

F. RHELL.

DAMPING APPARATUS FOR LITHOGRAPHIC PRESSES.

No. 176,193.

Patented April 18, 1876.

Fig. 1.

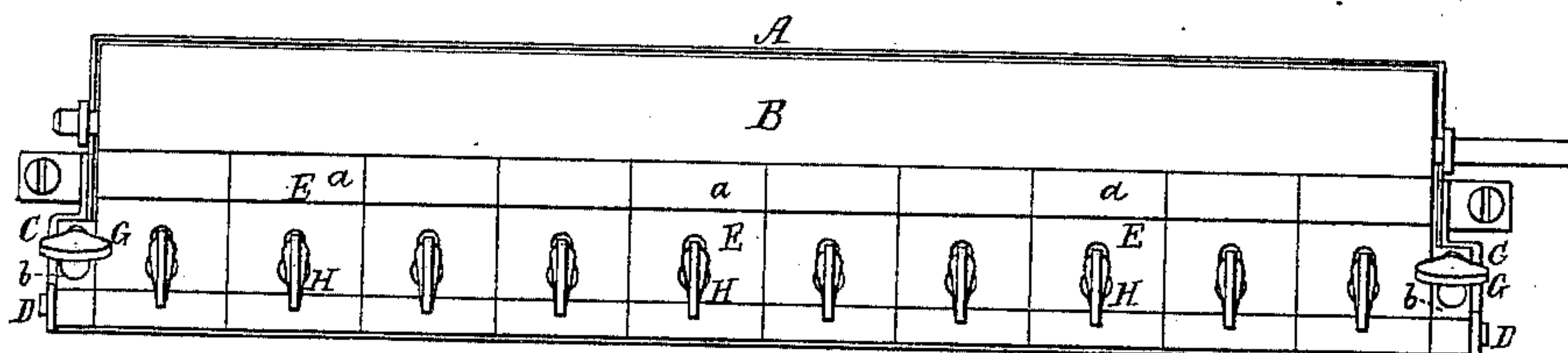


Fig. 2.

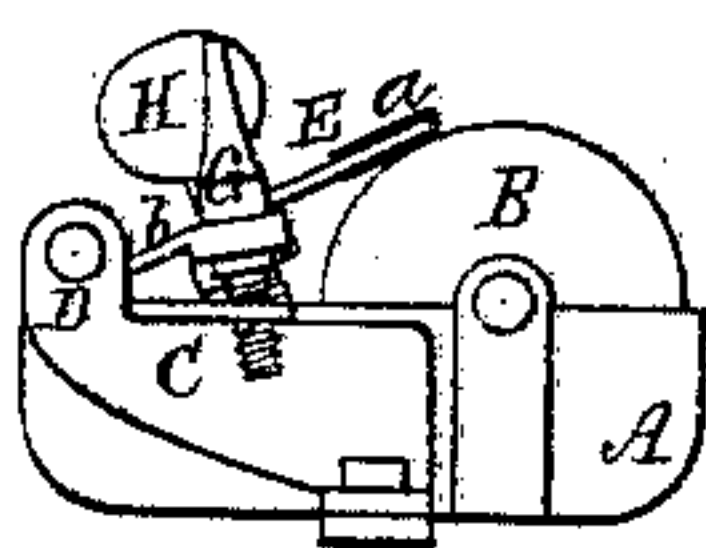
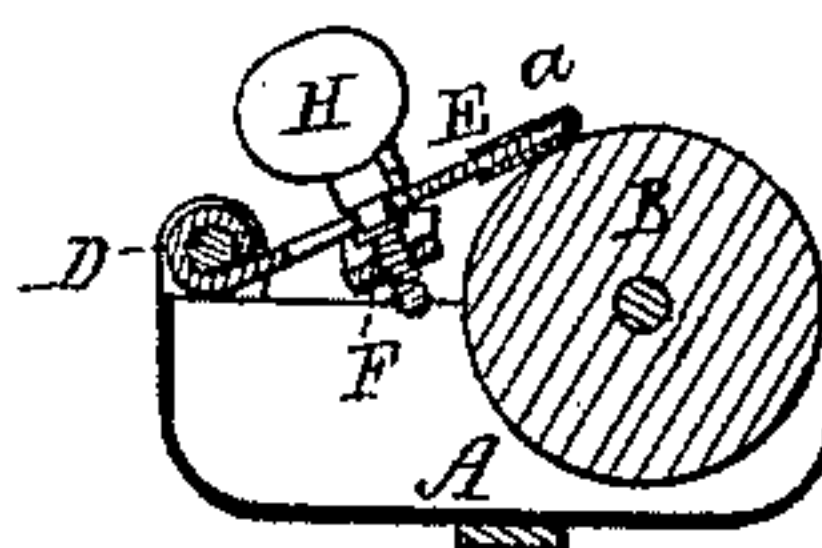


