

UNITED STATES PATENT OFFICE.

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METHOD OF PRODUCING BRONZE-PRINTINGS.

No. 846,585.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CARL A. R. LUDEWIG, a subject of the German Emperor, residing at Hamburg, Germany, have invented a certain new and useful Method of Producing Bronze-Printings, of which the following is a specification.

This invention relates to a method of producing bronze-printings, and has for its object to give printings a silk-like and glittering appearance.

According to my invention bronze-printings are produced which while having the appearance of being granulated are not, but have a smooth even surface, this being due to the separation of the particles of bronze adhering to the printed surface. In doing this I mix with the powdered bronze a soluble powdered carrier which in its dry state is not transparent, such as powdered starch, gum-arabic, glue, gelatin, or any indifferent material, preferably such as is receptive of a color when it is desired to color such carrier.

When the bronze-powder mixed with the carrier is applied to a surface, preferably, but not necessarily, a colored surface that has been damped with a solvent of the carrier, such as water, the white powdered carrier becomes transparent and the bronze particles are separated from one another, giving the silky granulated appearance and at the same time permitting the ground of the paper to show through.

In preparing the colored carrier it is advisable that the colors be mixed in a heated state with the carrier and preferably dissolved therein to a thick paste, which when cold is dried and ground to a fine powder. To this powder is added the bronze-powder, the quantity of bronze-powder added varying according to the intensity of the glittering effect it is desired to produce, thus varying the distance apart or interstices between the bronze particles and controlling the glittering silk-like effect.

The mixture is applied to a colored or non-colored surface by blowing it or sifting it on the surface or throwing it on the surface while in a damp condition. When dry, the surface is brushed to remove any surplus material or loose particles. Thus the colored carrier is rendered transparent, the color in

the carrier ordinarily not being sufficient to prevent the ground of the surface from showing through, while the particles of bronze-powder are held maintained separate to give the silk-like granular appearance, the color in the transparent carrier thus modifying the color of the ground. When the bronze-powder is mixed with the uncolored carrier, the surfaces are usually printed or otherwise provided with color, and while they are still in a damp state the mixture of bronze-powder and carrier is applied in the manner stated above. This mode of carrying the method into effect has the advantage that no previous or first impression is necessary, since the same is replaced by the real color-print, and that the colored bronze-prints thus obtained will resist washing off with water. For this reason not only paper or the like can be printed according to this invention, but also leather or fabric of any description, such as cloth, linen, silk, calico, &c. Fabrics treated in this manner may be used for book-coverings, ladies' dresses, wall decorations, and the like.

I claim—

1. The method of producing bronze-printings having a lustrous, silk-like appearance, which comprises producing a mixture of powdered bronze and a soluble powdered carrier capable of being rendered transparent by a suitable solvent, damping a surface with said solvent and applying the mixture thereto to permit the ground of said surface to show through the carrier thus rendered transparent, said bronze particles maintained separated by the carrier.

2. The method of producing bronze-printings having a lustrous silk-like appearance, which comprises producing a mixture of powdered bronze and a soluble powdered colored carrier capable of being rendered transparent by a suitable solvent, damping a colored surface with said solvent and applying the mixture thereto to permit the color to show through the carrier thus rendered transparent, said bronze particles maintained separated by the carrier.

CARL A. R. LUDEWIG.

Witnesses:

HARRY RAECKNER,

IDA CHRIST. HAERMANN.