

**No. 647,157.**

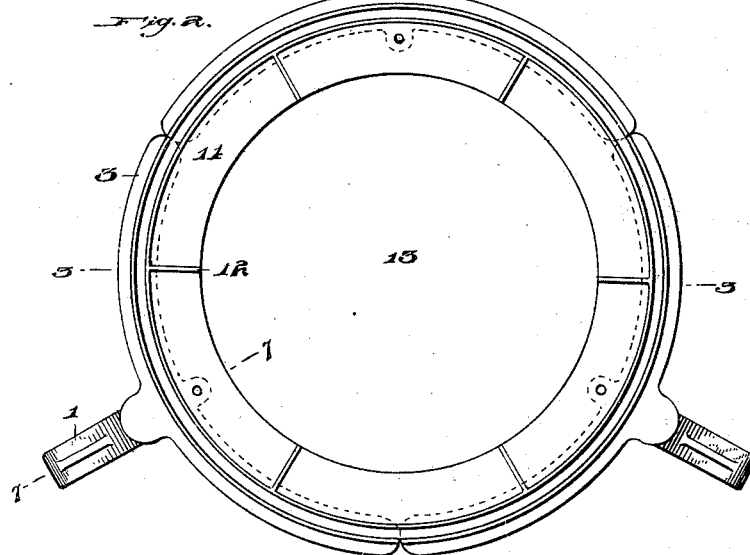
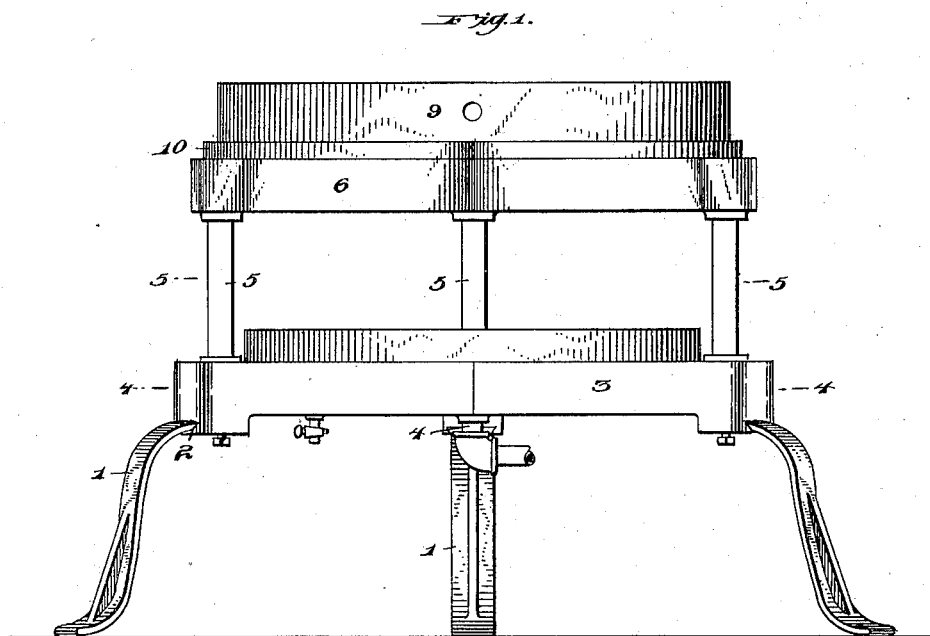
**Patented Apr. 10, 1900.**

**R. SCHLUMBERGER.**  
**WATER HEATER.**

(Application filed June 28, 1899.)

(No Model.)

**2 Sheets—Sheet 1.**



WITNESSES:

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J. C. Appleman,  
A. M. Haymaker.

INVENTOR

H. Schlumberger

BY

*N. C. Everett & Co.*  
ATTORNEYS,

No. 647,157.

