

(No Model.)

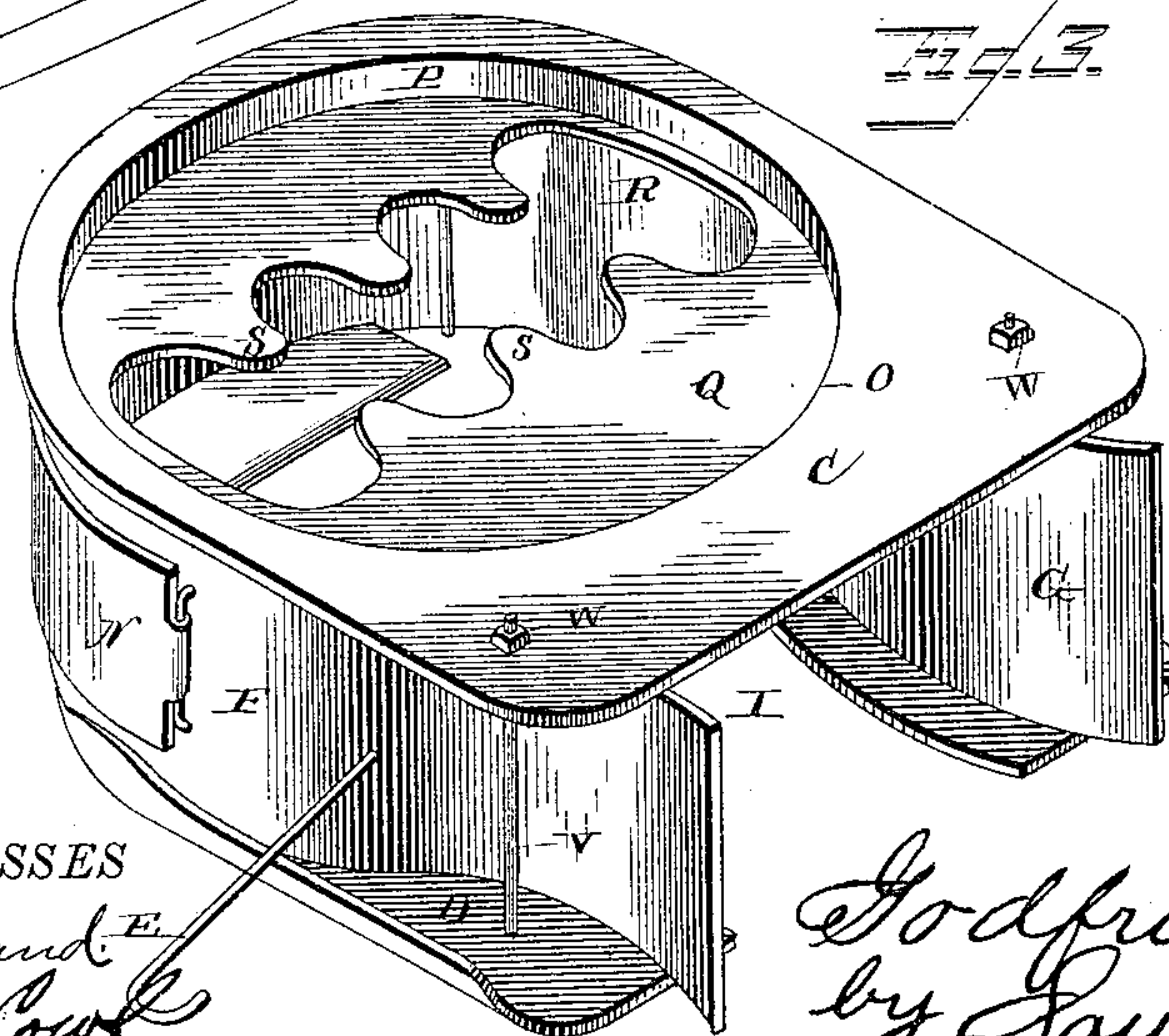
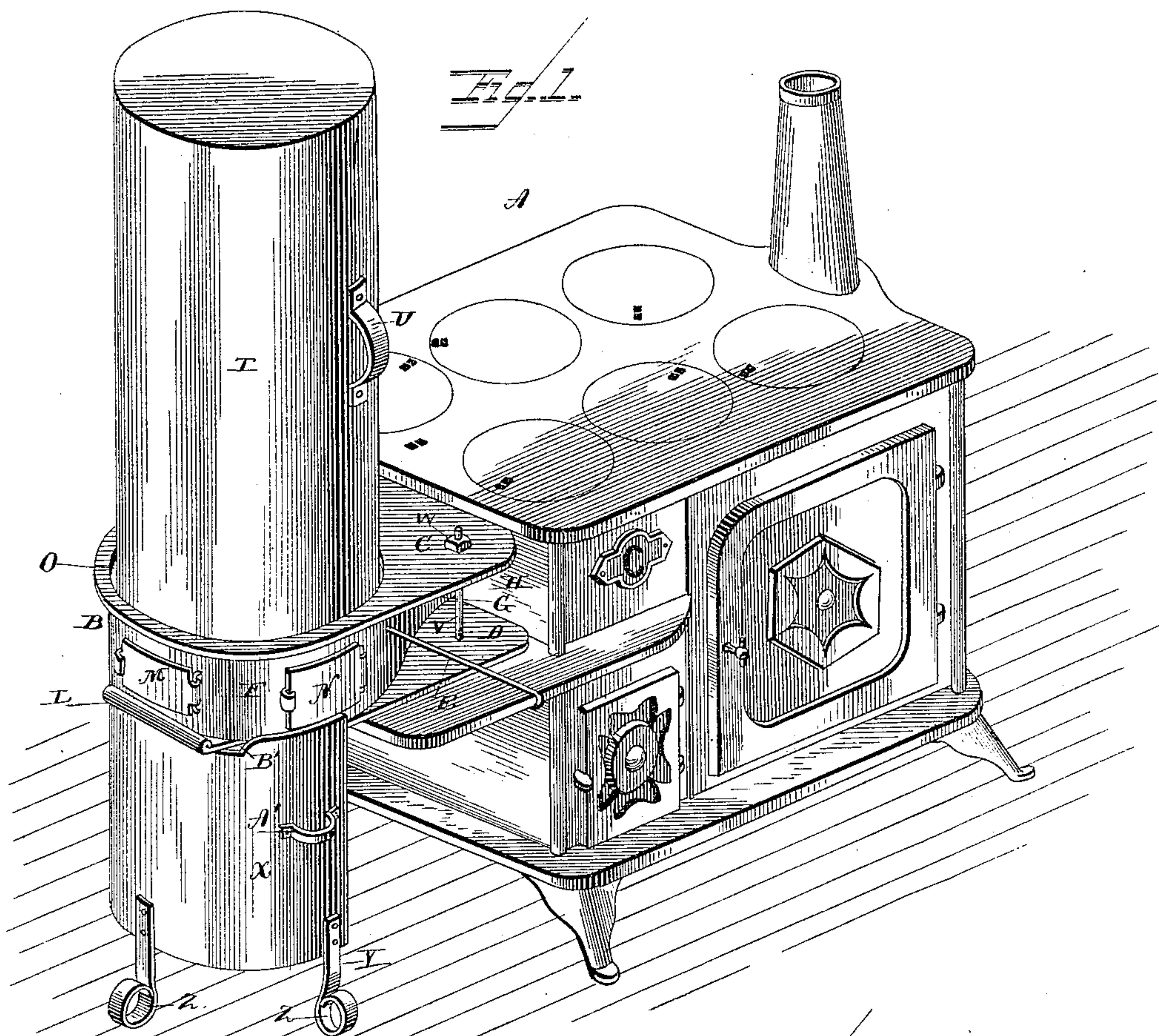
2 Sheets—Sheet 1.

