E. SKINNER.

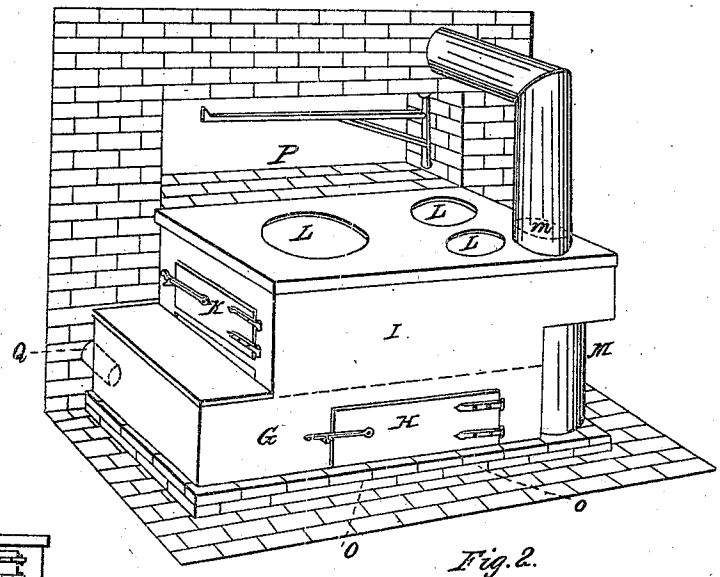
3 Sheets—Sheet 1.

Cooking Stove.

No. 429.

Patented Oct. 18, 1837.

Fig. 1. Plate 1.



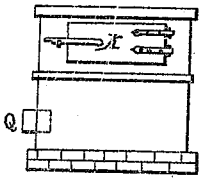
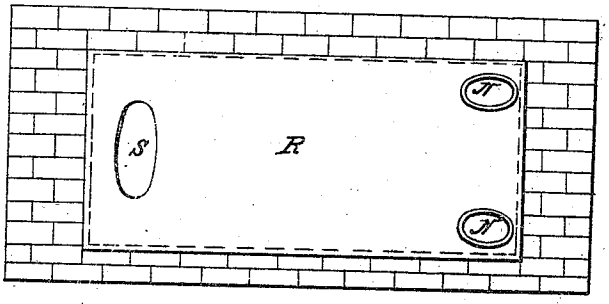


Fig. 2.



3 Sheets—Sheet 2.

E. SKINNER.

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Fig. 1. Plate 2.

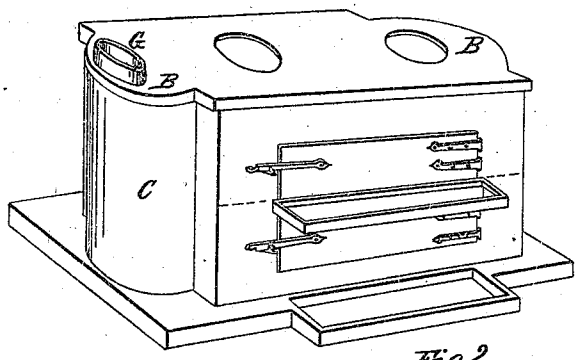


Fig. 4.

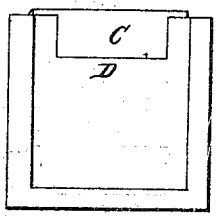


Fig. 3.

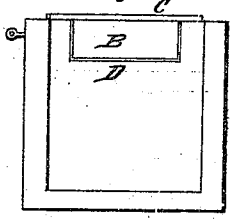
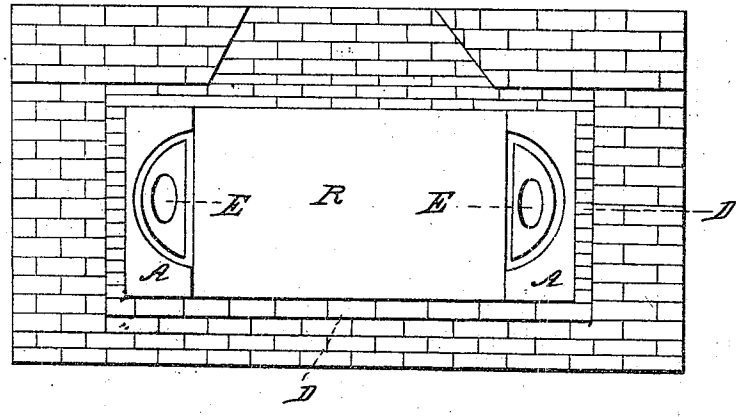


Fig. 2.



