

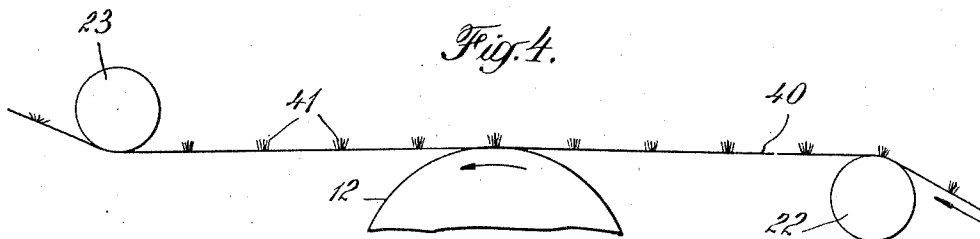
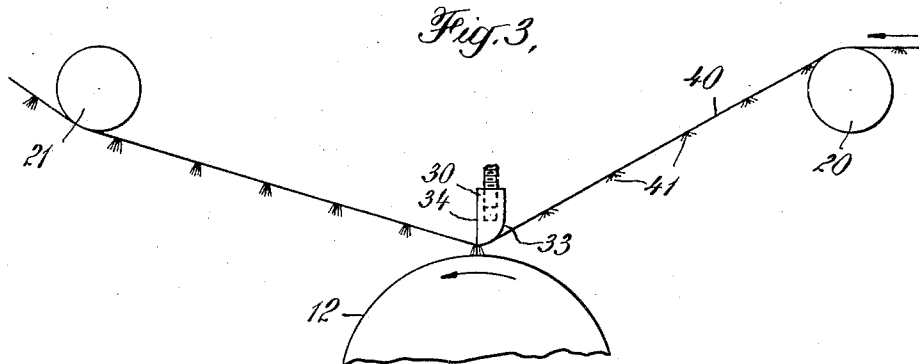
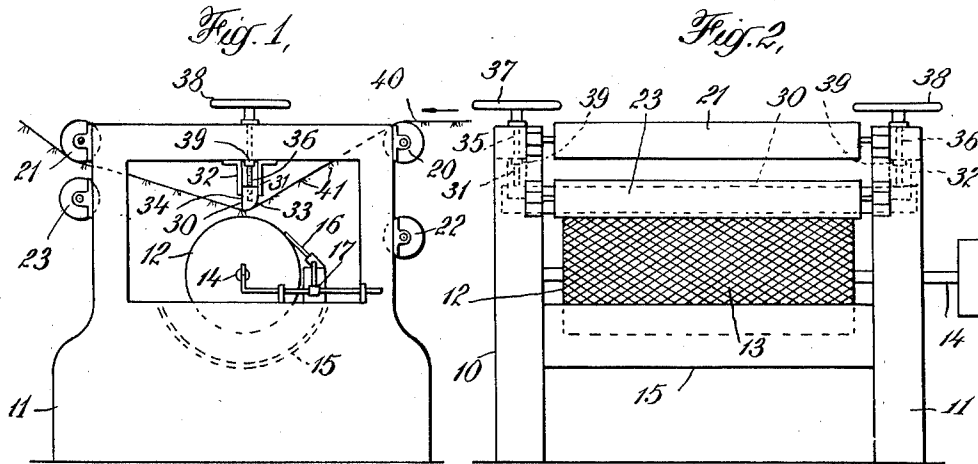
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DYEING MACHINE FOR MARQUISSETTES AND METHOD OF DYEING

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DYEING MACHINE FOR MARQUISSETTES
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5 Claims. (Cl. 8—151)

This invention relates to improvements in dyeing machines for marquisettes and method of dyeing.

Its object is to provide a simple apparatus for applying color to the clip spots or projections of textiles of this type without coloring the body portion of the cloth.

Another object is to so construct the machine that it may be used independently for dyeing the body of the cloth.

It has been necessary heretofore, in order to get clip spots of a different color or shade than that of the body, to use dyed yarn for weaving the clip spots and to cut this yarn at the spots with a resultant loss of yarn.

Another object of my invention is to do away with this loss.

Another object is to provide an improved method of dyeing such fabrics.

These and other objects will appear in the following specification in which I will describe the invention, the novel features of which will be set forth in appended claims.

Referring to the drawing,

Fig. 1 is a side elevation of a machine which is made according to and embodies my invention;

Fig. 2 is an end view of the machine shown in Fig. 1;

Fig. 3 is a side elevation on a larger scale of some of the parts of the machine shown in the preceding figures, illustrating its operation; and

Fig. 4 is a view similar to that shown in Fig. 3 illustrating another use of the machine.

