No. 818,727. PATENTED APR. 24, 1906.

F. M. WILTROUT.

PORTABLE MOLD FOR TILING.

APPLICATION FILED NOV. 2, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

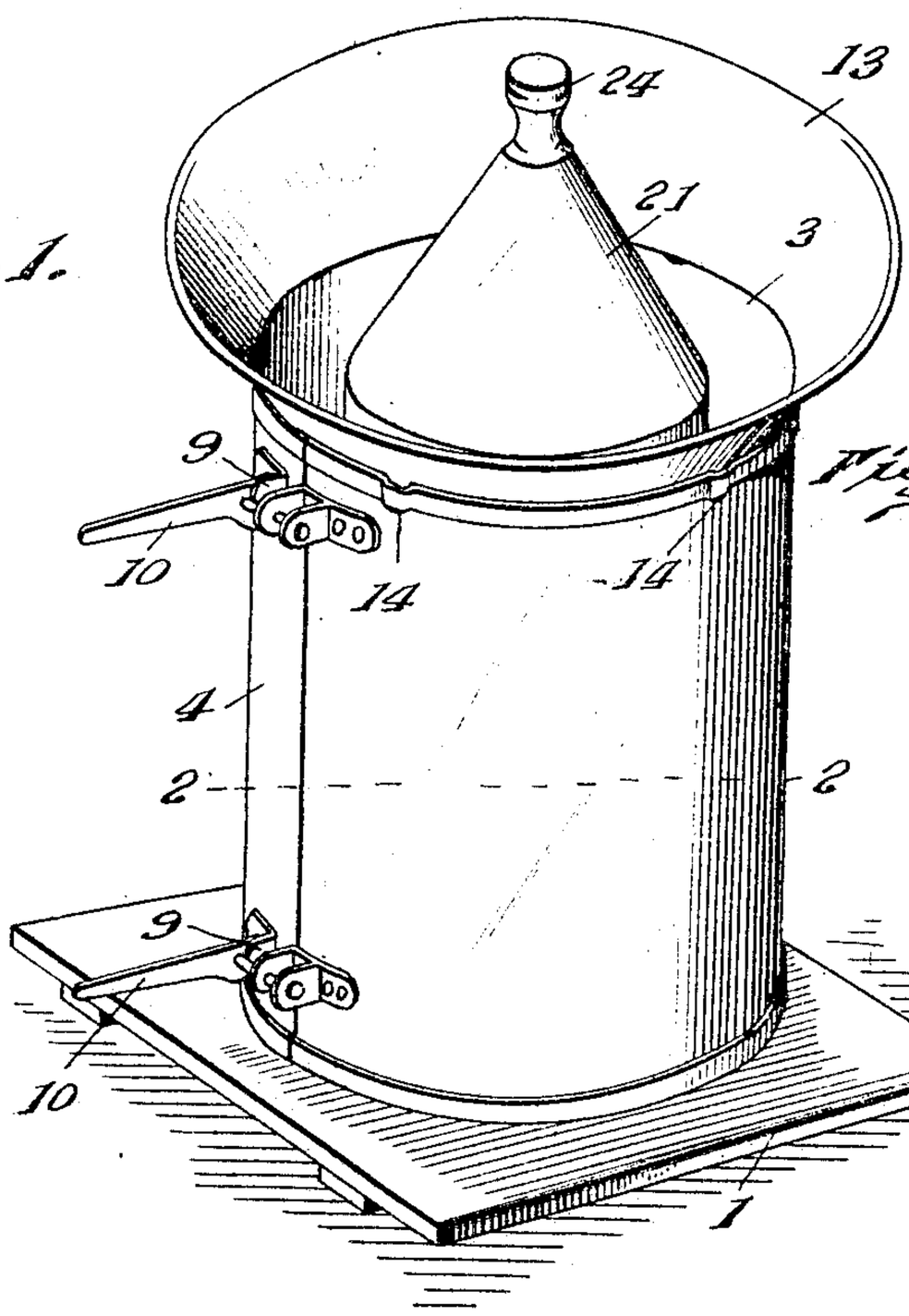


Fig. 6.

