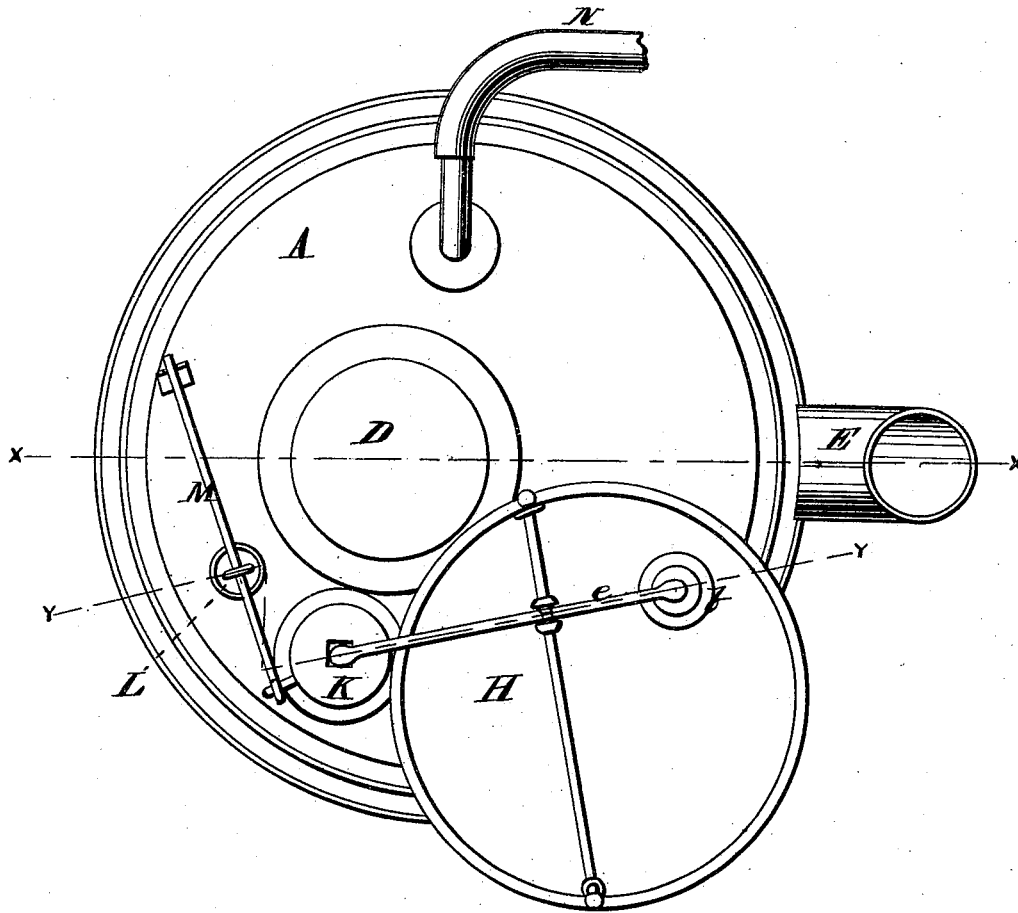


W. PIERCE.  
FEED STEAMER.

No. 180,060.

Patented July 18, 1876.

