

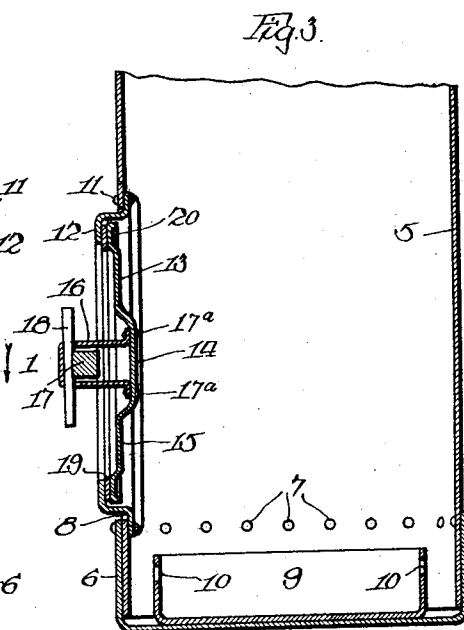
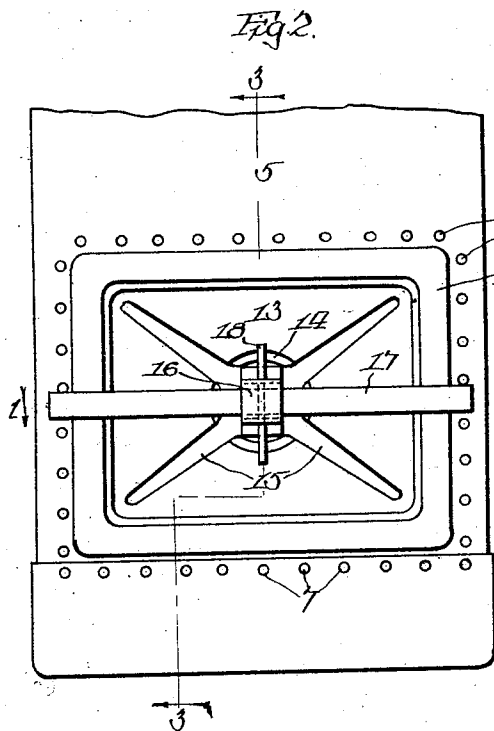
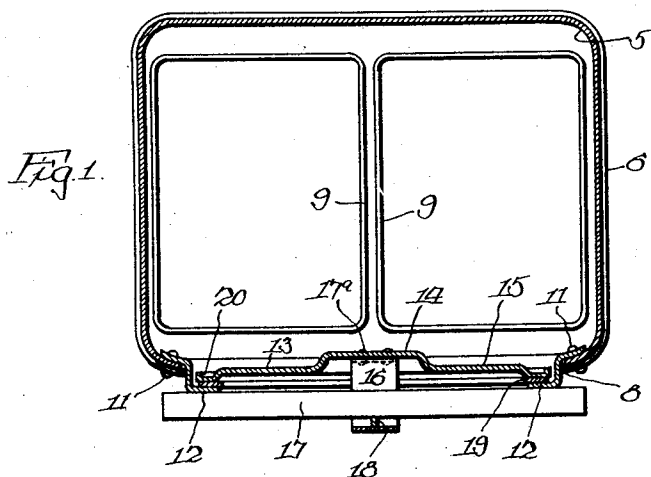
Sept. 28 , 1926.

1,601,435

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BRINE TANK STRUCTURE

Filed Nov. 2, 1925



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BRINE TANK STRUCTURE.

Application filed November 2, 1925. Serial No. 66,222.

This invention relates, generally, to that type of tank or containers employed for holding brine, but has particular relation to such tanks as are used on refrigerating cars wherein it is desirable to remove from the same sediment or accumulations which may collect at the bottom thereof, and it consists in certain peculiarities of the construction, novel arrangement and combination of the various parts thereof as will be hereinafter more fully set forth and specifically claimed.

The principal object of our invention is, to provide a brine tank which shall be highly efficient in use, strong and durable, with its parts so made, arranged and co-operating with one another as to afford improvements over the old style of brine tanks.

The invention also contemplates as one of its objects, the provision in a brine tank of an opening in its lower portion, for the removal of sediment, and a removable door or closure therefor, with means for readily and securely fastening the closure in place or for its detachment and removal.

Another object of the invention is, to provide the lower portion of the tank with an extended or reenforcing base bottom.

Other objects and advantages of the invention will appear in and become obvious from the following explanation, which, will be more readily understood when read in conjunction with the accompanying drawing wherein an embodiment of which the invention is susceptible is illustrated, it being understood that changes and modifications may be resorted to without a departure from the spirit of the invention so long as they fall within the scope of the appended claim.

