No. 675,908. Patented June 11, 1901.

C. F. SCHENK.

FIRE POT.

(Application filed Oct. 26, 1900.)

(No Model.)

FIG. 1.

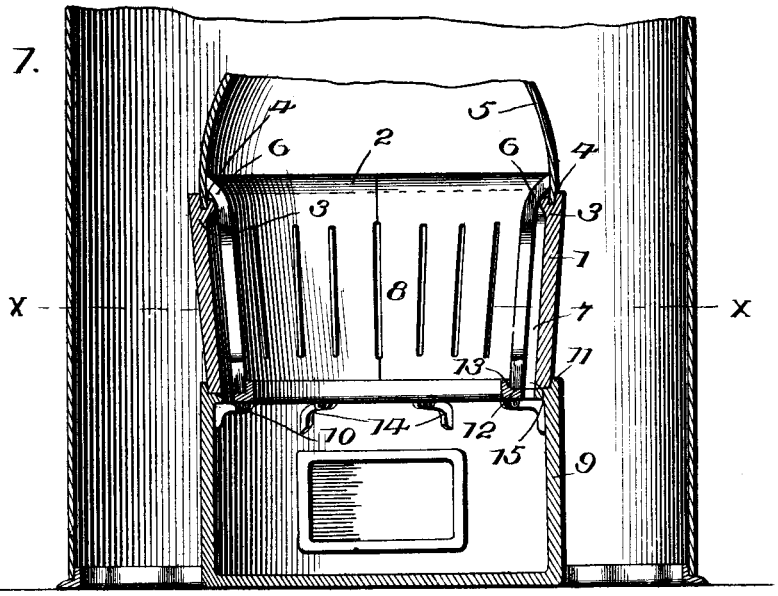



FIG. 2.

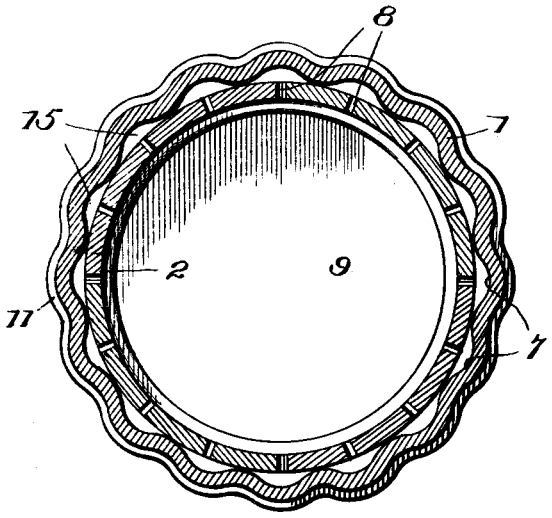
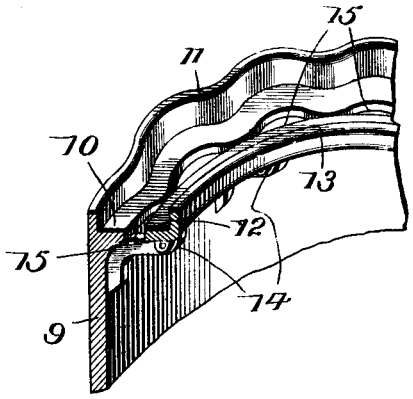



FIG. 3.

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# UNITED STATES PATENT OFFICE.

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## FIRE-POT.

SPECIFICATION forming part of Letters Patent No. 675,908, dated June 11, 1901.

Application filed October 26, 1900. Serial No. 34,489. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES F. SCHENK, a citizen of the United States, residing at New Philadelphia, in the county of Tuscarawas and State of Ohio, have invented certain new and useful Improvements in Fire-Pots; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has relation to heaters, and most especially to fire-pots therefor, the object being the provision of a fire-pot of novel construction which will admit of the consumption of any kind of cheap fuel, as slack, car-bottom, the finest coal, and coal-dust, with satisfactory results and which will burn either wood or coal with equally good effect, the inner part of the fire-pot being removable, so as to admit of this latter result.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and drawings hereto attached.

While the essential and characteristic features of the invention are necessarily susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a vertical central section of the lower portion of a heater, showing the invention in operative relation. Fig. 2 is a plan section of the complete fire-pot and base about on the line X X of Fig. 1. Fig. 3 is a fragmentary view in perspective of the upper part of the base, showing the rests for the parts comprising the fire-pot.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The invention appertains more particularly to the construction of the fire-pot and the support therefor provided at the upper end of the base or subsection of the heater and is applicable to any pattern or make of stove, furnace, or kindred heating device.