*Fig. 1.*



WITNESSES

*Robert Lovitt*  
*John W. Aiken*

INVENTOR

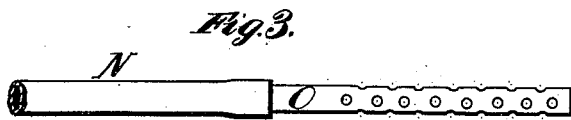
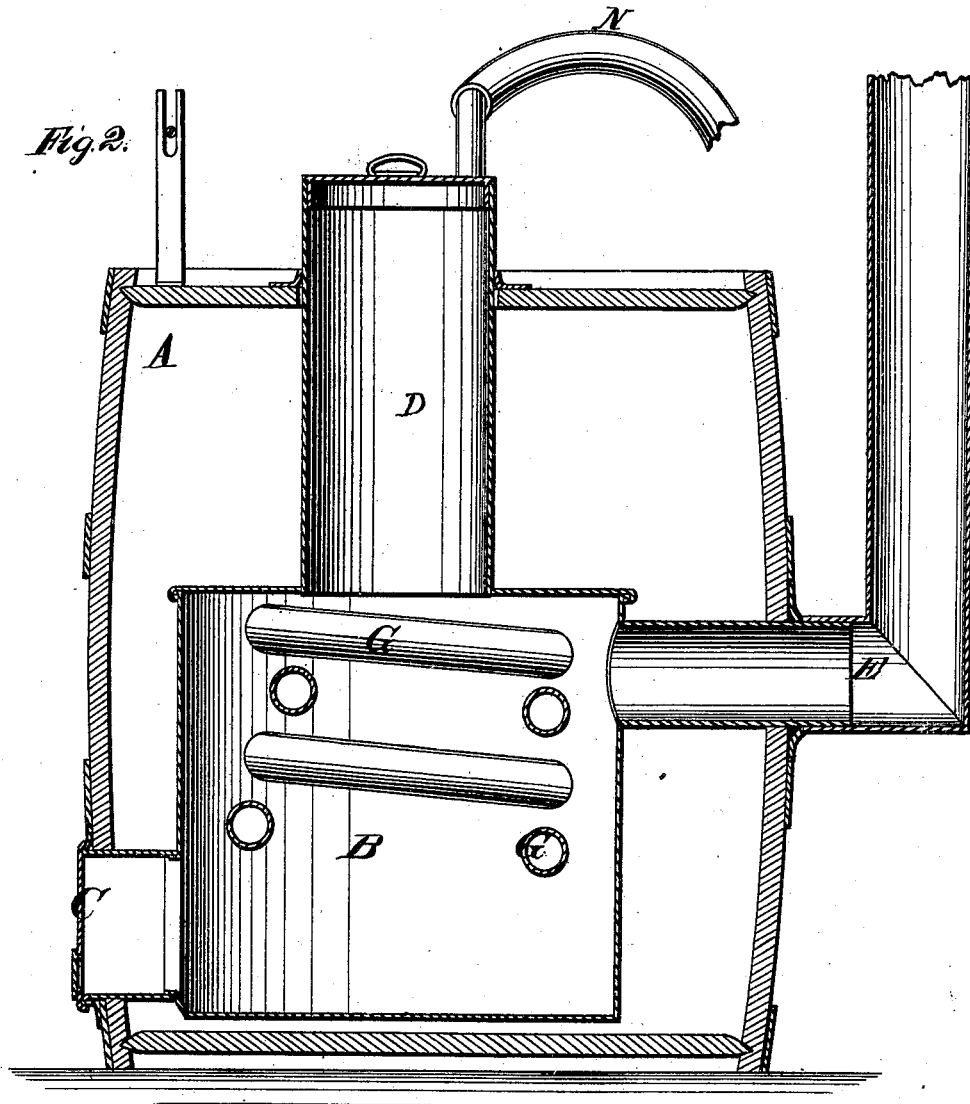
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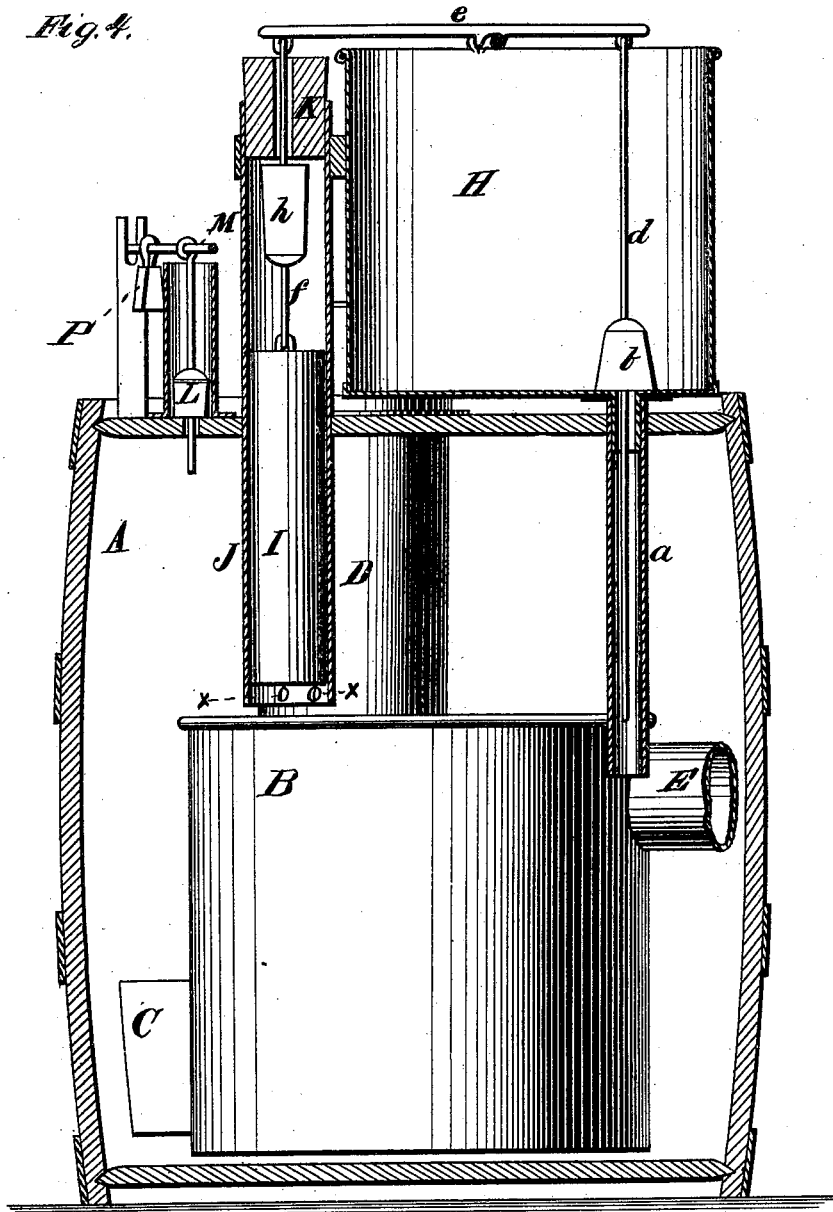
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Fig. 4.



