

UNITED STATES PATENT OFFICE.

OLAV BERG AND MAX IMHOFF, OF PATERSON, NEW JERSEY.

PROCESS OF PRESERVING TIN-WEIGHTED SILK.

969,446.

Specification of Letters Patent.

Patented Sept. 6, 1910.

No Drawing.

Application filed February 23, 1910. Serial No. 545,354.

To all whom it may concern:

Be it known that we, OLAV BERG, a subject of the King of Norway, and MAX IMHOFF, a citizen of the Republic of Switzerland, respectively, residing in Paterson, Passaic county, New Jersey, have invented a certain new and useful Process of Preserving Tin-Weighted Silk; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

It is well known that tin-weighted silks are deleteriously affected in and by the weighting process with the result that sooner or later (sometimes in the course of only a few months after they have been prepared for the market), depending of course upon the quality of the silk and the strength and character of the weighting solution, the elasticity of their fibers depreciates, they becoming inert and non-resistant, while unsightly discoloration, in the form of red spots, develops in the goods. These defects are known to be due to the corroding influence of the chlorids in the weighting solutions, and, so far as we know, it has heretofore not been possible substantially perfectly to insure against their appearance in the silk, at least without causing other conditions to arise which would undesirably affect the quality or appearance of the goods.

In our efforts to ascertain a substance which would counteract the corrosive influence of the chlorids and which would otherwise be suitable for the purpose in hand we have discovered that compounds of the hydroxylamin type, for instance hydroxylamin, hydroxylamin derivatives such as phenylnitrosohydroxylamin or phenylhydroxylamin, and hydroxylamin salts, such as hydroxylamin hydrochlorid, hydroxylamin sulfate or hydroxylamin nitrate, give eminently satisfactory results.

In carrying out our invention we preferably proceed as follows: We first prepare a one-half per cent. water solution of hydroxylamin hydrochlorid with which to treat

the silk which, it will be understood, has already been treated in the weighting bath; if the silk is to be dyed, it is preferred that it be dyed before the treatment. The silk is then impregnated with the said solution, preferably by passing it through the solution, whereupon it is dried.

The temperature of the solution may be any between the freezing and boiling points, Fahrenheit; but approximately 60° F. is the preferred temperature. The effect of this treatment is to increase the life of the tin-weighted silk very materially over what it would be without such treatment, the fibers retaining their natural elasticity and resistance and the development of discoloration being substantially perfectly prevented. We have found, moreover, that it has the further advantage of permanently establishing the original color-effect of the goods, the dye being made more fast than it would otherwise be.

Having thus fully described our invention, what we claim and desire to secure by Letters Patent is:

1. The method of preserving tin-weighted silk which consists in treating the previously weighted silk with a solution containing a compound of the hydroxylamin type, substantially as hereinbefore described.

2. The method of preserving tin-weighted silk which consists in treating the previously weighted silk with a solution containing hydroxylamin hydrochlorid, substantially as hereinbefore described.

3. The method of preserving tin-weighted silk which consists in treating the previously weighted silk with a one-half per cent. solution of hydroxylamin hydrochlorid, substantially as hereinbefore described.

In testimony, that we claim the foregoing, we have hereunto set our hands, this 21st day of February, 1910.

OLAV BERG.
MAX IMHOFF.

Witnesses:

JOHN W. STEWARD,
WM. D. BELL.