

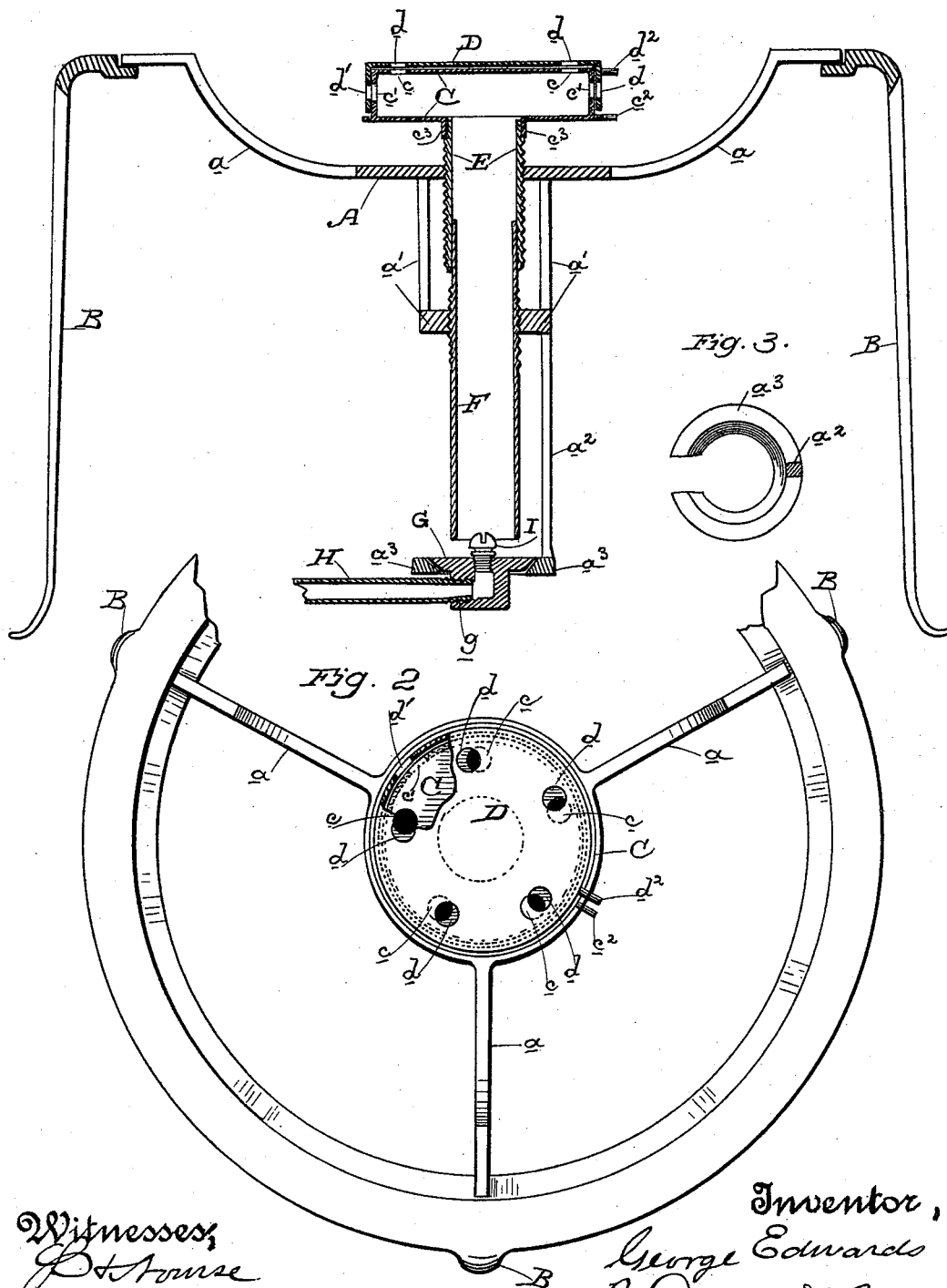
(No Model.)

G. EDWARDS.
HEATING ATTACHMENT FOR GAS BURNERS.

No. 494,470.

Patented Mar. 28, 1893.

Fig. 1.



Witnesses,
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UNITED STATES PATENT OFFICE.

GEORGE EDWARDS, OF BERKELEY, CALIFORNIA.

HEATING ATTACHMENT FOR GAS-BURNERS.

SPECIFICATION forming part of Letters Patent No. 494,470, dated March 28, 1893.

Application filed March 9, 1892. Serial No. 424,326. (No model.)

To all whom it may concern:

Be it known that I, GEORGE EDWARDS, a citizen of the United States, residing at Berkeley, Alameda county, State of California, have
5 invented an Improvement in Heating Attachments for Gas-Burners; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of heating attachments for gas burners which are designed to support a cooking utensil and in which means are provided for regulating the supply of air to the gas whereby a much hotter flame is produced than by the combustion
15 of the gas alone.

My invention consists of the constructions and combinations of devices which I shall hereinafter fully describe and claim.

