

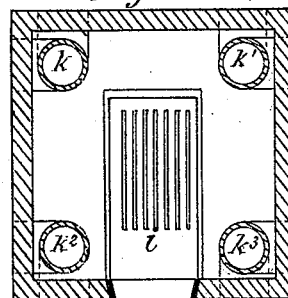
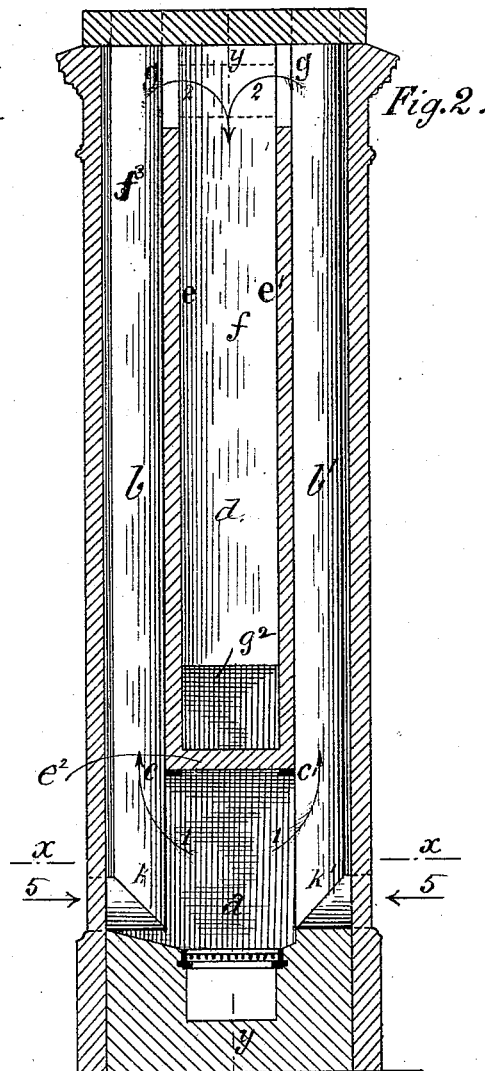
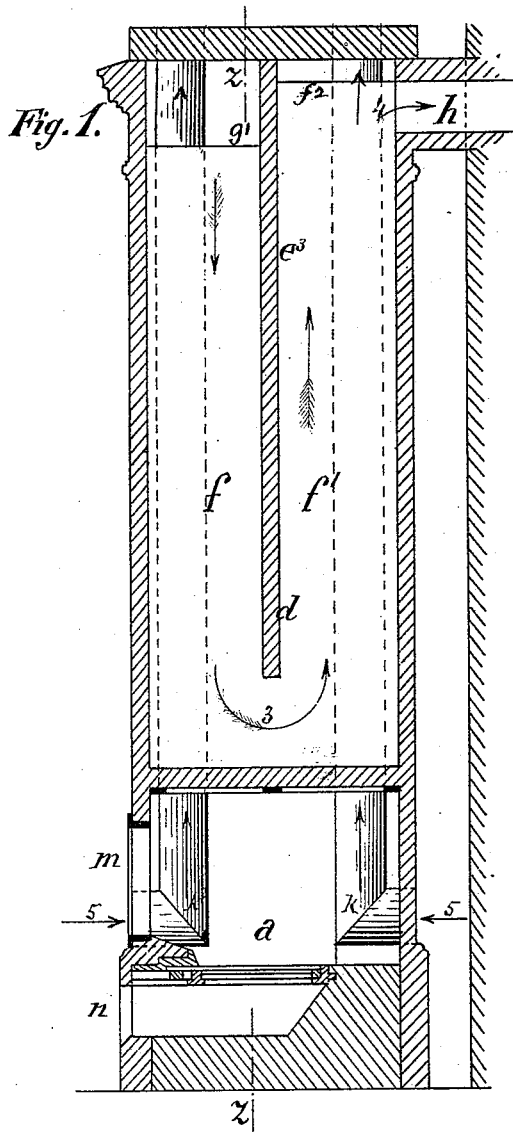
(Model.)

K. LERCH & K. SEIDL.

STOVE.

No. 346,756.

