

No. 645,644.

Patented Mar. 20, 1900.

O. A. JOHNSTON.
VAPORIZER.

(Application filed Jan. 17, 1899.)

(No Model.)

Fig. 1.

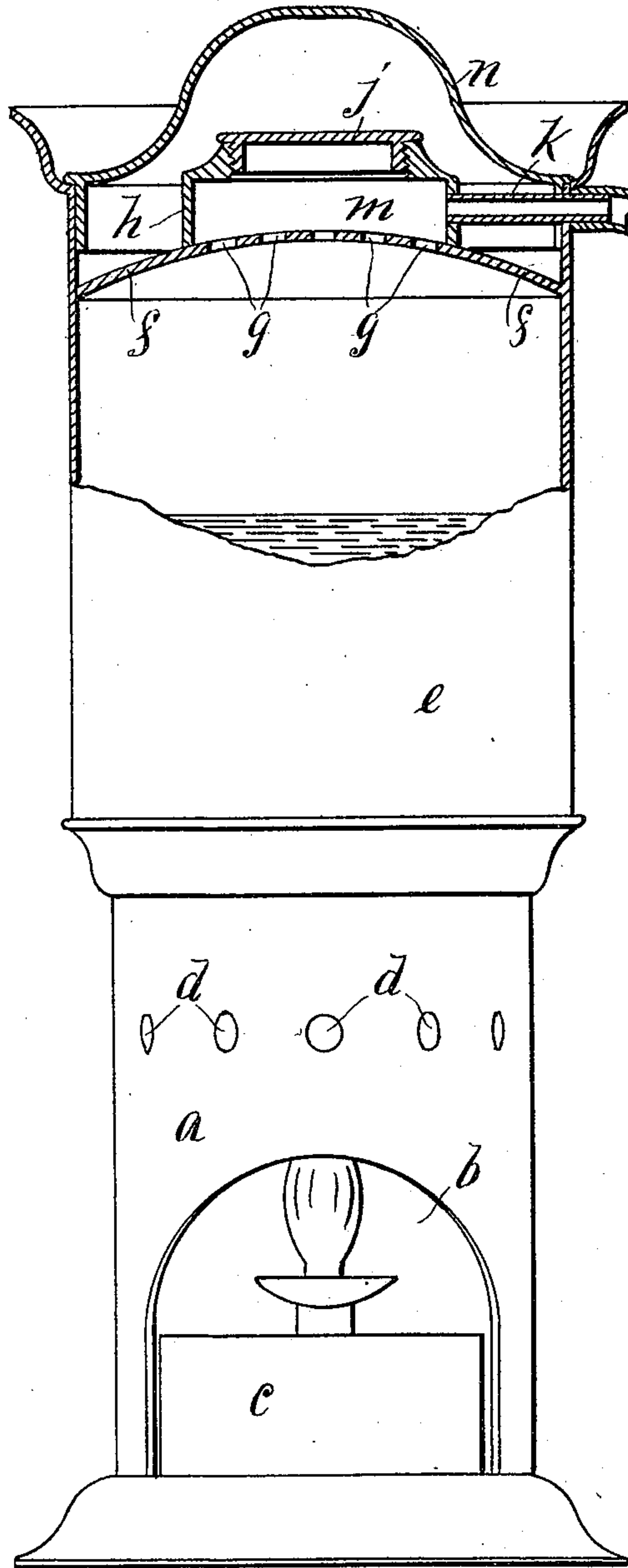
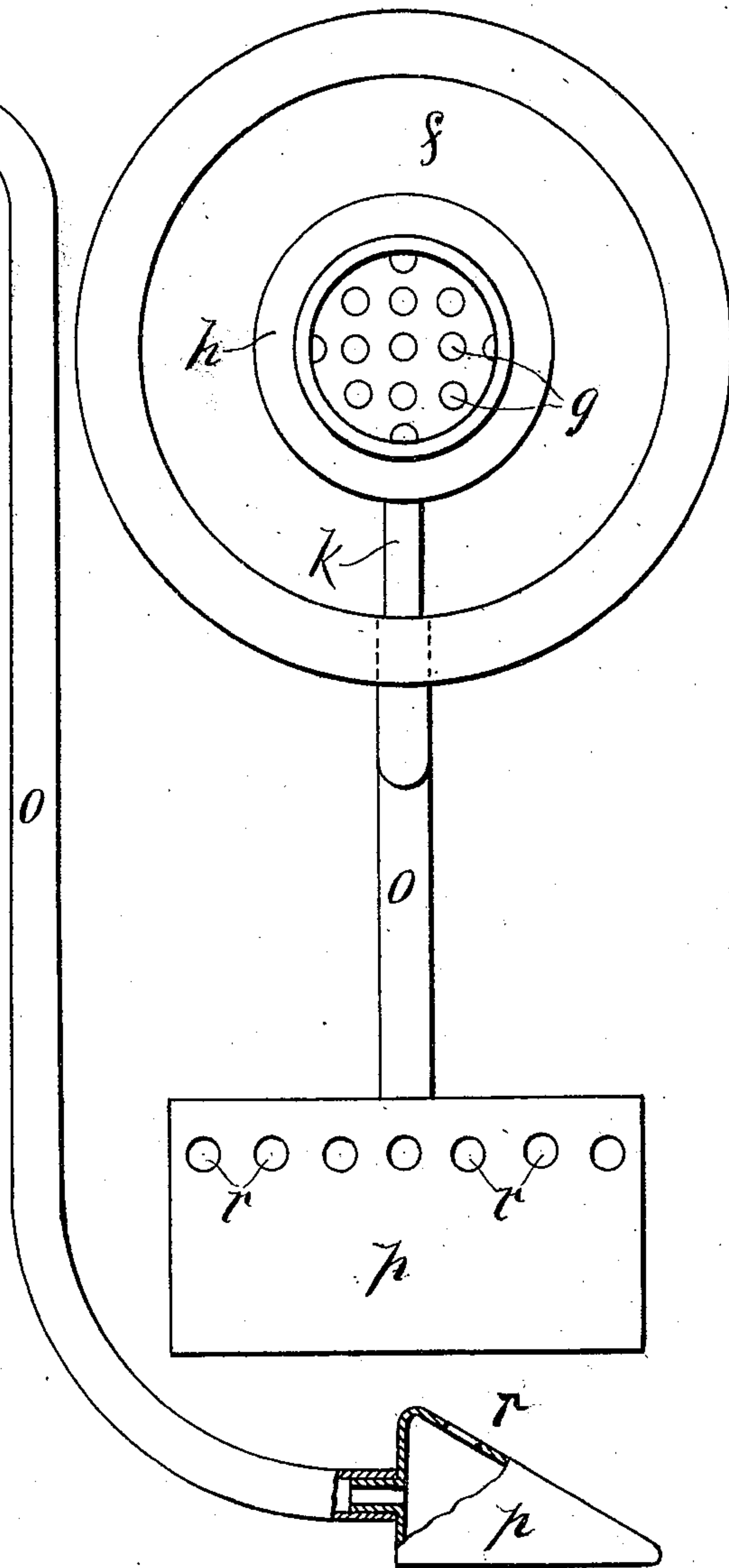


