

J. McNAUGHT.

Machines for Stamping or Embossing Textile Fabrics.

No. 150,175.

Patented April 28, 1874.

Fig. 1.

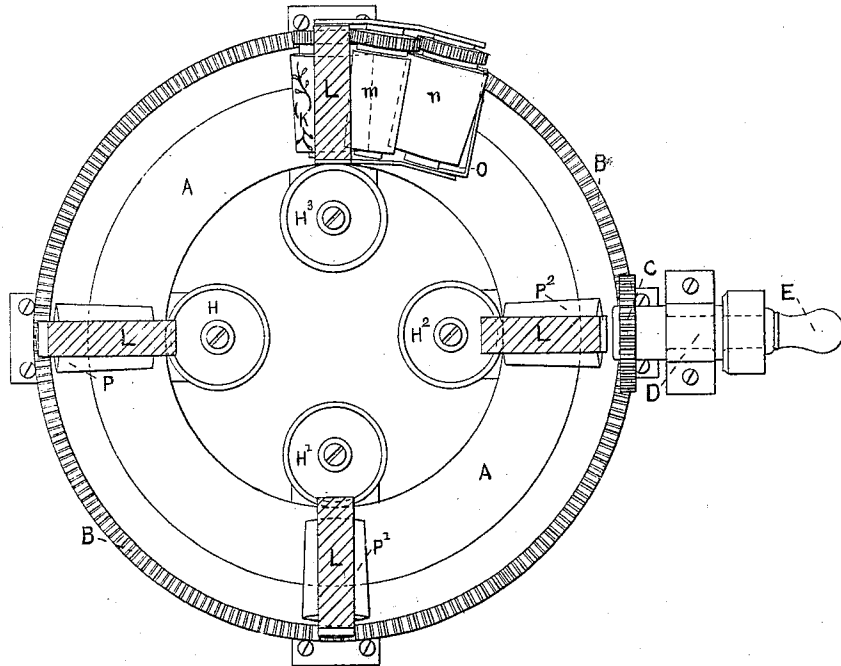
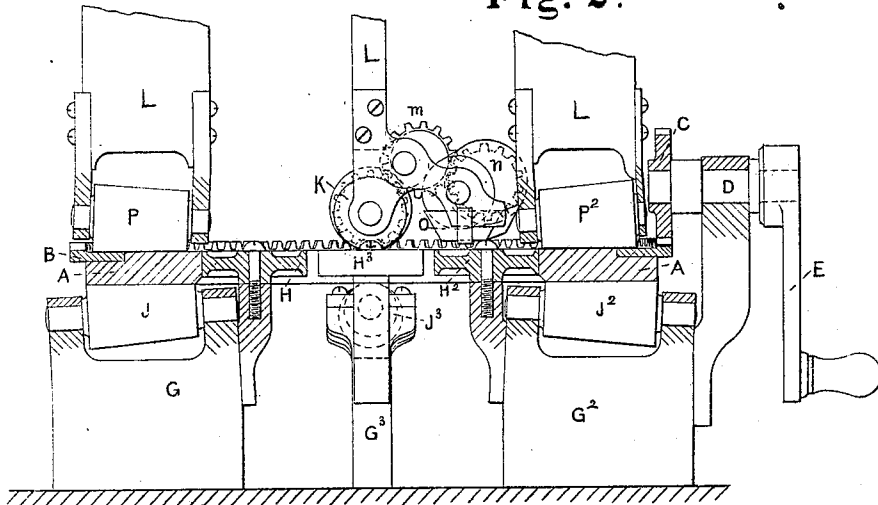


Fig. 2.



WITNESSES.

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IMPROVEMENT IN MACHINES FOR STAMPING OR EMBOSsing TEXTILE FABRICS.

Specification forming part of Letters Patent No. **150,175**, dated April 28, 1874; application filed February 24, 1874.

