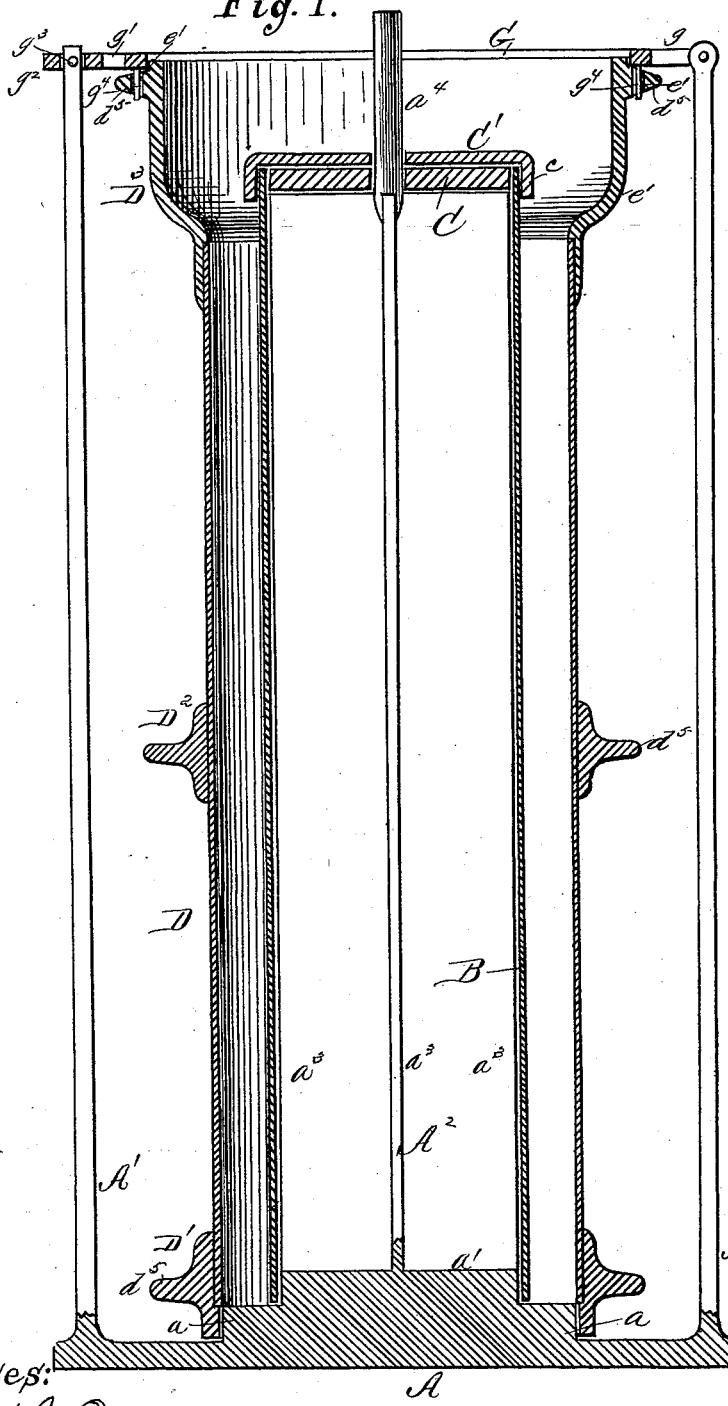
(No Model.) 2 Sheets—Sheet 1.

D. H. DORSETT.

MOLD FOR CASTING PIPES OF PLASTIC MATERIAL.

No. 302,549. Patented July 29, 1884.

Fig. 1.



Witnesses:
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H. C. McArthur

Inventor:
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(No Model.) 2 Sheets—Sheet 2.

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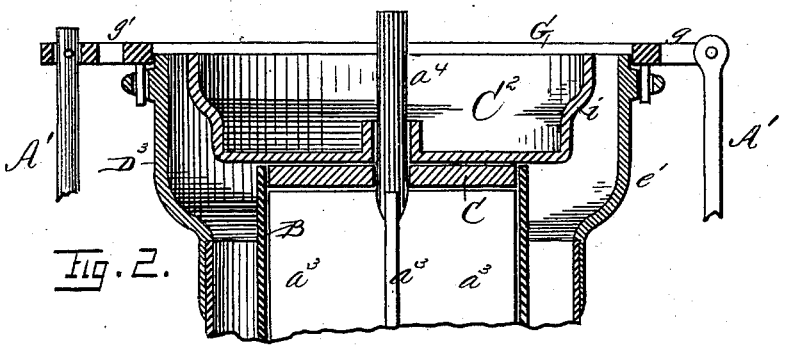


Fig. 2.

