

No. 791,400.

PATENTED MAY 30, 1905.

D. D. BERRY.
STOVE OR RANGE.
APPLICATION FILED JULY 25, 1904.

Fig. 1.

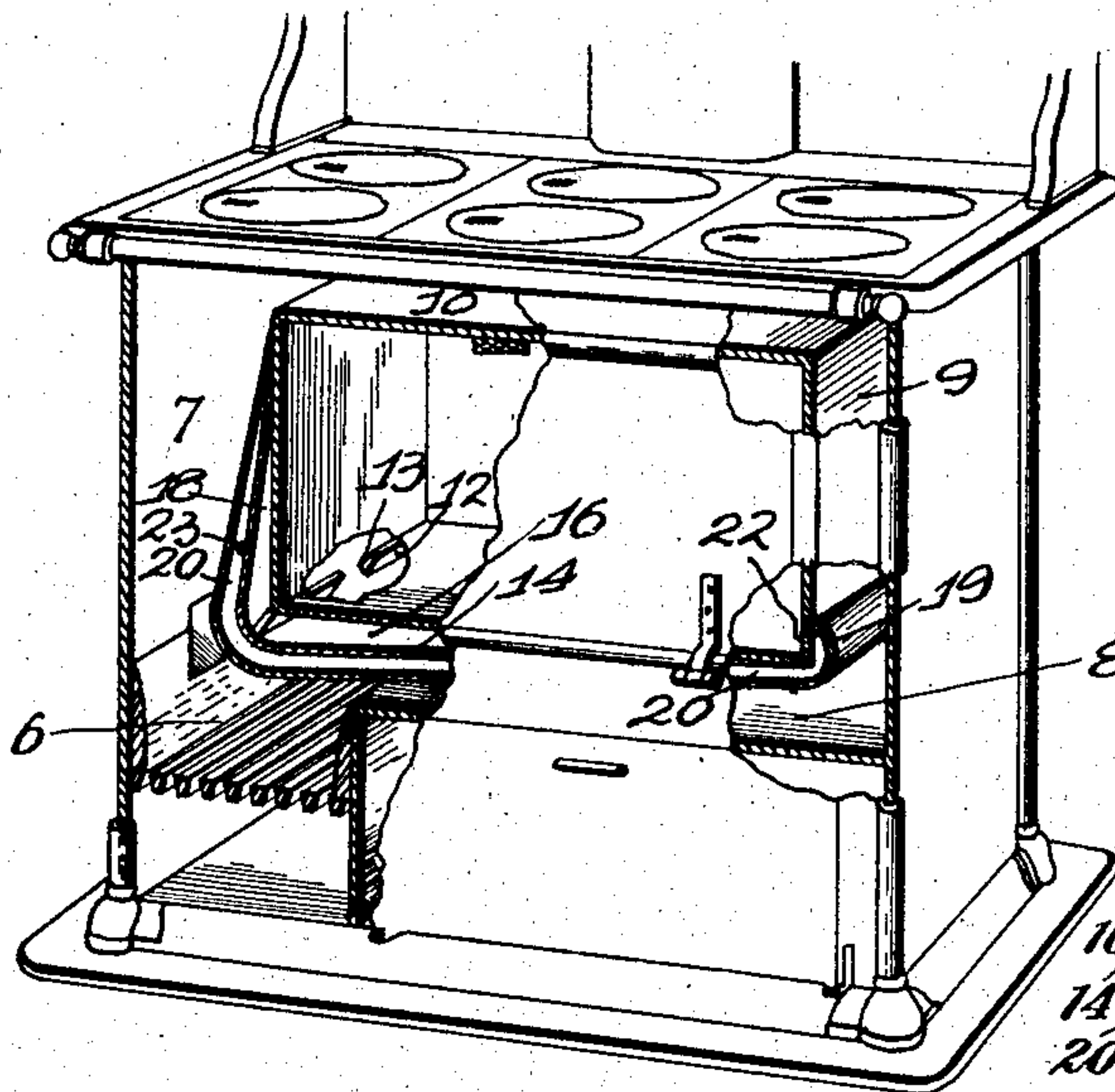


Fig. 3.

