

(No Model.)

J. C. GOODRICH.
TANK HEATER.

No. 414,398.

Patented Nov. 5, 1889.

Fig. 1.

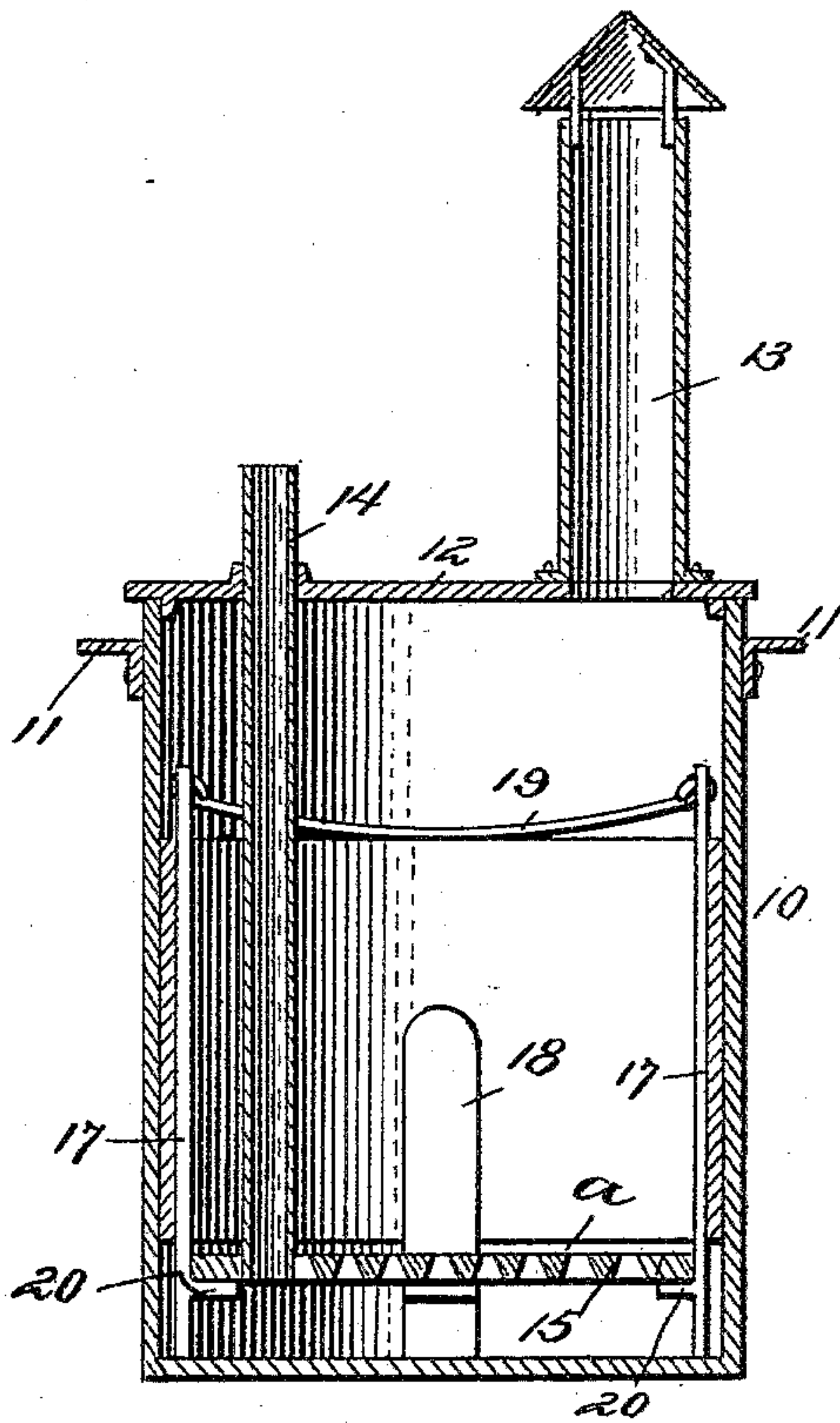


Fig. 2.

