

No. 772,259.

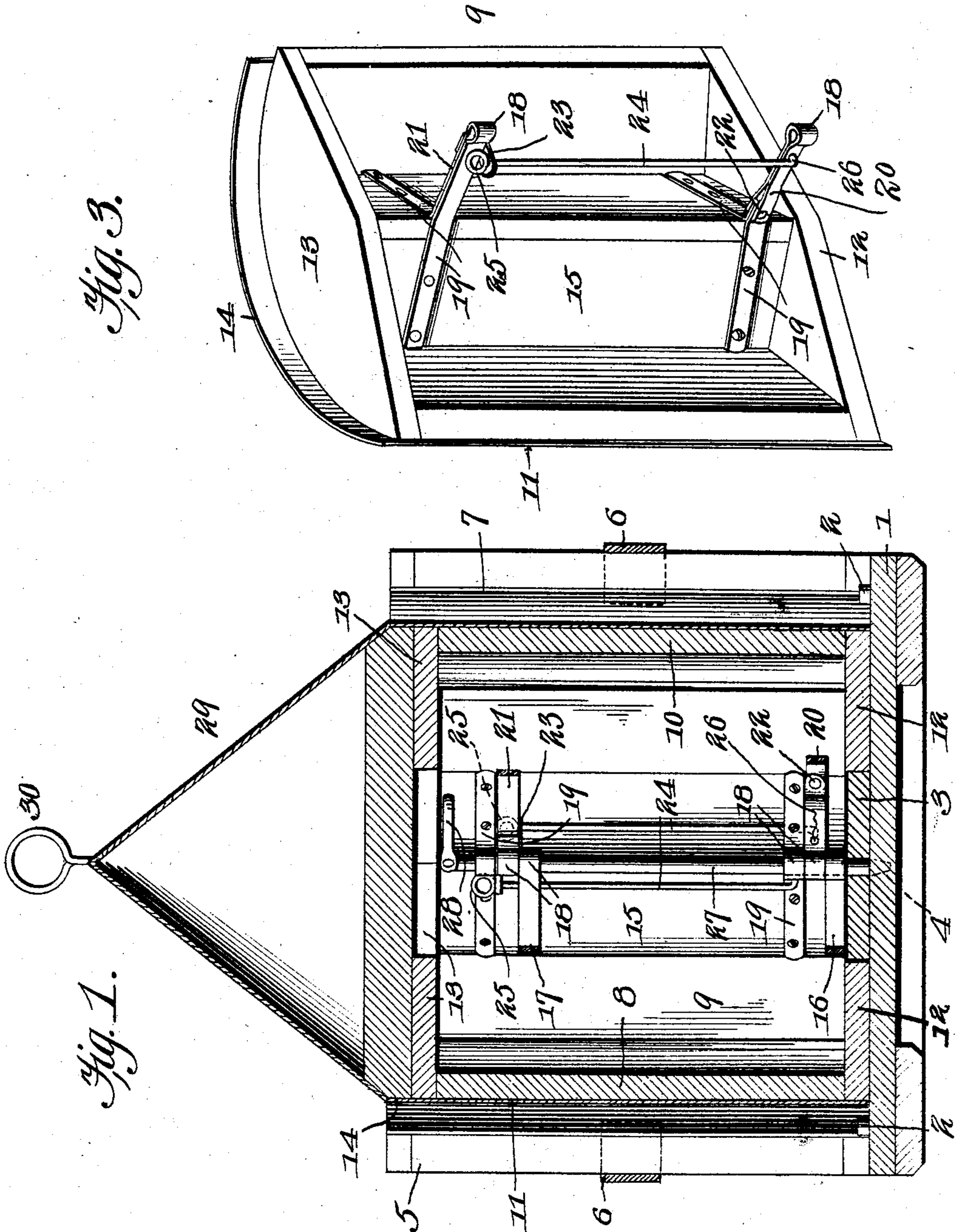
PATENTED OCT. 11, 1904.

L. SHELL.
PIPE MOLD.

APPLICATION FILED APR. 29, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
B. Stewart
W. H. Clarke.

Levi Shell, Inventor,
by *C. A. Snow & Co.* Attorneys

No. 772,259.

PATENTED OCT. 11, 1904.

