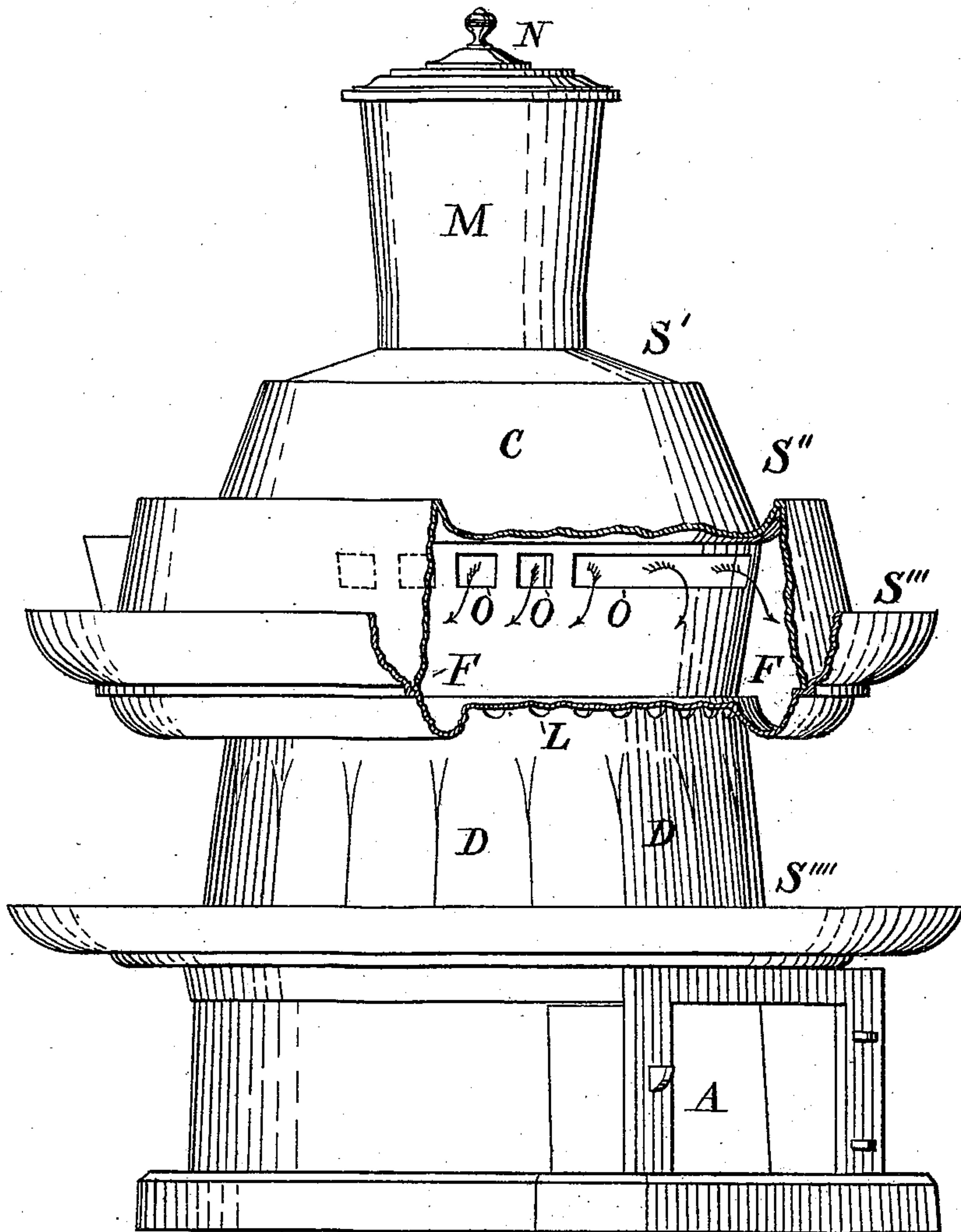


M. J. MOSHER.
Sad-Iron Furnace.

No. 227,036.

Patented April 27, 1880.

