

A. J. LEVY.
MACHINE FOR FABRICATION OF PIPES.
APPLICATION FILED AUG. 19, 1910.

996,264.

Patented June 27, 1911.

Fig. 1.

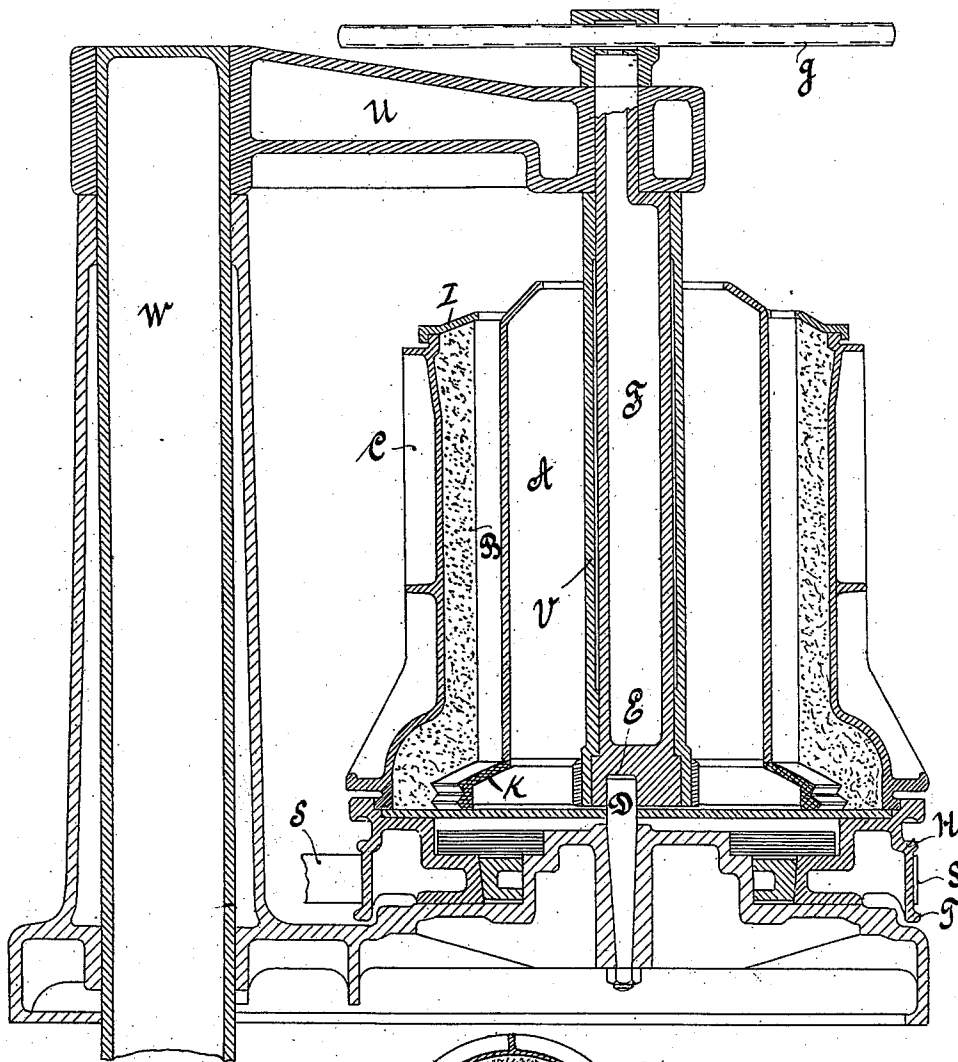
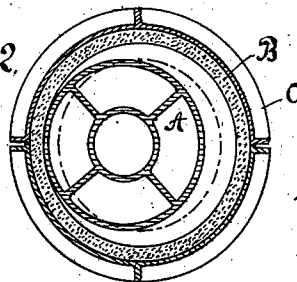


Fig. 2.



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UNITED STATES PATENT OFFICE.

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MACHINE FOR FABRICATION OF PIPES.

996,264.

Specification of Letters Patent. Patented June 27, 1911.

Application filed August 19, 1910. Serial No. 578,067.

To all whom it may concern:

Be it known that I, ANATOLY J. LEVY, a subject of the Czar of Russia, residing at Morskoy Canal, Kanonersky Island, St. Petersburg, Russia, have invented certain new and useful Improvements in Machines for Fabrication of Pipes, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to a machine for the fabrication of pipes of concrete or analogous plastic material and it has for its objects among others to provide an improved machine as well as a novel method
15 for accomplishing such end.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be particularly pointed out in the appended claims.

20 The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification and in which—

25 Figure 1 is a longitudinal section of the machine. Fig. 2 is a cross section on a reduced scale through the latter.

Like letters of reference indicate like parts throughout the different views.