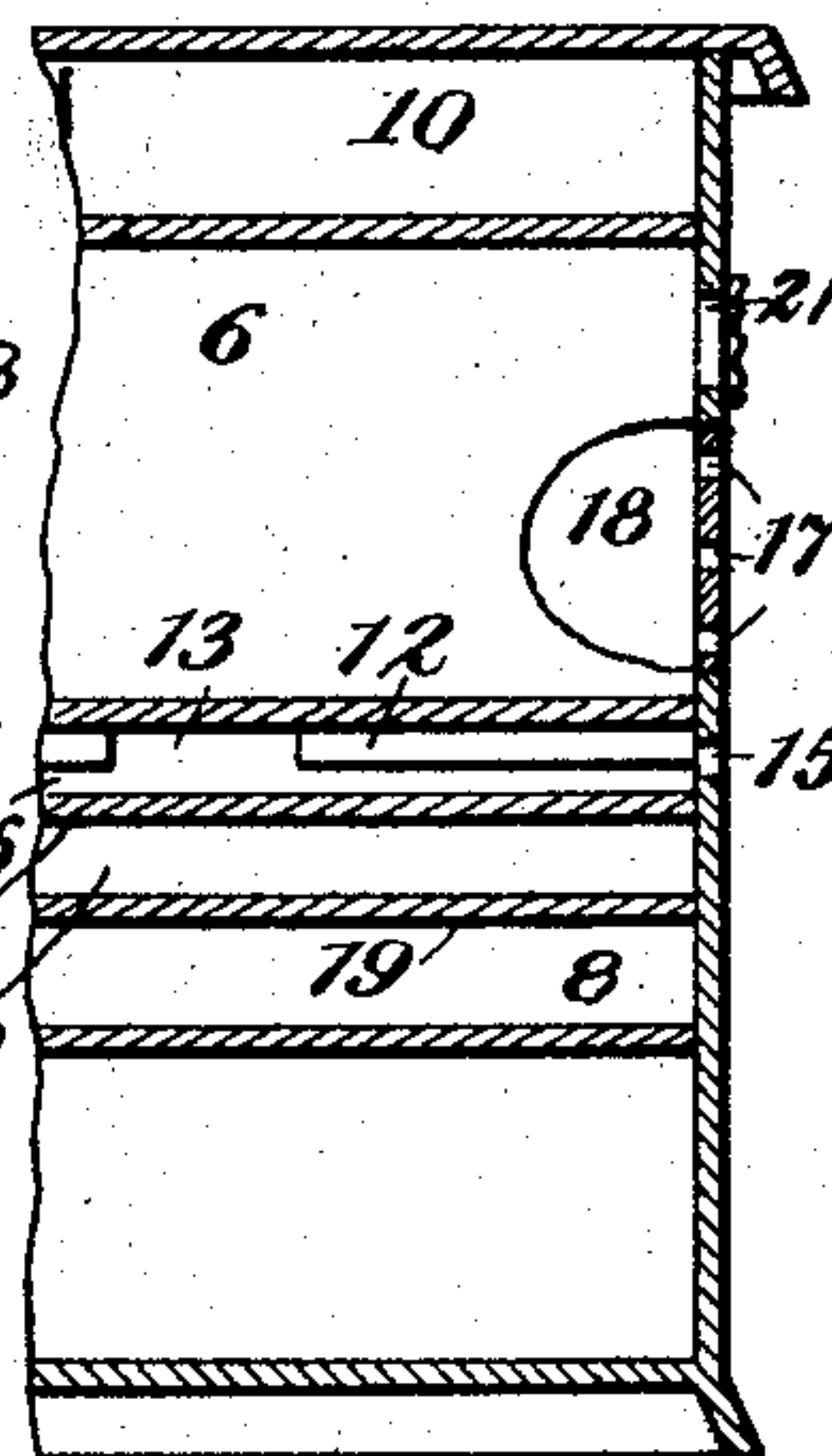
