B. B. HILL.

Blotter-Bath for Copying-Presses.

No. 216,738. Patented June 24, 1879.

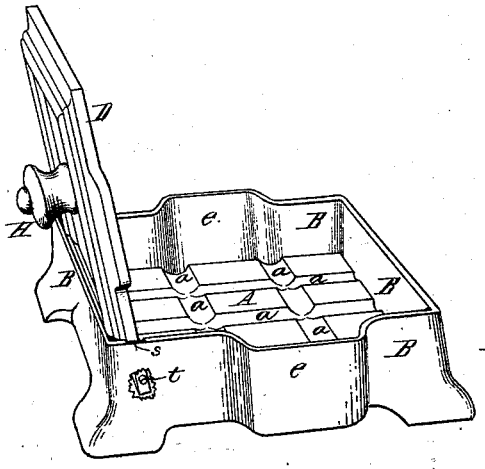

Fig. I

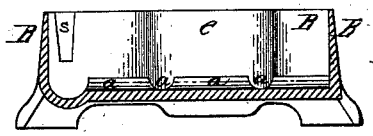

Fig. II

Witnesses.
M. B. Hall.
Jos D. Brewer

Inventor.
Benjamin B. Hill.
By T. A. Curtis.
his Atty.

UNITED STATES PATENT OFFICE.

BENJAMIN B. HILL, OF SPRINGFIELD, MASSACHUSETTS.

IMPROVEMENT IN BLOTTER-BATHS FOR COPYING-PRESSES.

Specification forming part of Letters Patent No. **216,738**, dated June 24, 1879; application filed March 13, 1879.

To all whom it may concern:

Be it known that I, BENJAMIN B. HILL, of Springfield, in the State of Massachusetts, have invented a new and useful Improved Blotter-Bath for Copying-Presses; and that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, and to the letters of reference marked thereon.

The object of my invention is to keep sheets of blotting-paper of the desired degree of dampness to readily take a press-copy of a written document when the impression-paper is laid between the original and the damp blotter; and to this end my invention consists of a receptacle having four sides or walls inclosing a bottom or floor provided with cells or cavities to receive the water, and a presser or cover is arranged to close the top to exclude the dust, and to keep the series of sheets, when placed therein, pressed down firmly upon the bottom, as will be more fully hereinafter described.

Figure I is a perspective view of my invention with the presser tilted up to one side, and Fig. II is a transverse vertical section of the same with the presser removed.

In the drawings, B represents the four sides or walls, inclosing a bottom or floor, A, provided with cells or cavities *a*, which I prefer should communicate with each other, so that water may run from one into the others to the same height.

The presser D may be made of any convenient form, and of a size to nearly or quite close the top and fit easily within the space inclosed by the four walls B, is fitted or provided with a handle, H, or its equivalent, by which to move it, and should be of sufficient weight to keep the package of blotter-sheets closely pressed together, and in close contact with the bottom or floor when placed thereon; and this presser may be so hinged to the walls as to open like a hinged cover by means of a recess, *s*, made in two opposite end walls, and a projection, *t*, on each end of the presser inserted down into the recesses from above. As thus arranged the presser may be tilted up to one side, as shown in Fig. I, and will be held there by the projections and recesses and the inclosing-wall behind it.

For greater convenience in seizing each blotter-sheet when wanted, I make an offset or extension, *e*, in the end wall, into which the fingers can be inserted to take hold of the edge of the sheet in removing it from the bath, so that the package of sheets may be cut of such size as to almost or quite fill the space inclosed by the walls B, and yet each one may be easily removed, and when they are cut to fill said space their edges will all come more nearly in a vertical plane, and may therefore be removed from the bath singly much easier. This feature of the offsets or extensions *e*, however, is not essential to the successful use of the bath, as the sheets may be cut somewhat smaller in size than the space inclosed by the walls, and the latter made straight, with a space between one of the walls and the pile of sheets to insert the fingers in removing them.

This bath is adapted for use as follows: A package of sheets of sufficiently porous paper are cut the required size to nearly or quite fill the space inclosed by the walls B, but so that they may easily be laid in upon, or removed one by one from, the bottom or floor A, and water being poured into the cells or cavities *a* just so as to reach or cover the plane surface of the bottom or floor A, the package of sheets is laid on the bottom, and the presser D is laid flat upon the package.

After being allowed to stand a little time the package of sheets will have absorbed the water from the cells, and when wanted for taking a press-copy of a written paper one is removed, laid upon an oiled or rubber sheet, the impression-sheet placed thereon and the written paper laid upon that, and being then clamped in a copying-press a perfect fac-simile or copy of the original is obtained, the sheet of porous blotting-paper which was removed from the bath and used having just the required amount of dampness to cause the transfer.

The presser D should always remain upon the package of sheets in the bath when not being used, which keeps all the sheets in the series in close contact, so that they are all of

nearly or quite the same degree of dampness, and a corresponding degree of uniformity is thereby obtained in the perfection of the press-copies.

My invention obviates all the trouble incident to the use of a brush or a roll in damping the paper, and the sheet to receive the impression is made more uniformly damp in all its parts, and is also given just the proper degree of dampness, and is not so liable to be torn as when handled after being dampened in the ordinary manner.

I am aware that various devices have heretofore been used for damping paper in which the sheets were either dampened by a reversible block, or were separated and dampened by evaporation or by vapor passing between the sheets; and I do not claim the same, as the principle involved in my invention is the packing of a pile of sheets of porous paper closely and firmly together, so that they or the lowest will touch the water, and the latter, by capillary attraction, will permeate the whole package alike, passing up from one sheet into the others above, and, being confined, will remain sufficiently damp for a long time to copy perfectly, one object being to prevent evaporation as far as possible.

Having thus described my invention, what I claim as new is—

1. An improved blotter-bath for copy-presses, consisting of the walls B, inclosing a fixed bottom or floor, A, provided with cells or cavities communicating with each other, so that water may circulate freely therein from one to the other when a series of sheets of blotters are placed upon the bottom, in combination with a presser, D, substantially as and for the purpose described.

2. In a blotter-bath for copy-presses, the combination of the cellular receptacle A B and the presser D, adapted to hold, closely packed together, a series of blotter-sheets while being dampened, substantially as described.

3. In a blotter-bath for copy-presses, a receptacle consisting of a bottom and four inclosing-walls, B, one or more of which is provided with an extension or offset, *e*, to facilitate the removal of the blotter-sheets therefrom, substantially as described.

BENJAMIN B. HILL.

Witnesses:
T. A. CURTIS,
M. B. HALL.