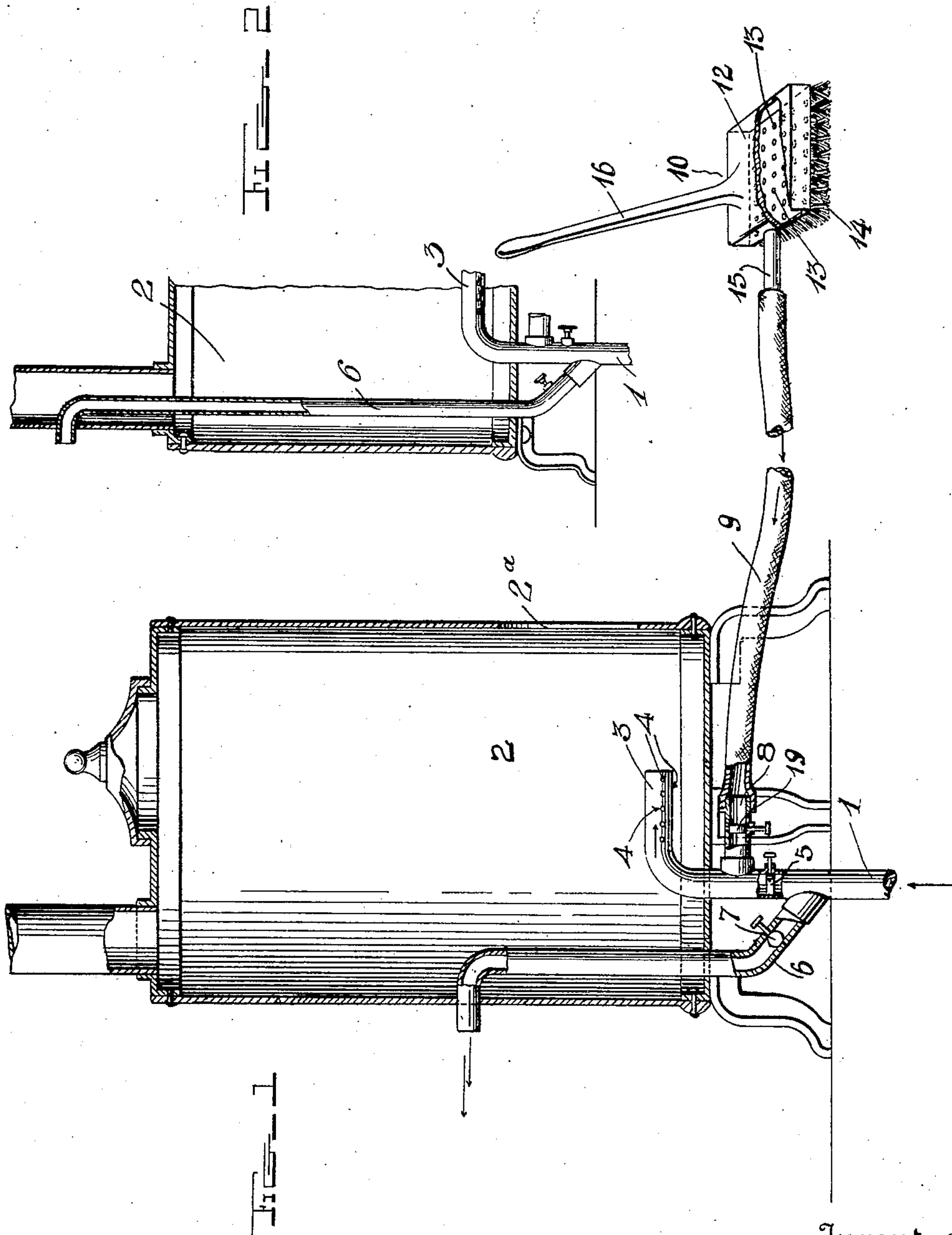


H. L. STUTTS.  
HYGIENIC HEATER.  
APPLICATION FILED DEC. 30, 1908.

935,561.

Patented Sept. 28, 1909.



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# UNITED STATES PATENT OFFICE.

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## HYGIENIC HEATER.

935,561.

Specification of Letters Patent. Patented Sept. 28, 1909.

Application filed December 30, 1908. Serial No. 470,003.

*To all whom it may concern:*

Be it known that I, HENRY LEE STUTTS, a citizen of the United States, residing at Green Hill, in the county of Lauderdale and State of Alabama, have invented certain new and useful Improvements in Hygienic Heaters; and I do 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.

This invention relates to dust collecting, ventilating and fuel saving attachments for heating devices using fuel.

The object of the invention is to provide an attachment of this character adapted to be connected with a stove whereby fresh outside air may be supplied thereto to promote combustion and to serve as a means for conveying dust to the stove for consumption.

A further object is to provide a dust collecting attachment having means whereby fresh outside air may be conducted through the stove and warmed and then discharged into the room for ventilating purposes.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be described and particularly pointed out in the appended claims.

In the accompanying drawings Figure 1 is a vertical sectional view through a heating stove showing the application of the invention thereto. Fig. 2 is a sectional view of a portion of a stove showing a modified arrangement of the invention in which the warm air conducting pipe is continued through the stove and into the smoke pipe.