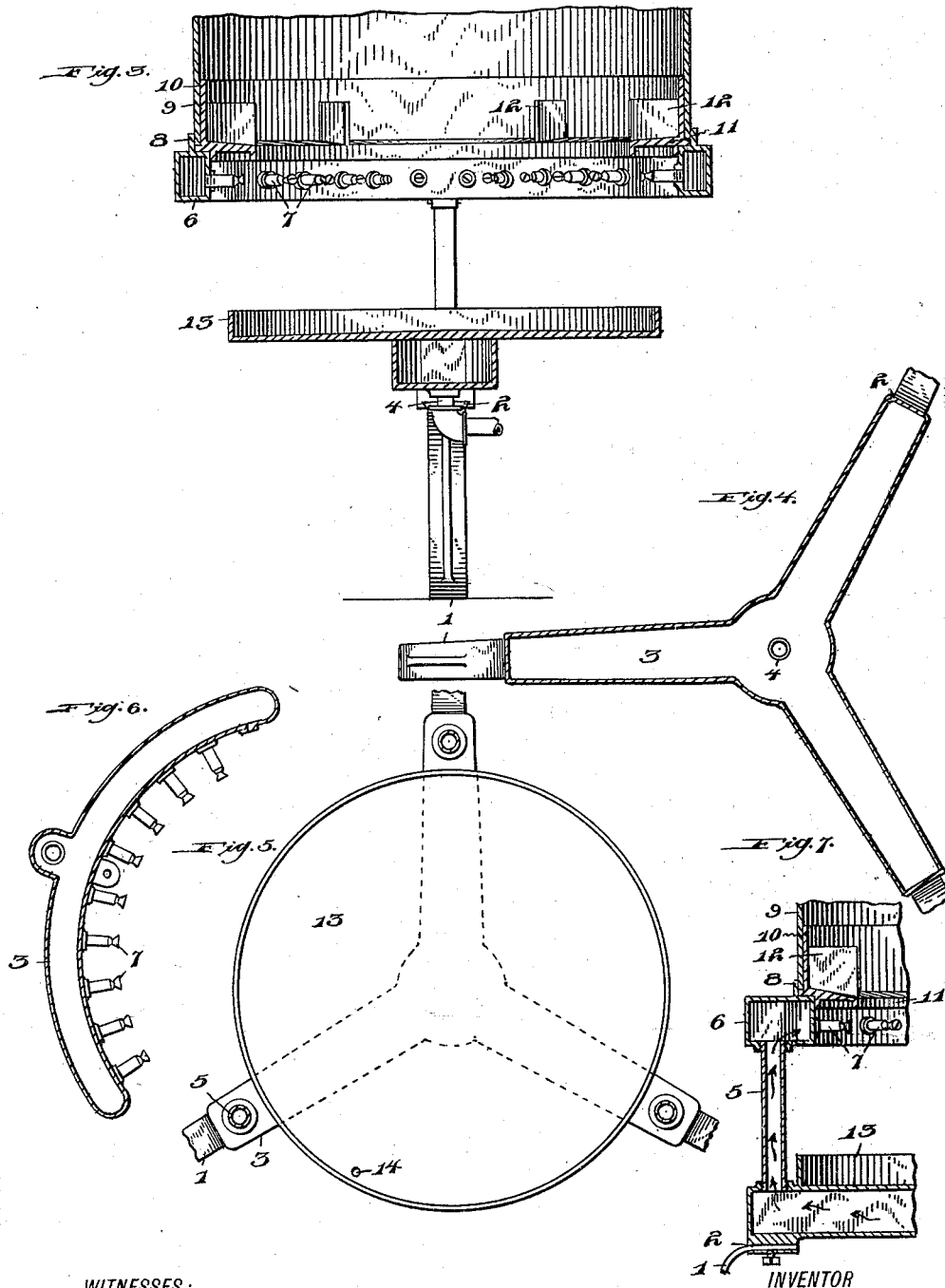
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*A. M. Haymaker.*

INVENTOR

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# UNITED STATES PATENT OFFICE.

ROBERT SCHLUMBERGER, OF ALLEGHENY, PENNSYLVANIA.

## WATER-HEATER.

SPECIFICATION forming part of Letters Patent No. 647,157, dated April 10, 1900.

