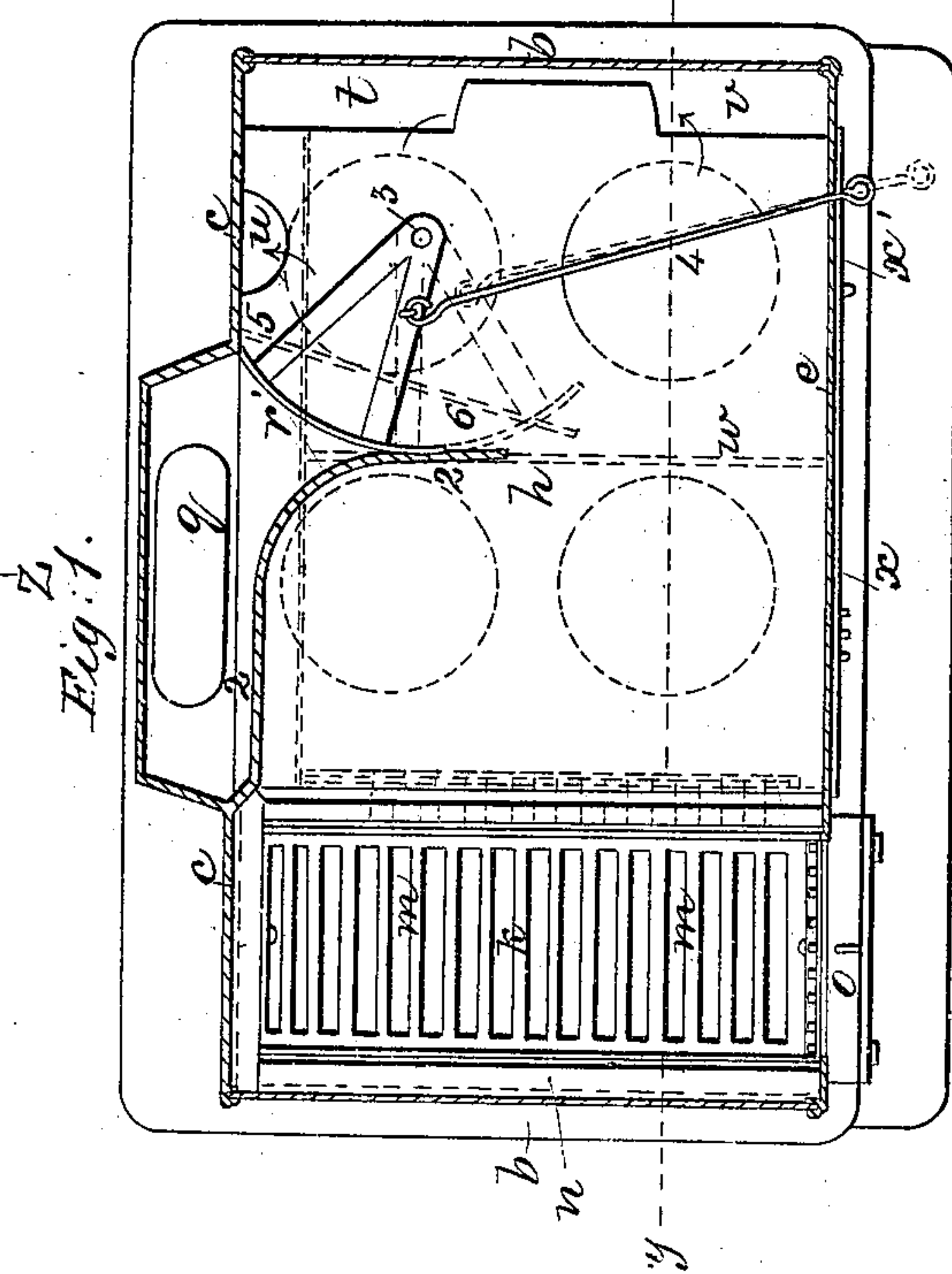
