

(No Model.)

J. H. ANDERSON.
DAMPENING AND COPYING APPLIANCE.

No. 458,513.

Patented Aug. 25, 1891.

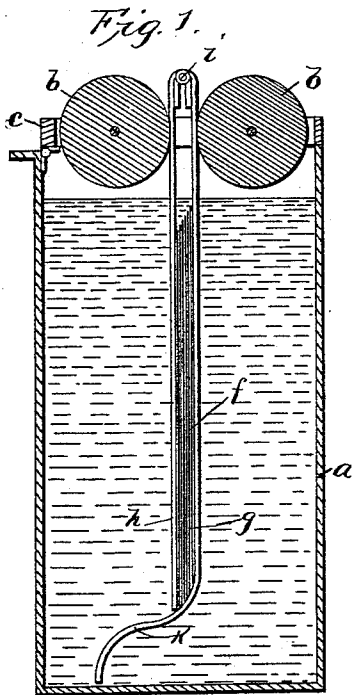
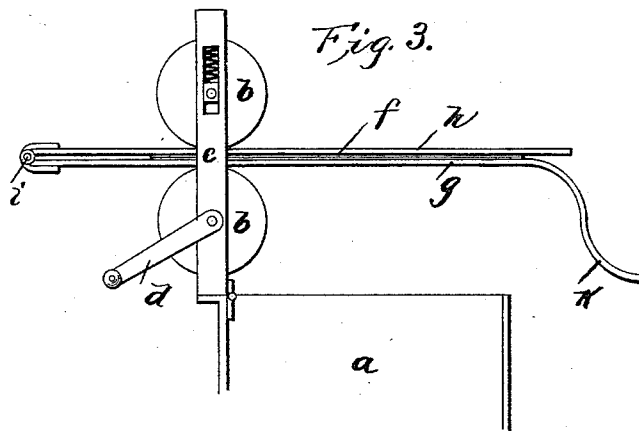
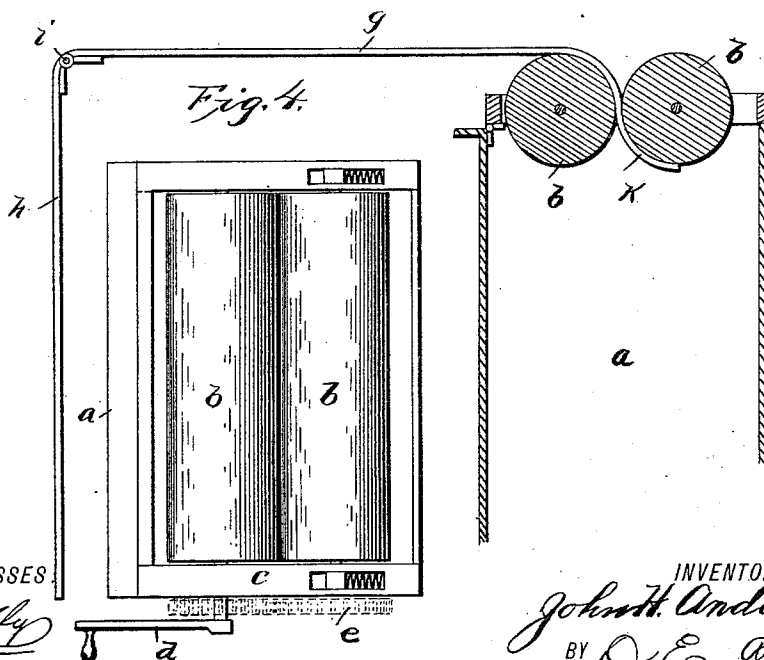


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

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DAMPENING AND COPYING APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 458,513, dated August 25, 1891.

Application filed May 11, 1891. Serial No. 392,343. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. ANDERSON, of Moorhead, in the county of Clay and State of Minnesota, have invented certain new and useful Improvements in Dampening and Copying Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 of reference marked thereon, which form part of this specification.

This invention relates to certain improvements in devices or appliances for use in copying.

The object of the invention is to provide an improved exceedingly simple device for dampening copying cloths or blotters and hold them in such position that they will be always damp and ready for use and in a proper moist condition.

The further object is to provide an improved combined dampening and copying device whereby the copying cloths or blotters are held in position where they will be kept damp and in condition to be used at any time, and whereby means which withdraws the cloths or blotters when being removed for use will also press superfluous moisture from the same, and whereby the same means which presses the moisture from the cloths or blotters will also furnish the pressure during the copying operation.

The further object is to provide certain other improvements in forms, constructions, and operation whereby a new and useful appliance is provided having many functions.

These objects are accomplished by and this invention consists in certain novel features of construction and in combinations of parts, more fully described hereinafter, and particularly pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a sectional elevation showing the blotters supported within the dampening-tank. Fig. 2 is a sectional view showing the plates which carry the cloths or blotters withdrawn and in position to form a table, so that the dampening-cloths, paper, and copy-sheet can be arranged thereon. Fig. 3 shows the

device arranged for copying, and Fig. 4 is a top plan showing the rollers.