Fig. 1



Witnesses

Charles B. Cutter
Charles S. Brintnall

Inventor

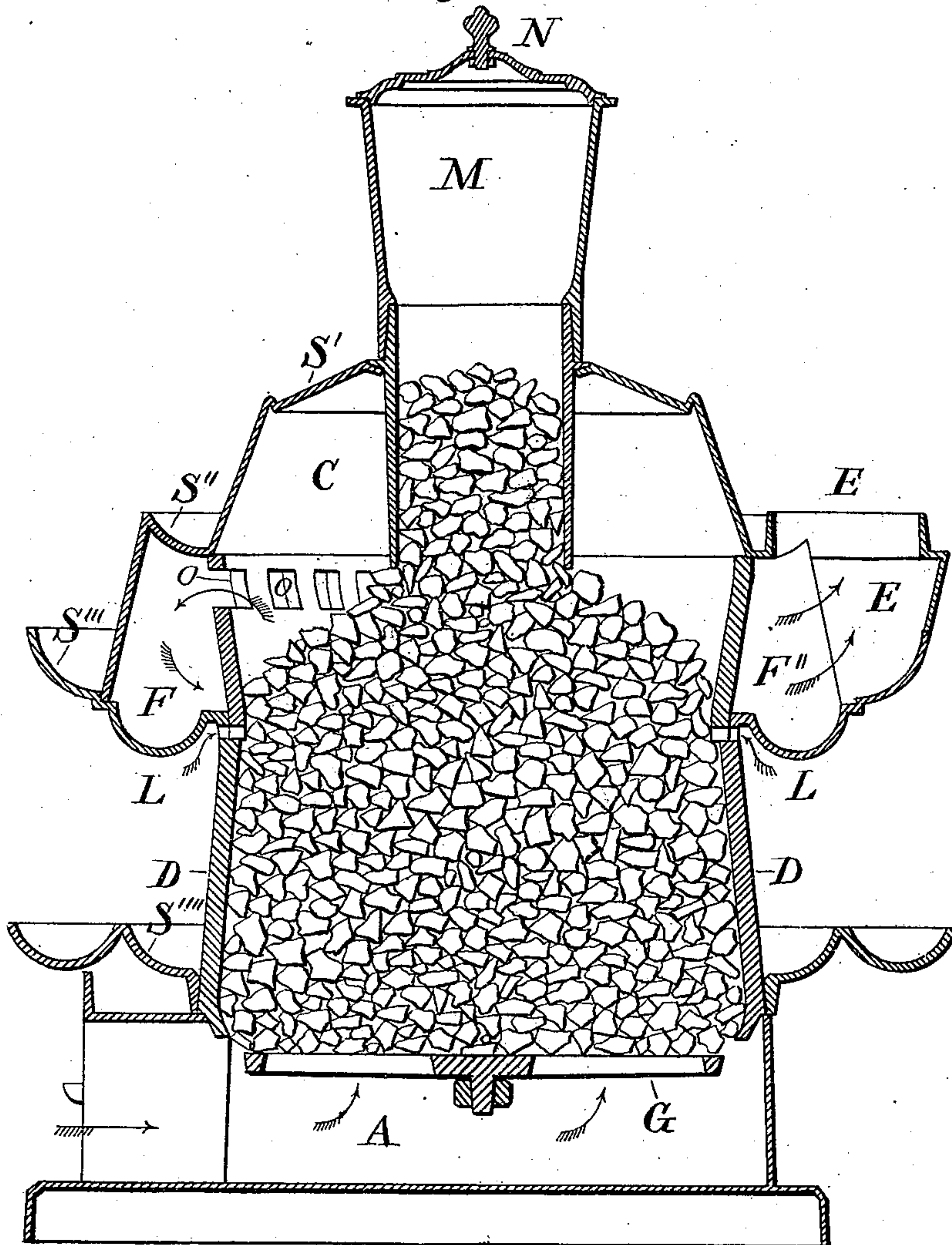
Martin J. Mosher
by
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Fig. 2



Witnesses

Clarence D. Austin
 Charles S. Brintnall

Inventor

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UNITED STATES PATENT OFFICE.

MARTIN J. MOSHER, OF TROY, NEW YORK.

SAD-IRON FURNACE.

SPECIFICATION forming part of Letters Patent No. 227,036, dated April 27, 1880.

Application filed December 29, 1879.

To all whom it may concern :

Be it known that I, MARTIN J. MOSHER, of the city of Troy, county of Rensselaer, and State of New York, have invented a new and useful Improvement in Furnaces for Heating Sad-Irons, of which the following is a specification.

My invention relates to that class of devices used in laundries for heating sad-irons; and it consists, as hereinafter described, of a furnace having a grate and fire-cylinder above it, a magazine for supplying fuel regularly to the fire, with the magazine suspended over the latter, to produce, by means of its exterior wall and the exterior sad-iron shelving-surfaces, an annular combustion-chamber; also, a flue encircling the combustion-chamber, connecting at the front with the latter and at the rear with the exit-flue, and the interior wall of the encircling flue formed by the exterior wall of the combustion-chamber, and the exterior of the flue provided with sad-iron shelving, and sad-iron shelving around the fire-cylinder.

In the accompanying drawings there are two plates of illustrations, each plate containing one figure, showing my invention, and in both of which the same reference-letters designate the same parts.

Figure 1 shows an elevation of my improved sad-iron furnace with the interior wall of the flue, encircling the combustion-chamber, removed in part, to illustrate its connection with the latter. Fig. 2 shows a vertical section of the same furnace, taken through the center and at right angles to its front, illustrating the position of the magazine, the combustion-chamber, fire-pot, grate, and ash-pit; also showing the connection made between the encircling flue, the combustion-chamber, and exit.