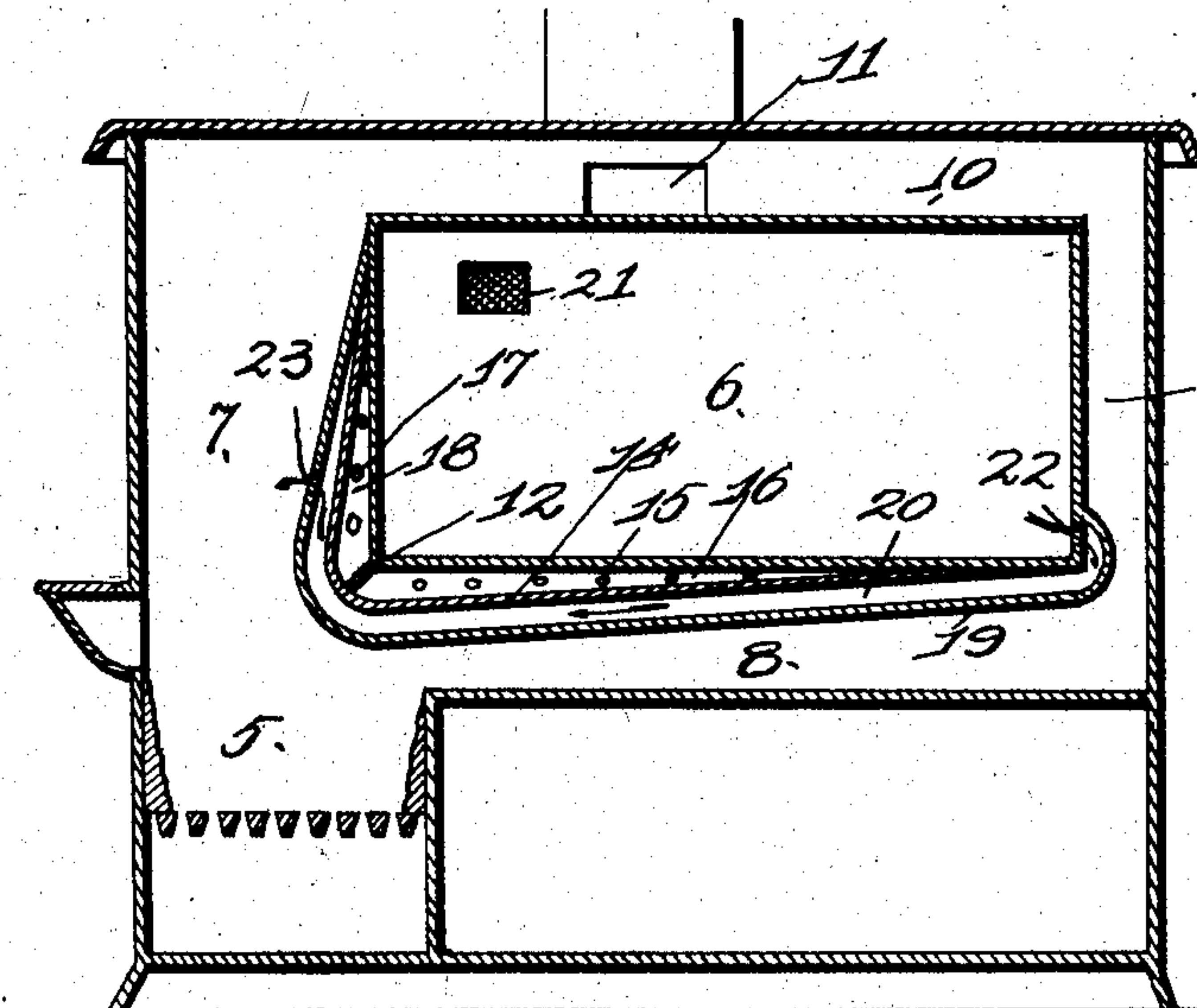


