

(No Model.)

K. WERZINGER.
STOVE.

No. 469,380.

Patented Feb. 23, 1892.

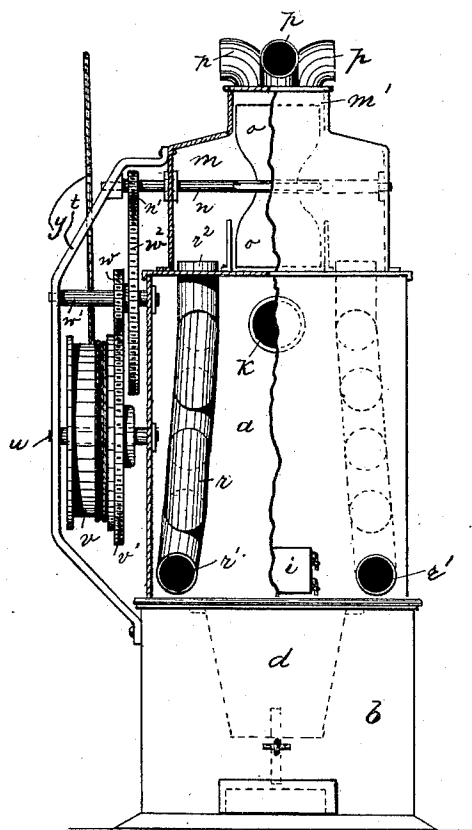


Fig. 1.

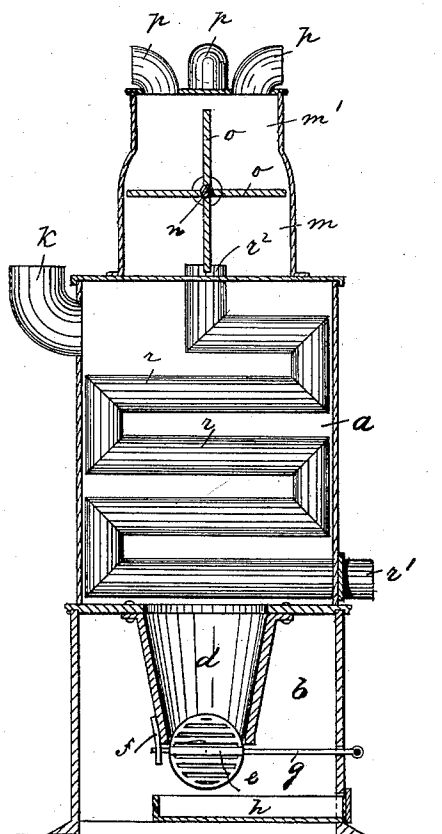


Fig. 2.

WITNESSES:

Wm. D. Zell
E. L. Sherman

INVENTOR:

Karl Werzinger

BY

Gartner & Co.
ATTORNEYS

UNITED STATES PATENT OFFICE.

KARL WERZINGER, OF BADEN-BADEN, GERMANY.

STOVE.

SPECIFICATION forming part of Letters Patent No. 469,380, dated February 23, 1892.

Application filed September 4, 1891. Serial No. 404,731. (No model.) Patented in Germany May 28, 1891, No. 58,285, and in England June 1, 1891, No. 9,200.

To all whom it may concern:

Be it known that I, KARL WERZINGER, a subject of the Emperor of Germany, residing in Baden-Baden, in the Grand Duchy of Baden and Empire of Germany, have invented certain new and useful Improvements in Stoves or Heating Apparatus; and I do hereby declare the following to be a full, clear, and exact description of said invention.

The object of this invention is to provide a new or improved stove or heating apparatus by means of which one or several rooms or apartments in a building—such as a dwelling-house, hospital, &c.—may be sufficiently and uniformly heated throughout from one stove or heater.