The various parts composing the device are designated by letter-reference and described as follows: M denotes the magazine, having the cover N, with the former projected downwardly over the fire, and forming, in combination with the sad-iron-shelf surfaces S' S'', the annular combustion-chamber C. The fire-pot is designated by the letter D, the grate by the letter G, and the ash-pit by the letter A. The flue encircling the combustion-chamber is designated by the letter F, and shown as connecting at the combustion-chamber front at O O

O, and at the rear with the exit by the letter E. This flue adjoins the combustion-chamber, and is shown as having upon its exterior the sad-iron shelf S'''. At L L are shown openings for admitting air to the fuel above the grate, and at S''' is shown a shelf surrounding the fire-cylinder, also for heating sad-irons. The shelves S' and S'' incline inwardly and ob-
tusely to each other toward the top of the magazine, and from the shape of the combustion-chamber, annularly inclosed by them around the magazine and over the fire, the shelf-surfaces are much better heated than they would be were the heat evolved from the fire not confined between them and the magazine, as would be the case were the magazine removed and the ordinary surface-burning combustion-chamber employed. Hence the magazine, in combination with the wall supporting the shelf-surfaces, produces a specific effect, independently of the ordinary functions of the magazine, by which fuel is fed regularly to the fire and a uniform temperature maintained.

The encircling flue, by its projection, increases in its revolution the exterior shelf-room at a part of the furnace that is most accessible for putting on and taking off the irons.

I am well aware that an inclosed chamber or oven has been formed around a magazine above the combustion-chamber of a stove and separated from it by a pot-hole plate, and in which chamber or oven sad-irons could be heated and cooking and roasting done, as shown in the patent to J. W. Elliot, dated December 26, 1876. I am also aware that this older stove had an exterior flue encircling this oven-chamber. This flue differed from mine in the fact that it was intended to heat the oven-chamber which it encircled, rather than the flue-exterior surface and shelf, as constructed in my device. In my furnace the encircling flue adjoins the combustion-chamber to be heated directly by it, thus promptly heating the exterior surfaces of the flue where the heat is applied to the irons. In the older device named this flue is constructed to heat a chamber between it and the fire before heating the exterior surface, and in doing which its exterior would not become hot enough to heat sad-irons sufficiently to be practically

useful for that purpose, were it intended for such an application. This difference, produced between these two constructions, comes from the relatively-differing applications of the two
 5 flues and their co-operation with contiguous parts. Instead of an annular combustion-chamber surrounding the magazine, the exterior surfaces of which were sad-iron shelves, this older device had an oven-chamber in that
 10 position inclosed exteriorly for cooking.

I am also aware that a laundry-stove has been patented, in which an annular flue was arranged below the grate, connecting with the combustion-chamber and surrounding the
 15 ash-pit cylinder, as shown in the patent granted to C. J. Shepard, and dated September 28, 1869. The encircling flue in this device differs from mine in the fact that it is arranged to surround the ash-pit and its cold-air passage
 20 to the grate and combustion-chamber above the flue. In my furnace the encircling flue surrounds the hottest portion of the combustion-chamber, and co-operates therewith by means of passages, (indicated by arrow,) where-
 25 by the walls of the flue are heated by contact with the combustion-chamber.

I am also aware of the patent granted to C. H. Goss, dated June 15, 1869, in which a polygonal form, as shown, described, and claimed,
 30 is applied to laundry-stoves; but the form of my furnace differs from this in the fact that the tapering zones in my furnace-top have their frustum-faces in differing planes and in tapering inclines to the top of the magazine.

I am also aware that an annular combustion-chamber formed around the magazine, considered by itself and independently of the manner produced, is not new.

Having thus described my invention, what
 40 I claim, and desire to secure by Letters Patent, is—

1. In a laundry stove or furnace having a grate and fire-pot, the angularly-constructed shelves S' and S'', forming the top and part of the sides of the furnace and magazine M, in
 45 combination with the annular combustion-chamber C, formed by the outer walls of the magazine and the inner walls of the shelves, as and for the purposes described.

2. In a laundry stove or furnace having a
 50 fire-cylinder and grate, the combination of the magazine M, exterior angular shelf-surfaces, S' and S'', connecting with the side walls of the furnace or stove below, and the annular combustion-chamber C, arranged above the
 55 fire and between the magazine and before-designated shelf-surfaces, as and for the purposes described and set forth.

3. In a stove or furnace for heating sad-irons and containing a magazine, fire-cylinder, and
 60 grate, the combination of the annular combustion-chamber C and the flue F, the latter encircling the former, and the flue F constructed, by means of openings O O O, to connect at
 65 the front with the combustion-chamber, and at the rear, by the opening E, with the exit, and the shelf S''', arranged upon the flue exterior, as herein shown and described.

4. In a laundry stove or furnace containing a fire-cylinder and grate, the combination of
 70 the magazine M, annular combustion-chamber C, upwardly and inwardly tapering shelf-surfaces S' and S'', the encircling flue F, shelf S''' upon the exterior of the latter, and the shelf S'''' upon the fire-cylinder, constructed
 75 to operate as herein shown and described.

MARTIN J. MOSHER.

Witnesses:

CHARLES S. BRINTNALL,
 CLARENCE B. CUTLER.