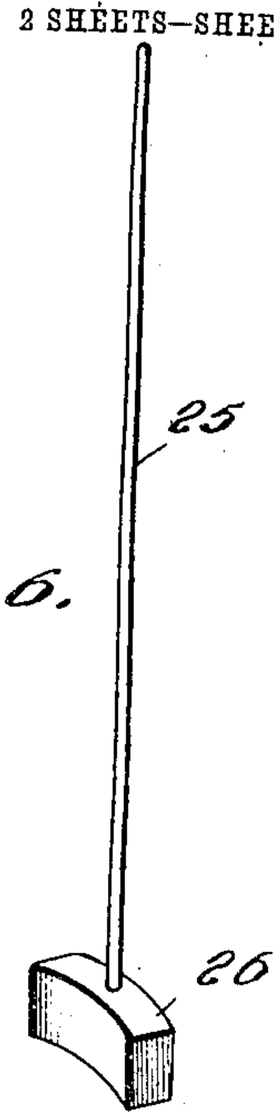
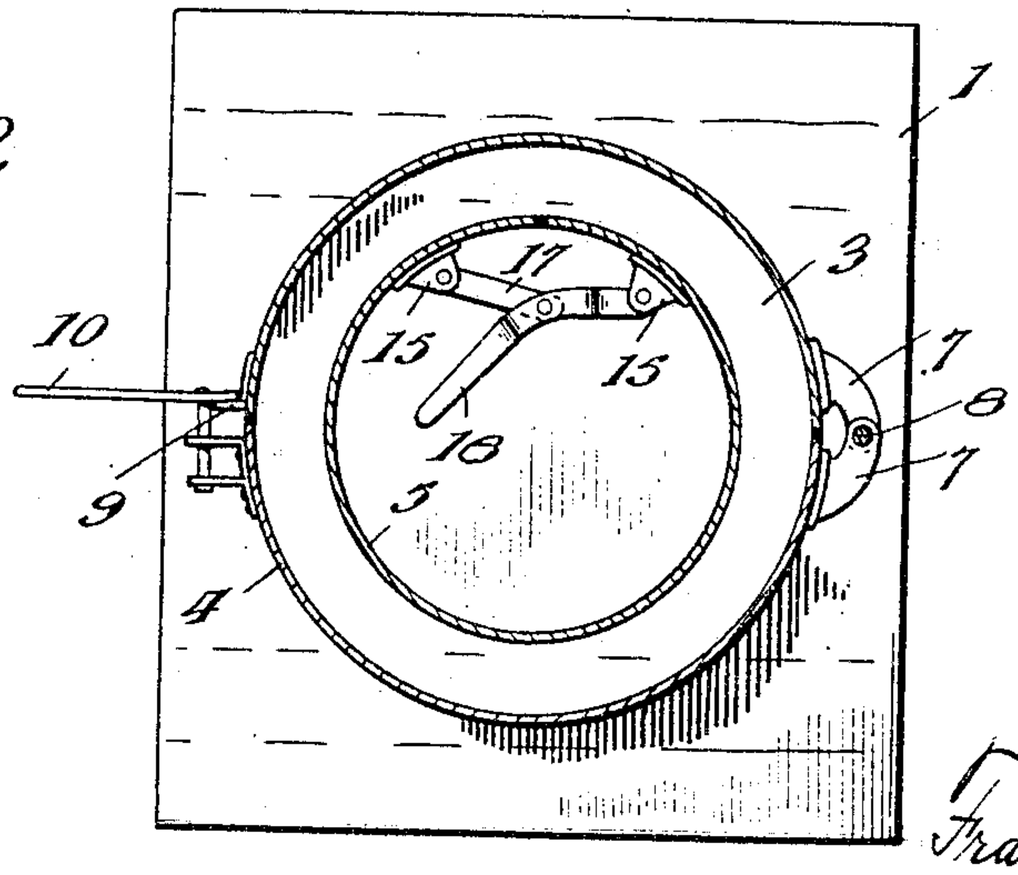


Fig. 2.