In the drawings, reference-letter *a* indicates a vertical tank constructed of suitable material and open at the top only, as is clearly shown. A pair of parallel rollers *b* are located and extend longitudinally of the open end of the tank, so as to substantially or partially close said open end of the tank and so that the space between the meeting sides of the rollers will be substantially over the center of the tank. These rollers are mounted in the frame *c*, hinged at one edge, so that the rollers and their frame can be swung to a vertical position, as clearly shown. One of the rollers is provided with operating-crank *d*, and the two rollers can be united by gearing *e*, (dotted lines, Fig. 4,) to rotate together; or they can have elastic or flexible peripheries, such as rubber, and a pair or one of the rollers can be mounted in a box moving in slots in the frame toward and from the other roller and held against the other roller by spring. Of course this is a matter of choice.

The tank is intended to contain water, and the dampening cloths or blotters *f* are held normally suspended thereon by means of the two rollers. The cloths or blotters are held between a pair of rigid plates *g h*, of the same or greater dimensions than the said cloths, and these plates are held together and upon cloths, holding them in position and straight, by the pressure-rollers. Thus when it is desired to use the cloths the rollers are rotated in a direction to lift the plates and cloths, which are thereby drawn up out of the tank, and at the same time that the pressure of the rollers presses out the superfluous moisture from the cloths. The two plates described are hinged together at corresponding edges, as shown at *i*, so as to swing freely toward and from each other. One plate *g* has its free end extended and bent, as at *k*, or otherwise formed, so as to rest between the two rollers, as shown in Fig. 2, and thereby hold the plate in a horizontal position with the other plate hanging loose, so that the horizontally-held plate can serve as a table upon which to arrange the copying material, the end *k* being bent so as to extend substantially at right angles, with its edge extending

slightly beneath one of the rollers. In order to place the plates in this position, they need only be raised until the bent end engages the rollers and then allowed to move to a horizontal position. The other plate can then be swung from the top of the horizontal plate. When it is desired to pass the two plates between the rollers, the short plate is swung up and then down upon the material of the main plate, and the two plates are then passed through the rollers, free ends first.

When it is desired to employ the apparatus as a copying-press, the two rollers and their frame are preferably swung to a horizontal position after the copying-papers have been properly arranged between the two plates. The plates are then passed through the rollers, as just described.

It is evident that the apparatus can be used as a dampening device only and that the rollers need not be mounted in the swinging frame or the two plates hinged together or formed to serve as a table; also, that the device can be used as a copying device only without having one of the plates formed to serve as a table.

The extreme simplicity and minimum number of parts employed in this device and the many functions render it of the greatest value and utility.

It is evident that various changes might be resorted to in the form, construction, and arrangement of the various parts described without departing from the spirit and scope of my invention. Hence I do not wish to limit myself to the exact construction and arrangement herein set forth.

What I claim is—

1. In combination, the vertical tank open at the top, the pressure-rollers at such top opening, and the two plates hinged together to receive the dampening devices between them and arranged to be held in the tank and to be moved in and out of the tank by said rollers.

2. In combination, a tank having an open top, the pressure-rollers mounted at said top opening, and the two plates hinged together to corresponding edges, one of said plates being formed to engage said rollers and hold the plate in a horizontal position to serve as a table, as and for the purposes set forth.

3. In combination, the dampening-tank

open at the top end, the two pressure-rollers extending horizontally across and mounted at the open end of said tank, means to rotate said rollers, and the stiff plates between which the dampening material is retained and by which it is supported, said plates being supported in the tank and being moved in and out of the same by said rollers, substantially as set forth.

4. A combined copying and dampening appliance consisting of the vertical dampening-tank, the frame hinged at the upper open end of said tank to swing from a horizontal to a vertical position, the two pressure-rollers carried by such frame so as to normally extend horizontally across and cover the upper open end of said tank, and the two plates between which the dampening and copying materials are retained and supported, said rollers supporting the plates and moving them in and out of the tank, all arranged and combined to operate as set forth.

5. A copying and dampening appliance comprising a tank, the two pressure-rollers mounted at the open upper end thereof, and two plates operated by said rollers and arranged to retain and support the dampening material in said tank and to receive the copying material, said rollers being carried by a movable frame, one of said plates having its edge formed to fit between the rollers and thereby hold the plate in a horizontal position to form a table, substantially as and for the purposes set forth.

6. In a copying appliance, the combination of the two rollers mounted in a suitable support, provided with means for rotating them, with the two stiff plates arranged to be operated and moved by said rollers to receive the copying material between them, one of said plates having its edge extended and curved substantially at right angles, so as to fit between the two rollers and hold the plate in a horizontal position to serve as a table, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOHN H. ANDERSON.

Witnesses:

OLOF W. ANDERSON,
ROBERT ENEZREN.