No. 727,272. PATENTED MAY 5, 1903.

J. B. BLAW.

SEWER MOLD.

APPLICATION FILED JAN. 20, 1903.

NO MODEL.

Fig. 1.

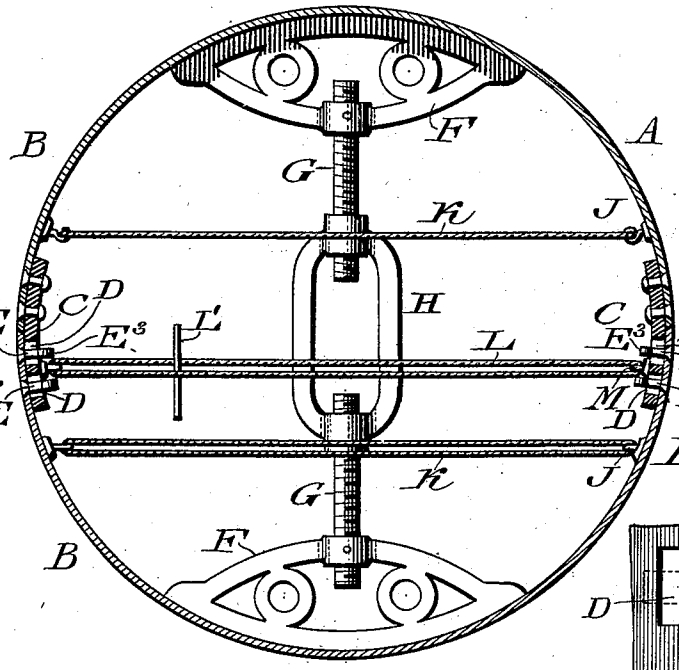


Fig. 3.

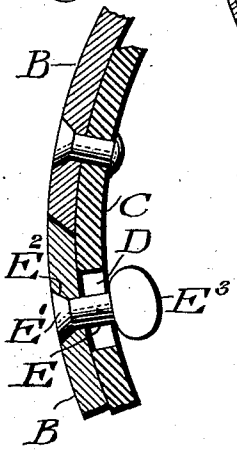


Fig. 4.

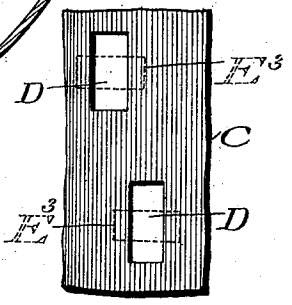
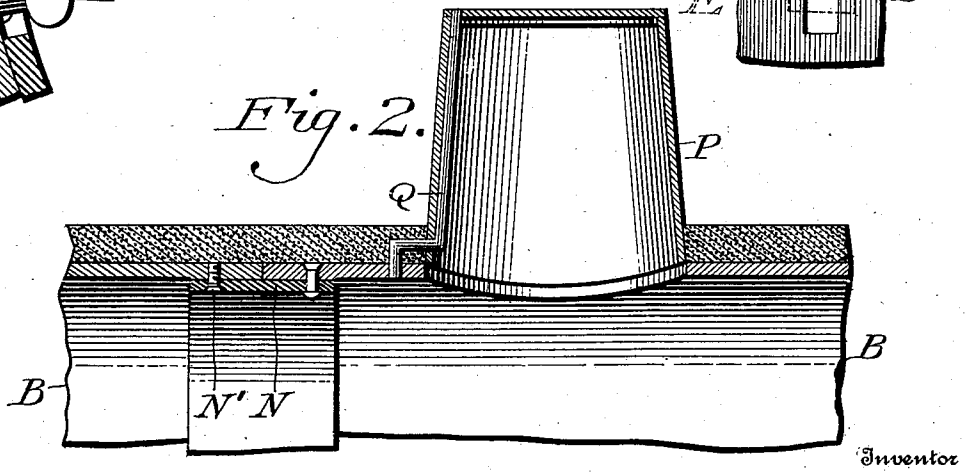


Fig. 2.



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No. 727,272. Patented May 5, 1903.

UNITED STATES PATENT OFFICE.

JACOB B. BLAW, OF ATLANTIC CITY, NEW JERSEY.

SEWER-MOLD.

SPECIFICATION forming part of Letters Patent No. 727,272, dated May 5, 1903.

Application filed January 20, 1903. Serial No. 139,754. (No model.)

To all whom it may concern:

Be it known that I, JACOB B. BLAW, a citizen of the United States, residing in Atlantic City, county of Atlantic, State of New Jersey, have invented new and useful Improvements in Sewer-Molds, of which the following is a specification.

My invention consists of a mold for forming a sewer, the same being adapted to be easily located in position and firmly sustained, provision being also made for conveniently removing the mold, and other features are presented, as will be hereinafter set forth, the novel features of the invention being pointed out in the claims.

