

PATENT SPECIFICATION



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PROVISIONAL SPECIFICATION.

Improvements in or relating to Films for Colour Photography.

We, THOMAS THORNE BAKER, a British Subject, of The Hut, Hatch End, Middlesex, CHARLES BONAMICO, a French Citizen, of 19, New Bridge Street, London, E.C. 4, RALPH ALFRED SIDNEY GRIST, a British Subject, of Saxon Lodge, Ickleton, Cambridge, and SPICERS LIMITED, a British Company, of 19, New Bridge Street, London, E.C. 4, do hereby declare the nature of this invention to be as follows:—

This invention consists of improvements in or relating to films for colour photography and colour cinematography, and has particular reference to films of the multi-colour screen type. Films of this type usually consist of a film base of a cellulose ester or ether to which the colour screen is applied by the action of dyes and the emulsion is then applied to the colour screen. It has been found, however, that difficulties arise when the emulsion is applied direct to the colour screen since the dyes of the screen diffuse into the emulsion.

It has previously been proposed to apply a separating layer (e.g. gelatine or varnish or both) between the screen and the emulsion.

According to the present invention a method is provided for protecting the sensitive emulsion coated on top of the colour screen of a photographic film of the multi-colour screen type from the

action of the dyes of the colour screen which comprises applying a separating layer of a synthetic resin in solution to the colour screen and then applying the emulsion on to said layer. Preferably the separating layer is applied in the form of a solution of a phenol-formaldehyde condensation product (e.g. the product known under the registered trade name of "Bakelite") in benzole to which may be added a plasticiser such as linseed oil. The separating layer is preferably applied to a thickness of about 4μ .

The invention includes a photographic film when made according to the above method.

In a specific example of the invention, a multi-colour screen is applied to a cellulose acetate film by the method described in British Patent Specification No. 322,432 or in British Specification No. 337,073. A separating layer of a synthetic resin dissolved in benzole to which a percentage of linseed oil or plasticiser has been added is applied and allowed to dry, and the sensitive emulsion is then applied to the separating layer.

Dated this 18th day of May, 1932.

BOULT, WADE & TENNANT,
111 & 112, Hatton Garden, London,
E.C. 1,

Chartered Patent Agents.

COMPLETE SPECIFICATION.

Improvements in or relating to Films for Colour Photography.

We, THOMAS THORNE BAKER, a British Subject, of The Hut, Hatch End, Middlesex, CHARLES BONAMICO, a French Citizen, of 19, New Bridge Street, London, E.C. 4, RALPH ALFRED SIDNEY GRIST, a British Subject, of Saxon Lodge, Ickleton, Cambridge, and SPICERS LIMITED, a British Company, of 19, New Bridge Street, London, E.C. 4, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following

[Price 1/-]

statement:—

This invention consists of improvements in or relating to films for colour photography and colour cinematography, and has particular reference to films of the multi-colour screen type. Films of this type usually consist of a film base of a cellulose ester or ether to which the colour screen is applied by the action of dyes and the emulsion is then applied to the colour screen. It has been found, however, that difficulties arise when the emulsion is applied direct to the colour

screen since the dyes of the screen diffuse into the emulsion.

It has previously been proposed to apply a separating layer (e.g., gelatine or varnish or both) between the screen and the emulsion.

According to the present invention a method is provided of protecting the sensitive emulsion coated on top of the colour screen of a photographic film of the multi-colour screen type from the action of the dyes of the colour screen which comprises applying a separating layer of a synthetic resin between the colour screen and the emulsion. Preferably the separating layer is applied in the form of a solution of a phenol-formaldehyde condensation product (e.g. the product known under the registered trade mark of "Bakelite") in benzole to which may be added a plasticiser such as linseed oil. The separating layer is preferably applied to a thickness of about 4μ .

The invention includes a photographic film when made according to the above method.

In a specific example of the invention a multi-colour screen is applied to a cellulose acetate film by the method described in British Patent No. 322, 432 or to a celluloid film by the method described in British Specification No. 337,073.

A thin separating layer is then applied over the multi-colour screen. This layer consists of a coating of a synthetic resin dissolved in benzole with the addition of 2 to 3 per cent of linseed oil or other plasticiser. After the solvent has dried the sensitive emulsion is applied to the separating layer.

It is found that the separating layer of synthetic resin not only prevents the dyes of the colour screen diffusing into

the emulsion but also provides effective adhesion between the emulsion and the colour screen.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. The method of protecting the sensitive emulsion coated on top of the colour screen of a photographic film of the multi-colour screen type from the action of the dyes of the colour screen which comprises applying a separating layer of a synthetic resin between the colour screen and the emulsion.

2. The method according to Claim 1 wherein the separating layer is applied to the colour screen in the form of a solution containing a plasticiser (for example linseed oil).

3. The method according to Claim 2 wherein the separating layer is a phenol-formaldehyde condensation product together with a plasticiser and is applied in solution in benzole.

4. A photographic film of the multi-colour screen type having a protective separating layer comprising a synthetic resin between the colour screen and the sensitive emulsion.

5. The method of protecting the sensitive emulsion coated on top of the colour screen of a photographic film of the colour screen type from the action of the dyes of the colour screen substantially as described.

Dated the 16th day of May, 1933.

BOULT, WADE & TENNANT,
111 & 112, Hatton Garden, London,
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Chartered Patent Agents.