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H. BURCHARTZ

1,678,633

CASTING PIPE

Filed Dec. 10, 1924

FIG. 1.

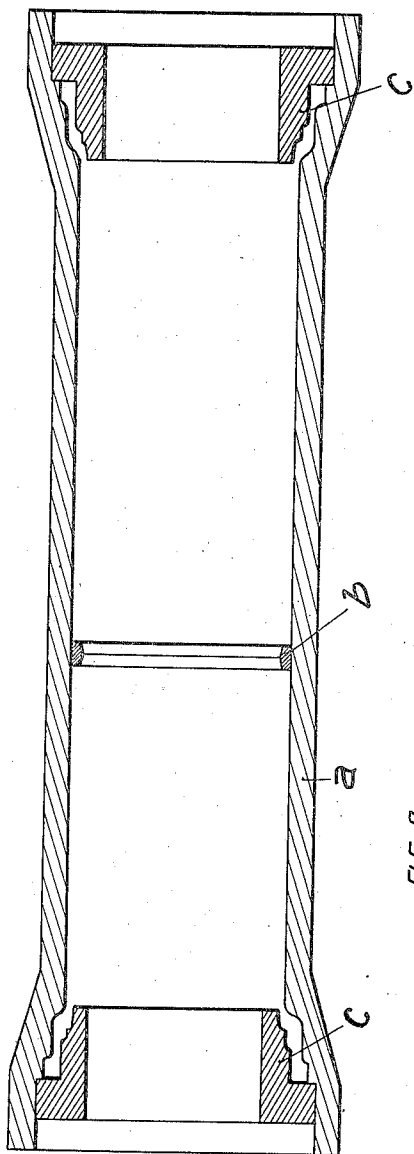


FIG. 3.

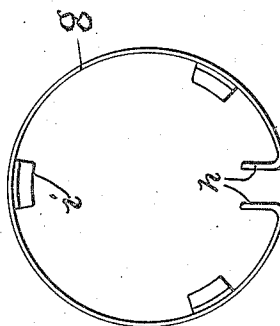
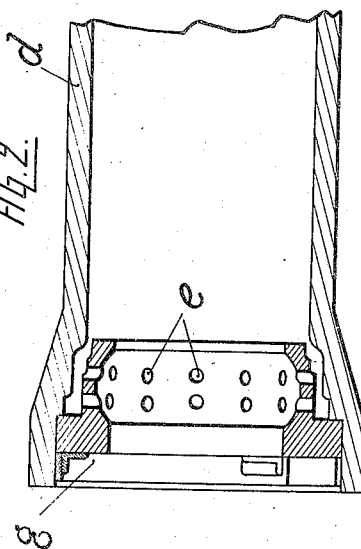


FIG. 2.



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UNITED STATES PATENT OFFICE.

HEINRICH BURCHARTZ, OF GELSENKIRCHEN, GERMANY, ASSIGNOR, BY MESNE ASSIGNMENTS, TO CENTRIFUGAL PIPE CORPORATION, A CORPORATION OF DELAWARE.

CASTING PIPE.

Application filed December 10, 1924, Serial No. 755,106, and in Germany December 17, 1923.

My invention relates to means for casting pipes or other hollow bodies by the centrifugal process.

Heretofore in the art of casting pipes and the like by the centrifugal process the moulds were only provided with a single sleeve or bell so that only a single pipe could be cast in a mould at a time. It is an object of my invention to increase the efficiency of the process by making two pipes each having a bell in a single mould at the same time. I have attained this object by providing the mold with a bell cavity at either end and by placing a partition ring within the mold intermediate its ends. Thus the two pipes are cast end to end with their bell ends outermost and can be readily removed from the mold at the terminating of the casting operation. Without the partition ring dividing the casting into two separate parts this would be impossible and a unitary casting with two bell ends would simply be immured in the mold.

In the drawings affixed to this specification and forming part thereof, a device embodying my invention is illustrated diagrammatically by way of example. In the drawings

Fig. 1 is a longitudinal section of the mold.

Fig. 2 is a similar view of the base portion of a modified form, and

Fig. 3 is a plan view of a split ring for holding in position the core for the sleeve.

Referring first to Fig. 1, *a* is the body of the mould which is provided with cores *c* and *c* at both ends for the sleeves or bells of the pipes, and *b* is a partition ring inserted in the mould, preferably like a piston packing ring. The position of this ring determines the length of the pipes cast in the mould.

The casting of the second bell, that is the bell which adjoins the molten metal reservoir (not shown) in a machine of the spout type involves certain difficulties. The usual solid core to a certain extent hinders the filling of the hollow for the bell, particularly if the mould is slightly inclined at the front end. In order to ensure a complete filling of this hollow, I use a core as shown in Fig. 2, this core being concave on the inside and pro-

vided with suitably directed perforations or slots *e*. When the casting operation is complete the two pipes are withdrawn from opposite ends of the mold.

In order to prevent the core from becoming loose or being displaced during the rotation of the mould, a split ring or spring clip *g* is preferably inserted at the end of the mould as shown in Fig. 2; this clip tightly engaging the walls of the mould and holding the core for the sleeve in position. Preferably the clip *g* is provided with ears *h* by which it may be engaged in order to remove it from the mould, and lugs *i* may be provided to assist in holding the core in position.

I wish it to be understood that I do not desire to be limited to the exact details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

I claim:—

1. A mold for centrifugally casting two bell-ended pipes in the same casting operation comprising a body, a bell cavity and core at each end of the body and a partition ring within the body intermediate its ends for dividing the two castings.

2. A mold for centrifugally casting two bell-ended metal pipes in the same casting operation in a machine of the spout type, comprising a body, a bell cavity and core at each end of the body and a partition ring within the body intermediate its ends for dividing the two castings, the core at the end last to receive the metal being provided with means permitting the passage of molten metal through the core to the cavity beneath.

3. A mold for centrifugally casting two bell-ended metal pipes in the same casting operation in a machine of the spout type, comprising a body, a bell cavity and core at each end of the body and a partition ring within the body intermediate its ends for dividing the two castings, the core at the end last to receive the metal having a concave inner face and perforations extending from said inner face through the core permitting the passage of molten metal to the cavity beneath.

In testimony whereof I affix my signature.
HEINRICH BURCHARTZ.