J. L. MOTT.

Agricultural Boiler.

No. 1,873. Patented Dec. 1, 1840.

Fig. 1.

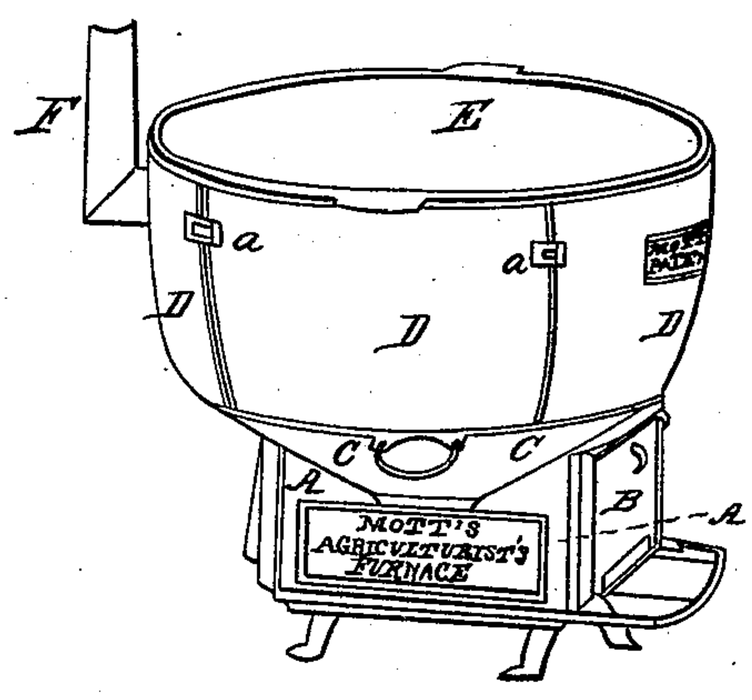


Fig. 2.

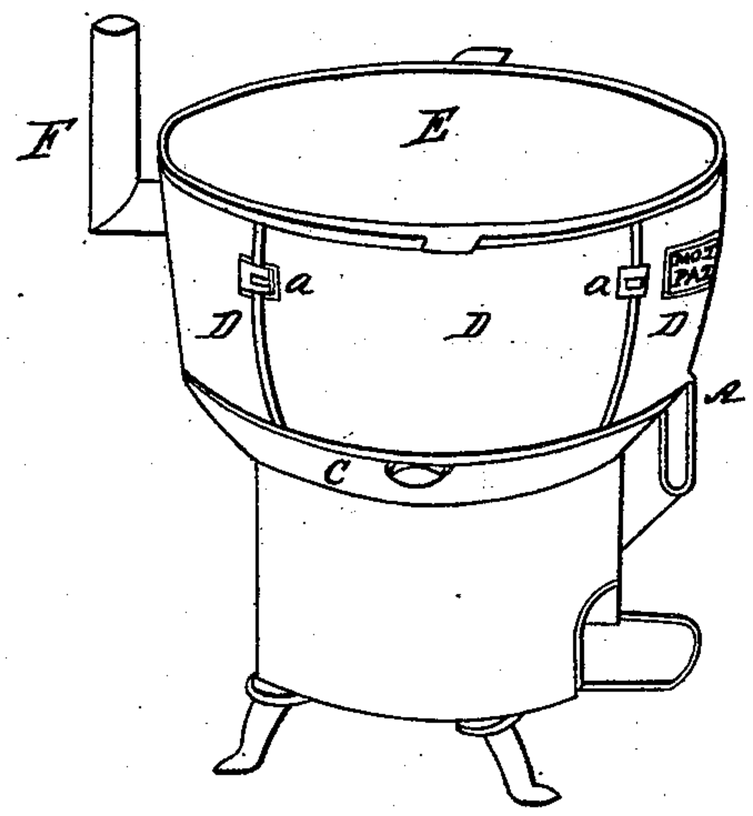


Fig. 3.

