

OIL BURNER ATTACHMENT FOR STOVES.

APPLICATION FILED APR. 16, 1910.

976,626.

Patented Nov. 22, 1910.

2 SHEETS—SHEET 1.

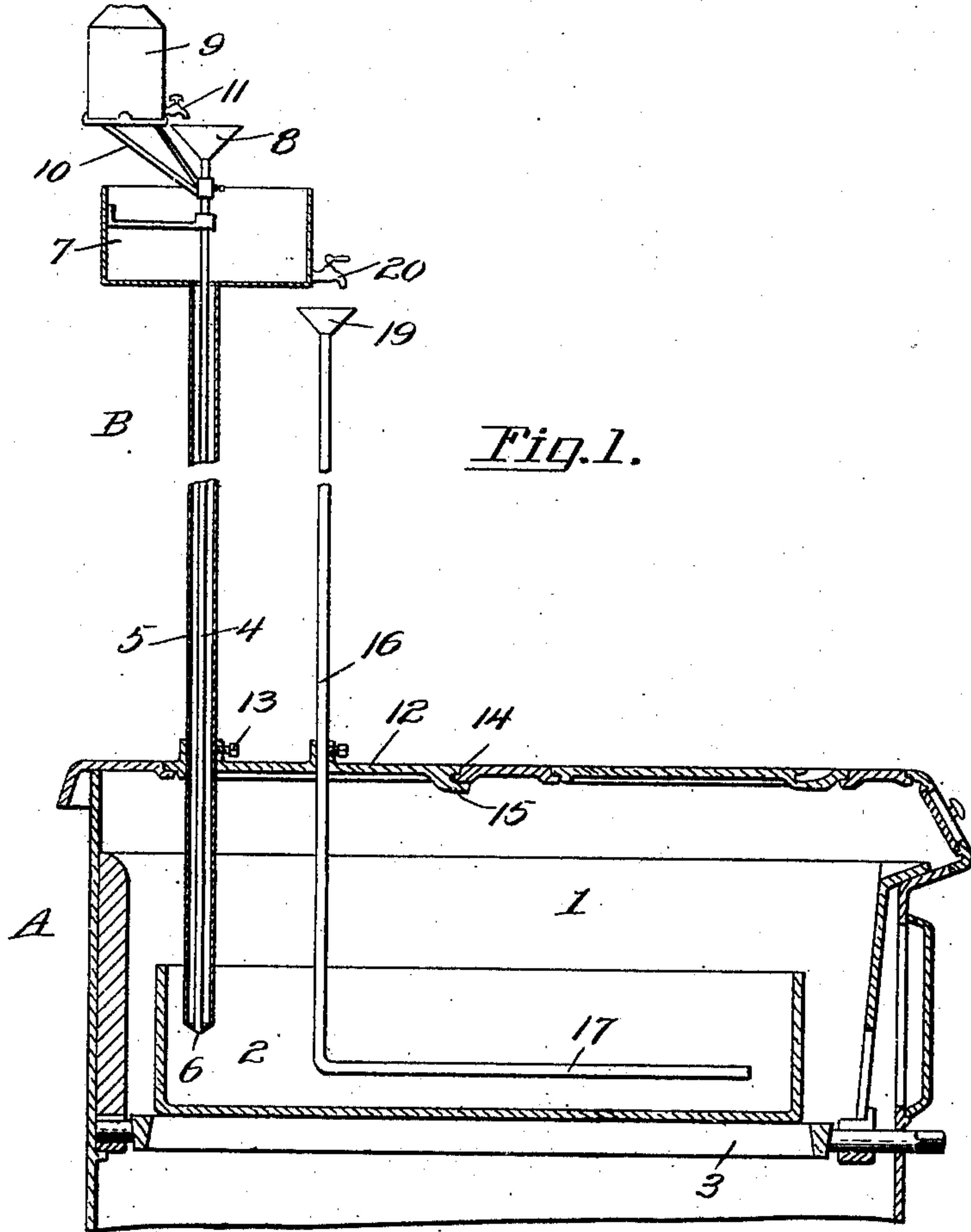
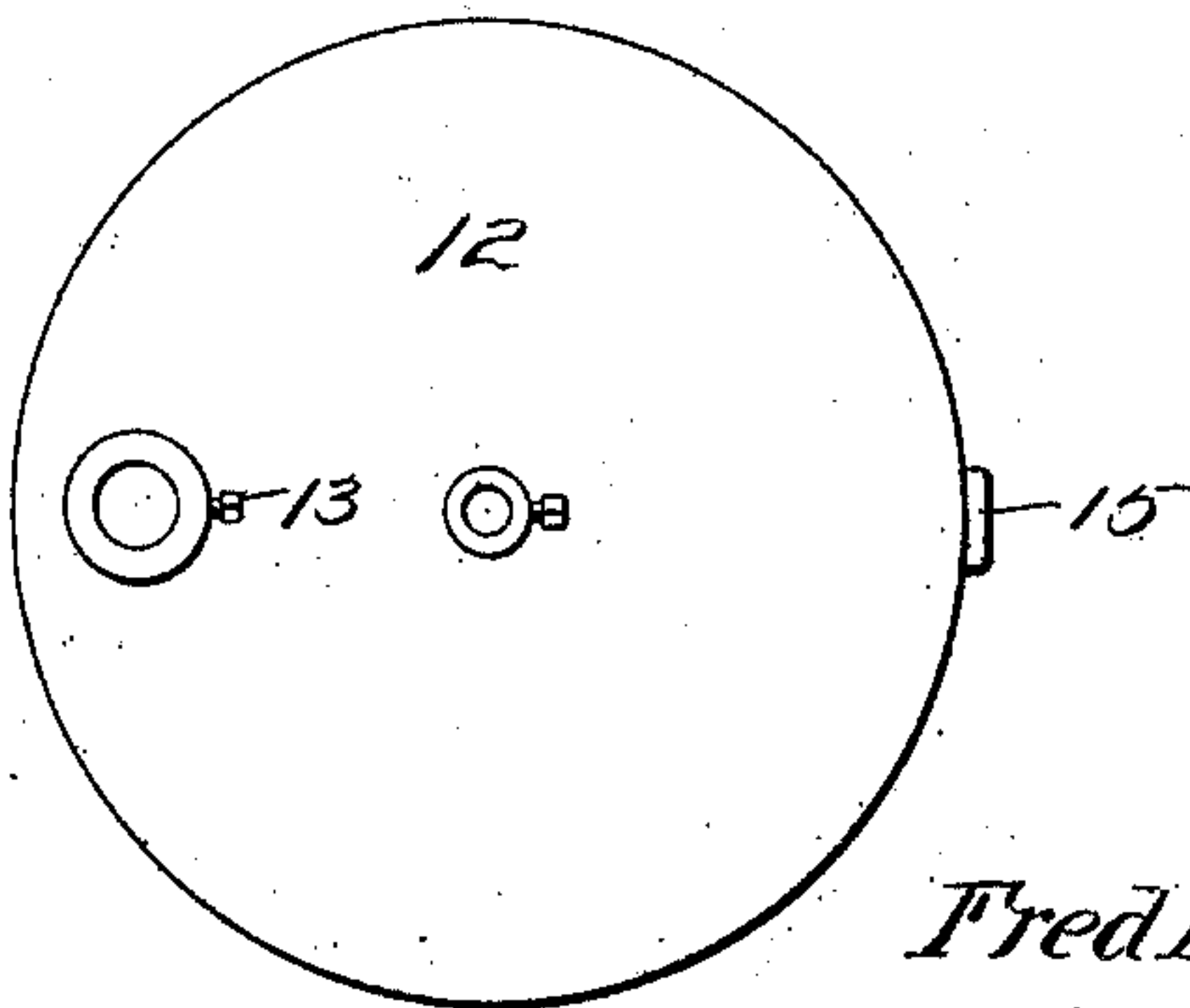


