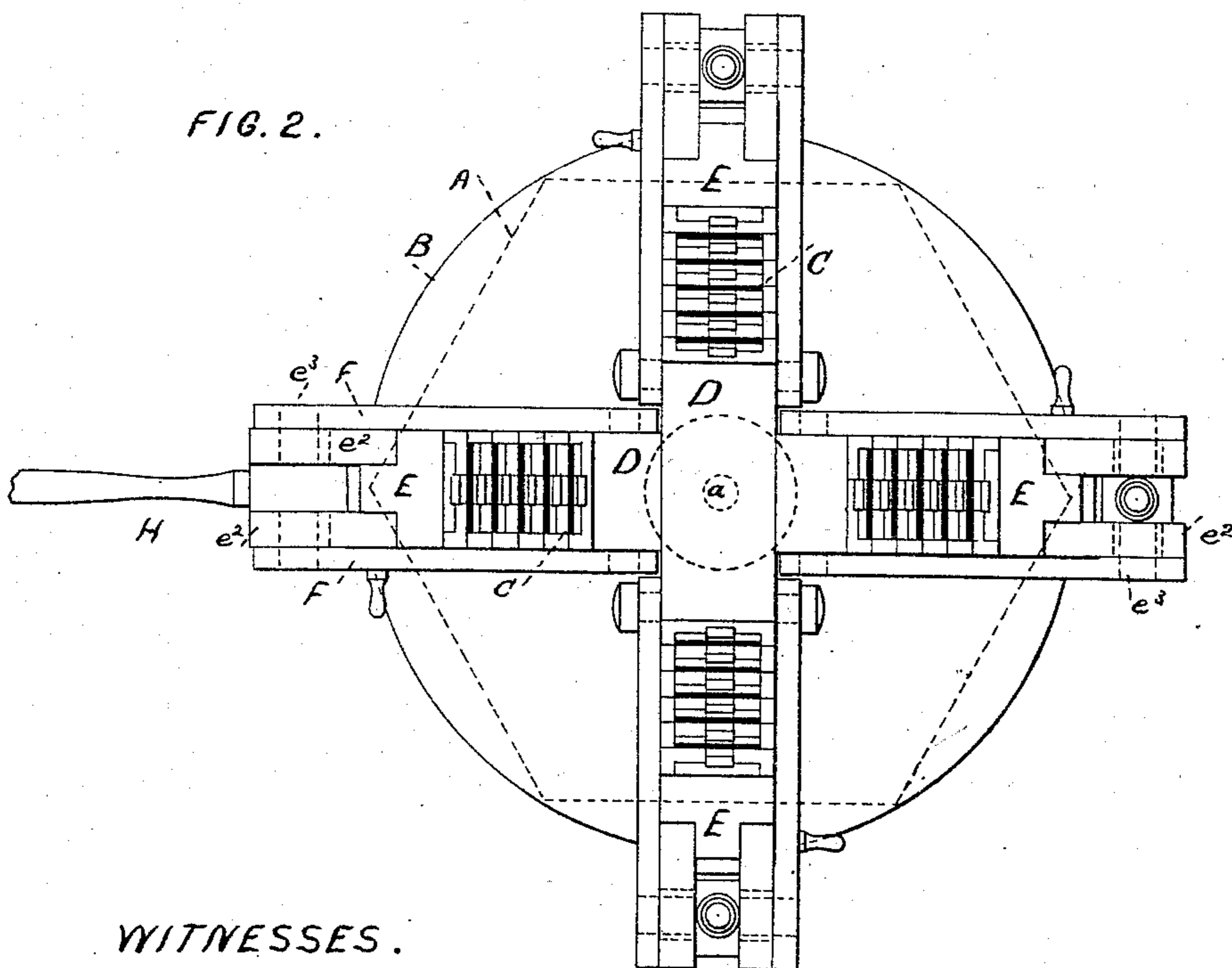
