

No. 758,501.

PATENTED APR. 26, 1904.

A. VON BEUST.

PROCESS OF REPRODUCING MULTICOLOR PICTURES, &c.

APPLICATION FILED JULY 20, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

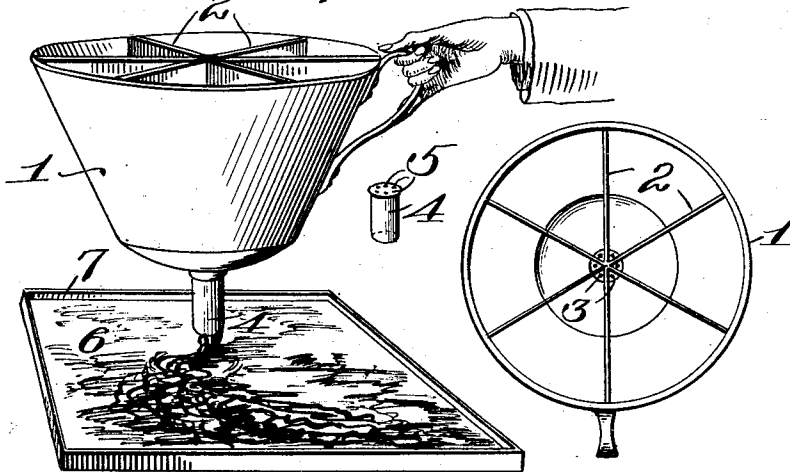
Fig. 1.



Fig. 2.



Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4.

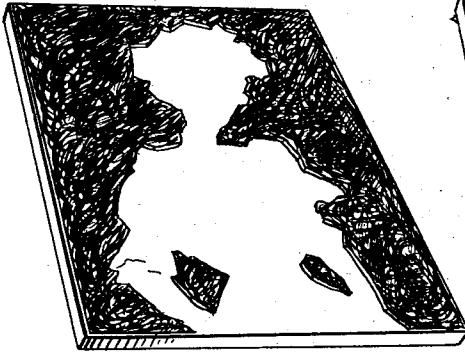


Fig. 5.

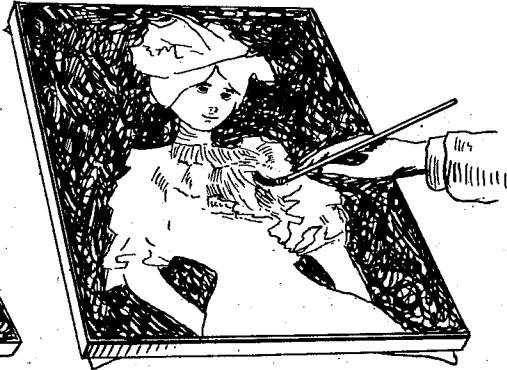
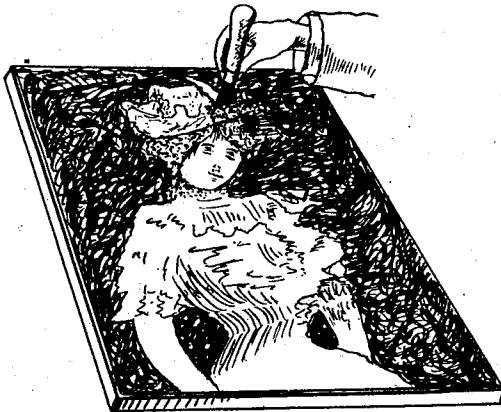


Fig. 6.



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PROCESS OF REPRODUCING MULTICOLOR PICTURES, &c.

SPECIFICATION forming part of Letters Patent No. 758,501, dated April 26, 1904.

Application filed July 20, 1903. Serial No. 166,310. (No specimens.)

To all whom it may concern:

Be it known that I, ANTON VON BEUST, a citizen of the United States, residing at Orange, in the county of Essex and State of New Jersey, have invented new and useful Improvements in Processes of Reproducing Multicolor Pictures, &c., of which the following is a specification.

This invention relates to a process for reproducing in large numbers multicolored pictures, half-tones, &c., illustrations, patterns, and the like; and it consists in the novel process by means of which a gelatinous plate may be expeditiously prepared having embedded therein an exact reproduction of an original picture, design, or the like, both as regards delineation and coloring and also definition, and from which plate numerous impressions may afterward be made.

I will now describe the manner of carrying my improved process into practice, reference being had to the accompanying drawings, wherein—

Figure 1 is a view of a picture which is to be reproduced. Fig. 2 is a tracing thereof. Fig. 3 shows the means I employ for forming the coating which constitutes the background and the manner of forming the background. Fig. 4 shows the background after the outline of the picture has been traced on the background and the material within the outlines removed therefrom. Fig. 5 shows the plate superposed upon the tracing and in readiness to receive the colors. Fig. 6 is a view illustrating the plate in its nearly-completed condition.