The invention consists in the improved stove or heating apparatus and the combination and arrangement of the various parts thereof, substantially as will be hereinafter more fully described, and finally embodied in the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the figures, Figure 1 is a side elevation of my improved heating apparatus with part of the side wall broken away, and Fig. 2 is a cross-section of the same.

In said drawings, *a* represents the shell or body of a stove or heater with lower chamber *b*, in which is arranged and secured a fire-box *d*, in the lower portion of which is arranged an adjustable grate *e*. This grate can be supported or pivoted when desired to a plate or support *f*, as shown in Fig. 2, and is provided with a forwardly-extending handle or shaker *g*. Underneath the grate is arranged an ash-box or receptacle *h*. (Shown in Fig. 2.) On the side of the shell or body *a* is a door *i* for the insertion of coal or fuel into the fire-box. Near the top of the shell or body *a* is arranged a flue or pipe *k*, connecting it with a chimney or other means for carrying off the smoke and gases and furnishing draft for the fire.

Upon the top of the shell or body *a* is secured a hot-air chamber *m*, with upwardly-extending and smaller chamber *m'*. Extending through the chamber *m* and revolving in bearings in the sides is a rod or shaft *n*, to which are secured a series of blades or fans *o*, adapted to revolve and move within the cham-

bers *m* and *m'*. These fans are contracted or made narrower at their connection with the shaft *n*, as shown in Fig. 2, thereby creating a suction within the chamber *m*. Upon the top of the small chamber *m'* are diverging or exit pipes *p*, leading into the various rooms or apartments to be heated. Within the shell or body are arranged a series of metallic pipes *r*, the lower ends *r'* of said pipes passing out through the shell or body and opening directly into the room to be heated, or the pipes can be extended into the open outside air, as may be preferred. The upper ends of these pipes lead into the chamber *m*, as shown at *r*². I have shown these pipes *r* as arranged in a zig-zag form; but when preferred they can be spiral, coiled, or any other form, so as to give the greatest amount of heating-surface and occupy the inner space of the chamber *m* to the best advantage.

Upon the outside of the shell or body *a* and the chamber *m* is a supporting-strap *t*. In this strap and the shell are openings or sockets to serve as bearings, in which revolves or turns a shaft *u*, on which is secured a flanged drum *v*, the outer periphery of one of the flanges of said drum being provided with gear-teeth, as shown at *v'*, adapted to mesh into a pinion *w* on shaft *w'*, also carrying a larger gear-wheel *w*², adapted to mesh into a pinion *n'* on the outer end of shaft *n*, as shown in Fig. 1.

Upon the drum *v* is wound or secured a cord or rope *y*, the free end of said rope being connected with suitable mechanism for operating or moving the gear-wheels and pinions.

In operating the device the heated air in the pipes *r r* passes up into the chambers *m* and *m'* and from there by the revolving action of the damper or blower *o* is forced or driven through the pipes *pp* into the room to be heated. By regulating the speed of the blower the strength of the current in the pipes *pp* can be increased or decreased, as desired.

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

The improved stove or heater combining therein a fire-box, a heating-chamber, a series of pipes arranged in said heating-chamber, a distribution-chamber arranged on top of said heating-chamber and connected with said se-

ries of pipes and provided with an upwardly-
extending smaller chamber, distributing-pipes
connected with said extension-chamber, a
shaft adapted to revolve in bearings in the
distribution-chamber, blades secured to said
5 shaft, these blades being contracted or made
narrower at their connection with the said
shaft, thereby being adapted to create, when
in operation, a suction in the said distribu-
10 tion-chamber and so arranged that the current
of the heated air does not impinge directly
upon said blades, a pinion secured to one end
of said shaft, a series of gear-wheels adapted

to control the motion of said pinion, and means
for driving and regulating the speed of said 15
gear-wheels, all said parts being arranged and
adapted to operate substantially as described,
and for the purpose set forth.

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

KARL WERZINGER.

Witnesses:

R. H. GROPP,

M. BESSER,

Both of Mannheim.