Patented Aug. 3, 1886.



Witnesses  
A. Leo Duff  
J. Frank White

Inventors  
Karl Lerch and Karl Seidl  
per O. E. Duff, Atty

# UNITED STATES PATENT OFFICE.

KARL LERCH AND KARL SEIDL, OF GRÄTZ, AUSTRIA-HUNGARY.

## STOVE.

SPECIFICATION forming part of Letters Patent No. 346,756, dated August 3, 1886.

Application filed January 23, 1885. Serial No. 153,763. (Model.) Patented in France December 30, 1884, No. 153,582.

*To all whom it may concern:*

Be it known that we, KARL LERCH and KARL SEIDL, both citizens of the Austro-Hungarian Empire, residing at Grätz, Austria-Hungary, have invented new and useful Improvements in Stoves, of which the following is a specification.

This invention relates to improvements in closed stoves; and it has for its object an improved arrangement of internal flues, in which the hot gases circulate. The stove is moreover provided with a suitable number (say from two to twelve) of tubes or pipes, (say of clay or iron,) which are surrounded by the hot gases and admit the air of the apartment in which the stove is placed.

This invention is represented in the accompanying drawings, in which Figure 1 is a section on line *yy* of Fig. 2. Fig. 2 is a section on line *zz* of Fig. 1. Fig. 3 is a horizontal section on *xx*, Fig. 2. Fig. 4 is a transverse section of the grate and its supporting-slide.

The stove is of rectangular form, and has two partitions, *e e'*, which extend from a short distance above the fire-box to a short distance below the top of the stove, are joined to the front and rear walls of the stove at each side, and joined together at their lower ends by a horizontal plate, *e''*, which forms the top of the fire-box. These partitions are also connected to each other by a central partition, *e'''*, reaching from their top to near the horizontal plate *e''*, thus dividing the central space between said partitions *e e'* into a front and rear flue, *f f'*, the rear one, *f'*, being closed at the top by a plate, *f''*. There are thus formed in the stove two flues, *b b'*, one on each side, reaching from the fire-box *a* to the top of the stove. The front half of the partitions *e e'* is cut off at *f'''* near the top, leaving openings *g g'*, by which communication is had with a front central flue, *f*, which at its bottom communicates, through opening *g''*, with rear central flue, *f'*, which opens at its top into stove-pipe *h'*. The fire-box *a* is filled with fuel. The gases developed therein pass through suitable apertures, *c c'*, and in the direction of the arrows 1 1 into upwardly-extending channels or flues *b b'*. The gases following

the path shown by the arrows 2 2, next pass through openings *g g'* into and along a descending channel or flue, *f*, whence (following the path shown by the arrow 3) the gases flow into another rising flue, *f'*, which leads the same to the chimney or a flue, *h*, connected therewith.

The air-tubes hereinabove referred to may be of clay, pottery-ware, or cast-iron. They are set vertically in the flues, and are continually surrounded and heated by the hot gases. These tubes *k k' k'' k'''* draw in the air from the apartment in which the stove is set by horizontal passages, (in the direction of the arrows 5,) and allow it to escape by suitable openings at the top or in the lid of the stove.

Each stove has two doors, which close hermetically. The upper one, *m*, serves for the introduction of the fuel; the lower one, *n*, closes the ash-pan or ash-pit, as usual. A movable grating, *i*, is supported on the frame *l*, Fig. 4, and allows the fire-place to be readily cleaned.

For heating large rooms the air may be led into the horizontal air-passages *k k' k'' k'''* from outside; and the lower part of these passages being surrounded by the flames, this air will be rapidly heated.

What we claim is—

An air-heating stove of rectangular form, having a fire-box, air-flues located in the corners and communicating at top and bottom with the air outside the stove, two side flues, *b b*, opening into the fire-box at their lower ends, and a front central flue, *f*, opening on each side at the top into flues *b b'*, and a rear central tube, *f'*, communicating at its bottom with the front central flue, *f*, and at its top with the escape or stove pipe *h*, as and for the purpose set forth.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

KARL LERCH.  
KARL SEIDL.

Witnesses:

ADOLPHE BOETTCHER,  
ROBT. M. HOOPER.