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MANUFACTURE OF DIRECT POSITIVES FOR AUTOTYPE

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2 Claims. (Cl. 95—5)

Our present invention relates to the manufacture of direct positives for autotype purpose and one of its objects is a process for realizing this aim.

For the production of direct positives for autotype purposes (screen reproduction) from a line copy or a half-tone copy, this invention provides a process in which a silver halide gelatin emulsion layer carried on a suitable, clearly transparent support (celluloid, cellulose acetate, or the like) is exposed under the original copy through the said support, developed with a tanning developer, and then washed in known manner with warm water so that a negative gelatin relief remains on the support.

After the gelatin relief has been dried, that side of the support which carries the gelatin relief is colored with a solution of a suitable dyestuff, so that the support is colored non-actinically at all the places laid bare by the production of the gelatin relief. In this treatment the gelatin relief also is superficially colored but the color does not penetrate far into the gelatin and therefore does not affect the parts of the support below the gelatin. For the purpose of the invention all dyestuff solutions are suitable which are miscible with a solvent or a swelling agent for the support, or the dyestuffs which are soluble in a solvent or a swelling agent for the support. A suitable dyestuff solution for coloring the film having a support, for instance, of nitrocellulose or cellulose acetate, consists for instance of (cf. Schultz, Farbstofftabellen, 7th edition, Vol. 2, page 223) of

5 grams typophor black
85 grams benzene
10 grams methanol

After the film has been thus dyed and then dried, the remaining gelatin relief is removed from the support by an etching operation, for instance by means of a suitable chemical agent, such as hydrogen peroxide. The gelatin can also be removed by agents having a strong swelling action which counteracts the tanning effect produced by the development for example dilute caustic soda solution, a solution of a thiocyanate, a hypochlorite solution, papayotin or the like, at about 40° C. The bare support remains carrying a positive image of the original picture which is eminently suitable for the usual fields of application.

What we claim is:

1. A process for producing direct positives for autotype purposes from a line copy or half tone copy, which comprises exposing the light sensitive silver halide gelatin emulsion layer coated on a transparent support through the support under the copy, developing said exposed film with a tanning developer, washing said developed film with warm water to remove the untanned gelatin from the unexposed areas to produce a relief, drying said relief, dyeing the areas of the support laid bare by the production of the gelatin relief with the solution of a non-actinic dye containing a liquid selected from the group consisting of solvents and swelling agents for said support, and removing said gelatin relief by etching.

2. A process for producing direct positives for autotype purposes from a line copy or half tone copy, which comprises exposing the light sensitive silver halide gelatin emulsion layer coated on a transparent support through the support under the copy, developing said exposed film with a tanning developer, washing said developed film with warm water to remove the untanned gelatin from the unexposed areas to produce a relief, drying said relief, dyeing the areas of the support laid bare by the production of the gelatin relief with a solution of typophor black in a mixture of benzene and methanol, and removing said gelatin relief by etching.

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