

No. 754,135.

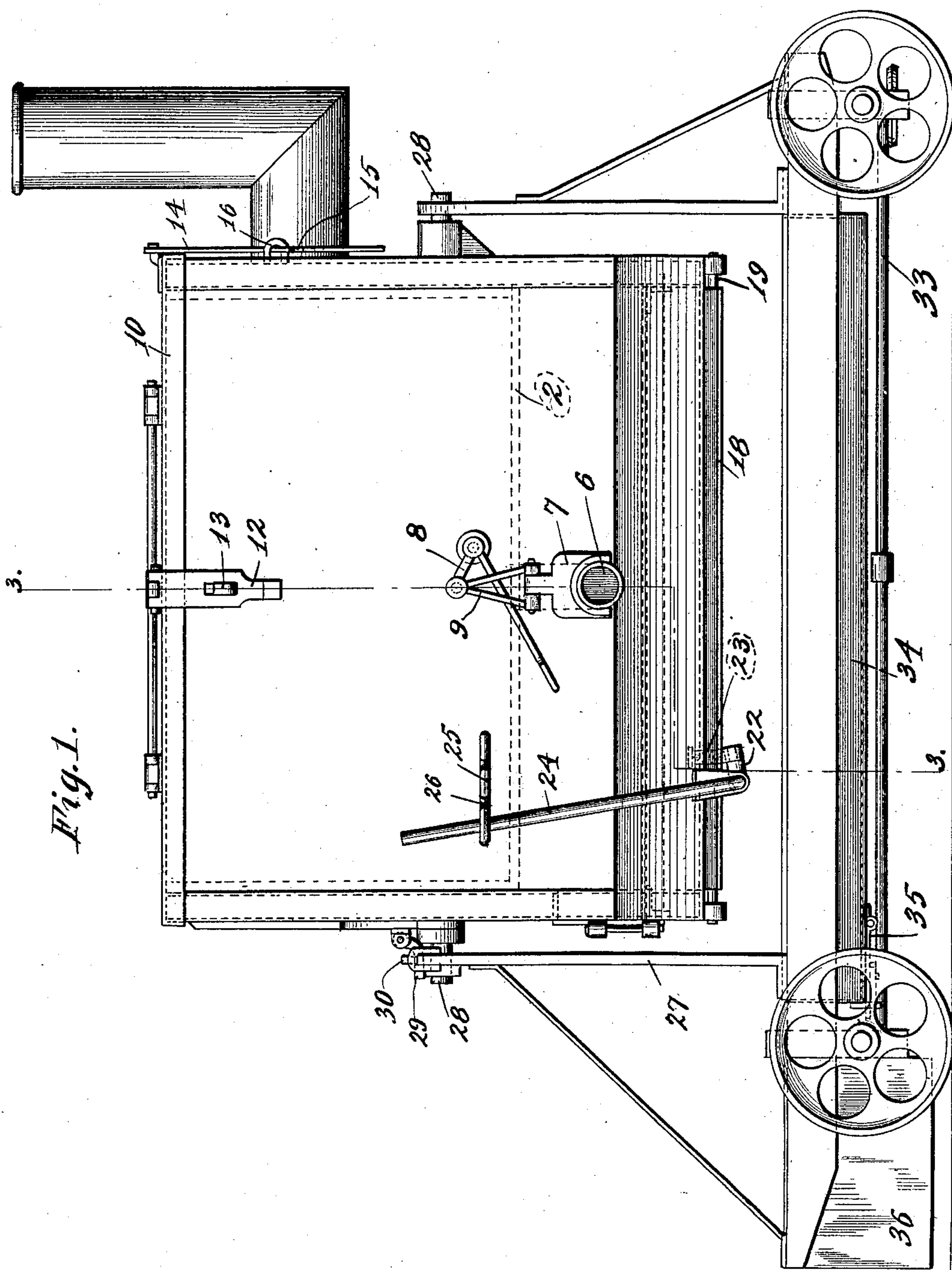
PATENTED MAR. 8, 1904.

L. J. GRUBITZ.
HEATING TANK.

APPLICATION FILED SEPT. 8, 1903.

NO MODEL.

