

UNITED STATES PATENT OFFICE.

AUGUSTE BISSON, OF PARIS, FRANCE.

METHOD OF COLORING PHOTOGRAPHS.

SPECIFICATION forming part of Letters Patent No. 296,913, dated April 15, 1884.

Application filed January 15, 1884. (No specimens.)

To all whom it may concern:

Be it known that I, AUGUSTE BISSON, a citizen of the Republic of France, residing at the city of Paris, in said Republic, have invented a new and Improved Method or Process of Coloring Photographs and the Like, of which the following is a specification.

This invention is equally applicable to all kinds of photographic and other images, among which may be particularly mentioned carbon or silver-salt proofs or impressions; as well as those obtained by the photoglyphic and phototypic processes, whether portraits, reproductions of natural objects, or pictures.

My process consists, essentially, in printing in a particular manner, hereinafter described, the necessary colors, either directly upon either face of the pellicle of gelatine, which bears either a carbon proof or a photographic proof, or upon the proof obtained on a translucent body—such as mica, vegetable-leather paper, dioptric paper, transparent mineral paper, tracing-cloth—substances to which I may have to communicate a complete transparency by means of a treatment which I may apply before or after the taking of the proof. This treatment consists simply in immersing the paper or other substance of which it is desired to complete the transparency in a bath composed as follows: Light or rectified benzine, one thousand parts, by weight; resin, one hundred and fifty parts, by weight; linseed-oil, ten parts, by weight. This mixture is prepared in a few minutes by stirring the ingredients together in a vessel immersed in hot water. The image being thus perfectly transparent, either naturally or by the effect of the treatment hereinabove mentioned, to which the paper or other body which bears it is subjected, I proceed with the coloring in the following manner: If, for example, the reproduction of a picture is required, I take a photographic proof obtained by the silver-salt process, upon which I apply, in as faithful a manner as possible, as tone, colorings, either in oil or water colors, in a manner to reproduce exactly the tints of the picture; but when a portrait only is required, a simple description only of the original may be sufficient to enable the tints to be reproduced. This colored transparent photographic copy of the picture having been obtained, I transfer or trace from

it with a pencil onto any kind of paper the outline of the contour of every portion having the same tint—that is to say, for example, a dozen different tracings or transfers, if the picture contains a dozen different tints—each tracing or transfer only bearing the contours of those parts which have the same color. These tracings or transfers may be obtained by placing the copy above mentioned over the paper on which the outlines of the contours are to be produced, with an interposed piece of transfer-paper, and tracing over the copy with a stylus or point. Each of these tracings is then placed upon a very thin plate of metal, or upon a sheet of strong paper sufficiently opaque to intercept the light in the operation which is to follow. Then the said paper or metal has cut out from it very carefully the portions conforming to the said contours on the transfers or tracings placed upon it. Each sheet or plate so cut out is like a stencil-plate. These sheets or plates having been prepared, I take as many lithographic stones, and in a dark place or in a yellow light I prepare them with a coating of saturated solution of bichromate in albumen or gum. When these coatings are dry, I place on each stone the opaque cut-out sheets or plates, and then expose them to the light under a thick glass in such manner as to produce the perfect adhesion of the sheets. A few minutes will suffice in this way to obtain on the stones complete impressions of the cut-out parts of the sheets or plates. The plates or sheets and the coatings are then removed from the stones by soaking and washing. Each stone is then marked in a convenient manner to indicate its proper color. The stones being inked in the ordinary manner, I commence by printing the shadows and follow with the other parts in any suitable order. If a portrait, for instance, I follow the shadows with the high lights, the figures of any parts of the dress, and finish with the flat tints of the flesh and of the costume. The printing may be either upon the face or the back of the transparent proof or print. The colors should be prepared in a manner to accelerate the drying. The colored proofs are finally mounted and glued to any base or support by the aid of varnish, dextrine, or any adhesive material, care being taken to submit them for several hours after

mounting to pressure. They may be mounted on panels or bristol-board, and in the latter case may be satin-finished. For copies of oil-paintings they may be mounted on canvas, 5 and to complete the illusion they may be subjected to heavy pressure with a woven fabric between their faces. Pictures thus treated and mounted may be placed in frames and varnished like oil-paintings.

10 What I claim as my invention is—

1. The treatment of the translucent bodies for the reception of photographic impressions, consisting in subjecting them to the action of a bath composed of benzine, resin, and linseed- 15 oil, in or about in the proportions herein specified, substantially as herein described.

2. The improvement in the art of printing photographs in colors, consisting in first ob-

taining stencil-plates or sheets cut out in the contours of the different colors, next applying 20 said plates or sheets to lithographic stones coated with bichromate, then exposing the said stones and plates or sheets together to the action of the light and pressure under a glass, then removing the sheets and coating 25 from the stones, and afterward printing from said stones in flat tints, substantially as herein described.

In testimony whereof I have signed this specification in the presence of two subscribing wit- 30 nesses.

AUGUSTE BISSON.

Witnesses:

CH. CRÉMERS,
EUG. DUBOIS.