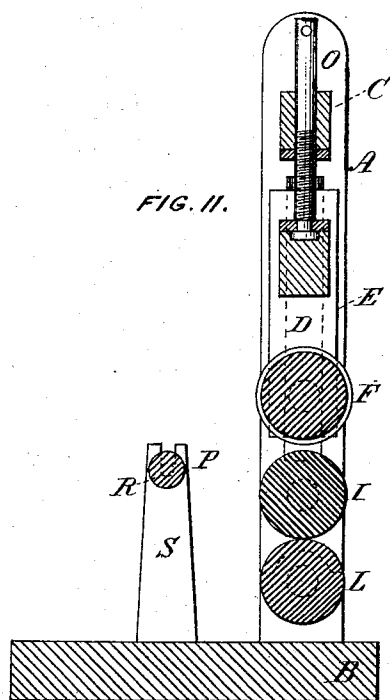
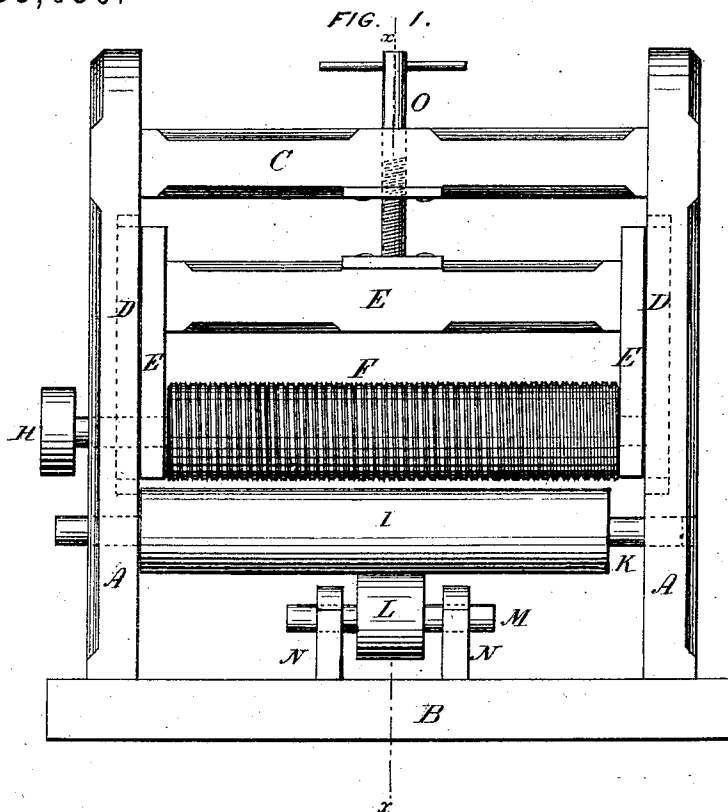


A. WILDER.

Apparatus for the Manufacture of Oil-Cloth.

No. 153,650.

Patented July 28, 1874.



WITNESSES:

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UNITED STATES PATENT OFFICE.

AMOS WILDER, OF AUGUSTA, MAINE.

IMPROVEMENT IN APPARATUS FOR THE MANUFACTURE OF OIL-CLOTH.

Specification forming part of Letters Patent No. **153,650**, dated July 28, 1874; application filed July 24, 1874.

CASE C.

To all whom it may concern:

Be it known that I, AMOS WILDER, of Augusta, in the county of Kennebec and State of Maine, have invented certain new and useful Improvements in Machine for Marking, Ribbing, or Scoring the "Brush-Coat" of Oil-Cloth, of which the following is a specification:

My invention relates to a new and improved apparatus for scoring, marking, or ribbing the brush-coat of oil-cloth, for the purpose of ornamenting and finishing the same; and it consists of a roller of peculiar construction mounted in the lower end of a frame arranged in ways or grooves between two upright standards secured to a bed or base, and firmly joined at their tops by means of a cross-beam, said frame being capable of a slight vertical movement in the ways or grooves, and connected to a screw passing through the cross-beam, by means of which it can be raised or lowered, said roller working in combination with a roller below, the journals of which have bearings in the upright standards, and which is capable of a movement in a longitudinal direction, as will be fully hereinafter set forth.

