No. 714,512. Patented Nov. 25, 1902.

J. M. NICHOLAS.

COPYING BATH.

(Application filed Mar. 29, 1902.)

(No Model.)

FIG. 5

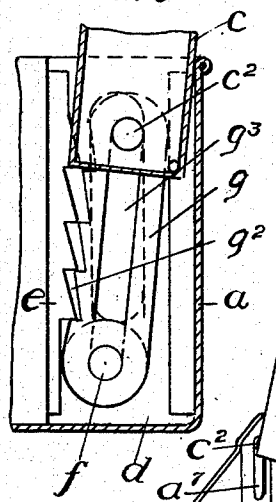


FIG. 1.

FIG. 4.

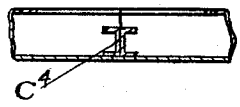


FIG 2

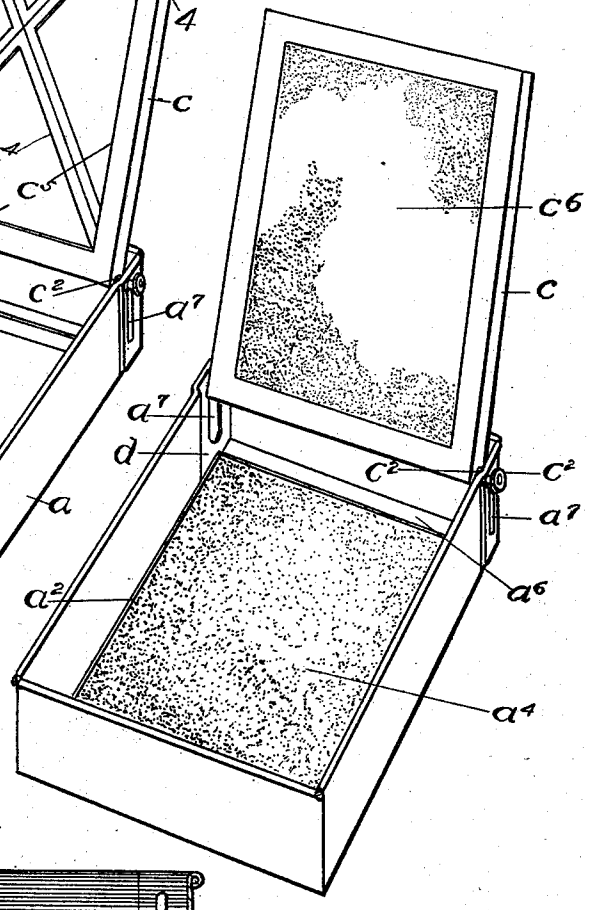
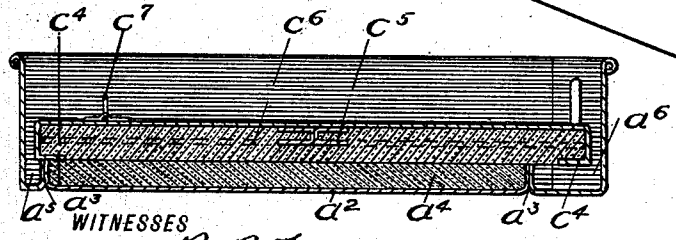


FIG 3



WITNESSES

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UNITED STATES PATENT OFFICE.

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COPYING-BATH.

SPECIFICATION forming part of Letters Patent No. 714,512, dated November 25, 1902.

Application filed March 29, 1902. Serial No. 100,535. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. NICHOLAS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Copying-Baths, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide a copying-bath which is simple in construction and which is designed to hold numerous pads or cloths in a smoothly-compressed condition and contain sufficient moisture to dampen any number of said pads or cloths and retain the same in proper condition for use during a comparatively great length of time, a further object being to provide a device of this class which is designed for use in making copies of written documents of various kinds and classes and the capacity of which may be varied as desired.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by the same reference characters in each of the views, and in which—

Figure 1 is a perspective view of the box or framework of my improved copying-bath, the top being turned backwardly; Fig. 2, a similar view showing the device complete and ready for use; Fig. 3, a longitudinal section of the complete device, showing the top in a closed position; Fig. 4, a section through one corner of the top on the line 4 4 of Fig. 1; and Fig. 5, an inside view of one corner of the main box or casing and showing a modification and showing also a part of the top in section.

