

(No Model.)

W. J. SMITH.
COLOR PRINTING DEVICE.

No. 496,914.

Patented May 9, 1893.

Fig. 1.

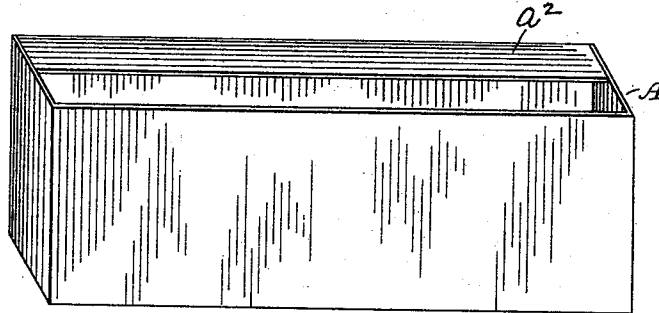


Fig. 5.

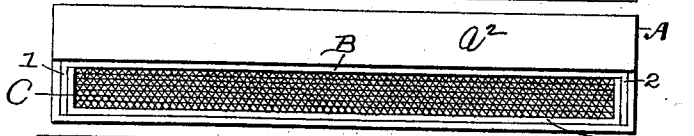


Fig. 2.

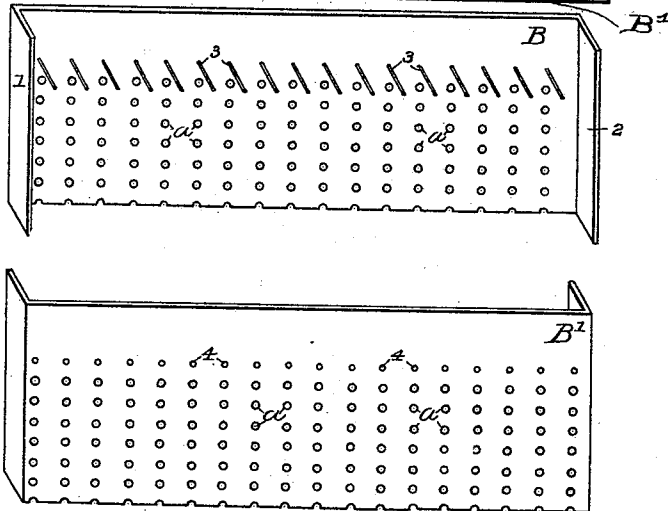


Fig. 3.

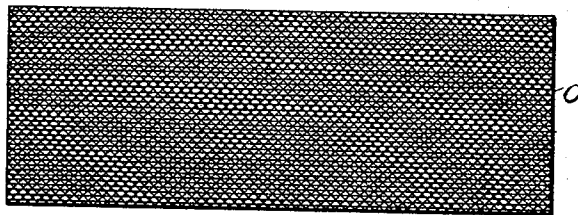
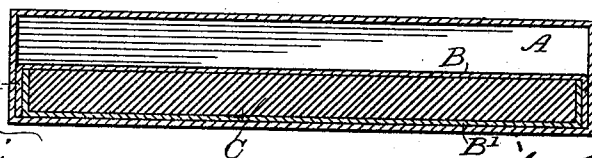


Fig. 4.



Witnesses
Mrs. Mueser
Edward Kern

Inventor
Walter J. Smith,
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his Attorney

UNITED STATES PATENT OFFICE.

WALTER JOHN SMITH, OF LEAMINGTON, CANADA.

COLOR-PRINTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 496,914, dated May 9, 1893.

Application filed July 2, 1892. Serial No. 438,789. (No model.)

To all whom it may concern:

Be it known that I, WALTER JOHN SMITH, a subject of the Queen of Great Britain, residing at Leamington, in the county of Essex and Province of Ontario, Canada, have invented certain new and useful Improvements in Color-Printing Devices; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in printing in colors and the object is to provide an improved apparatus for producing printing and imprinting characters and letters in colors.

With this object in view, my invention consists in the apparatus herein described for effecting the same, as will be fully specified in the description thereof, and particularly pointed out in the claims.