Fig. 3.



Witnesses

S. W. Piper
J. R. Snow

Frederick Rhell.

by his attorney.

R. H. Eddy

UNITED STATES PATENT OFFICE.

FREDERICK RHELL, OF CAMBRIDGEPORT, MASSACHUSETTS.

IMPROVEMENT IN DAMPING APPARATUS FOR LITHOGRAPHIC PRESSES.

Specification forming part of Letters Patent No. **176,193**, dated April 18, 1876; application filed March 10, 1876.

To all whom it may concern:

Be it known that I, FREDERICK RHELL, of Cambridgeport, of the county of Middlesex and State of Massachusetts, have invented a new and useful Damping Apparatus for Lithographic Printing-Presses; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 an end elevation, and Fig. 3 a transverse section, of it.

My invention consists in a damping apparatus, substantially as hereinafter explained, consisting of a trough, a roller, a series of pressers, a lifter-bar, and sets of adjusting-screws, all arranged and combined essentially in manner and to operate as hereinafter explained.

In such drawings, A denotes a trough for holding water, such trough having arranged with and pivoted to it, as shown, a cylindrical roller, B. Brackets C C, attached to the trough at its opposite ends, support a shaft or rod, D, arranged over the rear part of the trough. On the said rod, and to rest upon the roller, there is pivoted a series of pressers, E E E, made of metal, and covered on and near their inner ends in manner, as shown, with a covering, *a*, of india-rubber. Extending along underneath all the said pressers, and between their roller and supporting-rod, is a bar, F, provided at its ends with the arms *b b*, arranged as shown, and pivoted on the rod D. To each of said arms there is a screw, G, which screws into the next adjacent bracket, and is, or should be, so applied to the arm as to be capable of being revolved in it, and of causing it to move with it the said screw, in accordance with its

longitudinal movements. To each of the pressers, and to the bar F, there is another such screw, H, which is applied to the bar and the presser, as the screw G is to the bracket and the arm *b*. By means of the screw H of each presser, the latter may be caused to bear with more or less force upon the roller. So, by means of the screw G, the pressure of the whole series of pressers on the roller may be varied, and by unscrewing the screws G G from the brackets C C the pressers may be thrown upward and backward from over the trough.

The apparatus so made is for the purpose of supplying the damping-roller of a lithographic printing-press with water when such roller may be brought into contact with the roller of such apparatus.

It is frequently the case that some parts of the printing-surface of the stone require more water than others, all of which may be regulated by the series of pressers, which, after having severally been suitably adjusted for such purpose, may be all simultaneously moved more or less toward, or away from, the roller to regulate the delivery of the water.

I claim as my invention—

The lithographic-press-roller damping apparatus, substantially as described, composed of the trough A, roller B, the series of pressers E, the lifter-bar F, and the adjusting-screws G H of said pressers and bar, all arranged and combined essentially as set forth.

FREDERICK RHELL.

Witnesses:

R. H. EDDY,
J. R. SNOW.