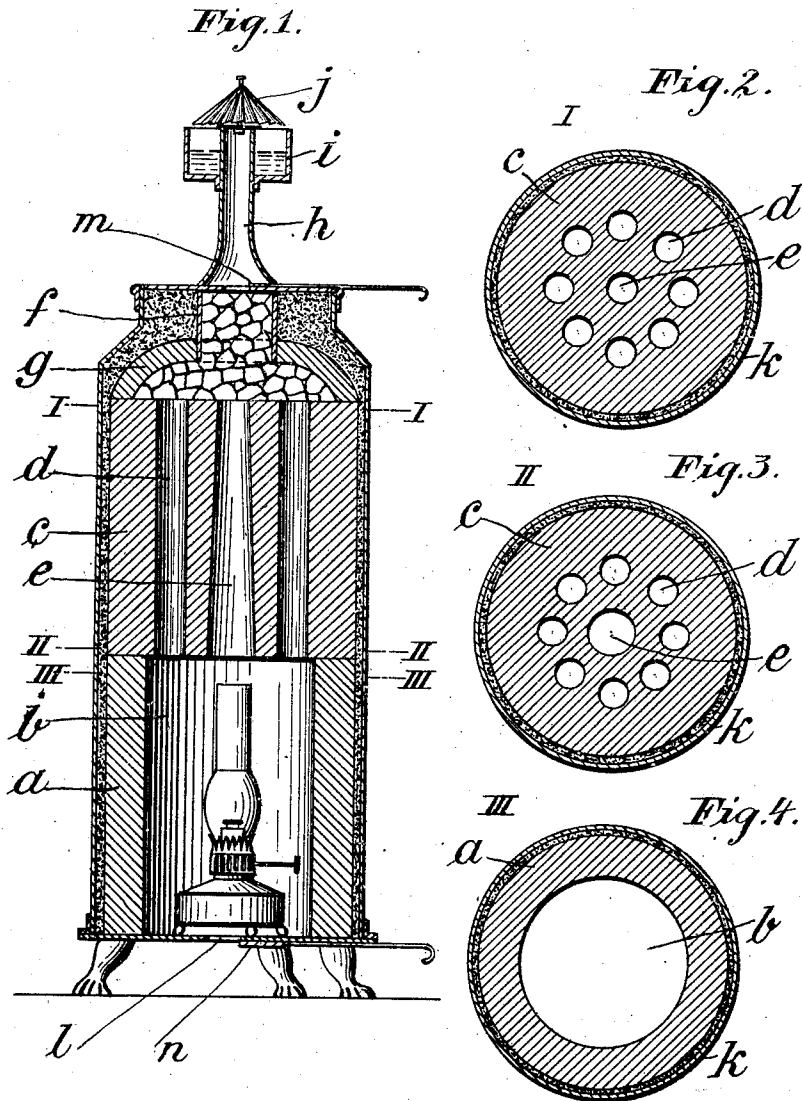


G. A. WIKSTRÖM.
STOVE FOR HEATING BUILDINGS OR THE LIKE PURPOSES.
APPLICATION FILED FEB. 11, 1909.

954,153.

Patented Apr. 5, 1910.



WITNESSES

E. Toupin
E. Toupin

GEORG ALFRED WIKSTRÖM
INVENTOR

Marion & Marion
ATTORNEYS

UNITED STATES PATENT OFFICE.

GEORG ALFRED WIKSTRÖM, OF ABO, RUSSIA.

STOVE FOR HEATING BUILDINGS OR THE LIKE PURPOSES.

954,153.

Specification of Letters Patent.

Patented Apr. 5, 1910.

Application filed February 11, 1909. Serial No. 477,472.

To all whom it may concern:

Be it known that I, GEORG ALFRED WIKSTRÖM, residing at 33 Vesterlanggatan, Abo, Russia, have invented certain new and useful Improvements in Stoves for Heating Buildings or the Like Purposes; and I do hereby declare that the following is 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 improvements in stoves of the kind in which an ordinary lamp burning petroleum or other liquid combustible is the source of heat.

The invention is shown in the accompanying drawings, Figure 1 being a vertical section through a stove constructed according to the invention and Figs. 2, 3 and 4 being horizontal cross sections on the lines I—I, II—II, III—III respectively of Fig. 1.

