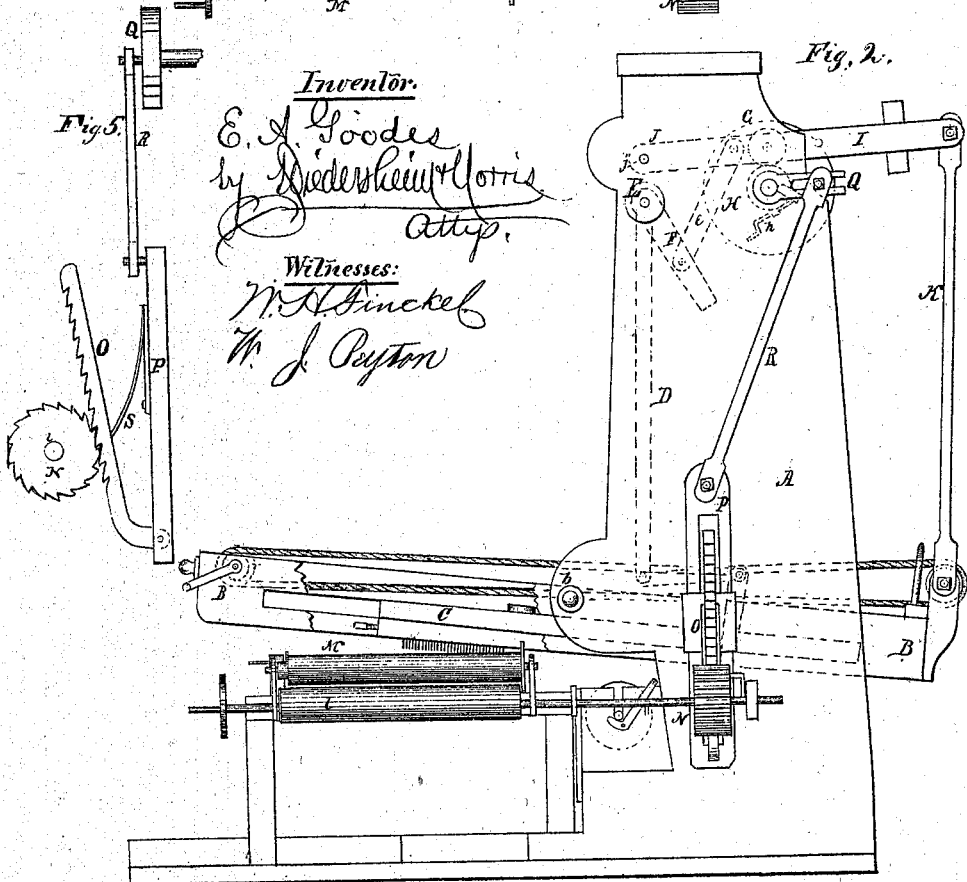
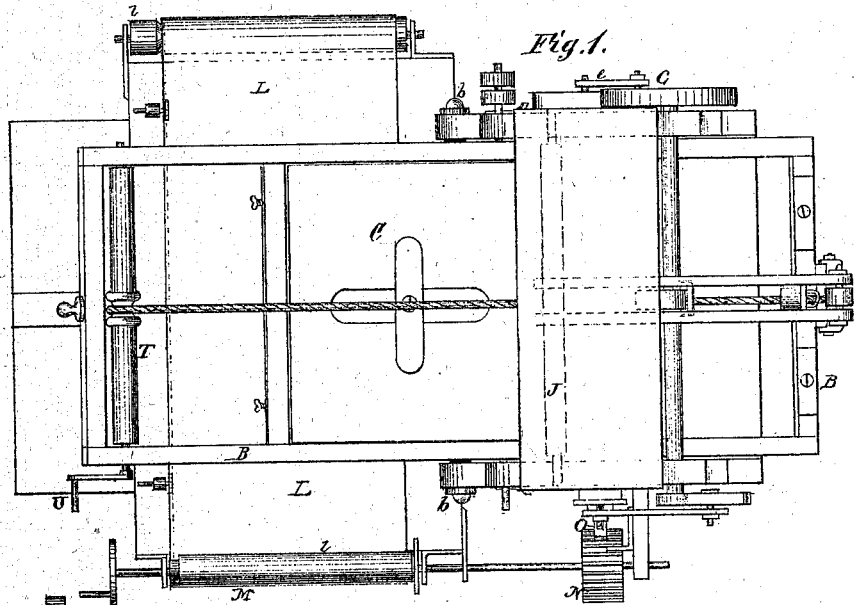


*E. A. Goodes,
Oil Cloth Printing.*

No 112443.

