

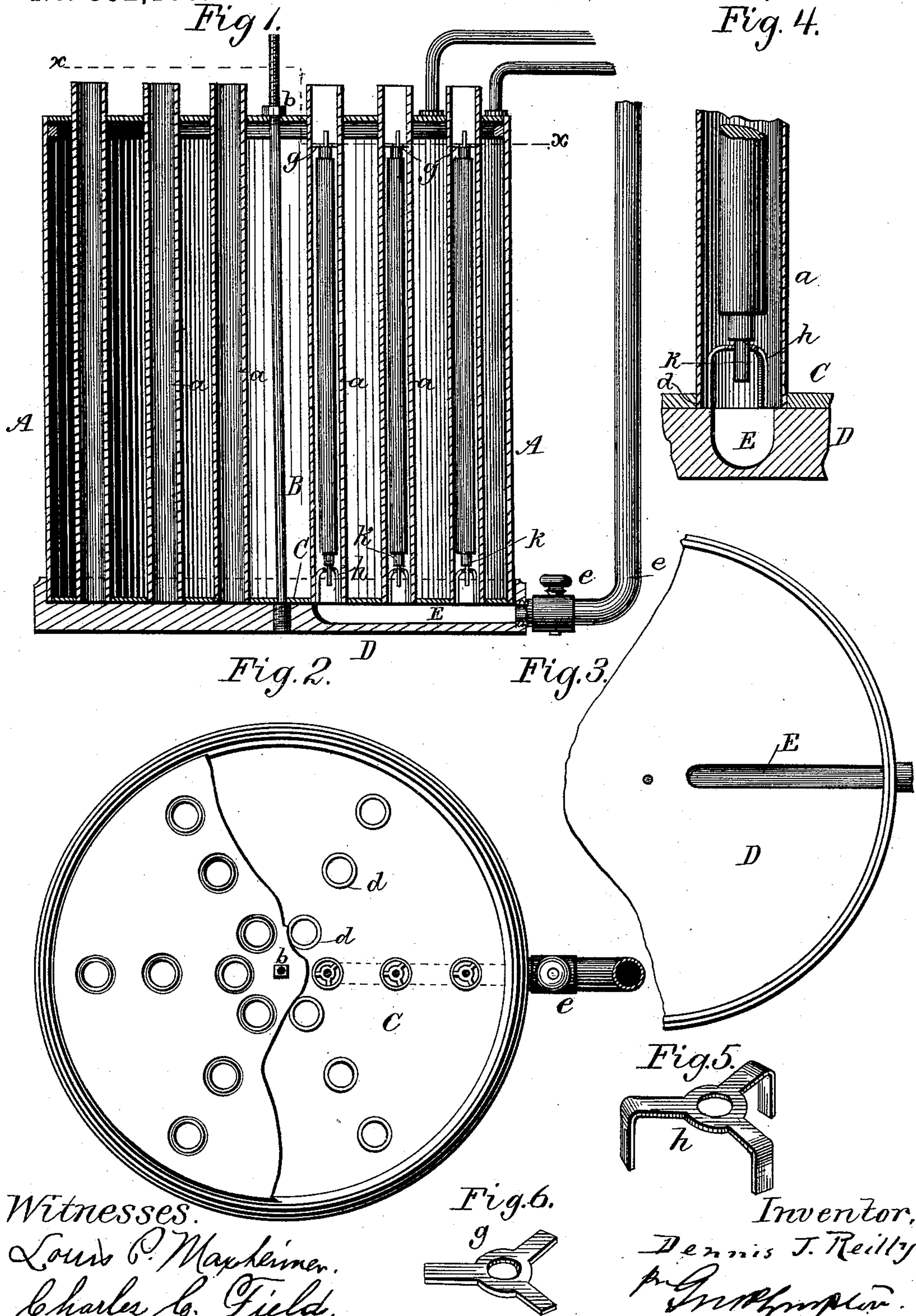
(Model.)

D. J. REILLY.

APPARATUS FOR CASTING PRINTERS' ROLLERS.

No. 392,166.

Patented Oct. 30, 1888.



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APPARATUS FOR CASTING PRINTERS' ROLLERS.

