

G. F. BASON.
TANK.

APPLICATION FILED JULY 14, 1913.

1,103,470.

Patented July 14, 1914.

Fig. 1.

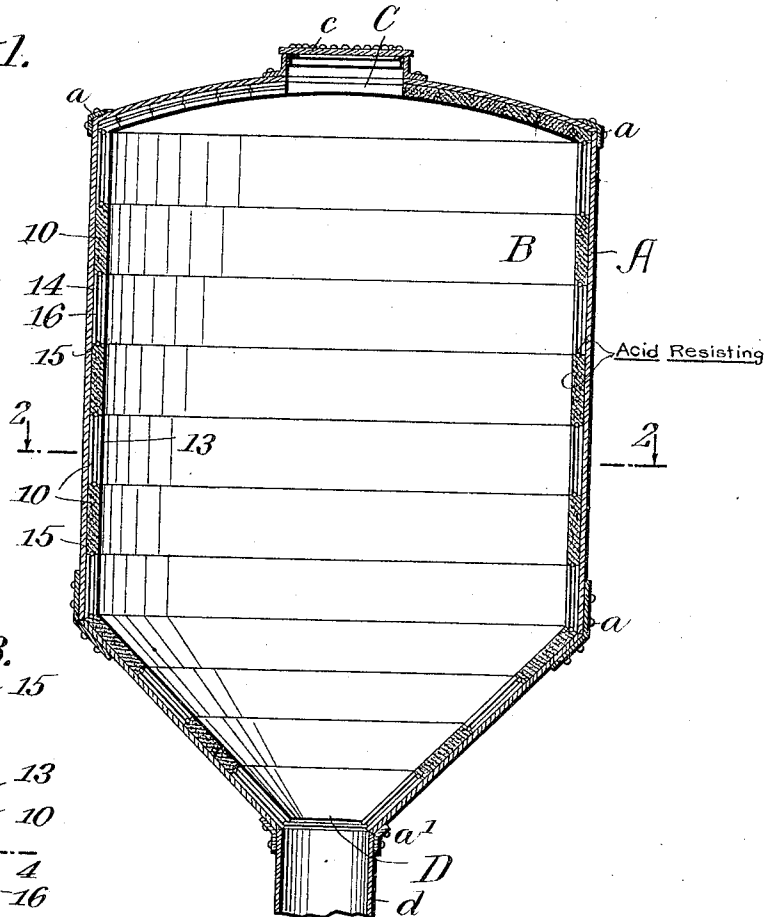


Fig. 3.

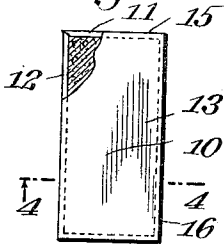


Fig. 4.

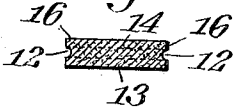
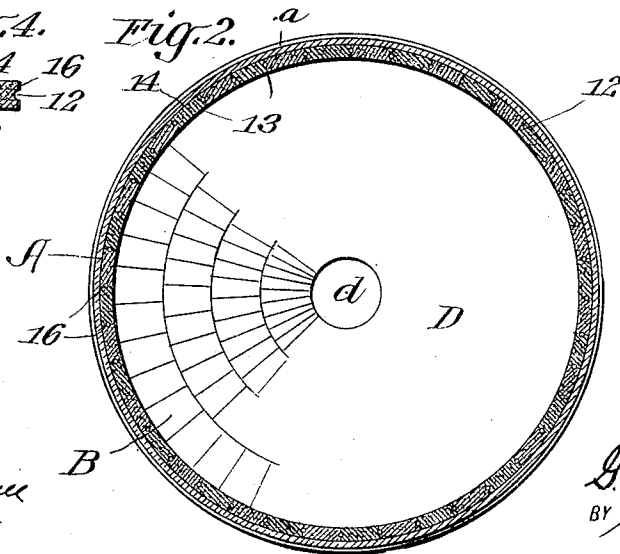


Fig. 2.



WITNESSES

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TANK.

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To all whom it may concern:

Be it known that I, GEORGE F. BASON, a citizen of the United States, and a resident of the borough of Brooklyn, city and State of New York, have invented certain new and useful Improvements in Tanks, of which the following is a specification.

