United States Patent Office.

CHARLES TOPPAN, OF WAKEFIELD, MASSACHUSETTS.

Letters Patent No. 89,095, dated April 20, 1869.

IMPROVED WATER-REPELLENT MATERIAL.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, CHARLES TOPPAN, of Wakefield, in the county of Middlesex and State of Massachusetts, have invented a new and useful Repellent Material; and I hereby declare that the following is a full and exact description thereof.

My invention consists in a repellent material, composed of paper, cloth, or any felted or textile fabric, cork, sponge, leather, or other porous substance, treated with a solution of paraffine, so as to resist the action of water, acids, &c.

To enable others skilled in the art to understand and use my invention I will proceed to describe the manner in which I have carried it out.

The paper, cloth, or other material is saturated with a solution of paraffine, so that the paraffine may permeate the material as thoroughly as may be required for the uses to which the material is to be applied, and it is then dried by natural or artificial heat, or in a current of air, and the solvent then evaporates, leaving the material permeated with paraffine.

The best solvent for paraffine for this purpose is naphtha, (including benzine and benzole,) which is well known as a solvent. Any other suitable solvent may be used.

For the best results, refined paraffine and naphtha of a light gravity should be used; for coarser products, crude paraffine will answer.

The heavier naphthas may also be used, but in most cases with less perfect results.

The degree of permeation will of course be determined by the nature of the material used, its thickness, porosity, &c., and the density of the solution, and this degree will depend upon the purpose for which the material is to be employed.

Articles of wood, paper, and cloth have been made water-proof by the application of melted paraffine, as set forth in Letters Patent granted to Stuart Gwynn, on the 20th day of February, A. D. 1866; but when so prepared the paraffine does not thoroughly penetrate the interstices and fibers, whereas the complete penetration of the paraffine is insured by using it in solution in the manner above described by me.

What I claim as my invention, and desire to secure by Letters Patent as a new manufacture, is—

A repellent material, consisting of a paper, felted, or textile fabric, or article, or porous substance, treated with paraffine in solution, substantially as herein described.

Witnesses: CHARLES TOPPAN.

CHARLES A. PHILLIPS,

N. W. STEARNS.