In the practice of my invention I provide a device of the class described, which comprises a bottom portion a and a top portion c, and the bottom portion a comprises an open box or receptacle oblong and rectangular in form and preferably composed of sheet metal, and the bottom of which is provided with a pan a^2, which is preferably set into the bottom of the receptacle a, as shown at a^3, and this pan a^3 is filled, as shown at a^4 in Figs. 2 and 3, with an absorbent composition of suitable ingredients, such as plaster-of-paris, charcoal, mortar, cement, or any other suitable ingredients. There is a narrow space a^5 extending entirely around the pan a^2 in the bottom of the box or receptacle a, and at one end this space is much wider than the other, as shown at a^6, and serves as a reservoir for superfluous moisture, the sides and opposite end channels serving as drains leading thereto. The sides of the box or receptacle a at this end are provided with vertical slots or openings a^7, and the top portion c is provided at two opposite corners with pins c^2, which pass through said slots and are provided with detachable binding knobs or heads c^3, and by means of this construction the top portion c may be raised and turned outwardly, as shown in Figs. 1 and 2, and may also be swung inwardly and lowered over the pan a^2, as shown in Fig. 3. The top portion c is provided with diagonally-arranged reinforcing strips or members c^4, which preferably consist of sheet-metal strips T-shaped in cross-section, and said top portion is also pan-shaped in form and provided at its ends and sides with inwardly-directed flanges c^5, and said top portion c is filled, as shown at c^6, with absorbent material of the same composition as that contained by the pan a^2, and said top portion c is provided with a handle c^7, by which it may be lowered into the position shown in Fig. 3 or raised into the position shown in Figs. 1 and 2 whenever desired.

It will be observed that the absorbent material a^4 in the pan a^2 exactly fills said pan, and the top surface thereof is smooth and even throughout, while the absorbent material in the top portion c also exactly fills said portion and the surface thereof is smooth and even throughout.

In practice the blotters or cloths to be moistened are placed on the pan a^2 and rest on the absorbent material therein, and the top portion c rests on said blotters or cloths, and said blotters or cloths are kept properly moist and ready for use at all times, and the absorbent material is such that it will absorb and retain a large amount of moisture for a comparatively long time; but whenever necessary the said blotters or cloths may be moistened, as will be readily understood, and all surplus moisture will run into the reservoir a^6 and

may be poured out at any time. It will also be observed that the body of absorbent material a^4 serves in the capacity of a support for the blotters or cloths and that the height of said body of absorbent material is such that the blotters or cloths when placed thereon are elevated a sufficient distance from the bottom of the bottom portion a to be entirely free from contact therewith. Consequently the blotters and cloths will not take up any moisture which may accumulate in the drains a^5, but, on the contrary, superfluous moisture from the blotters and cloths will fall into the drains, and hence said blotters and cloths will never be burdened with an excess of moisture, but a uniform degree of such moisture will always be present therein. It will be further noted that the dimensions of the top c are such that when the same is closed upon the blotters or cloths upon the absorbent material a^4 a space is left between the sides and ends of the top c and the sides and ends of the bottom a, by reason of which construction the bath as an entirety may be inverted in order to remove the accumulated moisture in the drains a^5 without removing or disturbing in the slightest degree the blotters or cloths, an advantage which is highly desirable in a copying-bath.

The operation of copying with this device or making press-copies is the same as with other devices of this class, and by making the top portion c of the device vertically movable I increase the capacity very largely, as will be readily understood, and it will also be understood that by this means I am enabled to employ a much deeper bottom or base portion and also a much larger number of blotters or cloths.