Application filed June 28, 1899. Serial No. 722,124. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT SCHLUMBERGER, a citizen 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 Water-Heaters, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in gas-burners, and relates more particularly to that class employed in connection with hot-water heaters.

The invention has for its object to provide 15 a novel means whereby an equal distribution of gas is obtained; and it consists of a spider distributing-pipe mounted upon suitable supports and connected to a gas-supply, a segmental gas-chamber supported by a series 20 of vertical pipes which are secured to the spider, and a series of radially-extending burners connected to the inner face of the segmental gas-chamber.

The invention still further aims to construct 25 a device of the above-described character that will be extremely simple in its construction, strong, durable, and highly efficient in its operation; furthermore, one that may be manufactured at a comparatively small cost.

30 With the above and other objects in view the invention finally consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described, and particularly pointed out in the claim.

35 In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, wherein like numerals of reference indicate corresponding parts throughout the several views 40 thereof, and in which—

Figure 1 is a side elevation of my improved stand equipped with my improvement. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical sectional view taken on the line 3 3 of 45 Fig. 2. Fig. 4 is a longitudinal sectional view taken on the line 4 4 of Fig. 1, showing the spider distributing supply-pipe. Fig. 5 is a similar view taken on the line 5 5 of Fig. 1. Fig. 6 is a longitudinal sectional view of the 50 segmental gas-chamber. Fig. 7 is a vertical sectional view taken on the line 7 7 of Fig. 2.

Referring to the drawings by reference-

numerals, 1 indicates suitable supports or standards, which are secured to the ends 2 of the spider distributing supply-pipe 3, said 55 spider distributing supply-pipe 3 being provided centrally at its lower face with a gas-supply pipe 4 and carrying near its outer ends upwardly-extending pipes 5, which communicate with the same and form standard 60 and feed-pipes for the segmental gas-chamber 6, the inner face of said segmental gas-chamber being provided with gas-burners 7, and the upper face of said segmental gas-chamber carries a flange 8, extending radially in aline- 65 ment therewith.

The reference-numeral 9 indicates the outer casing, the lower end of said casing being adapted to fit in the flange 8 of the segmental gas-chamber 6. A collar 10 is arranged in the 70 lower part of the casing, the latter having formed therewith an inwardly-extending portion 11, which is slightly inclined downwardly and extends over the gas-burners a short distance, said inwardly-inclined portion being 75 formed integral with upwardly-extending supports 12, upon which the water-coils rest. (The water-coils are not shown in the drawings.)

The reference-numeral 13 indicates a drip- 80 ping-tray arranged above the spider distributing supply-pipe and directly below the inwardly-extending portion 11 of the collar 10, the bottom of said dripping-tray being inclined toward the center, said bottom having 85 arranged therein a suitable outlet 14.

The operation of my improved gas-burner is as follows: Gas entering the spider distributing supply-pipe through the gas-supply pipe 4 will be equally distributed through the 90 upwardly-extending pipes 5 into the segmental gas-chamber 6 and thence into the gas-burners 7. The condensation of the water or moisture caused by the products of combustion of the burners which are condensed by 95 contact with the coils will be conducted by the inclined portion 11 of the collar 10 into the drip-tray 13 and then through the outlet 14 into any suitable receptacle.

The inclined portion 11 of the collar 10, extending inwardly to a point beyond the gas- 100 burners will protect the same from moisture that would otherwise come in contact therewith.

From the foregoing description the many advantages obtained in the actual practice of my improved burner will be readily apparent and a further description is deemed unnecessary.

It will be noted that various changes may be made in the details of construction of my improved burner without departing from the general spirit of my invention.

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

In combination, a spider distributing-pipe mounted upon suitable supports, a gas-sup-

ply pipe connected thereto, a series of up- 15  
wardly-extending pipes secured to the said spider pipe, a segmental gas-chamber connected and supported by the said upwardly-extending pipes, and a series of radially-extending burners secured to the inner face of 20  
the said gas-chamber, substantially as set forth.

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

ROBERT SCHLUMBERGER.

Witnesses:

JOHN NOLAND,

WILLIAM E. MINOR.