WITNESSES

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# UNITED STATES PATENT OFFICE.

WARREN PIERCE, OF CEDAR FALLS, IOWA.

## IMPROVEMENT IN FEED-STEAMERS.

Specification forming part of Letters Patent No. **180,060**, dated July 18, 1876; application filed May 20, 1876.

*To all whom it may concern:*

Be it known that I, WARREN PIERCE, of Cedar Falls, in the county of Black Hawk and State of Iowa, have invented a new and valuable Improvement in Feed-Steaming; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a plan view of my feed-steamer. Fig. 2 is a longitudinal vertical sectional view through *x x*, and Fig. 3 is a detail view of the same. Fig. 4 is a longitudinal vertical sectional view through *yy*.

The nature of my invention consists in the construction and arrangement of a feed-cooker or feed-steamer for farmers' use, as will be hereinafter more fully set forth.

In the annexed drawing, A represents a water-tight barrel, hogshead, or other suitable receptacle, within which is the furnace B. This furnace is to be entirely surrounded by water, and near the bottom it is provided with a feed door and flue, C, through the front of the barrel. Through the top of the barrel A extends a magazine or conductor, D, down through the top of the furnace or fire-box B, for the admission of corn-cobs, wood, or other fuel used. This magazine should be provided with an interior lining. A series of horizontal tubes, G G, passes through the fire-box, communicating with the water-space at both ends. These tubes, being filled with water and constantly surrounded by the fire, cause a rapid and continuous generation of steam. On top of the barrel A is a water-reservoir, H, connected by a tube, *a*, with the water-space therein. The upper end of this tube is closed by a valve, *b*, attached to a rod, *d*, and this rod connected with one end of a rocking lever, *e*, the other end of said lever being, by a rod, *f*, connected with a float-valve, I, within a

tube, J, extending down through the top of the barrel. The water of course stands in this tube, and as it sinks the float I also sinks, thereby opening the valve *b* and letting in more water; and as the water rises again, the float also rises and closes the valve *b*. The tube J extends down to the top of the fire-box B, and has two holes, *x x*, near the end. The upper end of the tube J has a plug, K, through which the rod *f* passes. On this rod, below the plug, is a valve, *h*, which, when the float rises, shuts off the steam around the float-rod, and as it falls lets off the steam, so that the water can flow in without resistance. L is a safety-valve, with lever M and adjustable weight P thereon, to regulate the pressure: The steam generated in the barrel A is carried through a hose, N, with metal tube O at the end, to any barrel or vessel containing the feed to be cooked or water to be heated.

The end of the metal tube O is to be closed and its sides perforated near the end, so as to scatter or spread the steam in the vessel where needed.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a feed-steamer, the combination of the barrel A, reservoir H, tube *a*, valve *b*, rocking lever E, rods *d f*, and float I in the tube J, as and for the purpose set forth.

2. In a feed-steamer, the combination of the tube J, provided with apertures *x x* near its lower end, with plug K, rod *f*, and valve *h*, as and for the purpose set forth.

3. In a feed-steamer, the combination of the barrel A, fire-box B, having tubes G, reservoir H, float I, and valves *b h L*, substantially as described, and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WARREN PIERCE.

Witnesses:

F. MATTHIAS,  
GEO. KNOCHE.