

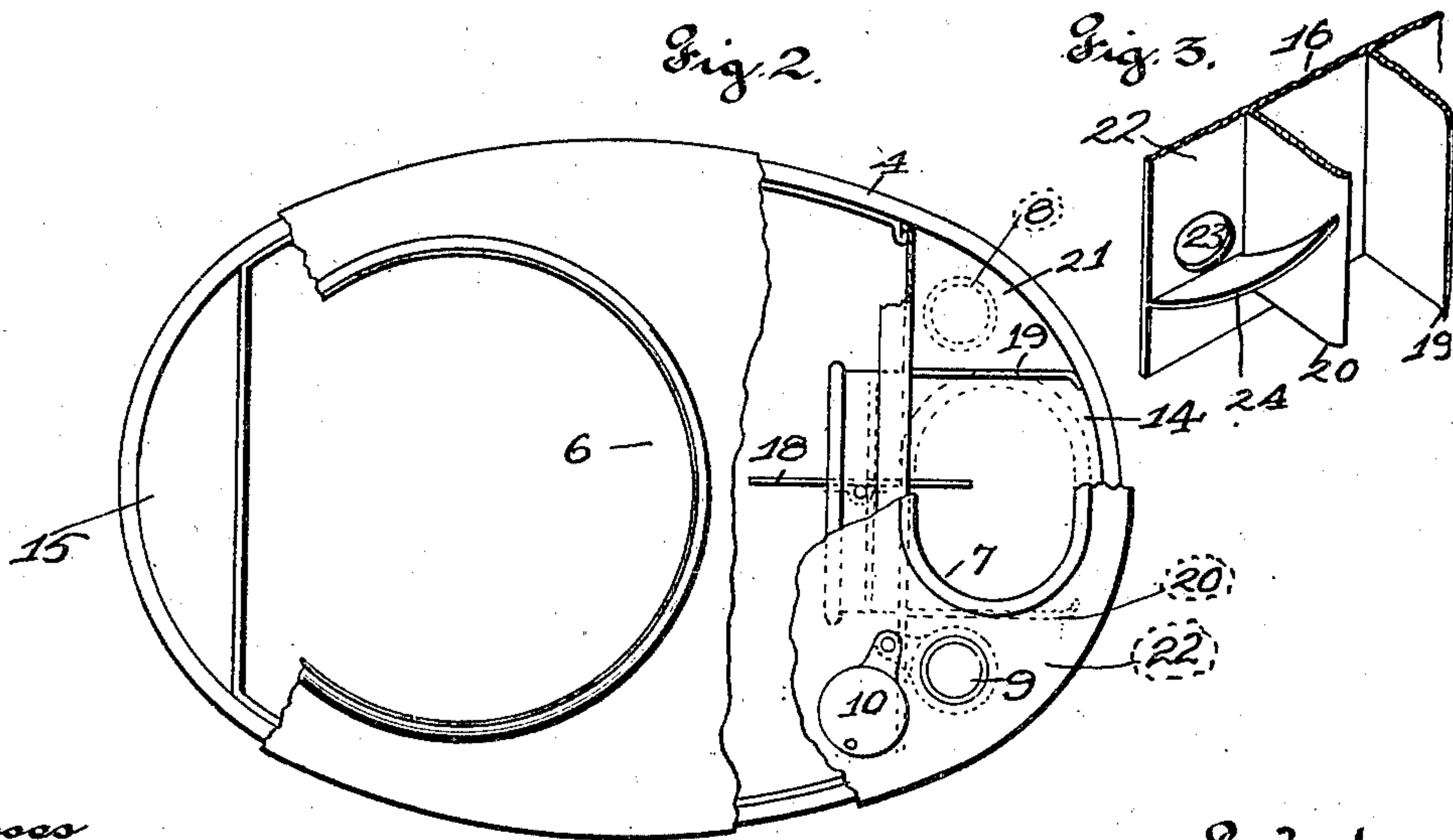
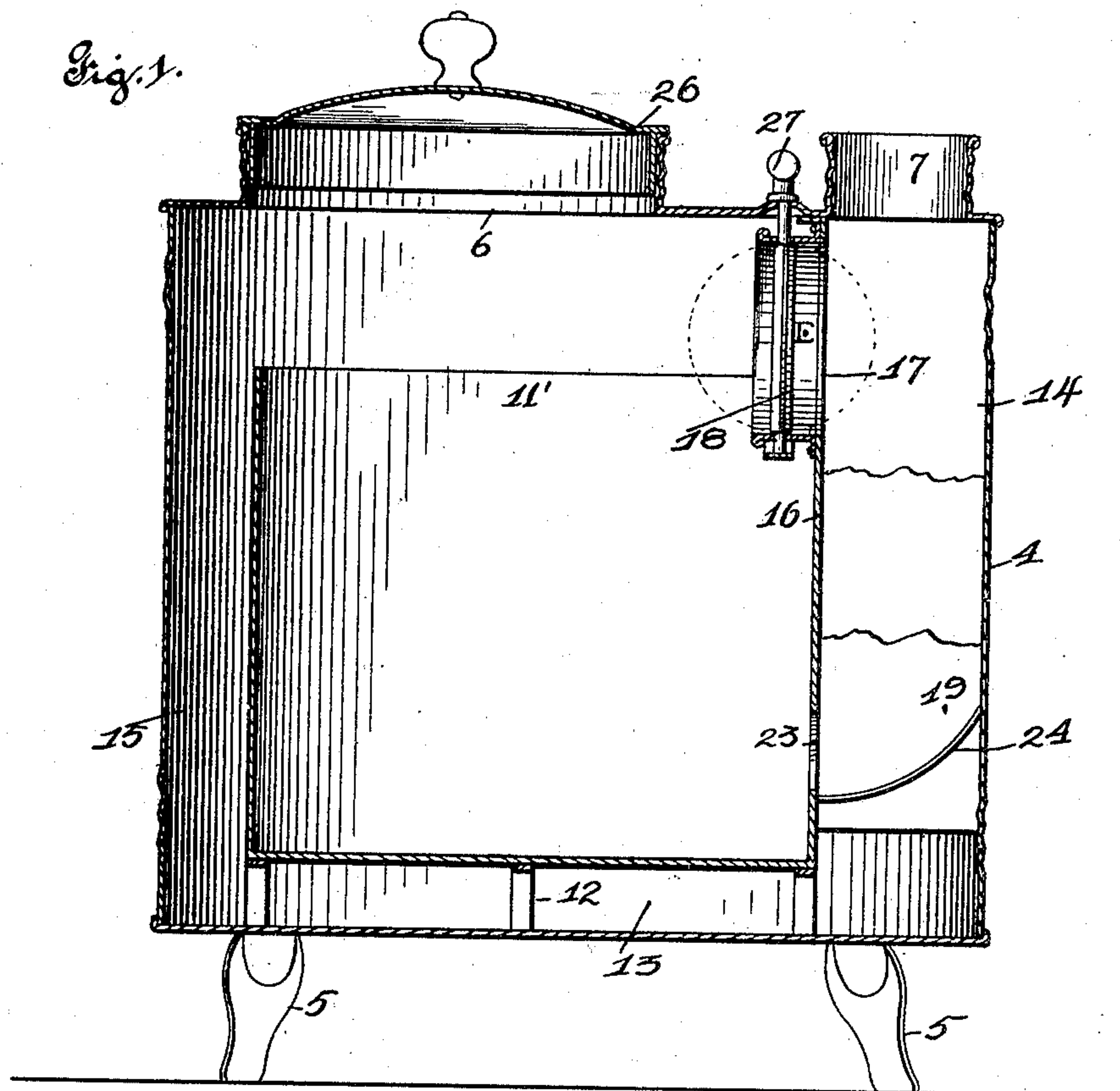
No. 709,673.

