

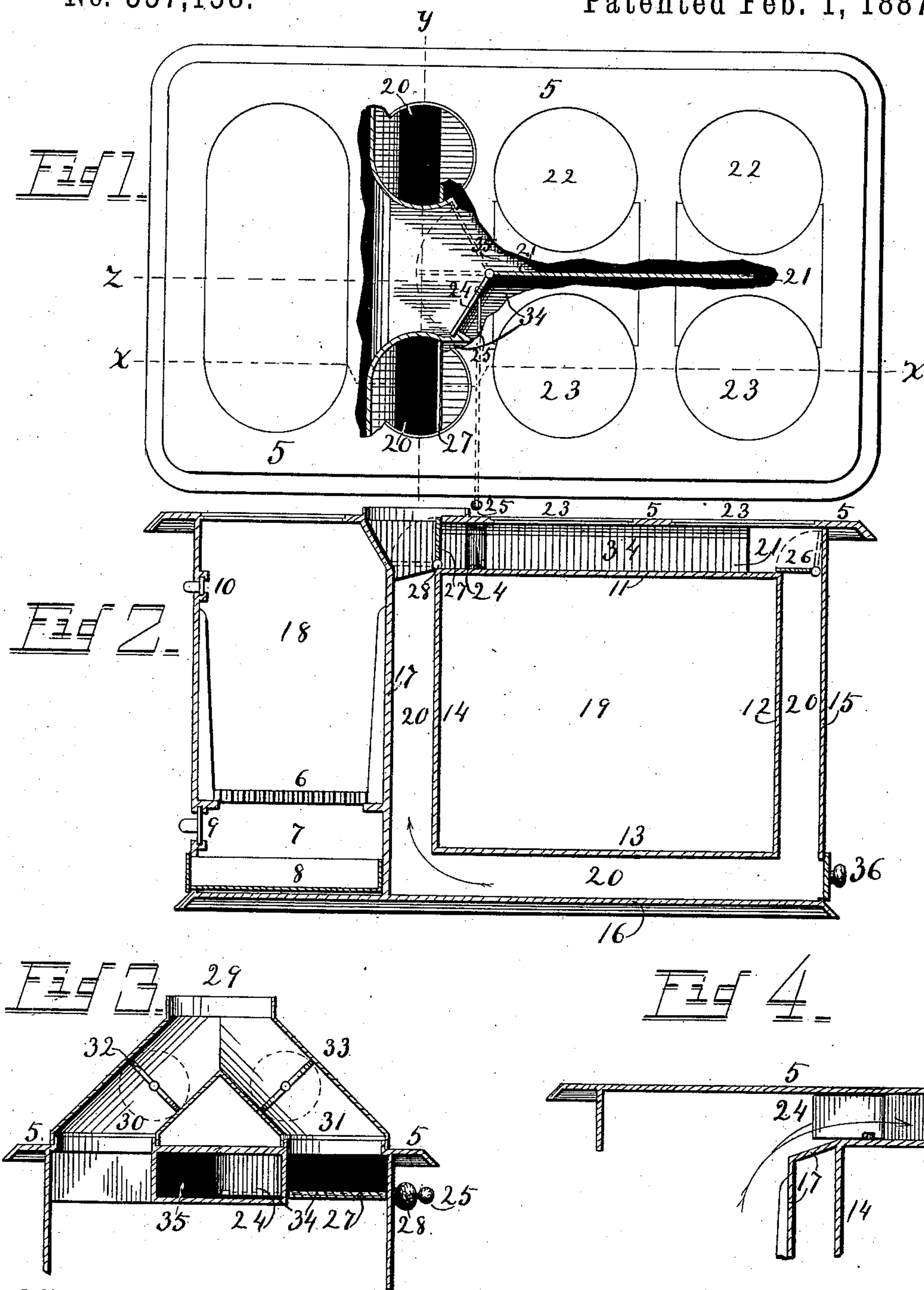
(No Model.)