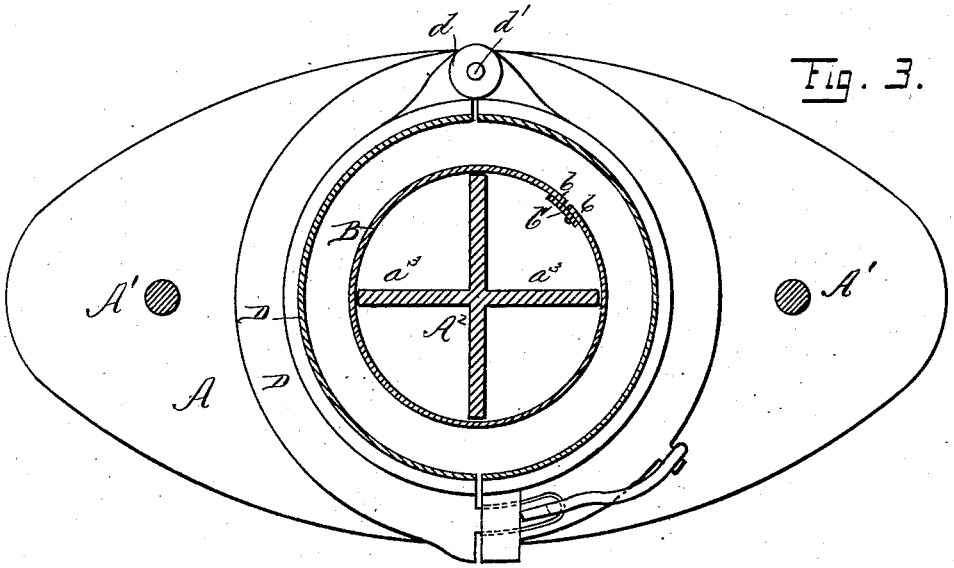
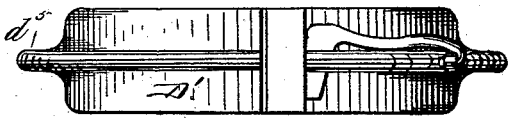


Fig. 3.

Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

DANIEL H. DORSETT, OF CHICAGO, ILLINOIS.

MOLD FOR CASTING PIPES OF PLASTIC MATERIAL.

SPECIFICATION forming part of Letters Patent No. 302,549, dated July 29, 1884.

Application filed January 3, 1883. Renewed June 7, 1884. (No model.)

To all whom it may concern:

Be it known that I, DANIEL H. DORSETT, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Molds for Casting Small Pipes of Plastic Material, of which the following is a specification, to wit:

This invention relates to an improvement in molds for casting small pipe of plastic material, and adapted especially for use with that class of material which is rendered plastic by heat; and to this end it consists in the combination and arrangement of parts hereinafter more fully described, and pointed out in the claims.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the accompanying drawings, in which—

Figure 1 is a central vertical section of the mold. Fig. 2 is a similar view of the upper part of the same with the flange-core in position. Fig. 3 is a horizontal section of the device, and Fig. 4 a side elevation of one of the rings and its fastening device.

A represents a base-plate cast with a post, A′, at each end, which posts extend upward the whole height of the mold, as seen in Fig. 1. The plate or base A is also cast with two annular projections, *a a′*, on its upper face, rising one above the other, and from the top of the projection *a′* rises the core support or frame A^2, which consists of four radial wings, a^3. These wings extend upward a suitable distance, and are provided on their upper ends with a central shaft or post, a^4, as shown.

Surrounding the wings a^3 and upper flange or projection, *a′*, is the core-shell B, of sheet metal, (preferably sheet-steel,) which cylinder or shell is open upon one side, one of its edges, *b*, being supplied with a bar, *b′*, over which the other edge *b* laps; but the two edges do not normally touch each other, as seen by Fig. 3.

