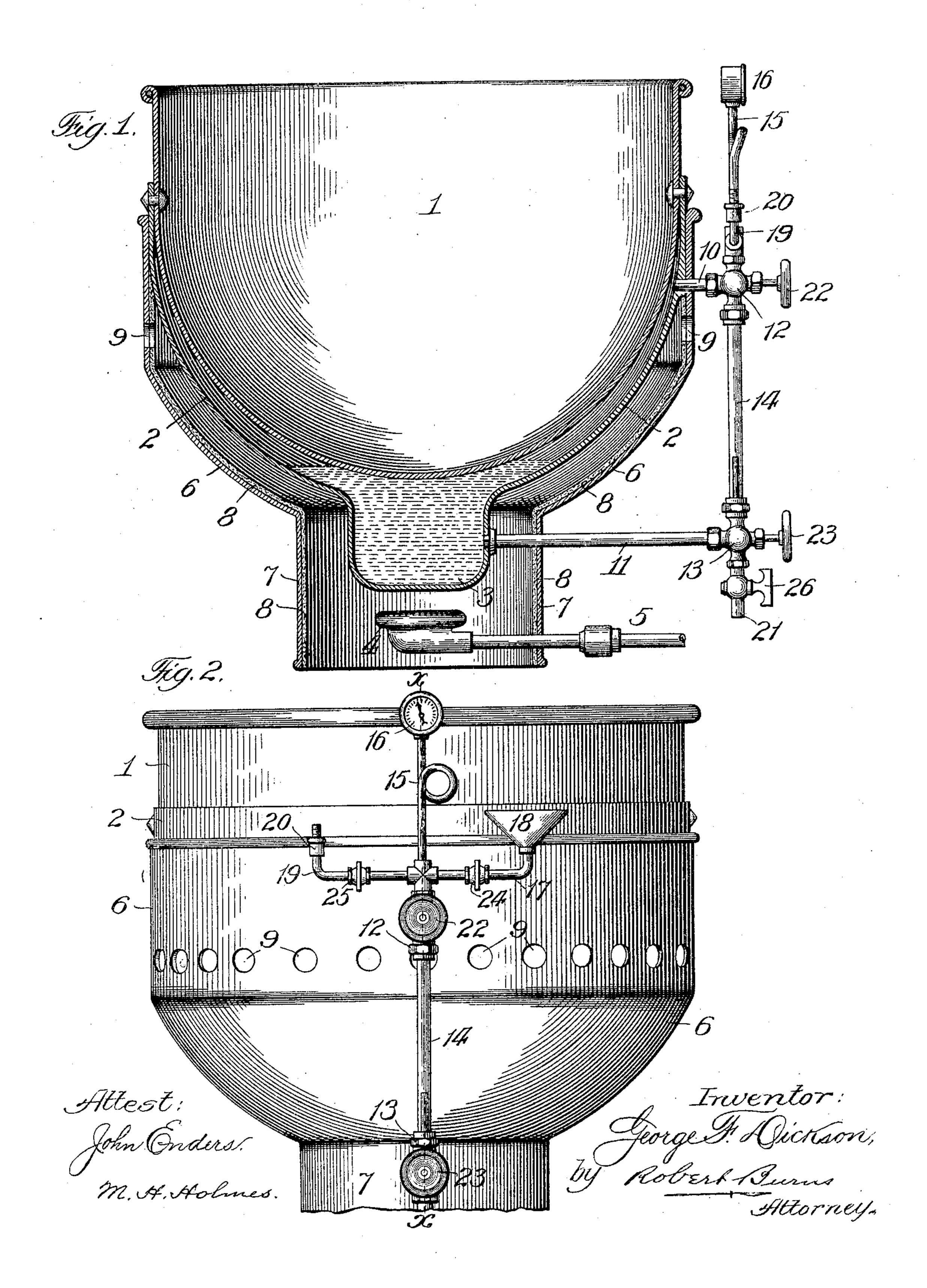
G. F. DICKSON.

CONFECTIONER'S KETTLE.

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## UNITED STATES PATENT OFFICE.

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## CONFECTIONER'S KETTLE.

No. 798,498.

Specification of Letters Patent.

Patented Aug. 29, 1905.

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To all whom it may concern:

Be it known that I, George F. Dickson, a citizen of the United States of America, and a resident of Chicago, in the county of Cook and 5 State of Illinois, have invented certain new and useful Improvements in Confectioners' Kettles, of which the following is a specification.

This invention relates to that class of confectioners' kettles in which a steam-heating jacket surrounds the lower portion of the kettle to afford a means for imparting an evenly-distributed heat to the contents of the kettle; and the present improvement has for its object to provide a simple and efficient structural arrangement and combination of parts, with which the temperature required in parboiling confectionery is readily and quickly attained in an economical and controllable manner and in which the heating means is a fixed part of the apparatus to render the same self-contained and portable, all as will hereinafter more fully appear.

In the accompanying drawings, Figure 1 is a central sectional elevation at line x x, Fig. 2, of a confectioner's kettle to which the present improvement is applied. Fig. 2 is a detail side elevation on a plane at right angles to the plane of Fig. 1.

Similar numerals of reference indicate like

parts in both views.

Referring to the drawings, 1 is the kettle or boiler, having the usual open top and semi-

spherical bottom.

2 is the usual semispherical jacket, secured at its upper end to the sides of the kettle 1 to form an inclosed annular heating-chamber around the bottom portion of said kettle. 3 is a central depending pocket at the bottom of said jacket, forming a water-containing and heating chamber.

