

(No Model.)

N. COOK.
UMBRELLA CLOTH.

No. 261,681.

Patented July 25, 1882.

Fig. 1.

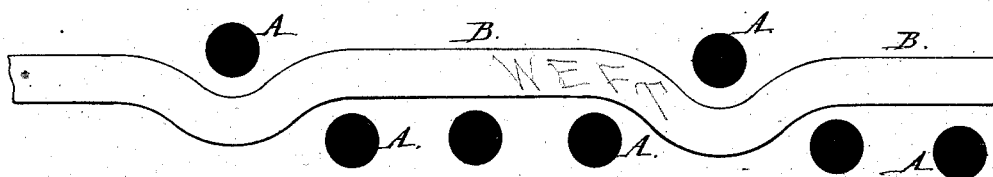
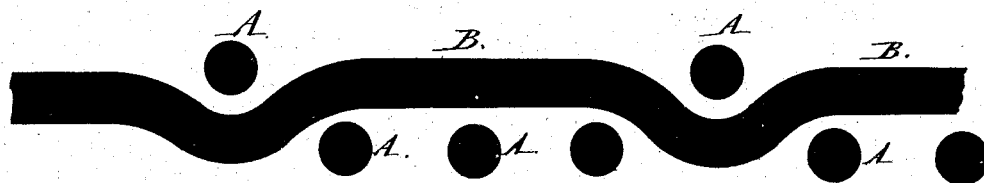


Fig. 2.



Witnesses:
Charles C. Stetson
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UNITED STATES PATENT OFFICE.

NORMAN COOK, OF NEW YORK, N. Y.

UMBRELLA-CLOTH.

SPECIFICATION forming part of Letters Patent No. 261,681, dated July 25, 1882.

Application filed February 12, 1881. (No specimens.)

To all whom it may concern:

Be it known that I, NORMAN COOK, a citizen of the United States, residing in New York city, county and State of New York, have invented certain new and useful Improvements in Umbrella-Cloth, of which the following is a specification.

My improved cloth may be used for a variety of purposes. I have in my experiments applied it as a covering for umbrellas.

Cloth formed from a warp of cotton and a filling almost or entirely of wool woven together in the manner to produce the fabric long known under the name of "Italian cloth" is peculiarly adapted for use on umbrellas, for the reason, among others, that the outer surface is almost or entirely wool, so placed as to constitute, when wet, a nearly water-tight coating for the fabric, and thus to make the umbrella particularly useful for the purpose for which it is adapted; and also the wool is capable of taking and holding a better color than the cotton, and as a consequence the exterior of the umbrella will present a rich and satin-like appearance. I have improved upon this Italian cloth, producing a cloth peculiarly well dyed on the inner or wrong side.

The accompanying drawings form a part of this specification, and represent magnified cross-sections of the fabric, Figure 1 being a section through a portion of the fabric as it is woven, the warps alone being black, and Fig. 2 being a corresponding cross-section, showing the fabric after the second dyeing.

Similar letters of reference indicate corresponding parts in both figures.

A A, &c., are the warps, and B B the weft or filling.

The cloth is woven by running three or more, or even two, warp-yarns A on one side and one on the other side of the weft, as shown, alternating throughout the cloth.

It is not possible to dye cotton as brilliantly and as permanently as wool; but with what is

known as "double indigo dyeing" I give cotton a reasonably-permanent black. I dye the cotton warps with a double indigo dye beforehand. Then, having fully set the color in the cotton by dunging or other operation, so as to give the most permanent condition possible to the black in the cotton, I am able to weave therewith the wool, and manufacture a peculiar-conditioned Italian cloth, which, on being subsequently exposed to a proper dye for the wool, will give a permanent rich black to the woolen portion without affecting the previously-dyed cotton. The fabric thus manufactured is permanently black on both faces, the outer face by reason of the peculiarity of the weave being mainly wool, with a rich wool-dye, and the inner face being mainly cotton with a thorough and permanent black.

Heretofore the Italian cloth has been made with both the materials white, and then dyed in a dye which would darken both. It was possible by such means to impart a rich permanent dye to the wool, and thus to present a proper exterior face; but it was not possible by any dye known to give at the same operation a permanent black to the cotton on the inside or wrong side.

The dyeing of the wool in the piece with the previously-dyed cotton yarns can be effected more cheaply and conveniently than to dye it in the yarn before weaving.

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

The umbrella-covering fabric described, having an interior face composed principally of cotton-dyed yarns A, and an exterior face composed principally of wool-dyed yarns B, substantially as set forth.

NORMAN COOK.

Witnesses:

JNO. B. COOK,
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