Upon the post a^4 is slipped a circular plate, C, resting on the wings a^3, just within the upper end of the core-cylinder B, and recessed on one side for the reception of the lap-bar *b′*. On top of the expansion-plate C is a cap, C′, whose peripheral flange *c* passes over the outside of the core B and holds it firmly to the support A^2.

D represents the outer shell of the mold, of a size to fit around the lower projection, *a*, of the base-plate, and formed in two parts vertically. This shell or cylinder is provided with three divided rings, D′ D^2 D^3, which are all hinged together on one side, as seen by lugs *d*, through which passes a pin, *d′*. The flanges e^2 are, at their meeting edges on one side of the shell, formed with a tongue, e^3, and recess e^4, for its reception, as seen in Figs. 3 and 4, and one side is also provided with a pivoted hook, *m*, having a wedge-shaped nose or point, *m′*, as seen in the drawings, which enters a slot in the tongue e^3 and serves to draw the two sections of the mold together and hold them firmly in place, while the fastenings cannot become lost or displaced when the mold is thrown open, but are always in position for use when required. Each of the rings D′ D^2 D^3 are provided with a strengthening-rib, d^5. The upper ring, D^3, is flanged out or enlarged at the upper end, to form an enlarged flange on the pipe, as seen at *e′*.

G represents a ring fitting around the upper end of the shell D, and provided with two arms, *g g′*, on opposite sides, the arm *g* being hinged in the upper end of one of the standards A′, and the arm *g′* being provided with a loop, g^2, which passes over the other standard A′ and is secured by a pin, g^3. This ring is also provided with pins g^4 on its under side, which enter holes *e′* in the ring D^3. This serves to properly center and sustain the upper end of the shell. This mold having been set up in this position, the material is reduced to a plastic state by moisture and heat, and packed into the mold between the shell and core until it reaches nearly to the cap C′. This cap is then removed and replaced by the cup-shaped casting C^2, (shown in Fig. 2,) which is larger than the cylinder B, and forms a core for the enlarged flanged end of the pipe. The outer side of this core C^2 is, near its lower corner, formed with an enlargement, *i*, which forms a similar depression in the enlarged end of the pipe, and thus when several sections of the pipe are placed in position the smaller end of one fits into a socket formed by the lower end of the enlargement of the other, while just

above this socket the enlarged or overlapping flange falls away, leaving a space between the two sections, which may be packed with suitable material to properly center them. The material is then packed in until the mold is filled, and after being properly set the centering-ring is thrown back, the core removed, and the outer shell unlocked and taken off, when the pipe-section may be placed one side and the mold replaced for a new section.

This mold forms a very cheap and rapidly-handled means of forming pipe from plastic material; and room being left for the expansion of the core-cylinder, while at the same time a lap-bar is fitted to it, no material can get within the core, and the pipe is formed with a smooth inner surface.

The mold rests on a broad base-plate, and is centered and supported by the standards and their connecting-ring G, and will thus always form the pipe of an even thickness.

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

1. In a mold for forming pipe from plastic material, a base-plate, core-support, and standards for supporting the outer shell, all formed in one piece, substantially as shown and described.

2. In a mold for forming pipe from plastic material, the base-plate A, having circular plates *a a'*, core-supporting wings a^3, and standards A', all cast in one piece, substantially as described and shown.

3. In a mold for forming pipe from plastic material, the combination, with the outer shell, of a centering-ring adapted to be engaged or disengaged with its upper end, and secured to supporting-posts rising from the base, substantially as shown and described.

4. In a mold for forming pipe from plastic material, the combination of the base A, standards A', and hinged centering-ring G, provided with pins g^4, of the shell D, having flanged ring D^2, with holes *e'*, all constructed and arranged to operate substantially as described and shown.

5. In a mold for forming pipe from plastic material, the base-plate A, having circular projections *a a'*, standards A', and winged core-support A^2, all cast in one piece, in combination with the sheet-metal core B, plates C C', cup C^2, outer shell, D, formed in two parts hinged together, and centering-ring G, hinged to one of the standards A', and adapted to be engaged with the shell and secured to the other standard, all constructed and arranged to operate substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

DANIEL H. DORSETT.

Witnesses:
J. E. STEVENSON,
FRANK JOHNSON.