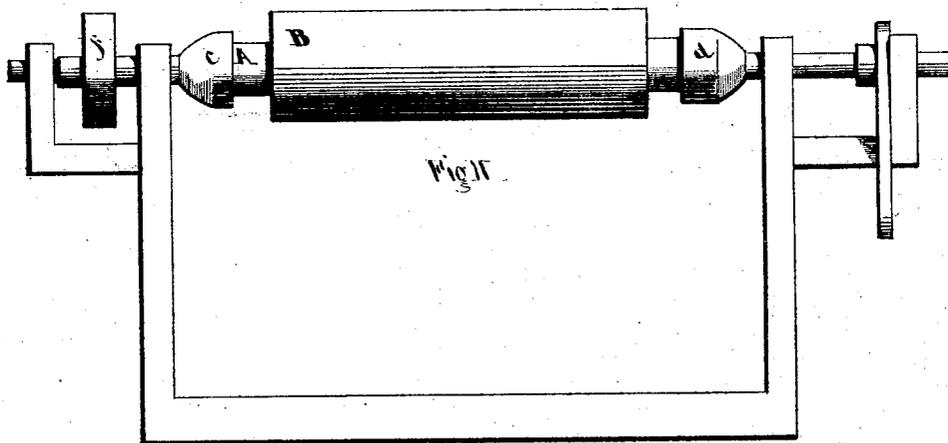
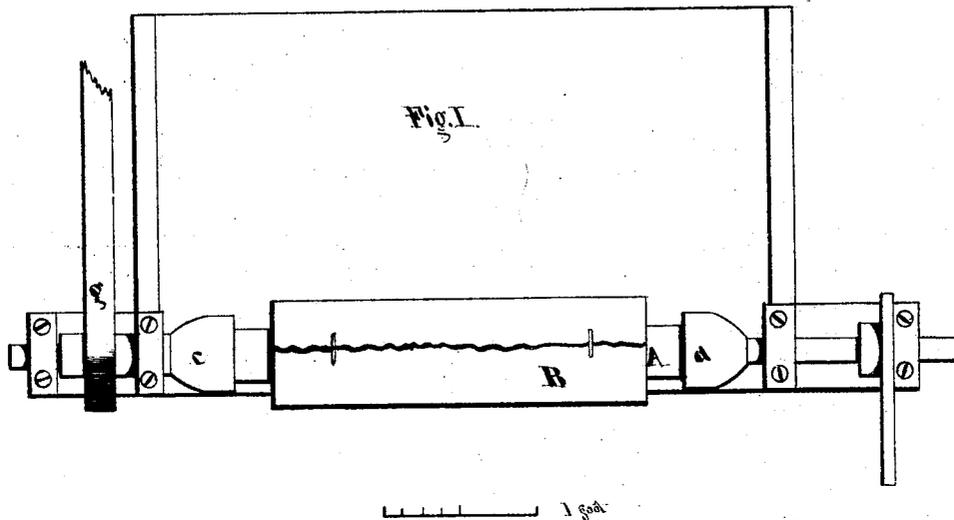


W. CHAPIN.

Method of Drying Napped Cloth.

No. 123,768.

Patented Feb. 20, 1872.



Witnesses

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Inventor

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UNITED STATES PATENT OFFICE.

WARREN CHAPIN, OF STAFFORDSVILLE, CONNECTICUT.

IMPROVEMENT IN METHODS OF DRYING NAPPED CLOTH.

Specification forming part of Letters Patent No. 123,768, dated February 20, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, WARREN CHAPIN, of Staffordsville, Tolland county, State of Connecticut, have invented an "Improved Method of Drying Napped Cloth," of which the following is a specification:

Nature and Objects of the Invention.

My invention consists in taking the roll of cloth from the napping-machine with the spindle or roll which it surrounds and causing the roll with the cloth to be revolved rapidly, the object of my invention being to, by this means, extract all of the free water in the cloth without injuring the nap or causing the colors with which the cloth may be dyed to run or be unequally distributed from unequal pressure being brought to bear upon surfaces in contact, and to leave the cloth in better condition for drying.

Description of the Drawing.

Figure I shows a plan view of a frame holding the roll and cloth in position upon it to be revolved. Fig. II shows an end view of the same frame with the cloth in position.

General Description.

A is the roll, upon which the cloth B is wound in the napping-machine after having the nap formed upon it under water, and to extract the water (the next process in the manufacture of the cloth) I take the roll A having the cloth B, usually in length from twenty-five to thirty yards, although the amount of cloth upon the roll does not affect the principle of the invention, and remove it from its position in the napping-machine to place it in a frame similar to that shown in the drawing, which may form part of the napping-machine or be a separate and independent machine of itself; its object being only to afford bearings to two centers, *c* and *d*, that come against the ends

of the roll A, the one, *c*, clutching one end of the roll and bearing a pulley, *f*, through which, by a belt, *g*, the motion is transmitted to the roll and cloth, while the other, *d*, is a movable center for the purpose of enabling the roll to be removed or secured. The roll and cloth, when thus placed, are rotated rapidly—say about eight hundred revolutions per minute—and the centrifugal force, together with the evaporation caused by such rapid motion, carries off all of the free water in the cloth and leaves it in good condition for drying.

In the ordinary method, consisting of removing the cloth saturated with water from the roll of the napping-machine and placing it, folded or otherwise creased, within the extractor, the nap is disturbed and the colors, wherever the cloth is creased or bent, run or become varied in intensity. The extractor is, moreover, an expensive piece of machinery, and generally requires much more power to rotate it effectually than is required to perform all of the rest of the mechanical operations connected with the manufacture of the cloth; while, by my method, the cloth is undisturbed upon the roll upon which it was wound in the napping-machine, it being only necessary to pin the end of the piece of the cloth to the rest upon the roll to prevent it from coming off in the revolution. All injury to the nap or to the body of the cloth by the alteration in the colors is avoided; and I am able to dispense with the heavy expensive extractor and the additional power necessary to run it.

Now, having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The method of extracting the water from the cloth after it has been napped by revolving it upon a spindle and while in the roll, substantially as hereinbefore specified.

Witnesses: WARREN CHAPIN.
EDWARD MORRIS,
R. F. HYDE.