T. MUIR.

Machine for Washing Printers' Rollers.

No. 163,007. Patented May 11, 1875.

Fig: 1.

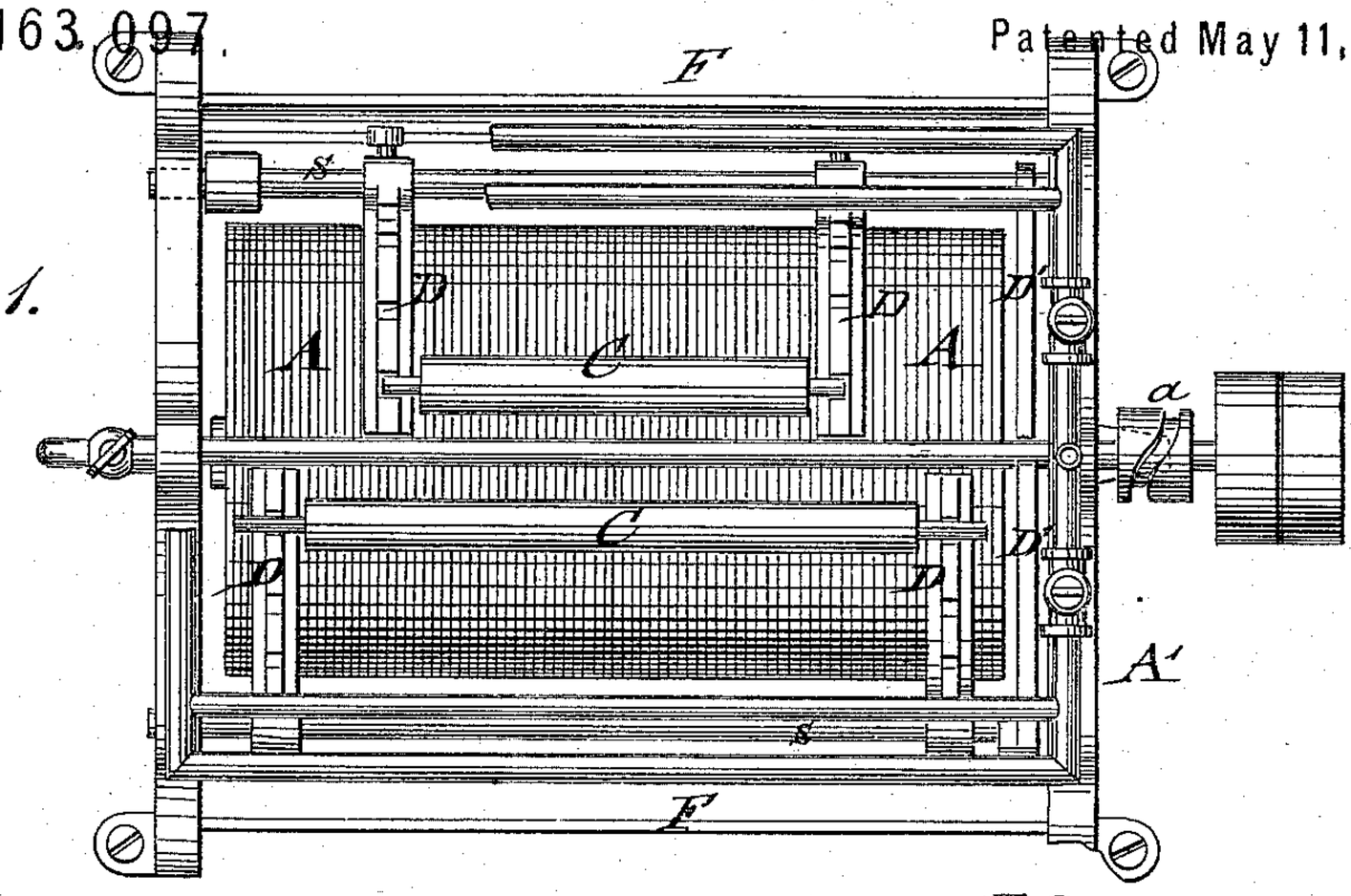


Fig: 2.

