

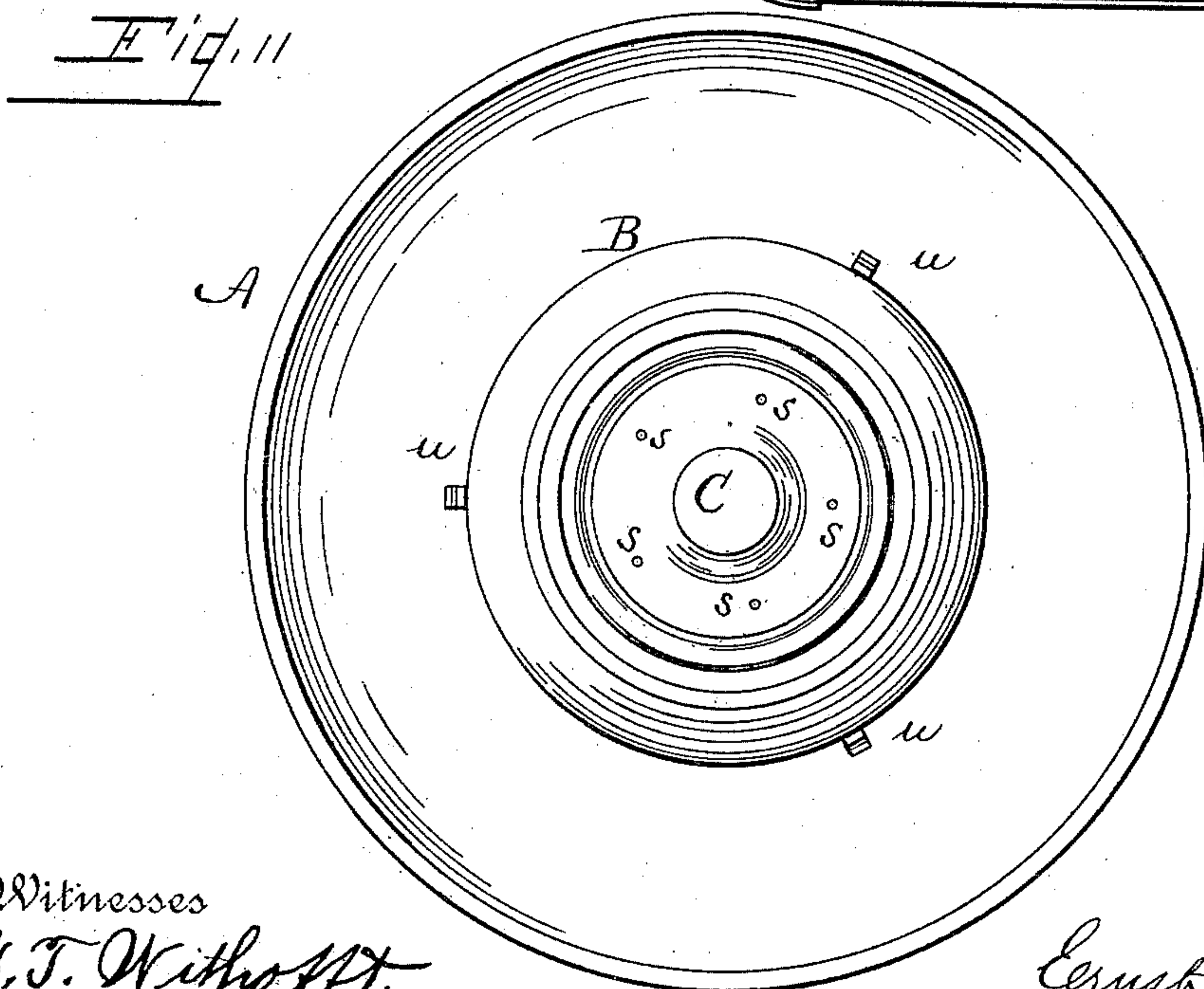
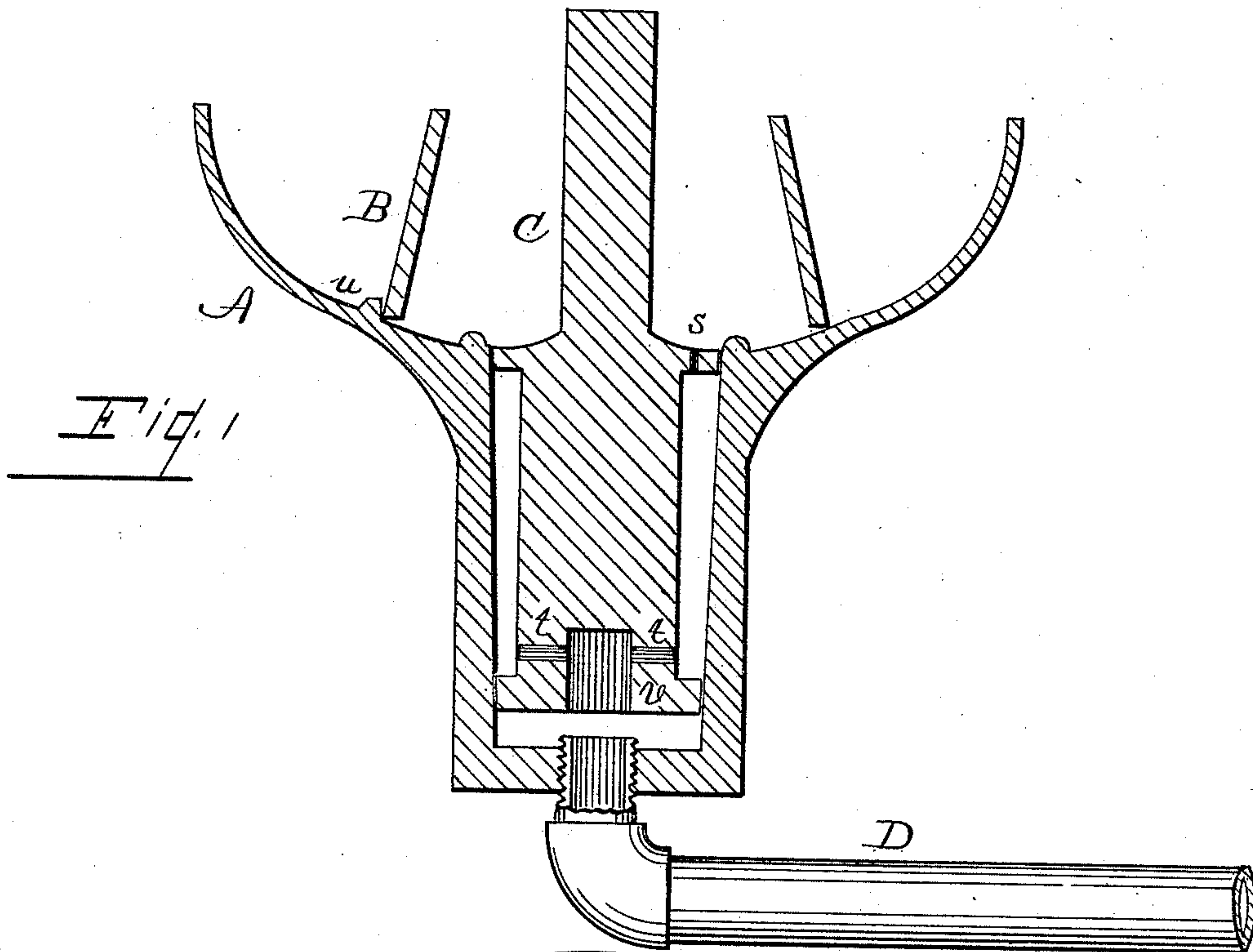
(No Model.)

