

J. BEAN.
STOVE.

APPLICATION FILED MAY 5, 1917.

1,245,309.

Patented Nov. 6, 1917.

2 SHEETS—SHEET 1.

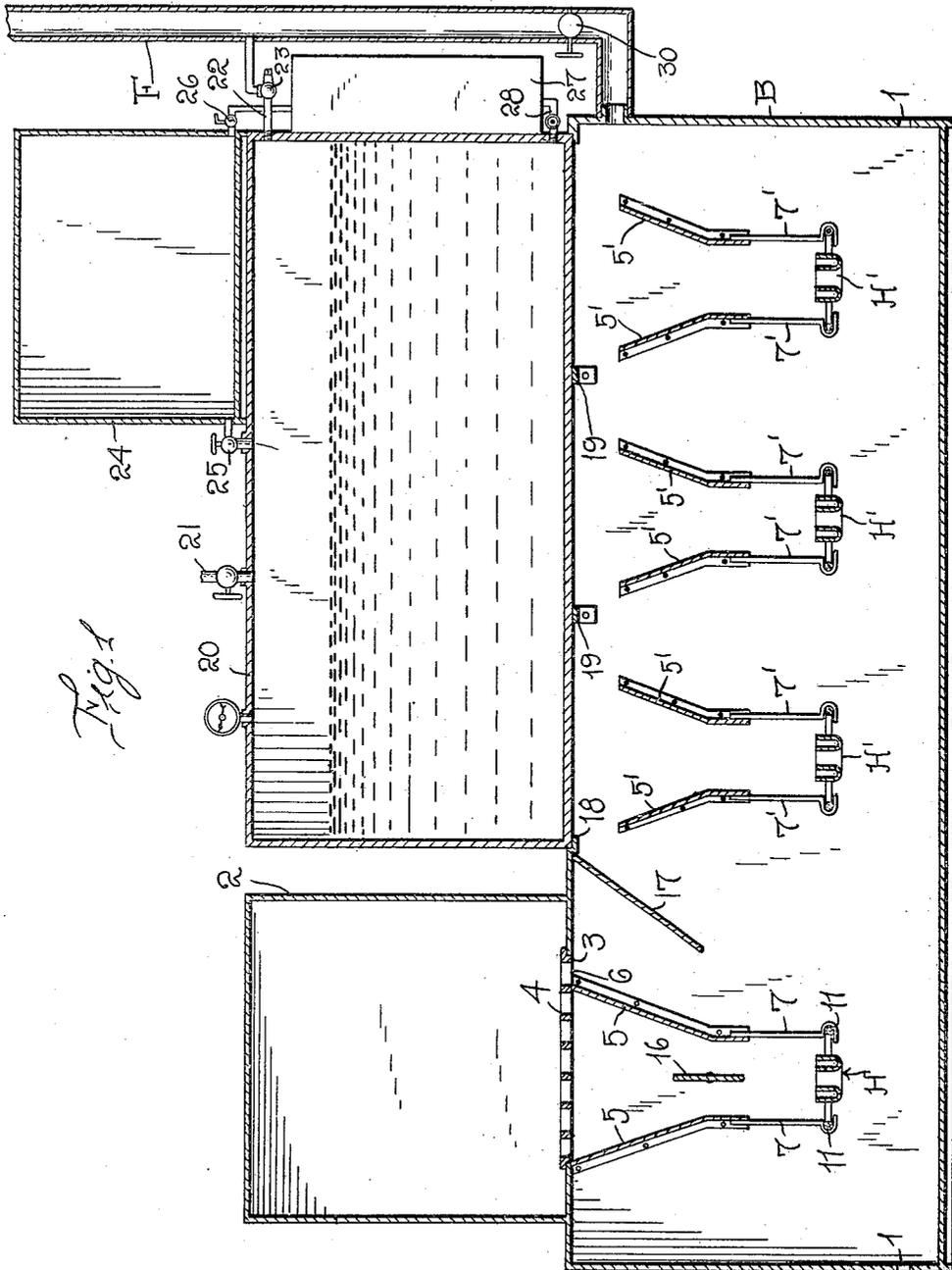


Fig. 1

Inventor

JOHN BEAN

By *Watson & Coleman*

Attorney

UNITED STATES PATENT OFFICE.

JOHN BEAN, OF FRUITLAND, NEW YORK.

STOVE.

1,245,309.

Specification of Letters Patent.

Patented Nov. 6, 1917.

Application filed May 5, 1917. Serial No. 166,636.

To all whom it may concern:

Be it known that I, JOHN BEAN, citizen of the United States, residing at Fruitland, in the county of Wayne and State of New York, have invented certain new and useful Improvements in Stoves, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain improvements in stoves, and has relation more particularly to a device of this general character of a combined heating and cooking type. It is an object of the invention to provide a stove having novel and improved means whereby steam may be readily and conveniently generated for use in heating or cooking.

It is also an object of the invention to provide a device of this general character having novel and improved means whereby a compartment is afforded and which is subjected to dry heat.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved stove whereby certain important advantages are attained and the device is rendered simpler, less expensive and otherwise more convenient and advantageous for use, all as will be hereinafter more fully set forth.

The novel features of the invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings; wherein—

Figure 1 is a longitudinal, vertical sectional view taken through a stove constructed in accordance with an embodiment of my invention;

Fig. 2 is a vertical, transverse sectional view taken through that portion of the stove provided with a steam cooker; and

Fig. 3 is a view in top plan of one of the burners as herein employed.

