

UNITED STATES PATENT OFFICE.

WILLIAM B. CARPENTER, OF NEWARK, NEW JERSEY, ASSIGNOR TO HIMSELF
AND THE CELLULOID NOVELTY COMPANY, OF NEW YORK, N. Y.

WATER-PROOF PAPER.

SPECIFICATION forming part of Letters Patent No. 253,840, dated February 21, 1882.

Application filed May 24, 1881. (No specimens.)

To all whom it may concern:

Be it known that I, WILLIAM B. CARPENTER, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Water-Proof Paper, of which the following is a specification.

My invention relates to the manufacture of water-proof paper; and it consists in the use of any ordinary paper-pulp prepared as known to the art, combined with suitable plastic water-proof material—such as celluloid, lignoid, coroline, or like plastic water-proof material—either as single articles or as compounds of any of them, according to the kind of paper to be made, which will be colored, as desired.

In the manufacture of paper the water-proof material will not be dissolved, but be ground to a powder, either dry or in water, until it is of the fineness required for the particular paper to be made. The paper-pulp and water-proof material will then be ground, mixed together in water until they are thoroughly incorporated, forming a compound pulp, to be made into paper by any well-known or suitable process and machinery not needful here to detail. After the paper has been made and has passed through the last of the heated rollers commonly used in paper-making and has been left to dry, I may add two steps to this process, according to the nature of the water-proof substance or substances used.

First. The paper may be put through a vapor-bath of alcohol or rapidly through a weak alcoholic bath when the water-proof material

used—such as celluloid—is capable of being dissolved in alcohol. The object of the bath is to partially dissolve on the surface any of the materials which may not be well united by mixing and the action of the heated rollers above named.

Second. Then after the bath the paper is again passed through the heated rollers, when all the elements will be more thoroughly integrated.

The proportion of the paper-pulp and of the water-proof material will be regulated by the demand, according to the kind of paper to be made.

I claim—

1. A paper made from a combination of paper-pulp and a plastic water-proof material—such as celluloid, lignoid, or similar plastic water-proof material—substantially as specified.

2. The process of making a compound paper-pulp by mixing or grinding in water the water-proof material and the ordinary paper-pulp, substantially as and for the purpose set forth.

3. The process of putting the paper, when made from the compound pulp, as described, through the bath and afterward through the heated rollers, substantially as and for the purpose named.

WILLIAM B. CARPENTER.

Witnesses:

HORACE HARRIS,
S. R. STEADMAN.