

No. 734,401.

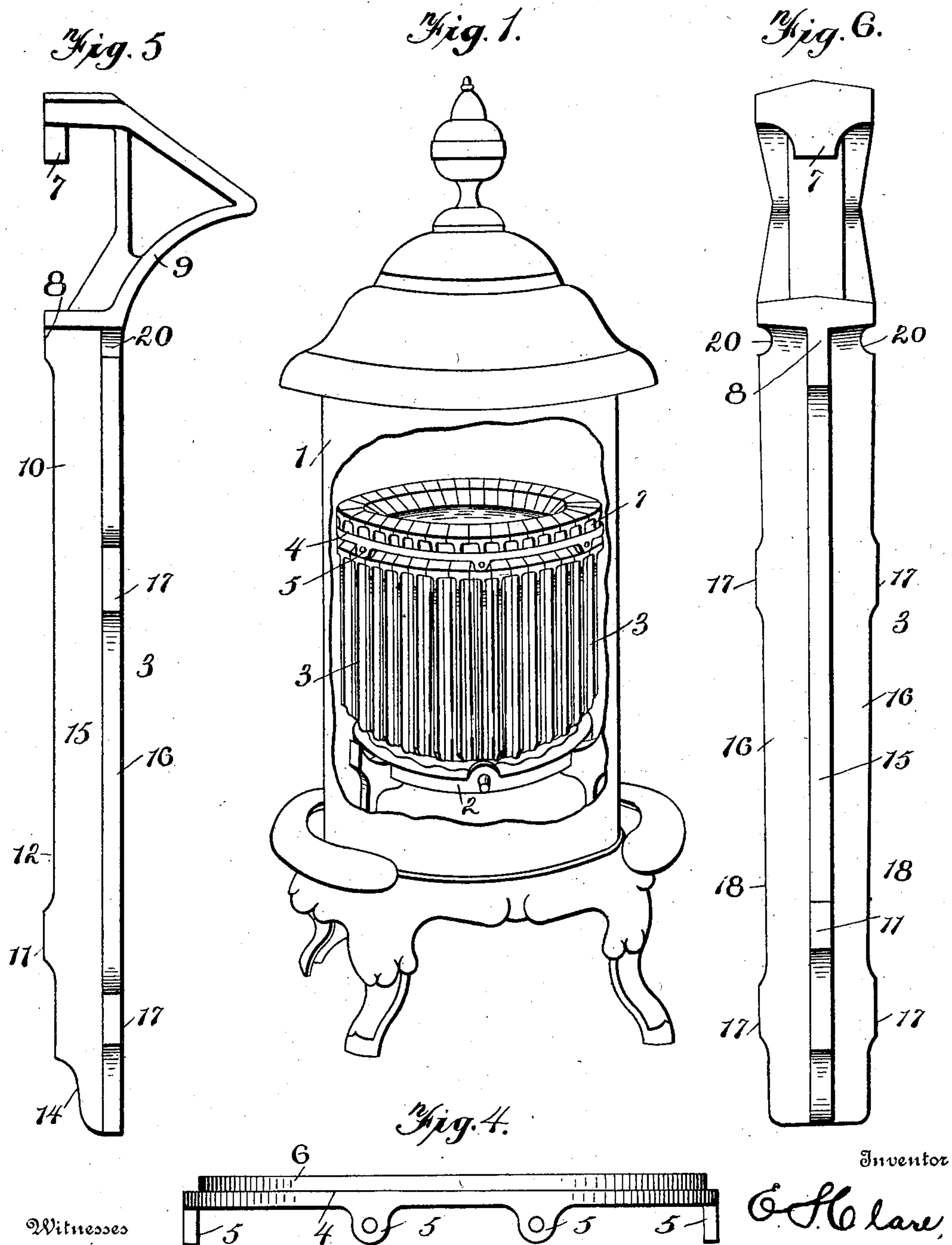
PATENTED JULY 21, 1903.