In the embodiment of the invention I provide a main or fresh air supply pipe, 1, one end of which passes through the walls of the building, and is open to the outside atmosphere. The opposite end of the pipe 1 is adapted to enter a stove, 2, which may be of any desired style. The inner end of the pipe, 1, which enters the stove is preferably bent at right-angles or provided with a short right-angularly projecting nipple, 3, which is closed and provided on its under side with a series of perforations or discharge apertures, 4. In the supply pipe 1 is arranged a cut-off valve or damper, 5.

Connected to the pipe 1 below the damper is a branch pipe, 6, a portion of which extends through the stove. The upper end of

the branch pipe, 6, projects through the side of the stove and extends beyond the side of the same a short distance, as shown. The branch pipe 6, serves to conduct fresh air from the main or fresh air supply pipe 1, through the stove where it is warmed before being discharged into the room. In the branch pipe, 6, adjacent to its connections with the main supply pipe, 1, is a cut-off valve or damper, 7, by means of which the branch pipe may be cut off from the main supply pipe when desired. Also connected to the main supply pipe, above its damper, 5, is a right-angularly projecting branch pipe or nipple, 8, to which is connected the inner end of a flexible suction pipe, 9, the outer end of which is adapted to be connected to a suitable dust collecting device, 10. Said device is here shown in the form of a brush having a hollow head or body portion 12 in the bottom of which is formed a series of perforations 13, said perforations being arranged between rows of bristles, 14, whereby when the brush is moved across the floor or surface to be swept, the dust swept up by the brushes 14 will be drawn into the head through the perforated bottom and from thence drawn through the suction pipe 9, and branch pipe or nipple 8 to the main supply pipe up which it is drawn by the draft, and from which it is discharged through the perforations in the right-angularly bent upper end of the pipe. The outer end of the flexible suction pipe 9 is detachably connected to a nipple 15 arranged in one side of the hollow brush head 12. The brush head is here shown as being provided with a suitable handle, 16, by means of which it may be moved over the surface to be swept. In the nipple 8 is arranged a cut-off valve 19 by means of which the nipple 8 may be closed or cut-off from its connection with the main pipe 1.

The stove is provided with the usual door or draft opening 2<sup>a</sup> through which the foul impure air of the room may be drawn, when it is not desirable to use the dust collecting device. Fresh warm air is admitted to the room through the air conducting and heating pipe 6 as herein before described.

In Fig. 2 of the drawings is shown a slightly modified arrangement of the connections between the main air supply pipe 1 and the branch pipes and showing the air warming pipe 6 extended entirely through



the stove and into the smoke pipe and the end of the pipe 6 passing through the smoke pipe and opening into the room.

By means of an attachment as herein shown and described, outside air is supplied directly to the stove thus providing for a saving of fuel, and in connection with this means for supplying outside air, additional means is provided for collecting dust laden impure air from the room and discharging the same into the stove where it is consumed. In connection with the foregoing air supplying and dust collecting devices, I also provide means for conveying fresh outside air through the stove where the air is heated and afterward discharged into the room to take the place of the dust laden, impure air removed therefrom.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined in the appended claims.

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

1. In a device of the class described, a fresh air supply pipe projecting directly into the fire box of a stove, a suction pipe in communication with the air of the room and adapted to be connected to a dust collector, means to directly connect said suction pipe with the air pipe whereby the air from the room is drawn into the fire box of the stove, valve mechanism to control the air through said suction pipe, and an independent valve to control the air through the fresh air pipe.

2. A device of the class described comprising a fresh air supply pipe projecting directly into the fire box of a stove, a branch pipe or nipple directly connected to said main supply pipe, a suction pipe communicating with the room and adapted to be secured to a dust collector, said pipe connected with said nipple whereby the air from the room is drawn into the pipe and discharged

into the fire box of the stove, valve mechanism to control the air through said suction pipe, and an independent valve to control the air through the fresh air pipe.

3. A device of the character described comprising a fresh air supply pipe projecting into a stove with the end thereof bent at right angles and provided with a plurality of perforations or discharge apertures, a cut-off valve or damper in said pipe, a branch pipe or nipple connected to said main supply pipe between its discharge end and the damper arranged therein, a damper arranged in said nipple, and a suction tube connected to said nipple and in communication with the air in the room, said tube adapted to be connected to a dust collector whereby the dust picked up by the collector is discharged into the stove through the perforations.

4. An attachment of the character described comprising an air supply pipe connected at one end with the outside atmosphere and at its opposite end with a heating device using fuel, a valve or damper in said pipe, a branch pipe or nipple connected to said air supply pipe between the discharge end and the valve, a damper in said nipple and a flexible pipe communicating with the air in the room and connected to said nipple and adapted to be connected to a dust collector.

5. An attachment for stoves comprising a fresh air supply pipe having a discharge end projecting into a stove, a suction pipe connected to said supply pipe and communicating with the air in the room and adapted to be connected to a dust collector, a branch pipe connected to the supply pipe and passing through the stove to supply an amount of warm air to the room proportionate to the amount taken up by the suction pipe, and valves in the inlet pipe, suction pipe and branch pipe to control the air therethrough.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HENRY LEE STUTTS.

Witnesses:

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J. P. DUFFIE.