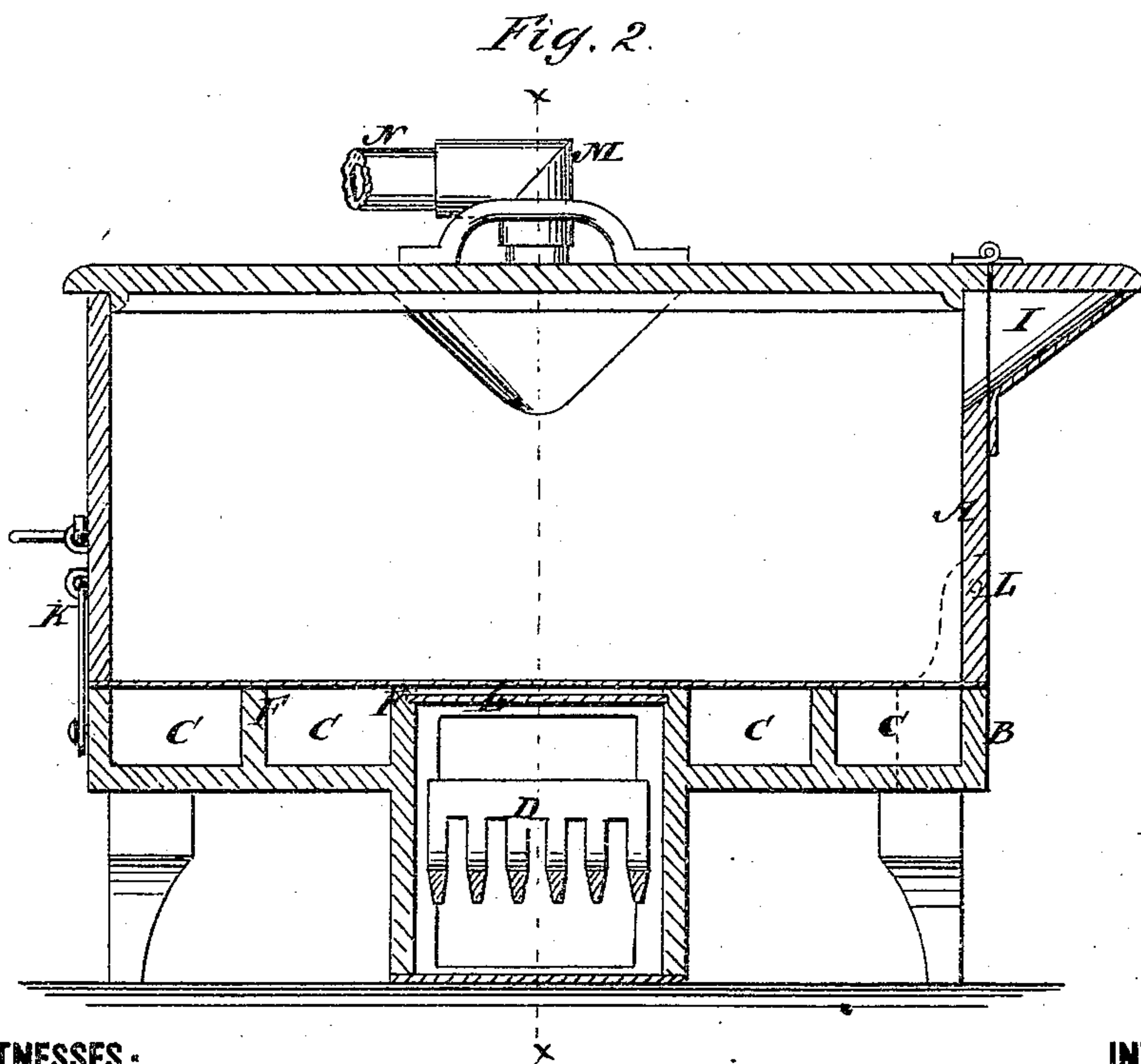
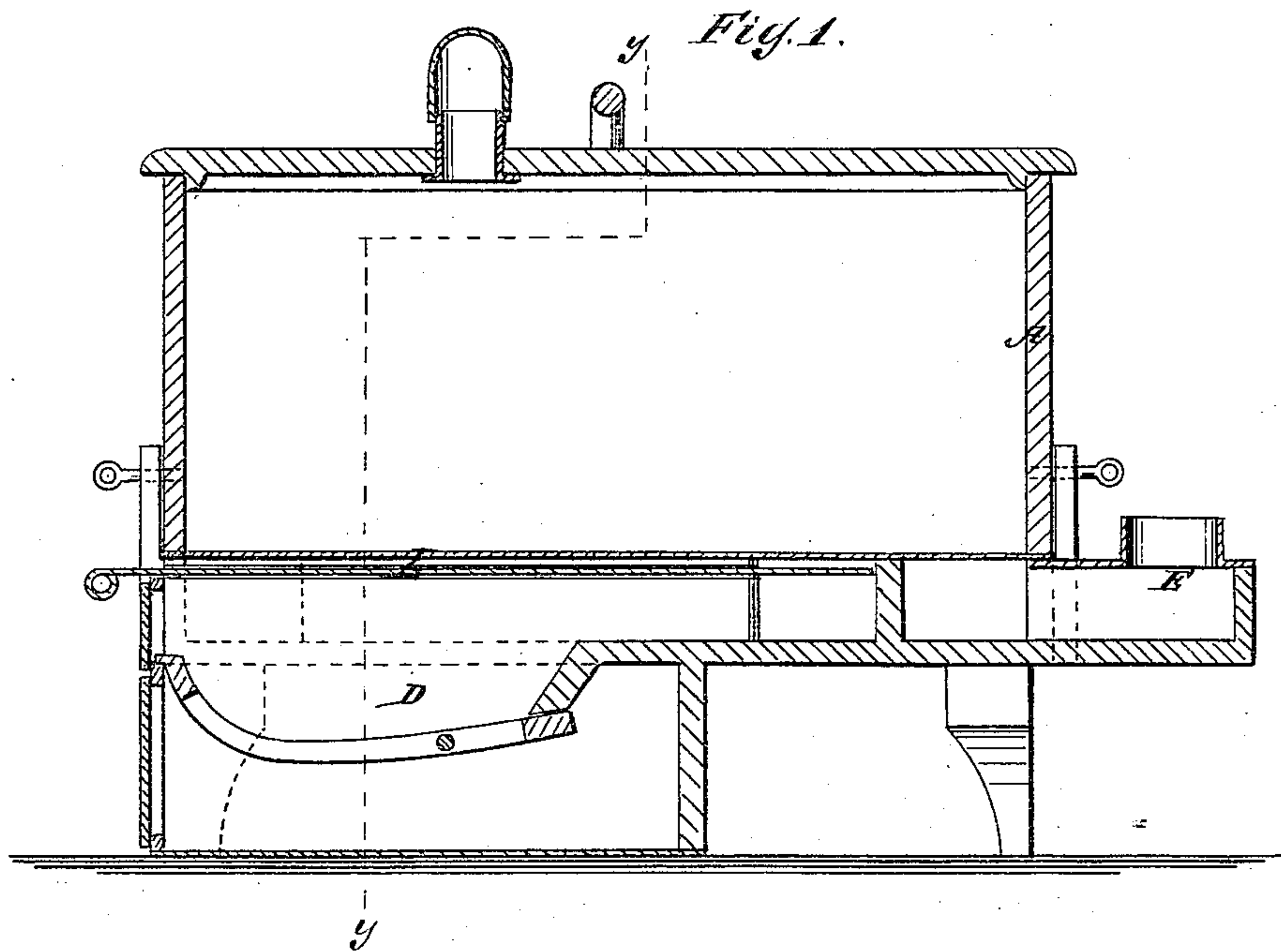


