

D. BERRYMAN.
 APPARATUS FOR MOLDING.
 APPLICATION FILED APR. 2, 1921.

1,430,531.

Patented Oct. 3, 1922.

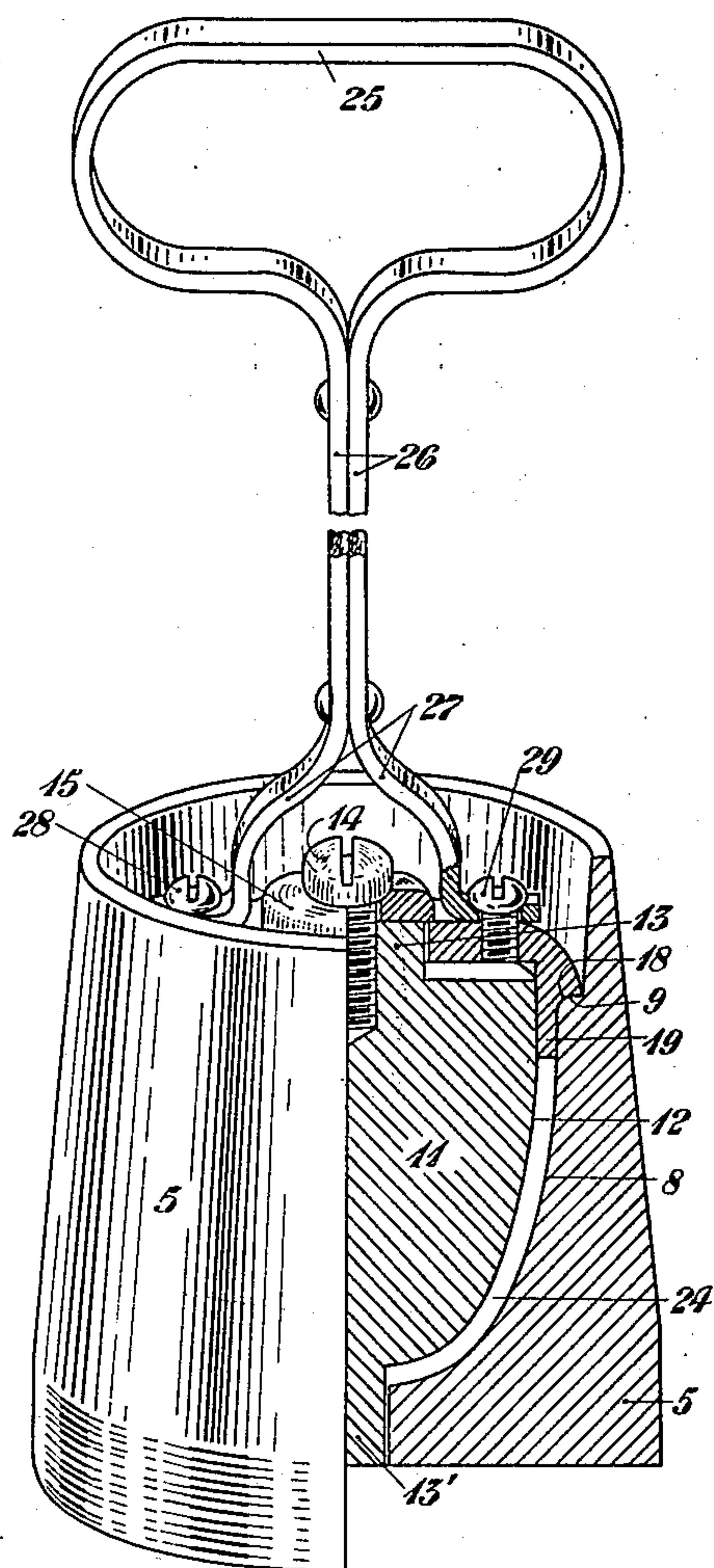


Fig. 1

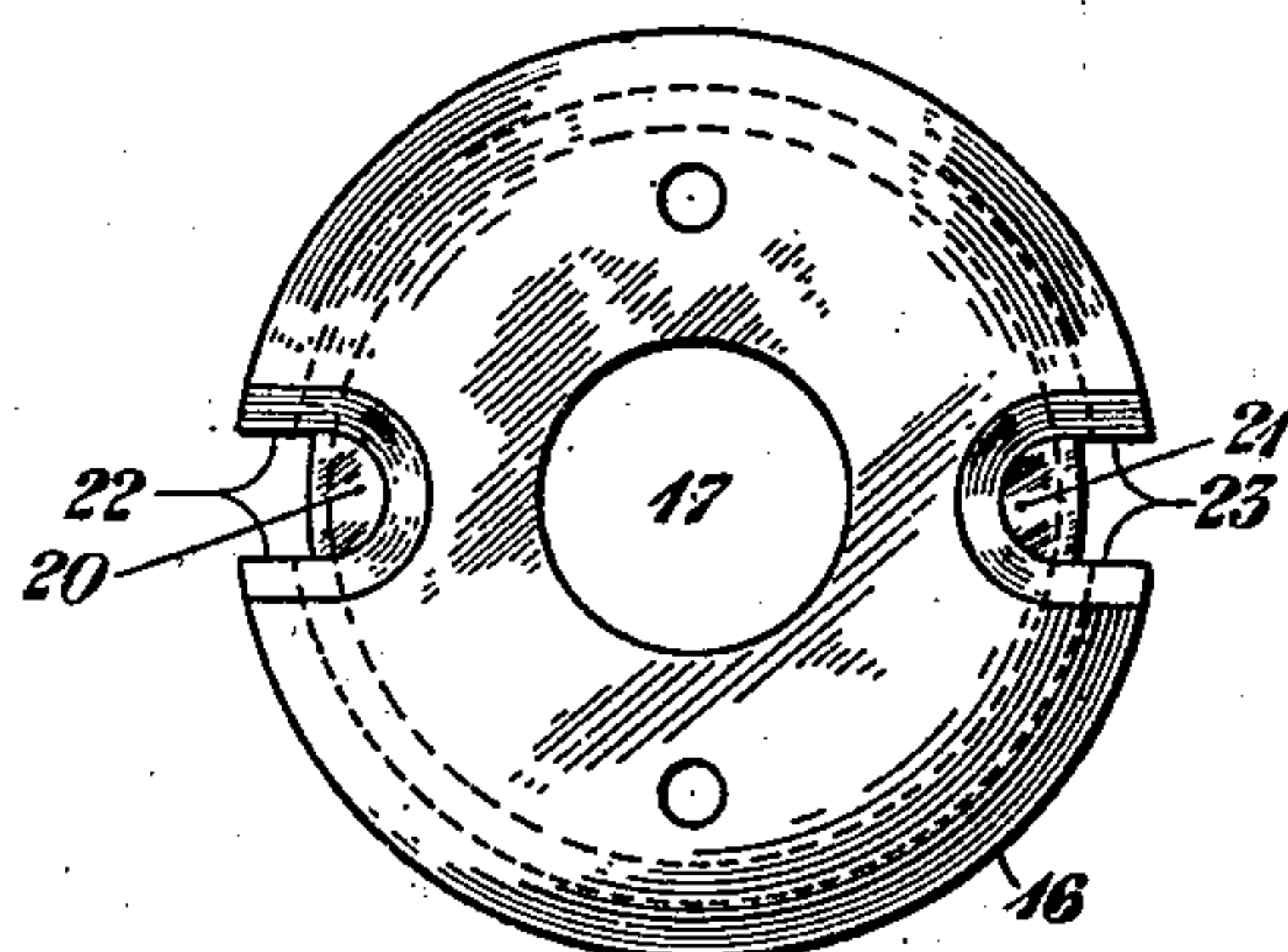


Fig. 3

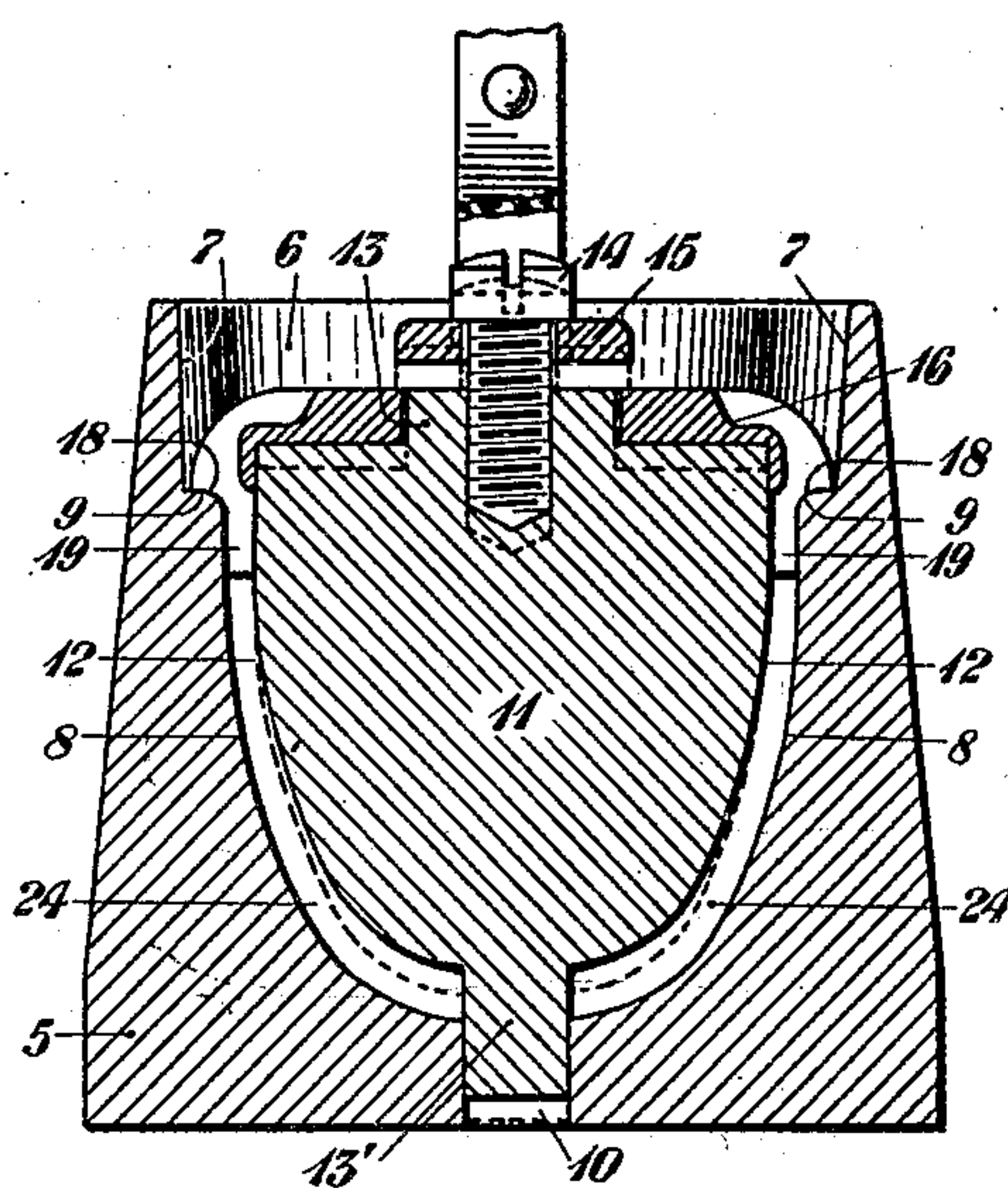


Fig. 2

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UNITED STATES PATENT OFFICE.

DAVID BERRYMAN, OF FLORAL PARK, NEW YORK, ASSIGNOR TO AMERICAN TELEPHONE AND TELEGRAPH COMPANY, A CORPORATION OF NEW YORK.

APPARATUS FOR MOLDING.

Application filed April 2, 1921. Serial No. 458,128.

To all whom it may concern:

Be it known that I, DAVID BERRYMAN, residing at Floral Park, in the county of Nassau and State of New York, have invented certain Improvements in Apparatus for Molding, of which the following is a specification.

This invention relates to apparatus for molding, and more particularly to apparatus of this character which is to be used for forming lead pipe caps.

In the production of lead pipe caps, such, for instance, as are used in connection with telephone, telegraph and other electrical line construction for sealing the upper ends of pole laterals, considerable difficulty has been experienced in removing the finished caps from the iron cores of the molds after the casting operation. This is due to the shrinkage of the lead while cooling which causes it to adhere tightly to the iron core. In order to release the caps from the cores, it has been necessary to jar said caps off by hammering on the tops of the cores or by employing other awkward processes which have resulted in battering up the tops of the cores and rendering said cores unserviceable. Accordingly it is one of the principal objects of this invention to provide a simple and efficient apparatus for forming pipe caps as well as to provide for the removal of said caps therefrom after the casting operation. Other and further objects of the invention will hereinafter appear.

