

May 27, 1930.

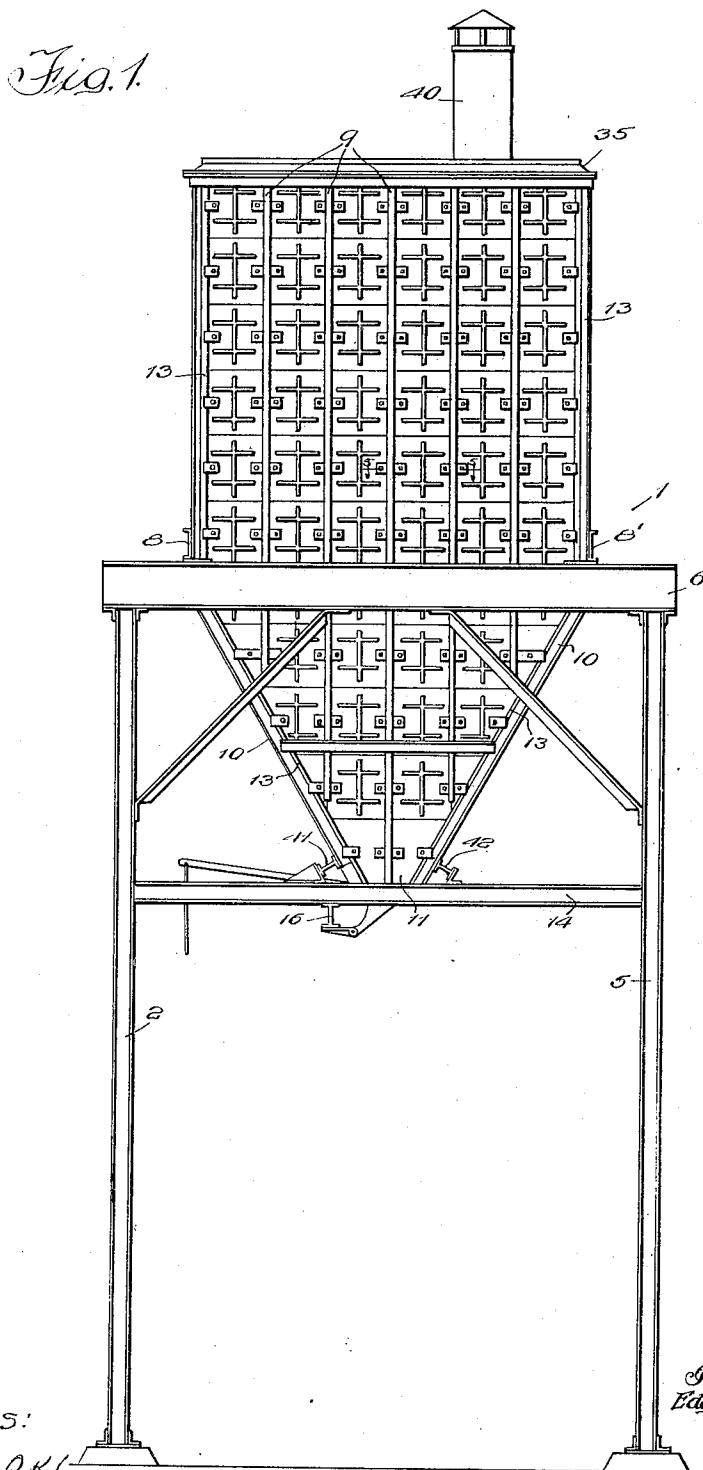
E. B. TOLMAN, JR

1,760,094

STORAGE TANK

Filed Jan. 18, 1928

3 Sheets-Sheet 1



Witness:

William P. Kilroy

Inventor:
Edgar B. Tolman Jr.

Still Still

May 27, 1930.

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1,760,094

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3 Sheets-Sheet 2

Fig. 2.

