P. EHRGOTT.

Damping Apparatus for Lithographic Presses.

No. 151,688. Patented June 9, 1874.

Fig. 1

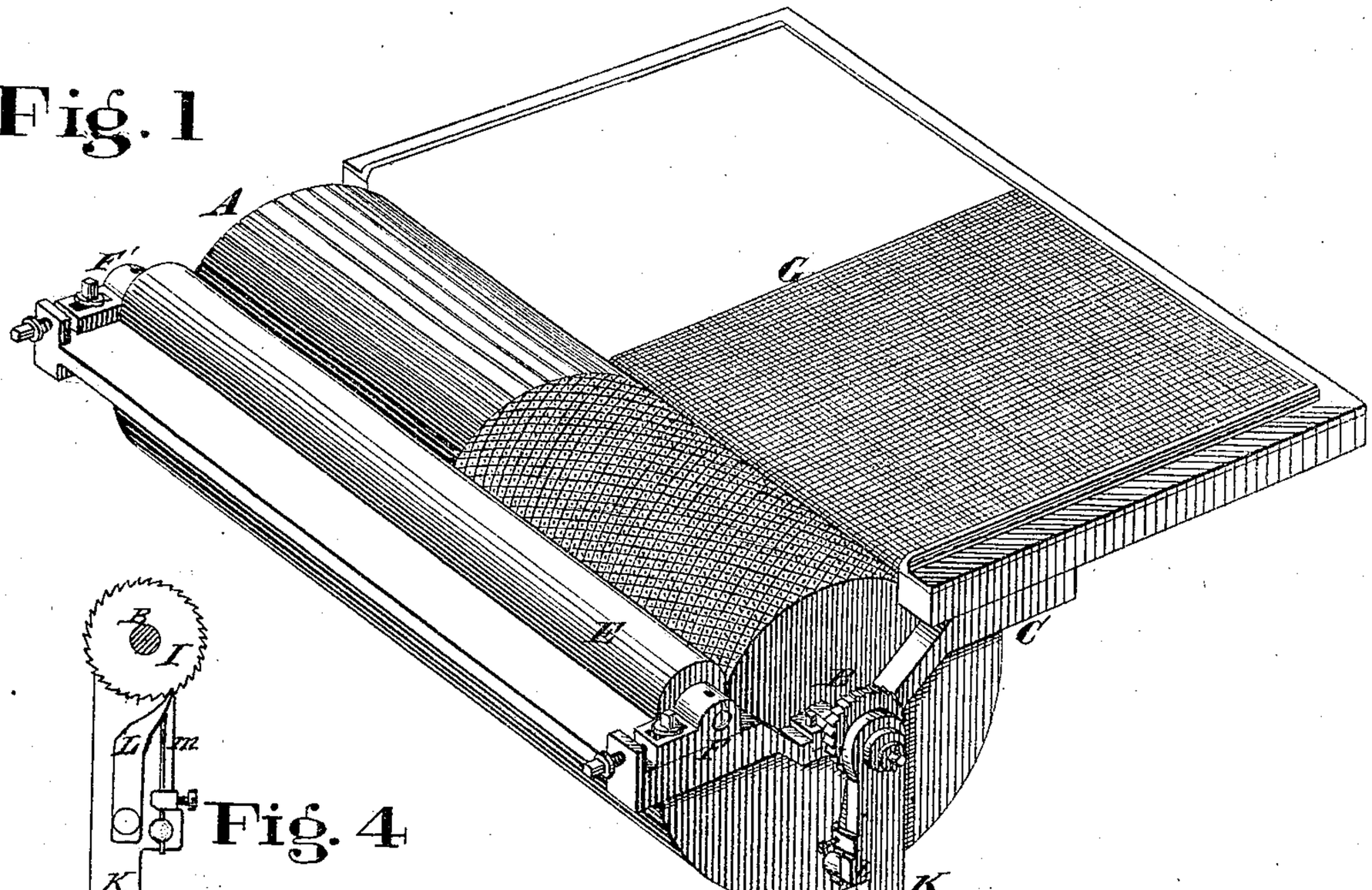


Fig. 4

Fig. 2

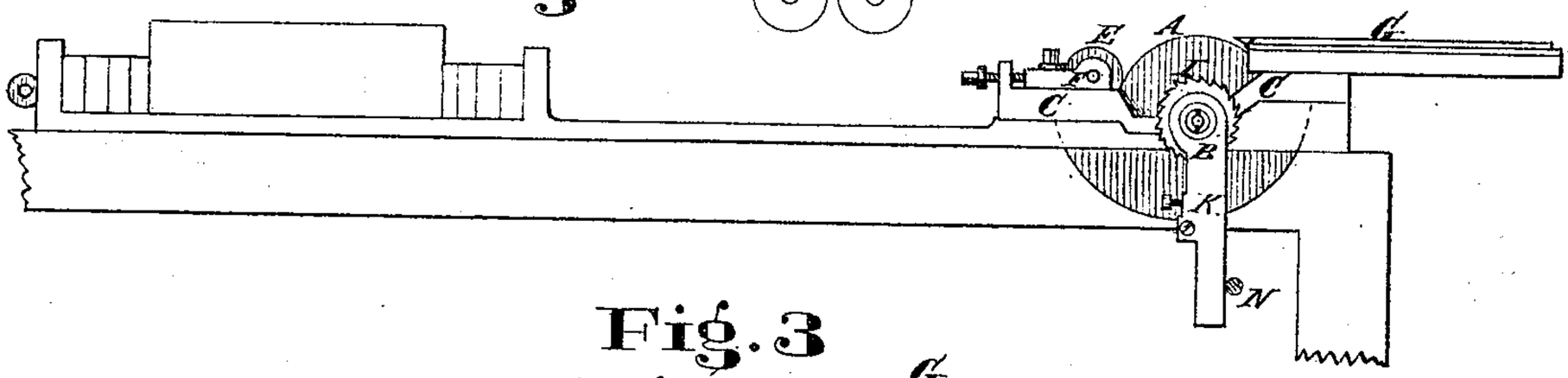
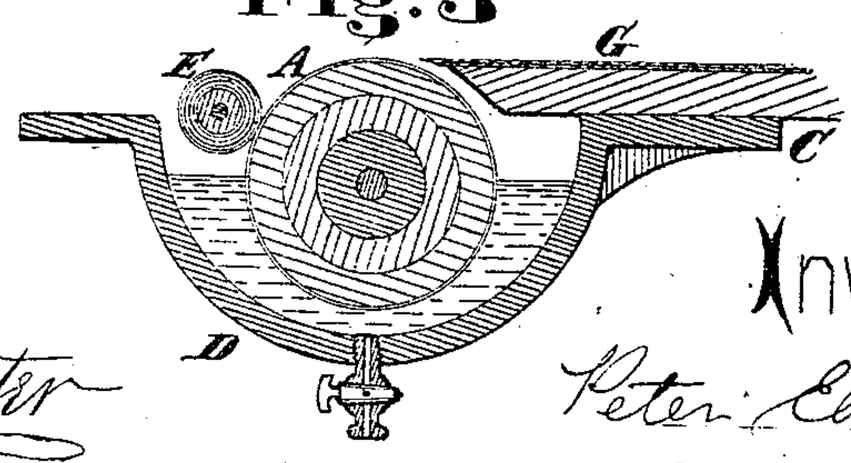


Fig. 3



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PETER EHRGOTT, OF CINCINNATI, OHIO.

IMPROVEMENT IN DAMPING APPARATUS FOR LITHOGRAPHIC PRESSES.

Specification forming part of Letters Patent No. **151,688**, dated June 9, 1874; application filed April 10, 1873.

To all whom it may concern:

Be it known that I, PETER EHRGOTT, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a certain new and useful Improvement in Damping Devices for Steam Lithographic Presses, of which the following is a specification:

My invention relates to devices for evenly wetting the surface of a lithographic stone during the process of printing, and consists of a ratchet-wheel and pawl-arm attached to the axis of the wet roller in such a manner that at each stroke of the press the roller is partially rotated on its axis, so as to immerse a new portion of its surface, and present a freshly-wetted section to the action of the damping-rollers.

Figure 1 is a perspective view of my invention detached, showing the trough and wet roller and bed-plate, (both of which are covered for half their length,) with the squeezing roller and rotating mechanism. Fig. 2 is an elevation of the bed-plate of a press with my invention attached, showing an end elevation of the same. Fig. 3 is an enlarged vertical section through the trough, rollers, and distributing-bed. Fig. 4 is an enlarged elevation of the ratchet-wheel, arm, and pawl, by which the wet roller is rotated.

A is a roller, which may be formed of wood covered with cloth or concentric layers of wood and india-rubber, covered or not, as preferred. It is shown in the drawing as constructed of wood, and longitudinally fluted, and one-half of its length covered with cloth. It has a central shaft of metal, which is journaled at B B′ in a frame, C, which is attached to the bed-plate of a press. It is immersed about half its diameter in a trough of water, D, which forms part of the frame. E is an auxiliary or squeezing roller, covered with some elastic substance, india-rubber, kid-leather, or similar material, journaled in bearings F F′, which are adjustable