

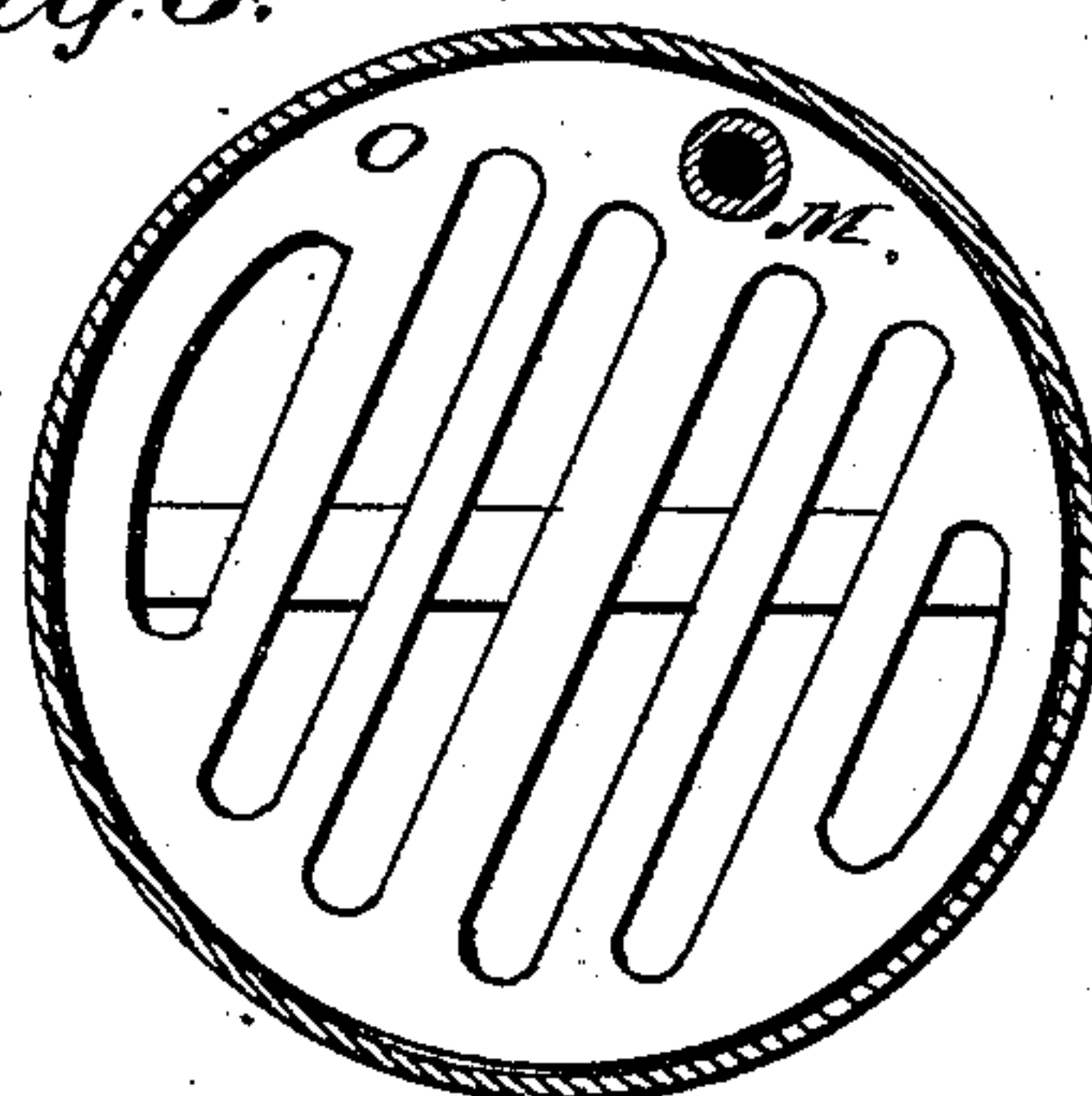