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

DANIEL D. BERRY, OF SPRINGFIELD, MISSOURI.

STOVE OR RANGE.

SPECIFICATION forming part of Letters Patent No. 791,400, dated May 30, 1905.

Application filed July 25, 1904. Serial No. 217,919.

To all whom it may concern:

Be it known that I, DANIEL D. BERRY, a citizen of the United States, and a resident of Springfield, Missouri, have invented certain new and useful Improvements in Stoves or Ranges, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in cook-stoves, ranges, and the like; and it consists of the novel features herein shown, described, and claimed.

My present invention is an improvement upon my former invention shown in the patent granted to me July 7, 1903, No. 733,129. One of the principal features of my former invention consisted in placing the fire-box directly under one end of the oven, and I have found by experience that the corner of the oven directly over the fire-box will become very hot in comparison with the remainder of the oven, and it is the object of my present invention to improve the stove in this respect.

In the drawings, Figure 1 is a perspective detail illustrating a stove embodying the principles of my invention. Fig. 2 is a vertical central section. Fig. 3 is a vertical cross-section through the oven and looking forwardly.

Referring to the drawings in detail, the fire-box 5 is located directly below one end of the oven 6, so that the products of combustion may pass upwardly in front of the oven through the passage 7 and backwardly under the oven through the passage 8, upwardly back of the oven through the passage 9, and over the top of the oven through the passage 10 and out through the flue-opening 11. There is a tendency to overheat the lower corner of the oven which is immediately above the fire-box, and it is my object to protect this corner of the oven.

A bridge-wall 12 projects downwardly and forwardly from the corner of the oven and extends from one side of the stove to the other, there being a central air-passage 13 in said bridge-wall. A casing 14 extends from near the rear lower corner of the oven for-

wardly around the outer edge of the bridge-wall and upwardly to a point near the upper front corner of the oven, there being inlet air-passages 15 leading from the outer air through both walls of the stove into the chamber 16 between the bottom of the oven and the casing 14 and there being outlet-passages 17 leading outwardly from the chamber 18 between the front of the oven and the casing 14 through both sides of the stove to the outer air, so that when the air in the chamber 18 becomes rarefied by heat it will pass outwardly through the opening 17 and cold air will pass inwardly through the openings 15 to the chamber 16 and through the air-passage 13 to the chamber 18, thus making a circulation of fresh air around the lower front corner of the oven, thereby protecting this part of the oven from overheating. A second casing 19 extends from the lower end of the rear wall of the oven down and forwardly under the oven and upwardly to the upper end of the front wall of the oven, thus forming an air-chamber 20. Screened openings 21 are formed through the sides of the stove into the oven near the upper front corners, air-passages 22 are formed through the lower ends of the rear wall of the oven into the air-chamber 20, and air-passages 23 are formed through the casing 19 in front of the oven, so that when the air in the front part of the chamber 20 becomes heated and rarefied it will pass outwardly through the openings 23 and upwardly to the chimney and fresh air will be drawn into the oven through the openings 21 and pass from the oven through the openings 22 to the chamber 20. The chambers 16 and 18 take air in from the room and discharge it into the room without passing it through the oven, and the chamber 20 takes air from the room through the oven and discharges it into the chimney, thereby disposing of any smell that might come from the oven. The chamber 20 forms a hot-blast draft to furnish hot oxygen to be united with the imperfect products of combustion above the fire-box 5, thereby consuming the smoke and gases, improving the combustion, effecting a saving in fuel, &c. The casing 19 and the air-chamber 20 form a protection for the oven and for the

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plate 14, thereby preventing burning out the oven and burning out the plate 14.

I claim—

1. In a stove or range: an oven having inlet-openings 21 and outlet-openings 22; the bridge-wall 12 projecting downwardly and forwardly from the front corner of the oven; there being a passage through the bridge-wall; the casing 14 extending from the rear lower corner of the oven forwardly around the outer edge of the bridge-wall and upwardly to a point near the upper front corner of the oven; there being inlet-passages 15 leading from the outer air through the walls of the stove to the chamber within the casing below the bridge-wall; there being outlet-passages leading through the wall of the stove from the chamber within the casing above the bridge-wall; the second casing 19 extending from the lower end of the rear wall of the oven above the discharge-openings 22 under the oven and upwardly to the upper end of the front wall of the oven; there being outlet-openings from the chamber within the second casing; substantially as specified.

2. In a stove or range: the oven 6 having the

inlet-openings 21 and the outlet-openings 22; the bridge-wall 12 projecting downwardly and forwardly from the oven and having a central air-passage; the casing 14 extending from near the rear lower corner of the oven forwardly around the outer edge of the bridge-wall and upwardly to a point near the upper front corner of the oven; there being inlet-passages 15 through the walls of the stove below the bridge-wall; and there being outlet-passages 17 through the walls of the stove above the bridge-wall; and the second casing 19 extending from the lower end of the rear wall of the oven above the outlet-openings 22 downwardly and forwardly and upwardly to the upper end of the front wall of the oven; there being outlet-passages 23 through said second casing in front of the oven; substantially as specified.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

DANIEL D. BERRY.

Witnesses:

ROSCOE PRESCOTT,
CHAS. SHEPPARD.