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LEATHER DYED WITH MONOAZO DYE STUFFS

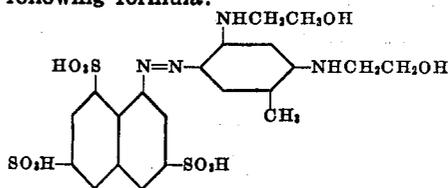
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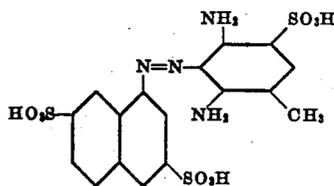
The present invention relates to leather, particularly to chrome leather, dyed with certain azo dyestuffs.

The reddish brown dyeing can be sharpened very well. The dyestuff probably corresponds to the following formula:

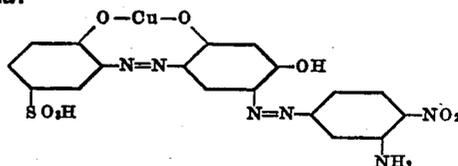


Example 2

100 kgs. of a chrome tanned neutralised calf leather are dyed in the usual manner from a bath containing 1.2 kgs. of the dyestuff obtained from diazotized 1-naphthylamine-3,7-disulfonic acid plus 2,4-toluylenediamine-5-sulfonic acid (coupled in a weakly acid medium) of the following formula:



and 0.3 kg. of the dyestuff obtained by coupling of diazotized 4-nitro-1,3-phenylenediamine with the copper lake from diazotized 2-anisidine-4-sulfonic acid and resorcinol of the following formula:



and then fatted. A very level dyeing in a yellowish brown shade is obtained, which is distinctly dyed in from the grain and the flesh side, the cut being a pure chrome leather. A dyeing obtained in this manner can easily be glazed, without the leather surface becoming cloudy or flocky.

The dyestuffs of this group are suitable not only for dyeing chrome leathers, but also other leather sorts, particularly vegetable and semi-chrome tanned leathers. They may be used

When dyeing leather, particularly chrome leather, the grain or flesh side of which is more or less sharpened after dyeing, as for example kid leather, horse kid, nubuk (i. e., leather which has been fluffed on the grain side), velvet, hunting calf and so on, it is important not only to color the grain superficially, but also to dye the same shade for a certain depth, while the layer which remains undyed is intended to retain the clear greenish chromium color. Leathers which are dyed in this manner can be sharpened very well without spots becoming visible by the revealing of undyed parts.

In accordance with the present invention leather is dyed in the desirable manner above set forth. The present process is characterized by the use of dyestuffs of good solubility from diazo compounds of the α - or β -naphthylamine series or their derivatives and meta-phenylenediamines, which may be substituted in the nucleus, or their derivatives which are substituted in one or both amino groups, for instance by alkyl, acyl, hydroxyalkyl, alkylsulfonic acid or alkylcarboxylic acid groups. It is suitable not to accumulate in the dyestuff molecule acid groups which do not exert a solubilizing action.

The following examples illustrate the invention:

Example 1

100 kgs. of shaver's weight of a chrome tanned calf leather are brought into a drum with 200 ltrs. of water at a temperature of 60° C. Into the rotating drum there is introduced through the hollow shaft a solution of 5 kgs. of the dyestuff which has been obtained by treating the monoazo dyestuff α -naphthylamine-3,6,8-trisulfonic acid-2,4-toluylenediamine with 2 mols of glycol chlorhydrine under pressure at 120-130° C. After 45 minutes 3% of a fat liquor are added, and the drum rotated for a further 30 minutes. After the fat has been wholly taken up, 1% of technical formic acid of 85%, dissolved in ten times its quantity of water, is added in a thin jet and the drum rotated for a further ¼ hour. The leather is stroked out in the usual manner, dried, chipped, stretched, nailed and fluffed to nubuk.

alone or in connection with other suitable acid or substantive dyestuffs.

