

UNITED STATES PATENT OFFICE.

MAX SARFERT, OF PHILADELPHIA, PENNSYLVANIA.

PROCESS OF GIVING SILK FINISH TO HOSIERY, &c.

SPECIFICATION forming part of Letters Patent No. 667,140, dated January 29, 1901.

Application filed March 13, 1900. Serial No. 8,489. (No specimens.)

To all whom it may concern:

Be it known that I, MAX SARFERT, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Processes for Giving a Silk or Lisle Finish to Hosiery or Knit Goods, of which the following is a specification.

I have found that by singeing hosiery and other fabrics a smooth finish and fine surface and luster can be produced, but that to secure this result it is necessary prior to singeing to subject the goods to such a treatment that the nap or fiber thereof is brought to such a condition that substantially every portion thereof can be removed by singeing, whereby said improved finish, surface, or luster is produced. It is obvious that the nap and fiber can be removed to a certain extent by singeing without any such special treatment beforehand; but, as far as I am informed, singeing the goods without the treatment to which I refer does not impart the finish which I secure, and although in the following specification I set out specifically one way in which my process can be successfully carried out, yet I claim, broadly, as my invention a process of treating hosiery and other fabrics which consists, first, in subjecting the fabric to treatment that brings the nap or fiber to a condition or which effects a condition of the nap or fiber whereby it can be more readily and effectually removed by singeing, and then singeing such fabric. The treatments by which such a condition of the nap or fiber is effected may differ, and the treatment which I have selected for the purpose of illustrating my process is chemical; but, as before set forth, my invention is not restricted to any specific treatment to which the goods are subjected, but to a process that embraces the step of treating the fabric to effect a condition of the nap or fiber whereby it can be more readily removed by singeing and in then singeing.

The process may be carried out in the following manner: The goods are saturated in a solution which consists of the following ingredients, in about the proportions given—namely, chlorid of soda or chlorid of potash, one pound; blue stone, one-half pound, and anilin salt or anilin oil, four or five pounds—and is known as “anilin black solution.” Af-

ter complete saturation the goods are dried in the atmosphere and are then placed on a former or board, so that the stocking is in such a form that when singed substantially every portion of the fibers forming the nap or lint is removed, and the former or board, with the stocking thereon, is then passed through a singeing-machine, the nap or fiber being effectually removed by the singeing, which latter step produces on the goods the smooth finish and luster to which I refer. It is understood that the former or board above referred to is of the usual construction, familiar to those skilled in the art of dyeing, and that it performs its usual function—namely, to stretch or distend the stocking so that its threads are separated or pulled apart. When the stocking thus stretched or distended on the former or board is passed through the singeing-machine, the fibers forming the nap or lint are effectually removed by the singeing operation. The goods are then finished, the finisher or finishing agent being, for instance, chrome of soda or chrome of potash.

It is understood, of course, that the ingredients composing the solution in which the goods are saturated may be varied and that the formula which I have given is only one by which the process may be carried out.

The particular solution to which I have above referred is an oxidizing or mordanting solution, and after the goods are dried after being saturated therein they are in a state of oxidation, and in drying the goods turn to a greenish hue. In carrying out the process in this manner, as far as I am informed, the oxidizing effect upon the fabric due to the solution employed is such that the nap or fiber can be removed by singeing in a manner impossible to obtain when the goods are not in a state of oxidation, or, in other words, it is the effect produced by the oxidation of the solution upon the nap or fiber to be removed that enables said nap or fiber to be removed so effectually by singeing and the fine surface, smooth finish, and luster resembling a silk or lisle finish imparted to the goods.

My present invention as above described is contradistinguished from bleaching, since this consists, merely, in the employment of certain preparations, chief among which are

chlorin and sulfurous acid, whereby the fabrics or other materials subjected to the bleaching agent are freed from their natural color and rendered white, or nearly so, the step of bleaching being preceded by certain cleansing processes. I am familiar with the art of bleaching and have found by practical experience that said process of bleaching completely fails to bring the nap or fiber of stockings or similar fabrics into a condition whereby substantially every portion of said nap can be removed by singeing, by which step the improved surface, finish, and luster is imparted.

I do not claim herein the article of manufacture described—that is to say, a stocking from the outer surface of which substantially every portion of the nap or fiber has been removed by singeing, or, in other words, a stocking having a singed outer surface, as this product forms the subject of claims in another application for patent filed in the United States Patent Office September 1, 1900, Serial No. 28,728, forming a division of the present application. Neither do I claim herein the process for treating hosiery which consists in stretching or distending the same; whereby the threads are separated or pulled apart, and then singeing the same, as this process forms the subject of a claim in another application for patent filed in the United States Patent Office October 12, 1900, Serial No. 32,831, forming the division of the present application.

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

1. The herein-described process of treating hosiery and other fabrics, which consists in first, subjecting the fabric to treatment to increase the combustibility and inflammability

of the fibers forming the nap or lint, and then singeing said fabric.

2. The herein-described process of treating hosiery and other fabrics, which consists in first, subjecting the fabric to treatment to increase the combustibility and inflammability of the fibers forming the nap or lint, then singeing said fabric and then finishing the same.

3. The herein-described process of treating hosiery and other fabrics, which consists, first, in subjecting the fabric to chemical treatment to effect a condition of the nap or fiber whereby the same is more readily and effectually removed by singeing; then singeing the fabric; and then finishing the same.

4. The herein-described process for treating hosiery and other fabrics, which consists in singeing the fabric while in a state of oxidation; and then finishing the same.

5. The process for treating hosiery and other fabrics which consists in saturating the fabric with an oxidizing solution; then drying the same; and lastly singeing the fabric.

6. The herein-described process for treating hosiery and other fabrics, which consists in saturating the fabric with an oxidizing solution; then drying the same; then singeing the fabric, and lastly finishing the same.

7. The herein-described process for treating hosiery and other fabrics, which consists in first, saturating the fabric with a solution composed of the following ingredients, namely, an alkaline chlorid, blue-stone, and anilin salt or anilin oil; then drying the same; then singeing the fabric; and lastly finishing the same.

MAX SARFERT.

Witnesses:

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