

# UNITED STATES PATENT OFFICE.

HENRY BERNSTEIN, OF PHILADELPHIA, PENNSYLVANIA.

## MANUFACTURE OF ARTIFICIAL SILK.

960,791.

Specification of Letters Patent.

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No Drawing.

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*To all whom it may concern:*

Be it known that I, HENRY BERNSTEIN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Process for Washing Cellulose Filaments, of which the following is a specification.

My invention relates to a new and useful process for washing cellulose filaments and consists in subjecting the same to a bath of water from 25° to 50° C., whereby the after washing is avoided.

I have also found that the methods commonly used for washing out of the cellulose filaments prepared from the cuprammonium, the residue of metallic salt left when the solution is decomposed by being spun into an acid solution, can be improved.

In order to hasten the washing out of the solvent after the cuprammonium solution of cellulose has been spun into an acid, I rotate or move the cylinders, on which the cellulose filaments have been wound, in a bath of warm water at 25° to 50° C., whereby the compounds of cellulose are so opened up that the after-washing with acidified water becomes unnecessary.

In place of sprinkling the cylinders containing the cellulose filaments with acidified water I subject these revolving cylinders to

warm water at 25° to 50° in the form of vapor or fine spray under pressure of air which is brought close above the surface of the material on the cylinders.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In the manufacture of artificial silk, the process of washing out the remnant of solvent from the cellulose filaments which have been formed by spinning the cuprammonium solution of cellulose into an acid which consists in winding the filaments on cylinders in suitable vessels and moving the said cylinders in a bath of warm water at 25° to 50° C., whereby the cellulose compound is opened up and lastly washing the same in plain water.

2. In the manufacture of artificial silk, the process of washing out the residue of metallic salt from the cellulose filaments spun from cuprammonium solution of cellulose which consists in winding the cellulose filaments on spools, moving said spools, and then subjecting the said filaments to a vapor or fine spray of water at 25° to 50° C. under pressure.

HENRY BERNSTEIN.

Witnesses:

JOHN A. WIEDERSHEIM,  
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