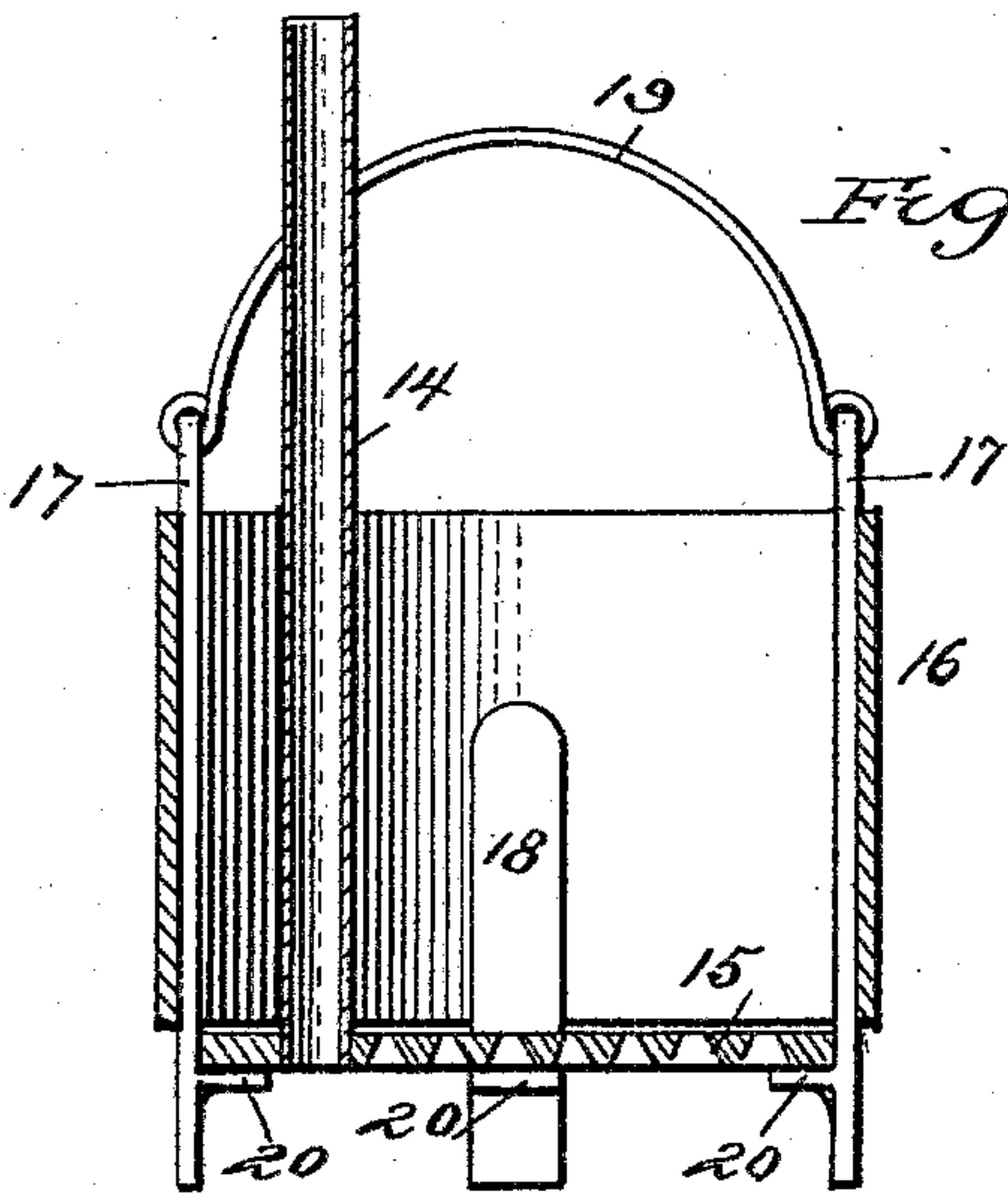
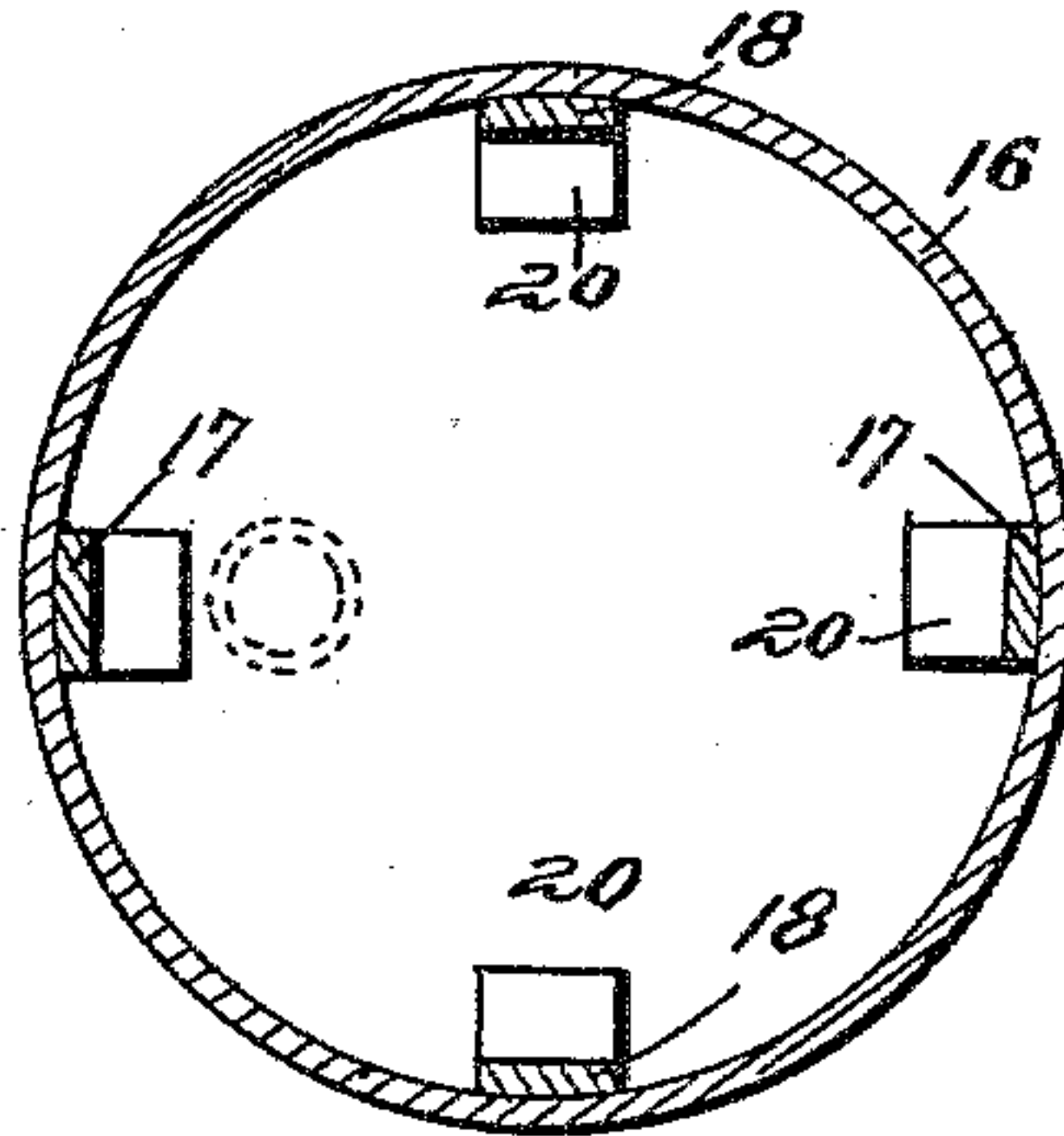