E. S. CLARE.
FIRE POT.

APPLICATION FILED NOV. 13, 1901.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses

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By

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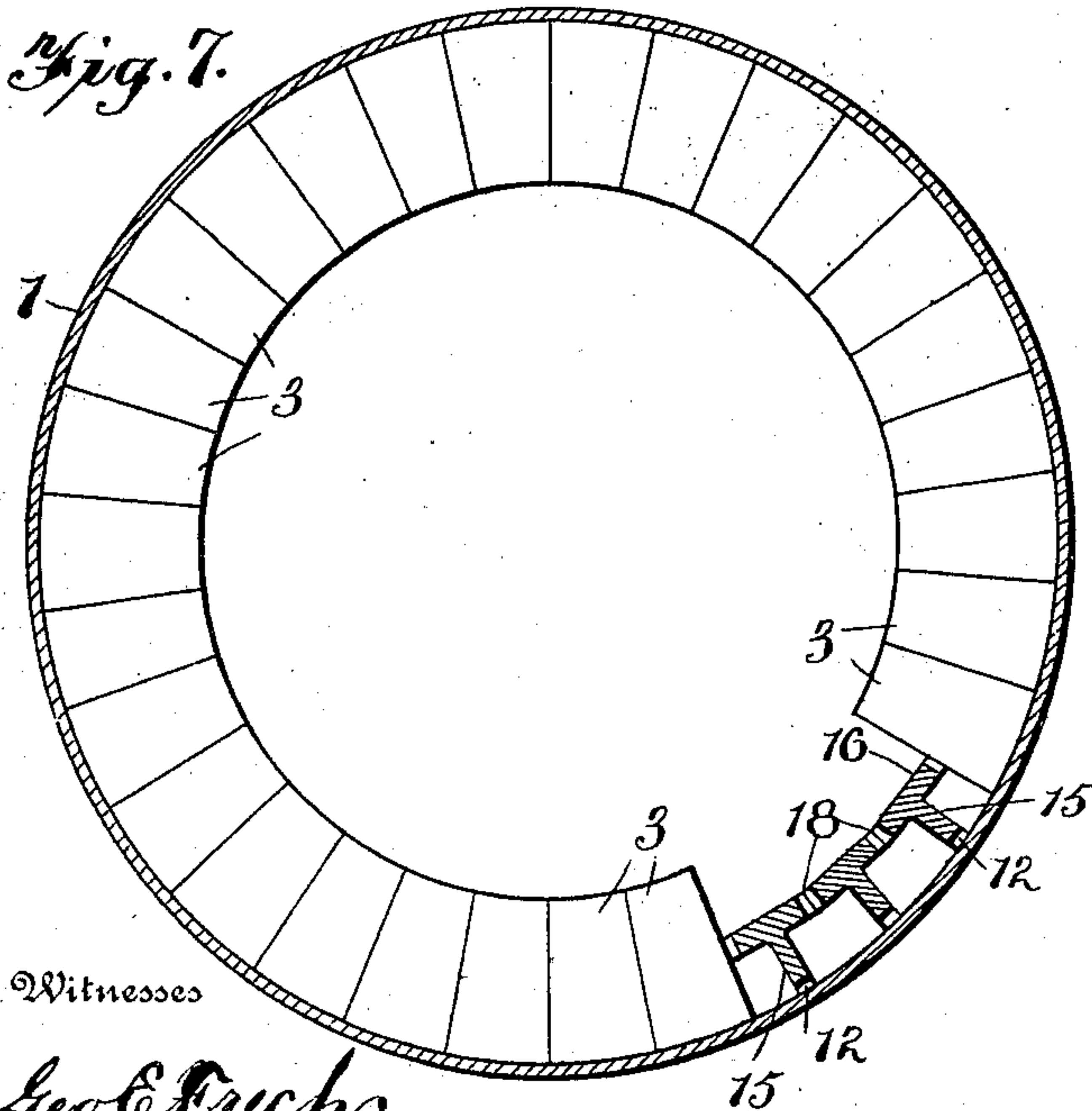
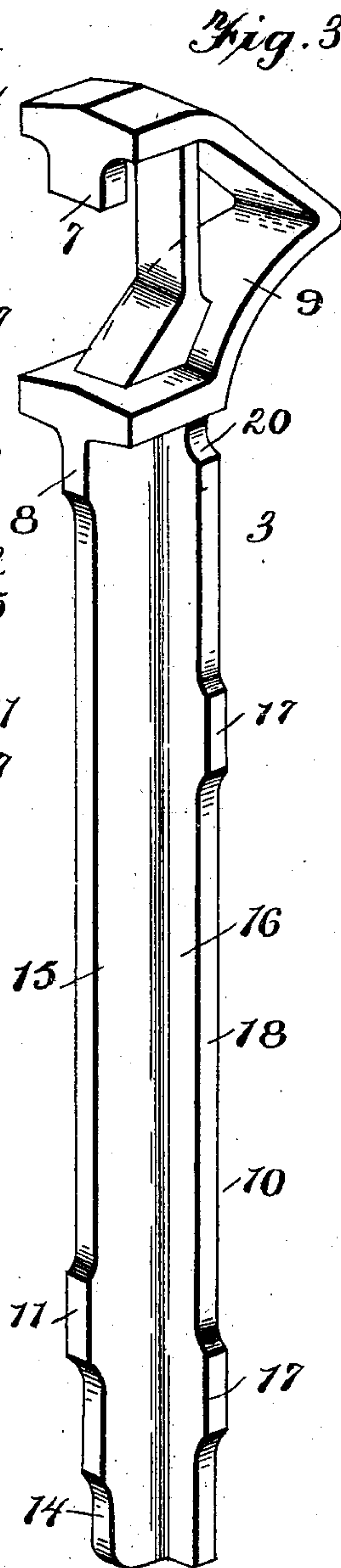
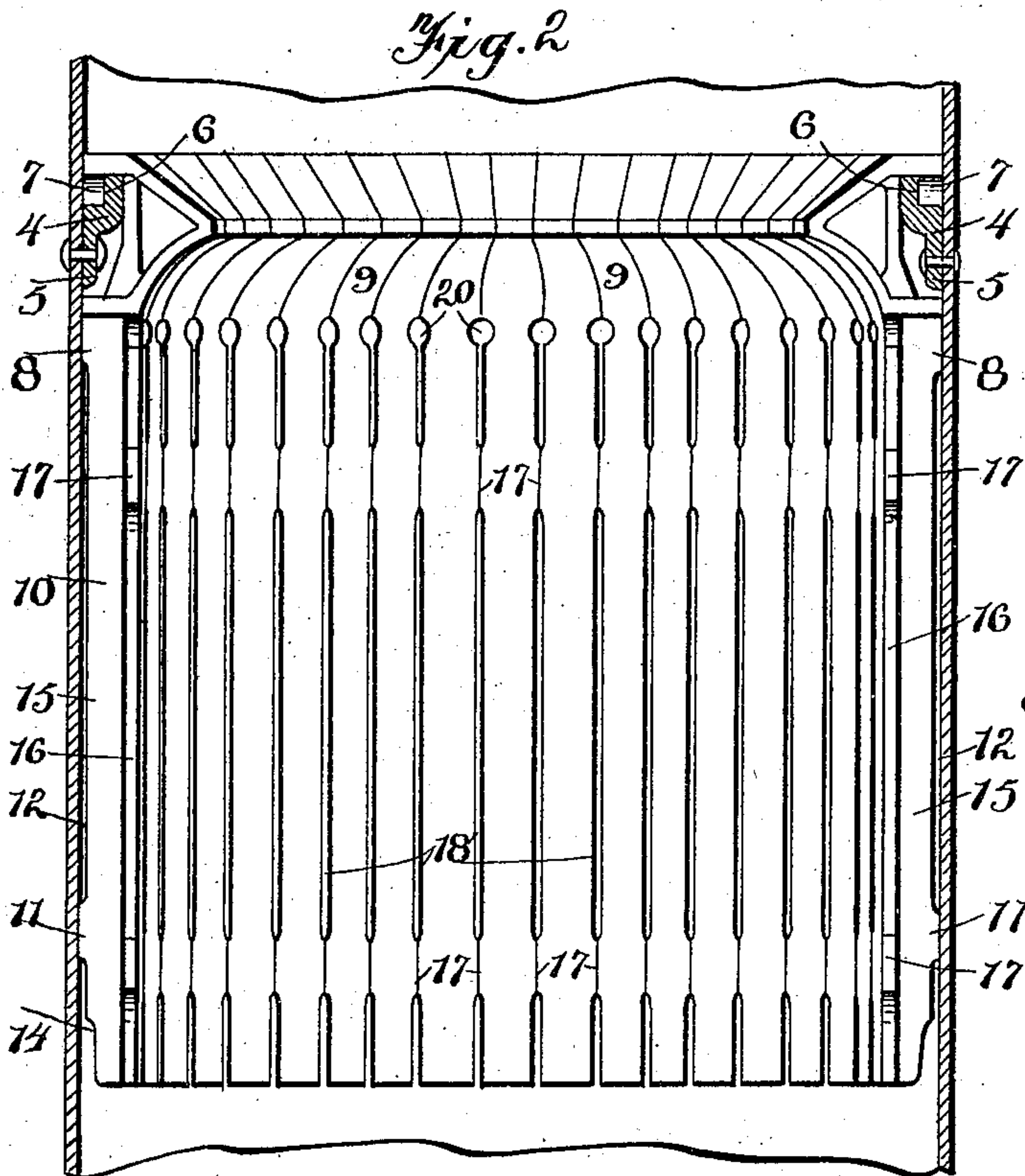
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UNITED STATES PATENT OFFICE.