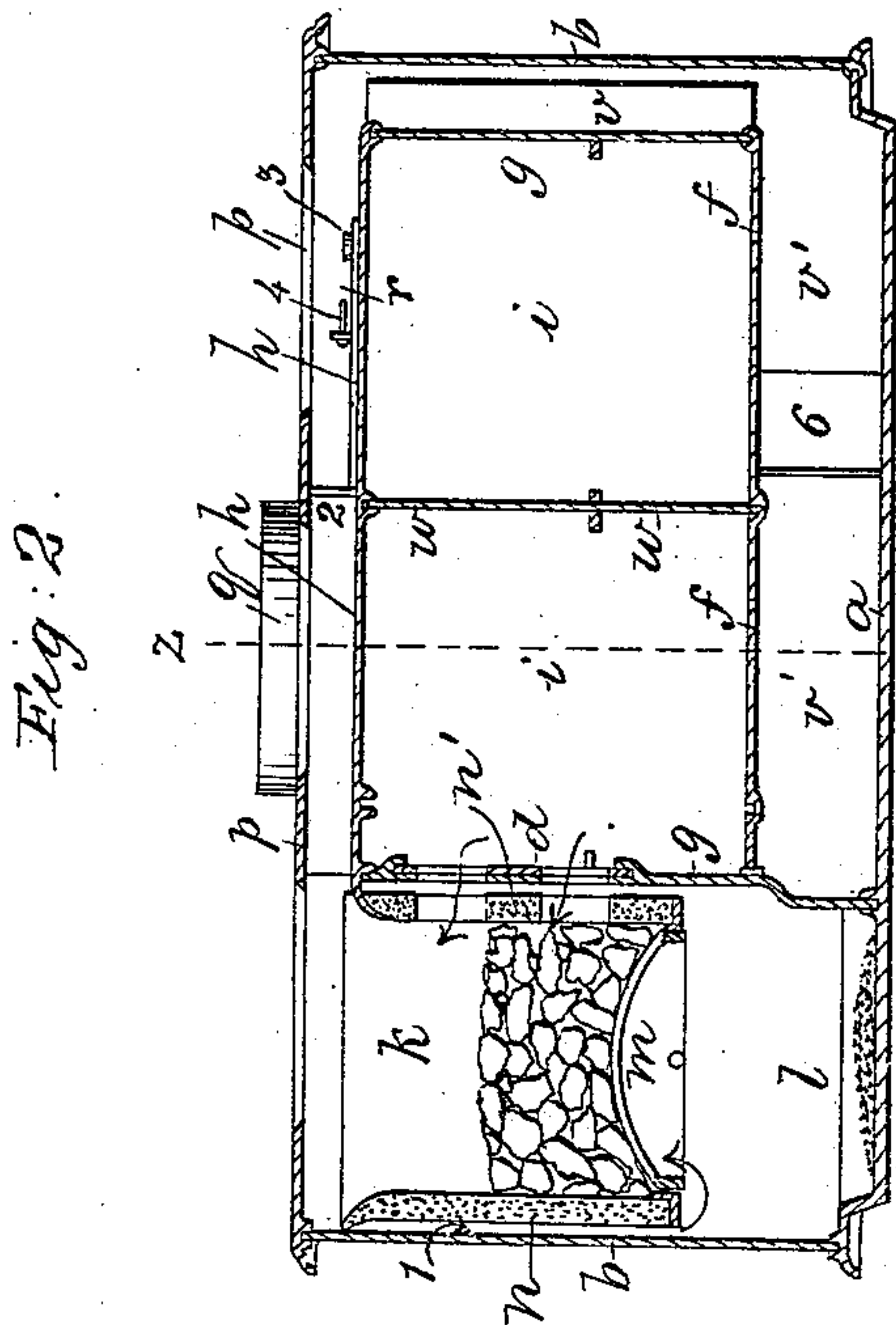