In the accompanying drawing, in which is shown one embodiment of the invention, Figure 1 is a perspective view of the improved apparatus, a portion of which is shown in section; Fig. 2 is a vertical sectional view thereof with the handle removed, showing the core in its raised position, its normal position being indicated by dotted lines, and Fig. 3 is a top plan view of the movable ring which is provided on the top of the core.

Similar characters of reference indicate corresponding parts throughout the several figures of the drawing.

Referring to the construction herein illustrated, 5 represents a casing or mold portion which is preferably of the configuration shown, it having a rounded periphery, tapering slightly upwardly and a base portion of larger diameter than the other portions thereof. On the inner surface of the casing

5 is a chamber 6 having a flaring side-wall 7 and a semi-elliptical wall 8. At the termination of the wall 7 is provided a flange 9 which extends about the surface of the chamber 6. At the bottom of the casing 5, and in the center thereof, is provided an aperture 10 which extends through said casing into the chamber 6.

At 11 is depicted a core which cooperates with the mold 5 in the formation of the pipe caps. The main surface 12 of the core corresponds in shape to the curvilinear surface of the wall 8 and integral with the surface 12 and projecting at the bottom therefrom is a cylindrical pin 13 which is adapted to fit in the aperture 10 of the casing. A cylindrical stud 13 is formed on the top of the core 11 and fixed thereto by means of a screw 14 is a circular cap 15. A disc 16 having a central opening 17, which registers with the stud 13, is adapted to move on said stud in a vertical direction within the clearance space between the top surface of the core 11 and the bottom surface of the cap 15. The disc 16 is provided with an annular shoulder 18 which is seated on the flange 9 when the core is in position within the chamber 6, and extending downwardly from the shoulder 18 is an annular rim 19. Depressions 20 and 21 are formed on the upper surface of the disc 16, and connect with cutaway portions 22 and 23, respectively, in the shoulder 18 and rim 19, said portions providing openings through which molten metal may be poured into the space 24 between the surface 12 of the core 11 and the wall 8 of the chamber 6, as will be presently described. For the purpose of description, it may be assumed that the depression 20 and cutaway portion 22 comprise a vent hole, while the depression 21 and cutaway portion 23 comprise a gate.

A handle, such as indicated at 25, may be used in connection with the present invention, and which, for the purpose of illustration, is shown as having parallel strips of metal 26 suitably riveted or otherwise attached to each other and terminating in a bifurcated portion 27. Each of the forks of said bifurcated portion are provided with lugs extending at right angles thereto which are secured to the top of the movable disc 16 by means of screws 28 and 29.

In the operation of the arrangement herein shown, the core 11 is placed in position

in the chamber 6 and the molten lead is poured through the gate or cutaway portion leading into said chamber, such operation continuing until the space 24 is filled with
5 said metal. After an interval, during which the lead has cooled sufficiently to be in a solid state, the core with the lead, which is now in the form of a cap, adhering to its surface is lifted out of the chamber 6, and
10 the extra metal bent out of the gate and vent hole. The pin 13' is placed on a bench and by slight downward pressure on the handle 25 the disc 16 and rim 19 are caused to move downwardly and force the cap off
15 the core.

It will be obvious that the general principles herein disclosed may be embodied in many other organizations widely different from those illustrated without departing
20 from the spirit of the invention as defined in the following claims.

What is claimed is:

1. In a device for forming pipe caps, a casing, a chamber in said casing, a core
25 cooperating with the chamber in the formation of said caps, a stud integral with said

core, a disc at the top of said core and movable on said stud, a gate formed in said disc to permit the introduction of material into the chamber for forming said pipe caps,
30 a handle affixed to said disc and a rim integral with said disc responsive to the depression of said handle whereby a pipe cap is removed from said core.

2. A mold comprising a casing, a chamber
35 therein provided with a peripheral flange, a core cooperating with said chamber in the formation of pipe caps, a stud integral with said core, a disc movable on said stud, a shoulder and an annular rim integral with
40 said disc, the shoulder cooperating with said flange in limiting the entrance of the core into said chamber and the rim functioning to remove the pipe caps from said core when displaced from said chamber and a gate
45 formed in said disc to permit the introduction of material for forming said pipe caps.

In testimony whereof, I have signed my name to this specification this 1st day of April 1921.

DAVID BERRYMAN.