

UNITED STATES PATENT OFFICE.

FERNAND DOMMER, OF PARIS, FRANCE.

PROCESS OF DYEING.

SPECIFICATION forming part of Letters Patent No. 656,015, dated August 14, 1900.

Application filed February 5, 1900. Serial No. 4,111. (No specimens.)

To all whom it may concern:

Be it known that I, FERNAND DOMMER, a citizen of France, residing at Paris, France, have invented certain new and useful Improvements in Processes of Dyeing on Fabrics; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to a process for dyeing on fabrics in which the fabrics are impregnated by a soluble nitro ferri cyanid.

The fabric thus prepared is exposed under a negative or a stencil to luminous rays and so cause a mordant, with base of iron, that can serve for dyeing different colors to adhere.

This being enunciated, the invention consists in plunging into a receiver containing a bath of soluble nitro ferri cyanid, preferably that of potassium, the fabric of silk, cotton, ramie, jute, linen, or parchment paper. The fabric thus prepared is dried, then placed under a negative or a stencil, and then exposed to the light. I may use as light either sunlight, electric light, or acetylene flame. I hasten the action of the light on the soluble nitro ferri cyanid, which is relatively not very sensitive, by adding to the sensitizing-bath an organic acid, such as oxalic or tartaric, or an anilin salt, such as sulfite or azotate. Under the influence of the luminous rays the nitro ferri cyanid decomposes and there develops on the fabric a mordant, with base of iron, representing a positive of the photographic proof or the reproduction of the stencil. The fabric is then washed with a

small quantity of water to recuperate the soluble nitro ferri cyanid to be used for further operations. All these operations being finished, there remain still traces of the sensitive product. To remove these, I pass the fabric into a large vat filled with water, where it is thoroughly washed. Then I pass the fabric into a bath of dye composed of colors adhering to the iron mordant, such as alizarin, &c. The fabric is revived (heightened) by known processes or by a bath of boiling soap and then dried.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

The process of dyeing on fabrics herein described, the same consisting in first impregnating a fabric of silk, cotton, ramie, jute, linen or parchment paper with a mordant having a base of iron by submerging said fabric in a bath of soluble nitro ferri cyanid, adding to the bath while the fabric is submerged therein an organic acid, and exposing the fabric when dried to the action of light-rays; then washing the fabric to remove the sensitive coating, passing the fabric into a bath of dye adapted to adhere to the iron mordant, reviving or heightening the fabric, and then drying, substantially as set forth.

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

FERNAND DOMMER.

Witnesses:

LOUIS BAUDARB,
EDOUARD FILLON.