P. ROLLHAUS.

Cooking Range.

No. 6,715. Patented Sept. 11, 1849.

2 Sheets—Sheet 2.

Fig. 5

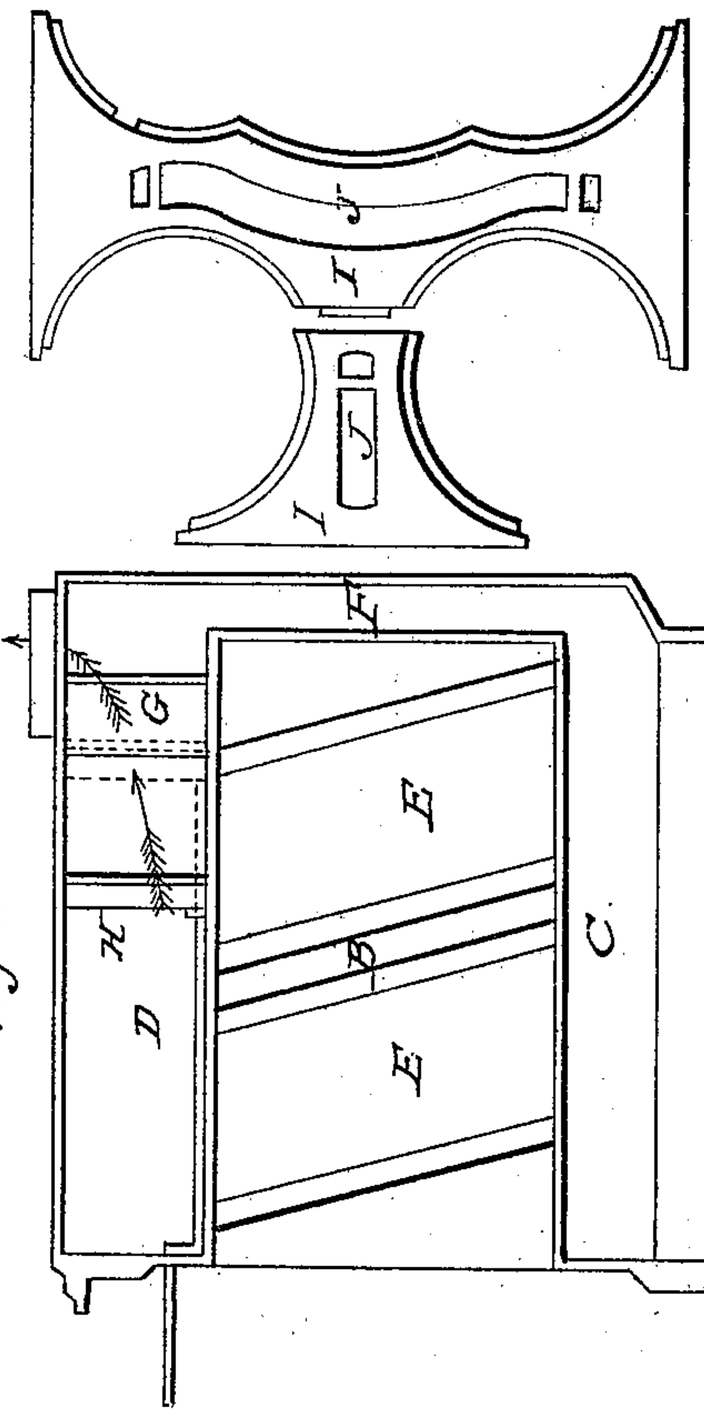

Fig. 4

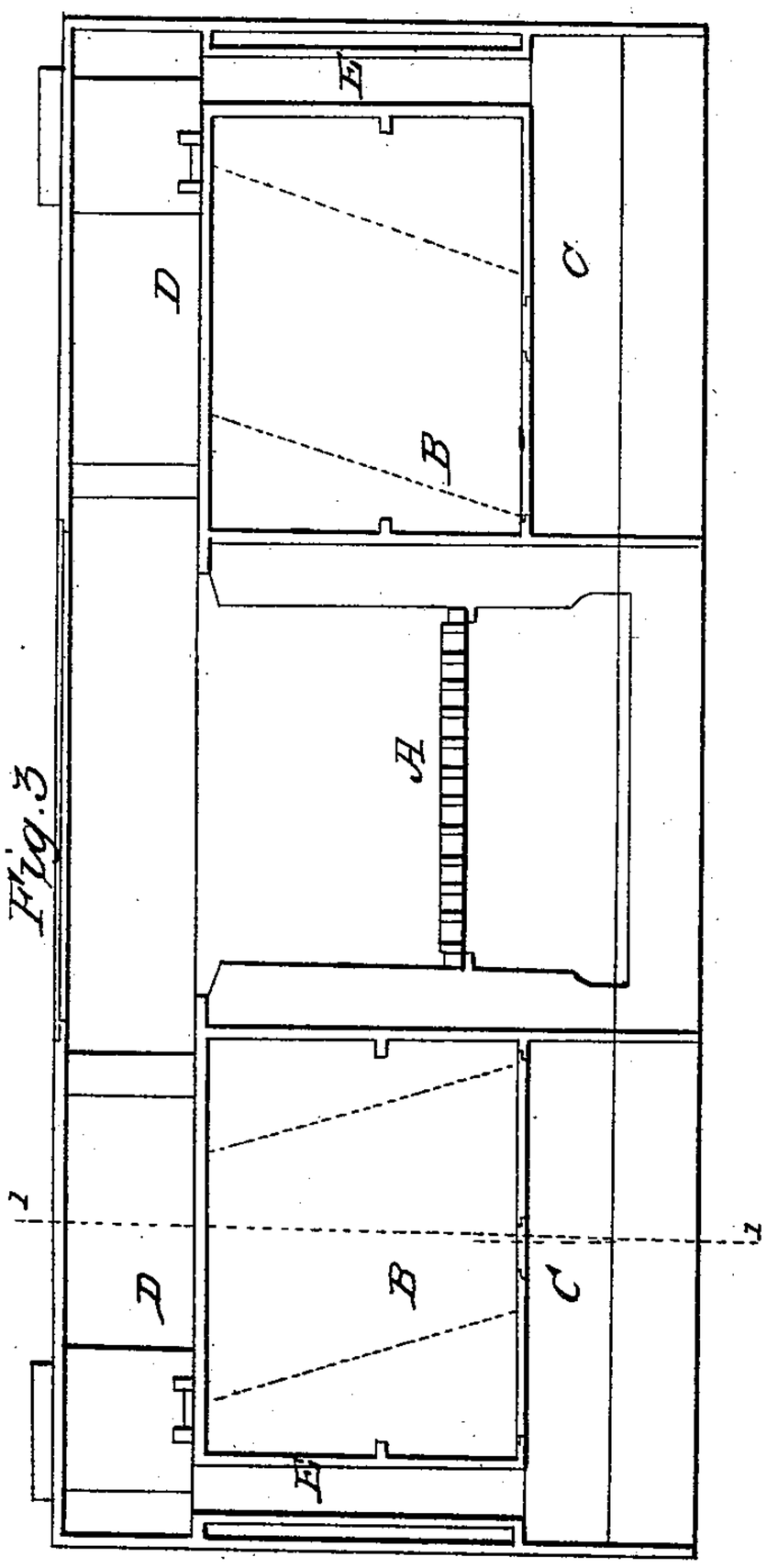

Fig. 3

UNITED STATES PATENT OFFICE.

PHILIP ROLLHAUS, OF NEW YORK, N. Y.

COOKING-RANGE.

Specification of Letters Patent No. 6,715, dated September 11, 1849.

To all whom it may concern:

Be it known that I, PHILIP ROLLHAUS, of the city, county, and State of New York, have invented a new and useful Improvement in the Cooking-Range, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 is a front elevation of the improved range. Fig. 2, is a horizontal section of ditto, at the line *x x* of Fig. 1. Fig. 3, is a vertical longitudinal section of ditto at the line *o o* of Fig. 2. Fig. 4 is a vertical transverse section of the same at the line *l*, *l*, of Fig. 3.

Similar letters in the figures refer to corresponding parts.

The nature of this invention and improvement consists in arranging the ovens of the range on either side of the fire chamber, and providing the same with inclined diving flues at their sides, and inclined ascending flues at their back parts, communicating at their lower ends with horizontal flues beneath the ovens, in such a manner as to conduct the heat over the tops, down the sides, below the ovens, and up behind their back parts, said flues being inclined in such relation to each other as to partially break the draft or current of the heat and smoke in its route, and cause it to enlarge its volume beneath the ovens, and also in arranging diagonal plates and dampers above the ovens for causing the heat to pass directly from the fire chamber into the chimney when desired.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A is the fire chamber formed midway between the ends of the range and at the front part of the same, lined on its sides and back with fire brick and provided with the usual grate and door.

B are the ovens arranged on either side of the fire chamber, and extending from the same to the ends of the range, and from front to back, and having the usual doors.

C are horizontal flues formed beneath the ovens, by the lower plates of the same, and the brick work.

