

UNITED STATES PATENT OFFICE.

MYRTIL KAHN AND ANTON OSSENBECK, OF ELBERFELD, GERMANY, ASSIGNORS TO
FABRICFABRIKEN VORM. FRIEDR. BAYER & CO., OF ELBERFELD, GERMANY, A
CORPORATION OF GERMANY.

PROCESS OF DYEING.

1,060,002.

Specification of Letters Patent.

Patented Apr. 29, 1913.

No Drawing.

Application filed December 26, 1911. Serial No. 637,664.

To all whom it may concern:

Be it known that we, MYRTIL KAHN and ANTON OSSENBECK, doctors of philosophy, chemists, citizens of the German Empire, residing at Elberfeld, Germany, have invented new and useful Improvements in Processes of Dyeing, of which the following is a specification.

We have found that brown to black fast shades on wool can be obtained by dyeing according to the one-bath method the azo dyes obtained from nitro-2-aminophenols and beta-naphthol on wool in the presence of a chrome mordant.

In order to illustrate the new process more fully the following example is given, the parts being by weight:—Prepare the dye-bath with 4 per cent. of the dye: 6-chloro-4-nitro-2-aminophenol+beta-naphthol, bring to the boil, add 2 per cent. of potassium bichromate, enter the wool at 60–80° C., bring to the boil, boil during $\frac{3}{4}$ hours and add slowly 2–3 per cent. of acetic acid and continue boiling for 1–1 $\frac{1}{2}$ hours. A deep dark brown fast shade is thus obtained, fast to light, fulling and rubbing.

Another chrome compound or another of the above mentioned dyes can be used *e. g.* dyes obtained from beta-naphthol and 4-nitro-2-aminophenol, nitro-amino-ortho-cresol, 5- or 6-nitro-4-chloro-2-aminophenol or nitro-amino-para-cresol.

We claim:—

1. In the art of dyeing wool the improvement consisting in dyeing wool from an acid bath containing a chrome mordant and an unsulfonated azo dye obtained from beta-naphthol and a nitro-2-aminophenol, substantially as described. 35

2. In the art of dyeing wool the improvement consisting in dyeing wool from an acid bath containing potassium bichromate and an unsulfonated azo dye obtained from beta-naphthol and a nitro-2-aminophenol, substantially as described. 40

3. In the art of dyeing wool the improvement consisting in dyeing wool from an acid bath containing a chrome mordant and the dye: 6-chloro-4-nitro-2-aminophenol-azo-beta-naphthol, substantially as described. 45

4. In the art of dyeing wool the improvement consisting in dyeing wool from an acid bath containing potassium bichromate and the dye: 6-chloro-4-nitro-2-aminophenol-azo-beta-naphthol, substantially as described. 50

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses. 55

MYRTIL KAHN. [L. S.]
ANTON OSSENBECK. [L. S.]

Witnesses:

HELEN NUFER,
ALBERT NUFER.