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

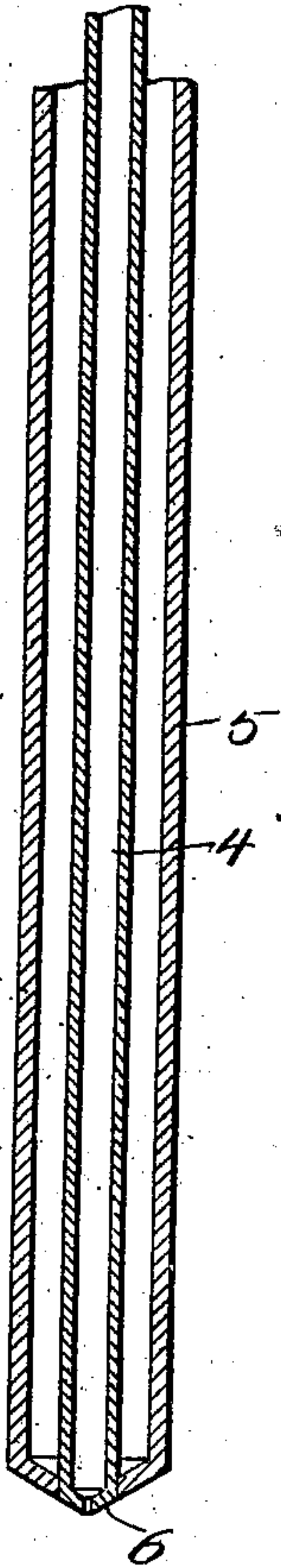


Fig. 4.