30 Referring to the drawings, Fig. 1, C designates an external cylinder or jacket resting upon a support or plate H which terminates in a sheave T designed to be revolved in any suitable manner, as by means
35 of a belt S. Within the cylinder C an internal cylinder A is placed, disposed eccentrically thereto, it being understood, of course, that the internal cylinder A is of less diameter than the outer cylinder C, the
40 internal cylinder having an axial sleeve V joined to the outer wall of the internal cylinder by suitable radial ribs, as seen clearly in Fig. 2. The cylinder A has its hub B
45 mounted on the hollow shaft F which has two eccentric pins, the upper one of which rotates in a bracket U and is, in effect, a continuity of the shaft F, being preferably
50 integral therewith. The other pin D is fixed to the base or framework of the device and its upper end is engaged in an
55 opening E in the lower end of the hollow shaft F. It will be noted that the axes of both pins are in one straight line and this line is eccentric to the axis of the axle of shaft F. A hand wheel or the like g is affixed to the outer end of the upper pin. By

this means, the internal cylinder A can, by a turn of the said wheel g, be brought into an eccentric position, as seen in Fig. 2, or a concentric position, as seen in Fig. 1, with
60 relation to the exterior cylinder.

W is a post or support upon which the bracket U is fixed.

The operation is as follows. The internal cylinder A is first brought into its central
65 or concentric position, as shown in Fig. 1. Then the plastic material is put into the space between the two cylinders, as seen in said Fig. 1. The outer cylinder C is then rotated, and by means of the hand wheel g
70 the internal cylinder A is progressively brought into its eccentric position, that seen in Fig. 2. By this means, the internal cylinder presses the plastic mass against the
75 walls of the external cylinder, so that the internal diameter of the pipe in its course of manufacture widens, its sides growing thinner, and it receives a form corresponding to both cylinders. Upon completion of
80 this process of forming the pipe, the internal cylinder is again brought back to its central or concentric position and the shaft F is lifted upward by means of the bracket and the sleeve V, so that the jacket C with
85 the pipe B thus formed can be readily removed.

To manufacture pipes of a particular construction in which the pipe-end is not vertical to the pipe-axis but is bound by another surface, for example as in Fig. 1,
90 by a spherical surface, the two cylinders—the outer C and the inner A—are provided with separate parts for producing these surfaces. In the constructional form illustrated in the drawings, a plate I is fastened on the
95 outer cylinder and a projection K on the inner cylinder, which are bound by equal spherical surfaces, whereby the spherical faces on the spigot end of the pipe and in the bell are formed. The outer cylinder is
100 furthermore shaped conically on its top, whereby the end of the pipe is formed heavier. The side face of the projection K is milled for the purpose of providing the
105 inner wall of the bell with circular packing channels.

What is claimed as new is:—

1. In a device for the purpose described, an external cylinder, an internal cylinder therein, a support for the external cylinder
110 terminating in a sheave, the internal cylinder being disposed eccentrically with re-

lation to the external cylinder, an axial sleeve in said internal cylinder with radial means joining the same to the outer wall of said internal cylinder, a hollow shaft on which the hub of the internal cylinder is mounted, and eccentric pins at opposite ends of said shaft.

2. In a device for the purpose described, an external cylinder, an internal cylinder therein, a support for the external cylinder terminating in a sheave, the internal cylinder being disposed eccentrically with relation to the external cylinder, an axial sleeve in said internal cylinder with radial means joining the same to the outer wall of said internal cylinder, a hollow shaft on which the hub of the internal cylinder is mounted, and eccentric pins at opposite ends of said shaft, the axis of said pins being in one straight line eccentric to the axis of the hollow shaft.

3. In a device for the purpose described, an external cylinder, an internal cylinder therein, a support for the external cylinder terminating in a sheave, the internal cylinder being disposed eccentrically with relation to the external cylinder, an axial sleeve in said internal cylinder with radial means joining the same to the outer wall of said internal cylinder, a hollow shaft on which the hub of the internal cylinder is

mounted, and eccentric pins at opposite ends of said shaft, the axis of said pins being in one straight line eccentric to the axis of the hollow shaft, the bottom pin being affixed in the base of the device and engaging an opening in the lower end of the hollow shaft.

4. In a device for the purpose described, an external cylinder, an internal cylinder therein, a support for the external cylinder terminating in a sheave, the internal cylinder being disposed eccentrically with relation to the external cylinder, an axial sleeve in said internal cylinder with radial means joining the same to the outer wall of said internal cylinder, a hollow shaft on which the hub of the internal cylinder is mounted, eccentric pins at opposite ends of said shaft, the axis of said pins being in one straight line eccentric to the axis of the hollow shaft, the bottom pin being affixed in the base of the device and engaging an opening in the lower end of the hollow shaft, and rotating means affixed to the outer end of the uppermost pin for turning the internal cylinder.

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

ANATOLY J. LEVY.

Witnesses:

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