To all whom it may concern:

Be it known that I, JAMES McNAUGHT, of the city, county, and State of New York, have invented certain Improvements in Machines for Stamping or Embossing Textile Fabrics, of which the following is a specification:

This invention consists in the combination, in a machine for printing and embossing textile fabrics, of a circular revolving bed, having a peripheral rack meshing with a gear-wheel, for rotating said bed, with a printing, stamping, or embossing roll, in such a manner that the fabrics to be acted upon may be placed upon the bed at one point in its rotation or revolution, and removed at another, without interference with the operation of printing or stamping, as the case may be; or, in other words, so that the operation may progress continuously by supplying the fabric before the printing, and removing it after printing, without stopping any portion of the mechanism, as will hereafter appear.

Figure 1 represents a plan of the machine with the uprights for supporting the printing and pressing rolls in section. Fig. 2 is a transverse section through the center of the bed, and shows the ends of one set of printing and color rolls in elevation, also the crank and pressing-rolls in outline.

At A is represented the bed, upon which the fabric to be printed, stamped, or embossed is laid or fastened. It is made of such a size that the breadth or depth to be printed at one impression may correspond with the length of the printing-roll, or the inner and outer arcs of said bed may differ less in diameter than the length of the printing-roll or the engraved figure thereon. Said bed may also be made of wood, by overlaying the plank, as in pattern-making, and it is provided with a peripheral iron rim, as at B, screwed thereon; and upon said iron rim is formed the teeth, to gear into or engage with a driving-pinion, as at C, upon its axis D, to which motion may be given either by a crank, as at E, or other well-known means. Said bed is also mounted upon rollers, as shown at J J¹ J² J³, which are mounted in suitable bearings in frames or supports resting on the floor, as shown at G G², Fig. 2. Upon said rollers the bed rests and revolves, and to hold it in proper position thereon grind-

ing-wheels, as at H H¹ H² H³, may be provided to bear against the inner edge of the bed, as shown in Fig. 1; but the same effect would be produced by having said rolls to work on the outside of the bed; hence, it is immaterial whether they are so placed, or part on the outside and part on the inside. Upon said bed the fabric to be printed is placed, and may be fastened in any suitable manner. One method is by pasting it to the bed, so as to hold it from "creeping," as it is termed, under the action of the printing-roll, which is shown at K, Figs. 1 and 2, and which is supported in bearings in a frame, as at L, suspended from the ceiling, or other frame-work. Connected with said printing-roll are the color-rolls, as at M and N, and the receptacle or box for the color, as at O, all of which are suspended over the bed, in such a manner as to leave a space for any overhanging material or portions of the fabric that are not to be printed or stamped to pass by the printing-roll. Over or above said bed are also other rolls, as at P P¹ P², which serve to hold the bed in position upon the under rolls; and they also serve, when desired, to press the fabric upon the bed as it revolves under them.

Instead of one of said rolls, another set of printing or embossing rolls may also be provided for the same or a different color or design, if desired, depending upon the speed or quality of the work and the size of the rotating bed A.

All of the upper rolls, or those above the bed, must be suspended, as already described for the printing-roll, so that the overhanging fabric may pass them, when desired.

The figures to be printed, or stamped, or embossed are formed in the usual or any suitable manner upon the surface of the printing-roll; and said roll is made of a conical form, to such a degree that its surface shall travel with the same speed or velocity as the surface of the bed.

Such a machine is found to be very useful for printing or stamping figures on ladies' skirts, which are gored or made to give greater width at the bottom than the band or waist, as in such a case the bottoms of said skirts, or the parts ready cut to be sewed together, can be laid on the circular bed, with the wide and

circular portion toward the outer circle of the bed; and so one piece after another may be laid thereon without stopping the machine, and removed after they pass under the printing or stamping roll, so that the work may go on continuously.

I therefore claim—

1. In a machine for printing, stamping, or embossing textile fabrics, the combination, with the printing or stamping mechanism, of a revolving circular bed, having a circular

rack meshing with a gear-wheel, for rotating the bed, substantially as herein described.

2. The combination, with a revolving circular bed, of a printing or stamping mechanism, the bearing-rolls, and guiding-wheels, all as described, and for the purpose set forth.

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Witnesses:

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