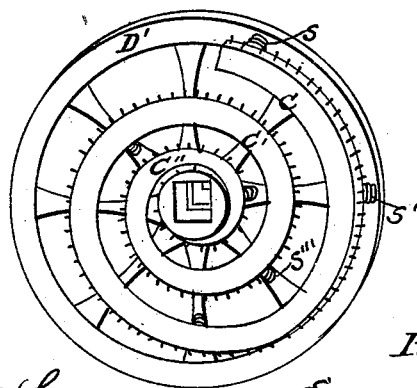
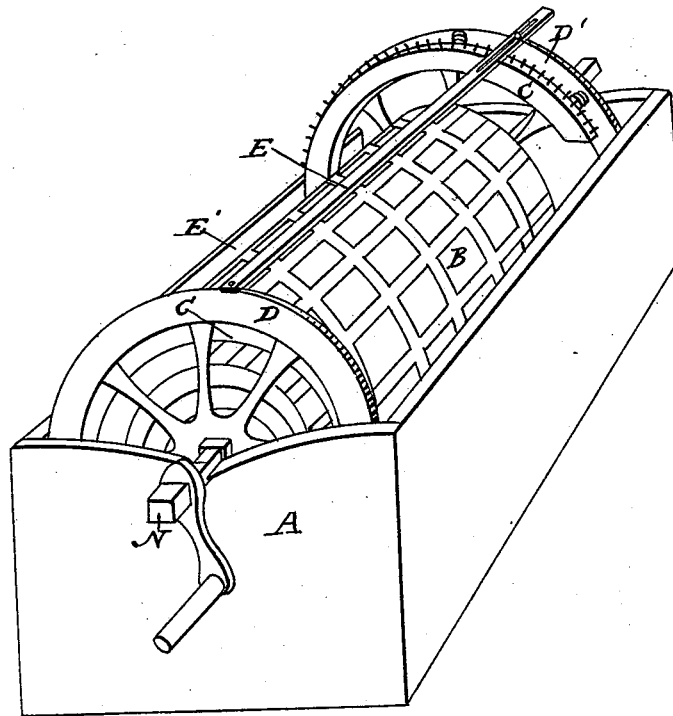


E. MAFAT.

Reel for Dyeing and Finishing Silk and Velvet Woven Fabrics.

No. 106,844.

Patented Aug. 30, 1870.



Witnesses:

James P. McLean
John R. McLean

Inventor:

Eduard Mafat

United States Patent Office.

EDWARD MAFAT, OF NEW YORK, N. Y.

Letters Patent No. 106,844, dated August 30, 1870; antedated August 25, 1870.

IMPROVED REEL FOR DYEING AND FINISHING SILK AND VELVET WOVEN FABRICS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, EDWARD MAFAT, of the city, county, and State of New York, have invented a certain new and useful Volute Reel for Dyeing, Scouring, and Finishing Silk, Velvet, and other Woven Fabrics; and I hereby declare the nature of my said invention, and in what manner the same is to be constructed, so that the public may fully understand the nature thereof, and those skilled in the mechanic arts be enabled to build and operate the same, to wit:

Figure 1 is a perspective drawing of my volute reel.

A is the dyeing and scouring-tube.

B is the woven fabric of silk or other material to be dyed or scoured, and is secured to the volute or spiral tenter-bars C and C', at each end of the tube, by means of tenter-hooks or pins upon the outer periphery of the volute bars.

D and D' are the supporting-wheels, which are adjusted upon the square shaft N N, and held in their proper positions by the slotted gauge-bars E and E', which are secured to the outer periphery of the wheels D and D' by set-screws O O', for the purpose of expanding or contracting the length of the reel to suit the different widths of silk or woven fabric B to be dyed or cleaned.

R is the crank or other power to operate the reel.

S S' S'' S''' are small spiral or other suitable springs, which secure the volute bars C C' C'' to the wheels D and D'.

These volute tenter-bars or reel are adjustable, also, upon the axis or square shaft N N, consequently, when the silk or other cloth B is strained tightly upon the revolving volute reel or bars C C' C'', the flexible springs S S' S'' S''' allow the volute bars to be drawn toward each other without tearing the fabric; hence, it is a flexible reel.

Figure 2 is a perspective drawing of one of the supporting-wheels, D', with the scroll or volute tenter-bar or reel C C' C'' provided with the tenter-hooks or pins on the outer volute periphery thereof; also, more clearly showing the flexible springs S S' S'' S'''.

The nature of my invention consists in the construction of two volute or scroll-bars, provided with any suitable number of tenter-hooks or pins, for the purpose of stretching the woven fabric around the entire scroll or outer periphery thereof, so that each coil or layer of silk or velvet is kept separate from the others during the whole process of dyeing or scouring the same, thus avoiding the many difficulties attending the ordinary process for such work.

Another point of novelty is the flexible springs, arranged in such a manner that the volute reel or bars yield to the strain of the fabric, thus preventing its tearing during the process of dyeing. Hence, I believe my invention to be of great value to the dyeing trade and the public. Therefore,

What I claim as novel and useful, and what I wish to secure by Letters Patent of the United States, is—

A volute reel or bars C C' C'', provided with tenter-hooks or pins on the outer periphery of the spiral curve, and flexible springs S S' S'' S''', and adjustable supporting-wheels D and D', with slotted gauge-bars E and E', secured by set-screws O O' to the adjustable wheels upon the shaft or axle N N, all arranged and operating in the manner and for the purpose set forth.

In testimony whereof I hereunto subscribe my name in the presence of two witnesses.

E. MAFAT.

Witnesses:

S. MONTGOMERY,
JAMES P. MCLEAN.