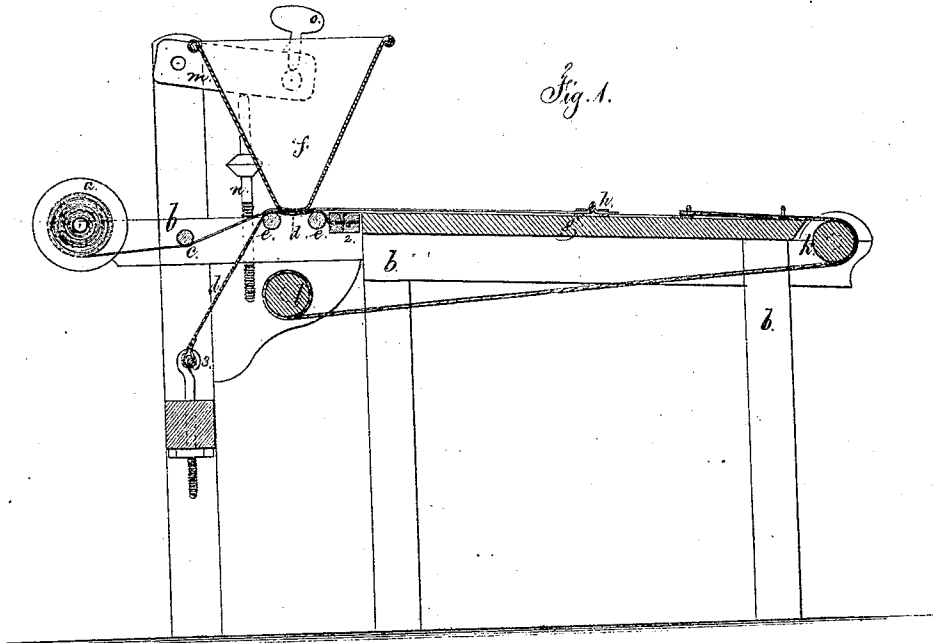


*J. Heist,*  
*Coloring Paper.*

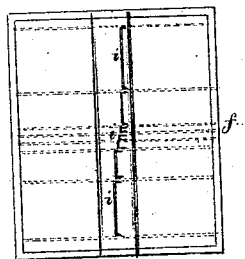
*No. 101,732.*

*Patented April 12, 1870.*



*Fig. 1.*

*Fig. 2.*



*Witnesses,*

*Cha. H. Smith*

*Geo. D. Walker*

*John Heist*

*Lemuel W. Serrell*  
*att'y*

# United States Patent Office.

JOHN HEIST, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF, C. ZINK, AND  
H. SPOEHRER, OF SAME PLACE.

Letters Patent No. 101,732, dated April 12, 1870.

## IMPROVEMENT IN MACHINE FOR COLORING PAPER-HANGINGS.

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, JOHN HEIST, of the city and State of New York, have invented and made an Improvement in Machine for Coloring Paper-Hangings, and the following is declared to be a correct description of the same.

This machine is for applying coloring material to the surface of paper to form striped paper hangings.

Before my invention, a box with a central division and separate partitions had been made for receiving coloring matter and applying the same to the paper-hangings. The construction of the same is costly, and the colors have to be applied with great care to prevent them being unequal.

In my invention the paper is drawn over an adjustable presser-cloth between that and the color-box, so that more or less color will pass out from the color-box upon the paper according to the pressure of the adjustable cloth, and I mount the color-box so that it may be adjusted to the proper position upon the paper.

In the drawing—

Figure 1 is a vertical longitudinal section of the machine, and

Figure 2 is an inverted plan of the color-box.

The roll of paper, *a*, is supported upon a roller in bearings in the frame *b*, and is passed below the roller *c* and over the presser-cloth *d* and rollers *e e*, beneath the color-box *f*, to the table *g*.

The table *g* is of the necessary length for the paper-hanging after it is colored in stripes to lie out flat until the color is sufficiently dry or set.

A clamp, *h*, is employed to receive the advancing end of the paper *a*, and this clamp is connected with a cord or rope passing around the roller *k* to the winch-roller *l*, so that the paper can be drawn along gradually beneath the color-box, and, at the same time, unrolled from *a*. The paper is to be cut off in lengths and rolled up when dry.

The presser-cloth *d* is attached, permanently, at one end at 2, and at the other end one or more screws, 3, are applied to a bar, or its equivalent, so as to tighten the same to whatever extent may be necessary to keep the paper properly and uniformly in contact with the under side of the color-box, and, as the color-box comes above the cloth *d*, between the rollers *e e*, there

is a proper pressure of a yielding nature applied to the paper to keep it against the color-box.

The color-box *f* is hung upon arms *m*, the gudgeons of said box entering the ends of the arms, and screws *n*, beneath the arms *m*, serve to adjust the position of the box *f* vertically, and the clamping screws *o* serve to hold the box from swinging upon the trunnions after it has been adjusted.

It will now be understood that the color-box can be lifted sufficiently for the paper to be inserted below it, the arms *m* swinging as the box is lifted.

The color-box is made of a wedge-shape, with a bottom of the width sufficient for receiving the various slots *i i* that open into the compartments for color, formed by divisions that run entirely across the said box *d*.

Instead of these slots *i i* being placed alternately, I place them successively in advance of each other, as shown in the inverted plan, fig. 2, in order that the stripe of color may be complete from the slot that is nearest the roll *a* of paper, and that the next stripe may be made contiguous thereto, and so on across the entire sheet of paper.

In this manner the stripe of color can be laid on with considerable uniformity, and in order to cause the colors to run full at the ends of the slots and blend slightly, I make use of the shallow grooves passing off from the ends of these slots *i* in the direction in which the paper is moved.

I claim as my invention—

1. The adjustable presser-cloth *d* and rollers or supports *e e*, in combination with the color-box *f* and mechanism for drawing the paper along, as specified.
2. The arms *m* and adjusting screws *n*, in combination with the color-box *f* and clamps *o* for the trunnions of said box, as and for the purposes specified.
3. The color-box *f*, with the slots *i* through the bottom thereof, and arranged in the manner specified, in combination with the divisions passing across from side to side of said box, as specified.

Signed by me this 28th day of February, A. D. 1870.

JOHN HEIST.

Witnesses:

CHAS. H. SMITH,  
GEO. T. PINCKNEY.