The fire-pot is composed of an outer shell or part 1 and an inner shell or part 2, separately formed and concentrically arranged and constructed with a plurality of interspaces to form air passages or ducts for the conveyance of air to the fuel to support combustion when the heater is in operation.

The outer shell or part 1 is corrugated or fluted, as shown most clearly in Fig. 2, whereby the air passages or ducts are formed in a manner presently to be described and a greater extent of feeding-surface is provided. The corrugations or flutes being formed of a combination of right and left curves angles are not present and the fire-pot can contract and expand under the influence of heat and cold without liability of fracture or other injurious results from this source. The upper edge portion of the shell 1 is thickened, as shown at 3, and this thickened part is channeled in its top side to provide a seat 4 for the reception of the superstructure 5, forming the combustion-chamber. The corrugations or flutes of the shell 1 are vertically arranged and in parallel relation, and their upper ends merge into the opposite sides of the thickened portion 3, the outer and inner edges of which are formed on continuous circles.

The inner shell or part 2 may be composed of a single casting or any number of sections, the latter construction being preferred, as it admits of the shell 2 being placed in position or removed through the door in the base leading to the ash-pit or through the feed-door in combustion-chamber, thereby facilitating repairs when the latter become necessary. The upper edge portion of the shell or part 2 flares or curves outwardly, as shown at 6, and meets the inner wall of the part 5 and overhangs the inner wall of the seat 4 and protects the joint between the fire-pot and combustion-chamber at point 4. This formation of the upper part of the shell 2 avoids an abrupt shoulder or ledge for the lodgment of ashes, fuel, or other matter which is objectionable. The outer wall of the shell 2 touches the innermost elements of the curves, flutes, or corrugations of the shell 1, whereby the independent passages or ducts 7 are formed. Openings or slots 8 are formed in the shell or part 2 so as to register with each of the air-passages 7, and these openings or slots 8 are disposed so as to come about central of the passages 7

when the component parts of the fire-pot are properly assembled. The openings 8 may be of any character so long as they establish communication between the interior of the fire-pot and the respective air-passages 7, so as to admit air to the sides of the fuel when the heater is in operation. The air-passages 7 are closed at their upper ends by the inner annular extension forming the thickened portion 3 at the upper end of the shell 1, and their lower ends are open and communicate with the ash-pit, so as to permit the free circulation of air through the fuel at the sides independent of the air supplied to the grate.

The base 9 is provided at its upper end with a rest 10 and a vertical flange 11, said rest and flange conforming to the serpentine outline of the shell 1, which is supported thereon. The vertical flange 11 overlaps the outer side of the part 1 and prevents the outward displacement thereof. A rest 12, of ring form, is located adjacent to the rest 10 and forms a support for the shell or part 2 and is provided at its inner edge with a vertical flange 13 to overlap the inner side of the part 2 and prevent inward displacement thereof. The rest 12 is supported from the base 9 by means of brackets or lugs 14, formed with or bolted to said base. The manner of supporting the rest 12 is immaterial, and any construction may be resorted to for the attainment of this end. The inner and outer edges of the rest 12 conform to the outline of the shell or part 2—that is, they are continuous and not waving or curved in and out, as the corresponding edges of the rest 10. As a result of this construction spaces 15 are formed at regular intervals between the opposing edges of the rests 10 and 12, and these spaces 15 correspond in number and position with the passages or ducts 7, with which they are in coincident relation.

The rest 12 may be one piece or formed of as many sections as may be necessary to admit of its being passed through a small feed-door when placing it in position or removing it for any cause.

Having thus described the invention, what is claimed as new is—

1. A fire-pot comprising a shell corrugated or fluted and having its upper edge portion thickened and curved or channeled in its top side to provide a seat to receive the upper section forming the combustion-chamber, and an inner shell having its outer wall touching the innermost elements of the corrugations or flutes of the outer shell to form a plurality of air-passages and having openings in communication with the air-passages and having its upper portion outwardly flared or curved to overhang the inner wall of the seat provided at the upper edge of the outer shell, substantially as set forth.

2. In a heater, a base provided at its upper end with a seat and an outer vertical flange, the edges of each being correspondingly corrugated or fluted, a second seat supported concentric with the first-mentioned seat and having an inner vertical flange and touching the innermost elements of the corrugations of the first-mentioned seat to form a plurality of spaces, an outer shell corrugated or fluted and supported upon the outer seat and thickened at its upper end and channeled to form a seat for the reception of the adjacent upper section of the heater, and an inner shell supported upon the inner seat and provided with openings in communication with the several passages formed by the corrugations or flutes of the outer shell and having its upper edge portion flared or outwardly curved to overhang the inner wall of the seat formed at the outer end of the upper shell, as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES F. SCHENK. [L. S.]

Witnesses:

WILBERT G. WISE,

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