G. LAUBE.

HAY BURNER.

No. 389,393.

Patented Sept. 11, 1888.



WITNESSES
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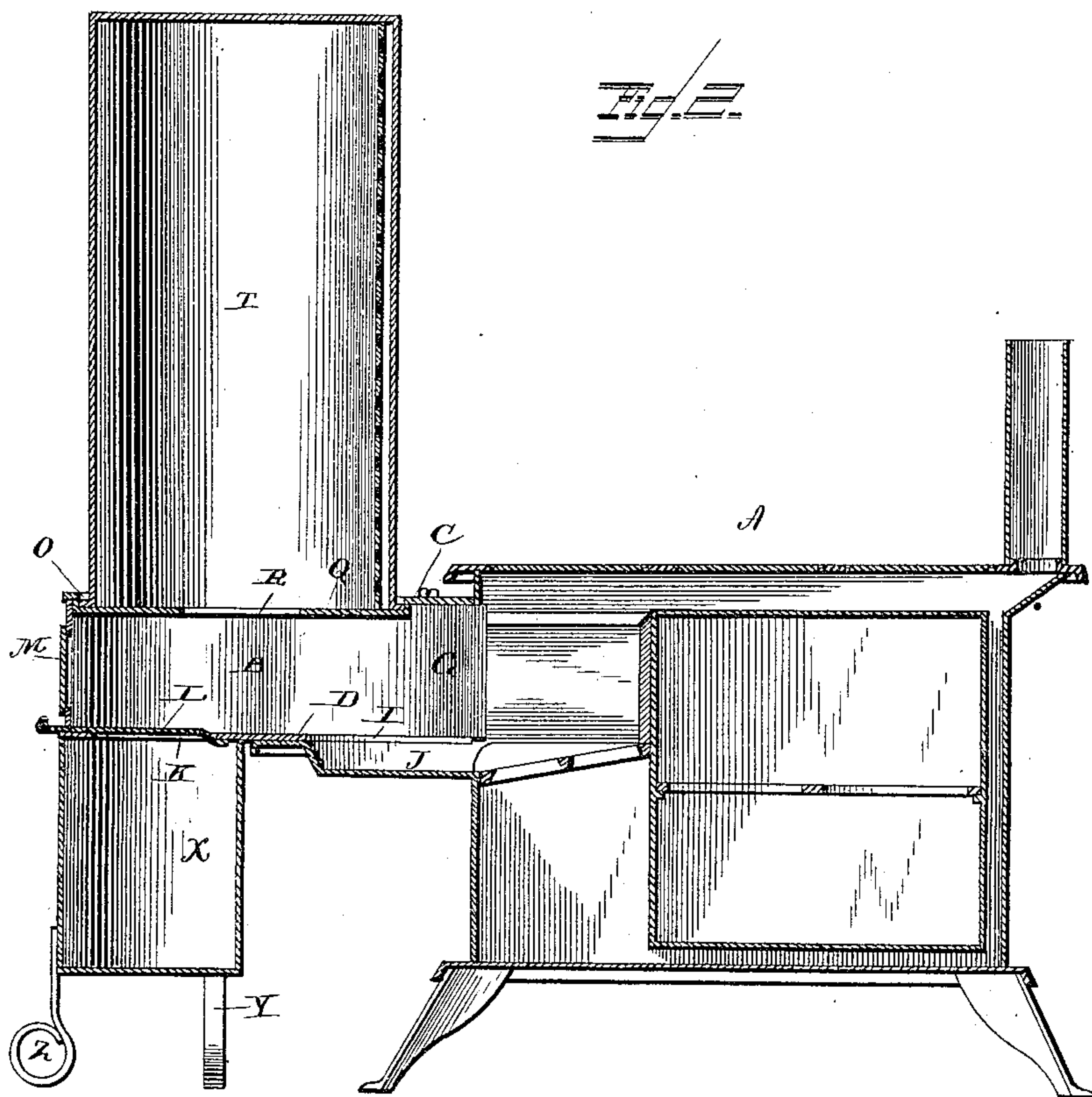
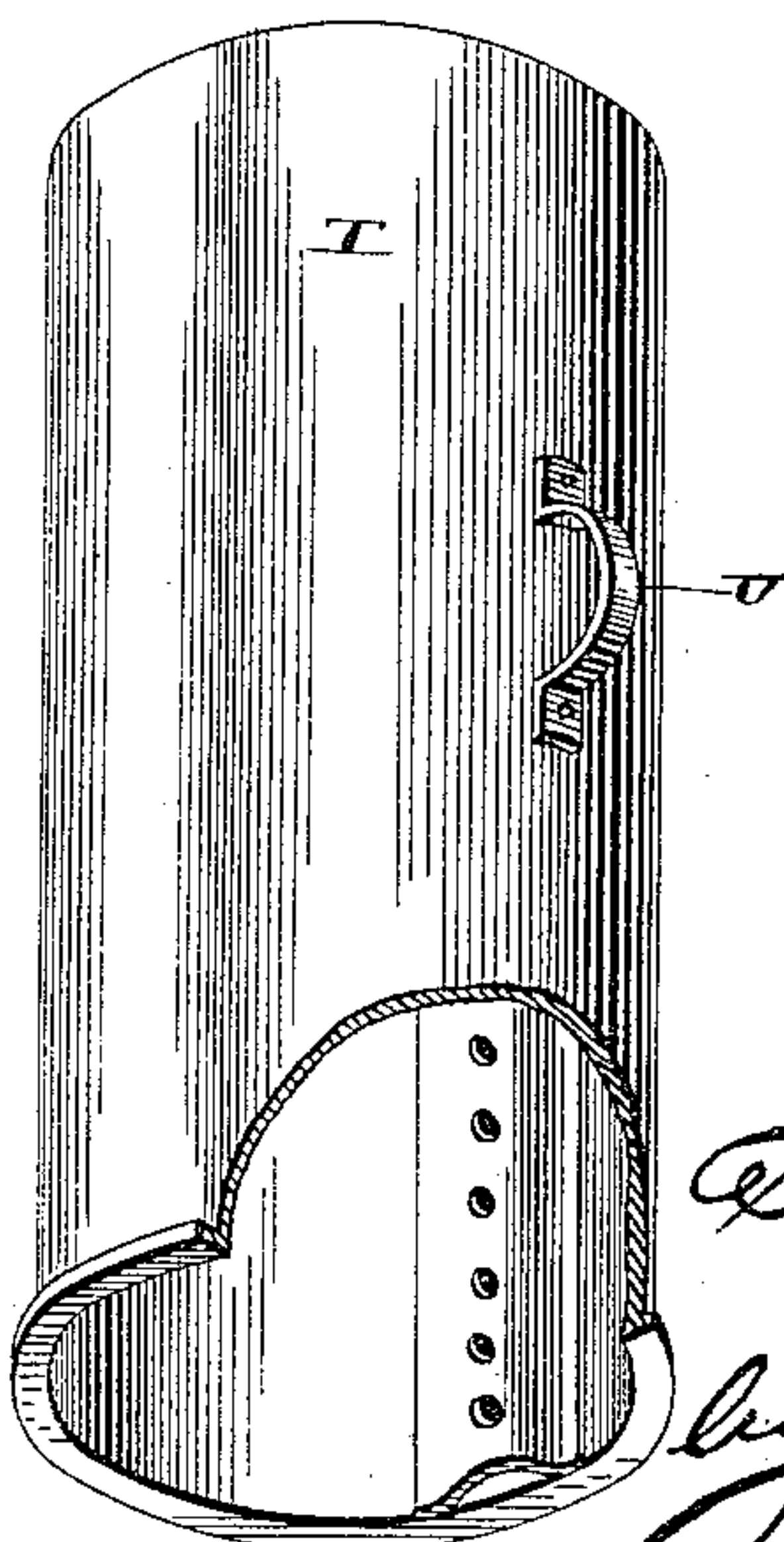


