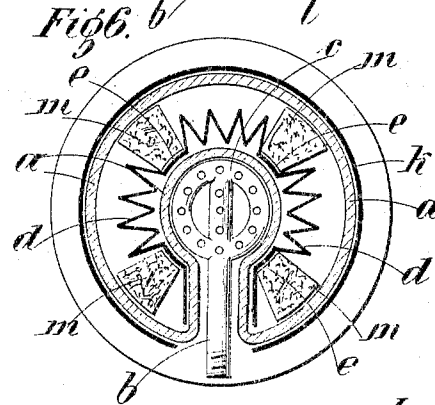
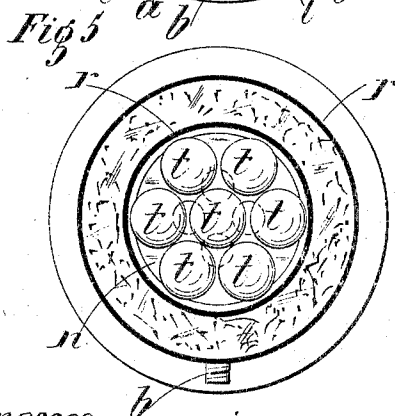
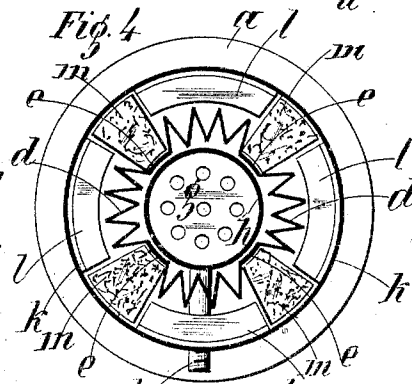
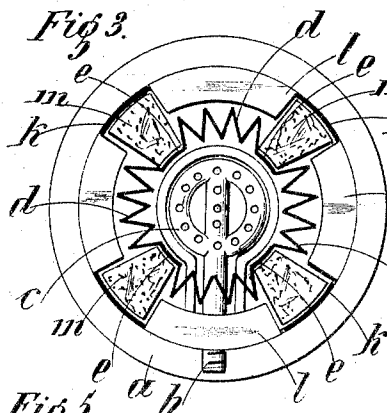
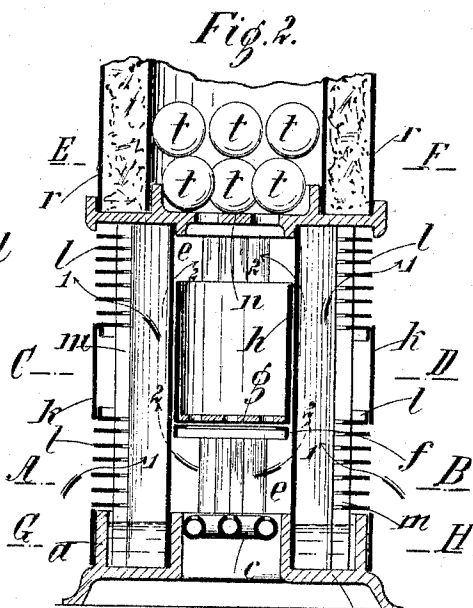
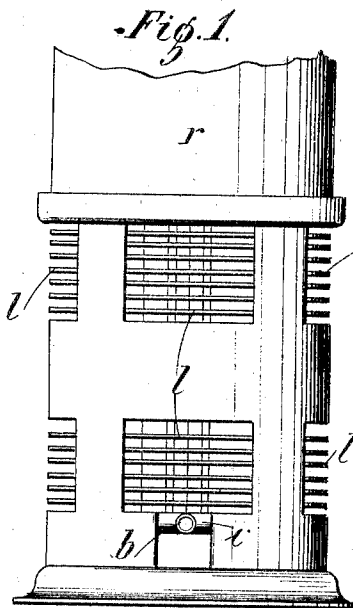


No. 783,886.

PATENTED FEB. 28, 1905.

H. NIEMECZEK.
GAS STOVE.

APPLICATION FILED JULY 2, 1904.



Witnesses.
J. H. M. M. M.
F. H. F. F.

Inventor.
Haimo Niemczek
by G. L. L. L.
att.

UNITED STATES PATENT OFFICE.

HANNS NIEMECZEK, OF VIENNA, AUSTRIA-HUNGARY.

GAS-STOVE.

SPECIFICATION forming part of Letters Patent No. 783,886, dated February 28, 1905.

Application filed July 2, 1904. Serial No. 215,179.

To all whom it may concern:

Be it known that I, HANNS NIEMECZEK, a subject of the Emperor of Austria-Hungary, residing at 48 Valeriestrasse, Vienna, Austria-Hungary, have invented certain new and useful Improvements in Gas-Stoves, of which the following is a full, clear, and exact description.

The present invention relates to gas-stoves which combine the advantage that the heat is given up quickly and that part of it is taken up by the material of the stove and given up gradually when the burner is extinguished.

In the accompanying drawings, Figure 1 shows a gas-stove embodying the invention in elevation. Fig. 2 is a vertical section through the same. Fig. 3 is a cross-section on line A B, Fig. 2. Fig. 4 is a section on line C D, Fig. 2. Fig. 5 is a section on line E F, and Fig. 6 is a section on line G H of Fig. 2.