by means of screws *e e e′ e′*, so as to keep its surface in contact with that of the roller A. G is a distributing-bed, which may be covered with cloth, or formed of a plain slab of slate, at will, so attached to the frame that its surface is on a level with the highest part of the roller A. H H′ are the customary damping-rollers attached to the press-frame. The journal B of the roller A is elongated, so as to project beyond its bearings, and carries a ratchet-wheel, I, and loose arm K, to which is attached a pawl, L, and spring *m*, to hold the pawl against the ratchet. In the reciprocating motion of the bed-plate of the press under the cylinder the roller A and distributing-bed G are drawn back and forth under and in contact with the damping-rollers H H′, which take up from them a fresh supply of moisture to be spread over the surface of the stone during the return stroke. At the end of each stroke the free arm K is brought in contact with a pin, N, affixed for that purpose to the press-frame, causing it to swing upon its bearing, and by means of the pawl L and ratchet I to partially rotate the roller A, falling back by its own weight to its original position when released. By this means a fresh section of the roller A is submerged at every stroke, and a newly-wetted portion exposed to the action of the damping-rollers. The auxiliary or squeezing roller E serves to remove superfluous moisture from the roller A, and the bed G equalizes the distribution of the water upon the damping-rollers.

This device insures the regular and thorough wetting of the stone after each impression, so long as a supply of water is kept in the trough, and obviates entirely the laborious process of wetting the stone by hand with a sponge, as is the usual practice, besides securing the printer against damage from carelessness and inattention on the part of the person so employed.

I claim—

The wet roller A, trough C, auxiliary roller E, and distributing-bed G, all attached to the reciprocating bed-plate of a lithographic press with reference to the stone and the damping-rollers, as described, in combination with the ratchet-wheel I, arm K, pawl L, spring *m*, and fixed stud N, arranged and acting substantially as specified.

In testimony of which invention I hereunto set my hand.

PETER EHRGOTT.

Witnesses:

R. M. HUNTER,

J. L. WARTMANN.