Fig. 3.



WITNESSES:

W. R. Davis
C. Sedgwick

INVENTOR

J. C. Goodrich
BY Munn & Co.
ATTORNEY

UNITED STATES PATENT OFFICE.

JOSEPH C. GOODRICH, OF GRINNELL, IOWA.

TANK-HEATER.

SPECIFICATION forming part of Letters Patent No. 414,398, dated November 5, 1889.

Application filed February 25, 1889. Serial No. 301,081. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH CASS GOODRICH, of Grinnell, in the county of Poweshiek and State of Iowa, have invented a new and Improved Tank-Heater, of which the following is a full, clear, and exact description.

The object of my invention is to improve the ordinary form of tank-heater shown in patent to F. Funk, No. 286,805, October 16, 1883.

The invention consists in the construction and arrangement of parts, all as will be hereinafter more fully explained, and specifically pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a central sectional elevation of a tank-heater embodying my improved construction. Fig. 2 is a central sectional elevation of the fire-pot; and Fig. 3 is a sectional plan view of the fire-pot, the grate, however, being removed.

In the drawings, 10 represents the drum or body of the heater, to which drum or body there are connected ears or lugs 11, adapted to fit upon the edges of the tank in connection with which the heater is to be employed or to rest upon beams supported by said tank edges.

In connection with the drum-body I provide a cap or cover 12, that is provided with a smoke-stack 13 and formed with an aperture adapted to receive an air-flue 14, which is connected to the grate 15 and leads downward to the ash-pit beneath the grate, the supply of oxygen necessary to maintain proper combustion entering through this flue. The grate 15 forms the bottom of the fire-pot, the side walls of such pot being composed of a sheet-metal casing 16, to which there are riveted legs 17 and 18, the legs 17 extending upward beyond the upper edge of the casing 16, there to be engaged by a bail 19, all of the legs extending below the lower edge of the casing, so that said lower edge is elevated some distance

beyond the bottom of the drum or body 10. Just below the lower edge of the casing 16 the legs 17 and 18 are provided with inwardly-extending lugs or projections 20, upon which the grate 15 rests, there being a space *a* between the upper face of the grate and the lower edge of the casing.

With such a construction as the one above described it will be seen that should the fire built in the fire-pot (made up, as hereinbefore set forth, of the casing 16 and the grate supported by the casing-legs) become low and need attention the cover 12 may be taken off and the fire-pot removed bodily from the drum or heater-body, the opening *a* providing for the removal of any cinders or clinkers which may have been formed, and a few moments in the open air serving to thoroughly revive the fire.

The advantages of this construction will be apparent to those having had occasion to use the old form of tank-heater, wherein the fire-pot is formed of the side walls of the drum or heater-body and a grate that is supported above the bottom of said body, no way for removing the grate without dumping the fire being, however, provided.

Although I have illustrated and described a cylindrical fire-pot, I desire it to be understood that the fire-pot could be tapering and narrower at the bottom than at the top.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination, with the outer drum or body 10, provided with support 11 and a removable cover having a smoke-outlet tube 13, of the removable fire-pot consisting in the casing 16, the legs 17, secured thereto and having projections 20 above their lower ends, the grate resting on said projections and the bail 19, and an air-inlet tube leading into the lower end of the drum or body below the grate, substantially as set forth.

J. C. GOODRICH.

Witnesses:

J. F. WILSON,
EZRY D. CLAY.