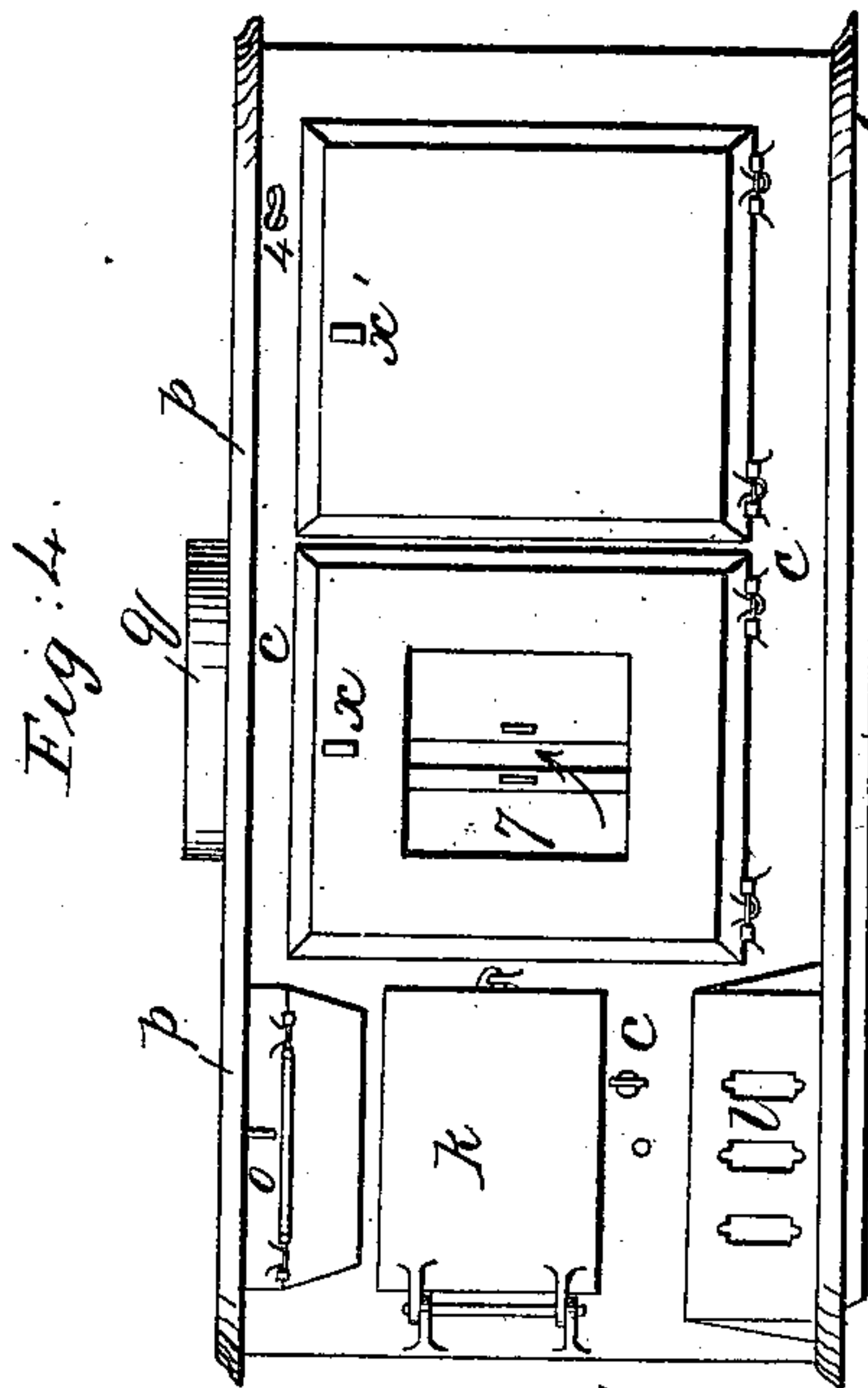