2 Sheets—Sheet 1.

E. ROST.
HYDROCARBON BURNER.

No. 411,260.

Patented Sept. 17, 1889.



Witnesses
W. T. Withofft,
L. C. Adams

Inventor
E. Rost
By His Attorney B. Pickering

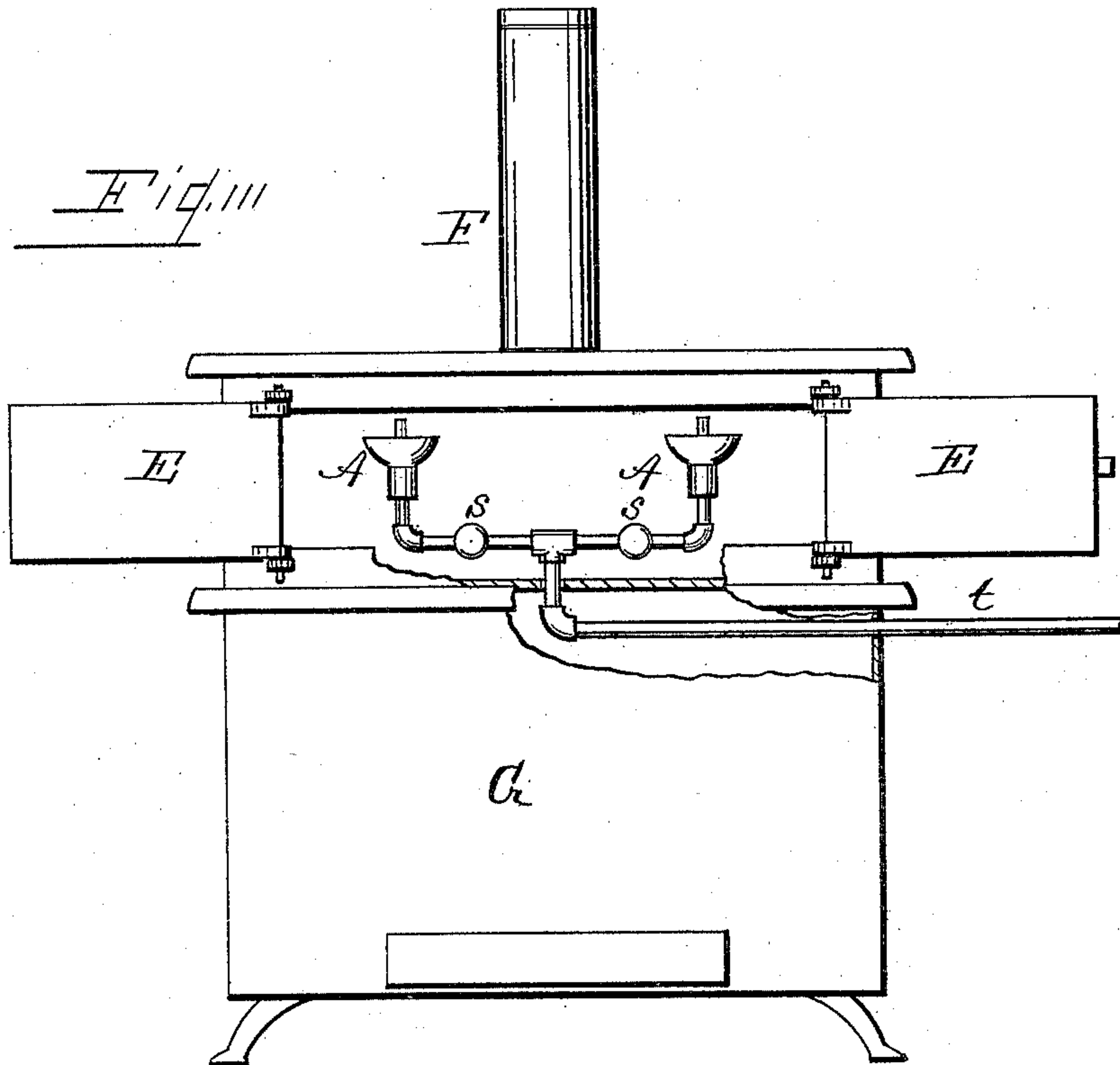
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L. B. Adams
J. H. Minder

