Patented Mar. 10, 1931

1,796,028

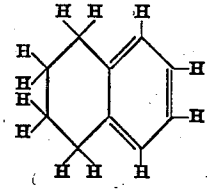
UNITED STATES PATENT OFFICE

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PRODUCTION OF FAST TINTS ON ACETYL CELLULOSE

No Drawing. Application filed November 3, 1925, Serial No. 66,639, and in Switzerland November 12, 1924.

It is known that insoluble dyestuffs, such as for instance certain unsulfonated azodyestuffs, indophenols, anthraquinone derivatives etc. may be employed for the production of tints on acetyl cellulose. For this purpose however the products in question have to be brought in to a fine state of subdivision. This may be done, either by boiling the dyestuff paste with soap solutions in presence of sodium carbonate and of an insoluble organic solvent as for example tetraline of the formula,



or by grinding the dyestuffs with the salts of sulfonated oils such as Turkey red oil. The latter of the two processes, which is much more simple than the first one, is bound however to the use of the rather expensive Turkey red oil or its analogues.

According to the present invention it has been found that emulsions of dyestuffs which are obtained by mixing amino-azo-dyestuffs having affinity for acetyl cellulose with waste sulfite liquor, are well adapted to produce tints on acetyl cellulose, yielding, especially in presence of soaps or sulfonated soaps, as Turkey red oil, dyebaths which dye acetyl cellulose or acetyl cellulose silk very uniform tints fast to rubbing, water, washing and, in some cases, to light.

The process of the invention offers with regard to the methods already known the advantage of being simple and inexpensive. It could not be foreseen, for, according to the British Patent 214,330, the addition of waste sulfite liquor to the dyebath is recommended on the contrary for the dyeing of union fabrics from cotton and acetyl cellulose silk with sulfur dyes, in order to prevent the dyeing of the silk.

Example 1

500 grams of a paste from 20 parts of o-aminoazotoluene and 80 parts of waste sulfite liquor of 50% strength are mixed intimately with 10 liters of water of 50° and as many liters of concentrated soap solution as are necessary to obtain afterwards a dyebath containing 2 parts per thousand of soap. The mixture is then diluted with cold water to about 300 liters 10 kilograms of acetyl cellulose silk yarn are introduced into the dyebath thus obtained, worked, the dyebath brought to 75° within ¾ of an hour, and the goods dyed further for 15 minutes at this temperature. The yarn is then rinsed and brightened as usual. There are thus obtained strong bright yellow tints with very good properties of fastness.

In an analogous manner are treated other amino-azo-dyestuffs, yielding thus the most various colours from greenish-yellow (amino-azobenzene), to red, violet and bluish-violet (azodyestuffs from nitranilines and naphthylamines or aminonaphthols).

The process described in the example above is adapted to fabrics from cotton-acetyl cellulose silk or viscose-acetyl cellulose silk; for union fabrics, however, containing besides acetyl cellulose animal fibres, such as wool or natural silk, it is preferable not to add any soap while preparing the dyebath. In this case it may be dyed in an acid bath, if the constitution of the dyestuffs agrees with it, without impairing the colloidal state and the capacity of dyeing.

What we claim is:

The herein described process for the production of tints on acetyl cellulose, which comprises treating the acetyl cellulose with a colloidal preparation from an intermixture of insoluble amino-azo-dyestuffs having an affinity for acetyl cellulose with waste sulfite liquor.

In witness whereof we have hereunto signed our names this 19th day of October, 1925.

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