Witnesses

B. B. Williams

L. O. Langworthy.

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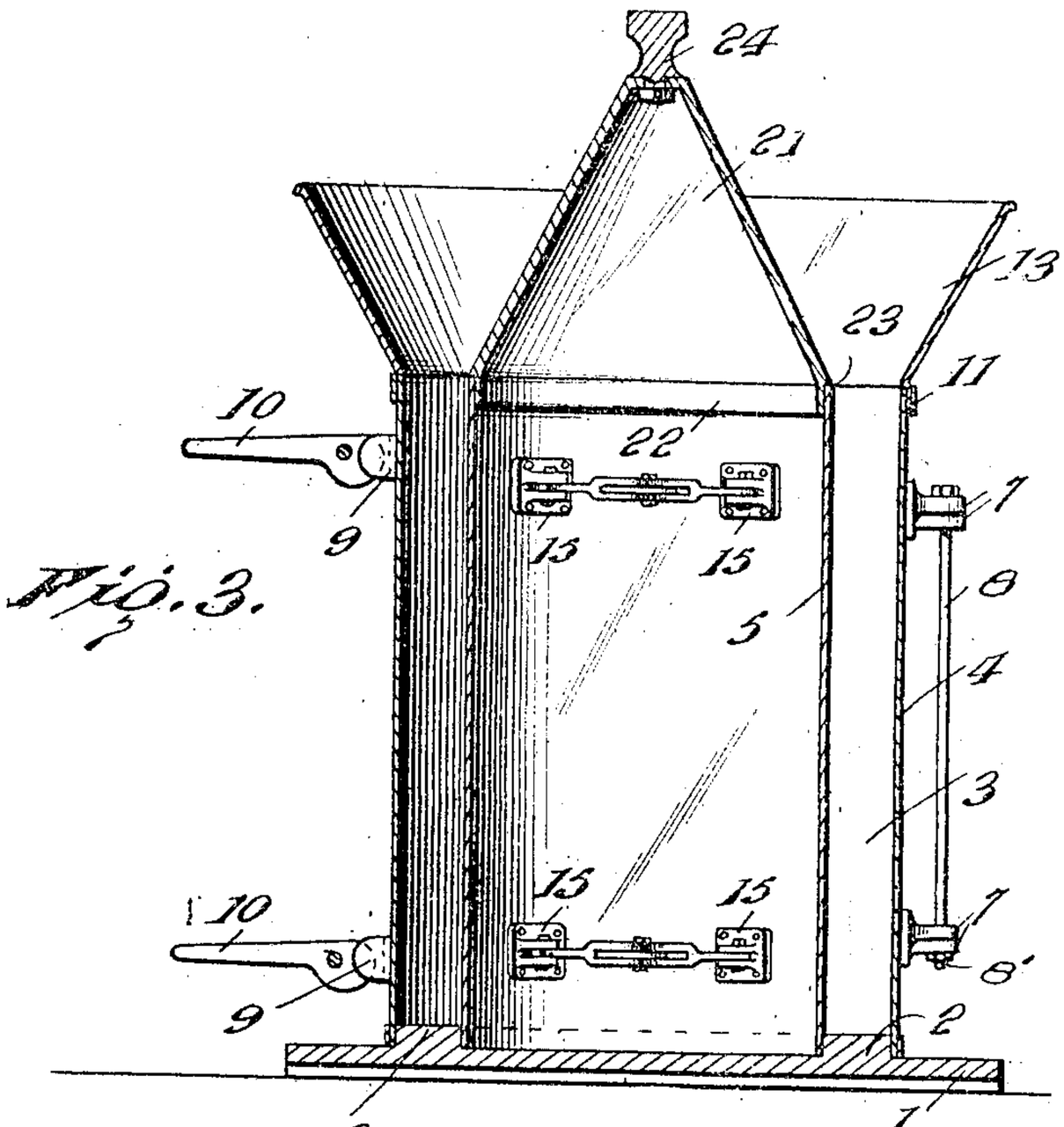

Fig. 3.

