

No. 688,051.

Patented Dec. 3, 1901.

F. O. ADAMS & A. DONALDSON.
HEATING STOVE.

(Application filed Mar. 16, 1901.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

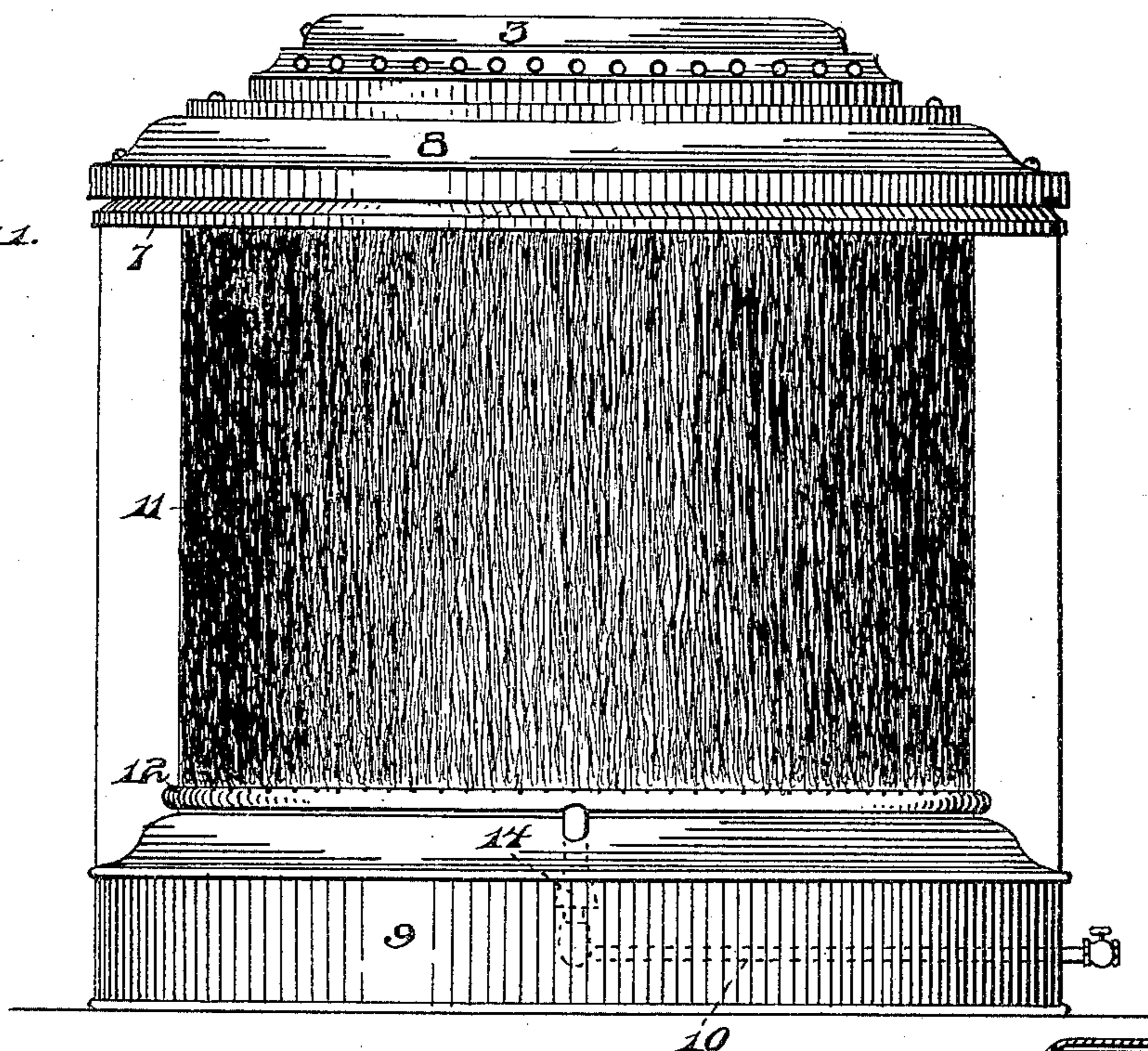


Fig. 2.

