

UNITED STATES PATENT OFFICE.

MARIA SCHOLZ, OF LEICHLINGEN, GERMANY.

PROCESS FOR DYEING TEXTILE AND LIKE MATERIAL.

No Drawing.

Application filed January 17, 1925. Serial No. 3,048.

To all whom it may concern:

Be it known that I, MARIA SCHOLZ, citizen of Germany, residing at Leichlingen, Germany, have invented certain new and useful Improvements in Processes for Dyeing Textile and like Material, of which the following is a specification.

This application is divisional of my co-pending application, Serial No. 647,759, filed June 25, 1923.

The present invention has reference to improvements in the art of dyeing textile fabrics, paper, and like material, and it relates more particularly to improvements in the step of fixing the colors, and the object of the invention is to greatly shorten and cheapen the dyeing process, and more specifically the fixing operation therein, and at the same time improve the color fastness of the goods thus treated.

In the prior art the dyestuffs are generally fixed by subjecting the dyed material to the action of steam within a closed chamber or treating it by the Mather-Platt process. These procedures are time-consuming, expensive and do not yield an evenly dyed-through material.

My invention broadly consists in suitably dyeing the fabric, the term "dyeing" to include the various steps known in the art of preparing the material for the reception of the dyestuffs and for applying the latter and after-treating the material up to the commencement of the fixing step, and in then fixing the material within a relatively very short time by means of a hot fat-dissolving medium, such as hydrocarbon, and in then removing the fixing medium again from the material and after-treating the latter in any required manner.

I have found an indifferent organic solvent, such as hydrocarbons, at a relatively high temperature eminently suitable for this fixing purpose. In this connection the term "indifferent" is to express the meaning that the solvent can well dissolve oils or fats but

is indifferent to the dyestuff, that is to say, does not dissolve the latter.

The hydrocarbons suitable for our purposes include those of the benzol group and of a benzol hydrocarbon of an anthracite distillate, also hydrocarbon derivatives, such as carbon tetrachloride, ethylene trichloride, and others.

The material is passed into the hot hydrocarbon fixing bath preferably immediately after coming from the dye bath when still in a more or less wet state, and it is then fixed in a very short time, normally in not over one minute. The new process can also be used to advantage for improving goods previously dyed and finished by other processes to render them still more color-fast. This is of great moment since it permits the use of cheaper grades of dyestuffs with perfect results in the finished products.

The fixing agent is thereupon suitably removed again from the fabric and can be recovered in well known manner for further use. The goods are finally washed and after-treated in suitable manner. Goods treated in this manner are color-fast to all tests to the highest degree.

What I claim is:—

1. The described step in the art of dyeing, which consists in passing the dyed material through a quick-acting hot bath of dye-indifferent fat-dissolving medium.

2. The described step in the art of dyeing, which consists in relatively quickly passing the dyed material through a hot hydrocarbon bath.

3. The described step in the art of dyeing, which consists in relatively quickly passing the dyed material through a hot bath of a hydrocarbon of the benzol group.

4. The described step in the art of dyeing, which consists in relatively quickly passing the dyed material through a hot bath of an anthracite distillate.

MARIA SCHOLZ.