Oct. 27, 1925. 1,558,801

C. FREY

INTERLOCKING REENFORCED CONCRETE CONSTRUCTION

Filed May 26. 1924

Fig. 1.

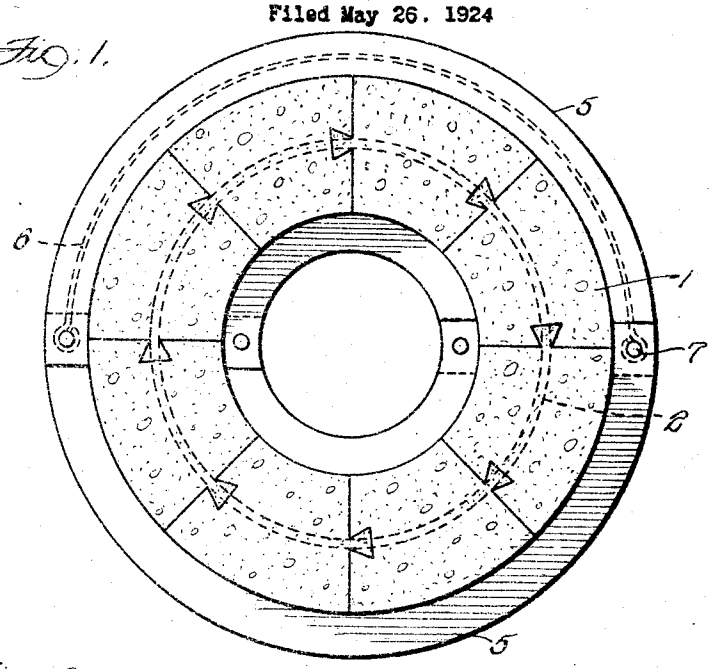


Fig. 2.

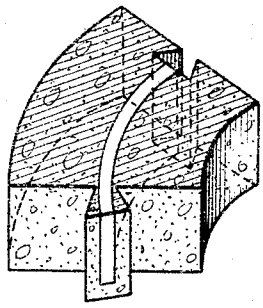


Fig. 3.

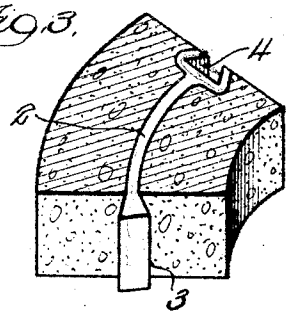
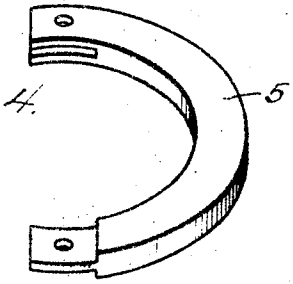


Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES FREY, OF CHICAGO, ILLINOIS.

INTERLOCKING REENFORCED CONCRETE CONSTRUCTION.

Application filed May 26, 1924. Serial No. 715,950.

To all whom it may concern:

Be it known that I, CHARLES FREY, a citizen of the United States of America, and a resident of Chicago, county of Cook, and State of Illinois, have invented a new and useful Improvement in Interlocking Reenforced Concrete Construction, of which the following is a specification.

The main object of this invention is to provide reenforced concrete blocks or forms for construction purposes, in which the reenforcement acts as an interlocking element holding the pieces in coacting position; to provide, through the reenforcing element in the concrete block construction, a means of locking the blocks in their relative position during the setting up process; to provide an interlocking reenforcement in the concrete construction which will increase the bond between the blocks; to provide a reenforcement which not only strengthens the block, but at the same time furnishes a substantial method of holding the blocks in their predetermined relative position; and to provide a block which, set up in a circular wall designed to sustain pressure, will have reenforcement lock to resist rupture at the joints from such internal pressure.

An illustrative embodiment of this invention is shown in the accompanying drawings, in which:

Fig. 1 is a plan view of a cistern top showing the application of my invention,

Fig. 2 is a perspective view partly in section showing an interlocking dove-tailed joint, partly of reenforcement and partly of cement.

Fig. 3 is a perspective view partly in section showing an interlocking block construction in which the dove-tailed tongue and the dove-tailed groove are formed entirely of reenforcing material.

Fig. 4 comprises a reenforced unit with a standard tongue and groove joint.

My invention is shown by the illustration in Fig. 1 in which curved concrete blocks 1 are assembled, forming a circular top of a cistern or the like. Through the interior of the cement block 1 passes a reenforcing bar 2, the reenforcing bar 2 has a dove-tailed tongue 3 and a dove-tailed groove 4 which coact in forming the circular top, the blocks themselves having been made in forms to make a circle of a predetermined size. The outer circle of the cistern is represented by forms 5 which have tongue and groove joints and are provided with a reenforcing bar 6 and a pin 7 to hold the circular wall forms 5 in position.

While in this illustration, two forms of reenforcing walls and blocks are shown, it will be evident to those skilled in the art that the dove-tailed tongue and groove construction shown in Fig. 3 is adapted to form the external wall of a cistern and resist the internal pressure tending to open the joints between the blocks. It will also be evident to those skilled in the art that a comparatively small amount of space in the block will be taken up by the reenforcing material and that the reenforcing material is of such a design that each unit comprises a link in an interlocking chain. For square faced block construction two such links may be used, producing a floor or road construction in which the interlocking system comprising my invention is applicable for road construction, or in any place where the tendency is to open the joints between the blocks.

Although but one specific embodiment of this invention has been herein shown and described it will be understood that numerous details of the construction shown may be altered or omitted without departing from the spirit of this invention as defined by the following claims.

I claim:

1. Reenforcement for cement blocks, a cement block, a projecting dove-tailed tongue on said reenforcement and dove-tailed groove in said reenforcement, said tongue and groove being adapted to form close fitting reenforced joints between cement blocks.

2. As an article of manufacture, a cement block, reenforcement in said block, a dove-tailed tongue formed on said reenforcement and projecting from said block, a dove-tailed groove formed in said reenforcement and recessed in said cement block, said tongue and groove being spaced to coact with similar blocks.

Signed at Chicago this 20th day of May 1924.

CHARLES FREY.