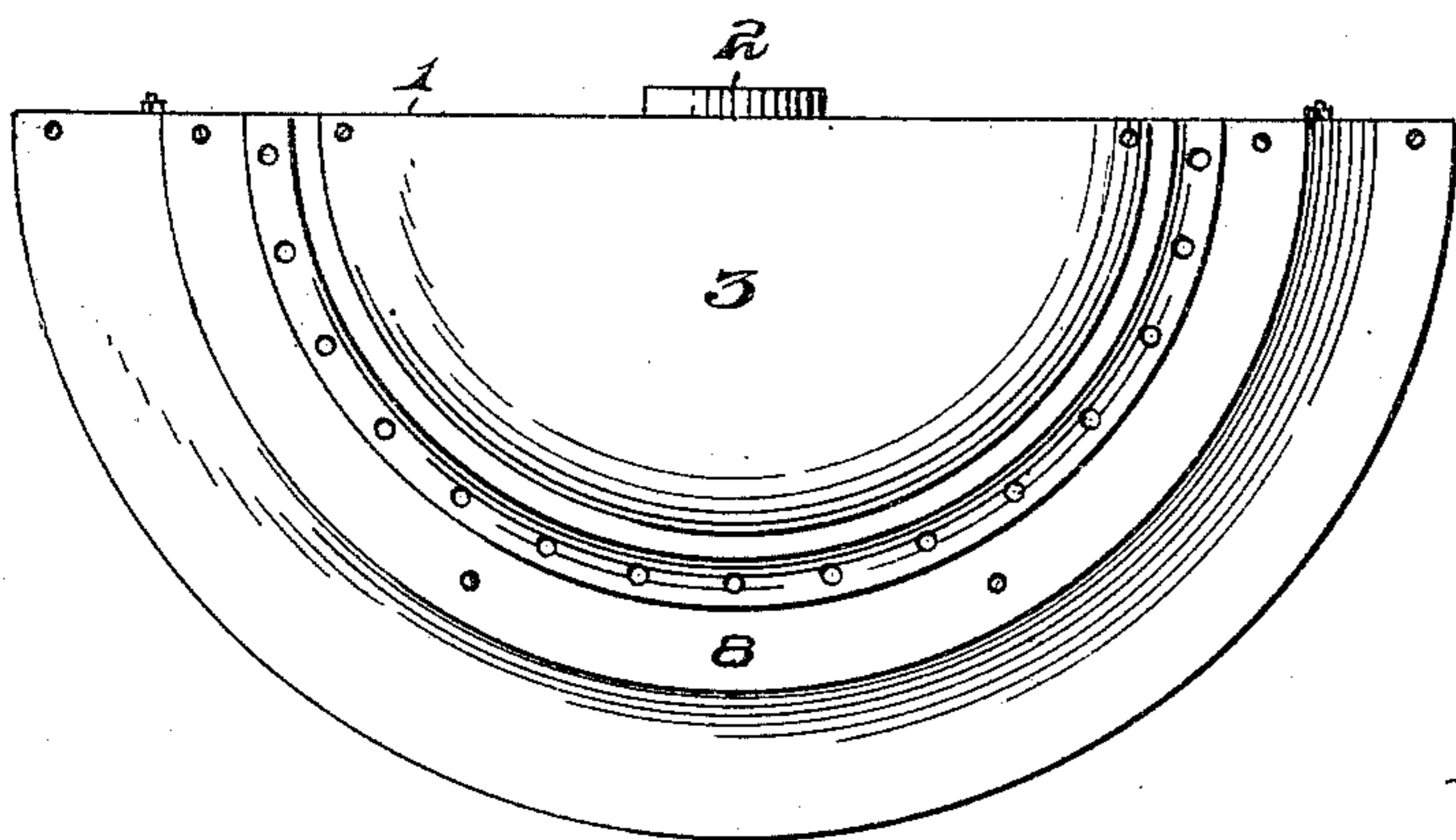
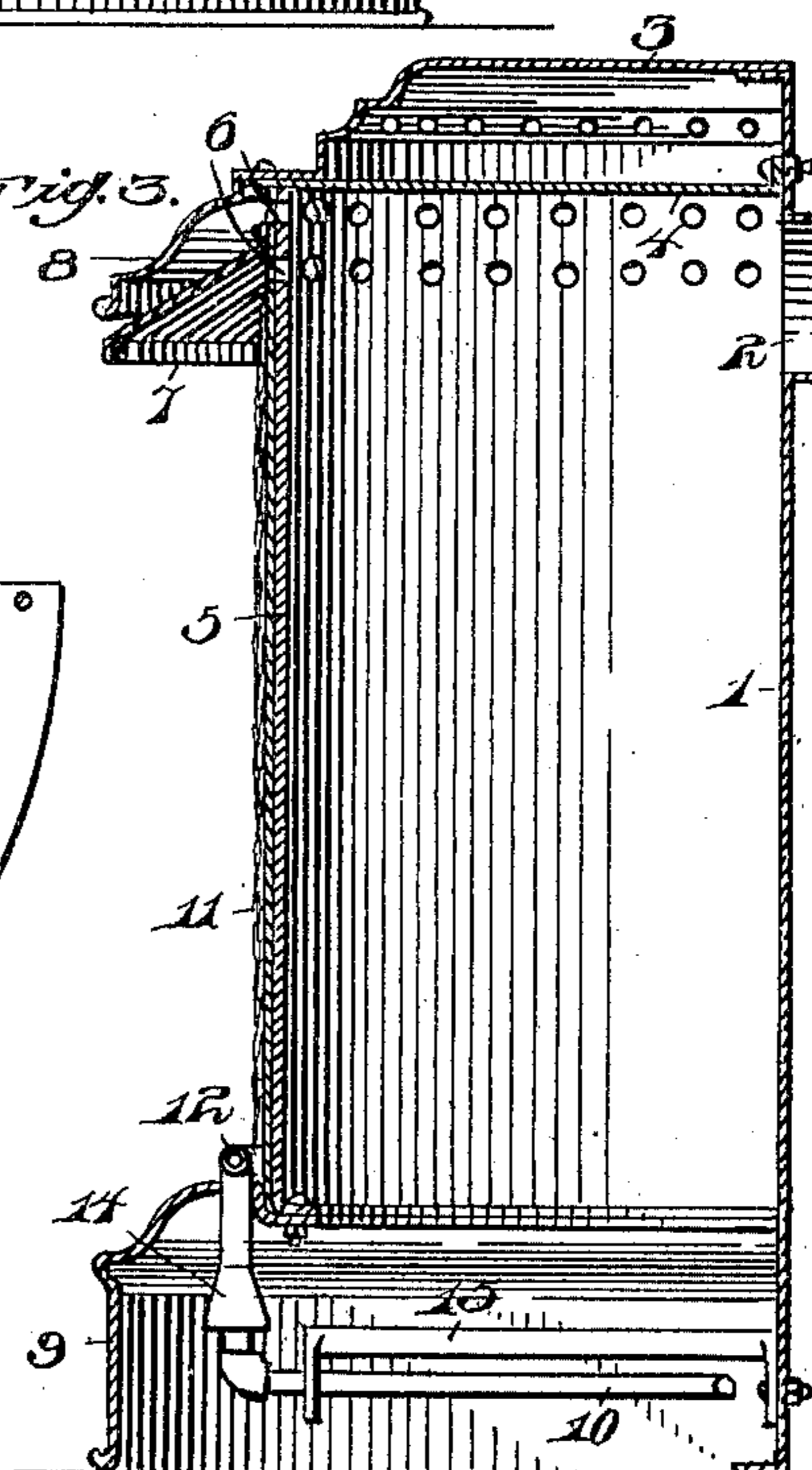