In the accompanying drawings I have fully illustrated my invention, reference being had thereto.

Figure 1 illustrates a well or receptacle for holding and retaining coloring material. Fig. 2 shows the perforated plates for holding the porous or capillary substance. Fig. 3 is the cellular or fibrous substance which absorbs, carries, and delivers the coloring to the surface to be printed. Fig. 4 is a horizontal sectional view of the color well with holder and fibrous material arranged therein. Fig. 5 is a plan view of the parts assembled in operative relation, showing the receptacle for the ink, the separable plates, and the fibrous material.

"A" designates a metal receptacle of such size and form as may be desired. I have illustrated it as of the simplest construction, consisting of a rectangular box, representing in shape a straight letter "I." The receptacle may be any shape, conforming to the shape of a letter or character desired. This receptacle is designed and intended to hold the coloring material, and deliver it through the agency of an absorbing and capillary material disposed in a holding device, as specified, to the surface of a paper or other mate-

rial placed on and in contact with said absorbing material.

B designates a metal plate (see Fig. 2) perforated substantially as shown, and having its ends 1, 2, turned at right angles to its sides, to intersect or lie against, the oppositely turned ends of the perforated plate B', so that when these plates are arranged in position, they will fit in the opening in the receptacle A. To hold the plates in proper relation to each other when brought together, pins 3, are secured in one of them, and in the other are formed pin-holes 4, in which the free ends of the pins engage, passing through the porous material and holding it from rising or extending too far above or from falling too far below the surface. These plates are made of the contour or shape of the type, line, or character, to be made on the paper, and hence the top of the receptacle A is provided with a cover a^2 , secured by any usual means of fastening or soldering a cover to a metal box, which cover extends over the receptacle excepting that part which is to be occupied by the form box of the letter or character, as indicated in Fig. 5 of the drawings. The ends of the plate B' fit snugly within the ends of the plate B, and when arranged together extend substantially the length of the opening in the receptacle, and are held together by the frictional contact of the engaging ends. The plates B, B', are perforated as at a , to admit the access of the ink to the fibrous material.

C designates the porous or capillary agent or substance which is disposed between the holding plates B, B' with the surface flush with the upper surface of the plates and receptacle; so that when the material to which the character is to be transferred is laid on the exposed surface of the porous material the impression or transfer will be obtained.

It will be perceived that the receptacle may be of any desirable form adapted to take and hold the plates for the absorbent and capillary agent, and that as many receptacles with differently colored inks can be used as there are characters to be made. The wick or capillary agent may be of any proper cellular or fibrous material, arranged in between the holding plates. These holding plates being

the equivalent in construction to a receptacle to hold the absorbent material a box may be substituted, made of the form of the character, and the capillary agent disposed in the box; but I prefer the separable holding plates, because they may be removed and then conveniently cleaned on the inside, to remove the coloring and be in condition to receive a different color. The impression may be accomplished simply by laying a piece of paper over the exposed face of the porous material and applying sufficient pressure to bring all the surface of the paper flat thereon.

The device is useful in cases where bargain sales or similar "eye-catches" are desired to be posted on goods and in boxes or trays in stores.

The coloring ink or substance may be a solution of water, dextrine or other mucilaginous material colored with an aniline or other dye of any desired tint or color.

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

1. In a color printing apparatus the combi-

nation of a color-receptacle, perforated form-plates arranged in the receptacle, and an absorbent capillary agent in the form plates, whereby the color and imprint may be transferred to a contacting material, substantially as described.

2. In a color printing apparatus, the combination of a color receptacle, separable form plates arranged in the receptacle, and an absorbent, capillary agent in the form plates, substantially as and for the purposes set forth.

3. In a color-printing apparatus the combination of a color receptacle perforated form plates provided with pins and pin holes as specified, and an absorbent capillary agent in the form plates, whereby the color may be transferred to a contacting material arranged over the capillary agent, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WALTER JOHN SMITH.

Witnesses:

WALTER MCKAY,
W. E. GUNDY.