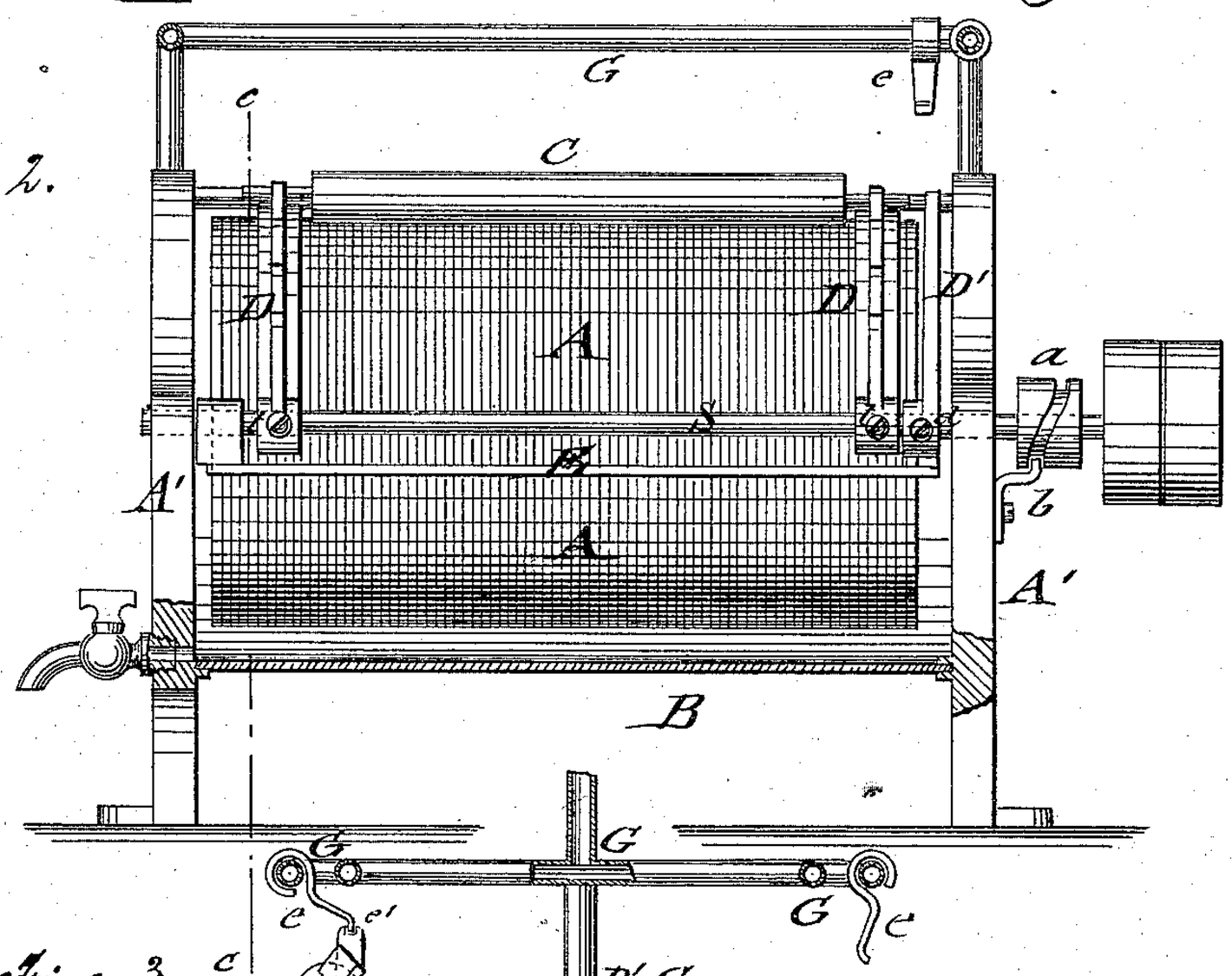