O. D. SPALDING.

COOKING STOVE.

No. 357,158.

Patented Feb. 1, 1887.



Witnesses

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COOKING-STOVE.

SPECIFICATION forming part of Letters Patent No. 357,158, dated February 1, 1887.

Application filed April 15, 1886. Serial No. 198,981. (No model.)

To all whom it may concern:

Be it known that I, ORLANDO DEMIC SPALDING, a citizen of the United States, residing at St. Lawrence, in the county of Hand and Territory of Dakota, have invented certain new and useful Improvements in Cooking-Stoves; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to cooking-stoves; and its object is to direct the circulation of heated air through flues of the stove in various ways to adapt the stove for the various conditions required in cooking.

To this end the invention consists in the construction and combination of parts forming a cooking-stove, hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of a stove a portion of whose top is broken away to expose the interior. Fig. 2 is a longitudinal vertical section on the line *x x* of Fig. 1. Fig. 3 is a transverse vertical section at the line *y*, Fig. 1, with the damper 27 horizontal; and Fig. 4 is a longitudinal vertical section of a portion of the stove on the line *z*, Fig. 1, the damper 24 being in line with the partition 21.

5 represents the top of the stove; 6, the fire-grate; 7, the ash-pit; 8, the ash-pan, wherein the ashes may be received and removed from the stove.

9 is a damper to control the inlet of cold air below the grate, and 10 is a damper to an inlet for cold air to the combustion-chamber 18, above the grate.

19 represents the oven; 11, the top of the same; 12, its rear wall; 13, its bottom, and 14 its forward wall.

15 is the rear end or wall of the stove. 16 is its bottom, and 17 is a partition between the combustion-chamber 18 and the flue 20. This flue 20 conducts products of combustion down back of the oven, forward beneath it, and upward in front of it.

21 is a partition between the flues 34 and 35, which pass along over the oven beneath the

holes 23 and 22, which holes are for the reception of cooking-vessels.

24 is a damper hinged at the end of partition 21, to swing like a vertical door, and provided with a longitudinally-sliding handle, 25, whereby the entrance of either of the flues 34 or 35 may be closed.

26 is a damper extending across the stove to close the entrance to flue 20.

29 is a smoke-pipe to communicate with the chimney of a house. This pipe is bifurcated, the legs 30 and 31 communicating with the flue 20 at points between the oven 19 and combustion-chamber 18, and the leg 31 also communicates with the flue 34.

32 and 33 are dampers in the respective legs 30 and 31 of the pipe. (Both shown closed.)

27 is a damper pivoted on a rod or handle, 28, to swing from the vertical position shown in Fig. 2 to the horizontal position shown in Fig. 3. In the first-named position it stops communication between flue 34 and the leg 31, and leaves the flue 20 open thereto. In the second position it closes flue 20 and gives outlet to flue 34.

36 is a gate at the back end of the stove, which may be opened for the purpose of cleaning out ashes from flue 20 beneath the oven.

By means of the bifurcated smoke-pipe and its two dampers, 32 and 33, in the legs, which communicate with the flue 20, between the oven and the combustion-chamber, and without the use of other dampers, the draft may be directed around the oven by closing damper 33 and opening damper 32, or it may be permitted to escape directly through the leg 31 by opening damper 33. By opening both dampers 32 and 33 and closing the outlet of flue 34 by means of damper 27 the draft spreads evenly over the whole top and bottom of the oven and escapes equally up both pipe-legs 30 and 31. By closing the entrance to flue 34 with the damper 24, and closing the exit from the flue 20 by damper 27, the draft is directed through the flues 35 and 20 around the farther half of the oven to escape by pipe-leg 30. By closing the inlet to flue 35 with damper 24, and the outlet to flue 34 by damper 27, and closing the pipe-leg 30 by damper 32, the draft will pass around

