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PIPE-MOLD.

935,529.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWARD L. MAAG, citizen of the United States, residing at Chillicothe, in the county of Ross and State of Ohio, have invented certain new and useful Improvements in Pipe-Molds, of which the following is a specification.

The present invention relates to certain new and useful improvements in the construction of that type of molds which are employed for forming pipes from concrete or other plastic material, and the object of the invention is the provision of a pipe mold embodying novel means for expanding and contracting the core.

The invention further contemplates a mold of this character which is inexpensive in its construction and which can be easily operated by a single laborer.

With these and other objects in view that will more fully appear as the description proceeds, the invention consists in certain constructions and arrangements of the parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention and the merits thereof, and to acquire a knowledge of the details of construction, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a vertical sectional view through a pipe mold embodying the invention; Fig. 2 is a top plan view of the mold, portions being broken away; Fig. 3 is a detached perspective view of the jacket adapted to fit around the core; Fig. 4 is a perspective view of the core, showing a modification; Fig. 5 is a detail perspective view of the pallet ring; Fig. 6 is an enlarged detail view of one of the fastening members for securing the sections of the outer case together.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

Referring to the drawing, the numeral 1 designates the core of the mold, the said core being in the nature of a hollow shell and being provided upon one side with a longitudinal slit 2 so that it can be expanded and contracted by moving the edges of the slit either away from or toward each other, as required. In the preferred construction, this core is

formed of sheet metal and is reinforced at its upper and lower ends by the split rings 3 which are secured thereto. These rings may be conveniently formed of angle irons, and secured to the split ends of the rings are the inwardly projecting lugs 4, a pair of these lugs being located at each end of the core, and the said lugs abutting against each other when the core is contracted. The opposing edges of each pair of lugs 4 are formed with the corresponding notches 4^a which coöperate with each other to form a radially elongated opening. Extending through these openings is a flattened shaft 5, one end of which is extended laterally to provide a handle 5^a. When the flattened shaft is turned so that the sides thereof have a radial direction, the said shaft fits accurately within the notches 4^a and permits the edges of the slit to come together. However, when the shaft is turned through a quarter revolution so that the sides thereof are disposed at a right angle to the radius, the lugs 4 are wedged apart and the core 1 thereby expanded.

A pair of arms 6 are secured to the core 1 at the top and bottom thereof adjacent one of the edges of the slit 2, so as to project beyond said edge and engage the opposite edge of the slit. These arms serve to prevent the edges of the slit from springing either in or out when the shaft 5 is turned. Fitting removably around the core 1 is a jacket 7 which is also formed of sheet material and has overlapping edges so that it can be readily expanded or contracted to fit the core. This jacket is designed to remain within the concrete pipe after the core has been removed, and this permits the core to be removed much sooner than would otherwise be the case. It will also be apparent that this jacket will extend over the slit 2 of the core so as to cover the same and prevent the plastic material entering the core when the mold is in use. The ring 8 which serves as a pallet upon which the concrete is molded, fits around the core and jacket at one end thereof, and is engaged by an outer shell which is spaced from the core. This outer shell is formed in a pair of semicylindrical sections 9, the outer edges of the said sections being reinforced by the strips 10, while the meeting edges of the sections are provided with the angle irons 11. Corresponding flanges 12 project outwardly from the angle

irons 11 upon the two sections of the shell, one of the flanges of each pair being formed with a stud 13 designed to enter an opening in the opposite flange to accurately position the sections and hold them against relative displacement when locked together. A lever 14 is also pivoted upon one of the flanges 12 of each pair, the said lever being provided with an arm 14^a designed to engage the opposite flange and to lock the two flanges together when the lever is swung into a predetermined position. As shown on the drawing, the sections of the shell are released when the levers are swung upwardly, and locked together when the levers are swung downwardly.

A modification of the invention is shown in Fig. 4, in which one of the edges of the slit in the core overlaps the opposite edge as indicated at 2^a. With this construction, it will be obvious that it is not necessary to use the jacket, since the slit is always closed, even when the core is expanded.

In the preferred embodiment of the invention the split rings and sheet metal covering of the core have a spring action which normally retains the core in a contracted condition. It will thus be obvious that when removing the core from the mold it is merely necessary to turn the shaft through a quarter revolution and thereby permit the edges of the slit to spring together.

Having thus described the invention, what I claim is:

35 1. A core for a pipe mold, comprising a hollow shell provided upon one side with a slit so that the core can be expanded and contracted by moving the edges of the slit either away from or toward each other, corresponding lugs projecting inwardly from the shell upon opposite sides of the slit, and a shaft provided with a flattened portion for

coöperation with the lugs to spread them apart.

2. A core for a pipe mold, comprising a hollow shell provided upon one side with a slit so that it can be expanded and contracted by moving the edges of the slit away from or toward each other, positioning arms projecting from one edge of the slit and loosely engaging the opposite edge, corresponding lugs projecting from the shell on opposite sides of the slit, and a shaft formed with a flattened portion for coöperation with the lugs to spread them apart.

3. A core for pipe molds, comprising a hollow shell provided upon one side with a slit so that it can be expanded and contracted by moving the edges of the slit away from or toward each other, corresponding lugs projecting inwardly from the shell upon opposite sides of the slit and provided upon their adjacent edges with notches, and a flattened shaft received within the notches and adapted to coöperate with the lugs to spread them apart.

4. A core for pipe molds, comprising a shell provided upon one side with a slit so that it can be expanded and contracted by moving the edges of the slit either away from or toward each other, corresponding lugs projecting from the shell upon opposite sides of the slit, a shaft formed with a flattened portion adapted to coöperate with the lugs to spread them apart, and a removable jacket fitted upon the exterior of the core and extending over the slit therein.

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

EDWARD L. MAAG. [L. s.]

Witnesses:

WILBY G. HYDE,
OLIVE L. PULLEN.