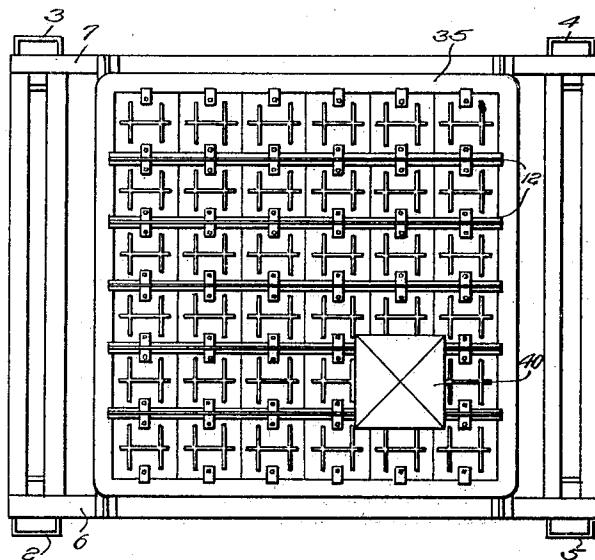
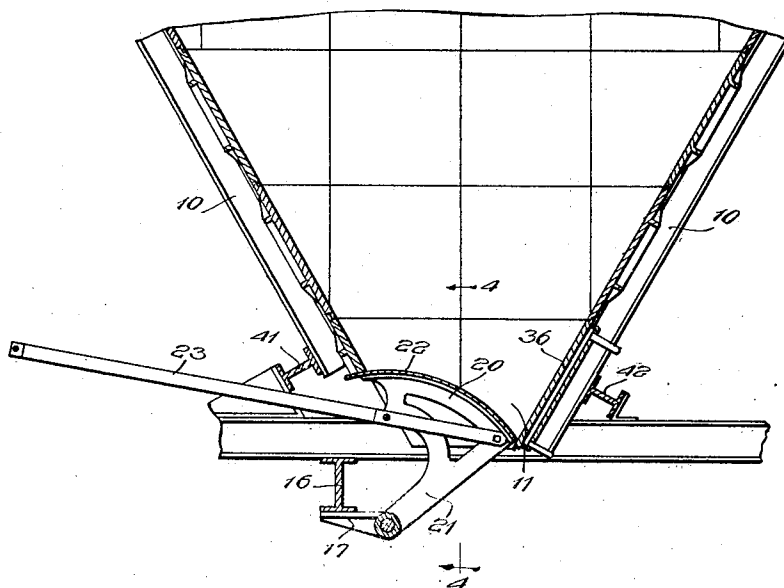


Fig. 3.



Witness:

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Attest
Will Hill

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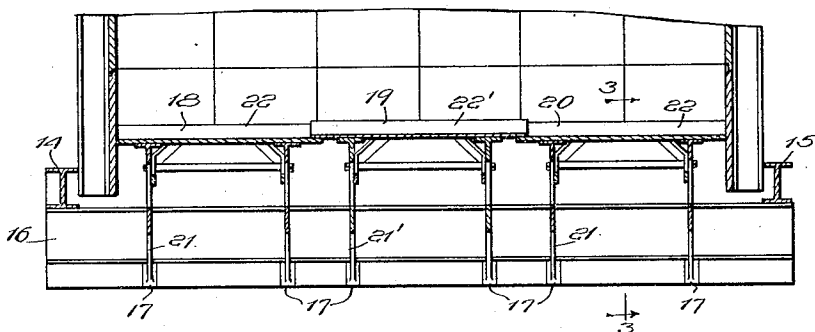
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3 Sheets-Sheet 3

Fig. 4.



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UNITED STATES PATENT OFFICE

EDGAR B. TOLMAN, JR., OF CHICAGO, ILLINOIS

STORAGE TANK

Application filed January 18, 1928. Serial No. 247,680.

This invention pertains to the general class of receptacles and particularly to a storage tank. An object of applicant's invention is the production of a tank capable of completely discharging its contents. A further object of applicant's invention is the production of a novel gate construction for opening and closing the discharge opening of said tank. A further object of applicant's invention is the production of a tank simple to erect, of low cost, easy to manufacture, durable and satisfactory for its intended purpose. Many other objects and advantages of the construction herein shown and described will be obvious to those skilled in the art from the disclosure herein given.