2 SHEETS--SHEET 1.



Attest:
Edw. L. Dillon.
Jy. P. Wehrnbrocht

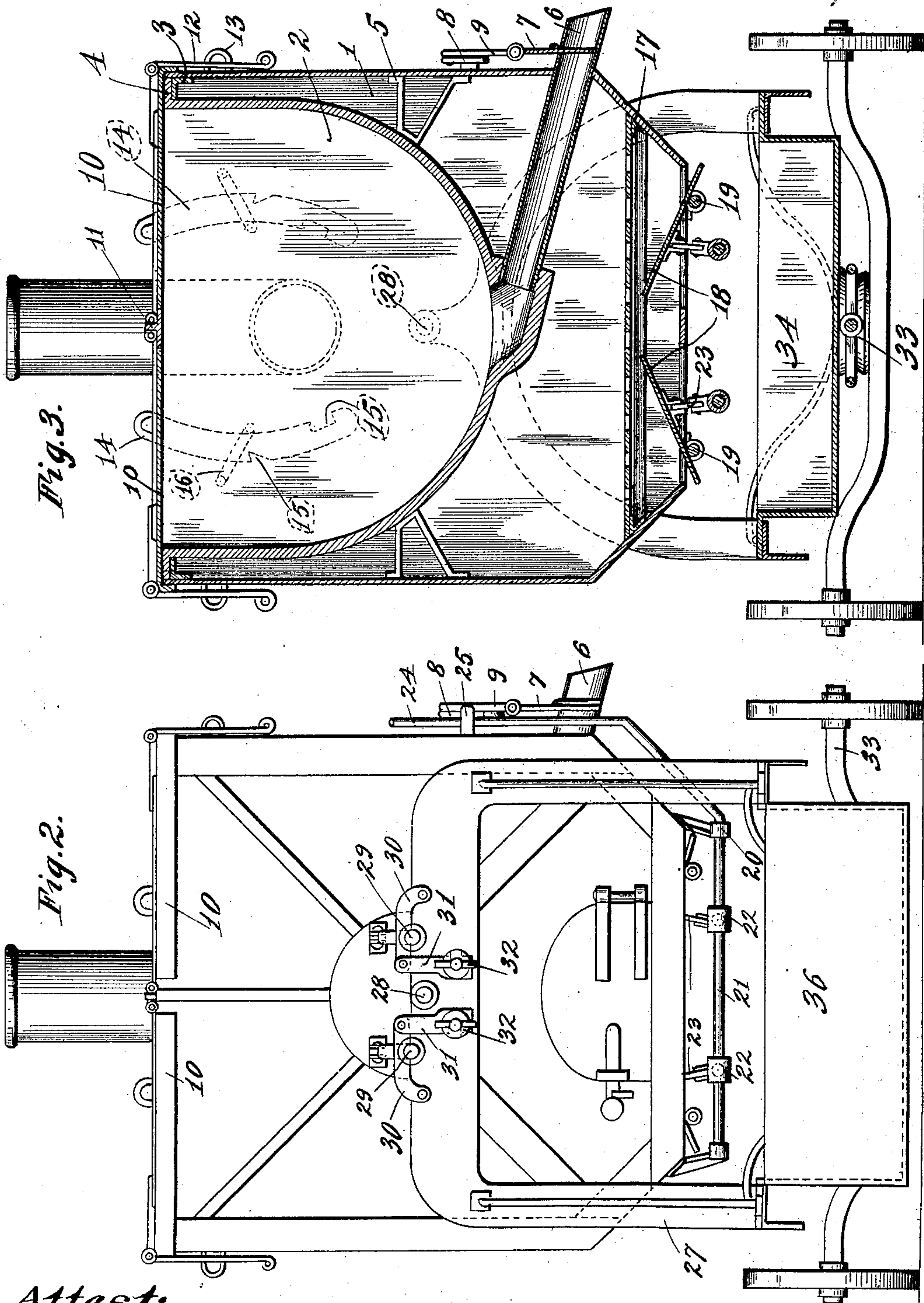
Inventor:
Louis J. Grubitz
by Carr & Carr
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UNITED STATES PATENT OFFICE.

LOUIS J. GRUBITZ, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO
HENRY P. WEHRENBRECHT, OF ST. LOUIS, MISSOURI.

HEATING-TANK.

SPECIFICATION forming part of Letters Patent No. 754,135, dated March 8, 1904.

Application filed September 8, 1903. Serial No. 172,287. (No model.)

To all whom it may concern:

Be it known that I, LOUIS J. GRUBITZ, a citizen of the United States, and a resident of the city of St. Louis, State of Missouri, have
5 invented a certain new and useful Improvement in Heating-Tanks, of which the following is a specification.

My invention relates to heating-tanks for tar and similar materials, and has for its principal objects to provide means for tilting said
10 tanks, to regulate the supply of heat therefor, and to improve the construction thereof.

It consists in the parts and arrangements and combinations of parts hereinafter described
15 and claimed.

In the accompanying drawings, which form part of this specification, and wherein like symbols refer to like parts wherever they occur, Figure 1 is a side view of the device.
20 Fig. 2 is a rear end view, and Fig. 3 is a sectional view on the line 3 3 of Fig. 1.

