

No. 651,959.

Patented June 19, 1900.

G. P. WASHBURN.

GAS PURIFIER.

(Application filed Oct. 12, 1899.)

(No Model.)

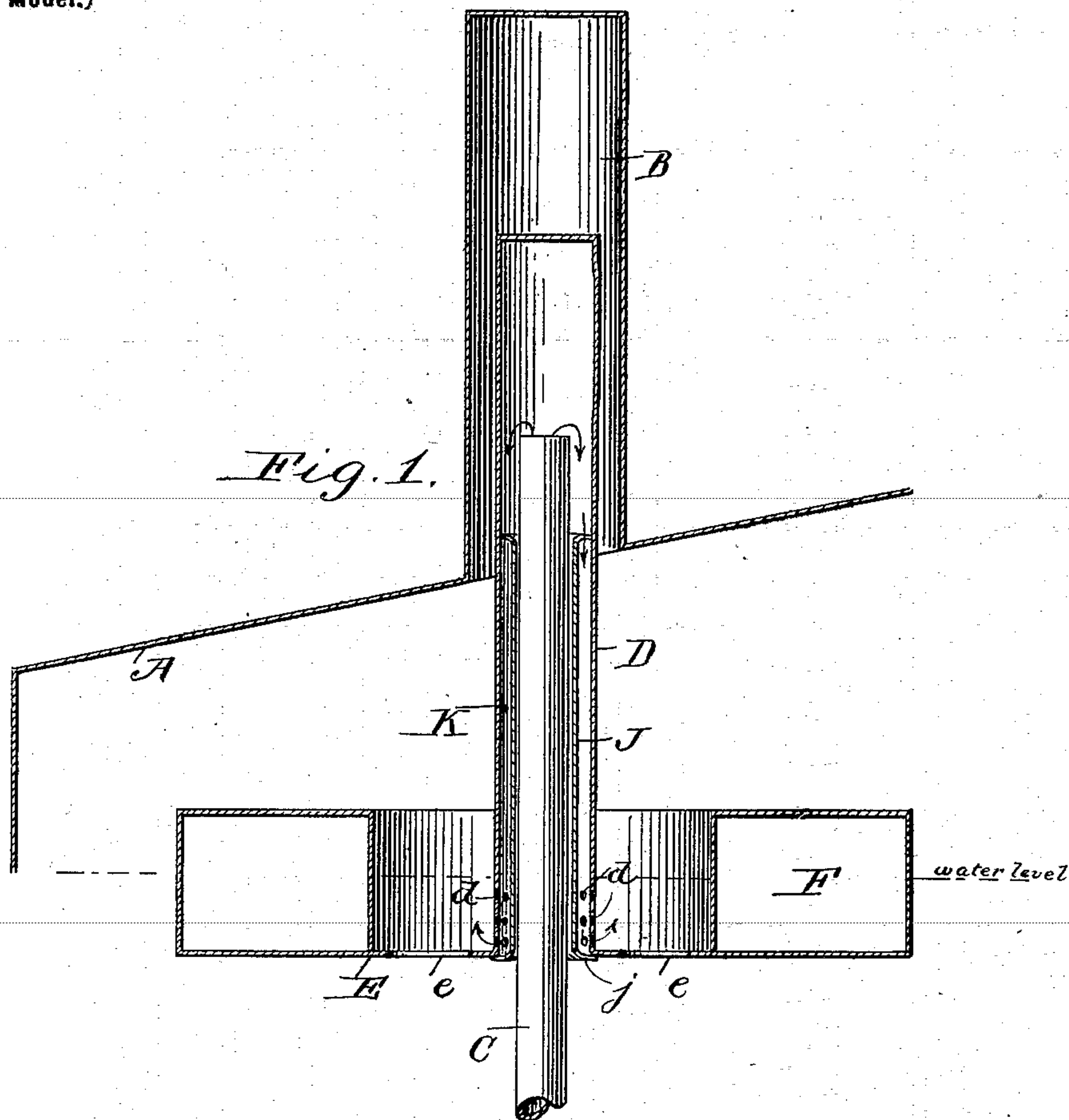
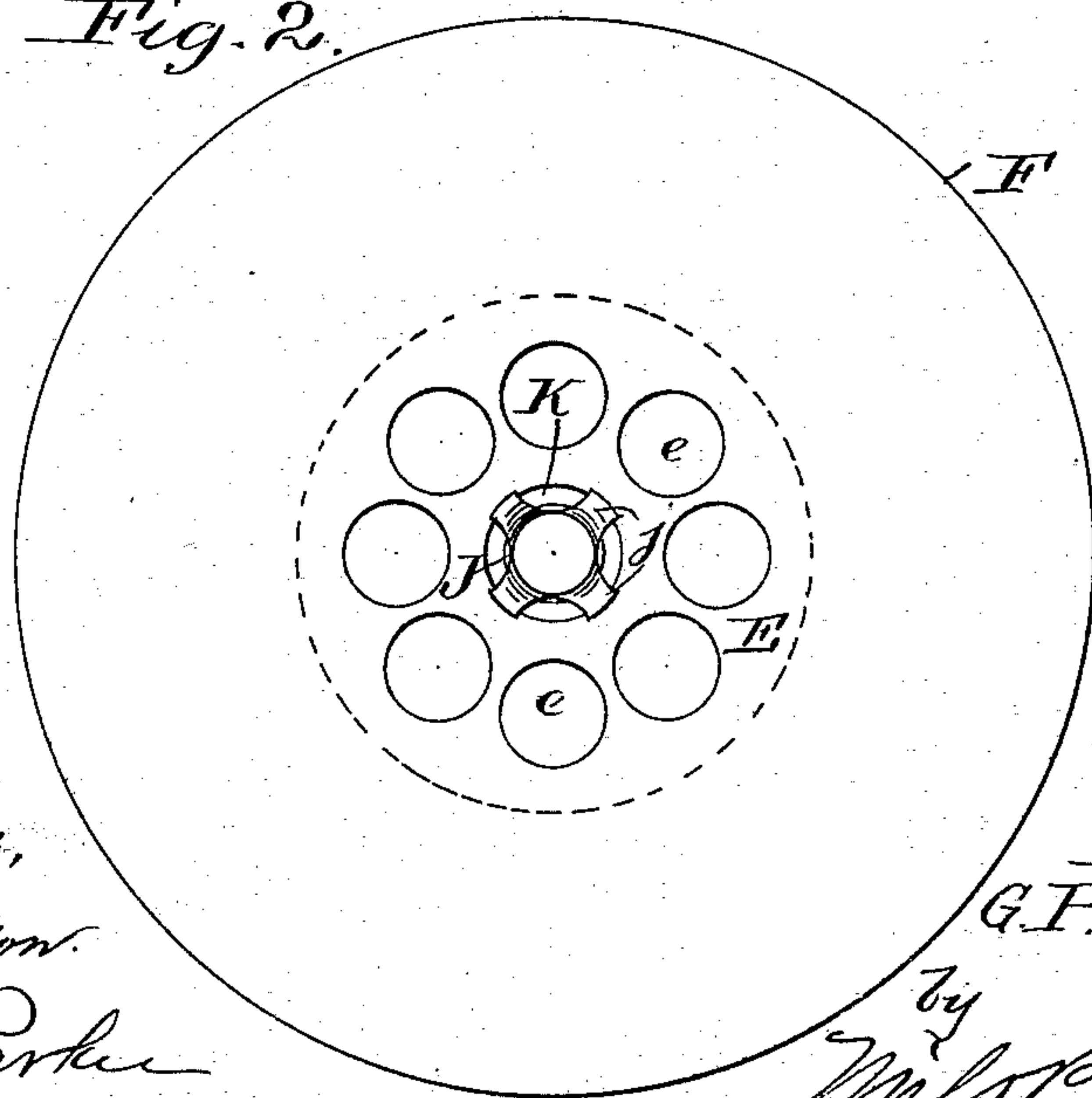