In the drawings, Figure 1 represents a front view of my improved apparatus for scoring, marking, or ribbing the brush-coat of oil-cloth; Fig. 2, a transverse section of the same.

A A represent the two vertical standards firmly secured to a base or bed, B, and braced at the top by means of a cross-beam, C, as shown. These standards are provided with ways or grooves D D, into which is set a vertical groove, E, carrying the scoring, marking, or ribbing roller F. Said roller is mounted upon a shaft, G, having bearings in opposite sides of the frame E, one end of said shaft passing through the frame and a slot in one of the upright standards, and being provided with a driving-pulley, H, by means of which the roller may be rotated. The roller may be made of any desired length, generally from about six to thirteen, and is grooved around its periphery, so as to score, mark, or rib the brush-coat of the oil-cloth when the same is passed between it and the roller below. These grooves may be made to run parallel to each other around the roller, at suitable distances

apart; but I prefer, and regard it as an important feature of the invention, to form them spirally around the roller, or in the shape of a screw-thread extending around said roller from end to end. In this manner the roller may be cheaply and expeditiously constructed in an ordinary screw-lathe working automatically, as will be perceived, greatly lessening the cost of the machine. I is a plain roller mounted upon a shaft, K, having bearings at each end in the standards A. Said shaft is capable of a longitudinal movement in its bearings, carrying the roller I with it, for the purpose to be presently explained. Below said roller I arrange one or more short rollers, L, each mounted upon a shaft, M, having bearings in short standards N N attached to the bed or base of the apparatus, and capable of being raised or lowered by means of suitable set-screws. These rollers revolve in contact with the roller I, and are for the purpose of preventing said roller or the metal roller from springing or swagging during the operation of marking, scoring, or ribbing the cloth. O is a screw passing through the cross-piece C, and working in a collar attached to a frame, E, by means of which said frame may be elevated or depressed, for the purpose of inserting the cloth between the rollers, and to bring the desired amount of pressure upon the same, though other devices besides the screw may be employed. At a short distance in front of the rollers F and I, and parallel with the same, I arrange a roller, P, for the purpose of supporting the cloth. This roller is mounted on a shaft, R, having bearings in the standards S S, secured to the base or bed of the machine, and is on, or nearly on, a level with the top of the roller I.

The operation of my apparatus is as follows: The oil-cloth, after having been properly prepared with the various coats, is passed between the rollers with the brush-coat uppermost. This brush-coat must be dried to such an extent before the cloth is subjected to the action of the machine that it will not stick or adhere to the scoring-roller in passing under it, but must be sufficiently soft to readily take the marks or impressions of said scoring-roller. In passing

under said roller, the spiral or screw-threads upon the same will have a tendency to carry the cloth to one side, and to prevent the roller from tearing or abrading the brush-coat of the cloth provision must be made for the cloth to move freely within said screw-threads. This is accomplished by means of the longitudinal movement of the plain roller I, which slides in its bearings as the cloth traverses through the machine, and can be set back to its original position when each piece of cloth is inserted.

By the use of said machine I am enabled to give the brush-coat of oil-cloth a highly ornamental and finished appearance, and render it fit to form the greater portion of the design of the cloth when finished, thus dispensing with a greater part of the subsequent printing that has heretofore been necessary, and producing a handsome article at much less cost than any oil-cloth hitherto made.

I claim as my invention—

1. A roller spirally grooved or screw-threaded around its periphery, for marking,

ribbing, or scoring the brush-coat of oil-cloth substantially as described.

2. A scoring, ribbing, or marking roller, in combination with a lower roller capable of having a movement in a longitudinal direction, substantially as and for the purpose described.

3. In combination with the lower plain roller, the short roller or rollers revolving in contact therewith, to prevent the marking or the plain roller from springing during the operation of marking, ribbing, or scoring the brush-coat of oil-cloth, substantially as described.

4. In combination with the frame carrying the roller for marking, ribbing, or scoring the brush-coat of oil-cloth, the screw for raising and lowering the same, and regulating the pressure upon the cloth and the plain roller, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand.

AMOS WILDER.

Witnesses:

JAMES L. NORRIS,

ALBERT H. NORRIS.