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J. M. PHELAN.

MACHINE FOR MAKING CEMENT OR CONCRETE CATCH BASINS.

APPLICATION FILED MAR. 12, 1904.

Fig. 1.

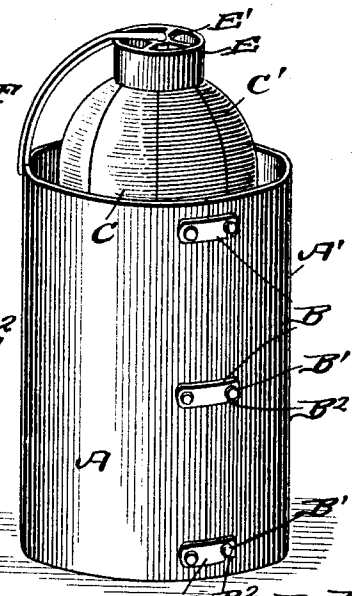


Fig. 4.

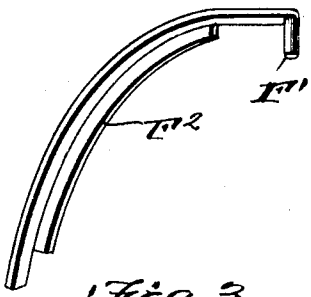


Fig. 2

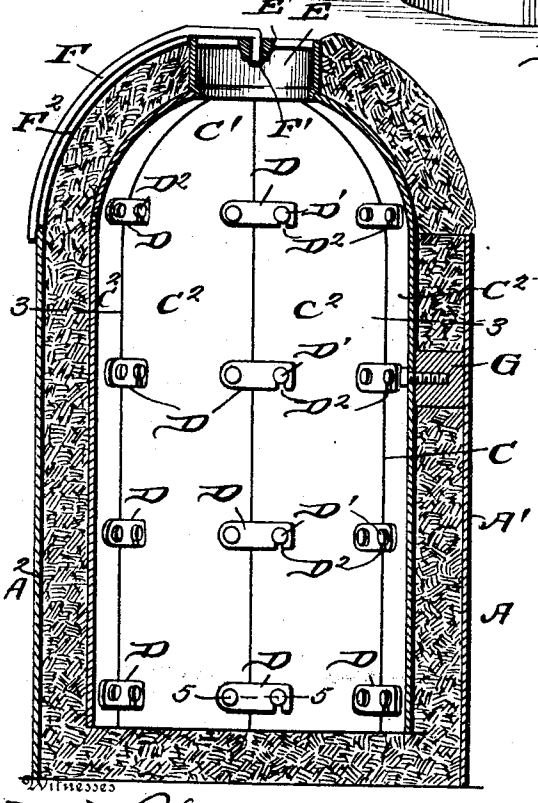


Fig. 3.

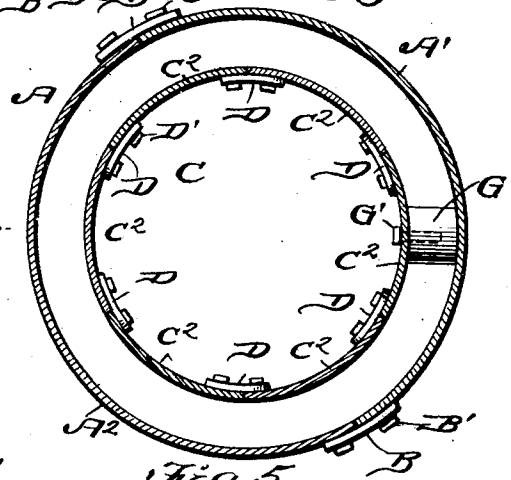


Fig. 5.



Fig. 7.

Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN M. PHELAN, OF JACKSON, MICHIGAN.

MACHINE FOR MAKING CEMENT OR CONCRETE CATCH-BASINS.

SPECIFICATION forming part of Letters Patent No. 782,797, dated February 14, 1905.

Application filed March 12, 1904. Serial No. 197,866.

To all whom it may concern:

Be it known that I, JOHN M. PHELAN, a citizen of the United States, residing at Jackson, in the county of Jackson and State of Michigan, have invented a new and useful Machine for Making Cement or Concrete Catch-Basins, of which the following is a specification.

This invention is an improved form of device for making catch-basins for catching water from the street and emptying the same into the sewer; and the object of the invention is to provide an exceedingly cheap, simple, and efficient device which can be quickly and easily assembled or put together and as readily taken apart and one in which the making or molding of the catch-basin is easily accomplished.

With these objects in view my invention consists, essentially, in the employment of an outer cylindrical section and an inner cylindrical section having a dome-shaped upper end, in the top of which fits a circular cap, to which is pivoted a curved sweep-arm adapted to shape the material about the exterior of the dome-shaped upper portion of the inner mold or former.

