

(No Model.)

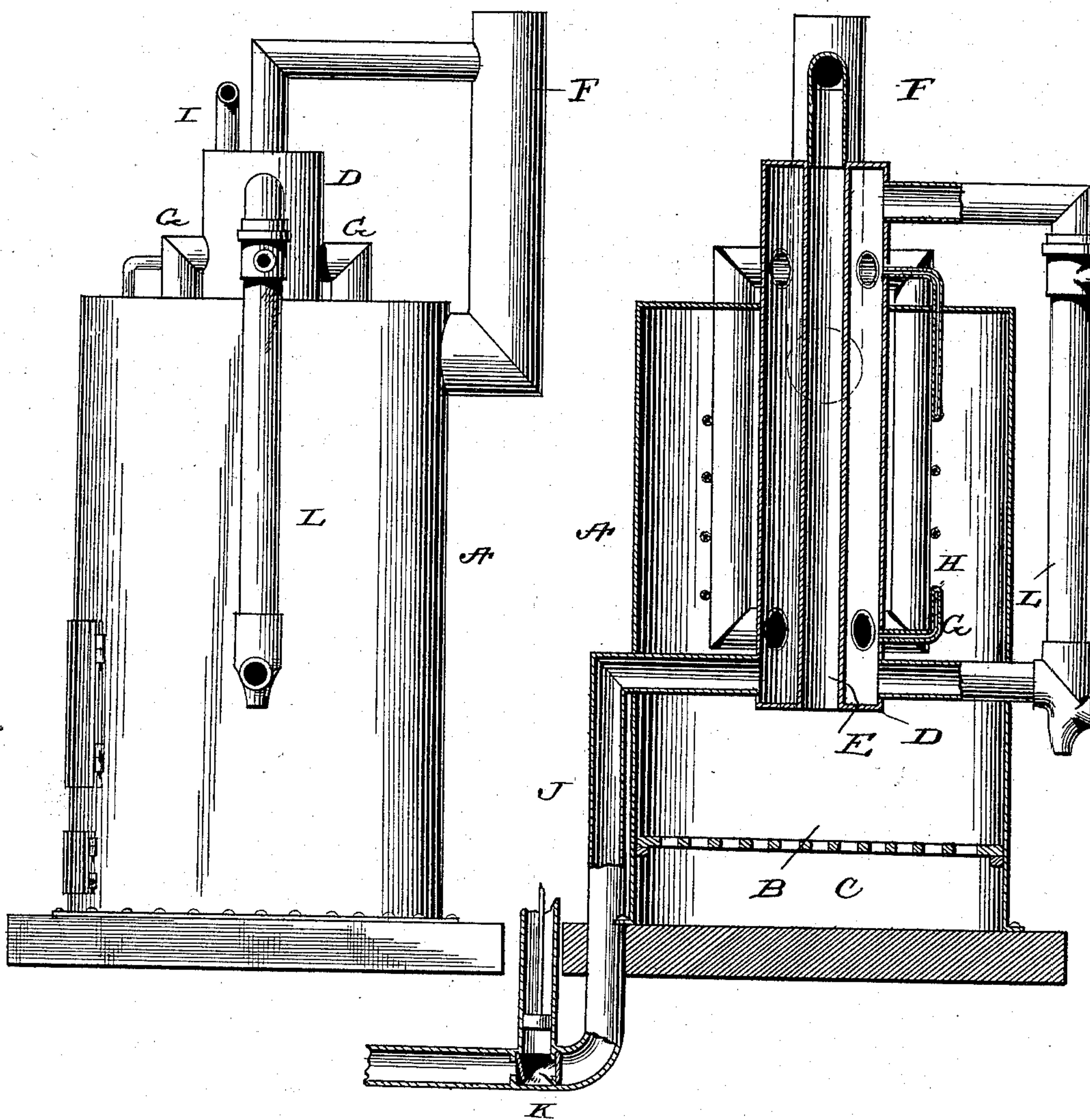
J. W. ADNEY.  
STEAM FEED COOKER.

No. 535,652.

Patented Mar. 12, 1895.

*Fig. 1.*

*Fig. 2.*



Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN WILLIAM ADNEY, OF DARLINGTON, INDIANA.

## STEAM FEED-COOKER.

SPECIFICATION forming part of Letters Patent No. 535,652, dated March 12, 1895.

Application filed January 7, 1895. Serial No. 534,057. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN WILLIAM ADNEY, a citizen of the United States, residing at Darlington, in the county of Montgomery and State of Indiana, have invented certain new and useful Improvements in Steam Feed-Cookers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention is a device for heating water and forming steam for feed-cooking and other purposes and it consists in certain novel features hereinafter described and claimed.

In the annexed drawings, Figure 1 is a side elevation of my improved device, and Fig. 2 is a vertical section of the same.

The device is illustrated as fitted within a cylindrical casing A at the bottom of which is a fire box B and ash chamber C, but it may be arranged in the upper part of an ordinary vertical heating stove.

In carrying out my invention, I employ a vertical cylinder D through which a central flue E may pass, said flue leading into the smoke pipe F of the stove. The cylinder D is secured to the upper end of the stove or casing and arranged radially around it is a series of vertical flues or pipes G each of which has its upper and lower ends communicating with the cylinder D. A pipe H is coiled spirally around the cylinder and has its upper and lower ends likewise secured to and communicating with the upper and lower ends of the cylinder. This coiled pipe may pass outside of the tubes or between them and the cylinder or through them, as desired. A discharge pipe I leads from the upper head of the cylinder to the feed-cooking tank or other point where a supply of steam is needed. The water is supplied to the cylinder through a supply pipe J which enters the lower end thereof and passes through the side of the stove or casing. The supply pipe may be provided with a small force pump K. In order that the height of the water in the cylin-

der may be readily seen at any time, I provide a tube L on the outside of the stove or casing which communicates with the upper and lower ends of the cylinder and is provided with a glass front.

It is thought the operation of the device will be readily understood.

Water is forced by the pump through the supply pipe and into the cylinder whence it circulates through the coiled pipe and the several vertical tubes. These tubes and pipes being obviously exposed to the direct action of the fire below quickly become heated to a high degree so that the temperature of the entire body of water is rapidly raised and steam soon formed, the dry steam passing off through the discharge pipe to the barrel or tank where the feed is to be cooked.

It will be observed that my device is very compactly arranged and that a thorough open circulation of the water is affected so that no heat is lost.

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

The combination of a central vertical cylinder, a central flue passing through said cylinder and into the smoke pipe above the same, a series of vertical pipes arranged radially around the cylinder and having their upper and lower ends communicating respectively with the upper and lower ends of the cylinder, a pipe coiled spirally around the cylinder and having its ends leading into the ends of the cylinder, a discharge pipe leading from the upper end of the cylinder, a supply pipe leading into the lower end of the cylinder and provided with a force pump, and a vertical gage tube having its ends leading into the ends of the cylinder.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN WILLIAM ADNEY.

Witnesses:

B. S. MARTIN,  
J. A. BERRYMAN.