In carrying my invention into practice I first make a tracing of the original picture on paper or other suitable material. I then form the background in the following manner, in the present instance the background being shown as having a marbled effect. The material employed for forming the background, as well as the surface on which the picture itself is reproduced, consists of vegetable gelatin, glycerin, and water combined in proportions which may be varied to suit the weather and other conditions. I may also use other gelatinous preparations suitable for the

purpose, the material itself forming no part of the present invention.

In forming the marbled background I employ a funnel 1, divided into a plurality of chambers or compartments by radial partitions 2, and the bottom of each partition is provided with a small puncture or perforation 3. To the bottom of the funnel is rotatably secured a spout 4, having a disk on its upper end provided with a series of perforations 5, which correspond in number with the perforations 3, before referred to. By turning the spout 4 the perforations 3 may be closed or the perforations 5 may be caused to register with the perforations 3.

I mix with the gelatinous compound before described the coloring material, and in practice I mix as many different-colored pigments with a suitable proportion of the gelatinous compound as the original picture itself contains. The pigments and the gelatinous compound are melted together separately, and the compartments in the funnel are filled with these distinctively-colored masses. I provide a glass plate 6, having a raised rim 7, forming, in effect, a shallow tray. Then by turning the spout 4 of the funnel so as to cause the perforations to register I move the funnel to and fro and back and forth in an irregular manner over the glass plate, the different-colored masses of material commingling to a greater or less extent as they issue from the funnel, and flow upon the plate, thus giving a marbled effect to the coating deposited upon the plate. After the plate has been thus coated and the coating allowed to cool I trace upon the coating which forms the background the outline of the original picture to be reproduced, and from the outline thus formed I remove, by means of a knife or other suitable implement, that portion of the coating contained between the outlines, thus leaving a space. This space I fill with a transparent gelatinous compound formed of the materials before described. After the entire coating has become hardened I place the glass plate upon the tracing of the original picture in such manner that the outlines of the coating will exactly coincide with the outlines of the tracing of the

original picture. The tracing of the original picture will now be perfectly visible through the transparent coating. I then paint with a brush with anilin colors a transparent coating in close imitation of the original picture. The anilin colors sink into or are absorbed by the transparent coating, and in order to effect a complete saturation of said colors the transparent coating may be painted several times. Preparatory to applying the anilin colors the latter are dissolved in hot water. Instead of employing a brush for applying said colors to the transparent coating I may employ the ordinary artist's air-brush, which operates to thoroughly drive the colors into the gelatinous mass.

In some pictures there are parts having very low lights, which require very dark colors, and in order to make such dark strong colors penetrate the plate through I in practice use a tool consisting of a handle into which are set a bunch of very fine steel wires or needles. With this tool I puncture the parts of the coating to be strengthened and then paint the strong colors over these punctured parts and allow the color to soak through. The nature of the material is such that the anilin colors penetrate very readily to quite a depth.

After the gelatinous plate has been thus formed it is preferably removed from the glass plate and is now in condition for use. In obtaining the impressions from the plate thus prepared the sheets of paper to receive the impressions are preferably moistened with water, alcohol, or the like and are applied to the gelatinous plate and receive an impression thereof by pressure in the ordinary well-known manner. Owing to the fact that the colors penetrate deeply into the gelatinous plate, large numbers of impressions may be taken from the plate, and, in fact, the plate may be used for imprinting sheets of paper or the like until the plate has been practically worn away.

My invention relates to the process of preparing printing-surfaces useful particularly in reproducing multicolored pictures, half-tones, &c., illustrations, patterns, and the like. It may be useful also in preparing printing-

surfaces for reproducing copies of any matter, and I do not restrict myself to the particular uses set forth in the specification, but claim the invention, and the following clauses of claim are to be so understood for all purposes for which the same may be useful.

Having described my invention, what I claim is—

1. The process herein described of preparing printing-surfaces for reproducing multicolored pictures and the like, consisting in first making a tracing of the picture to be reproduced, coating a transparent plate with an opaque gelatinous compound to form a background, outlining the picture on said coating and removing the coating from between the outlines, filling the space thus formed with a transparent gelatinous compound, placing the plate upon the tracing and painting with anilin colors the transparent coating in imitation of the original, and finally removing the printing-surface thus produced from the transparent plate.

2. The process herein described of preparing printing-surfaces for reproducing multicolored pictures and the like, consisting in first making a tracing of the picture to be reproduced, coating a transparent plate with an opaque gelatinous compound to form a background, outlining the picture on said coating and removing the coating from between the outlines, filling the space thus formed with a transparent gelatinous compound, placing the plate upon the tracing and painting with anilin colors the transparent coating in imitation of the original, puncturing that portion of the transparent coating that is designed to receive the dark, strong colors with minute perforations, filling up said perforations with the dark, strong colors, and finally removing the printing-surface thus produced from the transparent plate.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ANTON VON BEUST.

Witnesses:

ALONZO P. LENOX,
WALLACE J. SMITH.