It will be observed that in Figs. 1 and 2 that part of the sides of the bottom box or casing in which the slots a^7 are formed is bent outwardly, forming angular vertically-arranged recesses d, one of which is shown on an enlarged scale in Fig. 5, and when large blotter-baths are employed, which necessitate large and heavy covers, I secure in the front portions of these recesses rack-bars e, the teeth of which are directed backwardly, and I also pivot in the bottom portion thereof, as shown at f, vertically-arranged plates or bars g, the front edges of which are provided with teeth g^2, which correspond with the teeth of the rack-bars e, and said plates or bars g are slotted at g^3 to correspond with the slot a^7 in the sides of the bottom portion of the device, and the pivot-pins c^2 of the top c pass through these slots. With this construction when the top portion c is raised and turned backwardly the teeth on the plates or bars g engage with those on the rack-bars e and securely hold said top portion, no matter how large the device or how heavy the top portion is, and when said top portion is swung forward and turned down the plates or bars g move backwardly and the pivot-pins c^2 move downwardly in the slots g^3 and a^7. This construction is particularly designed for use where large copying-baths are employed by reason of the fact that the bottom box or casing is made of thin sheet metal and the sides thereof would be correspondingly heavy; but by use of the pivoted plates g, which are made of thicker material than the body of the pan, I strengthen these parts and the engaging of the teeth on the rack-bars e and on the plates g in the operation of raising and turning the cover backwardly removes the strain from the pivot-pins f, which are also necessarily secured in the sheet-metal sides of the bottom box or casing.

In the position of the parts shown in Fig. 5 the teeth on the plates or bars g and the rack-bars e are not engaged, for the reason that the top portion c is not turned back far enough; but the construction shown in Fig. 5 is not absolutely necessary to the operation of my improved copying-bath, the said construction being only preferably employed when a large and deep bath is required.

By providing the vertically-arranged slots a^7 and the pivot-pins c^2, which are connected to the top c and passed through said slots and are provided with a knob or head c^3, I provide means whereby the position of the top c within the bottom a may be regulated at all times to the number of cloths or blotters used in the device, and for this purpose the knobs or heads c^3 are screw-threaded onto the pivot-pins c^2, and by tightening or loosening the same the top part c may be held at any desired point of vertical adjustment and may be raised or lowered whenever desired.

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

1. In a copying-bath, the combination with a bottom portion, and a top portion, of a body of absorbent material arranged in said bottom portion and forming a support for the blotters or cloths to be moistened, the dimensions of said absorbent body being less than the dimensions of said bottom portion, whereby a series of connected drains is formed around said absorbent body, the dimensions of the top portion being also less than the dimensions of the bottom portion, whereby a space is formed between said top and bottom portions to permit the bath being inverted for removing accumulation of moisture from said drains without removing or disturbing the position of the blotters or cloths upon the absorbent material.

2. In a copying-bath, the combination with a bottom portion, and a top portion, of a body of absorbent material arranged in said bottom portion and forming a support for the blotters or cloths to be moistened, a body of absorbent material arranged in said top portion and coacting with the absorbent material of the bottom portion to effect the moistening of the blotters or cloths, and a series of flanged stays carried by said top portion and envel-

oped by the absorbent material thereof, said stays engaging the absorbent material for holding the latter within the top portion.

3. In a copying-bath, the combination with a bottom portion, and a top portion, of a body of absorbent material arranged in said bottom portion and forming a support for the blotters or cloths to be moistened, a body of absorbent material arranged in said top portion and coacting with the absorbent material of the bottom portion to effect the moistening of the blotters or cloths, and a series of diagonally-arranged stays carried by said top portion and enveloped by the absorbent material thereof, said stays being substantially T-shaped in cross-section, whereby said absorbent material is effectually engaged by said stays and held within the top portion.

4. In a copying-bath, the combination with a bottom portion, and a top portion, of a body of absorbent material arranged in said bottom portion and forming a support for the blotters or cloths to be moistened, the dimensions of said absorbent body being less than the dimensions of said bottom portion, whereby a series of connected drains is formed around said absorbent body, the dimensions of the top portion being also less than the dimensions of the bottom portion, whereby a space is formed between said top and bottom portions to permit the bath being inverted for removing accumulation of moisture from said drains without removing or disturbing the position of the blotters or cloths upon the absorbent material, the sides of said bottom portion being provided with vertically-extending slots, pins carried by the top portion and extending through said slots, and binding-knobs mounted upon said pins and engaging the sides of said bottom portion to clamp the top portion at different points within said slots, whereby the position of said top portion within said bottom portion may be regulated in accordance with the number of blotters or cloths to be moistened.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 26th day of March, 1902.

JOHN M. NICHOLAS.

Witnesses:
F. A. STEWART,
C. E. MULREANY.