Patented Mar. 7. 1871.

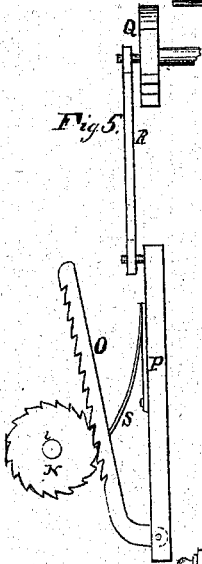


Inventor.

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W. J. Peyton*



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2, Sheets, Sheet 2.
Patented. Mar. 7. 1871.

Fig. 3.

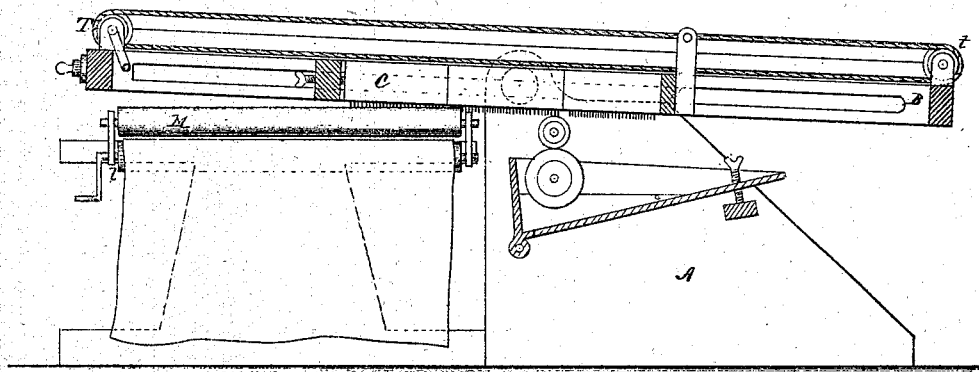
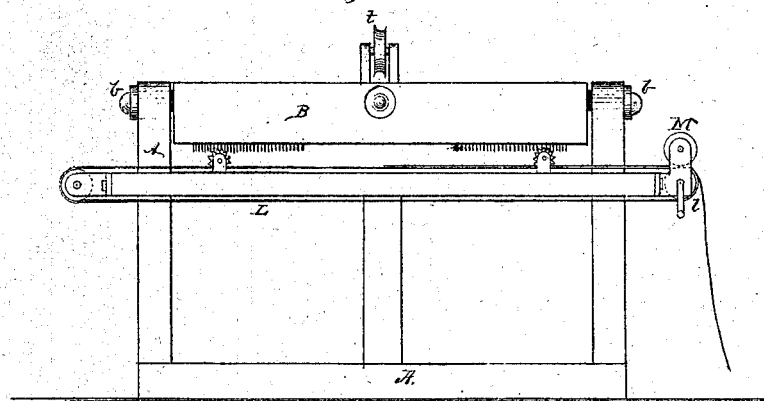


Fig. 4.



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United States Patent Office.

EBENEZER A. GOODES, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO PHILADELPHIA PATENT AND NOVELTY COMPANY, OF SAME PLACE.

Letters Patent No. 112,443, dated March 7, 1871.

IMPROVEMENT IN OIL-CLOTH PRINTING-MACHINERY.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, EBENEZER A. GOODES, of the city and county of Philadelphia and State of Pennsylvania, have invented new and useful Devices for Printing Oil-Cloths; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand and use the same, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a top or plan view of the device illustrating my invention.

Figure 2 is a side view thereof.

Figure 3 is a side view of a modification.

Figure 4 is a front view of the table, and belts for carrying the cloth.

Figure 5 is a side view of the mechanism for moving the cloth.

Similar letters of reference indicate corresponding parts in the several figures.

My invention relates to a device for printing oil-cloths, and consists in a reciprocating block-carrier mounted on an oscillating frame, in connection with mechanism for operating them.

It also consists in the combination of a block-carrier, carrier-frame, an intermittent feed mechanism, and an endless belt or band.

It also consists in mechanism for feeding the cloths.

It also consists in means for adjusting the degree of impression.

In the drawing—

A A represents a suitable frame for properly supporting certain parts of the operating mechanism.