Fig. 3.



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Fig. 4.

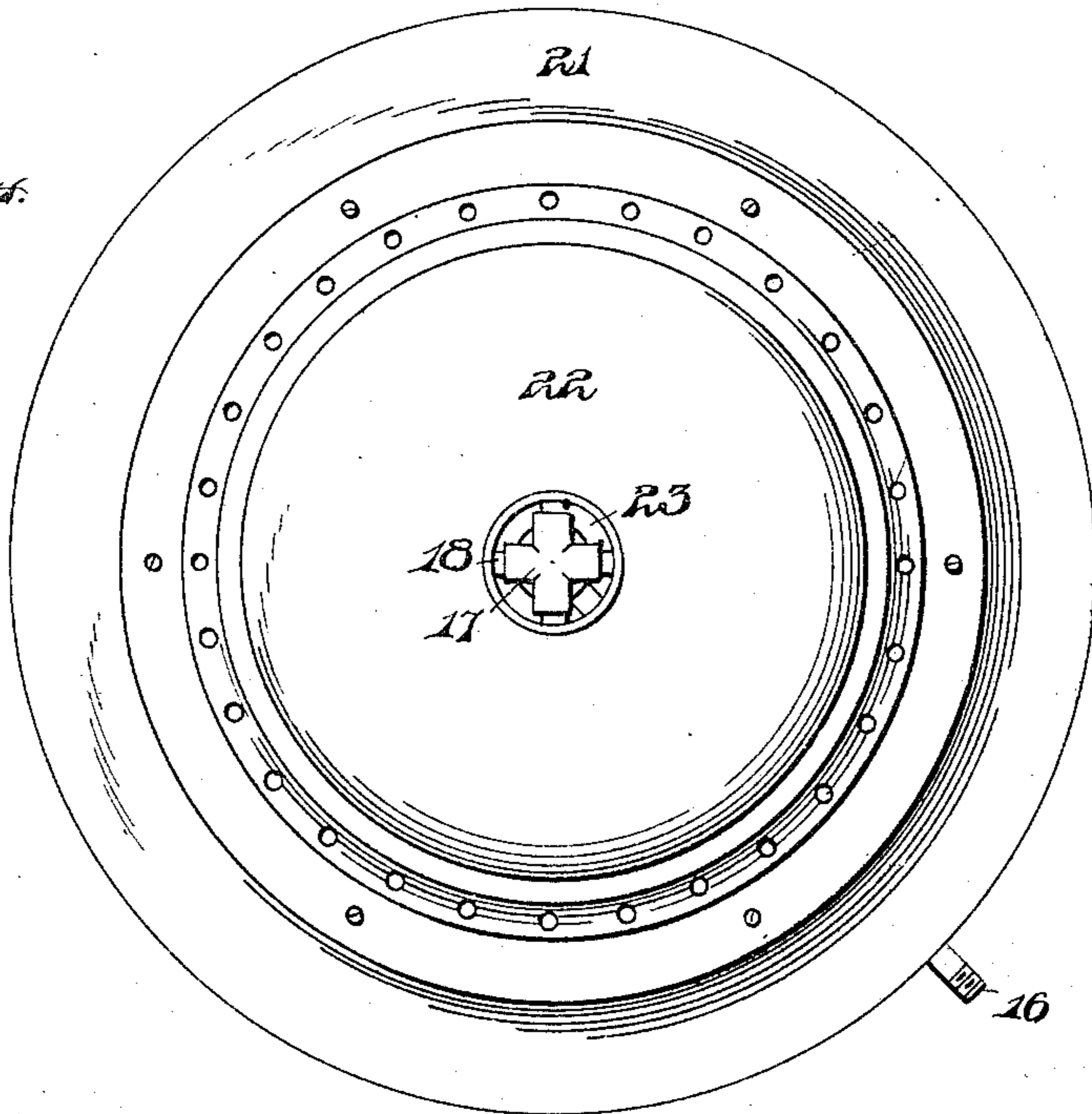
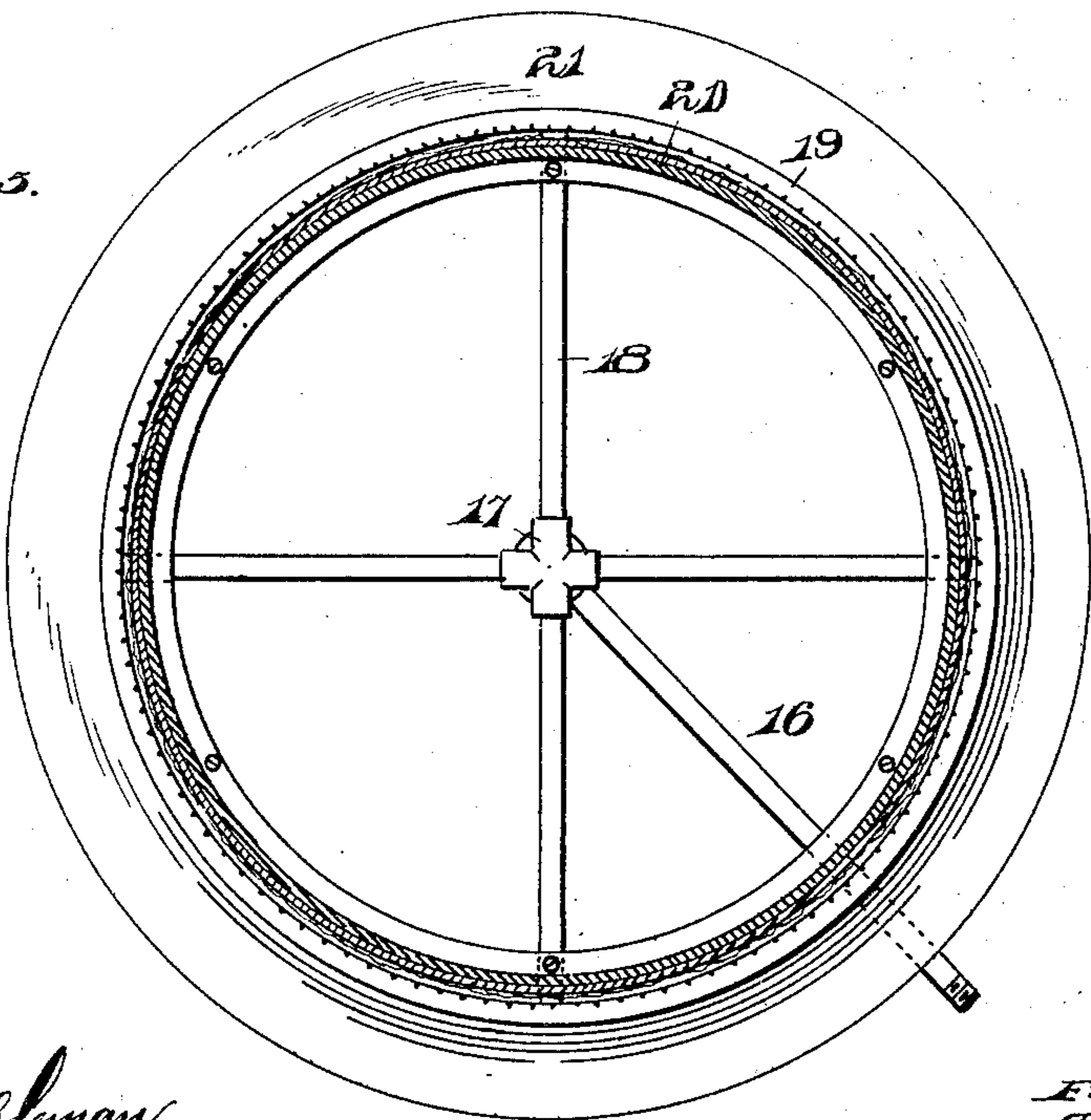


