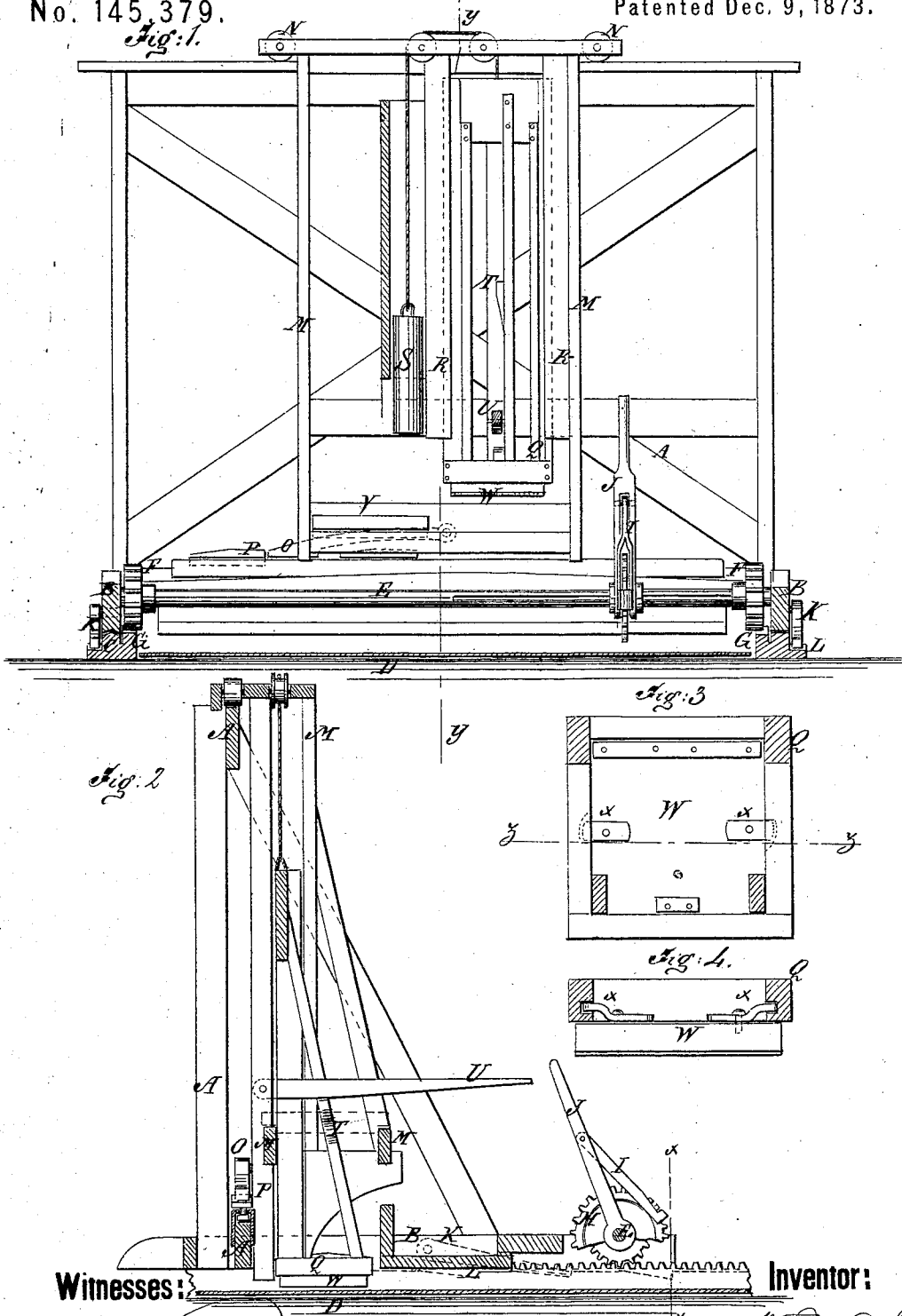


W. E. WORTH.

Machines for Printing Oil-Cloths.