The stove consists of two or more cylinders placed one above the other and made of any material adapted to retain heat such as steatite, fire clay, ordinary brick material or the like. The lower (or lowest) cylinder *a* has a single wide bore *b* co-axial with the cylinder and intended to contain an ordinary petroleum lamp which can be inserted into the cylinder through a door. In the upper cylinder or cylinders *c* there is a number of channels *d* arranged in a ring co-axial with the cylinder and bored or otherwise formed in the fire-proof mass, together with a central channel *e* adapted to be directly over the lamp; the last-named channel may, if desired, be made to taper slightly upward, in order the better to concentrate the heat. Above this upper cylinder or cylinders is a conical cover *g* having a wide opening in the middle, within which opening there is a short metal pipe *f*, and the whole apparatus is incased in a metal casing *h* having a suitable form at the top and provided with a tightly closing cover plate wherein is an opening corresponding with the pipe *f* which can be closed by a damper *m*. The space between the cylinder and the somewhat wider casing *h* is filled with a layer of sand or similar heat insulating material which extends to the upper cover plate. The conical cover *g* and the pipe *f* are filled with pieces of pumice stone or like material which absorbs products from the lamp.

On the cover, formed as a direct continuation of the pipe *f* there is a chimney *k* of

metal or other suitable material, the upper end of which is surrounded by an annular water-trough *i*, and above this is an ordinary rotating cowl *j*. In the center of the floor of the stove is an opening *l* controlled by a damper *n*. The metal casing and sand filling may if desired be dispensed with.

The stove is worked as follows:—The petroleum lamp after being lighted is placed in the cylinder *a* over the opening *l* and the dampers *m* and *n* are then opened. The warm current of gases arising from the lamp passes upward through channels *d* and *e* and heats more and more the walls of the cylinder, finding its way through the pumice stone packing, which absorbs any petroleum vapor, and finally, bereft of all smell, passes through the cowl *j* which is set rapidly rotating. The water in the reservoir *i* is also somewhat heated and quickly evaporates owing to the action of the cowl, a moist warm air being thus disseminated. The walls of the stove retain their heat for a long time after the lamp has been removed and the dampers closed. The stove, therefore, operates in a similar manner to an ordinary stove, and the cost of heating by petroleum is a fraction of that of heating by wood. Danger of fire is quite out of the question, because it is impossible that the lamp should explode; chimneys and pipes are unnecessary. The air is pure since the time after the lamp has been removed through the opening controlled by damper *m* and cleaned, completely absorbs all petroleum vapor.

Having now particularly described and ascertained the nature of this invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A heating stove of the character described, comprising a lower heat absorbing cylinder provided with a lamp chamber, a lamp, means for supporting the lamp in said chamber, an upper heat absorbing cylinder seated upon the lower cylinder and provided with a plurality of heating flues extending vertically therethrough, a cover extending over the upper end of said upper cylinder and provided with a passage therethrough, and an absorbent of products of combustion disposed between the cover and cylinder end.

2. A heating stove of the character described, comprising a lower heat absorbing cylinder provided with a lamp chamber, a

lamp, means for supporting said lamp within said chamber, an upper heat absorbing cylinder mounted upon said lower cylinder and provided with a single centrally disposed longitudinally tapering heat conducting flue and a plurality of heat conducting flues arranged concentrically thereabout, a cover extending over the upper end of said upper cylinder and provided with a passage therethrough, and an absorbent disposed between said cover and the upper end of said upper cylinder, said absorbent being adapted to absorb the products of combustion.

3. A heating stove of the character described, comprising a lower heat absorbing cylinder provided with a lamp chamber, a lamp, means for supporting the lamp in said chamber, an upper heat absorbing cylinder mounted upon said lower cylinder and provided with a plurality of heating flues extending vertically therethrough, a cover extending over the upper end of said upper cylinder and provided with a passage therethrough, an absorbent of products of combustion disposed between the cover and

cylinder end, and a casing inclosing said cylinders and said cover.

4. A heating stove of the character described, comprising a lower heat absorbing cylinder provided with a lamp chamber, a lamp, means for supporting the lamp in said chamber, an upper heat absorbing cylinder mounted on said lower cylinder and provided with a plurality of heating flues extending vertically therethrough, a cover extending over the upper end of said upper cylinder and provided with a passage therethrough, an absorbent of products of combustion disposed between the cover and cylinder end, a casing inclosing said cylinders and said cover, and a heat insulating material interposed between said casing and said cylinders and cover.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

GEORG ALFRED WIKSTRÖM.

Witnesses:

T. M. WINKLAND,
W. LINDROTH.