Patented Sept. 23, 1902.

L. W. HEMP.
HEATING STOVE.

(Application filed Apr. 24, 1902.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

LEWIS W. HEMP, OF ST. LOUIS, MISSOURI.

HEATING-STOVE.

SPECIFICATION forming part of Letters Patent No. 709,673, dated September 23, 1902.

Application filed April 24, 1902. Serial No. 104,493. (No model.)

To all whom it may concern:

Be it known that I, LEWIS W. HEMP, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Stoves, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to heating-stoves; and it consists of the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

My object is to construct an improved heating-stove; and my invention consists of a suitable casing having a fuel-opening in the forward part of its top and having a chimney-opening in the rear part of its top and having draft-openings one on each side of the chimney-opening; draft-inlet dampers controlling said draft-openings; a fire-box mounted in said casing and held up from the bottom to form part of the hot-air space, said fire-box being shortened at the rear to form a second part of the hot-air space communicating with the first hot-air space and with the chimney-opening and said fire-box being shortened at the front to form a third part of the hot-air space communicating with the first hot-air space and with the top of the fire-box; a wall extending upwardly from the rear edge of the fire-box to the top of the casing in front of the chimney-opening, there being a damper-opening in said wall; a draft-directing damper in said damper-opening, and walls extending backwardly from the fire-box to the casing to reduce the size of said second hot-air space and forming cold-air passages, one on each side of said second hot-air space, said cold-air passages connecting the draft-inlet openings with openings in the lower part of the fire-box, there being bottoms in said cold-air passages, so that when the draft-directing damper is closed the air will pass through said draft-openings downwardly through said cold-air passages, upwardly through the fire-box, downwardly through said third hot-air space, backwardly under the fire-box through said first hot-air space, upwardly through said second hot-air space, and out through said chimney-opening, and so that when the draft-directing damper is open the air will pass downwardly through said cold-air pas-

sages, upwardly through the fire-box, and then through the damper-opening to the chimney-opening.