EARL S. CLARE, OF PORTSMOUTH, OHIO.

FIRE-POT.

SPECIFICATION forming part of Letters Patent No. 734,401, dated July 21, 1903.

Application filed November 13, 1901. Serial No. 82,100. (No model.)

To all whom it may concern:

Be it known that I, EARL S. CLARE, a citizen of the United States, residing at Portsmouth, in the county of Scioto and State of Ohio, have invented new and useful Improvements in Fire-Pots, of which the following is a specification.

My invention relates to improvements in fire-pots, and pertains to an improved fire-pot composed of a plurality of comparatively narrow vertical sections constructed substantially as hereinafter shown and described and for the purpose set forth.

The object of my invention is to provide an improved fire-pot composed of a plurality of comparatively narrow vertical sections so supported that they can be removed without dismantling the stove or removing a single bolt, and in which the air is taken in at the draft-door and circulated around the fire-pot and passed into the fire between the sections, coking the fuel toward the center of the fire-pot and also permitting a passage of air between the sections at a point above the fuel, whereby all of the smoke and gas is consumed, owing to perfect combustion, and an exceedingly long-lived fire-pot is produced.

In the accompanying drawings, Figure 1 is a perspective view of a stove, the outer case being broken away and showing an exterior perspective view of my improved fire-pot. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a detached perspective view of one of the fire-pot sections. Fig. 4 is a detached view of the suspending-ring. Fig. 5 is a side elevation of one of the fire-pot sections. Fig. 6 is a rear elevation of one of the fire-pot sections.

Referring now to the drawings, 1 indicates the steel body or casing of the stove.

2 is any desired form of grate, and which forms no part of my present invention.

My invention pertains to the fire-pot, which consists of a plurality of comparatively narrow vertical separate sections 3, and these sections 3 are suspended upon a suspending-ring 4, the said ring being provided with a suitable number of depending lugs 5, by means of which the ring is riveted to the steel body or casing of the stove, as indicated in Fig. 2. This ring 4 is provided with an upwardly-projecting flange or hook portion 6,

serving as means upon which to suspend the said sections 3.

