No. 824,016. PATENTED JUNE 19, 1906.

C. S. HEERMANCE.

POSTER AND COLOR PRINTING.

APPLICATION FILED APR. 27, 1903. RENEWED AUG. 29, 1905.

Fig. 1.

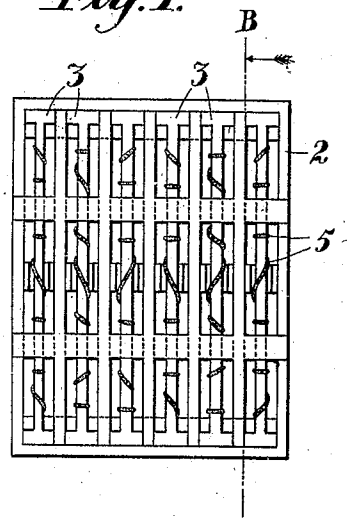


Fig. 2.

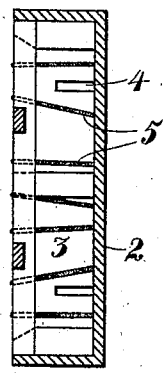


Fig. 3.

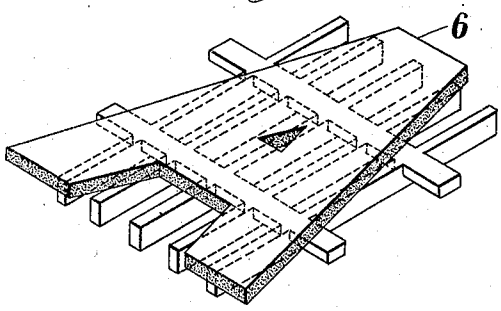


Fig. 4.

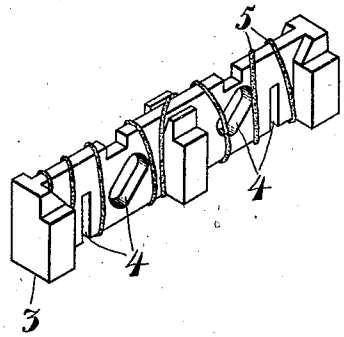
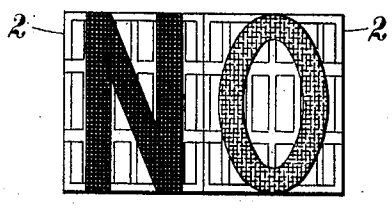


Fig. 5.



WITNESSES:

F. C. Fliedner

J. Smee

Charles S. Heermance INVENTOR.

BY Geo. H. Strong.

ATTORNEY

ANDREW B. GRAHAM CO., PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES S. HEERMANCE, OF SAN FRANCISCO, CALIFORNIA.

POSTER AND COLOR PRINTING.

No. 824,016. Specification of Letters Patent. Patented June 19, 1906.

Application filed April 27, 1903. Renewed August 29, 1905. Serial No. 276,323.

To all whom it may concern:

Be it known that I, CHARLES S. HEERMANCE, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Poster and Color Printing; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in the printing of characters of any description in a variety of colors and at a single impression.

It consists in making the printing surface or form of felt or equivalent soft absorbent material and superposing the form upon one or more fountains or containers with means by which the ink is raised by capillary attraction or otherwise, so as to be absorbed by the characters on the form, and thence transmitted to the surface upon which the printing is to take place. By the use of fountains or ink-containers of different shapes and with different colors a variety of shades and colors may be printed, so as to merge into each other or to be variously disposed with relation to each other.

Referring to the accompanying drawings, Figure 1 is a plan view of the fountain. Fig. 2 is a section through B, Fig. 1. Fig. 3 is a perspective view showing a form and a part of the fountain. Fig. 4 is a perspective of one of the conducting-plates. Fig. 5 shows two forms of different colors and their fountains.

It is the object of my invention to produce a variety of colors or effects from a single impression.

As shown in the accompanying drawings, 2 represents the ink-containing receptacle or fountain. I have here shown it made with strips of metal or other suitable material 3, extending from end to end of the containing-box and retained in a substantially vertical position by means of guides or supports. These supports may either be fixed within the receptacle or, as here shown, they are attached to each of the plates 3, so that when the plates are inserted into the receptacle they will be self-supported at a sufficient distance apart. In order to lighten these plates and also provide for the free flow of ink through the interspaces, I have shown the plates having cut-out portions of any suitable form and size, as at 4. The plates are partially covered or have otherwise applied to them any fibrous or porous material 5, which will act by capillary attraction to convey the ink upwardly to the surface. The form, which may be of any suitable description and which is here illustrated by a single letter, as at 6, is placed upon the fountain, so that its lower surface rests upon the porous or conducting material 5. This form is made of an absorbent felt or equivalent material which will take up the ink from below and transmit it through its own substance to the surface, and it thus is in readiness for printing when the surface to be printed upon is applied and pressed upon it.

In order to apply a number of colors, a number of ink-containers may be disposed with relation to each other, so that different colors may be placed in each container, and being raised to the surface and absorbed by the form these colors will intermingle at their meeting edges and produce shaded, spotted, or other desired effects dependent upon the arrangement of the ink-containers with relation to the form. Thus by placing a series of containers side by side in the direction of the length or width of the form the division-lines between the colors will be shaded into each other through the absorbent material of the form and when imprinted will produce the shaded effect and the intermediate color resultant upon the mixing of the two primary colors of the two ink-containers. These may be arranged in an infinite variety of ways. By placing the ink-containers one within another either circular, square, or any desired polygonal form may be obtained, and an equivalent disposition of colors upon the printed surface will result. This form of printing is especially designed for printing posters and large surfaces in which a considerable quantity of color is massed in each part of the printed surface.

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

1. An improved device for color-printing consisting of a porous absorbent form interposed between the ink-container and the surface to be printed, and means including plates with a transverse wrapping of absorbent material for transmitting the ink through the absorbent form.

2. A device for color-printing consisting of a porous absorbent form or printing-surface, an ink-containing receptacle, plates positioned in the container, and absorbent strands or surfaces wound transversely about the

plates and dipping into the ink-receptacle and contacting with the under surface of the absorbent form whereby the ink is transmitted through said form to the printing-surface.

3. A device for multicolor-printing consisting of a plurality of receptacles containing different-colored inks and disposed contiguous to each other, a form or printing-surface made of felt or equivalent absorbent material and disposed above the ink-receptacles, plates in the container and provided with passages for the inks, and absorbent strands or the like wound about the plates and dipping into the ink-receptacles and having their upper portions contacting with the lower surface of the form.

4. A device for color-printing consisting of an ink-receptacle, plates supported on edge within said receptacle having fibers, strands or the like wound about the plates whereby the ink is conveyed to the upper edges of the plates by capillary attraction, and a form or printing-surface adapted to rest upon said plates, said form consisting of a felt or equivalent absorbent material through which the ink is transmissible.

5. The combination of an ink-container; absorbent strands dipping into the ink-container and having their upper portions exposed at the top of the container; and separate and independent forms of absorbent material lying flatwise upon the exposed portions of the strands.

In witness whereof I have hereunto set my hand.

CHARLES S. HEERMANCE

Witnesses:
S. H. NOURSE,
JESSIE C. BRODIE.