L. SHELL.
PIPE MOLD.

APPLICATION FILED APR. 29, 1904.

NO MODEL.

2 SHEETS—SHEET 2.

Fig. 2.

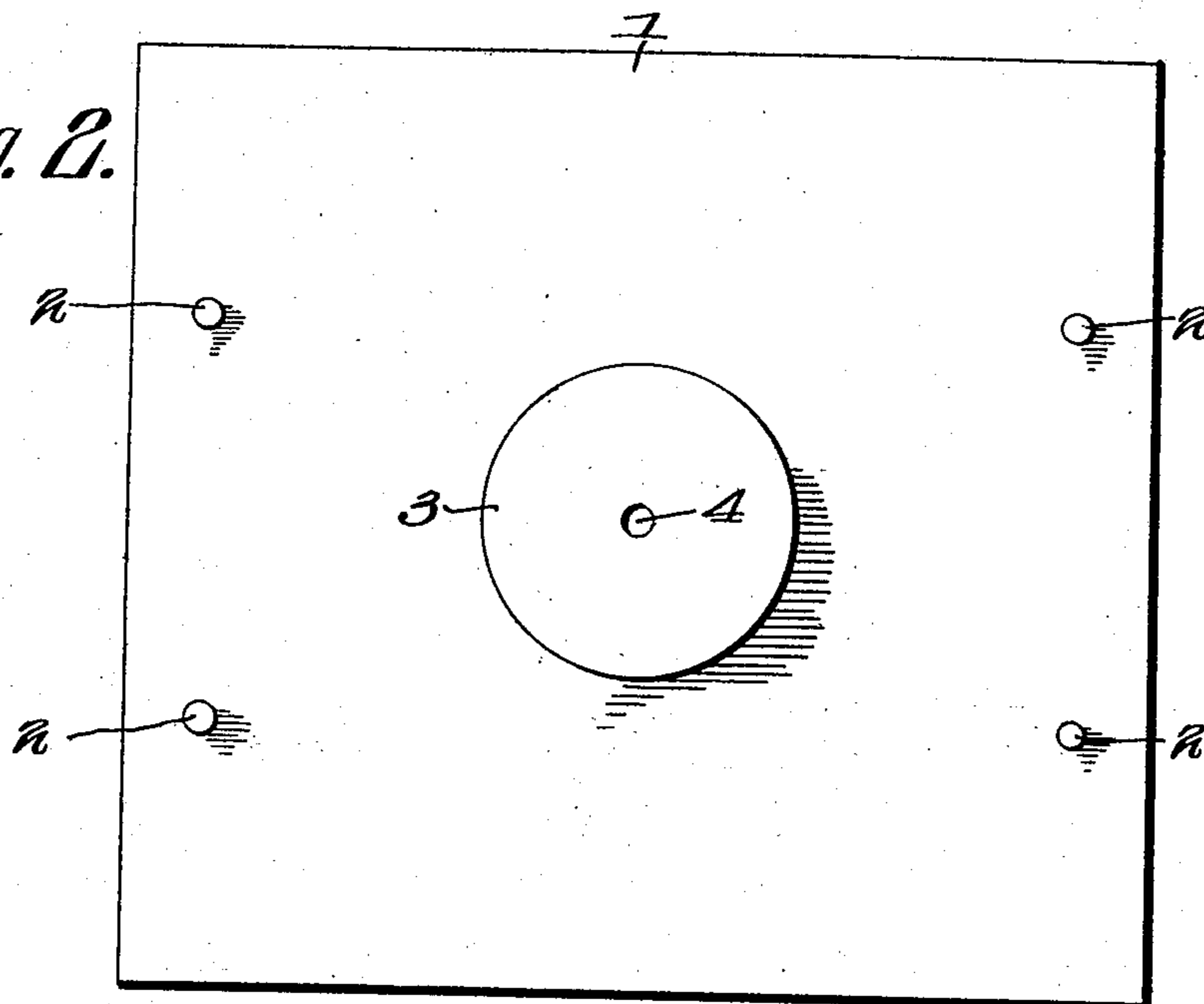
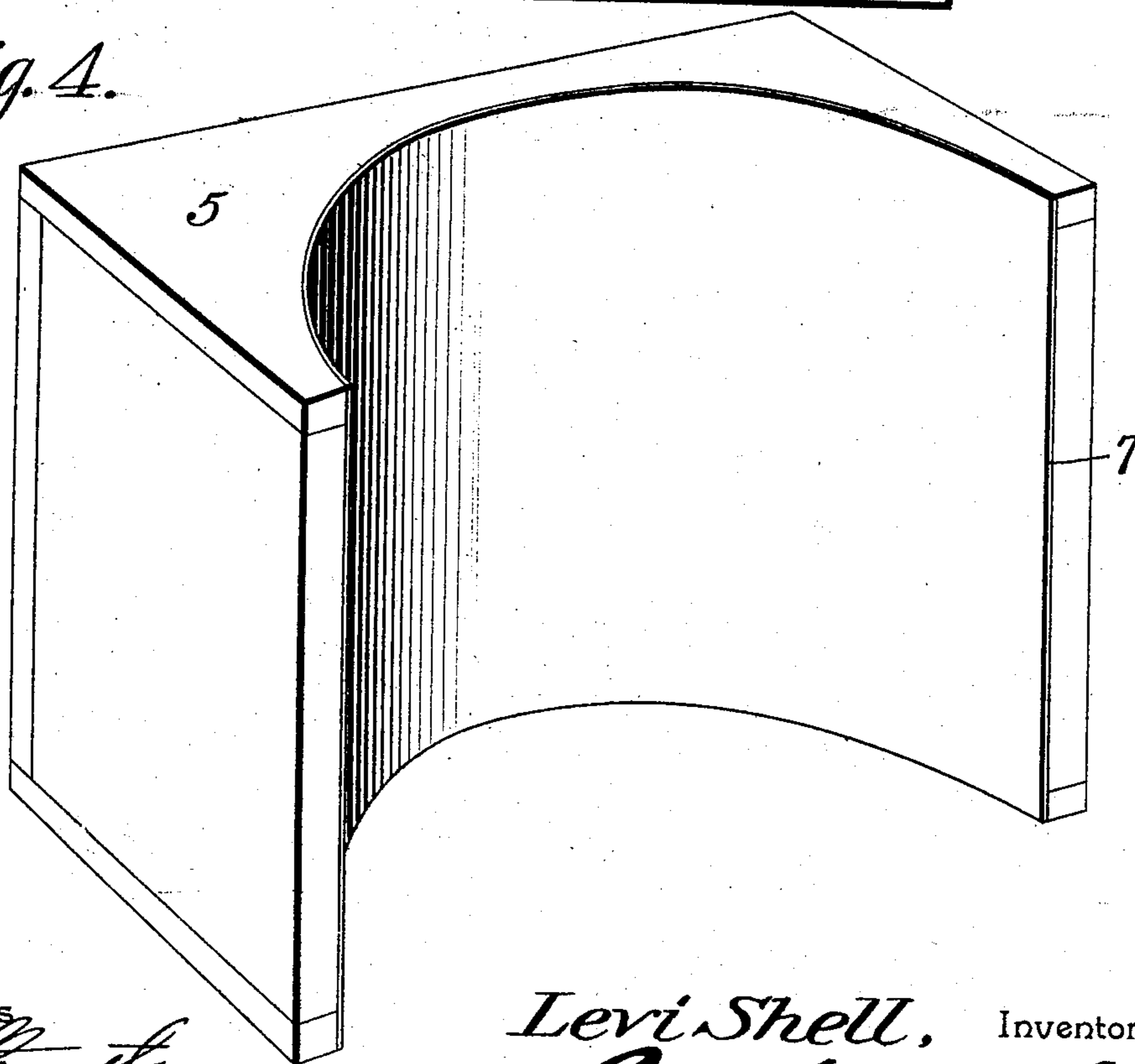