Referring to the accompanying drawings
20 for a more complete explanation of my invention,—Figure 1 is a vertical section of my heating attachment. Fig. 2 is a plan of same. Fig. 3 is a plan of the annular foot a^3 .

A is a plate having extending from it arms
25 a for supporting the utensil and by which said plate may be supported from any suitable stand or frame; as, for example, in the top of a stove-plate, or, as here shown, an ordinary stand of which B are the legs.

30 C is a shell or casing forming the inner portion of my spreader. This shell is provided with openings c in its top, and openings c' in its sides or periphery. Over the top and sides or periphery of the shell C is fitted and adapted to turn thereon the cap D of the spreader,
35 said cap being provided in its top with holes d , and in its sides or periphery with holes d' , said holes corresponding in capacity and position to those of the inner shell C. When
40 the holes of the shell and cap coincide the greatest capacity is afforded, but by moving the cap D on the shell it is obvious that the holes will be made to coincide but partially, and thus the outflow from the spreader will
45 be diminished.

Any suitable means may be adopted for turning the cap on the shell, and for this purpose I have shown a lug d^2 extending out from one side of the cap, and a lug c^2 extending out
50 from the shell C. A small instrument may be passed down by said lugs bearing on one side

against one, and on the other side against the other, and used as a lever to effect the turning of the cap on the shell.

The shell C is provided with a downwardly
55 extending neck or flange c^3 which is fitted over the supporting pipe E, said pipe being screwed into the plate A. The spreader is thus supported above the plate A, and below the surface of the plate arms a upon which
60 the cooking utensil is to be placed.

By screwing up the pipe E, the spreader can be raised up into closer proximity to the bottom of the cooking utensil or it can be lowered away therefrom by screwing down the
65 pipe E.

The plate A has a downwardly extending bracket or hub a' in the bottom of which is screwed the upper end of the air regulating tube F. This upper end extends upwardly
70 into the pipe E, and its lower end is open. A leg a^2 extends downwardly from the plate A and has an annular foot a^3 made with a beveled surface and open at one side.

G is a button-plate which is dropped into
75 and is supported by the foot a^3 , and said button has on its under side the coupling connection g for the gas pipe H, and in its upper side is fitted the gas tip I. The button-plate G lies below the lower end of the air-regulating
80 tube F, so that the air has free access into said tube.

The objects of the foot a^3 are both to support the plate G, and to permit of the introduction of tube F to its seat, from below.
85

The plate G can readily be dropped in place and where several burners are used these plates will be found of advantage in making conveniently any required connection with the gas pipe.
90

The operation of my attachment is as follows:—The gas passes in through pipe H, and up through the tip I into the tube F; air also passes in at the lower end of the tube F, and mingles with the gas and the mixture flows
95 upwardly into the spreader, at the holes of which it is ignited. The flames proceed from both the top holes and the side holes so that they are generally distributed over the under surface of the cooking utensil. If it be desired, the full or solid flame may be had by
100 simply removing the spreader from the top of

the pipe E. Now, it will be seen that the spreader being adjustable up and down by the vertical movement of the supporting pipe E is adapted to be brought nearer to or removed farther from the cooking utensil. Again, the openings in the spreader being adjustable, that is being adapted to be made larger or smaller, afford an opportunity for providing that the outflow of the mixture of air and gas may be regulated in proportion to the inflow, and thus secure the highest combustion; and lastly, the air-controlling tube F being vertically adjustable will regulate the inflow of air at the gas tip, so that the air may be admitted in the exact proportion to the amount of gas which may be flowing.

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

1. A heating attachment for gas burners consisting of a plate having arms to support the cooking utensil, a vertically adjustable pipe mounted in said plate, a spreader fitted upon the top of said pipe and consisting of the perforated inner shell and the perforated cap, mounted to turn thereon and the vertically adjustable tube mounted in the hub of the plate and communicating at its upper end with the pipe, and at its lower end with the outer air and with the gas burner, substantially as herein described.

2. In a heating attachment for gas burners, the combination of a supporting plate having a downwardly extending leg with the annular foot, the air regulating tube F supported by said plate above the annular foot, and the insertible button-plate G fitted to the annular foot under the tube F, said plate having on its under side the gas pipe coupling, and in its upper side the gas tip, substantially as herein described.

3. A heating attachment for gas burners consisting of a plate having arms for supporting the cooking utensil, and a downwardly extending leg with the annular foot, the vertically adjustable pipe E fitted in the plate, the spreader fitted on top of said pipe, the vertically adjustable air-regulating tube F supported by the hub of the plate, fitting its upper end in the pipe E and having its lower end open, and the removable plate G fitted in the foot of the supporting plate having on its under side the gas coupling, and in its upper side the tip communicating with the lower end of the air-regulating tube F, substantially as herein described.

In witness whereof I have hereunto set my hand.

GEORGE EDWARDS.

Witnesses:

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J. A. BAYLESS.