

P. COLVIN.  
Farmers' Boilers.

No. 144,890.

Patented Nov. 25, 1873.

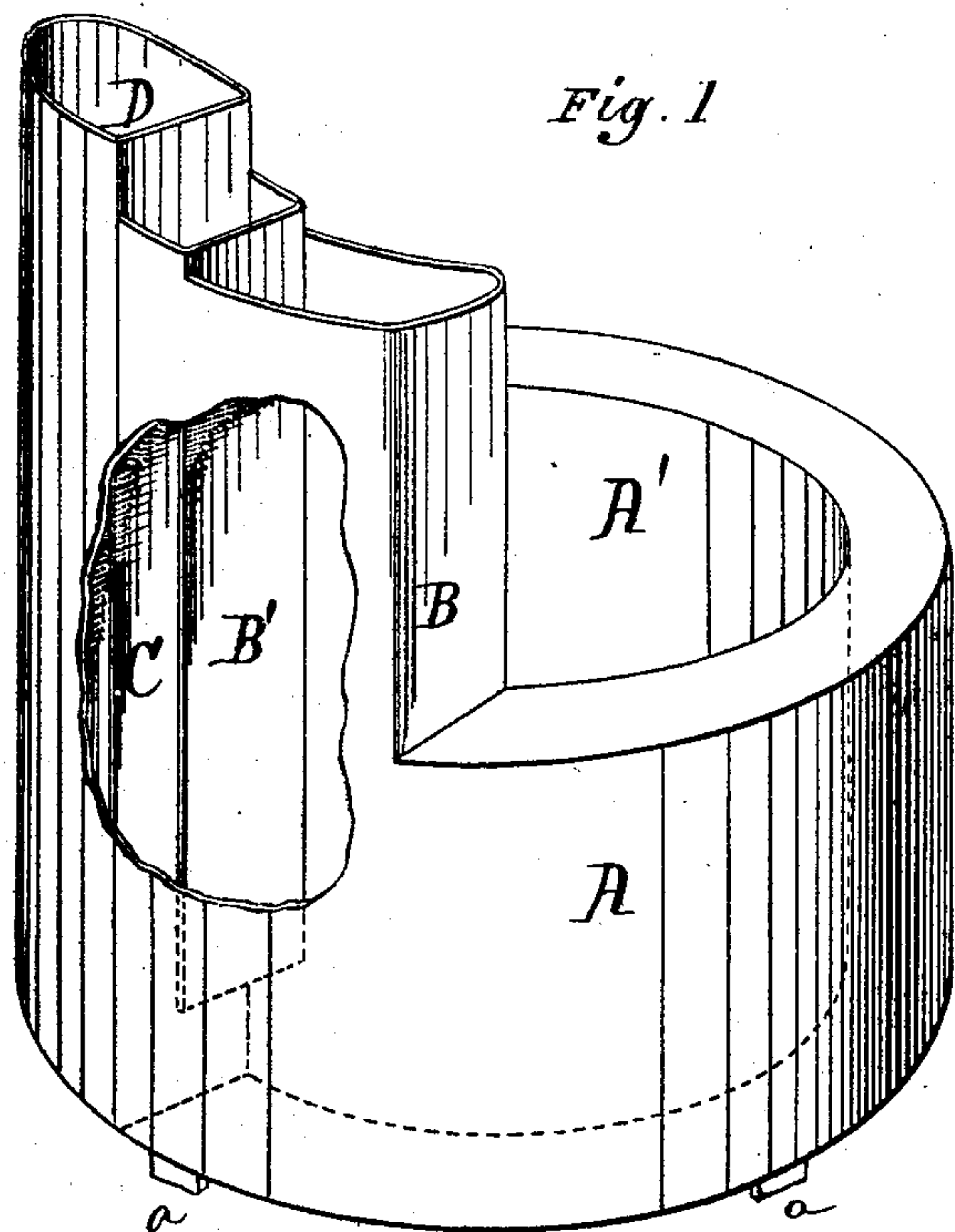


Fig. 1.