Fig. 5.



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UNITED STATES PATENT OFFICE.

FRIEDRICH O. ADAMS AND ALFRED DONALDSON, OF ALLEGHENY,
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HEATING-STOVE.

SPECIFICATION forming part of Letters Patent No. 688,051, dated December 3, 1901.

Application filed March 16, 1901. Serial No. 51,494. (No model.)

To all whom it may concern:

Be it known that we, FRIEDRICH O. ADAMS and ALFRED DONALDSON, citizens of the United States of America, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Heating-Stoves, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in gas-stoves, and has for its object to simplify the construction of stoves of this type and at the same time obtain efficient results by providing a materially-increased heating-surface upon which the flame from the burner is projected, the heating-surface being so arranged that the heat will be projected outwardly from the sides of the stoves as well as from the front thereof.

In the accompanying drawings, Figure 1 is a front elevation of our improved stove. Fig. 2 is a top plan view of the same. Fig. 3 is a transverse vertical sectional view. Fig. 4 is a top plan view of a modified form of construction. Fig. 5 is a horizontal sectional view of the same.

In the present illustration, while Figs. 1, 2, and 3 are of a form substantially semicircular in shape, and Figs. 4 and 5 are substantially circular in shape, yet the showing made in Figs. 4 and 5 will be used herein to illustrate the manner of manufacturing the stove in accordance with the showing made in Figs. 1, 2, and 3. In this showing of Figs. 1, 2, and 3 the reference-numeral 1 indicates the back plate, provided with a flue 2. This back plate when the stove is placed in the open-grate front forms a closure for said grate-front. This rear or back plate 1 is provided both at its upper and lower ends with an inturned flange, the flange at the lower end of the plate forming a support or rest therefor and the flange at the upper end of the plate forming a support or rest for the substantially semicircular crown 3. The back plate has bolted thereto a top plate 4, which at its forward end rests on the upper end of the substantially semicircular fire-plate 5, the latter being provided near its up-