My improved sections have their upper ends provided with a suitable hook portion 7, adapted to embrace or engage the said flange 6 of the ring 4. These sections, at a point just below the hook portion 7, are provided with a flange or projection 8, the outer edge of which is in a line with the outer edge or side of the hook 7. These flanges or projections 8 rest against the inner side of the steel body or casing 1 of the stove, which, together with the ring and the hook portion, serves to suspend the sections 3, which constitute my improved fire-pot. The upper ends of these sections are provided with the inwardly-curved or arched portions 9, which serve to contract the upper end of the fire-pot and are instrumental in producing better results in the way of perfect combustion and heat radiation. The stems or body portions 10 of the said sections 3 extend down along the inner side of the steel body or casing 1 and are preferably, though not necessarily, provided with a projection 11 near their lower end, similar somewhat to the projection 8 at the upper portion thereof, the said projection 11 resting against the inner side of the steel body. Between the projections 8 and 11 the stems of the sections are slightly cut out to form an air-space 12 between the cut-out portion of the sections and the inner side of the body or casing 1. Also, preferably, the lower extremity below the projection 11 of the stems 10 is cut out still deeper, as shown at 14, for the purpose of forming a comparatively larger space between the lower ends of the sections and the inner side of the casing or body of the stove, and thereby a comparatively larger air-circulating air-space. The space 12 serves to form an air circulation entirely around between the stem portions of the sections and the inner side of the stove. As shown, the stems 10 of these sections are T-shaped in cross-section, and the laterally-extending portions of the T are in engagement, whereby two of the sections serve to constitute a vertical air-space between the outwardly-extending fins or flanges 15 of the stems, as will be readily understood.

By reference to the drawings it will be noticed that the laterally-extending portions or

inner flanges 16 of the stem portions of the sections are provided with lugs 17, serving to form air-passages 18 therebetween and establishing communication between the vertical passages formed by the fins or flanges 15, thus establishing a free circulation of air between the said sections and the air spaces or passages to the body of the fire or fuel located within the pot.

For the purpose of feeding an increased quantity of air at a point directly above the fuel and thereby establishing perfect combustion and a complete burning of the gases and smoke from the fuel I provide the lateral flanges 16 of stems of the sections just below the projection 8 with recesses or notches 20, which serve to form (when the sections are placed side by side, as shown in Fig. 2) circular openings through which air passes to the fire-pot directly above the flame and commingles with the smoke and gases, establishing, as before stated, perfect combustion and an absolute burning of all of the escaping gases and smoke.

Air for supplying combustion enters the draft-door stove (not here shown) and is circulated around the fire-pot and passes through the air-passages, as before stated, which serves to coke the fuel toward the center of the fire-pot and to establish perfect combustion at a point above the fuel. This construction produces a fire-pot which is exceedingly long-lived and is absolutely proof against fire-crack.

The construction here shown is also exceedingly simple in the construction of the fire-pot and enables the fire-pot to be removed or to be placed in position without in the slightest manner dismantling the stove or removing a single bolt. It will be noticed that the sections constituting the fire-pot are suspended solely upon the suspension-ring 4 and are not

in any sense supported by the grate or the grate-ring located therebelow.

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

1. An improved fire-pot comprising a plurality of vertically-arranged sections practically T-shaped throughout their entire length, and arranged side by side forming enlarged vertically-arranged air-spaces, the laterally-extending members of said T-shaped member forming the inner walls of said air-spaces and said laterally-extending members having cut-away portions forming relatively restricted vertical air-passages communicating with said air-spaces, supporting-hooks carried by the upper ends of said sections, and transverse blocks below said hooks and closing the upper ends of said vertically-arranged air-spaces, substantially as described.

2. An improved fire-pot comprising a plurality of vertically-arranged sections practically T-shaped throughout their entire length and forming enlarged air-spaces therebetween, lugs carried by the laterally-extending flanges to form longitudinal openings therebetween, transverse blocks carried by the upper ends of said sections closing the upper ends of said spaces, said sections having enlarged openings below said blocks, and hooks carried by said sections above said transverse blocks, whereby they are supported within the casing, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

EARL S. CLARE.

Witnesses:

A. F. BERTRAM,
W. KENNEY, Jr.