Fig. 4.



Witnesses

E. Stewart
W. Helarke.

Levi Shell, Inventor.
by *Chas. Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

LEVI SHELL, OF SIBLEY, IOWA.

PIPE-MOLD.

SPECIFICATION forming part of Letters Patent No. 772,259, dated October 11, 1904.

Application filed April 29, 1904. Serial No. 205,600. (No model.)

To all whom it may concern:

Be it known that I, LEVI SHELL, a citizen of the United States, residing at Sibley, in the county of Osceola and State of Iowa, have invented a new and useful Pipe-Mold, of which the following is a specification.

This invention relates to molds such as are employed for making pipes or tiles from clay, concrete, or any other suitable material.

The object of the invention is to improve, simplify, and strengthen the construction and increase the efficiency of such molds.

These objects are obtained by constructing a mold as hereinafter described in detail with reference to the accompanying drawings, forming part of this specification, wherein—

Figure 1 is a vertical section of the improved mold. Fig. 2 is a detail view of the base-plate. Fig. 3 is a detail view of one of the core-sections, and Fig. 4 is a detail view of one of the sections forming the outer shell.

Like reference-numerals indicate like parts in the different views.

The base-plate 1, which, like the other parts of the mold, may be constructed from any material suitable for the purpose, is provided with upwardly-projecting dowel-pins 2, which serve as a means for retaining the assembled shell-sections upon the base-plate, as will be described more fully hereinafter. A boss 3, having a perforation 4 in the center thereof, is fastened upon the middle portion of the base-plate to serve as a means of securing the central core in position.

The outer shell or casing of the mold is preferably made in two sections or pieces 5 5, one of which is shown in Fig. 4. The two shell-sections 5 5 are similar in all respects and are held assembled by means of clamp-pieces 6 6, which engage the opposite sides of the two sections. Each of the sections 5 is cut away on its inner side in the form of a semicylinder to form the molding-space. The surface of the cut-away portion is covered with zinc 7 or other suitable material for preventing adhesion of the substance from which the pipe or tile is molded. Recesses are made in the lower ends of the shell-

sections 5 to receive the dowel-pins on the base-plate and hold the base and the shell in proper relative position.

The central core of the mold is preferably made in three separable sections 8, 9, and 10. Each of the core-sections is rounded on its exterior in such manner that when the three sections are assembled they form a cylindrical core adapted to fit concentrically within the shell of the mold. The outer surface of each section is covered with zinc 11 or other suitable material, as described with respect to the shell. Each core-section is formed with a bottom piece 12 and a top piece 13. At its upper end the zinc covering 11 extends above the top piece 13 of the core-section to form a curved flange 14. Each core-section is formed at its interior with a brace 15, which is approximately triangular in cross-section and extends from the bottom piece 12 to the top piece 13, being secured thereto in any suitable manner. Attached to the internal triangular brace 15 of the core-section 8, near its lower end, is a bracket-arm 16, another bracket-arm 17 being attached to the brace near its upper end. Each of the bracket-arms is made preferably by bending a strip of metal at its center to form an eye 18 in the outer end thereof and to form the arms 19 for straddling the brace 15, as shown in Fig. 3, the brackets being attached to the brace by screws, nails, or the like. The core-section 9 is provided at its upper and lower ends with bracket-arms 20 and 21, which are formed with eyes 18, as described with respect to the bracket-arms on the core-section 8. The upper and lower bracket-arms of the core-section 9 are disposed in planes slightly above the planes of the corresponding bracket-arms of the core-section 8, so that when the two sections are fitted together the bracket-arms of the section 9 will be above those of the section 8 and the eyes 18 of all the arms will be in line or register. The lower bracket-arm 20 of the core-section 9 is hinged, as shown at 22. Extending through a bearing-plate 23, attached to the upper bracket-arm 21 of the section 9, is a vertical rod 24, formed at its upper end with a

handle-loop 25 and attached at its lower end to the hinged portion of the bracket-arm 20, as shown at 26. The function of the rod 24 is to lift the hinged end of the bracket-arm 20 in such manner that it will assume a nearly-vertical position for a purpose presently to be described. The core-section 10 is provided with bracket-arms and a rod similar to the bracket-arms 20 and 21 and the rod 24 of the core-section 9, the only difference being that the brackets of the section 10 are in planes slightly above the planes of the brackets of the section 9, so that when the three core-sections 8, 9, and 10 are fitted together to form the core of the mold the bracket-arms of the core-section 8 are in the lowest plane, those of the section 9 are in the middle plane, and those of the section 10 are in the highest plane, the eyes 18 of all the brackets being in line with each other, so as to permit the insertion of a rod 27, having a handle portion 28, which is capable of folding down. A cone-shaped top 29, formed with a handle 30, is adapted to be fitted onto the top of the assembled core-sections and be held thereon by the curved flanges 14 of the core-sections, which form one continuous circular flange, as shown. The cone-shaped top preferably is covered with zinc.

