

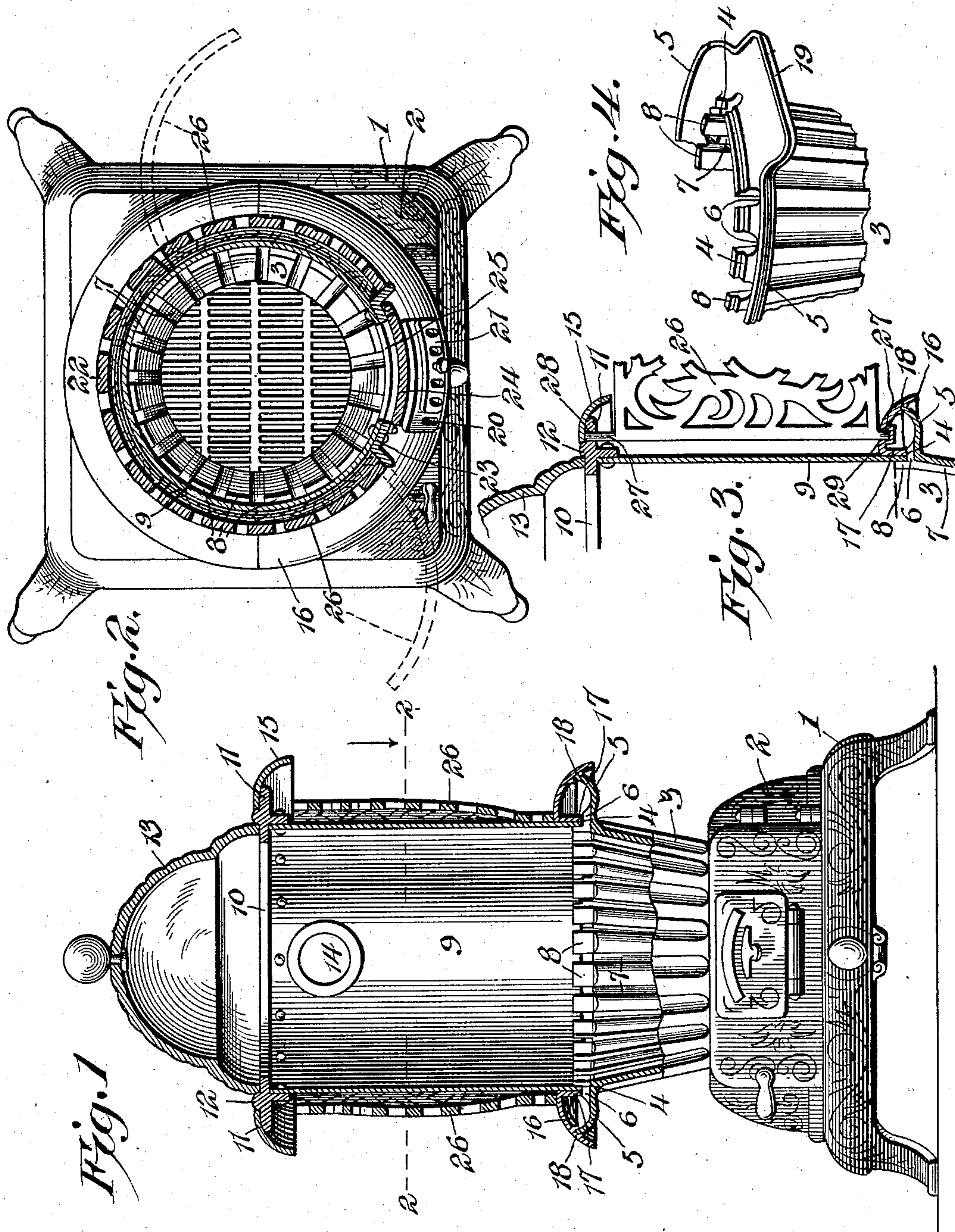
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M. HERTENSTEIN.
STOVE.

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NO MODEL.



Witnesses

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STOVE.

SPECIFICATION forming part of Letters Patent No. 741,790, dated October 20, 1903.

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To all whom it may concern:

Be it known that I, MICHAEL HERTENSTEIN, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Stoves, of which the following is a specification.

This invention relates to heating-stoves, and has for its object to provide an improved coal-burning stove wherein air is fed to the fire-pot in an improved manner and in a preliminarily-heated condition, so as to unite chemically with the gases set free from the burning fuel in a more effective manner than cold air fed directly to the fire-pot. It is furthermore designed to provide useful improvements in the mechanical construction of the stove, whereby the parts thereof may be assembled in a convenient manner to facilitate the setting up and taking down of the stove, as well as to provide for feeding air in a preliminarily-heated condition.

Another object is to provide for concealing the unsightly body or combustion-chamber of the stove, and thereby render the latter ornamental and attractive and at the same time to provide for having convenient access to said body portion for cleansing and repairing the same, these features being obtained without sacrificing the heat-radiating properties of the stove in any manner whatsoever.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be herein-after more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a view of a heating-stove embodying the features of the present invention, the lower portion of the stove being in elevation and the upper portion thereof in vertical section. Fig. 2 is a transverse sectional view on the line 2 2 of Fig. 1. Fig. 3 is a detailed vertical sectional view illustrating the manner of hinging one of the ornamental side sections of the stove,

and Fig. 4 is a fragmentary perspective view of the upper front portion of the fire-pot.

Like characters of reference designate corresponding parts in all the figures of the drawings.

