

UNITED STATES PATENT OFFICE

OSKAR KNECHT, OF BINNINGEN, NEAR BASEL, AND ERNST STOCKER, OF BASEL, SWITZERLAND, ASSIGNORS TO THE FIRM: CHEMICAL WORKS FORMERLY SANDOZ, OF BASEL, SWITZERLAND

PROCESS FOR INCREASING THE LUSTER OF EFFECT THREADS

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In the United States specification No. 1,523,742 and the German specification No. 346,883 processes are described, according to which cotton, dyed or undyed, can be rendered resistant to substantive dyestuffs, by treating them after alkalization with aromatic carboxylic and sulphonic chlorides.

If, however, mercerized cotton, dyed or undyed, is subjected to these treatments and thus rendered resistant to substantive colors, its mercerizing luster is more or less diminished or may even be completely removed. This is a considerable disadvantage of these treatments.

The valuable observation has now been made, that mercerized and esterified cotton, of which the luster is diminished or removed, can again be rendered lustrous, if the treated fibres are steamed, advantageously under pressure.

The fibres can be subjected to such steaming operation in the loose state or under tension. By such treatment, the valuable property of the fibres, of being resistant to substantive dyestuffs is not only maintained, but as a rule, even improved.

Further, the strength of the fibres is at least unaltered if not increased. This observation is all the more surprising, since cotton fibres which are esterified with aromatic sulphonic chlorides, show a considerable weakening, when exposed to elevated temperatures, on ironing for instance, said fibres becoming brown and the shades of dyed fibres being altered.

When dyed mercerized cotton, which has been esterified according to the aforesaid processes, by which the luster as well as the brightness of the shades is diminished, is steamed according to the invention, a considerable increase of the luster is obtained and the shades become deeper and brighter.

The luster obtained by steaming the fibres resists to the after treatments usually employed in textile industry, especially to washing and soaping and it is not diminished by normal storage of the fibers.

Example

Mercerized cotton yarn, dyed or undyed, is

rendered indifferent to substantive dyestuffs according to the process of the United States specification No. 1,523,742. The dried yarn is then brought into a closed apparatus and steamed therein during three minutes at 105° C. under a pressure of 0.4 atmosphere. The yarn thus treated shows a considerably increased luster, when compared with the untreated one.

What we claim is:

1. A process for increasing the luster of mercerized cotton, which has been esterified with aromatic carboxylic and sulphonic acid chlorides, consisting in subjecting the said esterified fibres to a treatment with moist steam under superatmospheric pressure, the temperature of steam being not higher than 110° C., and the duration of the steaming operation being from 1 to 20 minutes.

2. A process for increasing the luster of dyed mercerized cotton, which has been esterified with aromatic carboxylic and sulphonic acid chlorides, consisting in subjecting the said esterified fibers to a treatment with moist steam under superatmospheric pressure, the temperature of steam being not higher than 110° C., and the duration of the steaming operation being from 1 to 20 minutes.

In witness whereof we have hereunto signed our names this 23rd day of July, 1928.

OSKAR KNECHT.
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