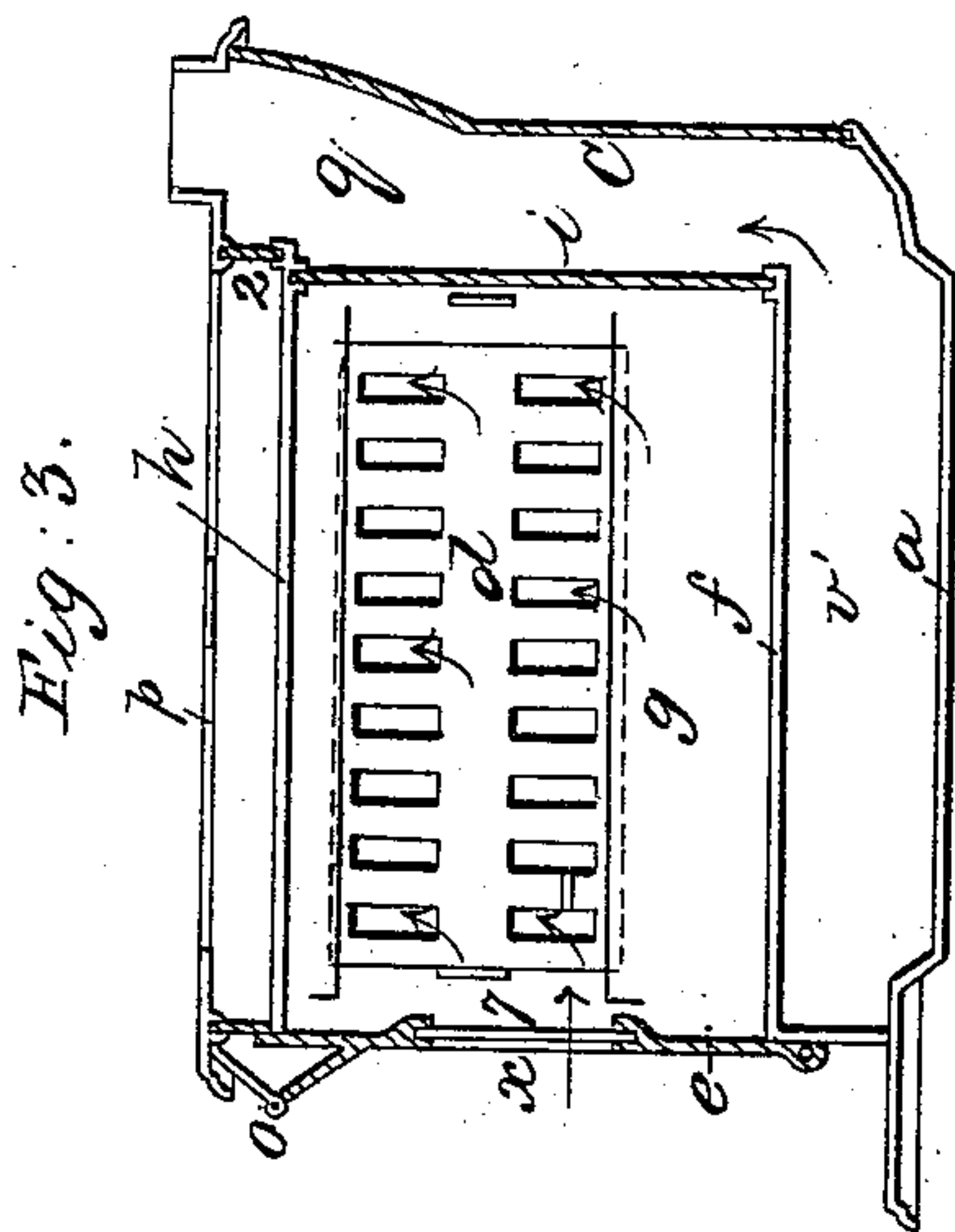