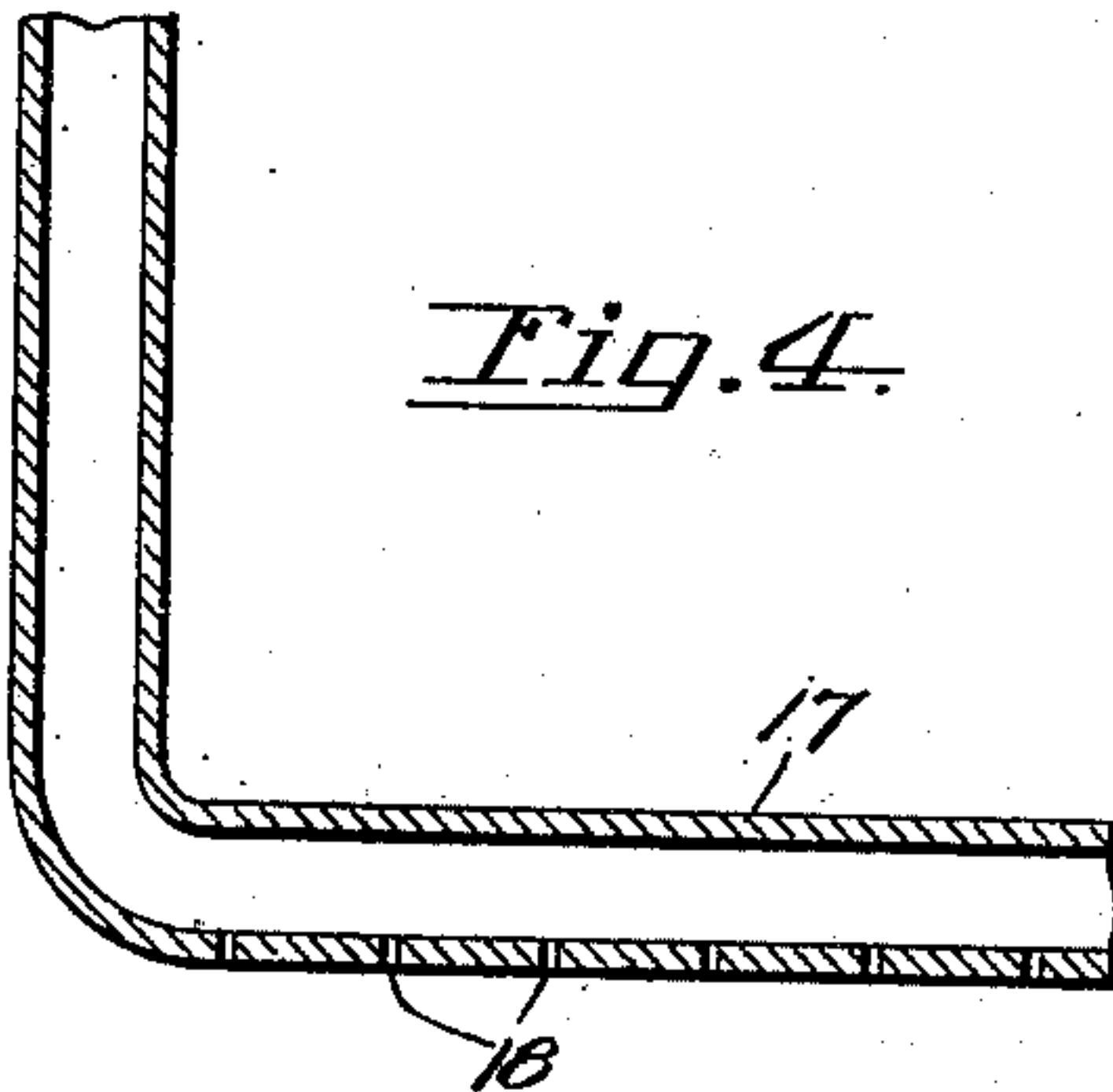
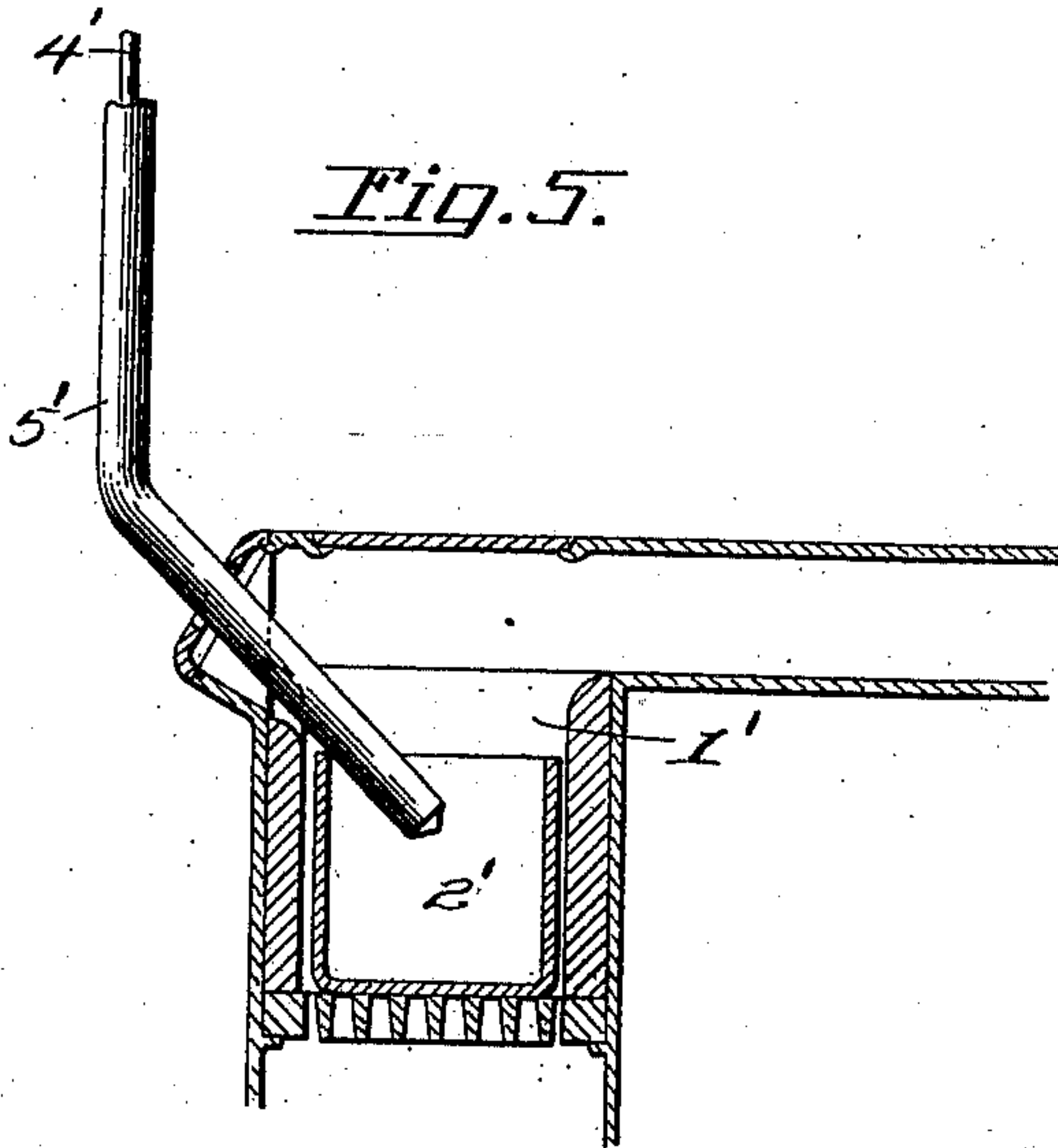