As disclosed in the accompanying drawings; B denotes a hollow base of predetermined dimensions and preferably rectangular in form, and which serves as a combustion chamber. As herein embodied the opposite ends at the base are provided with suitable openings 1, for the ingress of requisite air to support combustion. I do not wish to be limited, however, to the particular position or arrangement of these

openings. Mounted on the top of the base B adjacent an end thereof is an oven or cooking chamber 2, in communication with the interior of the base B through the medium of a suitable opening 3 formed in the top of the base. Overlying the opening 3 and suitably supported by the top of the base B is a grid or grate 4. The opening 3 extends transversely of the base B and substantially entirely across the compartment or oven 2. Underlying the opening 3 and extending transversely of the base B are the downwardly converging imperforate walls 5. It is to be noted that one of the walls 5 is positioned inwardly of the longitudinal edge of the opening 3 so that a passageway 6 is afforded to facilitate the requisite circulation of heat.

Depending from the lower margins of plates 5 are the hook members 7, with which are adapted to be detachably engaged a heating medium or burner H. The heating medium or burner H is adapted to be inserted within the base B through the entrance opening 8 disposed longitudinally of the base in a side wall thereof and which is adapted to be closed by the door D as herein disclosed. The burner H comprises the elongated pans or channeled strips 9, into which discharge the branch pipes 10 leading from the feed pipes 11 arranged outside of and in parallelism with the pans or grooved members 9. The feed pipes 11 extend exteriorly of the base B, through a side wall thereof, and each of said pipes 11 is in communication with a pipe 12 leading from a suitable source of oil supply. The exterior portion of the pipe 11 has interposed therein a controlling valve 14, for a purpose which is believed to be self-evident. The pipes 11 are also adapted to be engaged by the hook members 7, whereby the heating member or burner H is maintained in applied position. It is also preferred that the opposite end portions of the pans or grooved members 9 be connected, as indicated at 15.

Interposed between the plates 5 and disposed longitudinally thereof is a damper 16, adapted to be operated in any desired manner. The damper 16 is adapted to be closed at the initial lighting of the heating member or burner H, so that smoke or other undesirable fumes will pass rearwardly of the base B and be conveyed through the flue F. In order to facilitate the reduction of the heat within the compartment or oven 2, I

find it of advantage to provide the top of the base B with the depending baffle plate 17, disposed transversely of the base B and inclined toward the passageway 6 hereinbefore referred to.

The top of the base B intermediate the rear wall thereof and the baffle 17 is open as at 18, and said open portion 18 is intersected by the transverse strips 19. Overlying the opening 18 and resting upon the strips 19 is a boiler 20, herein disclosed as rectangular in form, and positioned within the base B and beneath the boiler 20 are the heating members or burners H' of a type as has been set forth relative to the member or burner H. The burners H' are supported by the hook members 7' depending from the coacting pairs of plates 5' disposed transversely of the base B and having their upper edges positioned below the top of the base.

The boiler 20 is adapted to contain a predetermined amount of water and in communication with the upper portion of the boiler 20 is a pipe 21 adapted to lead to suitably positioned radiators or the like, for heating purposes. The upper portion of the boiler 20 also has in communication therewith a pipe 22, leading to the flue F, and interposed within said pipe 22 is a pressure valve 23, of any desired type. It will be at once understood that should the steam pressure within the boiler become too high the steam will blow off through the pipe 22 into the flue F.

Supported by the top of the boiler 20 is the steam cooker 24, of predetermined configuration and dimensions, and which has its lower portion in communication with the boiler at the top thereof, through the medium of the valve control at 25. Leading from the steam cooker 24 is a valve-controlled pipe 26, through which the water of condensation within the cooker 24 is adapted to be discharged. As herein disclosed the pipe delivers within a water tank 27 arranged at the inner end of the boiler 20. The lower end of the tank 27 is in communication with the lower portion of the boiler 20, through the medium of the valve-controlled pipe 28.

The compartment or oven of the steam cooker 24 is provided with a suitable door

29, as indicated in Fig. 2, in order that desired ingress may be had thereto. While the compartment or oven 2 may be employed for baking purposes and the like, it will be at once understood that other cooking operations may be performed by positioning the desired utensil upon the grid or grate 4. It is also desired that the flue F have interposed therein a damper 30, of a conventional form and positioned intermediate the pipe 22 and the combustion chamber B.

From the foregoing description, it is thought to be obvious that a stove constructed in accordance with my invention is of an extremely simple and comparatively inexpensive nature and is particularly well adapted for use by reason of the convenience and facility with which it may be assembled, and it will also be obvious that my invention is susceptible of some change and modification without material departure from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice, except as hereinafter claimed.

I claim:

A stove of the character described comprising a combustion chamber, a heating means within the chamber, a boiler coacting with the combustion chamber, a flue in communication with the combustion chamber, a pipe interposed between the upper portion of the boiler and the flue, a pressure valve interposed in the pipe, a compartment supported by the boiler, a communication between the lower portion of the compartment and the upper portion of the boiler, a water tank supported by the boiler below the compartment and above the bottom of the boiler, and a discharge pipe leading from the lower portion of the compartment and delivering within the tank at the top thereof, the lower portion of the tank being in communication with the lower portion of the boiler.

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

JOHN BEAN.

Witnesses:

FRED HAMLIN,
RUFUS SCHIMERHORN.