Fig. 2.



WITNESSES:

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VAPORIZER.

SPECIFICATION forming part of Letters Patent No. 645,644, dated March 20, 1900.

Application filed January 17, 1899. Serial No. 702,410. (No model.)

To all whom it may concern:

Be it known that I, OLIN A. JOHNSTON, a citizen of the United States, and a resident of New York city, county of New York, and State of New York, have invented certain new and useful Improvements in Vaporizers, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to an improvement in vaporizers, the object thereof being to provide a device of this character in which the vapor may be applied in its purest state and without being mixed with the fumes of the oil or gas used to generate heat in the apparatus, which tends to nauseate the person using it and the direct heat of which tends to dry and lessen the effectiveness of the vapor.

The invention consists in the novel construction and arrangement of the several parts and will be hereinafter fully described, and specifically set forth in the annexed claim.

In the accompanying drawings, Figure 1 is an elevation of the device, partly broken away; and Fig. 2 is a plan view with the covers removed.

In the practice of my invention I employ a cylindrical pedestal *a*, provided with an opening *b*, adapted to receive a lamp *c* for the purpose of heating the water contained within the device. A series of perforations *d d* near the upper part of the pedestal provides ventilation for the same. Mounted upon said pedestal *a* is a tank *e*, preferably cylindrical in form and constructed of sheet metal. A diaphragm *f*, preferably of metal, extends across said tank near its upper end, and the central portion thereof is provided with a series of perforations *g g*. A metallic cylinder *h* is mounted upon this diaphragm concentric with the walls of the tank *e* and inclosing the perforations *g g*. Its top is closed by means of the screw-cap *j*. At a point between the diaphragm *f* and the upper end of the cylinder *h* a pipe *k* of metal is fixed to the wall of said cylinder and projected through the wall of the tank *e*, said pipe affording communication between the chamber *m* and the outside of the device.

A cover *n* is adapted to fit the upper part of the tank *e* and inclose the cylinder *h* with its screw-cap *j*.

A hose *o* is fixed upon the end of the pipe *k* projecting through the side wall of the tank *e*, and affords communication between the chamber *m* and a vapor-distributor *p*, to which it is fixed. The said vapor-distributor *p* is preferably wedge-shaped in cross-section and provided with a series of holes *r*, through which the vapor is adapted to escape.

In the operation of the device the cover *n* and screw-cap *j* are removed and the tank *e* partially filled with water. A sponge saturated with the drug to be vaporized is placed within the chamber *m* immediately above the perforations *g g* and the screw-cap *j* placed in position. The lamp *c* is then lighted and placed within the pedestal *a*. When the temperature of the water within the tank *e* has risen to a degree sufficient to generate steam, the person using the device holds the distributor *p* in the position adjacent to the nostrils, covering the head and the distributor with a towel to prevent the escape of the vapor. As the steam passes up from the tank *e* through the perforations *g g* into the chamber *m* it comes in contact with the saturated sponge and becomes impregnated with the drug. The screw-cap *j* prevents its egress from the chamber *m* in an upward direction, and it passes through the pipe *k* into the hose *o* and distributor *p*, from whence it escapes through the holes *r r*.

It is obvious that the medicated vapor can be applied to any part of the body other than the head in the same manner as that described and that the vapor will contain none of the fumes from the alcohol or oil used to heat the water in the device.

If preferred, the pedestal *a* may be dispensed with and the tank *e* provided with fittings to mount it upon an ordinary gas-fixture, if more convenient.

Various changes may be made in the design of the device without departing from the scope of my invention.

It will readily be seen that the removal of the distributor from close proximity to the generator effectually prevents the heat arising from the lamp or other heater from acting as a drying agent upon the vapor de-

livered from the distributor—a serious defect in other devices of a similar character.

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

In a vaporizer, the combination of a cylindrical steam-generator *e* formed with a curved diaphragm *f* provided with perforations *g* leading into a chamber *m* mounted upon said
10 diaphragm, said chamber being adapted to contain a saturated sponge or towel for medicating the moist steam as it comes up through said perforations *g* in the diaphragm, a hollow wedge-shaped distributor *p* provided with
15 perforations *r* to allow the escape of steam,

the said distributor *p* being suitably connected by the hose *o*, the chamber *m* affording a means for the passage of the moist steam, and suitable means for generating steam in the aforesaid cylindrical generating- 20 chamber, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 16th day of January, 1899.

OLIN A. JOHNSTON.

Witnesses:

SYDNEY J. PRESCOTT,
C. P. COLTON.