R. R. FINCH, Jr.

Cooking Range.

No. 44,041.

Patented Aug. 30, 1864.



Witnesses.  
 Lemuel W. Terrell  
 Chas. H. Smith

Inventor;  
 Reuben R. Finch



# UNITED STATES PATENT OFFICE.

REUBEN R. FINCH, JR., OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF, AND  
URIAH HILL, JR., AND NATHAN L. FINCH, OF SAME PLACE.

## IMPROVEMENT IN COOKING-RANGES.

Specification forming part of Letters Patent No. 44,041, dated August 30, 1864.

*To all whom it may concern:*

Be it known that I, REUBEN R. FINCH, Jr., of the city and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Cooking-Ranges; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a plan of said range with the top plate removed, but shown in red lines. Fig. 2 is a longitudinal section of said range at the line *y y*, Fig. 1. Fig. 3 is a cross-section of the same at the line *z z*, Fig. 2. Fig. 4 is an elevation of the front of the range, and Fig. 5 is a section through one of the oven-doors.

Similar marks of reference denote the same parts.

The nature of my said invention consists in a register applied between the oven and fire and perforated fire-bricks or soapstone, fitted in such a manner that dust and ashes will not pass into the oven, but said oven can be used for roasting by the direct rays of heat from the fire. I also arrange my flues in such a manner that the products of combustion pass at the sides and back of the oven, thence below said oven, and rise to the smoke-pipe or chimney, so as to more completely surround the oven with the heated products of combustion.

In the drawings, *a* is the bottom plate of the range; *b b*, the side or end plates; *c*, the back plate, and *e* the front plate. *f* is the bottom; *g g*, the ends; *h*, the top and *i* the back plate of the oven. *k* is the fire-chamber; *l*, the ash-pit; *m*, the grate, and *n* the side plate of the fire-chamber, Figs. 1 and 2, of brick or metal, between which and the plate *b* the air descends through the holes 1 1, Fig. 2, to supply the fire. *o* is the usual supply or chute for coal; and *p* is the top plate of the range, having the ordinary openings for pots, kettles, &c.

The parts thus far may be of any desired size and perform their well-known duties, and hence do not require further description.

*q* is the the smoke or escape flue that is closed by the plate 2, Figs. 1 and 3, from the top of the oven to the plate *p*, and provided with a swinging damper, *r*, on the pin or rivet 3, Fig. 1, and acted upon by the rod 4, so that

the smoke, &c., when the fire is being lighted, can be allowed to pass directly to the flue or chimney by opening this damper *r*, which damper directs the heat around below the different parts of the plate *p* without interrupting the escape of the products of combustion. When this damper *r* is closed, it extends from the division 2 to a division, 5, Fig. 1, that passes down between the back oven-plate, *i*, and the range-back *c*, and is extended across beneath the oven in the form of a flue-plate, 6. (Shown by dotted lines in Fig. 1.)

*t*, *u*, and *v* are flues passing down at the side of the oven and the back, uniting in the bottom flue, *v'*, and the products of combustion pass down these flues *t*, *u*, and *v*, and through the bottom flue, *v'*, and away by the flue *q*, thus thoroughly heating the oven, and that with great uniformity.

I provide a plate, *w*, that is movable, and may be placed in any desired position, so as to separate the oven into two compartments, that one may be used for meats, while the other is used for baking of any desired kind; and I have two oven doors, *x* and *x'*. In the door *x* is a slide-opening or secondary door, 7, (see Figs. 4 and 5,) by the opening of which the required supply of air is admitted into the portion of the oven next the fire to convey into said fire the fumes from the meat or other articles cooking therein by the direct action of the fire, as next explained. The fire-bricks or soapstones *n'* are perforated, and placed at some little distance from the oven-plate *g*, so that any ashes or dust may fall down between the two into the ash-pit, *l*, and these perforations correspond with the openings that are cast in said oven-plate *g* next the fire-chamber *k*, Figs. 1 and 2, and over these openings is a register-plate or slide by which they may be closed. It will now be seen that when this register is opened, the fire will act directly upon articles in said oven, to roast them by the direct rays of heat, and at the same time the fumes are carried into the fire by the current of air admitted, and the dust and ashes will not enter said oven.

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

1. The arrangement of the flues *t*, *u*, and *v*, damper *r*, and flue *q*, by which the heat is regulated in its action on the oven, or the pro-

ducts of combustion passed directly to the chimney, as set forth.

2. The construction of the damper *r*, as an arc of a circle moving on the pin 3, and acting between the plates 2 and 5, as set forth,

3. The perforated brick or soapstone *n'*, with a space between that and the oven-plate opening to the ash-pit, for the purposes specified.

4. The register-plate *d* in combination with

the perforated bricks *n'*, for the purposes and as specified.

5. The slide or secundary door 7 in the oven-door, for the purposes and as specified.

In witness whereof I have hereunto set my signature this 2d day of June, A. D. 1864.

REUBEN R. FINCH, JR.

Witnesses:

LEMUEL W. SERRELL,

CHAS. H. SMITH.