(No Model.)

J. HUTCHISON.

INKING APPARATUS FOR BLOCK PRINTING.

No. 262,416. Patented Aug. 8, 1882.

Fig. 1.

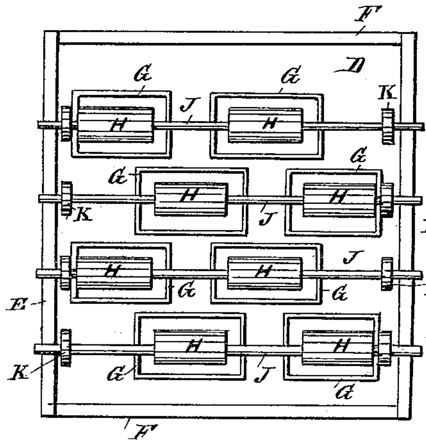


Fig. 4.

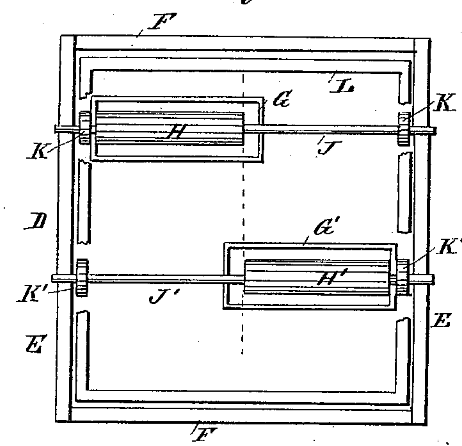


Fig. 2.

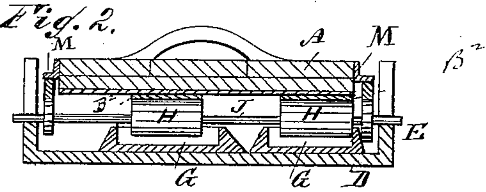


Fig. 5.

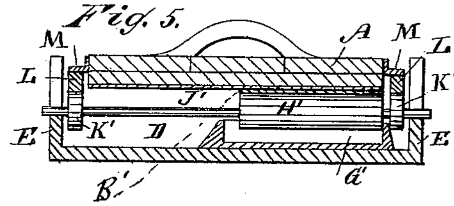


Fig. 3.

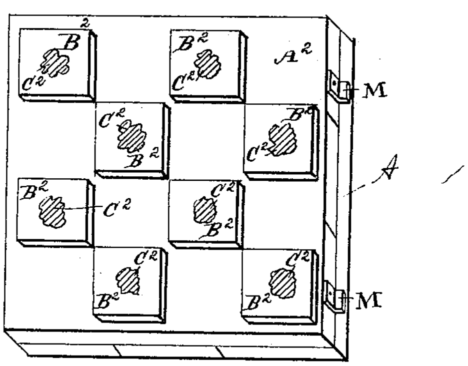
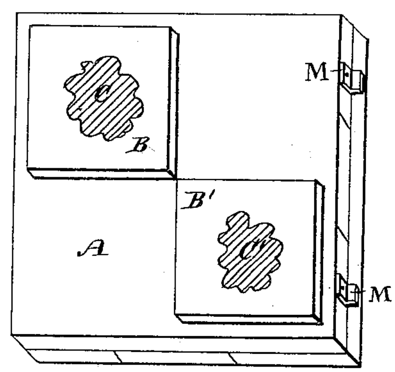


Fig. 6.



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UNITED STATES PATENT OFFICE.

JAMES HUTCHISON, OF NEWARK, NEW JERSEY.

INKING APPARATUS FOR BLOCK-PRINTING.

SPECIFICATION forming part of Letters Patent No. 262,416, dated August 8, 1882.

Application filed December 12, 1881. (No model.)

To all whom it may concern:

Be it known that I, JAMES HUTCHISON, of Newark, in the county of Essex and State of New Jersey, have invented a new and Improved Inking Apparatus for Block-Printing, of which the following is a full, clear, and exact description.