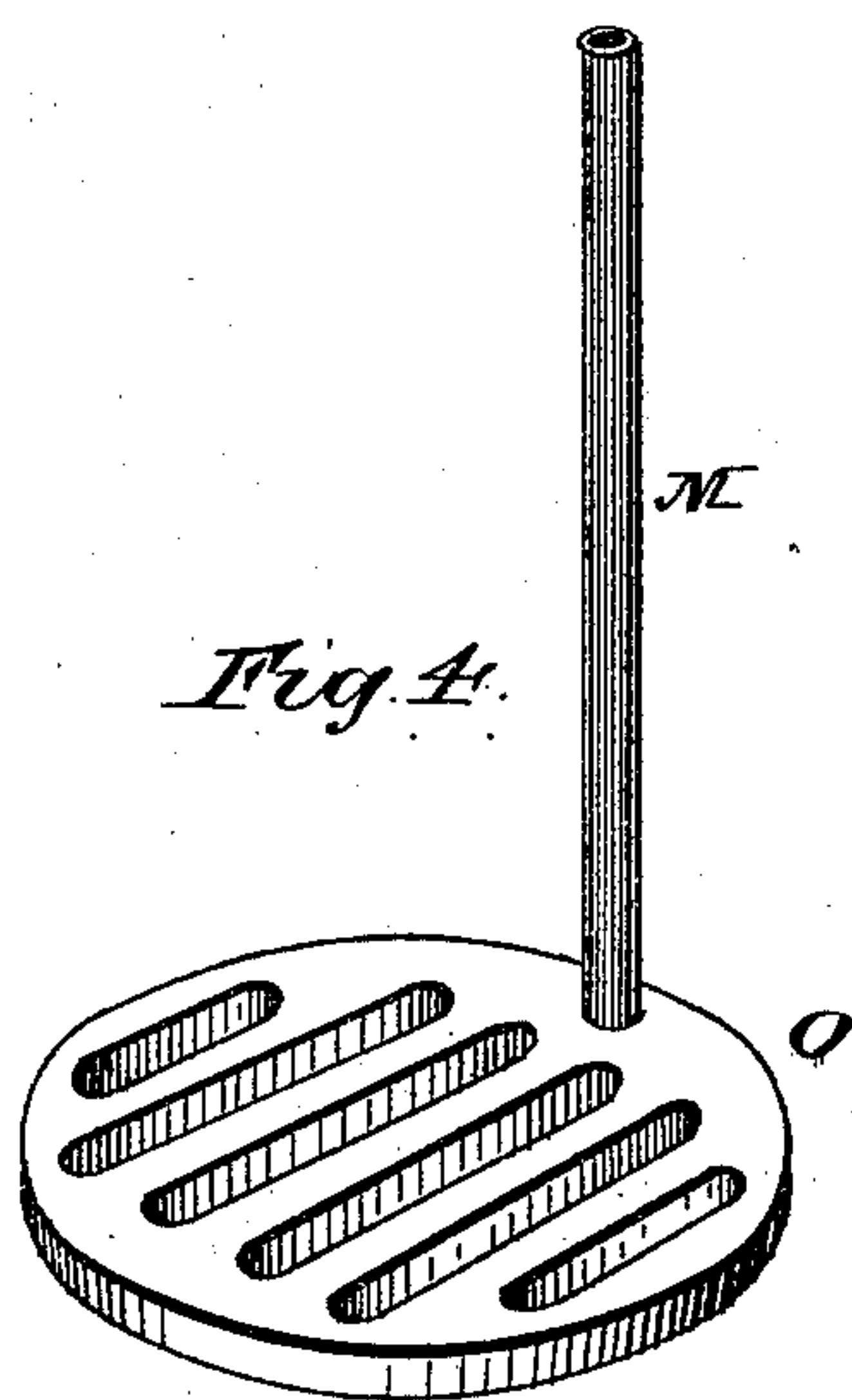
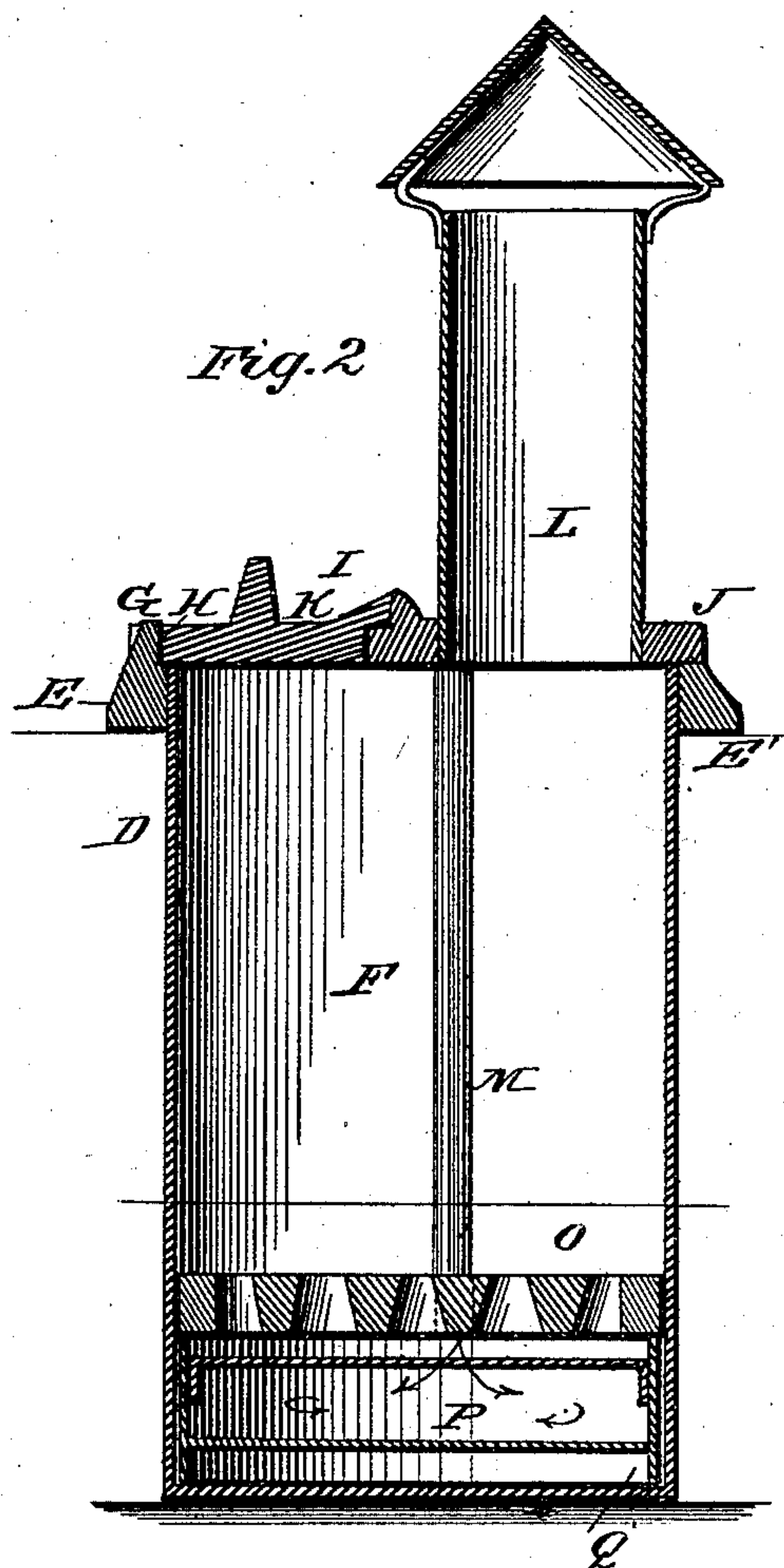