Figure 1 is a vertical central section of a stove embodying the principles of my invention. Fig. 2 is a top plan view, parts being broken away to illustrate their construction. Fig. 3 is a perspective showing the walls extending backwardly from the fire-box to form the cold-air passages and bottoms in said passages, the upper parts being broken away to economize space.

Referring to the drawings in detail, my improved heating-stove comprises a suitable casing 4, mounted upon legs 5 and having the fuel-opening 6 in the forward part of its top and having the chimney-opening 7 in the rear part of its top and having the draft-inlet openings 8 and 9, one on each side of the chimney-opening; draft-inlet dampers 10, controlling the draft-openings; the fire-box 11, mounted in the casing and held up from the bottom by means of the legs 12 to form part of the hot-air space 13, said fire-box being shortened at the rear to form a second part of the hot-air space 14, communicating with the first part of the hot-air space 13 and with the chimney-opening 7, and said fire-box being shortened at the front to form the third part of the hot-air space 15, communicating with the first part of the hot-air space and with the top of the fire-box; the wall 16, extending upwardly from the rear edge of the fire-box to the top of the casing in front of the chimney-opening 7, said wall having the chimney-opening 17; the draft-directing damper 18, mounted in said damper-opening; and the walls 19 and 20, extending backwardly from the fire-box to the casing to reduce the size of said second hot-air space and form cold-air passages 21 and 22, one on each side of said second hot-air space, said cold-air passages connecting the draft-inlet openings with the openings 23 in the lower rear part of the fire-box, there being bottoms 24 in said cold-air passages. The cover 26 closes the fuel-opening 6, and the handle 27 serves as a means of operating the draft-directing damper 18.

When the draft-inlet dampers are opened and the draft-directing damper is closed, the air will pass through the openings 8 and 9,

through the cold-air passages 19 and 20 into the lower part of the fire-box, upwardly through the fire-box, downwardly through the air-space 15, backwardly under the fire-box through the air-space 13, upwardly through the air-space 14, and out through the chimney-opening 7. Thus it will be seen that the hot air passes entirely around the fire as required to heat the front and bottom of the stove, as well as the rear part.

If the draft-directing damper 18 is opened, as it should be when the fire is about to be started, the air will pass downwardly through the cold-air passages 19 and 20 and upwardly through the fire-box, through the damper-opening, and out through the chimney-opening.

Special attention is called to the fact that the cold-air passages are on each side of the hot-air passage leading to the chimney, so that the cold air passing into the fire-box will be warmed by the hot air passing to the chimney.

I claim—

A heating-stove comprising a suitable casing having a fuel-opening in the forward part of its top, and having a chimney-opening in the rear part of its top, and having draft-openings one on each side of the chimney-opening; draft-inlet dampers controlling said draft-openings; a fire-box mounted in said casing and held up from the bottom to form part of the hot-air space, said fire-box being shortened at the rear to form a second part of the hot-air space communicating with the first hot-air space and with the chimney-opening, and said fire-box being

shortened at the front to form a third part of the hot-air space communicating with the first hot-air space and with the top of the fire-box; a wall extending upwardly from the rear edge of the fire-box to the top of the casing in front of the chimney-opening, there being a damper-opening in said wall; a draft-directing damper in said damper-opening; and walls extending backwardly from the fire-box to the casing to reduce the size of said second hot-air space, and forming cold-air passages one on each side of said second hot-air space, said cold-air passages connecting the draft-inlet openings with openings in the lower part of the fire-box, there being bottoms in said cold-air passages; so that when the draft-directing damper is closed the air will pass through said draft-openings downwardly through said cold-air passages, upwardly through the fire-box, downwardly through said third hot-air space, backwardly under the fire-box through said first hot-air space, upwardly through said second hot-air space, and out through said chimney-opening; and so that when the draft-directing damper is open the air will pass downwardly through said cold-air passages, upwardly through the fire-box, and then through the damper-opening to the chimney-opening, substantially as specified.

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

LEWIS W. HEMP.

Witnesses:

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