L. S. BUNKER.
Food-Steamers and Boiler.

No. 153,533.

Patented July 28, 1874.



WITNESSES:

E. Wolff
Chapman

INVENTOR:

L. S. Bunker
BY *Munnell*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

LEROY S. BUNKER, OF NEWELL, IOWA, ASSIGNOR TO HIMSELF AND O. H. HAZARD, OF SAME PLACE.

IMPROVEMENT IN FOOD STEAMERS AND BOILERS.

Specification forming part of Letters Patent No. **153,533**, dated July 28, 1874; application filed March 28, 1874.

To all whom it may concern:

Be it known that I, LEROY S. BUNKER, of Newell, in the county of Buena Vista and State of Iowa, have invented a new and improved Food Steamer and Boiler, of which the following is a specification:

The invention relates to the arrangement of flues beneath furnace-boilers so that the maximum of heat may be conveniently utilized.

Figure 1 is a sectional elevation of my improved steamer and boiler, the section being taken on the line *xx* of Fig. 2. Fig. 2 is a sectional elevation taken on the line *yy* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A is a boiling or steaming vessel. B is the base containing the passage C for conducting the heat from a furnace, D, in a tortuous course under all parts of the boiler to the escape-flue E. The furnace-base, together with the partition F between the passages, are cast in one piece, arranged for the bottom of the boiler to rest on its top to be heated, the bottom forming the top walls of the passage. The boiler is pivoted to the base at H, has a spout at I, and fastening at K, to adapt it to be tilted over for emptying the contents. L is a damper extending over the top of the furnace to the rear, to regulate the action of the heat on the part of the boiler directly over the fire. M is a pipe-connection at the top of the boiler for the connection of a flexible or other steam-pipe, for the application of exhaust

steam for steaming the food when it is preferred to do so.

The boiler or steamer will preferably be constructed of wood, sides and top, and sheet or cast metal bottom; while it is preferred to cast the base, together with the partitions and the furnace, in one piece, but it is not essential, for they may be made in sections.

It will be seen that the apparatus is adapted for cooking food for animals in large quantities without waste of heat, and that the apparatus is cheap as well as efficient.

I am aware that a grate has been placed across the boiler so as to force the products of combustion around the sides and then through the center; but my improvement consists in forcing the products of combustion first through the middle, so as to prevent loss of heat by radiation.

What I claim is—

The described combination, with boiler A, of connecting side flues C C, and a furnace arranged in the longitudinal middle of said boiler, to force the products of combustion to pass first under the middle of boiler and give up the greater portion of their heat before reaching the outer flues, thus avoiding waste by radiation.

LEROY SUNDERLAND BUNKER.

Witnesses:

CHAS. D. GOLDSMITH,
J. B. WHITE.