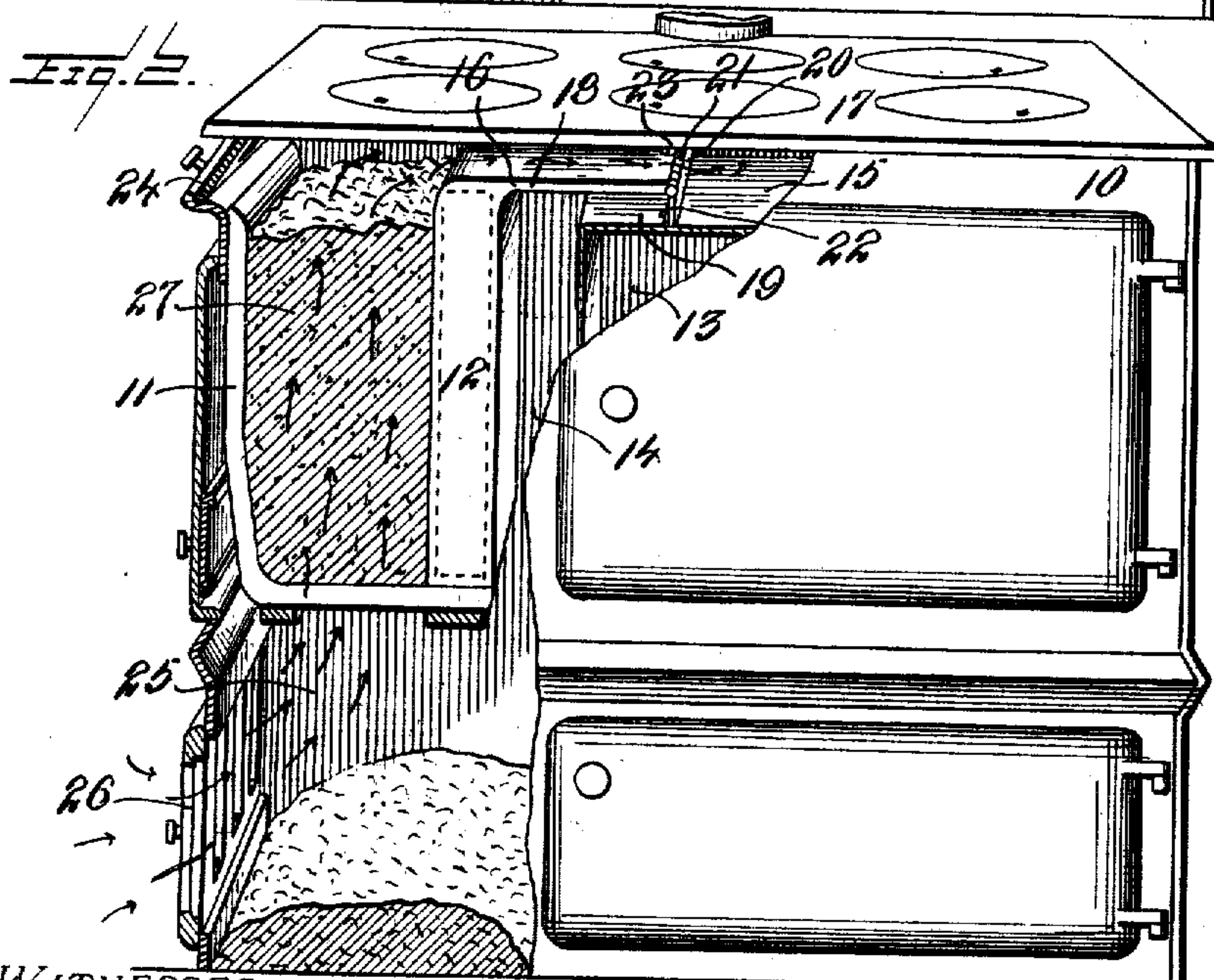
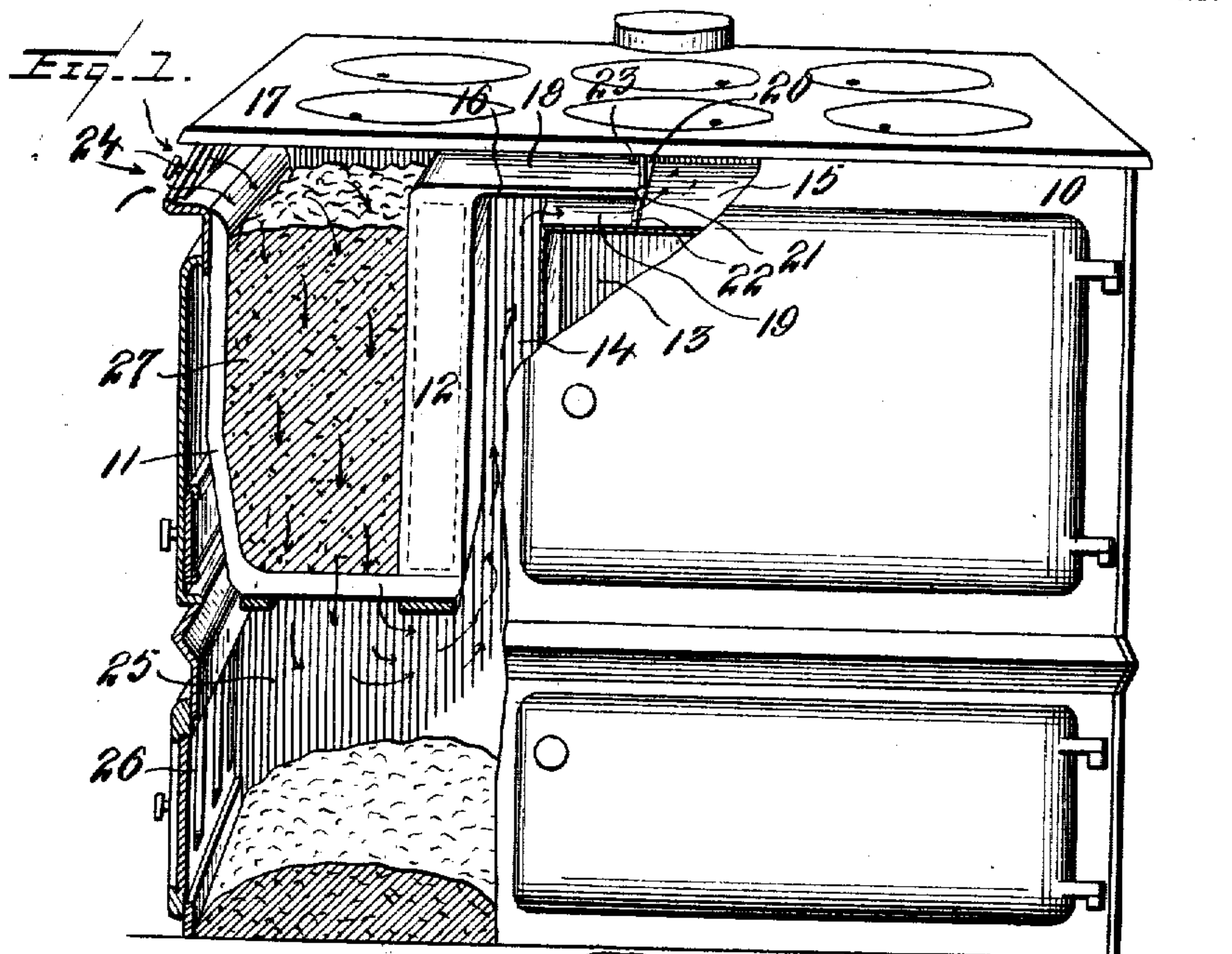


