

C. LYMAN.
STOVE.

No. 192,925

Patented July 10, 1877.

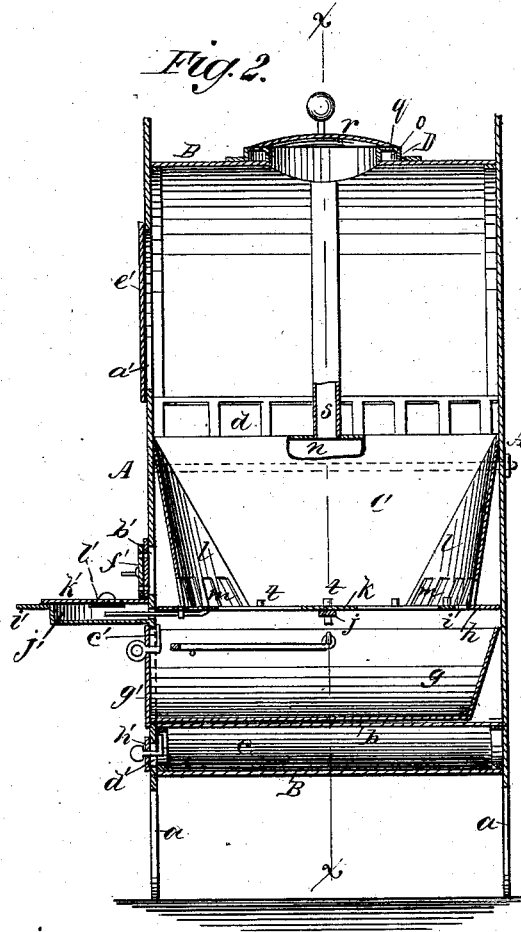
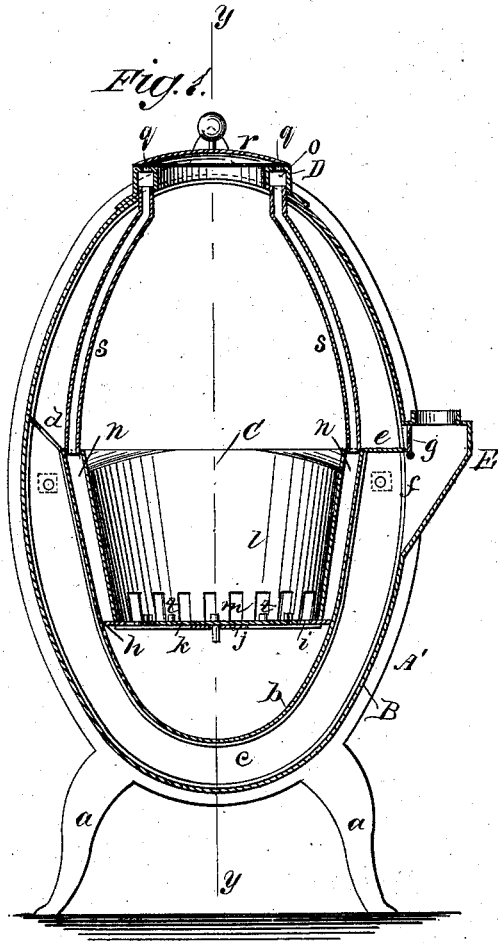
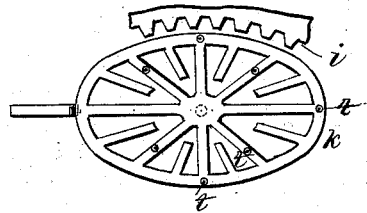


Fig. 3.



WITNESSES:

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CHARLES LYMAN, OF CLARINDA, IOWA.

IMPROVEMENT IN STOVES.

Specification forming part of Letters Patent No. 192,925, dated July 10, 1877; application filed May 21, 1877.

To all whom it may concern:

Be it known that I, CHARLES LYMAN, of Clarinda, in the county of Page and State of Iowa, have invented a new and Improved Stove, of which the following is a specification:

Figure 1 is a vertical section on line *x x* in Fig. 2. Fig. 2 is a vertical section on line *y y* in Fig. 1. Fig. 3 is a detail view of the grate.

Similar letters of reference indicate corresponding parts.

The object of my invention is to provide a stove for heating purposes that is compact in form, economical in the use of coal, and efficient in operation.

In the drawing, A A' are end pieces of cast-iron, having legs *a*, and flanges for receiving the parts composing the body of the stove. These end pieces are elliptical, the longer axis of the ellipse being vertical.

B is a sheet-iron body, that, together with the end pieces A A', forms an elliptical drum, in which, between the end pieces, is placed a sheet of iron, *b*, that is bent into a semi-elliptical form, between which and the body there is a flue, *c*, that is open at *d* and closed at *e*.

The collar E, for receiving the stove-pipe, is attached to the body B over an aperture, *f*, that communicates with the flue *c*, and with the space above the flue. The said collar is provided with a damper, *g*, that is capable of being turned so as to close the upper portion of the aperture *f*.

A fire-pot, C, is arranged in the semi-elliptical part *b*, upon a plate, *h*, that extends from one end piece of the stove to the other. An elliptical opening, *i*, is made in the said plate, and upon a cross-bar, *j*, that extends across this opening an elliptical grate, *k*, is supported. Curved end pieces *l*, having fingers *m* at their lower ends, are placed at the end of the fire-pot C, and at the sides of the fire-pot air-passages *n* are formed, that extend through the end pieces A A'.

A circular casting, D, having an annular space, *o*, is secured to the top of the body B over an opening, *p*, and is provided with per-

forations *q*, and to it a cover, *r*, is fitted. Tubes *s* connect the air-passages *n* and the annular space *o* in the casting D.

The grate *k* is provided with a number of tubular projections, *t*, which stir the fire and break up the clinker as the grate is moved.

In the end piece A, which forms the front of the stove, openings *a' b' c' d'* are made. The upper and larger opening *a'* is provided with a door, *e'*, and is designed for feeding and adjusting the fire.

The opening *b'* is provided with a door, *f'*, in which there is a damper for admitting air above the grate.

The opening *c'* is closed by the ash-pan *g'*, which is of such form as to fit in the space below the grate.

The opening *d'*, which is designed for removing ashes from the flue *c*, is closed by a small door, *h'*.

A hearth, *i'*, is attached to the front of the stove below the door *f'*, and is provided with a recess, *j'*, for receiving the grate-shaker. This hearth is provided with swinging cover *k'*, in which there is a damper, *l'*.

The stove may be filled either at the side or top, and the fire may be adjusted by poking it above the grate, between the fingers at the lower side of the pieces at the end of the fire-pot.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The elliptical end pieces A A', the body B, and pieces *b*, inclosing the flue *c*, and the fire-pot C, having the curved end pieces *l*, combined and arranged substantially as herein shown and described.

2. The air-passages *n*, arranged at the sides of the fire-pot C, the tubes *s*, and the hollow perforated annular casting D, in combination in a stove, substantially as shown and described.

CHARLES LYMAN.

Witnesses:

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