Inventor

Ernst Rost

By His Attorney *B. Pickering*

UNITED STATES PATENT OFFICE.

ERNST ROST, OF DAYTON, OHIO.

HYDROCARBON-BURNER.

SPECIFICATION forming part of Letters Patent No. 411,260, dated September 17, 1889.

Application filed April 22, 1889. Serial No. 308,139. (No model.)

To all whom it may concern:

Be it known that I, ERNST ROST, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Hydrocarbon-Burners; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in hydrocarbon-burners, the features of which will be fully hereinafter described.

The object of my invention is to form a vapor of the oil before the same issues from the burner, the same being so constructed that heat is communicated to the oil by the heating of an upwardly-projecting stem of said burner, and which is concentric to the volume of flame.

The construction is illustrated in the accompanying drawings, in which—

Figure I is a central vertical section of the burner with an induction-pipe attached. Fig. II is a top view of the burner. Fig. III is a front view of a cooking-stove with a portion cut away and with burners attached.

In the several views like letters designate like parts.

A is the external part or case of the burner. The upper part is shaped like a bowl and has a central cylindrical depending chamber, the walls of which incline inwardly from top to bottom, the bottom of the chamber being closed and provided with a central screw-threaded opening, and an induction-pipe D screwed therein. On the bottom of the bowl part are lugs *u*, which serve to hold the rim B in position concentric to the stem of the burner-plug C. This plug is provided with a flange at its bottom and a second flange about midway, said flanges fitted within the depending chamber and forming an annular oil-chamber between said plug and the walls of the chamber. The upper flange is provided with a series of small orifices *s*, and from this flange is a stem extending upward higher than the case. The central orifice *v v* and

the radial orifices *t t* are drilled into it, said orifices communicating with each other, as shown.

B is a loose circular inclining rim, the use being to concentrate the flame on the stem of the plug, and thereby aid in communicating heat to the oil in the interspace between the plug and case. The burner will consume the oil without this rim; but the oil is not so thoroughly vaporized. The induction-pipe conveys the oil from a reservoir into the lower end of the case, from thence it flows through the orifices in the lower end of the plug to the interspace between the plug and case, and when sufficiently heated the vapor issues through the orifices in the top flange of the plug, and complete combustion results.

In starting the burner the oil is first ignited in the bowl, and as the parts become sufficiently warmed the vapor issues as specified.

Fig. III is an illustration of a pair of burners as attached to the fire-pot of a cooking-stove. G is the stove. E E are the doors standing open to exhibit the interior of the fire-pot. The burners A A are held on the supply-pipe *t*, and *s s* are the ordinary stop-cocks used to regulate the flow of petroleum-oil to said burners. The supply-pipe is connected to an elevated reservoir, from which the oil flows to said burners.

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

In combination with the fire-pot of a stove, the burner comprising a bowl-shaped case having a depending part, to which is connected a supply-pipe, and in which is snugly fitted the plug having an annular recess turned therein, and having a series of orifices in the lower end to admit oil into said recessed part and a series of orifices in the top of the same to admit the escape of vapor from said recess to the space within said bowl, substantially as shown and described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

ERNST ROST.

Witnesses:

B. PICKERING,
CHAS. A. WALTIRE.