E. R. STASCH.  
 REVERTIBLE DRAFT STOVE.  
 APPLICATION FILED MAR. 2, 1908.

915,500.

Patented Mar. 16, 1909.



WITNESSES:

*Wm. F. Roy Co.*  
*Alfred S. Lange*

INVENTOR

*Emil R. Stasch.*

BY

*E. R. Stocking*

Attorney



# UNITED STATES PATENT OFFICE.

EMIL R. STASCH, OF CORNING, NEW YORK.

## REVERTIBLE-DRAFT STOVE.

No. 915,500.

Specification of Letters Patent.

Patented March 16, 1909.

Application filed March 2, 1908. Serial No. 418,785.

*To all whom it may concern:*

Be it known that I, EMIL R. STASCH, citizen of the United States, residing at Corning, county of Steuben, and State of New York, have invented certain new and useful Improvements in Reversible-Draft Stoves, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to a reversible draft stove, and particularly to a structure where the draft may be reversed through the fire as found convenient or desirable.

15 The invention has for an object to provide a stove structure embodying a grate with draft openings above and below the same, and a flue disposed at one side of said grate in communication with a flue plate and damper adapted to control the draft in either 20 direction through the fire on the grate.

Other and further objects and advantages of the invention will be fully set forth and the novel features thereof defined by the appended claims.

25 In the drawing:—Figure 1 is a perspective with parts in section showing the down draft adjustment of the stove, and Fig. 2 is a similar view showing the direct or up draft.

30 Like numerals refer to like parts in the several views of the drawing.

The numeral 10 designates a stove or range which may be of any desired character or configuration, and is provided with the grate 11 at one side of which the water back 35 12 or other partition may be disposed and is spaced from the oven 13 to provide an indirect flue 14 communicating with the usual draft flue 15 at the top of the oven. From the top of the water back or partition 12 a 40 flue plate 16 extends parallel with the top 17 of the stove and forms a direct draft flue 18 communicating with the top of the fire box, and a parallel flue 19 communicating with the indirect flue 14. These flues 18 and 19 45 are controlled by a single damper 20 pivotally mounted at the free end of the plate 16, as shown at 21, and adapted to close either of the flues when in raised or lowered position. For the purpose of limiting its travel 50 lugs or projections 22 and 23 may be disposed upon the oven and top plate respectively, as shown.