The tank disclosed in the drawings is intended as a storage tank for materials which cause a great deal of abrasion and corrosion. This applies particularly to ash, high sulphur coal, coke, coke breeze and the like. Applicant's tank is constructed of a framework of steel to which are attached a plurality of overlapping plates. The tank is readily knocked down and transported from place to place, easily erected and replacement of plates is readily effected. The material used in constructing the plates is preferably cast iron. However, it is obvious that other suitable materials may be used. The tank is so constructed that the material of the plates only comes in contact with the contents of the tank. The steel structure is employed to hold the plates in place.

To this end my invention consists in the novel construction, arrangement and combination of parts herein shown and described and more particularly pointed out in the claim.

In the drawings, wherein like reference characters indicate like or corresponding parts:

Fig. 1 is a front elevation of applicant's novel tank;

Fig. 2 is a top plan view of the same;

Fig. 3 is a section on line 3—3 of Fig. 4; and

Fig. 4 is a section on line 4—4 of Fig. 3.

Referring now to the drawings, 1 shows a tank mounted on a steel framework compris-

ing upright corner posts 2, 3, 4 and 5. Uprights 2 and 5 support a beam 6 at the tops thereof. Uprights 3 and 4 support a beam 7 at the tops thereof. Suitable bracing may be employed as desired. Beams 6 and 7 support cross beams 8 and 8'. The tank proper is made up of a plurality of upright plate supporting members 9 which are preferably of structural steel such as I-beams. At the bottom of the tank the plate supporting members converge as shown at 10, thus forming a discharge opening 11 at the bottom of the tank. As previously set forth, the members 9 and 10 may be of any standard structural shape, but are preferably limited to a shape having a transverse web such as a T-shape or I-shape. The plate supporting members of the roof shown at 12 in Fig. 2 are preferably T-shaped. Any conventional means may be employed for attaching the members 9 and 10 to the framework as well as for connecting the members 9 and 10 to each other and the members 9 and 12 to each other. The corners 13 of the tank are preferably of angle iron having webs forming an angle of 90° with respect to each other. The form of tank shown in the drawing is merely for the purpose of illustrating applicant's invention. It is obvious that the tank may take any desired form or shape.

At the bottom of the tank beams 14 and 15 secured to uprights or corner posts 2—5 and 3—4, respectively, support a cross beam 16. Cross beam 16 supports a plurality of brackets 17 which form pivot points for gates 18, 19 and 20. The gates are made up of arms 21 and preferably an arcuate face plate 22. An operating lever 23 is attached to each gate. The gates 18 and 20 are of similar size and construction. Gate 19 is similar to gates 18 and 20 with the exception that arms 21' thereof may be slightly longer, thereby allowing gate 19 to slightly overlap the edges of gates 18 and 20 as shown in Fig. 4. However, arms 21 and 21' may be of the same length if desired, thereby allowing the edges of the arcuate faces to abut one another. The faces of gates 18, 19 and 20 are arcuate with the center of their arcs preferably at a common point. This may be the

	pivot point of each gate. It is thus readily seen that either of gates 18, 19 and 20 may be opened individually or any or all of the gates may be opened as desired. When all of the gates are open, it is readily seen that the discharge opening 11 at the bottom of the tank has nothing therein to obstruct the discharge of the contents of the tank. This particular gate construction is highly effective for its intended purpose. The entire bottom of the tank may be opened, said opening being entirely unobstructed, thus preventing arching and sticking of the material and a complete discharge of the entire contents of the tank is assured. Each gate is operated by means of its lever 23. A chain, rod, cable or other device may be attached to the outer end of lever 23 if desired. Beams 41 and 42 supported by brackets on beams 14 and 15 assist in supporting the plate supporting members 10 at the opening 11.	of said gates are open the flow from said discharge opening is unobstructed. In testimony whereof, I have hereunto signed my name.
5		EDGAR B. TOLMAN, Jr.
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