The object of my invention is to furnish a new and improved apparatus for providing the printing-block with several colors at the same time, thereby lessening the number of impressions required to produce a pattern of many colors, and thus reducing the cost of the print, oil-cloth, paper-hangings, &c.

The invention consists in a box containing as many rollers as there are separate patterns on the printing-block, these rollers each dipping in separate color-boxes, and mounted on shafts provided at the ends with friction-rollers, on which a frame rests for carrying the printing-block. By moving this block over the rollers the distance of one pattern-field each pattern will be provided with its colors, and thus a number of colors can be applied on the block in one operation.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improved coloring apparatus for hand printing-blocks, provided with eight color-rollers. Fig. 2 is a cross-sectional elevation of the same and the corresponding printing-block. Fig. 3 is a perspective view of the block to be used with the same. Fig. 4 is a plan view of my improved coloring apparatus for hand printing-blocks, provided with two color-rollers. Fig. 5 is a cross-sectional elevation of the same with printing-block applied thereon. Fig. 6 is a perspective view of the block to be used with the same.

For example, if the oil-cloth or paper-hanging is to consist of a series of ornaments contained in a series of squares the block A, Fig. 6, provided with the raised portions B B′ containing the engraved or raised patterns C C′, is used in connection with the coloring apparatus shown in Figs. 4 and 5. This apparatus consists of a flat box, D, having the sides E projecting slightly above the ends F. This box contains two color-cups, G G′, each adapted to receive a coloring-roller, H H′, made of type-metal or other suitable material, and each mounted on independent shafts J J′, journaled in the sides of the box D, and having a friction-roller, K K′, of the same diameter as the rollers H H′, at each end. These coloring-rollers H H′ dip into the colors in their respective color-cups G G′.

A frame, L, rests on the friction-rollers K K′, and upon this frame the projections M of the block A rest when the block A is being provided with color, the distance from the surface of the engraved or raised pattern to the bottom of the projections M being equal to the thickness of the frame L.

The length of the rollers H H′ is exactly equal to the length of the sides of the portions B B′ of the block A, and the inner ends of the rollers H H′ must be on the same right line, as shown by the dotted line in Fig. 4.

The block A having been placed on the frame L, the frame is moved in the direction at right angles to the shafts J J′ a distance exactly equal to the length of the rollers—that is, a distance equal to the length of the square parts B B′. If the portions B B′ are oblong, the block A is moved a distance equal to the length of the parts B B′.

The friction of the frame L on the friction-rollers K K′ causes a rotation of the rollers H H′, whereby the color will be deposited on the blocks. For instance, if the cup G contains a red color and the cup G′ contains a green color the pattern C on the portion B will be colored red and the pattern C′ on the portion B′ will be colored green, both in the same operation.

The box D (shown in Figs. 1, 2, and 3) contains four shafts J, on each of which there are two color-rollers H, dipping into corresponding color-cups, G, each containing a different color. Otherwise the construction is the same as just described. The rollers on one shaft are opposite the free or blank spaces of the adjoining shafts, and the ends of the rollers are also on right lines, as shown. The rollers are arranged according to the arrangement of the portions B^2, containing the patterns C^2 of the block A^2. The block A^2 is thus provided with eight colors in one operation, and the eight

colors are transferred on the oil-cloth, paper, &c., in one operation, whereas heretofore eight operations were required.

Both devices described may be modified as circumstances and the patterns may require, and the number of color-rollers and the number of different colors may be varied as may be required.

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

1. In an apparatus for coloring the patterns of hand printing-blocks, the combination, with the box D, of two or more shafts J, two or more color-rollers H thereon, and two or more color-cups G, the friction-rollers K, and the frame L, substantially as herein shown and described, and for the purpose set forth.

2. In an apparatus for coloring the patterns of hand printing-blocks, the combination, with the box D, having sides E, higher than the ends F, of two or more shafts J, two or more color-rollers H, two or more color-cups G, the friction-rollers K, and the frame L, substantially as herein shown and described, and for the purpose set forth.

JAMES HUTCHISON.

Witnesses:
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