Fig. 4



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UNITED STATES PATENT OFFICE.

GODFRIED LAUBE, OF HURON, DAKOTA TERRITORY.

HAY-BURNER.

SPECIFICATION forming part of Letters Patent No. 389,393, dated September 11, 1883.

Application filed December 27, 1887. Serial No. 259,067. (No model.)

To all whom it may concern:

Be it known that I, GODFRIED LAUBE, a citizen of the United States, and a resident of Huron, in the county of Beadle and Territory of Dakota, have invented certain new and useful Improvements in Hay-Burners; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved hay-burner, showing the same secured in its operative position upon the hearth of an ordinary cook-stove and the ash-box beneath said burner. Fig. 2 is a central longitudinal vertical sectional view of the same. Fig. 3 is a perspective view of the combustion-chamber with the magazine removed; and Fig. 4 is a perspective detail view of the magazine or cylinder, partly broken away to show the construction and arrangement of the gas-tube.

Similar letters of reference denote corresponding parts in all the figures.

My invention has relation to hay-burners; and it consists in certain new and useful improvements on Patent No. 371,332, granted to me October 11, 1887, as will be hereinafter more fully set forth.

My invention has for its object to construct a hay-burner in substantially the manner herein described, which may be readily attached to the hearth of an ordinary cooking-stove, and which will evenly consume the hay without allowing any sparks or gas to escape into the room, and which will also obtain the maximum of heat from the quantity of hay consumed.

In the accompanying drawings, the letter A indicates a cooking-stove of ordinary construction, to which my improved burner is shown attached in operative position.

B denotes the combustion-chamber of my improved attachment, the top and bottom plates, C and D, of which are wholly of cast-iron, and this attachment is secured to the hearth of the stove by means of rods E, secured to the side portions, F, of the combustion-chamber B, and secured with their lower

hooked ends to the under side of the hearth of the stove, as more clearly seen in Fig. 1 of the drawings. The side strip, F, is attached to the top and bottom plates, C and D, with the exception of its hooked ends G, which are adapted to spring or yield laterally and impinge upon and engage the sides H of the stove in front of the grate. This side strip, in conjunction with the hooked rods, will retain more securely the combustion-chamber in position upon the hearth. The bottom plate, D, is formed with the rear draft-opening, I, which registers with the hearth-opening J, and is further provided with the forward opening, K, through which the ashes are discharged. This forward opening is covered by a slide-gate, L, the side edges of which overlap the side edges of the opening, while its rear edge is bent downwardly and bears against the under portion of the plate D when the opening is closed, as shown in Fig. 2 of the drawings.

