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MANUFACTURE AND PRODUCTION OF ARTIFICIAL THREADS AND THE LIKE ARTICLES

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1 Claim. (Cl. 18—54)

This invention relates to the manufacture and production of yarns, threads, filaments, films and the like articles, hereinafter referred to as threads, from viscose wherein the viscose is extruded through a jet or jets into a coagulant comprising an aqueous solution of sulphuric acid and metallic salts.

According to the present invention the improvement in the process for the production of threads from viscose comprises effecting coagulation of the viscose in the presence of a proportion of octyl alcohol so small as to have no substantial effect on the lustre of the thread.

The octyl alcohol may be added to the viscose alone or together with a small proportion of a compound which acts as an emulsifying or surface tension reducing agent, but in both cases care must be taken that practically no octyl alcohol remains undissolved in the viscose otherwise the lustre of the thread will be affected. For instance, the octyl alcohol may be in the proportion of 0.03 per cent of the viscose and should not be more than 0.04 per cent.

The octyl alcohol may alternatively, or in addition, be added to the coagulating bath, for example in a proportion of about 0.20 per cent of the bath. The amount to be added may be varied according to the relation between the volume of the bath and the amount of viscose to be coagulated therein. Circulation and regeneration of the bath will also affect the amount to be added, but in all cases a suitable amount can readily be found by experiment.

If the said emulsifying or surface tension reducing compound is added to the coagulating bath it must be such that it will reduce the surface tension of an acid solution, for example the sodium salt of an alkyl naphthalene sulphonic acid, marketed under the registered trade-mark "Nekal BX" is suitable. If the emulsifying or surface tension reducing compound is to be added to the viscose a wider range of substances is available, such as the sulphonated oils, for example Turkey red oil or those compounds sold under the trade names "Monopol Oil" (I. G. Farbenindustrie), "Calsolene Oil" (Imperial Chemical Industries) and "Prestabit" (I. G. Farbenindustrie).

In another embodiment a surface tension reducing compound may be added to the coagulating bath and the octyl alcohol to the viscose or vice versa and similar results are obtained.

When working according to the present invention there is a reduction in the tendency for rings of finely divided material to be deposited round and in the orifices of the jets. This diminishes the number of stoppages caused by blocked, or partially blocked, orifices and improves the quality of the thread, since less thread will be made having a smaller number of filaments than that calculated, or having filaments which have a smaller cross section than that desired.

If desired other substances, the use of which is already known, may also be added to the viscose or the coagulant for other purposes.

What we claim is:

A process for the production of threads which comprises extruding into an aqueous coagulating solution of sulphuric acid and at least one metallic salt, viscose containing a small proportion of octyl alcohol but in an amount not exceeding 0.04 per cent of the viscose.

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