The present form of stove has any ordinary base portion 1, upon which is mounted an ash-pit 2, and upon the latter is supported a fire-pot 3. The upper edge of the fire-pot is rabbeted, as indicated at 4, thereby to produce an inner upstanding marginal flange and an external marginal groove or seat. At the base of this seat is an external integral marginal flange 5, which is dished or concaved upon its upper face, and openings or perforations 6 lead through the upper edge portion of the fire-pot from the interior of the dished flange to the upper ends of the corrugations 7 in the inner face of the fire-pot, thereby to provide for the passage of air from the annular chamber formed by the flange 5 to the interior of the fire-pot. It will here be noted that the openings or perforations 6 break up the upstanding flange at the top of the fire-pot into a plurality of upstanding lugs or projections 8.

As best indicated in Fig. 1 of the drawings, it will be seen that the cylindrical shell 9, preferably of sheet metal and forming the combustion-chamber of the stove, has its lower edge supported in the seat or groove 4 at the top of the fire-pot, and upon the top of this shell is a top piece or ring 10, having a pendent marginal flange 11, which embraces the top of the shell and is riveted or otherwise connected thereto. There is an intermediate annular rib 12 upon the upper side of the top piece 10, and upon the latter and at the inner side of the former is an ornamental dome 13. At the back of the shell there is an opening 14, with which an ordinary stovepipe is adapted to be connected. Any suitable ornamental ring 15 may embrace the part 10 at the outer side of the rib 12.

Referring again to the dished flange 5 at the top of the fire-pot, it will be seen that this flange is covered throughout its entire length by means of an ornamental convexed ring 16, which arches over the top of the flange and is provided at its inner marginal edge with a pendent rim 17, which is fitted in the seat 4 at and snugly against the outer face

of the shell 9. The outer edge portion of the ring 16 overhangs and projects beyond the outer edge of the dished flange 5 and is provided in its under face with an annular groove or seat 18, which receives the outer edge of the flange 15 and supports the ring in place. By this arrangement an annular air chamber or passage is formed surrounding the top of the fire-pot. For admitting cold external air to this annular chamber the flange 5 is provided at the front of the stove with an outwardly and downwardly inclined lip portion 19, which is of course covered by the ring 16, the latter being provided with a series of slots or openings communicating with this lip portion of the flange, one of said openings being indicated at 20 in Fig. 2 of the drawings. Over this slotted or perforate portion of the ring is an endwise-adjustable slot or perforated damper-slide 21, which may be adjusted across the series of openings 20, so as to admit more or less air to the annular chamber.

From the foregoing description it will be understood that cold external air is designed to pass through the damper and into the annular chamber or passage surrounding the top of the fire-pot, where it is preliminarily heated, and then passes through the series of perforations 6 into the fire-pot and chemically unites with the gases set free from the burning fuel therein, so as to materially promote combustion within the fire-pot and the combustion-chamber.

It will here be noted that the openings or passages 6 are disposed at the tops of the grooves of passage 7, formed by the corrugations of the fire-pot, in order that some of the heated air may pass downwardly through said corrugations to points below the surface of the fire.

To conceal the sheet-metal shell 9, as it soon becomes discolored and unsightly, it is inclosed within perforate or open-work ornamental side sections, of which the back section 22 and front section 23 are rigidly supported between the ring 16 and the upper ring 10. The front section 23 is in the form of a frame and is provided with one or more doors, one of which has been indicated at 24 in Fig. 2 of the drawings, whereby fuel may be fed to the fire-pot. The shell 9 is of course provided with an opening 25 to register with the door 24. Each side of section 26 is mounted to swing outwardly, so as to expose the shell 9 for cleansing or repairing the same, and, as indicated in Fig. 3, it will be seen that each section is provided with upper and lower pintles or pivot-pins 27, which are adapted to fit in sockets 28 and 29, formed in the upper and lower rings 10 and 16, respectively, whereby the section may be swung outwardly. By reference to Fig. 2 of the drawings it will be seen it is preferred to arrange the hinge-pintles at the rear of one side section and at the front of the opposite

side section; but it will of course be understood that any desired arrangement of pintles may be used without departing from the present invention.

Although the present invention has been shown and described in its specific application to an ordinary barrel or magazine heating-stove, it will of course be understood that it may also be used in connection with the fire-box of a furnace.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. In a stove, the combination of a fire-pot having an annular seat at the upper edge thereof and an external dished annular flange below the seat, the fire-pot also being provided with openings leading from the flange to the interior of the fire-pot, a shell having its lower edge supported in the seat, a ring bridging the flange with its inner edge supported in the seat and its outer edge portion supported upon the outer edge of the flange, a top supported upon the upper end of the shell, and open-work side sections embracing the shell, one or more of said sections being provided with upper and lower hinge-pintles rotatably fitted in perforations in the ring and the top respectively.

2. In a stove, the combination with a body of a fire-pot provided with an annular seat in the top thereof and an external dished annular flange below the seat, said flange having an outwardly and downwardly projected lip portion, the fire-pot being provided with openings leading from the interior of the flange to the interior of the fire-pot, and an annular ring bridging the dished flange with its inner edge supported in the seat and its outer edge portion supported upon the outer edge portion of the flange, that portion of the ring which covers the lip portion of the flange being provided with openings, and an open-work damper-slide mounted upon said open portion of the ring to control the size of the openings thereof.

3. In a stove, the combination of a fire-pot having an annular seat at the upper edge thereof and an external dished annular flange below the seat, the fire-pot also being provided with openings leading from the flange to the interior of the fire-pot, a shell having its lower edge supported in the seat and forming the body of the stove, a ring bridging the flange with its inner edge supported in the seat externally of the shell and its outer edge portion supported upon the outer edge of the flange, said ring having a perforate portion, and a damper-slide mounted upon the perforate portion of the ring to control the size of the openings therein.

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In presence of—

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