Two small swinging doors, M and N, respectively, are secured to the strip, one at the front and the other at the side, the front one of which is to regulate the draft and the side one to permit the fire to be raked or attended to.

The upper plate, C, is formed with the circular opening O and the downwardly-projecting annular flange P, to which is secured a grate, Q, formed with the transverse slot R, the longitudinal edges of which are provided with prongs or fingers S, projecting toward each other. Upon this grate is placed a cylindrical magazine, T, substantially the same in construction as that shown and described in my patent hereinbefore mentioned, and a description of which, it is thought, will not be necessary.

In operation, when the combustion-chamber B has been secured in operative position upon the hearth of the stove, the hay or straw is placed in the magazine, which is then placed in position upon the combustion-chamber B, with its lower end edge fitting within the downwardly-projecting flange and seated upon the grate. The lower part of the hay or straw rests upon and is supported by the grate, and, the draft-door having been opened to the desired extent, the fuel is then lighted through the small door at the side of the combustion-chamber B. It will be seen that the grate with

its projecting fingers or prongs will protect the front lower and rear lower parts of the hay from burning, while the center lower part thereof, which is above the slot of the top plate of the combustion-chamber B, will burn steadily, and when this part of the contents of the magazine has been burned out to a certain height the cylinder is turned for a quarter-circle, which can readily and conveniently be done by taking hold of suitable handles, U, until the unburned lower part of the hay or straw comes over the ends of the transverse slot R, when it is gradually consumed.

The top and bottom plates, C and D, of the combustion-chamber B and the side strip, F, are secured together by means of bolts V, which have tightening-nuts W at their upper ends. This construction permits of the several parts being separated for cleaning, or for the purpose of replacing a worn part with a new one.

X denotes the ash box or receptacle, of crescent shape, open at its top, which is supported upon legs Y, secured with their upper ends to the rounded portion of the combustion-chamber, while their lower ends are coiled, as shown at Z. It will be seen that should the box be too low the lower end of the legs may be uncoiled, which of course will raise the box or receptacle, and vice versa, whereby the ash-box may be adjusted to fit stoves of different sizes. Handles A' are also secured to this box at its upper end, by means of which it may conveniently be moved for emptying the ashes or for any other purpose. When in position, the rounded front portion fits tightly, but removably, to the rounded forward portion of the combustion-chamber B, and is recessed, as shown at B', for the purpose of permitting the sliding door of the bottom plate of the combustion-chamber to be operated.

From the foregoing description, taken in connection with the accompanying drawings, the operation and advantages of my invention will be readily understood without requiring further explanation, as the state of the art is fully set forth in my patent hereinbefore mentioned.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a hay-burner for stoves, the combination of a combustion-chamber the rear portion of which is adapted to be secured to the hearth of a stove and provided with a circular opening, a grate in said opening, consisting of a circular plate having a transverse slot the longitudinal edges of which are provided with prongs or fingers, and a cylindrical rotatable magazine above said openings.

2. In a hay-burner for stoves, the combination of a combustion-chamber the rear portion of which is adapted to be hooked and clamped to the hearth of a stove and the forward and side portions of which are provided with doors and the upper portion provided with a circular opening, a grate secured in said opening and consisting of a circular plate having a transverse slot the longitudinal edges of which are provided with prongs or fingers, while the lower portion of said combustion-chamber is provided with discharge and draft openings, and a rotatable cylindrical magazine.

3. In a hay-burner for stoves, the combination of a combustion-chamber the side portions of which are hooked and are adapted to spring or yield for the purpose substantially as described, hooks projecting outwardly from said combustion-chamber and adapted to be secured to the hearth of a stove, a grate consisting of a circular plate having a transverse slot the longitudinal edges of which are provided with prongs or fingers projecting toward each other, the said grate being secured in a circular opening in the upper portion of the combustion-chamber, the lower portion of which is provided with draft and discharge openings, a sliding door secured over said discharge-opening, and swinging doors secured to the side of the combustion-chamber, and a cylindrical rotatable magazine.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

GODFRIED LAUBE.

Witnesses:

ALFRED STERNS,
F. B. SHERMAN.