

UNITED STATES PATENT OFFICE.

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PROCESS OF TREATING SILK PREPARATORY TO DYEING AND WEAVING.

SPECIFICATION forming part of Letters Patent No. 270,557, dated January 9, 1883.

Application filed October 7, 1882. (Specimens.) Patented in Italy April 24, 1882, No. 14,064.

To all whom it may concern:

Be known that I, JOSEPH RUBELIN, of Como, in the Kingdom of Italy, have invented certain new and useful Improvements in Treating
5 Silk Threads Preparatory to Dyeing and Weaving, of which the following is a specification.

The invention consists in immersing the silk threads in a solution of the bichloride of tin or the double salts of the tetrachloride of tin
10 with the chlorides of the alkalies or alkaline earths, then fixing the same by means of a bath of a caustic or carbonated alkali.

In carrying out this invention I prefer a solution of tetrachloride of tin of the strength
15 of 35° Baumé, (SnCl_4) in which I steep the silk threads. The silk is then withdrawn from the solution and the surplus liquor is removed by first wringing the hanks, then washing them, and then drying them by means of a
20 centrifugal machine or otherwise. The silk threads are next passed several times in succession through a bath of an alkali or the carbonate of an alkali, preferably a solution of soda crystal at a temperature of about 45° centigrade, and are then wrung and washed and
25 dried, as before. This operation may be re-

peated several times until the desired condition is obtained. This treatment causes the silk threads to be dyed more evenly, and tends to increase the brilliancy of the color, to give a
30 greater body and durability to the silk, and also to render it less inflammable.

What is claimed as the invention is—

The process herein described of treating silk threads, which consists in subjecting the
35 same to the action of a solution of tetrachloride of tin, or the double salts formed by said tetrachloride of tin, with the chlorides of the alkalies or alkaline earths, and next fixing the deposit of said salts in the fibers by subject-
40 ing said fibers to the action of a solution of a caustic alkali or a carbonate of the alkalies, and repeating these operations until the proper effect is obtained, substantially as set forth.

In testimony that I claim the foregoing as
45 my invention I have signed my name in presence of two subscribing witnesses.

JOSEPH RUBELIN.

Witnesses:

O. HELBERG,
ENEAS CELFY-ZIMA.