the nearer half of the oven and escape by leg 31. By closing the inlet to flue 20 with the damper 26, and the flue 34 by damper 24, and opening the outlet to flue 34 by dampers 27 and 33, the draft is directed through flues 35 and 34 around the partition 21 over the whole top of the oven, and passes out at pipe-leg 31 without going below the oven. Thus my invention enables the operator to direct the draft of the heated air through the flues of this stove in many ways for the various services required of a cooking-stove.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, in a cooking stove, of a top, bottom, and sides, an oven and a combustion-chamber side by side within the aforesaid walls and separated from each other by a smoke passage or flue, the said oven being also separated from the said walls of the stove by the same smoke-passage, a bifurcated smoke-pipe and a damper in each leg thereof, the two legs of the said pipe being connected with the stove-top at points between the said oven and combustion-chamber, and both of the said legs connected with the aforesaid flue between the oven and combustion-chamber, substantially as shown and described.

2. The combination of the pipe 29, having the legs 30 and 31, the dampers 32 and 33 in the said legs, the stove-walls comprising the top 5, the back 15, the bottom 16, and the partition 17, the oven 19, having top, bottom, and sides separated from the aforesaid stove-walls by a smoke-passage, one leg of the said pipe communicating with the said smoke-passage by the flue 20, and the other leg of the pipe communicating with the same passage by both the flues 20 and 34, substantially as shown and described.

3. The combination of the stove-top 5, back 15, bottom 16, partition 17, the oven 19, having a top, bottom, and side walls separated from the aforesaid stove-walls by a smoke-passage, the pipe 29, having legs attached to the stove, one of the said legs, 30, connecting with the said smoke-passage at the side of the oven, and the other leg, 31, of the pipe connecting with the said smoke-passage both at the side and top of the oven, a damper, 27, hinged at the corner of the oven and adapted to close either inlet to the leg 31, and dampers 32 and 33 in the pipe-legs, substantially as shown and described.

4. The combination of the stove-top 5, the oven-top 11, separated therefrom by a smoke-passage, the partition 21, dividing the said smoke-passage into flues 34 and 35, the stove-walls consisting of the side 15, the bottom 16, and the partition 17, and the oven-walls 12, 13, and 14, separated from the aforesaid stove-walls by a flue, 20, the pipe 29, having two legs attached to the stove and connected with the flue 20, one of the said legs, 31, also connected with the flue 34, the damper 24, adapted to shut off the entrance to flue 34, the damper 27, adapted to shut off communication between flue 20 and pipe-leg 31, and the damper 33 in the pipe-leg 31, substantially as shown and described.

5. The combination of the stove-top 5, the oven-top 11, separated therefrom by a smoke-passage, the partition 21, dividing the said passage into two flues, 34 and 35, the stove-walls consisting of the side 15, bottom 16, and partition 17, and the oven-walls 12, 13, and 14, separated from the aforesaid stove-walls by a flue, 20, the pipe 29, having two legs attached to the stove and connected with the flue 20, one of the said legs also connected with the flue 34, the damper 24, adapted to shut off the entrance to flue 35, the damper 27, adapted to shut off communication between flue 34 and pipe-leg 31, and the damper 32 in the pipe-leg 30, substantially as shown and described.

6. The combination of the stove-top 5, the oven-top 11, separated therefrom by a smoke-passage, the partition 21, dividing the said smoke-passage into flues 34 and 35, the stove-walls consisting of the side 15, bottom 16, and partition 17, and the oven-walls 12, 13, and 14, separated from the said stove-walls by a flue, 20, the pipe 29, having two legs attached to the stove and connected with the flue 20, one of the said legs, 31, also connected with the flue 34, the damper 26, crossing the stove and adapted to close the inlet to flue 20, and the damper 24, adapted to close the entrance to flue 34, substantially as shown and described.

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

ORLANDO DEMIC SPALDING.

Witnesses:

JOHN PUSEY,
J. A. GALBRAITH.