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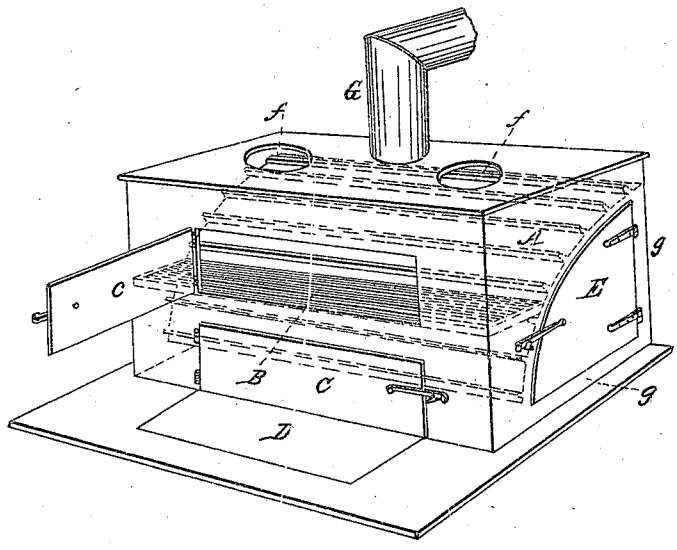
Patented Oct. 18, 1837.

Plate 3.



UNITED STATES PATENT OFFICE.

ELIJAH SKINNER, OF SANDWICH, NEW HAMPSHIRE.

COOKING-STOVE.

Specification of Letters Patent No. 429, dated October 18, 1837.

To all whom it may concern:

Be it known that I, ELIJAH SKINNER, of Sandwich, in the county of Strafford and State of New Hampshire, have invented a new and improved method of constructing a cooking-stove on the principle of the common diving-flue stove and of fitting the stove to fireplaces in chimneys; and I do hereby declare that the following is a full and exact description thereof.

The nature of my improvement consists in the construction and arrangement of the projections at the ends of the stove and the flues and funnels connected therewith. Also in the construction of the flue beneath the bottom of the stove, in the masonwork, as in Figure 1, Plate 1. Also in the construction and adaptation of the semicircular sheet iron funnels at each end of the stove with the flues fitted thereto as in Plate 2.

The object of my improvement, is to render the expense of manufacturing, less; (conveniences considered) and to produce a regular heat on the oven. Also to bring the heat down to the feet and directly under the oven through the flue in the masonwork as in Plate 2.

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

1st. I make a castiron bottom about three feet, six inches long and from sixteen to eighteen inches wide. In one end of this bottom is a flue of an oval form as at S, Fig. 2, Plate 1; in the other end of this are two flues of the same form as aforesaid but smaller, one flue being near each corner of the bottom, with necks on the upper surface of the bottom and around two of the said flues for the reception of funnels. I fit ledges to the upper surface of the bottom aforesaid within which I place the body of the stove. The form of the stove is an oblong square having a top projection at one end about seven inches long and five inches deep or half the depth of the fire chamber. In the under plate of this top projection, are flues with necks, to receive funnel. These flues are placed immediately over the two small flues aforesaid in the bottom near the end of the same. At the opposite end of the stove is a lower projection resting on the bottom, about seven inches long and eight inches high forming a separate chamber or division of the stove. The top of this projection forms an indented hearth to the door of the fire chamber in the end of the stove. In the backside of the aforesaid lower projection is a flue and neck for funnel.

The body of the stove is divided into two chambers by a castiron plate extending horizontally through the stove near the center thereof. The lower chamber constitutes the oven as at G, Plate 1, with the door in the front of the oven as at H. The upper chamber represents the fire place as at I, with door in the end as at K. The top plate contains apertures with rings for boilers and cooking apparatus as at L, Fig. 1, Plate 1. I make a flue with a neck in the top plate over the top projection or in the end plate at the end of the top projection as at M Plate 1, for the receiving of funnel. Beneath the top projection and outside of the lower part of the stove at the end I place two funnels extending downward from the two aforesaid flues in the under part of the top projection, to the two flues in the bottom of the stove near the corners as aforesaid as at N, N, Plate 1, Fig. 2. I place the stove over the common brick or stove hearth with mason work laid under the outer edges of the castiron bottom as at O, O, Plate 1, Fig. 1, forming a concavity from two to four inches deep between the brick or stove hearth and the castiron bottom aforesaid and the whole length and width of said castiron bottom except the thickness of the masonwork aforesaid placed under the outer edges of the said bottom, O, O. This concavity forms the flue under the oven and is beneath the iron bottom R, Plate 1, Fig. 2.