In the drawing—

Fig. 1, is a horizontal sectional view through the tank taken on line 1, 1, of Fig. 2, looking in the direction of the arrows.

Fig. 2, is a view in front elevation of the lower part of the tank.

Fig. 3, is a vertical sectional view taken on line 3, 3, of Fig. 2, looking in the direction of the arrows.

Referring now to the drawing, the reference numeral 5 designates the tank which may be made of any suitable size and material and form, but it is equipped at its bottom with a base 6, which surrounds the lower portion of the tank and is secured at its edge thereto by a series of rivets 7 or otherwise,

thus forming a reenforcing base. Just above this base the tank is provided in one of its walls, usually the face wall thereof, with a slightly laterally elongated opening 8 for the insertion into and removal from the tank of a plurality of trays or vessels 9 employed for collecting sediment from the brine. The opening 8 in the tank 5 may be of any suitable size, but usually of a restricted or small formation, but large enough to permit of the vessels 9 being removed therethrough by means of an instrument such as a rod or the like, being inserted through the opening 8 to cause it to engage one of the small openings 10 with which each of the trays or vessels 9 is provided in each of its ends as is clearly shown in Fig. 3 of the drawing.

Secured to the tank 5 by means of bolts 11 or otherwise and to the inner surface thereof around the perimeter of the opening 8 is a frame-like flange 12 which is substantially S-shaped in cross section as shown in Figs. 1 and 3 of the drawing. This flange 12 extends through the opening 8 and then inwardly towards the center of said opening a slight distance, thus providing a ring or frame-like element through which the trays or vessels 9 may be inserted or removed from the tank.

Mounted on the inner surface of the outer portion or inwardly extended outer portion, of the flange 12 is a door or closure, which is designated as a whole by the reference numeral 13 which is of a shape in outline, to correspond with the opening provided by the flange 12. This door or closure 13 is by preference made of steel and slightly resilient and has at its central portion a depression 14 or inwardly dished part as shown in the drawing. Radiating from this dished part 14 is a plurality of inwardly depressed arms 15 which like the depression 14 is usually produced by the stamping process. A clip 16 of substantially an U-shaped piece of metal is spot welded as at 17^a, or secured to the outer surface of the depression 14 and is for the purpose of receiving a locking-bar 17 which is of sufficient length to overlie the lateral end portions of the flange 12 and to rest thereon when it is desired to lock the door 13 in position. To securely secure the door and said bar in their locked positions, a tapered key or wedge 18 is inserted between the outer end of the clip 16 and the bar 17 as is obvious.

To afford a hermetically sealed closure, a gasket 19 of rubber or other suitable material of the proper shape is interposed between the flange 12 and the bead-like edge 20 of the door 13 or closure.

While we have shown and described the door 13 as closing an opening 8 in one of the vertical walls of the tank, yet it will be understood that we do not restrict ourselves to the position or size or to the purpose for which said opening may be employed, as we may use the closure or door and the structure therefor for a man-hole or other opening.

From the foregoing and by reference to the drawings it will be readily understood and clearly seen we have provided a very simple, efficient and easily operated door or closure, as well as, a novel construction of a brine tank, and one to which access may be readily had for the withdrawal of sediment or for other purposes. Besides, our construction provides means for closing an opening in the tank in a most secure and satisfactory manner.

Having thus fully described our invention, what we claim as new and desire to secure by Letters Patent is—

In a brine tank structure, the combination of a tank having an opening in its lower portion for access thereto, of a substantially S-shaped flange secured to the in-

ner surface of the tank around the perimeter of said opening and extended outwardly therethrough and then towards the center of said opening, a removable door located at its edge on the inner surface of the outwardly extending portion of said flange and having centrally on its outer surface an U-shaped clip, a rubber gasket located between said door and flange to prevent leakage, a straight bar extended through the clip and lying on the said flange at the opposite sides of said clip, a key removably located between the outer end of the clip and said bar, and a reenforcing base surrounding the lower portion of the tank and underlying the same thereby forming a bottom therefor, the upper front portion of said base terminating about flush with the lower edge of the opening in said tank and provided with a series of spaced apart rivet openings, the lower portion of said S-shaped flange and the upper part of the front wall of the tank below the opening therein being provided with rivet openings spaced to register with the said openings in the front of said base and securing means located in the openings of said base, the lower part of said flange and the upper part of the front wall of the tank below the lower edge of the access opening therein.

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