The base *a* of the stove has the shape of an annular trough, being intercepted in one place for admitting the supply-pipe *b* of gas, which leads the gas to the burner *c*. The base *a* is thus adapted to hold the water generally used for preventing the air to become too dry, and this base serves to receive and to support the upper parts of the stove. The inner jacket of the same is a piece of tube of particular cross-section (Shown in Figs. 3 and 4.) The parts *d* are zigzag-shaped and connecting the same. The parts *e* are rounded, being in the surface of a true cylinder. A ring *f*, of angular iron, is riveted on the inside of the parts *e* and serves as a support for a cylinder *h*, having its bottom *g* perforated, so that the gases of combustion can freely pass.

The outer jacket *k* of the stove is cylindrical and is cut open in front of the zigzag parts, and in these openings horizontal plates *l* of segmental shape are placed in a suitable number above each other, said segments touching the edges of the zigzag parts *d* of the inner jacket. The inner jacket rests in the bottom of the trough of the base *a*.

m represents prismatical bodies of artificial stone made of sand or brick or of casings filled with sand or other bad conductors of heat which are placed between the cylindrical parts *e* of the inner jacket and the periphery of the outer jacket *k*. These also are sup-

ported by the bottom plate of the trough—that is to say, they stand in the water with which the trough is filled. The top of the stove is formed by a flange-plate *n*, serving as a support for two cylindrical bodies *r r*, between which sand or similar material is filled in. The space of the inner cylinder *r* may be filled with bodies of brick or other similar material, preferably with balls *t* of such material, so that the heat passing through suitable perforations of the plate *m* may be taken up and retained by said balls.

The operation of the described stove is as follows: The hot gases developed by the burner *c* pass through the openings in the bottom *g* into the cylinder *h*, while a large part of them escape in the direction of the arrows 2 through the zigzag parts *d* of the inner jacket and commingle, after having risen outside of the cylinder *h*, with the gases having passed directly through said cylinder *h*. Then the gases pass together through the openings in the top plate *n* and rise through the spaces between the balls *t*, then acting on the same in the above-described manner. The outer air passes through the lower openings of the jacket *k*, taking up heat from the horizontal segments *l*, which lead it closely in and between the zigzag parts *d* of the inner jacket. Here it is heated by the heat from the gases from the burner, the heated air following the direction indicated by the arrows 1, the gases within the device following the course indicated by the arrows 2. The inner jacket, as well as the bodies *m*, stand with their lower ends in the water of the base *a*, and thus the water is brought to a temperature at which it slowly evaporates, and the vapors commingle with the air passing through the stove. The segmental plates *l* may be supported in any suitable manner. Thus the air is moistened before it is heated to a considerable extent, and therefore the particles of dust carried along with the air are not burned, and thereby the disagreeable odor occurring generally when gas-stoves are used is prevented.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a gas-stove a base forming an annular

trough for the water to moisten the air, said trough being provided with a cut-out place for the passage of the gas-supply and inclosing a burner connected with such gas-supply, in combination with an outer cylindrical jacket and an inner jacket being partly cylindrical and partly in zigzag form, and non-conducting material between said jackets, and non-conducting bodies disposed within the inner jacket, as described.

2. In a gas-stove a base forming an annular trough for the water to moisten the air, said trough being provided with a cut-out place for the passage of the gas-supply pipe and inclosing a burner connected with such gas-supply, in combination with an outer cylindrical jacket and an inner jacket having a plane cylindrical part and a part in zigzag form, the outer cylinder having openings in front of the zigzag parts of the inner jacket and having segmental plates *l* arranged in said openings substantially as described.

3. In a gas-stove a base forming an annular trough for the water to moisten the air, said trough being intercepted in one place for the passage of the gas-supply and inclosing a burner connected with such gas-supply, in combination with an outer cylindrical jacket and an inner jacket being partly cylindrical and partly in zigzag form, the outer cylinder having openings in front of the zigzag parts of the inner jacket and having segmental plates *l* arranged in said openings, the inner and outer jacket resting on the bottom of the

trough-shaped base and inclosing between them prismatical bodies of bad conductors of heat, all resting with their foot end in the water of the base in order to heat the same as described.

4. A gas-stove comprising an inner jacket having alternating plane and zigzag portions, a supporting-ring *f* secured to the jacket, a cylinder *h* provided with a perforated bottom *g* supported on said ring, a flanged plate for the jacket, inner and outer cylinders *r* mounted on the top plate and having non-conducting material therebetween, and bodies of non-conducting material arranged within the inner cylinder, as set forth.

5. A gas-stove comprising a base with an annular water-trough, an inner jacket having alternating plane and zigzag portions, with its lower end supported in said trough, a supporting-ring secured to the jacket, a cylinder provided with a perforated bottom supported on said ring, a flanged top plate for the jacket, inner and outer cylinders mounted on the top plate and having non-conducting material therebetween, segmental plates arranged within openings in the outer cylinder of the jacket, and bodies of non-conducting material within the inner cylinder, substantially as described.

In testimony whereof I affix my signature.

HANNS NIEMECZEK.

In presence of—

FRIEDRICH BINDER,
ALVESTO S. HOGUE.