at 24, to form a series of frames for the reception of the edges of the film-sections, and this auxiliary strip may perform the double function of holding the film-sections in place and serving as a backing for the perforations forming the designating-marks.

The roll-holders 13 and 14 may be of any

desired construction and operated in the usual manner.

Having thus described my invention, what I claim is—

1. A film-protecting strip having perforations forming designating-marks, and strips formed of non-actinic material and of a contrasting color arranged at the rear of the protecting-strip to cover said perforations.

2. A film-protecting strip having perforations forming designating-marks, strips of a contrasting color so disposed as to cover said perforations, and an opaque material covering said colored strips.

3. A film-protecting strip having perforations forming designating-marks, strips of material of contrasting color arranged at the rear of the protecting-strip to cover said perforations, and an auxiliary strip of opaque material covering said colored strip.

4. A film-protecting strip formed of opaque material and adapted to be wound on the delivery and receiving roll-holders of a roll-film camera, said strip having on one side a plurality of longitudinal and vertically-disposed strips forming adjacent pockets for the reception of separated film-sections.

5. A film-protecting strip having a series of perforations forming designating-marks, strips arranged on one face of said protective strip to cover said perforations, the auxiliary strips being arranged to form pockets for the reception of sectional films.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM FREDERICK MAULICK.

Witnesses:

A. W. ROGERS,

GEO. L. BRENERVEAN.