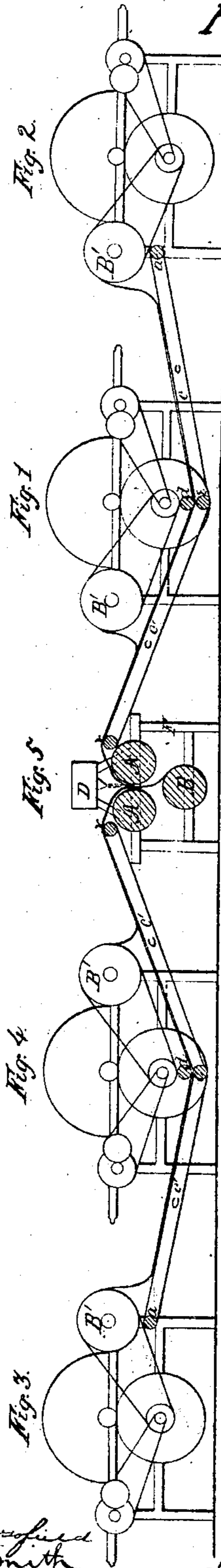


*J. Wilson.
Fabric.*

Patented Dec. 24, 1861.

34,021.



*Witnesses:
Wm. C. Crawford
A. Geo. Smith*

*Inventor. By his atty,
John Wilson, atty at law -*

UNITED STATES PATENT OFFICE.

JOHN WILSON, OF CHICAGO, ILLINOIS.

IMPROVED MANUFACTURE OF FIBROUS WATER-PROOF FABRICS.

Specification forming part of Letters Patent No. 34,021, dated December 24, 1861.

To all whom it may concern:

Be it known that I, JOHN WILSON, of Chicago, county of Cook, and State of Illinois, have produced a new and useful Manufacture, which I denominate a "Fibrous Water-Proof Fabric;" and I do hereby declare that the following is a full, clear, and exact description thereof and the manner of producing the same, reference being had to the annexed drawings, making part of this specification, which represent the machines used in the production of my fabric, specimens of which are herewith presented.

The aforesaid fabric consists of cotton or wool or other similar material made first in thin laps or layers, two or more of which are united by the introduction of a water-proof solution between the said laps or layers, so as to form a water-proof center and have a fibrous exterior.

To make the said fabric, I take two or more carding-machines of the ordinary construction (represented in the drawings by Figures 1, 2, 3, and 4) and arrange them with respect to each other, as represented. Between the carding-machines 1 and 4 I arrange the incorporating-machine represented by Fig. 5. Then from the roller *a* under the lap-roller *B'* of the machines 2 and 3, I carry endless aprons *c' c'* under the machines 1 and 4 and stretch them over the rollers *d d* of those machines and over the rollers *c* of the incorporating-machine. The rollers *d d* serve to give a proper direction to the aprons and bring them in a proper relation to the rollers *B'*. The rollers *C* are intended to keep the bottom and top parts of the aprons from rubbing together, as they

would otherwise do at the angles formed by the rollers *d d*. The incorporating-machine consists of a frame *f* and three rollers *A, A,* and *B* and a tube *D* fixed over the rollers *A A*. In this tube the water-proof solution is placed. The said tube has an angular opening in its bottom along its whole length, through which the solution escapes in the form of a sheet directly between the rollers and at the junction of the laps. Now as the said laps pass between the rollers *A A* the solution is squeezed in them, thus incorporating the whole together and converting the material as it comes from the cards into a continuous sheet of soft water-proof fabric, which is taken upon the roller *B* of the incorporating-machine. The solution may be of india-rubber dissolved in any of the known solvents.

This fabric may be made quite thin, so as to have the appearance of thin skin with a light fur on both sides. In this form it will make an excellent lining for clothing designed to keep out the damp, or it may be made heavy and thick, in which form it makes a good blanket for those who have to lie out on the ground, and is also an excellent substitute for felt, and is useful for a variety of other purposes in the arts.

I claim as my invention—

The new article of manufacture herein described, constituting a water-proof fabric having both surfaces capable of receiving a cloth finish.

JOHN WILSON.

Witnesses:

H. M. HOLDEN,
A. J. DENISON.