

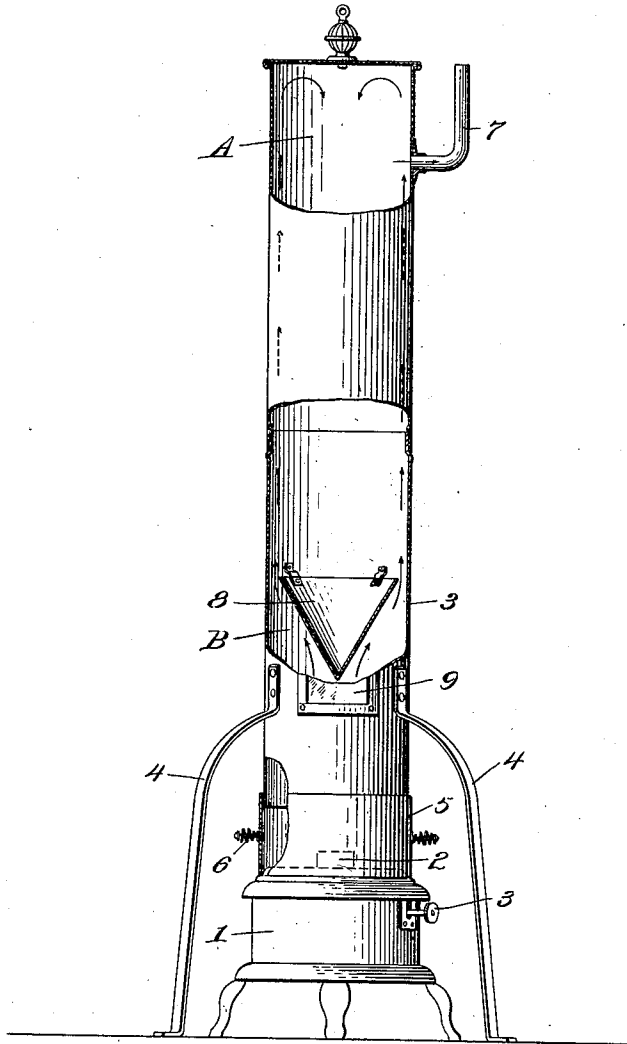
W. R. GULICK.

STOVE.

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1,058,052.

Patented Apr. 8, 1913.



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UNITED STATES PATENT OFFICE.

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STOVE.

1,058,052.

Specification of Letters Patent.

Patented Apr. 8, 1913.

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To all whom it may concern:

Be it known that I, WILLIAM R. GULICK, a citizen of the United States, and resident of Jersey City, Hudson county, State of New Jersey, have invented certain new and useful Improvements in Stoves, of which the following is a specification.

This invention comprises improvements particularly relating to gas and oil heating stoves.

One object of the invention is to provide for such stoves an accumulating or superheating compartment in which the flow of gases is retarded and from which the heat is radiated, thus preventing the rapid flow of gases to the ceiling of the compartment to be heated, as is customary with present constructions.

Another object is to effectually consume the combustion gases and render the same odorless and innocuous and to provide a construction having a large radiating surface in intimate contact with the products of combustion and from which the heat will be radiated into the lower part of the compartment to be heated.

The invention will be more particularly described in the following specification taken in connection with the accompanying drawing which illustrates a stove embodying the invention, parts being broken away to disclose the interior construction.

Referring to the drawing, 1 indicates, for instance, an oil stove which may be of any approved type, 2 indicates a burner and 3 the thumb screw for regulating the wick. Above the stove is a drum 3, preferably constructed of sheet iron. This drum is supported independently of the stove upon legs 4. When the drum is set directly over the stove the intervening space is closed by a sliding collar 5 which may be raised by means of suitable handles 6. This collar prevents the escape of heat below the drum and also protects the burner from drafts of air. The drum 3 is closed at the top and is provided at some distance below the top with an outlet pipe 7 which is preferably turned upward and is only large enough to carry off sufficient gas to provide for proper draft in the stove.

The drum comprises an accumulating or superheating section or compartment A in

its upper part and a combustion section or compartment B in its lower part, the two compartments being separated by a deflector, to be presently described. The deflector 8 is suspended in the lower part of the drum and is preferably conical, the apex of the cone extending toward the stove. The base of the cone is slightly smaller than the internal opening of the drum, whereby an annular passage is provided between the base of the cone and the drum.

In operation, the heat rises centrally in the lower or combustion chamber B and it is retarded therein by the deflector 8, which radiates a part of the heat against the walls of this chamber. The hot gases then flow through the annular passage around the base of the cone and follow the wall of the upper or accumulating chamber A, as indicated by the arrows. The flow of gases is retarded in this chamber by the fact that the top is closed and the outlet 7 simply permits a sufficient flow to create enough draft to effect perfect combustion at the burner.

The construction described causes practically all of the heat to be radiated from the drum, a very small proportion of it passing directly out through the vent 7. The retardation of the flow of gases in both the lower and the upper chambers of the drum causes an accumulation of heat therein which effectually destroys any noxious gases escaping from the burner and also renders the gas which is eventually discharged from the vent 7 odorless. With this improved drum either an oil or gas stove of approved construction can be burned without creating a disagreeable odor or noxious gases, even in a poorly ventilated apartment.

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

The combination with a stove of the class described, of a vertical heating drum and means for supporting the same independently of and above the stove and in axial alinement therewith, an open ended collar adapted to close the space between the drum and the stove and slidably arranged on the exterior of the drum, the said drum being closed at the top and having a relatively small lateral outlet at some distance below the top and having a deflector in its lower

part separating the drum into a lower or combustion chamber and an upper or heat accumulating chamber, the said deflector being constructed to close the passage through
5 the drum with the exception of a continuous narrow aperture adjacent the wall of the drum, whereby the hot gases from the lower chamber are directed into the upper cham-

ber adjacent the wall thereof, for the purpose set forth.

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

WILLIAM R. GULICK.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."