Figure 1 represents a transverse vertical section of a sewer-mold embodying my invention. Fig. 2 represents a longitudinal vertical section of a portion thereof. Fig. 3 represents a vertical section of a detached portion on an enlarged scale. Fig. 4 represents a view of the interior of a portion shown in Fig. 3.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a mold composed of a cylinder formed of upper and lower segments B, which may be connected as one and form a mold on which a sewer of cement, brick, or other masonry may be formed or built up. As means of connection for said segments I employ the plates C, which are secured to the end portions of one section and lap the end portion of the opposite section, the lapping portions being provided with slots D, preferably staggered in Fig. 4, through which slots are passed the bolts E, the heads E′ of which occupy countersunk openings E^2 in the ends of the section outside of said plates and have thumb-pieces E^3, which are flattened and which when the bolts are turned in one direction may be passed through said slots D, so as to provide for the disconnection of the plates with the lower section, and when turned in the other direction are designed to connect said plate and sections, thus locking the latter as one.

F designates shoes, which are of segmental form, which rest, respectively, upon the inner faces of the upper and lower sections of the mold, the same having connected with them the screws G, which latter are engaged with the central buckle H, it being evident that by rotating said buckle in one direction the shoes may be pressed against the opposite sections, so as to firmly sustain and brace the same, while in a measure expanding the diameter of the existing cylinder. When said buckle is rotated in the opposite direction, the shoes are relieved and the sections are permitted to contract or close, and thus in a measure reduce the diameter of said cylinder.

On the inner faces of the sections are the hooks J, to which are applied cables, ropes, or equivalent devices K for contracting the sections in lateral direction. A similar cable, rope, or equivalent device L may be connected with hooks M on the plates C for drawing in said plates while disconnecting the sections.

The operation is as follows: The lower section of the cylinder is placed in a trench, on which is previously laid the cement or other material for the lower portion of the sewer. The upper section of the cylinder is then located on the lower section thereof, and the bolts E are applied. The shoes, screws, and buckle are now inserted in proper position in the cylinder and said buckle operated so as to tighten the shoes against the inner faces of the sections of the cylinder, the slots D permitting the sections to spread outwardly to a limited extent, while the sections are then subjected to pressure from within, due to the action of the buckle and screws, as has been stated, thus presenting a strong structure on which cement or other material is laid to form the upper portion of the sewer, the latter thus being molded in an effective, practical, and convenient manner. As another cylinder is placed in position against the one previously located the two cylinders are coupled by the plates N, which are riveted or otherwise firmly secured to one cylinder and enters the other cylinder, with which it is screwed or bolted at N′, as shown in Fig. 2. After the cement or material is set and the opposite cylinders are disconnected at the plate N the buckle H is rotated, so as to relieve the sections of the cylinder of the pressure of the shoes when the mold is reduced in diameter in the direction of its height. Then the cables or chains K L are twisted or tightened by means of a stick or other suitable device, as at L′, so as to draw in the side

portions of the mold and reduce the diameter of the mold in the direction of its width, when the mold may be withdrawn through the sewer, and so entirely removed therefrom. As the work progresses the manhole P and the pipe Q for escape of sewer-gas are duly located.

While I have described the mold as composed of a cylinder, such form being preferred, any other suitable tubular shape may be employed for my purpose.

Various changes may be made in the details of construction without departing from the general spirit of my invention, and I do not, therefore, desire to be limited in each case to the same.

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

1. A sewer-mold consisting of semitubular sections and means for sustaining the mold from within and expanding the same contracting means.

2. A sewer-mold consisting of semitubular sections and means for separating said sections in diametrical direction and means within said sections for contracting the same when separated.

3. A sewer-mold formed of semitubular sections, means for connecting said sections and means for expanding the diameter of the mold from within the same and means for contracting the same.

4. A sewer-mold formed of semitubular sections and means for sustaining and distending the mold, the same consisting of a shoe adapted to engage a section from within and means for advancing said shoe and means for contracting the sections when separated.

5. A sewer-mold formed of semitubular sections, means for sustaining and distending the mold, the same consisting of shoes adapted to engage the sections from within, screws fitted to said shoes and a rotatable device engaging said screws and means extending diametrically of the sections and joining the connecting means.

6. A sewer-mold formed of semitubular sections, a plate attached to either section, said plate having a slot therein, and a bolt passing through said slot into the other section and having elongated head within the sections.

7. A sewer-mold formed of semitubular sections, a slotted plate attached to either section and a bolt having a head freely mounted on the other section and having a thumbpiece of flattened form which is adapted to pass through the slot of said plate, the body of said bolt occupying said slot.

8. A sewer-mold formed of semitubular sections and means within a section for contracting the same consisting of a cable or equivalent and a twisting device therein, said cable being attachable to said section.

9. A sewer-mold formed of semitubular sections, a plate connected with the end of one section and overlapping the other section from within and means connected with said plate for drawing the same inwardly.

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