Further examples of the dyestuffs which can be used in accordance with the present invention and the shades obtained therewith are given in the following table:

as diazotization components, and a compound of the group consisting of 1.3 diamino benzene, its alkyl, nitro, halogen and $-SO_3H$ substitution products and its N-hydroxy-alkyl, N-sulfo-alkyl, N-carboxy-alkyl and N-acyl derivatives as coupling components.

	Coupling component	Diazotization component	Shade	
10	2.4-toluylenediamine 5-sulfonic acid (coupling in an alkaline medium).....	1-naphthylamine-5-sulfonic acid.....	Light yellowish brown.	10
	2.4-toluylenediamine (coupling in an alkaline medium).....	Naphthionic acid.....	Reddish light brown.	
	2.4-toluylenediamine 5-sulfonic acid (coupling in an alkaline medium).....	do.....	Light brown.	
	2.6-toluylenediamine 4-sulfonic acid (coupling in an alkaline medium).....	1-naphthylamine-4.8-disulfonic acid.....	Bluish light brown.	
	2-aminotoluene-4-amino-ethane sulfonic acid (coupling in an alkaline medium).....	1-naphthylamine-3.6.8-trisulfonic acid.....	Reddish brown.	
	3-aminophenyl-1-amino acetic acid (coupling in an acid medium).....	do.....	Brown.	
15	Do.....	2-naphthylamine-4.8-disulfonic acid.....	Brown.	15
	4-nitro-1.3-phenylenediamine (coupling in an acid medium).....	1-naphthylamine-3.6-disulfonic acid.....	Brownish yellow.	
	2.4-toluylenediamine-6-sulfonic acid (coupling in an alkaline medium).....	2-naphthylamine-4.8-disulfonic acid.....	Light yellowish brown.	
	2.4-toluylenediamine-5-sulfonic acid (coupling in an acid medium).....	2-naphthylamine-6.8-disulfonic acid.....	Orange-brown.	
	2.6-toluylenediamine-4-sulfonic acid (coupling in an acid medium).....	2-naphthylamine-6-sulfonic acid.....	Brownish yellow.	
	1-acetylamine-3-hydroxy-ethylaminobenzene (coupling in an acid medium).....	1-naphthylamine-3.6.8-trisulfonic acid.....	Brown.	
20	Meta-phenylenediamine (coupling in an alkaline medium).....	2-naphthylamine-6.8-disulfonic acid.....	Reddish brown.	20
	Meta-phenylenediamine (coupling in an acid medium).....	2-naphthylamine-5.7-disulfonic acid.....	Yellowish brown.	
	4-chloro-meta-phenylene-diamine (coupling in an alkaline medium).....	do.....	Orange-brown.	
	Meta-phenylenediamine (coupling in an alkaline medium).....	2-naphthylamine-4.8-disulfonic acid.....	Yellow-brown.	
	2.6-toluylenediamine-4-sulfonic acid (coupling in an acid medium).....	2-naphthylamine-3.6-disulfonic acid.....	Yellowish brown.	
	Do.....	4-nitro-1-naphthylamine-5-sulfonic acid.....	Bluish brown-red.	
	2.4-toluylenediamine-6-sulfonic acid (coupling in an acid medium).....	4-acetylamine-1-naphthylamine-6-sulfonic acid.....	Yellowish brown.	
25	2.4-toluylenediamine-5-sulfonic acid (coupling in an alkaline medium).....	2-naphthylamine-4.8-disulfonic acid.....	Yellowish brown.	25

We claim:

1. Leather dyed with an easily soluble monoazo dyestuff derived from a naphthylamine sulfonic acid as diazotization component, and 2.4-toluylenediamine-5-sulfonic acid as coupling component.

2. Leather dyed with an easily soluble monoazo dyestuff derived from a compound of the group consisting of α - and β -naphthylamines, the nitro- and acylamino-substitution products thereof and the sulfonic acids of these compounds

3. Leather dyed with an easily soluble monoazo dyestuff derived from a naphthylamine sulfonic acid as diazotization component, and a compound of the group consisting of 1.3 diamino benzene, its alkyl, nitro, halogen and $-SO_3H$ substitution products and its N-hydroxy-alkyl, N-sulfo-alkyl, N-carboxy-alkyl and N-acyl derivatives as coupling components.

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