

PATENT SPECIFICATION



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PROVISIONAL SPECIFICATION.

Improvements in or relating to Colour Photography.

I, THOMAS THORNE BAKER, a British Subject, of The Hut, Hatch End, Middlesex, do hereby declare the nature of this invention to be as follows:—

5 This invention consists of improvements in or relating to colour photography and particularly to the production of prints in natural colours to be viewed by reflected light, although the invention includes the production of trans-
10 parencies.

The general method of colour photography in question is that in which a reseau or colour screen is carried on the
15 same support as the sensitised emulsion.

A method already exists for producing prints in which the reseau is printed on translucent paper or the like, the emulsion being coated on the top of the reseau.
20 In this case the printing takes place through the paper.

According to this invention a similar method is employed but the paper used

is a stripping paper i.e. one from which the emulsion and the reseau can be bodily
25 removed, and the method therefore is to make the print by contact printing or by projection printing through the reseau, then to develop the print, strip the print
30 and reseau from the support and transfer them in reversed position on to a fresh paper or like support which may be quite opaque.

The result is that the reseau is nearest to the observer and the image lies between
35 the reseau and the opaque support.

When viewing such a print with reflected light, the light passes through the reseau to the print and back again
40 through the reseau to the eye of the observer.

Dated this 25th day of July, 1929.

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COMPLETE SPECIFICATION.

Improvements in or relating to Colour Photography.

I, THOMAS THORNE BAKER, a British Subject, of The Hut, Hatch End, Middlesex, do hereby declare the nature
45 of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention comprises improvements
50 in or relating to colour photography and particularly to the production of photographic prints in natural colours.

Such prints may be made by contact or projection printing from a master
55 transparency associated with a multi-colour screen on to a light sensitive layer, which is also associated with a multi-colour screen, and which is so arranged that the sensitive layer is on the side
60 remote from the source of light.

Printing is thus effected through the two screens, but it is not necessary to register these screens.

This invention is concerned with the
[Price 1/-]

production of prints on natural colours
65 which may be viewed by reflected light, but it also includes the production of transparencies.

The invention is especially concerned with methods for the production of
70 photographic prints in natural colours of the type in which the light sensitive layer and its associated colour screen are supported on a transparent support, and printing is effected through the screen on to
75 the light sensitive layer, the image and colour screen being transferred in a reversed position on to a second paper or like support and being stripped off the
80 transparent support before or after such transfer.

This invention provides a method of the type described for the production of
85 photographic prints in natural colours, wherein the multi-colour screen is printed on a thin layer of celluloid, collodion, cellulose acetate, regenerated cellulose,

gelatine or like material, which is attached to the translucent stripping support by means of a suitable adhesive, such for example as gum dammar dissolved in benzole.

According to a feature of the invention the translucent stripping support may comprise celluloid, parchmented paper or the like.

In a preferred form of the invention the final support for the image comprises an opaque reflecting support, such for example as white paper, or a cellulose acetate film containing baryta, which has been coated with an adhesive such as gelatine, gum arabic or the like. The result is that the screen is nearest to the observer and the image lies between the colour screen and the opaque support. When viewing such a print with reflected light, the light passes through the colour screen to the print and back again through the colour screen to the eye of the observer. Examples of suitable materials for use as the opaque reflecting support are given in British Specification No. 282,980.

In carrying out processes of the above described type it has hitherto been customary to use a colour screen for the print whose colours are much weaker than those of the colour screen associated with the master transparency, owing to the fact that light must pass twice through the screen when the print is attached to a paper support and viewed by reflected light. The present invention however is not limited to the use of a copying colour screen of weaker colours than the screen associated with master transparencies, but it includes the use of a copying screen of substantially the same depth of colour as that associated with the master transparency. Although with such a screen the colours of the print are not so bright as in the case when a lighter screen is used they have the advantage that they are more truthful in colour rendering.

An example of a practical method of carrying the invention into effect will now be given.

The translucent support, for example a film of celluloid or parchmented paper, is coated with a very thin film of gum dammar dissolved in benzole in an ordinary coating machine. It is then coated with a thin layer of clear gelatine of about 6% strength. The colour screen is then printed upon the material by passing it through a machine of the type described in British Specification No. 322,454. After completion of the colour screen a thin coating of sensitive photographic emulsion is applied on top of the colour screen. After exposure of the

material to light so as to form the print, the image is developed and fixed and the material is dried. The point of a penknife is then inserted between the gelatine and the gum dammar films which come apart. The gelatine film carrying the colour screen and print can then be readily peeled off the translucent support, which is then thrown away. The print, having been removed from the translucent support, is then squeegeed with its colour screen surface uppermost on to an opaque reflecting support such as a sheet of white paper of the baryta-acetate film described in Specification No. 282,980 which has previously been coated with an adhesive such as gelatine or gum arabic.

Alternatively, having made the print, the whole print can be squeegeed on to the opaque support, and after having been allowed to remain in contact with it for a few minutes, the preliminary translucent stripping support can be lifted away with a penknife and peeled off, leaving the colour screen and image on its final opaque reflecting support.

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

1. A method of the type described for the production of photographic prints in natural colours, wherein the colour screen is printed on a thin layer of celluloid, collodion, cellulose acetate, regenerated cellulose, gelatine or like material, which is attached to a translucent stripping support by means of a suitable adhesive, such for example as gum dammar dissolved in benzole.

2. A method according to Claim 1 wherein the translucent stripping support comprises celluloid, parchmented paper or the like.

3. A method according to any of the preceding claims, wherein the print and colour screen are stripped from the translucent support, and transferred in a reversed position to an opaque reflecting support, such for example as white paper, or a cellulose acetate film containing baryta, which has been coated with an adhesive such as gelatine, gum arabic or the like.

4. A method of producing photographic prints in natural colours substantially as described.

5. Photographic prints in natural colours when produced by any of the special methods described or claimed herein.

Dated the 25th day of April, 1930.

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