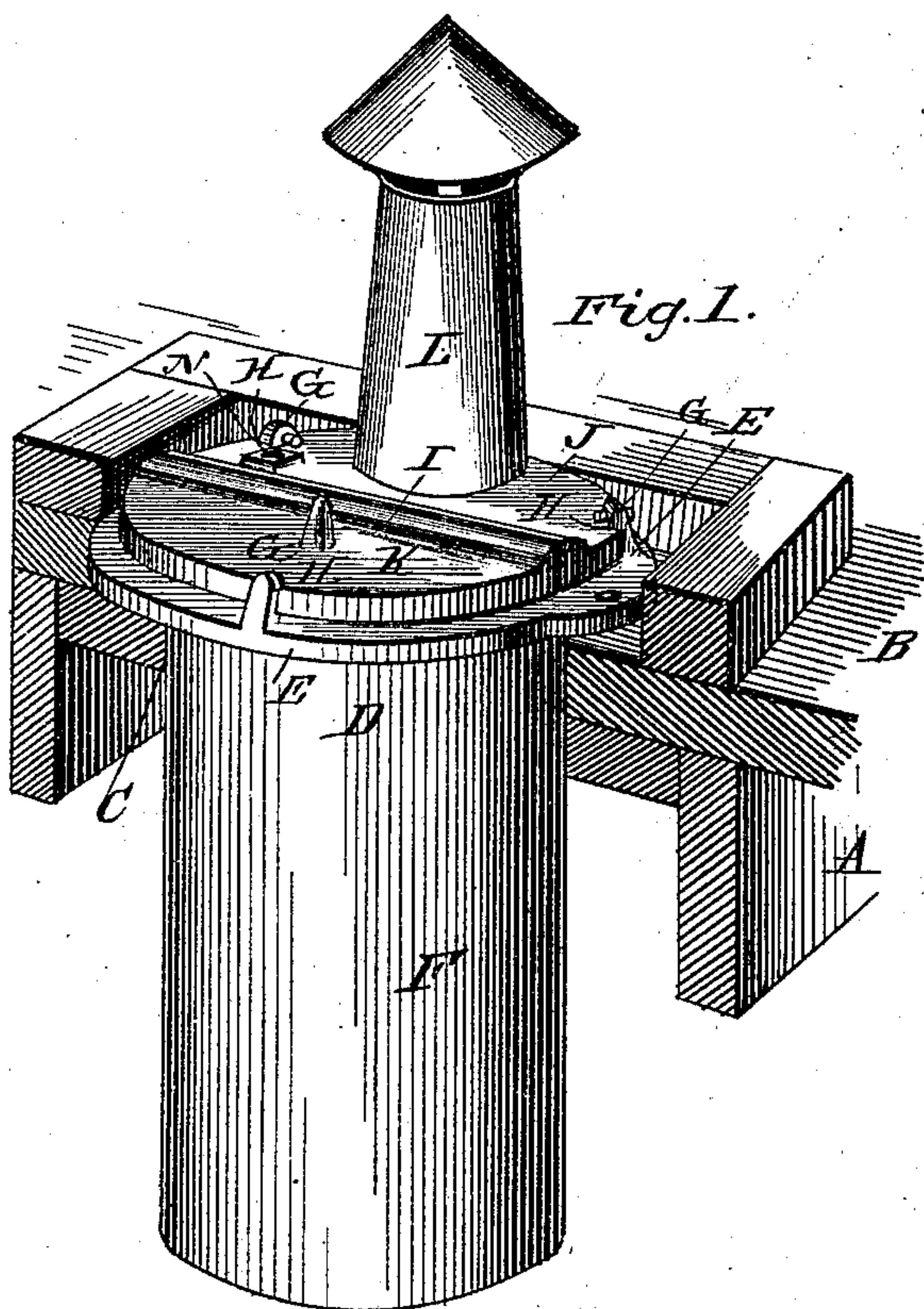
(No Model.)