Fig. 5.

Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

FRANCIS M. WILTROUT, OF CORUNNA, INDIANA.

PORTABLE MOLD FOR TILING.

No. 818,727. Specification of Letters Patent. Patented April 24, 1906.

Application filed November 2, 1905. Serial No. 285,559.

To all whom it may concern:

Be it known that I, FRANCIS M. WILTROUT, a citizen of the United States, residing at Corunna, in the county of Dekalb and State of Indiana, have invented certain new and useful Improvements in Portable Molds for Tiling, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to portable molds particularly adapted for use in the manufacture of sections of pipe for sewers, drains, culverts, and the like, and commonly known as "tiling," one of the objects being to provide a separable and expanding mold of the character described that shall be simple and inexpensive in construction, effective in operation, and which can readily be transported from place to place.

A further object of the invention is to provide a device of the character described so constructed in sections that it may quickly and readily be taken apart when not in use and set up again in operative position when desired.

Other objects and advantages of my invention, as well as the structural features by means of which these objects are attained, will be made clear by an examination of the specification, taken in connection with the accompanying drawings, in which the same reference-numerals indicate corresponding portions throughout, and in which—

Figure 1 is a perspective view of my complete device, showing same set up in readiness to receive the necessary ingredients for the formation of a section of hollow tiling or pipe. Fig. 2 is a transverse section on line 2 2 of Fig. 1. Fig. 3 is a vertical section taken through the complete device and showing the manner in which the cap or cover sits on the core and also showing the means for locking the core. Fig. 4 is a perspective view of the outer shell or casing, showing the same open or released. Fig. 5 is a side elevation of a section of the core, showing the locking means therefor; and Fig. 6 is a perspective view of the tamping device by means of which the ingredients are tamped or packed between the outer shell and the core to form the pipe or tiling.

1 designates a pallet or platform constructed, preferably, of wood and carrying upon its top surface an upwardly-projecting ring or circular flange 2, which serves as the floor of the compartment in which the pipe or tiling is formed and which comprises the space 3 between the outer shell or casing 4 and the core 5, said outer shell or casing being adapted to rest upon the platform outside of said circular ring or flange 2 and to encircle the same and the core being adapted to occupy the space within the ring or flange, as shown in Fig. 3. The outer casing or shell 4 is preferably made of cast-iron, although any other desirable material may be employed, and is formed in two sections, (designated by 6.) These sections are pivotally and removably connected at their rear edges 6′ by means of the ears 7, having openings therein, through which passes a rod or pintle 8, having its lower end threaded to receive a nut 8′. The front edges of said sections are locked in position by means of the laterally-projecting lugs or ears 9 and the pivotally-mounted levers or handles 10, which are adapted to engage said laterally-projecting lugs 9 when said lever is brought to an approximately horizontal position, as shown in Figs. 1, 2, and 3, thus affording an easy and practical method of locking the outer shell or casing securely on the pallet 1 when necessary. The outer shell or casing 4 may, if preferred, be constructed in three or more sections pivotally connected by the means I have shown and described. Around the upper edge of each section of the outer casing 4 is a reinforcing-band 11, and a similar band 11′ extends around the bottom.

12 designates recesses or openings which are provided by bending the upper band, as shown in Fig. 4, to cause it to project outward from the casing for a short distance and then return thereto. Carried by said casing or shell 4 is a flaring top flange or hopper 13, the object of which is to afford means for more readily and conveniently filling the space or compartment 3 with the cement or ingredients necessary to form the pipe or tiling. This hopper 3 is provided around its lower edges at intervals with downwardly-projecting lugs 14, which are arranged to fit in the spaces or recesses 12 in order that said hopper 13 may rest securely in position upon the outer casing 4.