This invention has for its object the provision of a tank wherein refuse material may be treated and which has an interior lining of new and advantageous construction adapted to successfully resist the destructive effects of sulfuric acid or other acids, as well as of water or the like, or vapors. In accordance with this object, and others which will appear from the hereinafter description of the invention, there is provided as hereinafter more particularly set forth, a tank, or the like, whose outer surface may be made of metal or other appropriate material and which is strengthened and protected by an inner layer or lining formed of a series of relatively thin and narrow units, as bricks or blocks, made of plastic material of suitable nature, molded to shape, the said bricks or blocks being set edgewise one upon another and in a relation which causes them to break joints, each of said bricks or blocks having its angularly disposed edges formed with grooves or depressions of which those of each brick or block mate with the corresponding ones of the adjacent bricks or blocks, forming circular or other suitably shaped openings which are filled with concrete or other suitable plastic material by which the bricks or blocks are effectively locked together.

In the accompanying drawings which exemplify the preferred embodiment of the invention, and wherein like characters of reference denote like parts in the several views:—

Figure 1 is a sectional view of a tank constructed in accordance with the present invention. Fig. 2 is a section on the line 2—2 of Fig. 1. Fig. 3 is a detail view, partly broken away of one of the bricks or blocks employed in the formation of the inner lining of the tank, and Fig. 4 is a section on the line 4—4 of Fig. 3.

The tank may be of any suitable shape and size, and may be set horizontally or vertically as desired. It is herein exemplified as being circular in cross section and

set to stand vertically, and the invention will be described accordingly, but it will be understood that the terms hereinafter employed with this particular shape and arrangement in view are intended to be merely exemplary, and not restrictive.

The tank is formed of an outer lining or casing A and an inner lining B and has at its upper end a charging opening C provided with a suitable closure *c* and at its lower end an outlet opening D provided with a conduit *d* and which conduit, in practice, preferably has a valve, or other suitable means (not shown) for controlling the discharge of the material from the tank. The bottom of the tank is of inverted approximately-conical shape with the conduit *d* arranged at the smallest diameter thereof so as to direct the material to said conduit and thereby facilitate its discharge.

The outer lining or casing is preferably made of sheet metal having outer reinforcing straps, *a*, at the junctions of the upper and lower edges of the body with the top and bottom respectively and like reinforcing straps *a'* at the junction of the bottom with the conduit *d*.

The inner lining B is made up of a series of bricks or blocks 10 which are preferably of oblong shape and are set upon edge so as to be in edgewise engagement with each other both vertically and horizontally; and said bricks or blocks are also relatively so arranged that they break joints. Each has its angularly-disposed edges formed with grooves or depressions, marked 11 and 12 respectively. Each of these grooves or depressions is preferably of concave form but they may be of other approved shape, if preferred. They preferably terminate short of the inner and outer surfaces 13 and 14 of the bricks or blocks so as to leave bearing surfaces 15 and 16 on the edges of each brick or block for engagement with like surfaces of the adjacent bricks or blocks. These grooves or depressions receive concrete or other suitable plastic material which when set binds them tightly together, and it will be noted that when the lining is formed the horizontal rows of bricks will be bound together upon their confronting transverse edges by continuous binders of plastic material while the longitudinal edges of the bricks or blocks in the respective rows will be bound to each other by like binding ma-

terial, which latter is interrupted vertically by the offset or break-joint arrangement of the bricks or blocks.

The bricks or blocks, as already stated, are preferably of oblong shape and may be thin as compared with their length, and are made of suitable plastic material molded to shape. For round tanks they may be made concavo-convex and they form a smooth and resistant surface which may be inexpensively produced and will be of maximum durability.

Having now described the invention what is claimed is:

A tank or the like provided with bottom and top closures, said closures having respectively supply and discharge openings therein, the sides, top and bottom of the tank consisting of an outer lining or casing and an inner lining, the said inner lining being composed of a series of acid resisting bricks or blocks which are set in rows, those of one row breaking joints with those of the adjacent row, the said bricks or blocks which form the inner linings of the side and bottom closure having their longitudinal and transverse edges formed with grooves or depressions which mate with the

corresponding ones in the adjacent bricks or blocks, the bricks or blocks forming the inner lining for the top closure being similarly constructed and arranged, and the bricks forming the lower row thereof having a groove or depression in the under side thereof which mate with the grooves or depressions formed in the upper edges of the bricks or blocks of the upper row of the side lining, all of said grooves or depressions being constructed to receive an acid resisting binding material, arranged in continuous horizontal lines and in staggered longitudinal lines, the ends of each longitudinal section of binding material securing themselves to the adjacent continuous line of binding material thereby forming a net work of binding material securely holding the bricks or blocks together.

In witness whereof I have hereunto set my hand at the borough of Manhattan, city and State of New York, this third day of July, 1913.

GEO. F. BASON.

In presence of—

JOHN J. RANAGAN,
A. C. O'CONNELL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."