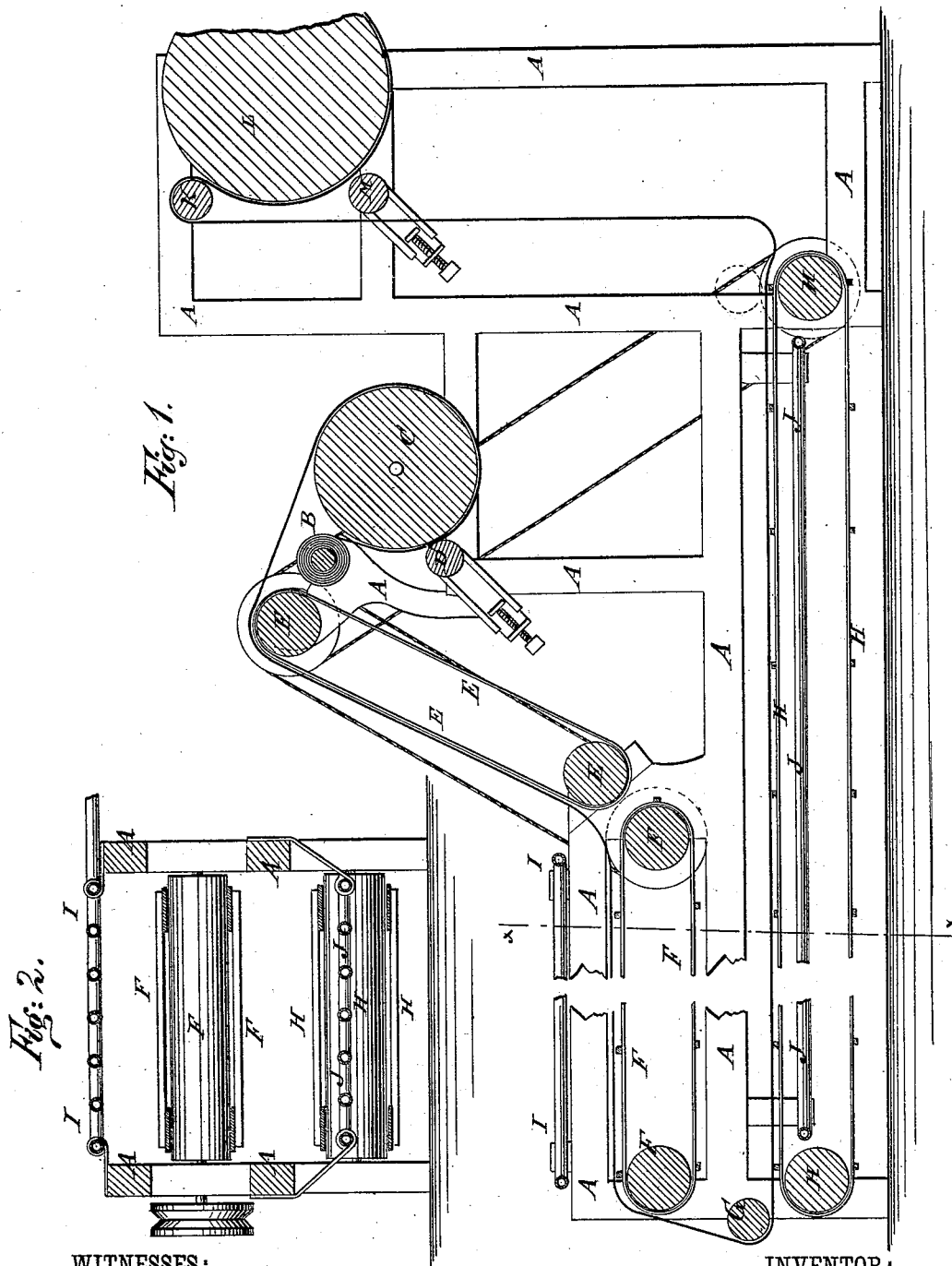


J. J. JANEWAY.
 Printing-Machine for Paper-Hangings.
 No. 217,735. Patented July 22, 1879.



WITNESSES:
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JACOB J. JANEWAY, OF NEW BRUNSWICK, NEW JERSEY.

IMPROVEMENT IN PRINTING-MACHINES FOR PAPER-HANGINGS.

Specification forming part of Letters Patent No. **217,735**, dated July 22, 1879; application filed February 27, 1879.

To all whom it may concern:

Be it known that I, JACOB J. JANEWAY, of New Brunswick, in the county of Middlesex and State of New Jersey, have invented a new and useful Improvement in Machines for Printing Paper-Hangings, of which the following is a specification.

Figure 1 is a vertical longitudinal section of my improved machine. Fig. 2 is a vertical cross-section of the same, taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved machine for printing paper-hangings, which shall be so constructed that the ground color and the other colors may be applied to the paper while passing once through the machine, and which shall be simple in construction and effective in operation, lessening the time, labor, and expense heretofore required in the printing of paper-hangings.

The invention consists in a machine for printing paper-hangings in which three endless carriers and two sets of steam-pipes are interposed between two machines, as herein-after fully described.

A represents the frame of the machine, to which is pivoted the shaft of a roll, B, of paper. As the paper unwinds from the roll B it passes around the cylinder C, and the ground color is applied by a number of color-rollers, D, in the usual way, only one of the said color-rollers being shown in the drawings.

From the cylinder C the wet paper passes to the inclined endless carrier E, from the lower end of which it passes to the upper endless carrier, F. From the outer end of the endless carrier F the paper passes around a guide-roller, G, to the outer end of the endless carrier H.

The carriers E F H are all formed by attaching cross-slats for the paper to rest upon to narrow bands which pass around the rollers of the carriers, so that air can pass to and from the paper while passing along the said carriers.

I is a system of steam-pipes placed above

the upper carrier, F, to dry the color as the paper is carried along the said carrier F, color upward.

J is a system of steam-pipes placed in the space within the lower carrier, H, to dry the color as the paper passes along the carrier H, color downward.

With this arrangement, while the color is fresh, the heat will be applied by downward radiation from the pipes I, and when the color is partially dried and the paper is passing along the carrier H, color downward, the heat will be applied by upward radiation from the pipes J and by convection by the ascending currents of hot air. By this arrangement, when the paper passes from the carrier H the ground color will be thoroughly dried, and the said paper will be ready to receive the other colors.

From the carrier H the paper passes to and over a guide-roller, K, and around a cylinder, L, where the other colors are applied to it by a number of color-rollers, M, only one of which is shown in the drawings. As the paper passes from the cylinder L it is hung in festoons to dry, which festoons are formed in the usual way, but over the steam-pipes I.

By this arrangement the ground color and the other colors will be applied to the paper during one passage of the said paper through the machine, so that a large saving in time, labor, and expense will be effected, and no more room will be required than is now used in drying paper, as the carriers and the steam-pipes are all under the festoons.

The carriers F and H and the steam-pipes I and J are from seventy-five to a hundred feet (more or less) in length, as may be required, and are under the festoons into which the paper is formed after leaving the last printing-cylinder.

The carrier H should move a little faster than the paper, so that the paper will not always be held upon the slats in the same places when carried color downward, and will thus dry more uniformly.

The above-described machine is adapted to apply colors to paper to which other colors

have been already applied while the paper is passing continuously through it, and in such a way that the colors will not spread, mingle, or blotch.

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

The combination, with two printing-machines, substantially as described, of the car-

riers E F H and steam-pipes I J, the pipes I being arranged over the carrier F, and the pipes J within the carrier H, as shown and described.

JACOB J. JANEWAY.

Witnesses:

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AYERS D. INSLEE.