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UNITED STATES PATENT OFFICE

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MANUFACTURE AND PRODUCTION OF ARTIFICIAL FILAMENTS, THREADS, BANDS, AND THE LIKE

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This invention relates to the manufacture and production of coloured filaments, threads, bands and the like from viscose. It is known that coloured threads can be obtained from viscose containing colouring matter dissolved therein, and it has also been proposed to obtain threads from viscose with which has been emulsified an oil or oils of either animal, vegetable or mineral origin.

I have now found that coloured filaments, threads, bands and the like can be obtained by projecting into a suitable bath viscose containing one or more oils of animal, vegetable or mineral origin which are insoluble in viscose, and in which is dissolved a colouring matter which is insoluble in water and in aqueous solutions. As examples of oils which can be employed according to this invention, we may mention petroleum, and sperm oil, and as examples of the colouring matters, those known under the trade name of Lithofor Red A and Lithofor Yellow A may be specified.

It is generally preferred to dissolve the colouring matter or matters in the said oil before the latter is added to the viscose, and the solution of the colouring matter in the oil can be very suitably added to the viscose in the manner described in the specification No. 290693.

The coloured cellulose products obtained according to this invention are particularly valuable, since the colour is generally fixed firmly in the filament, thread, band or the like, and is not easily removed during washing or other subsequent treatment to which it may be subjected.

The following examples will further illustrate how the said invention may be carried out in practice, but the invention is not restricted to these examples. The parts are by weight.

Example 1

1 part of Oil Yellow ADS is dissolved in 28 parts of high boiling petroleum oil for instance, with a boiling point above 250° C., and the solution mixed thoroughly with 1400 parts of viscose containing 7.1 per cent cellulose. The air bubbles are removed from the solution which is then projected into a spinning bath such as that described in Example 2 of the specification No. 406 of 1911. Yellow coloured threads of subdued lustre are obtained.

Example 2

The process is carried out as described in the foregoing Example 1, except that the 1 part of Oil Yellow ADS therein mentioned is replaced by ½ part of Lithofor Red A. A dull red thread is thereby obtained.

Example 3

1 part of Lithofor Yellow A is dissolved in 28 parts of blown sperm oil, that is to say sperm oil through which while in the heated condition air has been blown. The solution is mixed with 5600 parts of viscose containing 7.1 per cent cellulose, and after removing the air from the mixture, it is projected into a spinning bath similar to that specified in the foregoing Example 1. In this case a bright yellow thread is obtained.

In any of the foregoing examples, the solution of the colouring matter in the oil may, instead of being mixed with the viscose in bulk, be added to the viscose in the method described in the aforesaid specification No. 290693.

What I claim is:—

1. A process for the manufacture and production of coloured filaments, threads, bands, and the like comprising projecting into a suitable bath viscose containing one or more oils which are insoluble in viscose and in which is dissolved a colouring matter which is insoluble in water and in aqueous solutions.

2. A specific method of carrying out the process claimed in claim 1 for the manufacture and production of coloured filaments, threads, bands and the like which consists in projecting into a suitable bath viscose containing a high boiling petroleum oil in which is dissolved a colouring matter which is insoluble in water and in aqueous solutions.

3. Coloured filaments, threads and the like of regenerated cellulose, containing minute globules of one or more oils, said globules containing dissolved therein colouring matter

which is insoluble in water and in aqueous solutions.

4. Coloured filaments, threads and the like of regenerated cellulose, containing minute globules of a high boiling petroleum oil said globules containing dissolved therein colouring matter which is insoluble in water and in aqueous solutions.

In testimony whereof I have signed my name to this specification.

HORACE JAMES HEGAN.