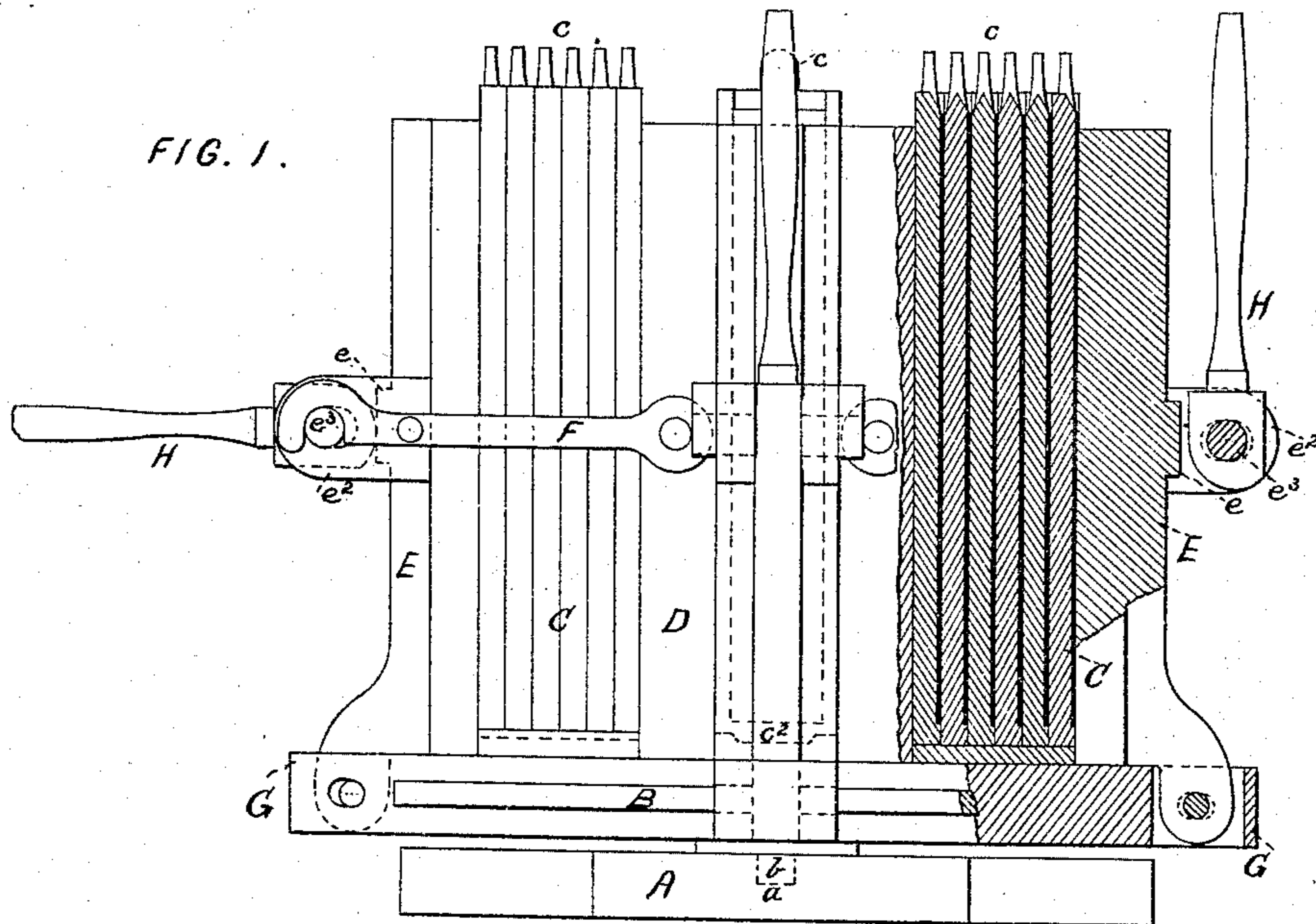