The device comprises a furnace 1, having a kettle 2 removably mounted therein. Near the upper edge of the walls of said furnace
25 L-bars 3 are secured to provide supports for laterally-extending flanges 4 at the top of said kettle. Within said furnace struts 5 extend from the walls thereof and support said kettle near the bottom of the same. By thus
30 mounting said kettle an open space is provided which extends entirely around its sides and bottom and permits the free circulation of heat and the products of combustion from such furnace. At the same time the space is
35 securely closed at the top, so as to prevent exposure of the contents of the kettle to the fire in said furnace. The kettle has a discharge-spout 6, the opening of which is flush with the bottom of the kettle, so as to permit
40 a free discharge of the contents thereof. Said spout 6 extends through the furnace and terminates but a short distance beyond the walls thereof, thereby subjecting almost the entire length of said spout to the heat of the
45 furnace and preventing the same from becoming clogged. The discharge-pipe is controlled by a gate-valve 7, operated by means of a bell-crank lever 8, mounted upon the fur-

nace-wall and connected to said valve by means of a bifurcated link 9. The kettle is
50 preferably closed at the top by two doors 10, pivoted upon a T-bar 11, extending longitudinally of the kettle. The doors are held in their closed position by slotted straps 12 engaging staples 13 on said furnace. For hold-
55 ing said doors open at a desired distance straps 14, provided with notches 15, are provided on said doors and extend through staples 16 upon the walls of the furnace.

The furnace is provided with the usual grate-
60 bars 17. Beneath the grate-bars are dampers 18, which are preferably plates extending the entire length of the furnace. The plates are provided with pivots 19, preferably mounted to one side of the medial line thereof. In
65 bearings 20, depending from the bottom of the furnace is pivoted a rock-shaft 21, having lateral projections 22. Links 23 connect the lateral projections with the damper-plates 18. Integral with the rock-shaft 21 is an
70 upwardly-extending handle 24, by means of which the shaft may be rocked and the damper-plates 18 operated. The handle 24 extends through a member 25, having a plurality of projections 26, with which said handle may
75 engage and be held in a given position of adjustment.

All of the parts thus far described are rotatably mounted upon a frame 27. The furnace is provided at each end with a trunnion 28,
80 journaled in bearings in the uprights of the frame. To hold the furnace in its normal vertical position, pins 29 are pivotally mounted upon one end of the furnace in position to engage the frame when turned down; but they
85 may be turned up, so as to clear the frame, and thus permit the rotation of the furnace and kettle in either direction. The pins are securely locked in engagement with the frame by means of links 30, pivoted on the frame and
90 carrying at their free ends slotted links 31, which engage with the shanks of locking-screws 32, mounted on the furnace.

The frame 27 is mounted upon a running-gear 33 of any desired construction. An ash-
95 pan 34, mounted, preferably, on the frame

beneath said furnace, extends the entire length thereof. In the bottom of said ash-pan, near the forward end thereof, is a door 35, which may be opened to permit the discharge of ashes therethrough. A fuel-box 36 is also preferably mounted upon the forward part of said frame.

Obviously the construction hereinbefore described admits of considerable modification without departing from my invention, and I do not wish to be restricted to the details of construction above set forth.

What I claim is—

1. A heating-tank comprising a frame, a furnace having a kettle therein, trunnions on said furnace bearing in said frame, pivoted pins upon opposite sides of one of said trunnions in position to engage said frame and means on said frame to hold said pins in engagement therewith, substantially as described.

2. A heating-tank comprising a frame, a furnace having a kettle therein, trunnions on said furnace bearing in said frame, pivoted pins on opposite sides of one of said trunnions in position to engage said frame, and links pivoted on said frame to overlap said pins and

means for locking said links in position, substantially as described.

3. A heating-tank comprising a frame, a furnace having a kettle therein, trunnions on said furnace bearing in said frame, a pin on one end of said furnace in position to engage said frame when said furnace is in its normal position and a link pivoted on said frame to overlap said pin and means for locking said link in position, substantially as described.

4. A heating-tank comprising a frame, a furnace rotatably mounted therein, a kettle removably mounted on said furnace, damper-plates pivotally mounted in the bottom of said furnace and extending longitudinally thereof, a rock-shaft having an operating-handle and operative connections between said rock-shaft and damper-plates whereby said damper-plates may be adjusted.

Signed at St. Louis, Missouri, this 31st day of August, 1903.

LOUIS J. GRUBITZ.

Witnesses:

HY. P. WEHRENBRECHT,
WM. P. CARR.