

(No Model.)

J. J. SCHOLFIELD.

MACHINE FOR OPENING OUT THE CURLED EDGES OF TEXTILE WEBS.

No. 463,550.

Patented Nov. 17, 1891.

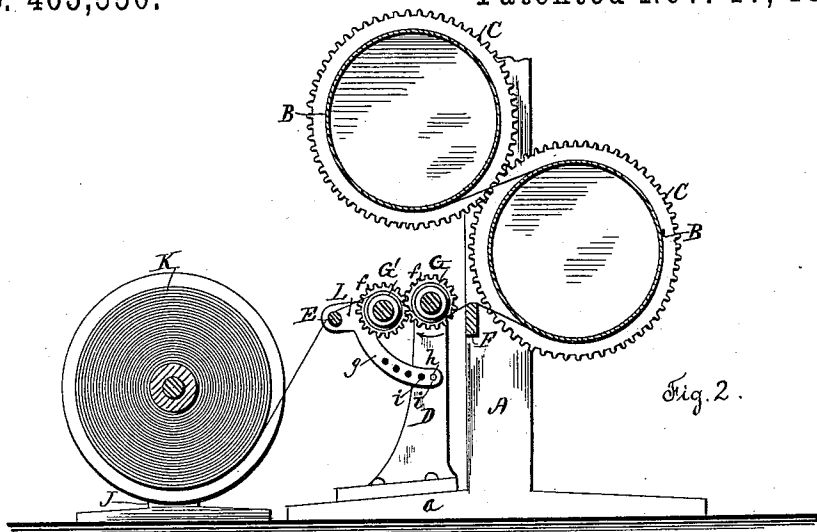


Fig. 2.

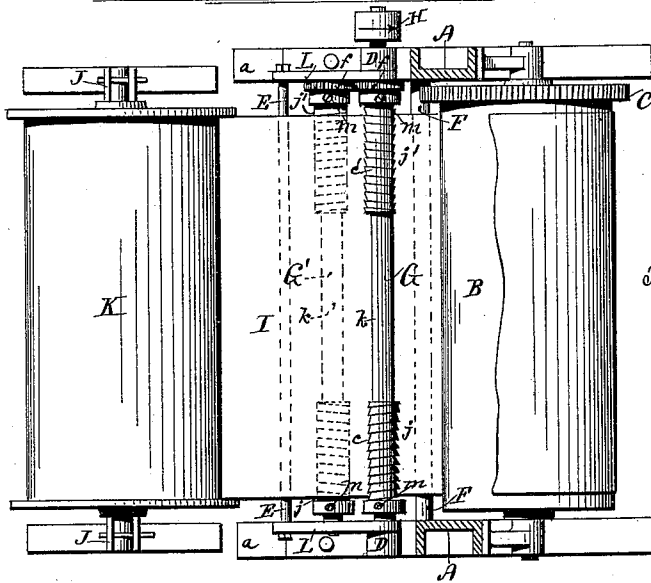


Fig. 1.

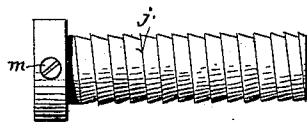


Fig. 3.

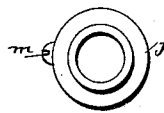


Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH J. SCHOLFIELD, OF PROVIDENCE, RHODE ISLAND.

MACHINE FOR OPENING OUT THE CURLED EDGES OF TEXTILE WEBS.

SPECIFICATION forming part of Letters Patent No. 463,550, dated November 17, 1891.

Application filed May 14, 1890. Serial No. 351,792. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH J. SCHOLFIELD, a citizen of the United States, residing at Providence, in the State of Rhode Island, have invented a new and useful Improvement in Machines for Opening Out the Curled Edges of Textile Webs, of which the following is a specification.

My invention consists in the improved construction and arrangement of the screw-threaded opening-rollers, as hereinafter fully set forth.

Figure 1 represents a detail top view showing the application of my improved screw-threaded rollers to a cloth-drying machine. Fig. 2 represents a central vertical section of the same with an additional cylinder of the drying-machine. Fig. 3 represents an enlarged side view, and Fig. 4 an end view, of a hollow screw adapted for carrying out my improvement.

In the accompanying drawings, A A represent the frame of a cloth-drying machine, and B B the steam-heated cylinders of the same, the said cylinders being connectedly driven by means of the gears C C. The screw-threaded roller G is provided with a driving-pulley H, and the periphery of the said roller at each end is provided with the oppositely-directed screw-threads *c c'*, the one being adapted for action at one edge of the web I and the other for action at the opposite edge, and the roller G is supported against the forwardly-moving web I by means of the standards D D, the opposite roller G' having its bearing in the opposite arms L L, which are pivoted to the roller G and are firmly connected to each other by means of the rod E, over which the web is to be drawn, and the roller G' is rotated from the roller G by means of the gears *ff*, so that the adjacent surfaces of the said rollers will move in the same direction. The arms L L are provided with a perforated arc *g*, by means of which the roller G' and the rod E may be set at any desired angular position with relation to the roller G by the insertion of the pin *h* into the perforation *i* of the arc *g* and into a perforation in the standard D. The cloth from the batch-roll K, which is supported by the standards J, or from a loose pile, as the case may

be, is first passed over the rod E and over the roller G', thence under the roller G, over the bar F, and under and around the steam-heated cylinder B of the drying-machine. The rollers G and G' are preferably formed by means of the right and left hand threaded screw-sleeves J J, which are made movable endwise upon the shaft *k*, so that provision may be readily made for running webs of different widths by setting the screw-sleeves inward or outward upon the shaft of the roller or smaller part *k*, and the said screw-sleeves may be held in their set position upon the shaft *k* by means of the set-screw *m*. By first running the web over the stationary rod E the frayed ends often found at the edge of the web are prevented from being wound upon the rapidly-revolving screw-threaded rollers, so as to cause the tearing and damage of the web. The screw-thread of the rollers may be made in any desired form, that shown in the drawings being considered as best adapted for general use.

I claim as my invention—

1. The combination, with the screw-threaded rollers, the one acting upon one side and the other upon the opposite side of the web, of the pivoted frame for supporting one of the rollers, means for driving the said rollers, and means for adjusting the position of the movable roller in a vertical plane, substantially as described.

2. The combination, with the screw-threaded rollers, the one acting upon one side and the other upon the opposite side of the web, of the pivoted frame for supporting one of the rollers and the rod adapted to prepare the web for engagement with the rollers, and means for adjusting the position of the movable roller and rod in a vertical plane, substantially as described.

3. The screw-threaded rollers for operating upon the curled edges of a forwardly-drawn web, the said rollers being formed with the opposite movable screw-sleeves provided with means for holding the said screw-sleeves in their set position upon the shaft of the roll, substantially as and for the purpose specified.

JOSEPH J. SCHOLFIELD.

Witnesses:

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