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PROCESS FOR TREATING ARTIFICIAL CASEIN FIBERS

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It is well known that it is possible to produce an artificial fiber similar to natural wool starting from casein. This product will be called herein shortly casein wool.

The behaviour of this fiber in dyeing with chrome colours is rather different from that of natural wool especially with respect to shades obtained. This inconvenience is highly deprecated by dyers, as it precludes dyeing the fiber made of a mixture of natural and casein wool, and, consequently, hinders one form of application of casein wool which otherwise should in practice be the best.

It has now been found that if casein wool is subjected to a preliminary treatment with diluted acid solutions, its behaviour with respect to chrome colours becomes analogous to that of natural wool.

The treatment may be carried out on the casein wool fiber as well as directly on the mixed fiber of casein and natural wool.

Example 1.—The mixture of casein and natural wool is treated during 30 minutes with a bath containing 1–2 c. c. m. phosphoric acid per litre, at 40–50° C. It is washed, then neutralized with ammonia; 2% of previously dissolved Diachrome Violet R is added, which corresponds to Chromoxanviolett R in Schultz, Farbstofftabellen, 7th edition, 2nd volume, p. 59, and dyeing is started at about 60° C. in the presence of 10% chrystallized sodium sulphate. The bath is slowly brought to the boil and 1–2% acetic acid added. The material is boiled during about 20 minutes and the dyestuff exhausted by 1–2% formic acid. The bath is cooled and after addition of 1% sodium or potassium bichromate it is again brought to boil for about 20–30 minutes. At the end the material is washed.

The preliminary treatment with acid may be a first step of dyeing according to the above examples, but it may be carried out as well as a separate step, as the fiber treated in this way can be dyed also later on, if desired, by other dyers than those who carried out the preliminary treatment. In either case, on both the fiber of casein wool alone and the mixed fiber, it is possible by using any chrome colour whatsoever, to obtain a homogeneous dye equal to that obtained on the unmixed natural wool.

I claim:

1. The process for preparing artificial fibers produced from casein for dyeing with chrome dyes, which comprises treating the fibers with a dilute aqueous solution having an acid reaction due to the presence of phosphoric acid.

2. The process for preparing a mixture of casein wool and natural wool for dyeing with chrome dyes, which comprises treating these mixed fibers with a dilute aqueous solution having an acid reaction due to the presence of phosphoric acid.

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