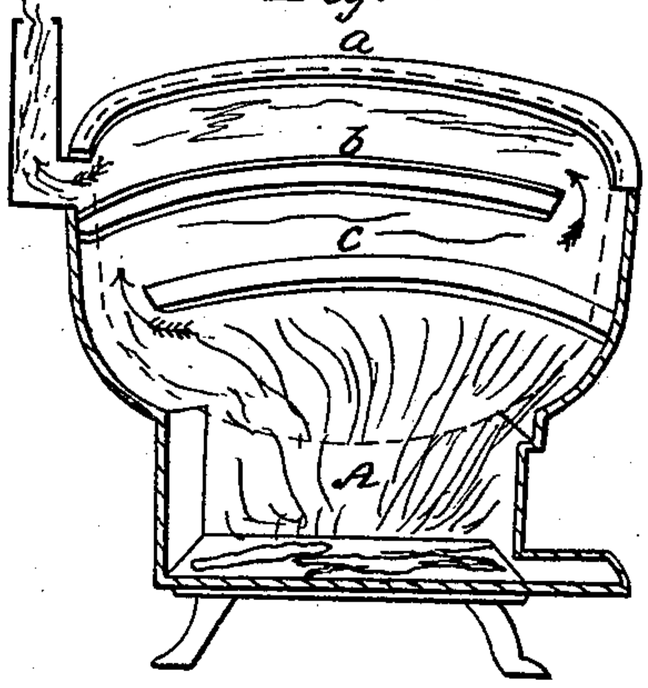
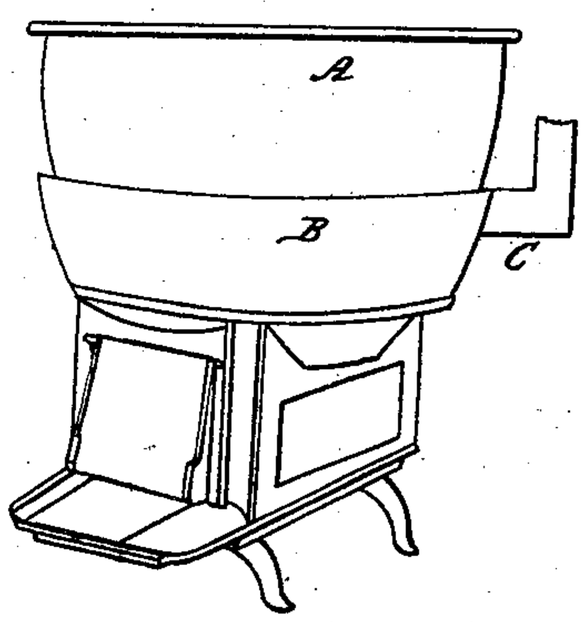


Fig. 4.



UNITED STATES PATENT OFFICE.

JORDAN L. MOTT, OF NEW YORK, N. Y.

IMPROVEMENT IN THE MODE OF CONSTRUCTING A COMBINED CALDRON AND FURNACE FOR THE USE OF AGRICULTURISTS AND OTHERS.

Specification forming part of Letters Patent No. **1,873**, dated December 1, 1840.

To all whom it may concern:

Be it known that I, JORDAN L. MOTT, of the city of New York, in the State of New York, have invented a new and improved mode of constructing a portable combined caldron and furnace adapted to the use of agriculturists and others concerned in the breeding of stock and for other purposes; and I do hereby declare that the following is a full and exact description thereof.

The furnace which I use is similar in its general construction to that for which I obtained Letters Patent, dated the 13th day of October, 1838, called the "portable furnace," and upon this I elevate side pieces of cast-iron, which are to surround the caldron or boiler intended to be used. These side pieces occupy the place and perform the office of the brick-work ordinarly used in the setting of caldrons, coppers, and boilers, said case standing at such a distance from the caldron as to constitute a flue-space, through which the heated air from the fire shall pass in its way to the exit-pipe. The side pieces which form the case I cast in sections, each in general occupying one-fourth of the circumference of the caldron, and these sections I unite together by forming catches on the edge of one piece, which pass through a mortise on its corresponding piece, and these are secured in place by a wrought-iron wedge. Either coal or wood may be used as fuel, the furnaces being adapted to both these articles.

In the accompanying drawings, Figure 1 is a perspective view of the caldron and furnace as used for wood. A is the furnace part, having a feeding-door at B. C is a part of the rim cast with the furnace, and upon the edge of which rest the side pieces or sectional plates D D D. These clasp onto the edge of the rim and at *a a* have the catches, and mortises, and wedges by which they are held together. E is the caldron, which has a flange or rim projecting outward and which rests on a flange or rim projecting inward from the upper edges of the sections. The space between the caldron and the side pieces may be from an inch to an inch and a quarter, dependent upon the size of the apparatus. F is the exit or escape pipe at the upper part of the flue-space.

Fig. 2 represents the furnace as formed for burning coal, there not being any difference between it and Fig. 1, excepting in those points by which it is adapted to this fuel. A is a feeder, through which the coal is to be supplied and which is to be furnished with a cover or stopper. This furnace should be lined with fire-brick, and it will be advantageous also to furnish those in which wood is used with a similar lining.

Fig. 3 is a section through the furnace and side plates, the caldron being removed and the situation which it occupies being represented by dotted lines. A is the interior of the furnace; *a*, the rim, which incloses the flue-space. *b* and *c* are projecting strips of sufficient width to occupy the flue-space and which I sometimes cast onto the side pieces, so as to form separate flues and direct the draft, as shown by the arrows.

For some purposes it may be desirable to confine the heat to the bottom portion of the boiler, in which case the side pieces rise only to the height required for this purpose, as at B in Fig. 4, A being the outside of the caldron, which fits the rim or flange on the upper edges of the side pieces, there being an exit-pipe at *c*.

The combined caldron and furnace constructed as herein described has, after repeated and careful trials, been found to present a number of advantages not heretofore attained in any one instrument. As its cost is moderate, it is perfectly portable, not liable to be out of order, and is productive of great economy in the use of fuel.

What I claim in the above-described apparatus as of my invention, and which I desire to secure by Letters Patent, is—

The combining of the portable furnace with the caldron or boiler by elevating the sides of said furnace and connecting therewith the sectional side pieces which constitute a flue surrounding the caldron or boiler, the whole being constructed, combined, and operating substantially in the manner and for the purpose herein fully set forth.

JORDAN L. MOTT.

Witnesses:

THOS. P. JONES,

ROBT. T. BUNKER.