per end with two rows of openings 6. The upper row of perforations 6 are provided to merely take in any fumes that may be in the room. The lower hood being subjected to the direct action of the heat will most naturally tarnish; but the upper hood being located away from the lower one will hide the lower one from view and will not itself become tarnished. Therefore it will be seen that the upper row of perforations create a draft between the two hoods and take in any fumes which may be in the room. Secured to the fire-plate, near the upper end thereof and in the position shown as to inclose the lower row of openings 6, is an inclined deflector 7, and an ordinary hood 8 is carried by the crown 3, which lies a slight distance above the deflector 7 and incloses the upper row of openings 6. The deflector 7 serves to protect the ornamental hood 8 from becoming heated by the direct action of the flame on the asbestos fire-front. The front base-piece 9, also substantially semicircular in shape, is secured by bolting, riveting, or other suitable means to the lower end of the fire-plate 5. This fire-plate 5 is provided on its outer face with a covering 11, of asbestos or like material, the purpose of which is well known in the art. The gas-supply pipe 10 may be led in through the back plate or through the front base-plate 9, as the occasion may require, and is extended upwardly through the top of the front base-plate centrally of its length and directly in front of the fire-plate 5, at the lower edge thereof, where it is connected to the substantially semicircular burner 12. The supply-pipe 10 is connected to a suitable mixer 14, and in Fig. 3 a bracket 15 is shown supporting the gas-pipe, so as to relieve the burner 12.

In Figs. 4 and 5 we show a substantially circular form of stove, the supply-pipe 16 being connected to the four-way mixer 17, with which connects branches 18, which lead to the circular burner 19. This circular burner 19 is arranged around the cylindrical fire-plate 20, which plate carries on its outer face asbestos or other like material, the burner lying directly above the circular front base 21. In this construction of stove the sub-

stantially circular crown 22 will have the flue 23 central thereof, as will be apparent.

While Figs. 4 and 5 have been heretofore referred to as illustrating modifications, attention should be called to the fact that they also clearly show the stove as it appears when stamped from metal subsequent to its separation in equal halves, forming the stove as shown in Figs. 1, 2, and 3.

In the manufacture of the substantially semicircular stove, as shown in Figs. 1, 2, and 3, we form the crown, the fire-plate, and the front base-piece all substantially circular and then divide the same into two equal halves, thus forming material for two stoves. By this means we are enabled to materially decrease the cost of stoves of this type. Where the stove is employed, however, for use in a room at some distance from the flue or chimney, we may employ the circular form, the front piece thereof forming a foot-rail, as will be apparent. This foot-rail effect is also obtained with the construction shown in Figs. 1, 2, and 3 of the semicircular construction.

The gas being ignited at the base of the fire-plate, the heat is thrown off into the room previous to reaching the deflector 7, such fumes, however, and unburned gases as escape being carried through the rows of openings 6 into the stove and through the flue or outlet. It will thus be seen that our improved gas-stove is cheap and simple in construction, containing few parts, and will give great heat therefrom. On account of the peculiar construction of the burner the flame will be a continual and solid mass over the face of the fire-plate, the asbestos or like material with which this plate is covered giving an incandescent effect to said flame.

Having thus fully described our invention,

what we claim as new, and desire to secure by Letters Patent, is—

1. In gas-stoves, a substantially semicircular base-front, a back plate provided with a flange at its upper and lower ends, said back plate having a flue near the upper end thereof, a top plate secured to said back plate, a substantially semicircular fire-plate, the said plate having a series of perforations formed near the top thereof, a deflector secured above the said perforations to the fire-plate on the exterior thereof, a substantially semicircular crown, a hood carried thereby, the said crown adapted to rest on the said upper flange of the back plate and be bolted thereto, and a semicircular burner arranged at the base of the fire-plate on the exterior thereof, and a covering of asbestos or like material for said fire-plate, substantially as described.

2. In gas-stoves, a base-piece, a back plate provided with a flange at its upper and lower ends, said back plate having a flue near its upper end, a fire-plate having a double row of perforations near the top thereof, a top plate secured to the back plate and the upper end of said fire-plate, a deflector secured on the exterior of said fire-plate between the rows of perforations, a crown secured to the upper flange of the back plate and to the top plate, a hood carried by the crown, and a burner arranged at the base of the fire-plate on the exterior thereof, substantially as described.

In testimony whereof we affix our signatures in the presence of two witnesses.

FRIEDRICH O. ADAMS.
ALFRED DONALDSON.

Witnesses:

JOHN NOLAND,
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