Patented Feb. 7, 1933 1,896,973

UNITED STATES PATENT OFFICE

ABRAHAM RUTENBERG, OF HAIFA, PALESTINE

MOLDING OF CONCRETE AND LIKE PIPES

No Drawing. Application filed May 23, 1929, Serial No. 365,571, and in Great Britain June 1, 1928.

This invention relates to the molding of concrete and like pipes and relates more particularly to the molding of such pipes by the centrifugal or spinning process.

It is well known in this art that by rotating the molds at appropriate speed the materials become well compacted, thus forming a dense concrete which is impervious to liquids or gases under low pressures; at higher pressures however it is found that pipes made by this process in the known manner particularly such of large diameter cease to be impermeable. The object of the invention is to improve the centrifugal or spinning process so that the pipes may remain impervious at relatively high pressures.

In the improved process in accordance with the present invention metal—such as steel or iron—is introduced in small particles into the molds with the concrete. As the metal has a specific gravity considerably in excess of the remaining materials, the kinetic energy of the metal particles under the centrifugal force during the spinning action will be relatively greater than that of the other particles and therefore the above metal particles will find their way into the pores of the concrete and will form with the corresponding part of the concrete a layer of a very dense mass of considerably increased tensile strength and impermeability. Such a layer can be formed at will at the outer or inner surface of the pipe or anywhere in the middle of the thickness of the pipe wall, this depending upon the metal being introduced into the mold in the first or in any other consecutive charge of the concrete material.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. In a process for molding spun concrete or like pipes by centrifugal force, the step of introducing metal in small particles with the concrete material into a revoluble mold and due to the higher specific gravity of the metal the metal particles become lodged in pores of the concrete and form with the concrete material a dense layer of increased strength and impermeability within the pipe wall.

2. A process as described in claim 1, but used for making very dense and highly impermeable concrete linings in pipes or tubes.

In testimony whereof he affixes his signature.

ABRAHAM RUTENBERG.