

UNITED STATES PATENT OFFICE.

CHARLES TOPPAN, OF WAKEFIELD, MASSACHUSETTS.

IMPROVEMENT IN TREATING FABRICS TO RENDER THEM WATER-PROOF.

Specification forming part of Letters Patent No. 103,799, dated May 31, 1870.

I, CHARLES TOPPAN, of Wakefield, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in the Treatment of Fabrics so as to Render them Water-Proof, of which the following is a description:

I have already obtained two patents, dated April 20, 1869, and numbered 89,094 and 89,095, for an invention having a similar object in view, and refer to these patents for a description of the process therein described, which is substantially the saturation of substances with a solution of paraffine dissolved in naphtha or other volatile solvent. I have discovered, however, that when this process is used, and especially when it is applied to thick woven and felted fabrics, the result is to render the fabric stiff, and to cause it to retain the folds and creases which are made by use; and the object of my present invention is to obviate this difficulty. To accomplish this, I take the solution of paraffine, which is described in my former patents, above mentioned, and I add to it a small amount of suitable oil product, as more fully described hereafter, and I then immerse the substances to be treated in or pass them through this mixture of naphtha, paraffine, and oil product, and evaporate the solvent in the same manner as is described in my former patents.

The oil product which is most suitable for the purpose is that which I have invented and described in a patent issued to me dated February 1, 1870, and numbered 99,500.

From two to four ounces of this oil product should be added to a gallon of the solution of paraffine for ordinary woven goods; but exact proportions are not required in the mixture, and a much larger quantity of oil product may be used, especially for goods which may be

left without objection in an oily condition after the treatment.

Various products of petroleum and hydrocarbon oils, and especially what are known as paraffine oils, may be used, instead of the oil product above described, and will produce results tending to the same object, but are objectionable on account of their odor, and because they leave the fabric greasy and oily.

I accomplish the same object in another way. I take the substance which is described in my last-mentioned patent, and there denominated amorphous paraffine, and dissolve it in naphtha in the same way as the ordinary paraffine is dissolved, and then use it in the treatment of fabrics in the same manner as the other solutions. When this is done it is not necessary to add any oil product to the mixture, as before described.

Claims.

I claim as my invention—

1. The process of treating fabrics with the mixture of paraffine, naphtha, and oil product, as before described.

2. The process of treating fabrics with the mixture of naphtha and amorphous paraffine, as before described.

3. As a new article of manufacture, the above-described compound of paraffine, naphtha, and oil product.

4. As a new article of manufacture, the above-described compound of naphtha and amorphous paraffine.

5. As a new article of manufacture, the fabric, article, or substance so treated with either of the above-described mixtures.

Witnesses: CHARLES TOPPAN.

DAN. A. GLEASON,
CHARLES A. PHILLIPS.