Fig. 5.



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UNITED STATES PATENT OFFICE.

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OIL-BURNER ATTACHMENT FOR STOVES.

976,626.

Specification of Letters Patent.

Patented Nov. 22, 1910.

Application filed April 16, 1910. Serial No. 555,803.

To all whom it may concern:

Be it known that I, FREDERICK P. BEUCLER, a citizen of the United States, residing at Apache, in the county of Caddo and State of Oklahoma, have invented new and useful Improvements in Oil-Burner Attachments for Stoves, of which the following is a specification.

This invention relates to stoves and furnaces and more particularly to a burner attachment designed for the use of liquid hydrocarbons, such as crude-oil, kerosene, and the like.

The invention has for one of its objects to improve and simplify the construction and operation of devices of this character so as to be comparatively simple and inexpensive to manufacture, reliable and efficient in use, and so designed as to operate with the maximum safety.

Another object of the invention is the provision of means for protecting the oil-supply pipe from excessive heat by surrounding such pipe with water in a novel manner.

Another object of the invention is the provision of an oil-burning attachment for stoves including means for supplying water in suitable quantities to the burning oil for promoting combustion and reducing to a minimum the generating of soot.

With these objects in view, and others as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawings, which illustrate one embodiment of the invention:—Figure 1 is a sectional view of a kitchen stove showing the attachment applied thereto, the attachment being supported by one of the plates of the stove top. Fig. 2 is a plan view of the attachment supporting plate. Fig. 3 is a detail sectional view of the oil discharging nozzle or pipe. Fig. 4 is a fragmentary sectional view of the water supplying pipe arranged in the fire box of the stove. Fig. 5 is a modified form of attachment.

Similar reference characters are employed to designate corresponding parts throughout the several views.

Referring to the drawing, A designates a stove of any approved type and B the oil

burner attachment therefor. Arranged in the combustion chamber 1 of the stove is a fire box or open-top pan 2 to which the crude oil or other liquid hydrocarbon is supplied to support combustion, the said fire-box being supported on the grate 3.