Ledges are placed on the underside of the castiron bottom extending around within about two inches of the edges so as to keep the mason work firm; also when required for the purpose of fitting a sheet iron flue beneath the bottom. I sometimes elevate or raise the brick hearth back of the stove in the chimney fire place as high as the top of the stove as at Plate 1, Fig. 1. When this is the case I form a flue in the brick work in the chimney for the reception of the diving flue funnel as at 2 Plate 1, Fig. 1. I place dampers in the funnels so as to let the heat and smoke ascend or turn them downward through the diving flue, passing beneath the oven and out the funnel at 2. I carry the funnel from the top projection of the stove, upward and thence in any other direction necessary.

I construct this stove in another form but

on the same principle as Plate 2. I make a plain cast-iron bottom as in the first construction projecting at each end beyond the body of the stove as at A. A. P.' 1., Fig. 2. I make the body of an oblong square dividing it into two chambers with the oven door and fire door in front and fit a movable indented hearth to the fire door or door to the upper chamber. I make the top plate with semicircular projections at each end as at Plate 2 Fig. 1, B. B. Between the projections of the top and bottom plates of the stove at each end I place a semicircular sheet iron funnel C. C. Fig. 1, with the edges inserted into grooves. The fire passes from the fire chamber through flues in each end of the stove into these funnels as at D. D. Figs. 3 and 4. I use a damper in one end of the stove to turn the heat down that it may pass under the oven; the damper is placed in the flue B, Fig. 3. I also put a damper in the funnel above the stove. I place the stove on mason work as at D. D. Fig. 2, Pl. 2. The flues E. E. open into the concavity forming the flue in the mason work beneath the cast iron bottom F. I fit a funnel to the flue G, on the top plate of the stove, which carries off the smoke from the driving flue and from the flue B, Fig. 3. I form the fire door with the inner surface concave and hang it at each of the lower corners on pivots so that when it is turned down it forms a hearth as H, Fig. 1, being supported by a rest on the side of the stove. A narrow stationary iron hearth may be used with the common door. I sometimes use a hearth in front of the oven door by projecting the castiron hearth out beyond the body of the stove as at I, Fig. 1.

Allegations.

1st. The stove described is of the common size but I contemplate making others of various and of different forms on the same principle.

2nd. I contemplate constructing the sides and ends of the aforesaid described stove of mason work and the doors, door frames and horizontal plates of iron.

3rd. Instead of the horizontal hearth which divides the fire chamber from the oven I contemplate constructing a quarter circle oven, fitted to the inside of the stove box as at A, A, Plate 3. The convex side of the oven forms an elevated hearth for the fire with ledges cast on the convexity to retain the ashes or plastering so as to regulate the heat and preserve the plate from burning.

A movable coal grate is so fitted as to be placed higher or lower on the convex hearth as at B, Fig. 3.

In Fig. 3 E, is the oven door; C, C, are the fire doors; D, the ash pit; F, F, the openings for the boilers and G the funnel.

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

1. The construction of the flue in the mason work beneath the bottom of the stove, when placed over the common brick or stove hearth forming the driving flue under the oven as described in the specification also in the drawing Plate 2, Fig. 2 under the plate F, and in Plate 1, Fig. 2 under the iron plate R; also projections at the ends of the stove with the arrangement of the funnels and flues in the manner and for the purposes above set forth.

2. I also claim the semicircular sheet iron funnels at each end of the stove in combination with the arrangement of the flues adapted thereto; also the manner of raising the brick hearth back of the above described stove to form an elevated fire place as at P, Fig. 1, Plate 1; also the convex iron hearth over the oven with ledges as set forth in allegation third and represented in Plate 3.

ELIJAH SKINNER.

Witnesses:
R. T. Blago,
Moulton H. Marston.