To the sides of this frame is pivoted a frame, B, which oscillates on its fulcrum *b*, and is provided with slides or guides on which plays or works a secondary frame, C, which carries the printing-blocks.

E is an oscillating shaft, having its bearing in the frame A, and has connected to it an arm, D.

The shaft receives an oscillating motion in the present case through the medium of an arm, F, and a rod, *e*, connected to a crank, G, on the main shaft.

I is an arm secured to a shaft, J, which is mounted on the frame-work as at *j*, and has pivoted to it a rod, K, which is jointed to the rear of the oscillating frame B.

Attached to a wheel on the main shaft is a cam-piece, H, which is made adjustable by set-screws *h h*.

When power is applied to the main shaft the sliding frame E receives its reciprocating motion by the operation of the arm D and carries the printing-blocks backward and forward.

When the slide is carried to its extreme forward position the impression will be made.

This is done at the moment that the crank G passes its center, and the sliding frame becomes stationary by means of the cam H, which, during one revolution of the main shaft, raises the arm I. This depresses the front portion of the frame B upon the cloth and thus gives the impression.

The color-rollers are located beneath the oscillating frame B, and when C makes its return motion the printing-blocks are prepared for the impression.

One or more rollers may be used for the purpose of distributing the color evenly over the surface of the printing-blocks.

The degree of impression is readily regulated by the means of the set-screw and cam-pieces H.

The devices for moving the cloth the proper distance and at the proper time consists of a belt or band, L, which passes around rollers *l l*, placed at the ends of the printing-table, and moves over the top of the table carrying the cloth to be printed.

The belt is held in position by an additional strip of one or more thicknesses of the same material attached at one edge, and forming a flange projecting inwardly and fitting into a groove or grooves in the rollers *l l*.

The cloth to be printed is held in position by the upper roller M bearing on it, and one or more small toothed wheels resting on its edge and pressing it with sufficient firmness against the table as it moves along, to prevent displacement.

An intermittent motion is given to the cloth by means of a ratchet-wheel, N, which is attached to the end of a shaft passing through one of the rollers *l*, and operated by a toothed-bar, O, which is pivoted at its lower end to a slide, P, connected to an adjustable crank, Q, on the main shaft, by a rod, R.

By moving the end of the connecting-rod to or from the center of the main shaft, the length of the movement of the cloth can be accurately adjusted.

The toothed bar O is held in position against the wheel N by a spring, S.

By detaching the arm D and rod K from the oscillating frame B, the machine may be operated by hand, the sliding frame C being moved back and forth by means of a belt or other suitable device, the ends of which are attached to the sliding frame after being passed around the roller T at one end of the oscillating frame B, and a pulley, *t*, at the other end, said roller being turned by a crank, U, on one end of its shaft.

The cloth may be moved by a crank on the forward end of the roller *l*. The distance for moving the cloth may be indicated by a gauge-plate on the end of roller *l*, or by a scale along the edge of the belt L.

The blocks are set in the frame in a peculiar manner. A space the exact width of the printing-surface

of the blocks is between each set of blocks for the different colors. This is for the purpose of keeping the colors separate and pure or clear.

The cloth is passed under the first block (which, say, is black) and receives an impression. It is then moved forward by the mechanism the width of one block, when the part just printed will be under the blank space between the blocks, and will consequently receive no impression, but the cloth will receive a second impression adjoining the first one from the black block.

It is again moved forward the width of one block, as before, and this time the portion first printed comes under the second block, (red,) and the machine now makes two impressions, one of red and an additional one of black, and (if printing in two colors) will continue doing so to the end of the piece.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The reciprocating carrier C and arm D, in connection with the oscillating frame B and rod K, and

their operating mechanism, substantially as and for the purpose described.

2. The combination, in a printing-machine, of the reciprocating block-carrier C, the oscillating carrier-frame B, the intermittent feed mechanism N O P, and the endless band L, substantially as and for the purpose described.

3. In a machine for printing oil-cloth, the feeding device, consisting of the hinge-bar O, spring S, slide P, and ratchet N, and adjustably connected to its operating mechanism, all combined and arranged substantially as and for the purpose described.

4. The combination, with the oscillating frame B and the printing-frame C, of the cam H and set-screws h h, substantially as and for the purpose described.

To the above I have signed my name this 13th day of July, 1870.

EBENEZER A. GOODES.

Witnesses:

J. PLANKINTON,
C. LEWIS OWENS.