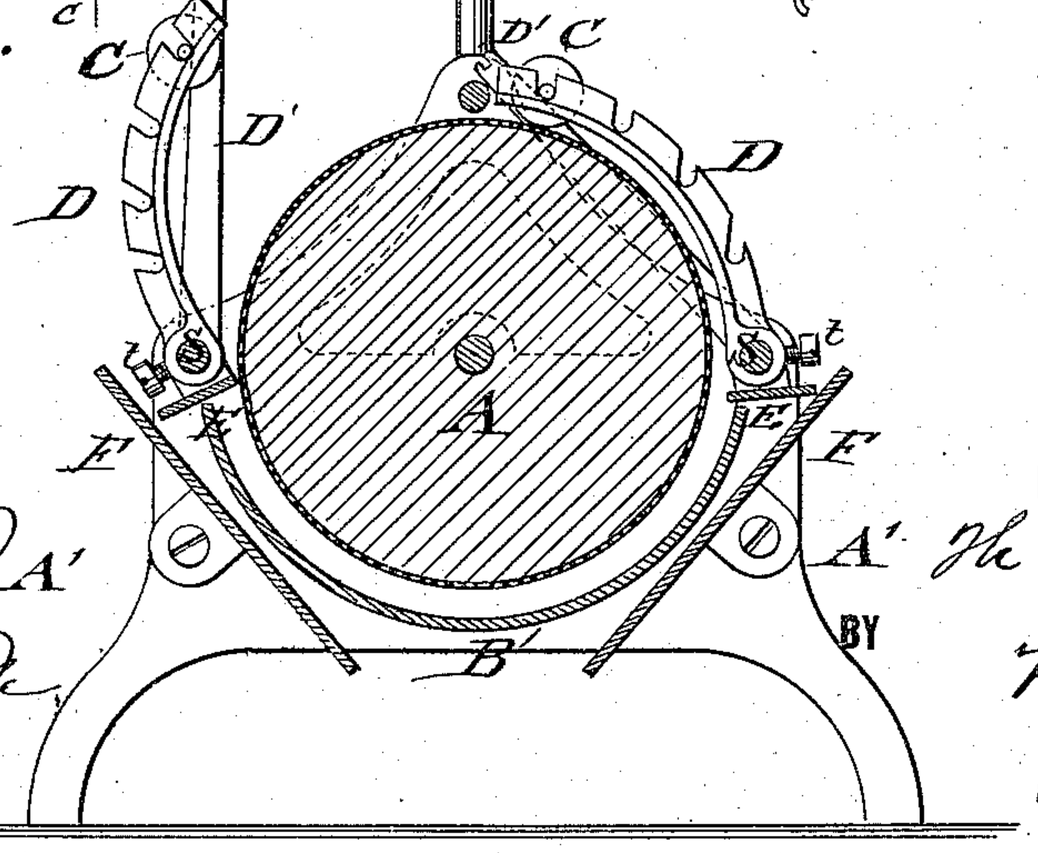