4 is a heating-burner of any usual type arranged beneath the pocket 3 and receiving its supply of gas from the gas-supply 5, as illus-

45 trated in Fig. 1.

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6 is an inclosing casing arranged outside the jacket 2 with its upper end secured or fitted tightly upon the adjacent periphery of such jacket to form an annular passage around said jacket for the heat from the burner aforesaid.

7 is a central depending skirt on the lower end of the casing 6, open at bottom and adapted to inclose the depending pocket 3 and the burner 4, as illustrated in Fig. 1.

8 is a lining of asbestos paper or the like

secured to the inner surface of the casing 6 and skirt 7 and adapted to prevent outward radiation and loss of heat from the heating-passage formed by such parts.

9 represents a series of outlet-openings near 60 the upper end of the casing 6 for the escape of the products of combustion from the heat-

ing-passage aforesaid.

10 is a horizontal pipe connecting with the interior of the jacket near its upper end. 65 Through such pipe air is forced into the interior of the jacket, as hereinafter set forth, and such pipe also constitutes the upper connection of the water-gage, hereinafter described, with the interior of said jacket.

11 is a horizontal pipe connected with the interior of the jacket near its lower end for convenience in drawing off the water from such jacket. Such pipe also constitutes the lower connection of the water-gage above referred to with the interior of the jacket.

12 and 13 are gage-heads secured to the outer ends of the horizontal pipes aforesaid. 14 is a glass tube arranged between said heads and in free communication with the interior 80 of the jacket through pipes 10 and 11 to afford a visible indication of the height of the water in the aforesaid jacket.

15 is a branch pipe connected to the upper head 12 and provided at its upper end with a 85 pressure-gage 16 to indicate the pressure with-

in said jacket.

17 is a branch pipe connected to the upper head 12 and provided with a funnel 18 for the convenient introduction of a filling of water 9° into the aforesaid jacket and its depending

pocket. 19 is an air-inlet pipe connected to the upper head 12 aforesaid and provided at its free end with a screw-threaded attaching-nipple 95 and an intermediate inwardly-opening checkvalve 20 of any usual construction. By such arrangement said inlet-pipe is adapted for convenient connection with an air-pump, so that an initial pressure of air can be intro- 100 duced into the jacket 2 without dependence being placed upon the steam generated therein to afford such pressure and the corresponding degree of temperature. It has been found from extended practical experiment that such 105 provision affords a rapid and convenient means for maintaining a very uniform temperature with a ready regulation of the same by an increase or decrease of such air-pressure.

21 is a branch drain-pipe connected with 110

the lower head 13 for the convenient drainage of the aforesaid jacket and its depending pocket.

22, 23, 24, 25, and 26 are valves for con-5 trolling the passages in the above-mentioned

heads and pipes.

Having thus fully described my said invention, what I claim as new, and desire to secure

by Letters Patent, is—

1. The combination in a confectioner's kettle of a boiler having a semispherical bottom, a semispherical jacket surrounding the lower portion of the boiler to form a steam-generating chamber, a casing inclosing said jacket 15 and provided with outlet-orifices near its top and a depending skirt at bottom, and a burner arranged in said skirt, substantially as set forth.

2. The combination in a confectioner's ket-20 tle, of a boiler having a semispherical bottom, a semispherical jacket surrounding the lower portion of the boiler to form a steam-generating chamber, the said jacket having a central depending pocket at bottom, a casing inclos-25 ing said jacket and provided with outlet-orifices near its top and a depending skirt at bottom, and a burner arranged in said skirt, sub-

stantially as set forth.

3. The combination in a confectioner's ket-30 tle of a boiler having a semispherical bottom, a semispherical jacket surrounding the lower portion of the boiler to form a steam-generating chamber, a casing inclosing said jacket and provided with outlet-orifices near its top 35 and a depending skirt at bottom, a lining of asbestos paper secured to the inner surface of said casing and skirt, and a burner arranged in said skirt, substantially as set forth.

4. The combination in a confectioner's ket-40 tle, of a boiler having a semispherical bottom, a semispherical jacket surrounding the lower

portion of the boiler to form a steam-generating chamber, the said jacket having a central depending pocket at bottom, a casing inclosing said jacket and provided with outlet-ori- 45 fices near its top and a depending skirt at bottom, a lining of asbestos paper secured to the inner surface of said casing and skirt, and a burner arranged in said skirt, substantially as set forth.

5. The combination in a confectioner's kettle of a boiler having a semispherical bottom, a semispherical jacket surrounding the lower portion of the boiler to form a steam-generating chamber, a casing inclosing said jacket 55 and provided with outlet-orifices near its top and a depending skirt at bottom, a burner arranged in said skirt, and a valved air-inlet pipe connected with the interior of the jacket and adapted for the introduction of air under 60 pressure into such jacket, substantially as set forth.

6. The combination in a confectioner's kettle, of a boiler having a semispherical bottom, a semispherical jacket surrounding the lower 65 portion of the boiler to form a steam-generating chamber, the said jacket having a central depending pocket at bottom, a casing inclosing said jacket and provided with outlet-orifices near its top and a depending skirt at 7° bottom, a burner arranged in said skirt, and a valved air-inlet pipe connected with the interior of the jacket and adapted for the introduction of air under pressure into such jacket, substantially as set forth.

Signed at Chicago, Illinois, this 4th day of

February, 1905.

GEORGE F. DICKSON.

Witnesses: ROBERT BURNS, M. H. Holmes.