

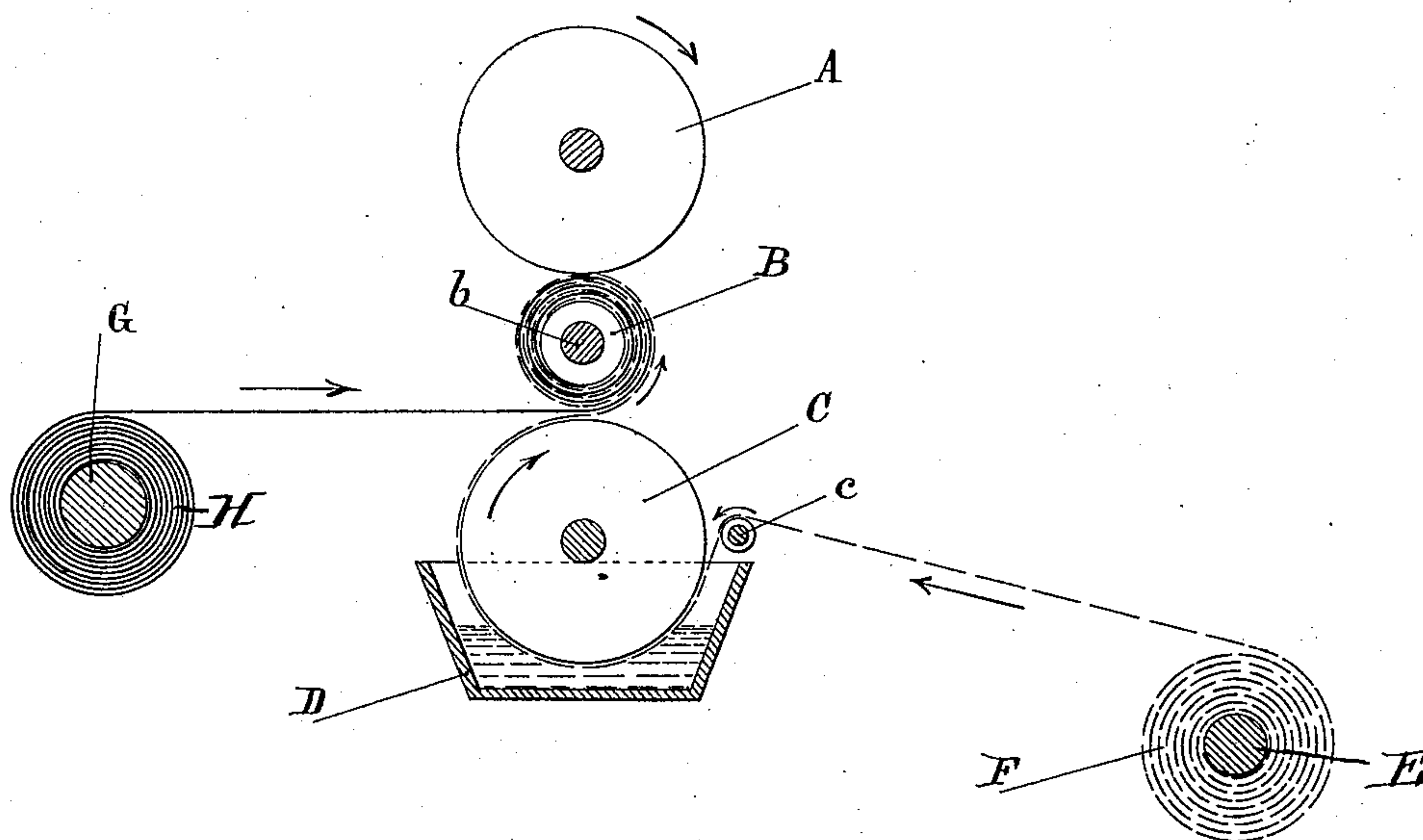
No. 643,781.

Patented Feb. 20, 1900.

R. SUBRENAT.  
APPARATUS FOR MERCERIZING.

(Application filed Sept. 19, 1898.)

(No Model.)



Witnesses  
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# UNITED STATES PATENT OFFICE.

RAOUL SUBRENAT, OF ST. JULIEN, FRANCE.

## APPARATUS FOR MERCERIZING.

SPECIFICATION forming part of Letters Patent No. 643,781, dated February 20, 1900.

Application filed September 19, 1898. Serial No. 691,434. (No model.)

*To all whom it may concern:*

Be it known that I, RAOUL SUBRENAT, a citizen of the Republic of France, and a resident of St. Julien, near Troyes, France, have invented new and useful improvements in devices for permitting of mercerizing without tension for the purpose of obtaining a luster on vegetable textile materials in the form of tissues, of which the following is a specification.

This invention relates to an apparatus or device for use in the mercerization of textile fibers; and its primary object is to provide an unshrinkable backing cloth or fabric which is adapted to take up the mercerizing liquid and then transmit the same to the fibers which are to be mercerized, the said fibers and backing-cloth being adapted to be rolled up together upon a roller.

The invention consists in the novel construction, arrangement, and combination of parts, as hereinafter fully described, illustrated in the drawing, and pointed out in the appended claims.

In the drawing I show a vertical sectional view of my improved apparatus.

My apparatus comprises three superposed rollers A B C. The uppermost roller A may be of cast metal and adapted to be adjustably supported in position by suitable means. The central roller B is preferably of wood and is preferably removably mounted upon a shaft or axle *b*. The lowermost roller C may be of cast metal and is adapted to be rotated by any suitable means and is adapted to effect the rotation of the remaining rollers through the winding up of the fibers or fabric to be operated upon and the backing fabric upon the roller B.

D indicates a trough or tank arranged beneath the roller C and is adapted to contain the mercerizing liquid. The roller C, as shown, is arranged so as to dip into the liquid in the tank.

E indicates a roller upon which is rolled the backing fabric F.

G is a roller upon which is rolled the fabric to be mercerized.

*c* is a small guide-roller, over which the

backing fabric F passes before passing partially around the roller C.

The backing fabric, which forms an essential feature of my invention, may consist of a tissue of vegetable fibers having either prior to or after weaving been subjected to the contractive action of the mercerizing liquid, and thus rendered unshrinkable, or said backing may consist of any other suitable material, the essential requirement being that the backing shall be unshrinkable before being put into use in the apparatus.

The function of the backing is to absorb the mercerizing liquid as it passes through the tank and then transmit said liquid to the fabric operated upon as the two are rolled up together upon the roller B in the manner shown.

In operation the fabric F will support the fabric H, the two being rolled up together without the latter fabric being subjected to any tension.

The backing F' must be somewhat wider and longer than the fabric to be mercerized, so that the latter will be well covered by the backing.

What I claim is—

1. In an apparatus for use as described, the combination with a roller B, and a roller C arranged below the first roller, of a tank adapted to contain the mercerizing liquid and into which the roller C is adapted to dip, and an unshrinkable blanket acting as a backing passing around the roller C and adapted to be rolled up with the fabric to be mercerized upon the roller B.

2. In an apparatus for use as described, the combination with the superposed rollers A, B, C, of the tank D, and an unshrinkable blanket acting as a backing passing around the roller C as described, and adapted to be rolled up with the fabric to be mercerized upon the roller B.

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of September, 1898.

RAOUL SUBRENAT.

Witnesses:

E. LECOUTURIER,  
AUGUSTE COUSSILLARS.