

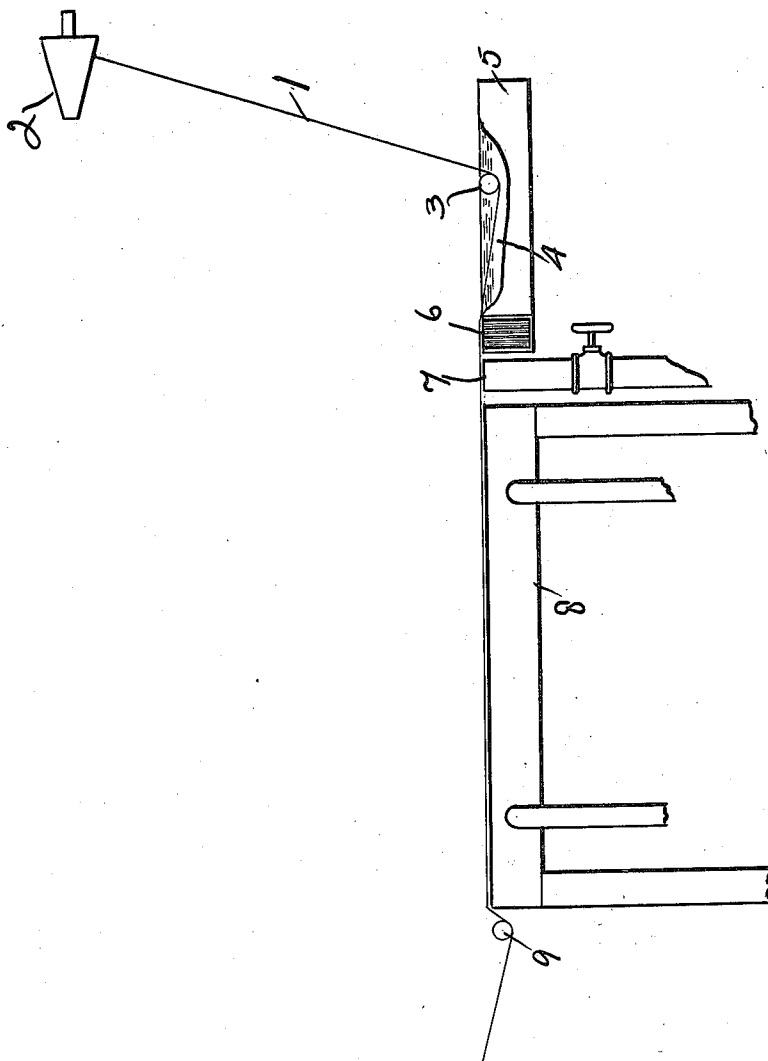
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METHOD FOR THE TREATMENT OF ARTIFICIAL SILK

Original Filed Sept. 3, 1921



INVENTOR

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By W. W. Williamson *Att'y.*

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UNITED STATES PATENT OFFICE.

CHARLES A. SNYDER, OF PHILADELPHIA, PENNSYLVANIA.

METHOD FOR THE TREATMENT OF ARTIFICIAL SILK.

Original application filed September 3, 1921, Serial No. 498,437. Divided and this application filed December 21, 1921, Serial No. 523,934. Renewed April 14, 1923.

To all whom it may concern:

Be it known that I, CHARLES A. SNYDER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Methods for the Treatment of Artificial Silk, which is a division of my application bearing Serial Number 498,437, dated September 3rd, 1921, of which the following is a specification.

The object of my invention is a production of a liquid solution for finishing artificial silk thread and to provide a process by which the thread may be properly treated during the application of the solution.

The application of this solution and the process to which the thread is subjected is intended to render the surface of the thread smooth and to give thereto a high gloss while increasing the tensile strength of the thread.

My composition consists of a mixture of olive oil soap and water and an addition of pure olive oil.

In preparing this composition I prefer to use the ingredients in about the following proportion, the same being subject to variation within certain limitations for adaption to the variations of the artificial silk being treated.

Fifteen ounces of olive oil soap the same being shaved or finely divided and dissolved in twelve quarts of water, the water being heated to a sufficient degree to readily and properly dissolve the soap. To the above is added five full teaspoons of pure olive oil and the solution is thoroughly stirred or agitated while hot to bring about a thorough mixture of the ingredients and while in its hot state is applied to the thread in the following manner and as shown by the diagram in the drawing.

The thread is drawn from the spool 2 down under the glass rod 3, set below the surface of the liquid solution 4 contained in the tank 5, and then over the brush 6 and the steam heated felt wiper 7, after which it passes over the upper surface of the steam chest 8 and beneath the glass rod 9 and thence to a suitable bobbin or cop. Thus it will be seen that as the thread passes into the tank 5 it will be impregnated with the solution above described and when pass-

ing over the brush 6 the surface fiber of the thread will be smoothed down and caused to lay in close contact with the body of the thread after which the surplus solution will be wiped from the thread in its passage over the steam heated felt wiper 7 and finally the drying of the thread in passing over the steam chest 8 will give the surface thereof a high gloss and this treatment will tend to materially increase the tensile strength on account of all of the fiber thereof being closely bound together.

It has been found in practice that the relatively loosely associated fibers of thread of artificial silk tend to crimp and ruff up, the thread thereby being of relatively small tensile strength and the loose fibers materially interfering with the process of wearing and knitting, but with the application of my composition by the herein described process a thread of closely associated fiber having a glossy surface is produced.

Of course I do not wish to be limited to the exact details of construction as herein shown as these may be varied within the limits of the appended claims without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful is:—

1. The herein described process of finishing artificial silk thread consisting of first subjecting said thread to a bath of mixture of water, olive oil soap and olive oil passing said thread over a brush for laying the surface fibers thereof then passing said thread over a steam heated felt wiper for removing the surplus liquid and then passing said thread over a heated surface for drying and setting the fiber.

2. The process of finishing artificial silk thread consisting of passing the thread through a mixture of water, olive oil soap and olive oil, then smoothing down the surface fiber, then removing the surplus liquid and then drying and setting the fiber.

3. The process of finishing artificial silk thread consisting of passing the thread through a bath of water containing a saponified fat and vegetable oil, then smoothing down the surface fiber, then removing the surface liquid and then drying the thread to set said fiber.

In testimony whereof, I have hereunto affixed my signature.

CHARLES A. SNYDER.