The invention consists also in certain details of construction and novelties of combination, all of which will be fully described hereinafter and pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a perspective view showing the practical application of my invention. Fig. 2 is a vertical sectional view. Fig. 3 is a transverse sectional view on the line 3 3 of Fig. 2. Fig. 4 is a detail perspective view of the sweep-arm. Fig. 5 is a detail sectional view on the line 5 5 of Fig. 2, and Figs. 6 and 7 show details of the fastening means.

In carrying out my invention I employ an outer cylindrical section A, which is open at the top and bottom, said cylinder being composed of two longitudinal half-sections A′ and A^2, which are held fastened together in the form of a cylinder when set up by means of the latches B, pivoted to one of the sections and engaging the headed studs B′, carried by the other section, said latches being curved to conform to the exterior of the cylinder and are notched at their outer ends, as shown at B^2, in order to engage the shanks of the studs. The inner section C of the mold, which portion is usually designated the "core" or "former," is essentially cylindrical in shape for the greater portion of its length, the upper portion being dome-shaped, as indicated at C′. This inner section or former is also open at the bottom and top, the top opening, however, being considerably smaller than the bottom opening owing to the dome-like construction of the upper portion. The inner section or former is composed of a series of longitudinal sections C^2, which are securely fastened, when the former is set up, by means of latches D, pivoted to each section and adapted to engage the headed studs D′, carried by the next adjacent section, said latches being shaped to conform to the interior of the former, as most clearly shown, and are notched, as shown at D^2, for the purpose of engaging the shanks of the studs D′.

A circular cap E fits upon the top of the inner section or former, resting in the circular opening at said end, said cap carrying a spider E′, in the center of which is pivoted the stud F′, carried at the upper end of the curved sweep-arm F, said curved sweep-arm having a curved blade F^2, which corresponds with the curve of the dome-like portion of the former. This blade F^2 is of such a length that when the former is properly arranged within the outer section or cylinder and the cap fitted in the upper end thereof and the arm connected to the said cap the upper end of the blade will bear against the exterior of the cap and its lower end will rest upon the upper end of the outer cylinder, the lower end of the sweep-arm proper extending beyond the upper edge of the outer section. Thus it will be seen that the sweep-arm will be accurately guided as it revolves around the top of the former for the purpose of shaping the dome-shaped upper portion of the catch-basin. A block G, circular in cross-section, is fastened to the exterior of the former at any desired point by means of a bolt G′ for the purpose of producing the circular opening for the sewer-pipe connection.

In operation the outer section is arranged at the point desired, and cement or concrete

is arranged at the bottom to the extent of six or eight inches or any other depth desired. The inner cylindrical section or former C is then arranged concentrically within the outer cylinder and rests upon the cement or concrete filling at the bottom of the outer cylinder. When the inner section or former is thus arranged within the outer cylinder, the entire dome-like portion of the former projects above or beyond the upper end of the outer cylinder. Cement or concrete is then tightly packed between the inner and outer sections and also over the dome of the inner section or former, it being understood that the circular cap is fitted into the top of the former before the cement or concrete is packed around the dome of the former. After the cement or concrete has been packed around the dome the sweep-arm is fitted, and by revolving the same around the dome the plastic material is smoothed off to the proper extent, thereby properly shaping the top of the catch-basin. The sweep-arm is then removed, and after the plastic material has thoroughly hardened the longitudinal sections of the inner and outer cylinders are unfastened and removed.

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

1. A device of the kind described comprising a cylindrical outer section and a cylindrical inner section having a dome-shaped upper portion, a circular cap adapted to fit in the upper end of said dome-shaped portion, and a sweep-arm detachably connected to said cap, as set forth.

2. A device of the kind described comprising a cylindrical outer section, a cylindrical inner section having a dome-shaped upper portion, a block arranged upon the exterior of the inner section, a cap adapted to fit in the top of the dome-shaped portion, and a sweep-arm pivotally connected to the said cap, and adapted to be revolved about the dome-shaped portion as set forth.

3. A device of the kind described comprising the inner and outer cylinders, each made in longitudinal sections, means for connecting the section, the inner cylinder having a dome-shaped upper portion, a cap fitting in the upper end of said dome, a curved sweep-arm having a pivot-stud, and a block circular in cross-section, and arranged between the inner and outer cylinders.

4. In a device of the kind described, the combination with the outer cylinder, of the inner cylinder having a dome-shaped upper portion, extending above the upper end of the outer cylinder, a circular cap fitting in the upper end of said dome, a curved sweep-arm having a pivot-stud and carrying a curved scraping-blade, said blade being of a length to contact with the circular cap at its upper end and at its lower end with the upper end of the outer cylinder.

JOHN M. PHELAN.

Witnesses:
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