No. 145,379.

Patented Dec. 9, 1873.



Witnesses:

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# UNITED STATES PATENT OFFICE.

WILLIAM E. WORTH, OF SAN FRANCISCO, CALIFORNIA.

## IMPROVEMENT IN MACHINES FOR PRINTING OIL-CLOTH.

Specification forming part of Letters Patent No. **145,379**, dated December 9, 1873; application filed October 25, 1873.

*To all whom it may concern:*

Be it known that I, WILLIAM E. WORTH, of San Francisco, in the county of San Francisco and State of California, have invented a new and Improved Machine for Printing Oil-Cloth, of which the following is a specification:

My invention consists of a vertically-moving press for carrying the printing-block and pressing it on the cloth, mounted on a frame carrying a platform for the operators, and shifting laterally on another frame, which shifts forward and back over the printing-floor, whereon the cloth to be printed is laid, the principal frame being provided with mechanism for shifting it, and both shifting frames capable of having their movements arrested by stops, so that the prints will match properly, all as hereinafter described.

Figure 1 is a sectional elevation of my improved machine taken on the line *x x* of Fig. 2. Fig. 2 is a section of Fig. 1 on the line *y y*. Fig. 3 is a horizontal section of the press, and Fig. 4 is a vertical section of Fig. 3 on the line *z z*.

Similar letters of reference indicate corresponding parts.

A represents an upright frame, as long as the width of the widest fabric of cloth to be printed, having parallel bed-pieces at each end B, mounted on ways C, on which said frame can be shifted along the length of the piece to be printed, or a certain distance, governed by the length of the printing-floor D, which will generally be as large both ways as the cloth to be printed, but need not necessarily be as long, because the cloth can be shifted along after a certain length has been printed. A shaft, E, is mounted on the pieces B, having pinions F, gearing with racks G, and a wheel, H, pawl I, and pawl-lever J, for turning it to push the frame A forward and back over the printing-floor. The pieces B have a pawl, K, for dropping into notches L on the sides of the ways C, to control the frame when adjusted by forcing the frame back till arrested by said pawls after moving it forward. M is another frame, hanging from the top rail of frame A by the rollers N, so that it can slide forward and backward at right angles to the direction in which frame A slides. It also has a pawl, O, to regulate its adjustment by stops P, which, as also the

stops L, will, in practice, be made adjustable, to vary the movements of the movable frames, as may be required by the different-sized patterns to be printed. On this frame M there is a vertically-sliding press-frame, Q, arranged in ways R, and provided with a counterpoise, S, for holding it up. It is also provided with a stud, T, whereon a lever, U, pivoted to frame A, acts to force the block upon the cloth for making the impressions. By the side of press Q is a platform, V, on frame M, on which two operators stand, one having an inking-cushion, which he slides under the printing-block W, when the press is raised, and holds, while the other moves the block down on it to be inked or painted, and raises it off. Then the one holding the cushion withdraws it, and the other operator moves the press down to the cloth, and presses it by the lever T with sufficient force to make the impression, and then raises it. Both operators then join in moving the frame M along, and continue in the same way until a row of prints has been made across the cloth. Then they shift the frame A along the cloth the requisite distance for another row, and so on. The pawl-wheel H, pawl, and pawl-lever are arranged to shift along the shaft E readily with the frame M, so as to be in reach of the operators on the platform V at all times. The printing-block is detachably connected to the press by buttons X, to facilitate the changing of them for different patterns.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of movable frames A M and press Q with a printing-floor, D, substantially as specified.
2. The press Q, platform V, lever U, and stud T, combined with the frame M, substantially as specified.
3. The pawls K and notches L, combined with the frame A, ways C, shaft E, racks G, pinions F, pawl and pawl-lever I J, and the wheel H, all substantially as specified.
4. The pawl O and adjustable stops P, combined with frames A and M, arranged and operating substantially as specified.

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Witnesses:

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