D, are horizontal flues above the ovens formed by the upper plates of the same and the top plate of the range. This last mentioned plate is perforated with any required number and form of openings, to admit boilers and plates.

E, are inclined diving flues, formed at the sides of the ovens next the ends of the range, tapered at their edges, and inclined from the upper forward parts of the ovens, toward the lower back part of the same, at an angle of about 75 degrees and communicating with the upper and lower horizontal flues C, D.

F are other inclined flues, also tapered at their edges and arranged immediately behind the ovens, inclining toward the center of the range at an angle of about 75 degrees, from the upper to the lower horizontal flues with both of which they communicate.

G are diagonal plates secured between the ovens and the top plate of the range, immediately in front of the upper ends of the back inclined flues, and extending toward the ends of the range.

H are curved dampers secured to rods or bars extending through openings in the front part of the range, and between projections on the tops of the ovens, and resting against the ends of the diagonal plates G, and other plates P, when closed.

This arrangement of flues may be applied to cooking stoves, with the same beneficial effects as in the case of the range.

Operation: The fire being built in the fire chamber by kindling and opening the dampers H, to the positions represented in Fig. 4, and by dotted lines in Fig. 2, so as to cause the heat and smoke to pass directly up the chimney as represented by arrows in Fig. 4, the operator will fill the boilers and close said dampers, and cause the heat to pass through the horizontal flues D, over the oven, down the diving flues E at the sides of the same, to the horizontal flues C between the ovens, when its draft or current will be partially broken by the abrupt turn it will have to take before ascending through the flues, and will enlarge its volume and communicate its heat to all parts of the lower plates of the oven, and thence ascend through the inclined flues F, out of the pipes into the chimney, thus heating the ovens on top, bottom, sides and back end and causing the bread or other articles being baked to be heated on all sides alike. Fig. 5. I are curved plates

F. Jenney,

Planing Shingles.

No. 6,716. Patented Sep. 18, 1849.

Fig. 2.

Fig. 1.