F. FUNK.

AGRICULTURAL BOILER.

No. 286,805.

Patented Oct. 16, 1883.



WITNESSES:

Med. L. Dietrich,
Lehrer

~~INVENTOR.~~

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Frank Funk
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ATTORNEYS.

UNITED STATES PATENT OFFICE.

FRANK FUNK, OF BEVERLY, ILLINOIS.

AGRICULTURAL BOILER.

SPECIFICATION forming part of Letters Patent No. 286,805, dated October 16, 1883.

Application filed August 1, 1883. (No model.)

To all whom it may concern:

Be it known that I, FRANK FUNK, a citizen of the United States, and a resident of Beverly, in the county of Adams and State of Illinois, have invented certain new and useful Improvements in Heaters for Tanks for Watering Stock; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of a portion of a stock-watering tank provided with my improved heating apparatus. Fig. 2 is a vertical section of the latter. Fig. 3 is a horizontal section of the same; and Fig. 4 is a detail view.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to heating apparatus for warming fluids in tanks or receivers, and more particularly for heating water in stock-watering tanks; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates a tank having a lid or cover, B, through a perforation, C, in which the lower cylindrical portion of the heater D projects, bearing with its flaring flange E upon the upper sides of the perforation.

The heater consists of a cylindrical sheet-metal casing, F, fastened at its upper edge to the flange E, and having its lower end closed, and the upper surface of the flange has three, or more or less, upwardly-projecting lugs, G, which fit into notches H in the rim of the cover I, which consists of a stationary piece, J, which is secured by pins passing through the ends of the lugs, and a loose portion, K, by which the interior of the heater may be reached.

The chimney L extends from the edges of a perforation in the stationary portion of the cover, and is provided with a cap at its upper end, and a draft-pipe, M, passes through a perforation, N, in the same portion of the cover, and is fastened at its lower end to a grate, O, fitting in the lower end of the heater, and passes through the same, carrying draft down in the heater under the grate,

which rests a distance above the bottom of the heater upon the upper edge of an ash-pan, P, the bottom of which has a downwardly-projecting flange, Q, which raises its bottom from the bottom of the heater, and which is provided with a cross-piece at its upper side, by which it may be raised out of the heater and emptied.

By the foregoing description, taken in connection with the accompanying drawings, the operation of my heater will be readily understood.

When it is desired to fill the heater, the loose portion of the cover is removed and the fuel filled into the heater, the draft for the combustion passing through the draft-pipe, which carries the air under the grate, and when it is desired to empty the ashes and cinders out the cover is removed, the grate raised by the draft-pipe, and the ash-pan removed by means of a long-handled bent shovel, R, which may be hooked under the cross-piece of the ash-pan, and is used to remove whatever ashes or cinders may fall to the sides of the ash-pan.

It follows that the heater may be shaped differently, according to the place where it is placed in the tank and the kind of fuel which is to be used in it, without departing from the spirit of my invention.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The herein-described heater for watering-tanks, consisting of a casing having a flange at its upper edge, provided with upwardly-projecting lugs, a cover consisting of a loose portion, and a stationary portion having a chimney and a perforation for a draft-pipe, a grate having the lower end of a draft-pipe fastened to it and passing through it, and an ash-pan having a cross-piece over its upper end and a downwardly-projecting flange at its lower end, all constructed and combined as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

FRANK FUNK.

Witnesses:

WILLIAM SYKES,
JOHN S. SYKES.