The improved mold is assembled and used in the following manner: The core-sections 8, 9, and 10 are fitted together around the boss 3 on the base-plate, so that the eyes 18 in the bracket-arms of the sections are in line directly over the perforation 4 in the boss 3. The rod 28 is then passed through the eyes 18 into the perforation 4 to hold the core-sections firmly assembled on the base-plate. The handle of the rod 27 is then folded down out of the way, and the cone-shaped top 29 is placed in position upon the core-sections. The shell-sections 5 5 are then fitted over the dowel-pins 2 of the base-plate and locked together by means of the clamps 6. The material from which the pipe or tile is to be molded is then poured into the space between the shell and the core and smoothed down with a trowel, if necessary. After the material has hardened partially or entirely the top 29 is removed and the rod 27 withdrawn. The vertical rod 24 of the core-section 10 is then drawn up to raise the lower hinged bracket in such manner that it will clear the upper bracket-arms of the other two core-sections and the section is withdrawn. The section 9 is removed in the same manner and finally the section 8. The outer shell may then be taken away. If the material from which the tiles are molded be just slightly damp, the core can be removed immediately after the material has been supplied to the mold, it being understood that the cone-shaped top acts evenly to distribute the material. As soon as the core is removed

from one mold it may be employed with another, one core thus serving for a number of molds.

It will be understood, of course, that galvanized iron may be used upon the mold-sections and core instead of zinc.

Other changes in the precise details of construction illustrated and described may be made within the scope of the following claims without departing from the spirit of the invention.

The device of this invention is simple, inexpensive, and thoroughly efficient in use.

What I claim is—

1. A pipe-mold comprising a base-plate provided with an orificed boss, a shell, a core comprising core-sections, a bracket-arm on each of the core-sections, and a rod engaging the bracket-arms and the orifice in the boss and holding the core-sections assembled.

2. A pipe-mold having a base-plate, a shell, a core comprising core-sections, a bracket-arm on each of the core-sections, and a removable rod engaging the bracket-arms and the base-plate.

3. A pipe-mold having a shell, a core comprising a plurality of core-sections, a plurality of bracket-arms on each core-section, the lower bracket-arms of all the sections except one, being hinged, and means for operating the hinged bracket-arms.

4. A pipe-mold having a base-plate, a shell, a core comprising a plurality of core-sections, a plurality of bracket-arms on each section, the lower bracket-arms of all the sections except one, being hinged, means for operating the hinged bracket-arms, and a removable rod engaging the bracket-arms of all the core-sections and the base-plate.

5. A pipe-mold having a base-plate, a shell, a core comprising three core-sections, two bracket-arms on each section, the lower bracket-arms of two sections being hinged, rods for raising the hinged bracket-arms, and a removable rod engaging all the bracket-arms and the base-plate.

6. A pipe-mold comprising a base-plate provided with an orificed boss, a shell, a core comprising a plurality of core-sections held spaced by the boss, a plurality of bracket-arms on each section, the lower bracket-arms of the sections except one being hinged, means for operating the hinged bracket-arms, and a removable rod engaging the bracket-arms of all the core-sections and the orifice of the boss.

7. A pipe-mold comprising a base-plate provided with an orificed boss, a shell, a core comprising three core-sections, the inner edges of which bear against the boss, two bracket-arms on each section, the lower bracket-arms on two of the sections being hinged, rods for raising the hinged bracket-arms, and a removable rod engaging all of the bracket-arms and the orifice of the boss.

8. A pipe-mold comprising a base-plate, a
shell, a core comprising core-sections the outer
face of each of which is provided with an up-
standing flange, a bracket-arm on each of the
5 core-sections, a removable rod engaging the
bracket-arms for holding the sections assem-
bled and a top engaging the upstanding
flanges.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in 10
the presence of two witnesses.

LEVI SHELL.

Witnesses:

ALFRED MORTON,
H. R. WILBERN.