Fig. 2.



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UNITED STATES PATENT OFFICE.

GEORGE P. WASHBURN, OF CHADRON, NEBRASKA.

GAS-PURIFIER.

SPECIFICATION forming part of Letters Patent No. 651,959, dated June 19, 1900.

Application filed October 12, 1899. Serial No. 733,426. (No model.)

To all whom it may concern:

Be it known that I, GEORGE P. WASHBURN, a citizen of the United States, residing at Chadron, in the county of Dawes and State of Nebraska, have invented certain new and useful Improvements in Gas Purifying and Cooling Devices; and I do declare the following to be a full, clear, and exact description of the invention, such as 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.

The invention relates to an improved device for cooling and purifying gas and is embodied in the construction and arrangement hereinafter described, and defined in the claim.

In the accompanying drawings is shown an embodiment of the invention which has proved to be satisfactory; but I desire it understood that the form and arrangement shown may be vastly changed, modified, and rearranged without departing from the nature and principle of the invention.

In the drawings, Figure 1 is a section of gasometer, showing the pipe from the generator and the valve in section. Fig. 2 is a bottom plan.

A designates a gasometer or bell having conveniently extending from its upper surface a closed hood B.

C designates the pipe extending from the generator, the latter not being shown. This pipe is projected up through the gasometer into the hood for a short distance.

The form of device which I employ is that which consists of a cylinder D closed at its upper end and having a series of perforations or strainers *d* at its lower end. The lower end of the cylinder is fixedly secured to a perforated plate E, the perforations *e* of which surround, substantially, the lower end of the cylinder. The plate E constitutes the bottom of the circular air-chamber F, which projects upwardly from the plate and is located at the outer edge of the line of perforations,

thereby forming between the cylinder and air-chamber what may be conveniently termed a "well," into which the perforations of the cylinder enter or communicate. Within the cylinder is a sleeve or guide J, securely fastened at its lower end by projections or lugs *j*, leaving spaces between. Within this guide loosely fits the pipe of the generator, and the space K between the guide and cylinder constitutes a passage for the gas.

In my construction the gas issuing from the lower end of the cylinder is forced to pass through the water within the well bounded by the air-chamber, and is thereby cooled, purified, and washed, and by having a free space above the perforations or strainers in the base of the cylinder the issuing gas meets with little obstruction, except that with the hydrostatic pressure, and further action of the device is instantaneous, inasmuch as the gas immediately escapes through the well and does not impinge against the base of the float, as in structures heretofore.

I have shown the device with the float as cylindrical; but, as above stated, other forms can be employed with success.

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

The combination with a chamber constructed to contain a body of water and a gas-supply pipe, of a gas cooler and purifier, comprising a cylinder having a closed upper and an open lower end, a guide for the supply-pipe extending up into the cylinder, separated connections between the guide and the cylinder forming passage-ways between, a float surrounding and spaced from the lower end of the cylinder and a perforated connection between the float and cylinder, substantially as described.

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

GEORGE P. WASHBURN.

Witnesses:

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