SPECIFICATION forming part of Letters Patent No. 392,166, dated October 30, 1888.

Application filed October 3, 1887. Serial No. 251,271. (Model.)

To all whom it may concern:

Be it known that I, DENNIS J. REILLY, of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in Apparatus for Casting Printers' Rollers, of which I declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

This invention is in the nature of an improvement in an apparatus for casting printers' rolls; and the invention consists in an apparatus for casting printers' rolls constructed in the manner hereinafter shown, described, and claimed.

In the accompanying sheet of drawings, Figure 1 is a vertical section of my apparatus; Fig. 2, a plan view, partly in section, of the top of the cylinder and perforated bottom plate; Fig. 3, a part plan of base-plate, showing the charging-trough therein; Fig. 4, a vertical section showing the roll in place within a molding-tube and the position of the cylinder-bottom and base-plate; Figs. 5 and 6, perspective views of spindle-supports.

Similar letters of reference indicate like parts in the several views.

The main purpose of this invention is to facilitate the casting of printers' rollers. These rollers, as is well known, consist of a central spindle or shaft surrounded by an elastic composition of glycerine and glue, &c. This composition is cast around the spindle in molds, and for the purpose of expelling the air from the molds, and so avoid making imperfect castings, it is desirable that the composition should be injected into the molds from the bottom. To provide improved mechanism for casting rollers in such a manner I construct my apparatus in this wise:

Referring to the drawings, A represents the ordinary mold-cylinder, not differing materially in its general construction from the mold-cylinder in common use, and *a* are the usual mold-tubes in the cylinder. The cylinder A, with its tubes, is provided with a bolt-rod, B, passing centrally through the cylinder and through the bottom C of the cylinder and into the base-plate D. The bottom C rests directly upon the base-plate D, and is held in

position by the bolt-rod B, about which the cylinder turns as on an axis. The bottom C is provided with perforations *d*, corresponding in diameter to the mold-tubes *a*, and so arranged that a given number of the perforations will be coincident with the bores of a corresponding number of mold-tubes. The plate D is constructed with a gutter, E, which extends from near the center of the plate to its outer edge, where it terminates in a coupling for the attachment of a charging-tube, *e*, leading from the reservoir of melted composition. This tube may have a stop-cock conveniently placed. Within the mold-tubes are placed "steady-rests" *g* and *h*, or spiders, to receive and hold in position the ends of the spindles *k* of the rollers within the molds.

With the foregoing construction my apparatus has the following operation: The cylinder is turned about the rod B, forming its pivot, until the gutter E is directly in line or coincident with a series of the perforations *d* in the bottom C. The melted composition from the reservoir (not shown in the drawings) passes through the tube *e*, which may be flexible, and is forced through the gutter E, thence upward through the mold-tubes, filling them and surrounding the spindles *k*, so completing the casting. As the composition enters the mold-tubes from the bottom, the air in the tubes is expelled from the top of the tubes, and it does not interfere with the soundness of the casting. One series of holes being now filled, the cylinder is turned about its pivot until the gutter E is again brought coincident with a new series of empty mold-tubes, which are then charged as before stated, and so on until the entire number of molds are filled. In the operation of turning the cylinder to bring the gutter successively beneath the tubes the face of that part of the plate D in which the gutter is not lying closely against the bores of the tubes acts as a bottom to the tubes and prevents the composition in them from escaping and from being wasted. When the rolls so cast have solidified, the finished rolls can be readily pulled out of the mold-tubes.

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

1. In an apparatus for casting printers' rollers, the combination of the cylinder A, provided with mold-tubes *a*, and a perforated bottom, C, and the base D, provided with the gutter E, the bottom C being in contact with the base-plate D, and one of said parts being constructed to turn about an axis, thereby connecting series after series of the mold-tubes with the gutter E, substantially as and for the purpose described.
2. In a printers' roller-casting apparatus, the following elements in combination: the base-plate D, provided with a gutter, E, the cylinder A, provided with mold-tubes *a* and the perforated bottom C, and the rod B, uniting the cylinder and base-plate and forming an axis about which the cylinder turns, substantially in the manner and for the purpose described.

DENNIS J. REILLY.

In presence of—
G. M. PLYMPTON,
D. A. CARPENTER.