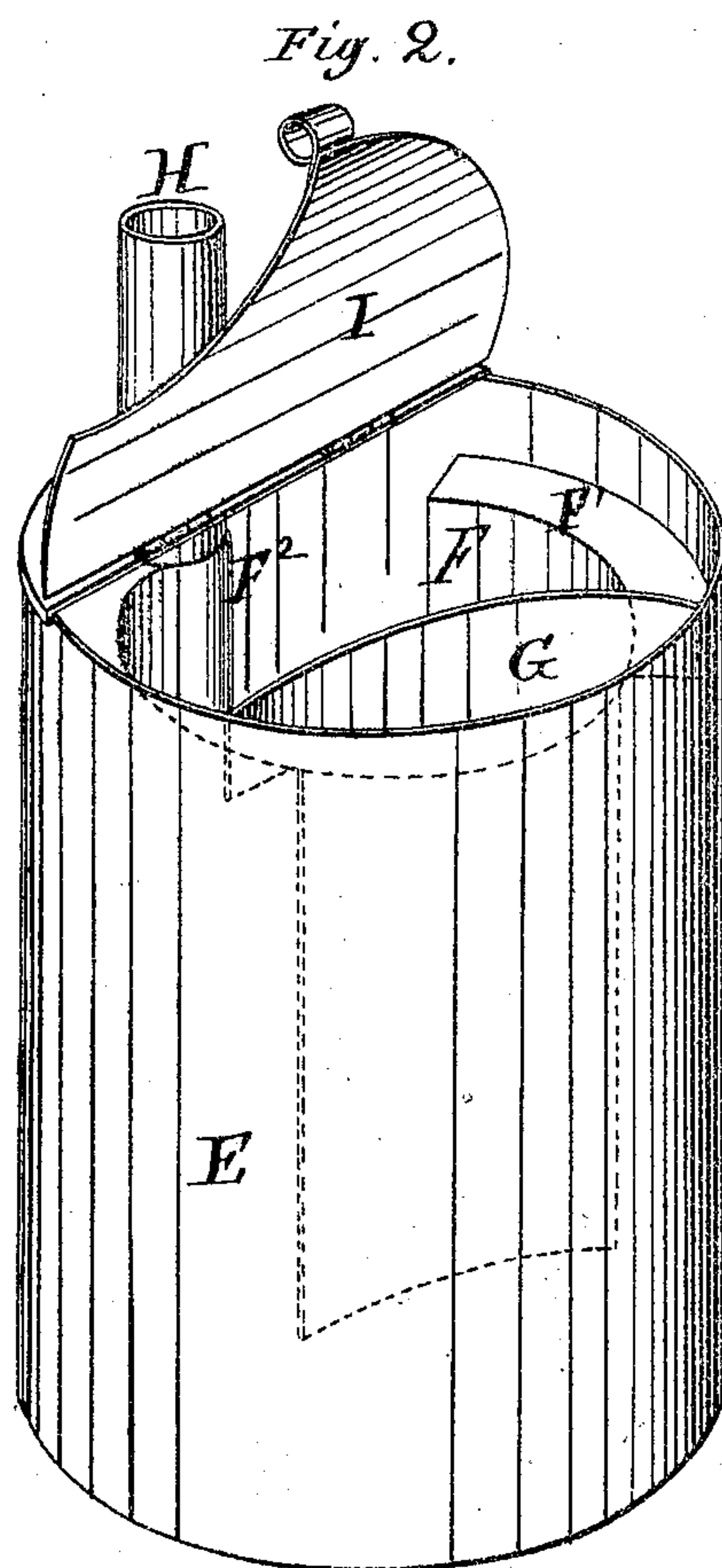


Fig. 2.