H. J. STONE.

MACHINES FOR CASTING PRINTERS' LEADS.

No. 184,115.

Patented Nov. 7, 1876.



WITNESSES.

W. O. Gordon  
John Cook

Henry J. Stone by A. Sidney Doane Atty

INVENTOR.

# UNITED STATES PATENT OFFICE.

HENRY J. STONE, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO WILLIAM QUAIL, OF BROOKLYN, NEW YORK.

## IMPROVEMENT IN MACHINES FOR CASTING PRINTERS' LEADS.

Specification forming part of Letters Patent No. 184,115, dated November 7, 1876; application filed March 23, 1876.

*To all whom it may concern:*

Be it known that I, HENRY J. STONE, of the city and county of New Haven, Connecticut, have invented, made, and applied to use, an Improved Machine for Casting Printers' Leads, and that the following is a full, clear, and correct description of the same, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a side elevation of my improved machine for casting printers' leads. Fig. 2 is a plan view of the same.

In the drawing, like parts of the invention are designated by the same letters of reference.

The nature of the present invention consists in the construction, as more fully hereinafter set forth, of an improved machine for casting printers' leads, and relates to a machine for such purpose, in which the leads are first cast into sheets, which are subsequently cut up into leads of the desired sizes—the object of the invention being the production of a machine for the purpose indicated, by which the casting of leads is expeditiously and economically effected.

To enable those skilled in the arts to make and use my invention, I will describe the same.

A shows a base for supporting the receptacle B for the molds C in which the leads are to be cast. The base A is provided with a central opening, as at *a*, in which is received a pin or pivot, *b*, secured upon the under side of the receptacle B, so that the receptacle B can be revolved as desired. The receptacle B consists of a circular platform, having mounted upon it, centrally, the cross-shaped piece D, between the projecting portions of which and the rocking-standards E the molds C are positioned—the faces of the projecting portions of the cross-shaped piece D, and the forward portions of the rocking standards E, corresponding in width to the width of the molds used. Attached upon the sides of the cross-shaped piece D are pinned the hooked levers F, the object of which is more fully hereinafter set forth.

From the cross-shaped piece D extend the

projecting strips G, let into the platform, and forming bases upon which the molds C rest, and which projecting-strips G are slotted at their outer ends to receive the lower ends of the rocking standards E pinned in the same. These standards are made very nearly the height of the molds C when positioned in the receptacles, are made wider upon their face than elsewhere, are provided upon their rear sides, about midway their length, with the blocks or projecting pieces *e*, made sufficiently strong for the cam end of lever to work against, and also with the projecting plates *e*<sup>2</sup>, in which are pinned at their forward ends the cam-levers H. The molds used are composed of strips or plates of metal grooved on one side and made true and smooth upon the opposite side. They are provided, for convenience in handling, with the central projections *c*, having openings in them, and also with the projecting bases *c*<sup>2</sup> which rest and are received within the grooved strips G when the molds are placed in position. When placed in position in the receptacle, the ungrooved side of one plate is placed opposite to the grooved side of the succeeding plate, and having been arranged thus between the projecting portions of the cross-shaped piece D and the rocking standards E, and secured therein by passing the hooked ends of the levers F over the pins *e*<sup>3</sup> passed through the cam-levers H, and turning from the vertical to a horizontal, or nearly horizontal, position, these cam-levers H, so that the cam portions of the same have a direct bearing upon the blocks *e*, and press the mold-plates sufficiently tight to prevent the metal running out between them.

Such being the construction, the operation may be thus set forth. The plates of which the molds C are composed are first heated to the temperature of the molten metal to be poured in them, either by immersing them in the molten metal, or in any convenient way, and are then inserted in the receptacle, as described, and held firmly in the same between the projecting portions of the cross-shaped piece D and the rocking standards E, the projecting bases *c*<sup>2</sup> of the molds resting in the grooved strips G, the receptacle being re-

volved upon the base A to facilitate the placing of the molds in position. After having been so placed and secured, the metal is poured by hand, or in any convenient manner, into the molds, the receptacle being revolved to facilitate the pouring of the metal into the molds C until all the molds have been filled or charged. When the last section and set of molds are filled, the first section or set of molds in which the metal has been poured are sufficiently cool to be removed from the machine, and, if not sufficiently cool, the cooling may be hastened by dashing cold water upon the exterior of the molds. The machine revolving, the operator does not change his position to remove the molds. When properly cooled, the cam-levers H may be relieved from pressure upon the blocks e. By turning them from the horizontal position into a vertical or nearly vertical position, the hooked levers F are released from the pins e<sup>2</sup> by

throwing them up into a vertical or nearly vertical position, the rocking standards E are rocked back, and the molds C and cast-leads are removed from the receptacle B. The sheets thus formed are subsequently shaved or dressed, and are then cut up into proper lengths and sizes for the consumer's use.

By the use of a machine thus constructed, the cost of printers' leads is greatly reduced, and the manufacture of the same expedited.

Having now set forth my invention, what I claim as new is—

The combination of a revolving receptacle B, supported upon a base, A, of the mold C, rocking standards E, hooked levers F, and cam-levers H, constructed and operating substantially as and for the purpose specified.

HENRY J. STONE.

In presence of—

CHARLES R. WHEDON,  
F. M. CHAPMAN.