For the purpose of admitting the necessary air for combustion of the fire within the 55 fire box 27, a draft damper 24 of any desired character may be provided, such as the usual

adjustable sliding plate, as illustrated. The ash pit 25 beneath the grate is also provided with a similar draft damper 26 to control the inlet of air at that point. 60

In the operation of the stove, with the parts in the position shown in Fig. 1, the inlet damper at the top of the fire box is open and that at the ash pit closed, thus producing a down draft through the fire upon the grate 65 which passes upward through the flue at the rear of the water back and out into the chimney flue, as usual. At this time the controlling damper for reversing the draft is in upward position to close the direct flue from the 70 fire box. Under such operation the body of fuel will burn for an extended period maintaining an even heat upon the oven, and by heating both sides of the water back more quickly raises the water therein to the desired temperature. This arrangement also 75 prevents the escape of much heat with the products of combustion directly to the chimney and draws downward the smoke and gases as well as the odors from the material cooking upon the stove and effectually burns them 80 so that the products of combustion discharged are free from smoke and soot thus preventing to a large extent the covering of the oven plates with a deposit of this character which 85 diminishes the heat therein and chokes the draft flues requiring frequent cleaning thereof. While it is desirable to maintain a down draft through the fire box under normal conditions, still in starting a fire a direct draft 90 may be preferable and also for intense heat, and this can be effected by closing the upper inlet damper and opening that at the ash pit, while the reversing damper is swung to close the indirect flue at the rear of the water back, 95 thus causing an upward draft through the fire and directly from the flue plate to the main flue. This flue plate is extended laterally from the water back or partition for a distance to remove the reversing damper 100 from the effects of the direct heat from the fire box and to permit it to cooperate with the top plate of the oven. The draft plate also extends across the top of the indirect flue so as to throw said flue into a parallel 105 position to the direct draft flue and thereby prevent interference of one draft with the other. It will be seen that the invention presents a simple, efficient and economically constructed arrangement of reversing draft 110 for cooking stoves adapted for application to ordinary stoves of this character.



Having described my invention and set forth its merits, what I claim and desire to cover by Letters Patent is:—

1. The combination with a stove having an oven therein, of a fire box spaced intermediate the oven and stove front to form an indirect flue and provided with draft openings and closures therefor above and below said box, a direct flue from the top of said box, and a unitary damper mounted at the intersection of said indirect and direct flues to control either thereof.

2. The combination with a stove having an oven therein, of a fire box spaced intermediate the oven and stove front to form an indirect flue and provided with draft openings and closures therefor above and below said box, a direct flue from the top of said box, a flue plate extended laterally from the top of said fire box and separating said indirect and direct flues, and a damper mounted at the free end of said plate to control either flue.

3. The combination with a stove having an oven therein, of a fire box spaced intermediate of the oven and stove front to form an indirect flue and provided with draft openings and closures therefor above and below said box, a direct flue from the top of said box, and a damper for controlling said flues.

4. The combination with a stove having an oven therein, of a fire box spaced intermediate the oven and stove front to form an indirect flue provided with draft openings and closures therefor above and below said box, a direct flue from the top of said box, a damper for controlling said flues, and a water-back disposed at the side of said indirect flue opposite the oven.

5. The combination with a stove having an oven therein, of a fire box having draft openings with closures therefor above and below said box, the box being spaced intermediate

the oven and stove front to form an indirect flue communicating with the bottom of said fire box, a damper for controlling said flue, a water back disposed at the side of said flue opposite the oven, and a flue plate extended laterally from said waterback intermediate the oven and stove top to form parallel flues at that point.

6. The combination with a stove, of a fire-box provided with a grate and having draft openings above and below said box provided with adjustable closures, an oven, a water back at one side of said box and spaced from the stove oven to form an indirect flue communicating with the bottom of said box, a flue plate extended laterally from said water back intermediate the oven top and stove top to form parallel flues, and a damper pivotally mounted at the free end of said plate to close either flue.

7. The combination with a stove, of a fire-box provided with a grate having draft-openings above and below said box provided with adjustable closures, an oven, a water back at one side of said box and spaced from the stove oven to form an indirect flue communicating with the bottom of said box, a flue plate extended laterally from said water back intermediate the oven top and stove top to form parallel flues, a damper pivotally mounted at the free end of said plate to close either flue, and abutments carried by the under face of the stove top and the top plate of the oven to be engaged by said pivoted damper.

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

EMIL R. STASCH.

Witnesses:

F. H. FERRIS,  
LIGNORI GILL.