Fig: 3.



WITNESSES:

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THOMAS MUIR, OF GLASGOW, SCOTLAND.

IMPROVEMENT IN MACHINES FOR WASHING PRINTERS' ROLLERS.

Specification forming part of Letters Patent No. **163,097**, dated May 11, 1875; application filed March 6, 1875.

To all whom it may concern:

Be it known that I, THOMAS MUIR, of Glasgow, in the county of Lanark, Scotland, have invented a new and Improved Machine for Washing Printers' Rollers, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a top view, Fig. 2 a side elevation partly in section, and Fig. 3 a vertical transverse section, of my improved machine for washing printers' rollers, on the line *c c* of Fig. 2.

Similar letters of reference indicate corresponding parts.

My invention relates to an improved machine for cleaning, in a rapid and reliable manner, printers' rollers from all adhering ink and other impurities; and it consists of a cylinder that rotates in a trough, with lye or other washing material, transferring the same by its rotary and simultaneous laterally-vibrating motion to the rollers hung to quadrantal arms that are fixed to a shaft, and thus may be swung onto or off the cleaning-cylinder, as required. Fixed to the shaft from below is a lateral plate, whose outer edge assumes a downwardly-inclined position on raising the arms from the cylinder, and whose inner edge comes in contact with the same. The arms are held to the cylinder by a notched lever secured to their shaft and resting on a cross-bar of the frame-work of the machine, and these are kept in an upright position by a hook that drops into a notch in the lever. Perforated water-pipes are arranged vertically above the rollers to throw a spray of water on them, the drip-water being prevented by the inclined plate from running into the lye-trough.

In the drawing, A represents a cylinder of suitable material and size, that is covered, by preference, with coarsely-grained canvas, flannel, or other suitable material. The cylinder is revolved by suitable power applied to its shaft, lateral reciprocating motion being simultaneously imparted by a wave-wheel, *a*, keyed to its shaft, in connection with a stationary guide-pin, *b*, on the supporting-frame A′, or by equivalent mechanism, so that the covering material of the cylinder exercises a compound rubbing action on the rollers exposed thereon for being cleaned. The cylinder A revolves in a correspondingly-shaped bottom trough, B, partly filled with lye or other suitable washing material, and transfers the same continually to the rollers *c*, which are exposed to the friction therewith by being hung by their shafts into the notched quadrantal arms D, the shaft S of which rests in bearings in the side frame A′. These rollers are held in proper contact with the cylinder by a lever, D′, secured to the shaft S of the quadrantal arms, and supported on a central cross-bar of frames, A′. The lever D′ may be adjusted by a set-screw, *d*, to different inclination for throwing the arms into greater or lesser distance from the cylinder, when rollers of larger or smaller diameter have to be washed. There is a set of quadrantal arms at each side of the cylinder A, and they are fixed to their shafts *s* by means of set-screws *t*, so that the arms can be set at the requisite distance apart to suit the different lengths of rollers to be washed. A lateral plate, E, is attached to the shaft S, in such a manner that when the arms are in position to expose the rollers to the cleaning action of the cylinder the plate is thrown outward, and its inner edge inclined downward so as to conduct the lye-drippings into the trough again. After the rollers are completely cleaned by the action of the lye from the adhering impurities, the arms D are, with the rollers C, thrown in a raised position, and secured therein by a pointed-top hook, *e*, locking into a notch, *e′*, at the end of lever D. The outer edge of the lateral guard-plate E is carried thereby into a downwardly-inclined position, and brought with its inner and upper edge in contact with the cylinder A. A spray of water is then thrown on the rollers from a system of lateral pipes, G, arranged at the top of supporting-frame A′, and which are perforated at the under side for washing off the lye and remaining dirt, the drip-water dropping on the lateral plate E, from which it is conducted on the inclined outer plate F, and thence drawn off in suitable manner. The contact of plate E with the cylinder prevents any of the drip-water from running into the lye-trough during the washing process, so that the lye retains the required degree of

strength. The rollers are then removed for drying, and the next set placed thereon for cleaning, the whole operation being accomplished in a quick, neat, and perfect manner, dispensing with the disagreeable and insufficient method at present in use.

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

1. A machine for washing printers' rollers, composed of a revolving and laterally-vibrating cylinder, A, a lye-trough, B, pivoted quadrantal roller-bearing standards, and a system of perforated spray water-pipes, the whole being arranged and operated substantially in the manner and for the purpose set forth.

2. The pivoted roller-carrying standards, having an adjustable arm keyed to their pivot-rod, in combination with devices for retaining the standards in exact position from the rubbing-cylinder, and in upright position, substantially as shown and described.

3. A lateral guard-plate arranged below the pivoted standards, in combination with the cleaning-cylinder, and an outer inclined plate for conveying off the drip-water of the roller and prevent its entering the lye-trough, substantially as set forth.

The above specification of my invention signed by me this 7th day of February, 1868.

THOMAS MUIR.

Witnesses:

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