

UNITED STATES PATENT OFFICE.

CARL PILZ, OF LIESING, NEAR VIENNA, AUSTRIA-HUNGARY.

PROCESS OF PRODUCING FAST BROWN RESISTS ON VEGETABLE FIBERS.

1,041,510.

Specification of Letters Patent.

Patented Oct. 15, 1912.

No Drawing.

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To all whom it may concern:

Be it known that I, CARL PILZ, a subject of the Austro-Hungarian Emperor, residing at Liesing, near Vienna, Austria-Hungary, have invented certain new and useful Improvements in Processes of Producing Fast Brown Resists in Vegetable Fibers, of which the following is a specification.

The surprising observation has been made that easily oxidized aromatic amins when printed on undeveloped anilin black padding, prevent the oxidation of the anilin to black, and are themselves developed to fast brown dyes. If, for example, the cotton material is padded in the usual manner with anilin salt, potassium ferrocyanid, sodium chlorate, and so forth, dried, and printed on with an aromatic amin, for example, m-aminophenol, the subsequent steaming in a Mather-Platt will not produce black at the printed places, but an olive brown, while the ground appears black.

The resistive effect of the easily oxidized amins, aminophenols, diamins, triamins, and so forth, is so strong that even when printing a mixture of anilin with one of these aminophenols, and so forth with the necessary oxidizing agents, the anilin remains unoxidized and only the brown color results from the oxidized aminophenol.

The easily oxidizable amins, diamins, triamins, aminophenols, diaminophenols, triamins of the benzol series and naphthalene series may be utilized. These amins are all embraced in the generic class of easily oxidizable aromatic amins. Some of these amins give a great variety of shades, for example m-aminophenol gives an olive brown, o-aminophenol a red brown, m-phenylene diamin and m-toluylene diamin an olive and o-amidocresol a yellow brown; others how-

ever give less striking shades, such as p-phenylene diamin, benzidin, and so forth give very dark shades of brown.

It is of great importance that these brown resists may easily be reserved with the white and colored resists used habitually for anilin black. Thus, a large number of new combinations can be obtained by means of the new process which could not be obtained till now.

The following is given as an example of my process: The material prepared in the usual manner with anilin black padding and then dried, is printed on with a print color, which apart from the thickening, without other resist, contains for every liter 40-60 g. of o- or m-aminophenol or hydrochloric m-toluylene diamin. After a short period of steaming a beautiful brown is produced at the printed parts.

I claim:

1. The process of producing fast brown resists on vegetable fibers which comprises padding such material with anilin black and printing on such material an easily oxidizable aromatic amin capable of preventing the oxidization of the anilin black and developing the padded and printed material by steaming.

2. The process of producing fast brown resists on vegetable fibers which comprises padding such material with anilin black and printing on such material an easily oxidizable aminophenol; and developing the padded and printed material by steaming.

In testimony whereof I have affixed my signature in presence of two witnesses.

CARL PILZ.

Witnesses:

RICHARD REITZ,
AUGUST FUGGER.