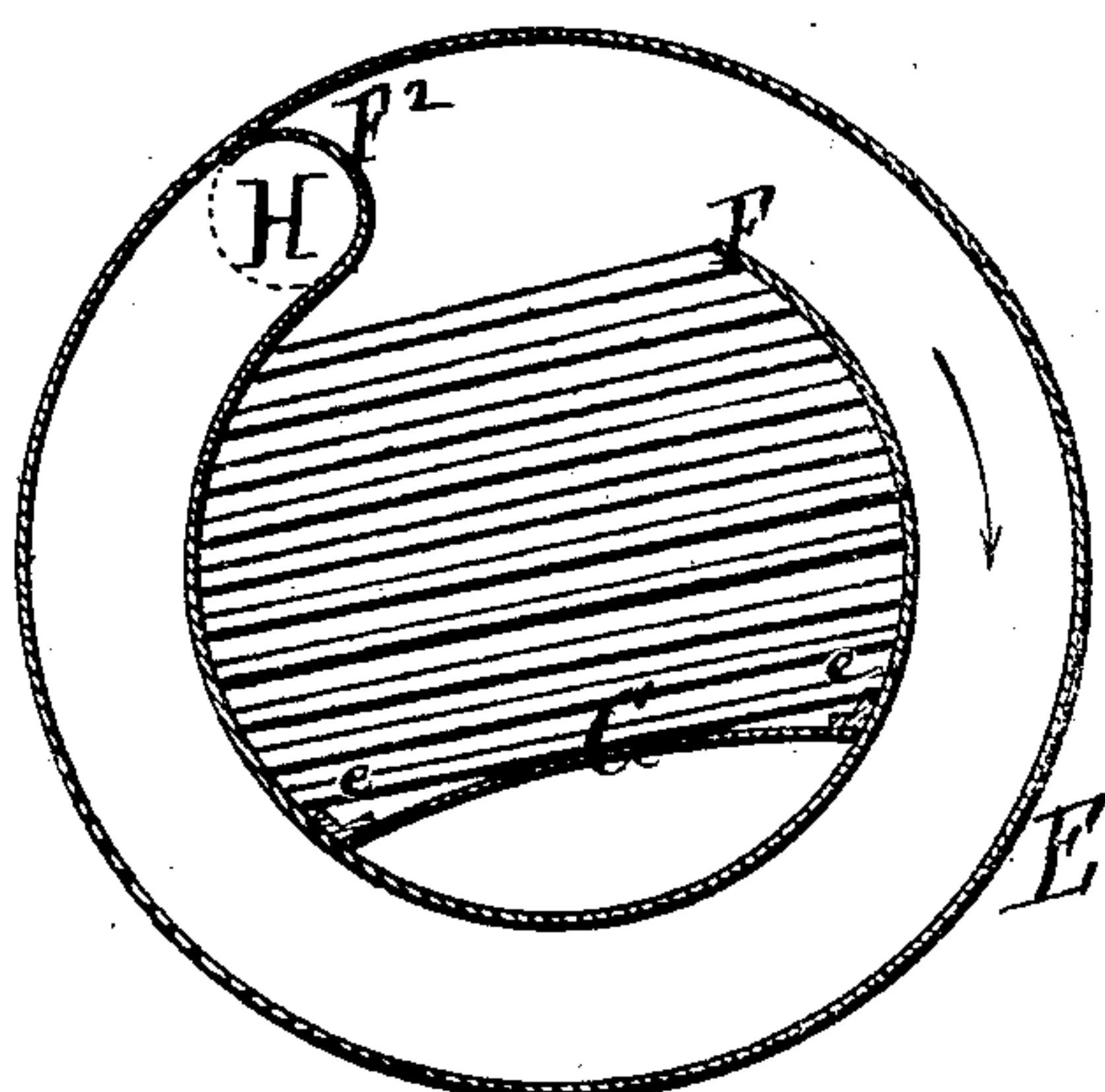


Fig. 3.

Witnesses  
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# UNITED STATES PATENT OFFICE.

PASCHAL COLVIN, OF PECATONICA, ILLINOIS.

## IMPROVEMENT IN FARMERS' BOILERS.

Specification forming part of Letters Patent No. **144,890**, dated November 25, 1873; application filed November 21, 1872.

*To all whom it may concern:*

Be it known that I, PASCHAL COLVIN, of Pecatonica, in the county of Winnebago and State of Illinois, have invented a new and useful Improvement in Heaters; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings and to the letters of reference marked thereon.

Figure 1 is a perspective view of my improved heater with a portion of the outer shell broken away to show arrangement of the fuel, smoke, and draft flues. Fig. 2 represents a modification of the invention, and Fig. 3 is a transverse horizontal section of Fig. 2.

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

The object of the invention is to construct a cheap, effective, convenient, and durable heater for the purpose of cooking and steaming food, and heating water for various purposes upon the farm; and to this end it consists in constructing the combustion-chamber in circular form, with feeding, draft, and smoke flues rising vertically from opposite ends of the combustion-chamber to such height as will permit said chamber to be submerged, in part or in whole.

In Fig. 1, A is the outer shell, and A' the inner one, which, with a suitable top and bottom, inclose an annular space or water-tight compartment. In practice, I usually prefer to mount this shell upon feet *a*, three or more in number, to keep it elevated a little from the bottom of the tub or vat, for a purpose which will soon be explained. B is the fuel-flue, which rises from the combustion-chamber. C is the draft-flue, divided from fuel-flue B by a partition, B', which extends nearly to the bottom of the fire-chamber. D is the smoke-flue. The wall of this flue, which is next to the draft-flue, extends to the bottom of the heater, and, by preference, I make the opposite side to project some distance below the upper surface of the fire-chamber in order to compel the heated

currents to descend to the lower part of the chamber, and thus render them more effective. In Figs. 2 and 3, E is the outer shell, and F the inner one, forming an annular space, through which the heated products of combustion are carried in the direction indicated by the arrow. F<sup>1</sup> is a flange, rigidly attached to the inner shell, and serving to form the top of the annular space between the two shells. G is a partition secured in place by angle-irons *e*, which are riveted to the inner wall F. The small space thus inclosed serves as a draft-flue, and, when the partition is burned out, it can be readily slipped out and a new one put in. I is the lid, a portion of which, corresponding to the space inclosed by partitions G for a draft-flue, is cut away so as to afford ready access for a current of air. H is the smoke flue or pipe.

I generally form one end of the shell F into a scroll, as at F<sup>2</sup>, and make it serve as a support for the pipe H. When preferred, the cover I may be cut to fit the inside of shell E, and rest upon flange F<sup>1</sup>.

It will be readily seen that when either the shell F, partition G, or pipe H are burned out they can be easily replaced, as they are all detached from the outer shell E.

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

1. In combination with the inner shell F, the partition G and flanges or angle-irons *e*, substantially as described.

2. In combination with the outer shell E, the inner shell F having one end thereof formed into a scroll, F<sup>2</sup>, and serving as a support for the pipe H, substantially as described.

This specification signed and witnessed this 2d day of October, 1872.

PASCHAL COLVIN.

Witnesses:

GEORGE BENUS,  
G. W. FORD.