10 and 11 designate side frames upon which the various parts of the machine are supported. 12 is a transverse cylindrical roll, the surface of which is engraved, as shown at 13. The roll 12 is mounted on a shaft 14 mounted in bearings on the frames 10 and 11 and arranged to be driven by suitable mechanism. 15 is a pan for containing a liquid dye stuff in which the roll 12 is immersed. 16 is an oscillating doctor blade for removing surplus coloring matter from the roll 12, operated in the usual manner by the shaft 14 by mechanism indicated generally by the reference numeral 17.

20 and 21 designate guide rollers near the upper parts of the side frames, parallel with the engraved roll 12, above and laterally spaced therefrom. 22 and 23 are similar rollers supported in the side frames, also laterally spaced from the engraved roll at such an elevation as to bring a line tangential to the lower surface of one of them, such as the roller 23 and the upper

surface of the other, such as the roller 22 at or slightly below the upper surface of the engraved roll.

30 is a transverse blade above the engraved roll 12, movable vertically between stationary guides, such as 31, 32, affixed to the side frames, (Fig. 1). This blade has a curved side 33 and, as shown, a straight side 34 in a plane through the axis of roll 12. Near the ends of the blade are threaded holes in engagement with which are adjusting screws 35, 36, affixed to the upper ends of which are hand wheels 37, 38. Collars, such as 39, (Fig. 1) are affixed to the screws 35, 36 to hold them against longitudinal movement. By this arrangement the blade 30 may be moved vertically and its position relative to the roll 12 adjusted.

40 designates a fabric provided with clip spots 41. This is run from a cloth frame, (not shown), where the fabric is sprayed with finishing material and dried, over guide roller 20 with the clip spots against the roller, down to and under blade 30 and thence up to and over guide roller 21. It approaches the curved side 33 of blade 30 in a tangential relation and as it bends around the edge formed by the intersection of the sides 33, 34, the clip spots are opened. This edge of the blade is so adjusted as to bring the opened clip spots, but not the body of the cloth, into contact with the engraved surface 13 of roll 12, whereby they absorb the dye stuff in the engraved portions of the roll. The amount of the dye stuff dispensed by the roll depends upon the depth of its engraving,—rolls with deep engravings being used with large clip spots.

The curved side of blade 30 overcomes the tendency to pick up lint, which the scraping effect of a flat sided blade would have.

This machine may be used to dye the body of the fabric, as shown in Fig. 4. In this case the blade 30 is not used and the fabric is led, the other side up, over the guide roller 22, the engraved roll 12 and under the guide roller 23. In this case the amount of dye applied must be enough to permeate the ground of the fabric, but not sufficient to run through into the clip spots.

Modifications may be made within the spirit and scope of this invention and I intend no limitations other than those imposed by the appended claims.

What I claim is:

1. A dyeing machine comprising a rotatable cylindrical roll, a dye pan under said roll, means for passing a fabric having a body and fibers

projecting from a side of said body across said roll with the body out of contact with the roll and the projecting fibers in contact with the roll, said means including a transverse blade 5 over and spaced from the roll and means for leading the fabric to and from the blade at acute angles to a plane through the blade and through the axis of the roll.

2. A dyeing machine comprising a rotatable 10 cylindrical roll, a dye pan under said roll, means for passing a fabric having a body and fibers projecting from a side of said body across said roll with the body out of contact with the roll and the projecting fibers in contact with the 15 roll, said means including a transverse blade over and spaced from the roll, and guide rollers above the blade and laterally spaced therefrom, the approach side of said blade being convexly curved, said rollers being arranged to guide the 20 fabric to and from the blade at acute angles to a plane through the blade and through the axis of the roll.

3. A dyeing machine comprising a rotatable 25 cylindrical roll, a dye pan under said roll, means for passing a fabric having a body and fibers projecting from a side of said body across said roll with the body out of contact with the roll and the projecting fibers in contact with the roll, said means including a transverse blade over and 30 spaced from the roll, means for leading the fabric to and from the blade at acute angles to a plane

through the blade and through the axis of the roll, and means for adjusting the blade vertically.

4. A dyeing machine comprising a rotatable 5 cylindrical roll, a dye pan under said roll, means for passing a fabric having a body and fibers projecting from a side of said body across said roll with the body out of contact with the roll and the projecting fibers in contact with the 10 roll, said means including a transverse blade over and spaced from the roll, guide rollers above the blade and laterally spaced therefrom, the approach side of said blade being convexly curved, said rollers being arranged to guide the fabric 15 to and from the blade at acute angles to a plane through the blade and through the axis of the roll, and means for adjusting the blade vertically.

5. The herein described method of dyeing clip 20 spots which comprises applying a film of liquid dyeing material to a feeding surface, moving a fabric having a body and clip spots projecting from one side of its body along a path of travel toward said surface and away from said surface 25 at diverging angles transverse to said surface, the fabric being fed with the clip spots disposed toward said moving surface, whereby the fabric is bent transversely on a line near but spaced from said surface and its clip spots are opened 30 against said surface.

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