In order to add strength to the outer shell or casing, I prefer to make the rear edges 6′ and the front edges 27 somewhat thicker than the remainder of said sections. The inner casing or core 5 is preferably formed of one piece of sheet metal resilient in character and bent upon itself to assume a cylindrical

form and to bring the edges thereof together. This inner casing should preferably have a circumference equal to the circumference of the interior of the ring or circular flange 2 in order to sit snugly within and fill the space encircled by said ring. (See Fig. 3.) As a means of locking this core in position I provide the oppositely-disposed bifurcated ears 15, and pivotally mounted between the bifurcations thereof by means of a pin 16 are the locking-arms 17 and 18, the arm 18 being bifurcated to form an opening 19 and in which the arm 17 is adapted to rest. These arms are provided with an opening therethrough through which passes the pin 20 for the purpose of locking the same together, as best shown in Fig. 5.

Where a section of pipe of any considerable length is to be made, I prefer to employ two sets of these locking devices for the core, one near the top and one near the bottom thereof, and also two locks for the outer casing 4, as shown in the drawings. When the pipe or tiling to be manufactured is short, but one set of locking means for the core or for the outer casing will be necessary. As a means for preventing said core from collapsing while my device is in operation I provide a cap or cover 21, conical in shape and having a circular flange 22 around the bottom thereof, formed to leave a shoulder 23, the circular flange resting within the core and the shoulder upon the top thereof. This conical cap or cover is provided with a knob 24 at its pinnacle to serve as a handle for readily placing same in position or for the removal thereof.

In Fig. 6 I have illustrated a preferred embodiment of tamper whereby the cement or ingredients after being placed in the circular compartment 3 may be tamped into position. This tamper comprises a handle 25 and tamping-head 26, said head being curved, as shown, to follow the contour of the circular compartment 3. This tamper may be made of any desirable material; but the head 26 is preferably comprised of iron or some similar heavy material in order to give it the necessary weight.

In operation the core 5 is placed in position within the ring or circular flange 2 and locked in position by the means hereinbefore described. The cap or cover 21 is then placed in position, and the outer shell or casing 4 is then brought into position to encircle the core, the lower edge of said outer casing resting against the outer periphery of said ring or flange, so that the top of the flange forms the floor of the space or compartment 3 between the core and the outer casing, and said casing is locked in position by bringing the pivotal arms or levers 10 to a horizontal position after the front ends 27 of said casing have been brought together. The hopper 13 is then placed in position on top of said casing, and the mold is ready to receive the material for forming the pipe or tiling, after which the same is tamped down to produce the required formation comprising said pipe. After the cement or ingredients have been thoroughly tamped or packed between the outer casing and the core I remove the hopper 13 and the lid 21 and smooth the upper end of the tiling with a trowel, then remove the pins 20, thus unlocking the core, and remove the core. I then unlock the outer casing and remove it and leave the tile sitting on the pallet or platform until it cures.

Having thus described my said invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

A device of the character described comprising a pallet, an upwardly-projecting flat cylindrical flange or ring carried by the top thereof, an outer shell or casing encircling said flange, said outer shell or casing being formed in sections, ears mounted on the sections and having openings therethrough, a pintle extending through the openings in the ears whereby the sections are pivotally connected at their rear edges, means for locking the sections in position at their front edges, a core comprising one piece of resilient material bent to form a cylinder and resting upon the pallet within the ring or flange, means for locking the edges of the core together, a conical cap for the core, and a hopper removably mounted on the outer shell or casing.

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

FRANCIS M. WILTROUT.

Witnesses:
O. L. WHEATON,
KEIFER A. JOHNSON.