The attachment B comprises a vertically extending oil-supply pipe 4 which leads into the fire box through the top of the stove as in Fig. 1, or the pipe 4' can enter the stove at the side thereof as shown in Fig. 5. This pipe 4 is inclosed in a tubular casing 5 which has its lower end welded or otherwise joined to the nozzle portion 6 of the oil pipe 4 so that the casing 5 can hold water that will completely surround the oil pipe to prevent the same from being too highly heated. On the upper end of the casing 5 is a tank or reservoir 7 which is in open communication with the casing and is adapted to hold water and thus maintain the casing filled, and this tank serves as a reservoir for holding warm water that may be used for kitchen purposes. The pipe 4 leads out of the open-top tank 7 and is provided with a funnel 8 into which the oil is supplied from a suitable tank 9 supported by a bracket 10 secured to the pipe 4, the oil passing out of the tank 9 through a faucet 11 which serves to regulate the feed of oil in the proper quantity. As shown in Fig. 1, the pipes 4 and 5 pass through a plate 12 which is to be substituted for one of the ordinary plates of the stove and the attachment B can be clamped in position by a set screw 13 on the plate 12. In order to give stability to the plate 12 and maintain it properly in the plate opening 14, the plate has a lug 15 projecting from the side opposite from the attachment to engage under the stove top, as clearly shown in Fig. 1. The pipe 5', Fig. 5, can be secured in any suitable manner to the stove so that oil will be fed to the pan 2' in the firebox 1'.

In order to provide for more complete combustion, it is necessary to supply water in limited quantity to the fire box 2. A water supply pipe 16 leads into the stove through the plate 12 and has its lower portion bent horizontally into a distributor 17 provided with perforations 18 as shown in Fig. 4, to deliver water to the oil. The upper end of the pipe 17 is formed into a funnel 19 that is disposed under the tank 7 so that water can be supplied from the latter

to the funnel through a faucet 20. The water supplied to the fire box becomes decomposed and contributes to produce an intense heat, the water and oil being suitably proportioned.

From the foregoing description taken in connection with the accompanying drawings, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention relates, and while I have described the principle of operation of the invention, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative and that such changes may be made when desired as are within the scope of the claims.

What I claim as new and desire to secure by Letters Patent is:—

1. An oil burner attachment for a combustion chamber, said attachment comprising an oil-supply pipe extending into the combustion chamber, a water-containing casing surrounding the said pipe, and a tank open to the atmosphere and with which the casing is in open communication, said oil supply pipe extending out of the top of the tank.

2. An oil burner attachment for a combustion chamber, said attachment comprising an oil-supply pipe extending into the combustion chamber, a water-containing casing surrounding the said pipe, an open top tank with which the casing is in open communication, the upper end of the pipe extending above the top of the tank, and means supported by the upper end of the supply pipe for feeding oil thereto.

3. An oil burner attachment for a firebox comprising an oil supply pipe disposed vertically and having its lower end extending

into the fire box, a casing surrounding the pipe and open at its upper end, an open top tank on the upper end of the casing and communicating with the latter to maintain a body of water around the said pipe, and means for supplying liquid fuel to the pipe.

4. An oil burner attachment for a firebox comprising an oil supply pipe having its lower end extending into the fire box, a casing surrounding the pipe, a tank on the upper end of the casing and communicating with the latter to maintain a body of water around the said pipe, means for supplying liquid fuel to the pipe, and means for supplying water from the tank to the fire box, said last-mentioned means being controllable to supply water in definite proportion to the oil supply.

5. An oil burner attachment comprising a plate having an opening, a tubular casing extending through the plate and supported thereby, a fire box into which the casing extends, an oil pipe extending longitudinally of the casing and having an opening at its lower end for delivering oil to the fire box, a tank supported by the casing and in open communication with the top thereof to maintain a body of water around the oil pipe, an oil reservoir carried by the pipe, means for supplying oil from the reservoir to the pipe, a water-supply pipe extending through and secured to the said plate and having its lower end perforated, and means for supplying water to the last mentioned pipe from the tank.

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

FRED. P. BEUCLER.

Witnesses:

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