

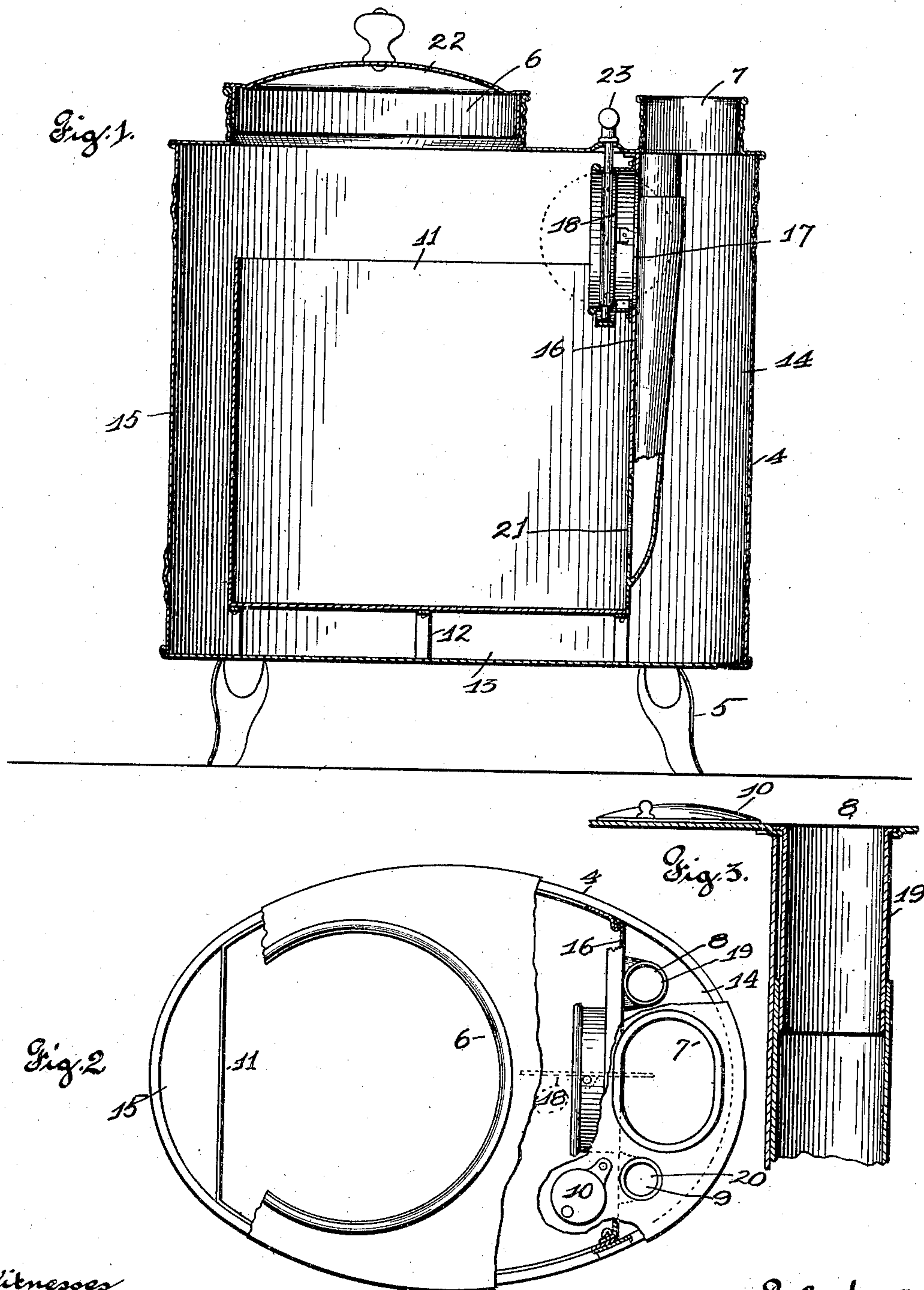
No. 709,674.

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. 709,674, dated September 23, 1902.

Application filed April 24, 1902. Serial No. 104,494. (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 an air-space, said fire-box being shortened at the rear to form a second air-space communicating with the first air-space and with the chimney-opening, and said fire-box being shortened at the front to form a third air-space communicating with the first 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 cold-air flues leading from said draft-openings and communicating with the fire-box, so that when the damper is closed the air will pass through said draft-openings, downwardly through said flues, upwardly through the fire-box, downwardly through said third air-space, backwardly under the fire-box through said first air-space, upwardly through said second air-space, and out through said chimney-opening, and so that when the damper is open the air will pass downwardly through said flues, 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 vertical section through one of the draft-openings upon an enlarged scale.

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-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 the air-space 13, said fire-box being shortened at the rear to form the second air-space 14, communicating with the first air-space 13 and with the chimney-opening 7, and said fire-box being shortened at the front to form the third air-space 15, communicating with the first 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 cold-air flues 19 and 20, leading from the draft-openings 8 downwardly and communicating with the lower rear part of the fire-box 11 through the openings 21, formed in the fire-box. The cover 22 closes the fuel-opening 6. The handle 23 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 flues 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 flues 19 and 20 and upwardly through the fire-box, through the damper-opening, and out through the chimney-opening.

Especial attention is called to the fact that the cold-air flues pass through the hot-air space leading to the chimney, thus heating the cold air before it passes into the fire-box.

5 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-
10 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
15 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
20 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 damper-
25 openings in said wall; a draft-directing dam-

per in said damper-opening; and cold-air flues leading from said draft-openings through said second hot-air space and communicating with the fire-box; so that when the draft-directing damper is closed the air will pass 30 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, 35 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- 40 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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