

UNITED STATES PATENT OFFICE.

JURGEN C. THOMSEN, OF CLINTON, IOWA.

COMBINED TANK AND HEATER.

SPECIFICATION forming part of Letters Patent No. 661,090, dated November 6, 1900.

Application filed October 5, 1898. Serial No. 692,727. (No model.)

To all whom it may concern:

Be it known that I, JURGEN C. THOMSEN, a citizen of the United States, residing at Clinton, in the county of Clinton and State of Iowa, have invented a new and useful Combined Tank and Heater, of which the following is a specification.

This invention relates generally to tanks for stock, and more especially to the combined stock-tank and heater, the object being to provide a cheap and simple construction of tank wherein the water can be prevented from freezing, and also in which any stock-feed can be cooked, if desired.

With this object in view my invention consists in certain details of construction and novelties of combination, as will be fully described hereinafter, and pointed out in the claim.

In the drawings forming part of this specification, Figure 1 is a perspective view of the combined tank and heater constructed in accordance with my invention. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a transverse section on the line 3 3 of Fig. 2.

In constructing a combined tank and heater in accordance with my invention I employ a flat metal plate A for the bottom of the tank and secure the sides B to the said bottom by means of an angle-flange C, said angle-flange being riveted to the bottom and sides upon the exterior of the joint, as most clearly shown in Fig. 2. A similar angle-flange C' is riveted upon the exterior of the tank at the top for the purpose of giving strength and rigidity thereto. The furnace D is riveted to the bottom of the plate and is provided with a grate D' and the usual feed and ash doors D² and D³, respectively. A circular opening E is provided at the bottom of the plate about the center of the same and near the rear end of the furnace, and the pipe F, flanged at the lower end, as shown at F', is riveted to the bottom directly over the said opening, thereby providing an escape-flue for the furnace. This pipe F is of a height exactly the same

as the tank, and its upper end rests between the cross-bars G, which extend entirely across the tank and are secured to the inner sides thereof by bolts or rivets passing through the angle ends G'. The cross-bars arranged upon opposite sides of the pipe prevent the stock from injuring the said pipe and dislocating it. A suitable support or leg H is arranged beneath the rear end of the tank. The fire is built within the furnace, and the flames produced, passing up through the pipe, will heat the water contained in the tank to such a point as to prevent it from freezing, and, if desired, the temperature can be raised to a point suitable for cooking any kind of stock-feed. In case the water in the tank should freeze during the night the ice can be easily thawed by starting a fire up below the tank within the furnace.

It will be seen that by constructing the tank and connecting the pipe in the manner described I provide an exceedingly strong and durable tank at a very small cost.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is--

In a combined tank and heater, the combination, with a plate, the central portion of which is perforated, of side walls thereon, an angle-flange riveted to the top and bottom thereof respectively, the bottom flange extending out to the edge of the plate and riveted thereto, a furnace riveted to the bottom of said plate and having its rear wall located beyond the opening in the plate, a flanged pipe riveted to said plate around the opening and having its top even with the top of the walls, two bars secured at their ends to the walls and at their intermediate portions engaging with the opposite sides of the pipe, and legs at the rear ends of the plate, the lower ends of which are even with the bottom of the furnace, substantially as set forth.

JURGEN C. THOMSEN.

Witnesses:

S. C. HAMILTON,
AYLETT L. PASCAL.