

(No Model.)

C. F. JOHNSON.
VAPORIZER.

No. 488,790.

Patented Dec. 27, 1892.

Fig. 1.

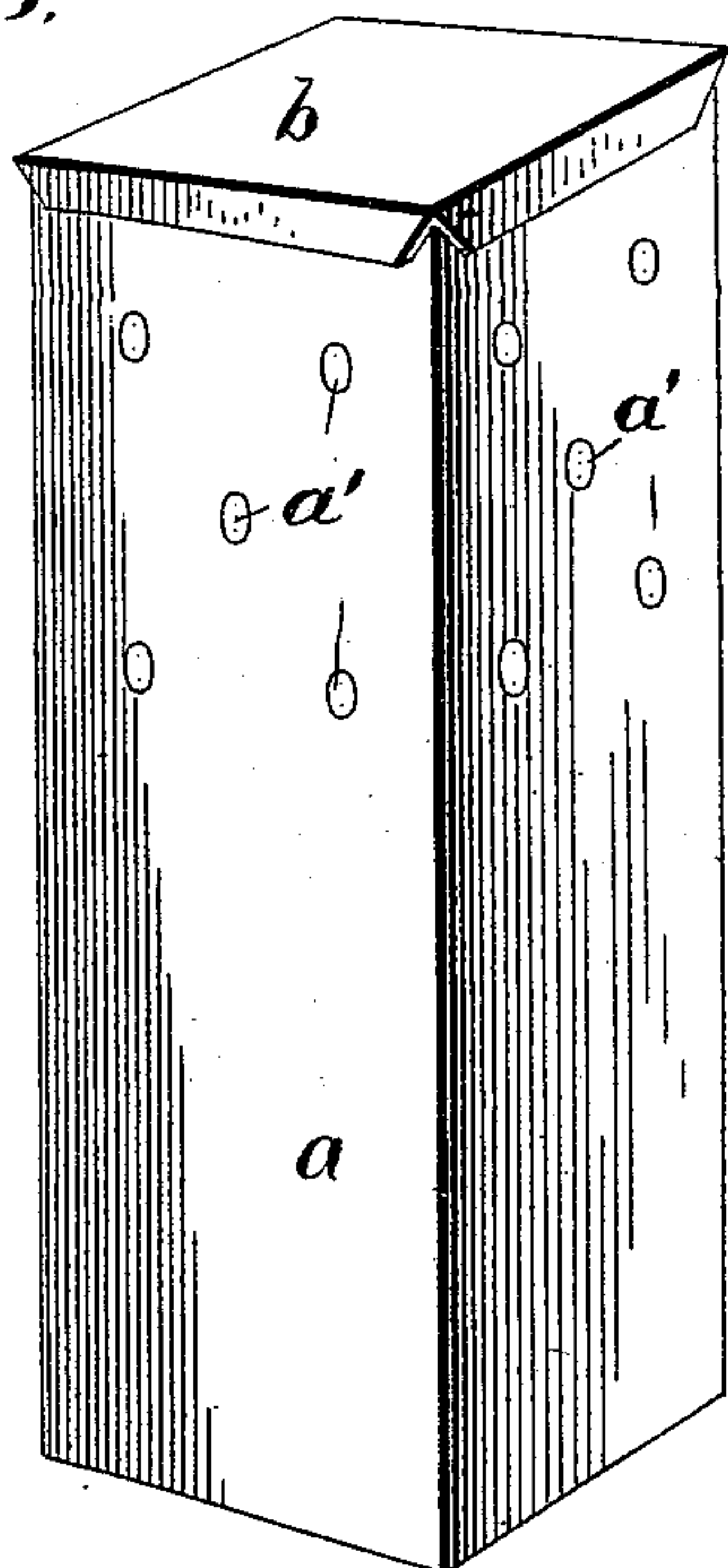


Fig. 2.

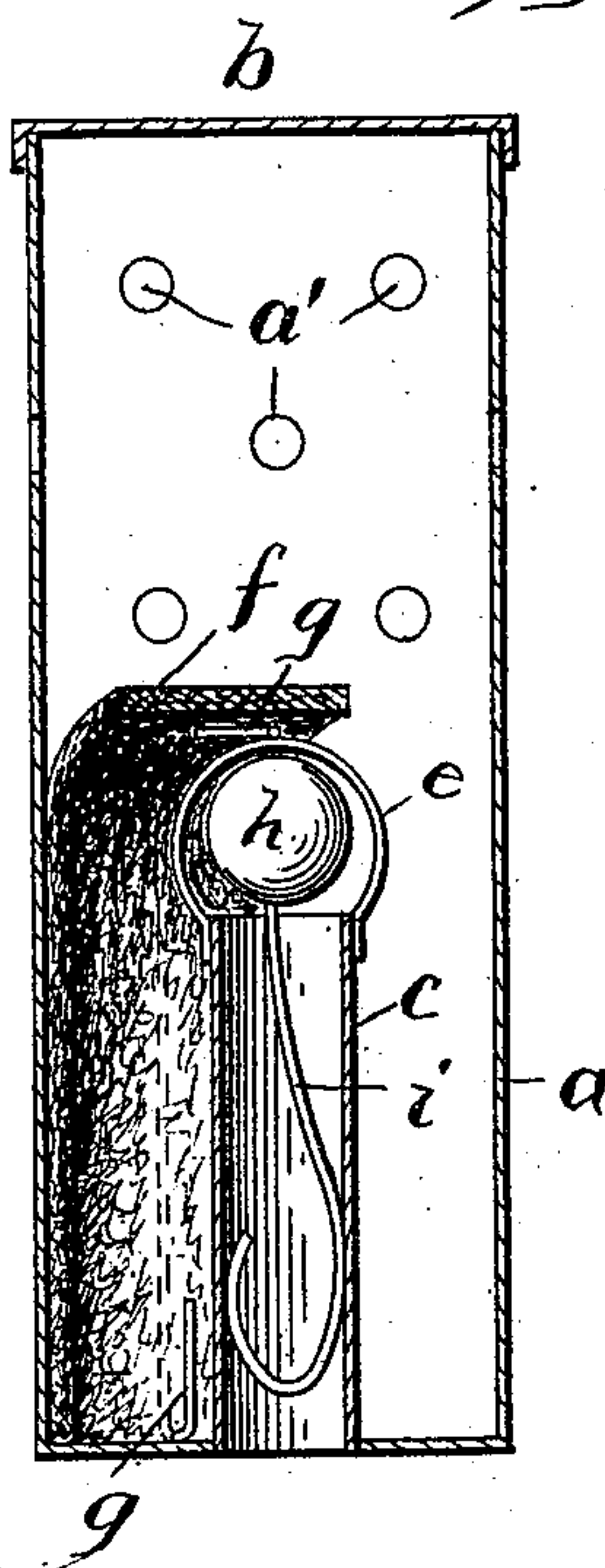


Fig. 4.

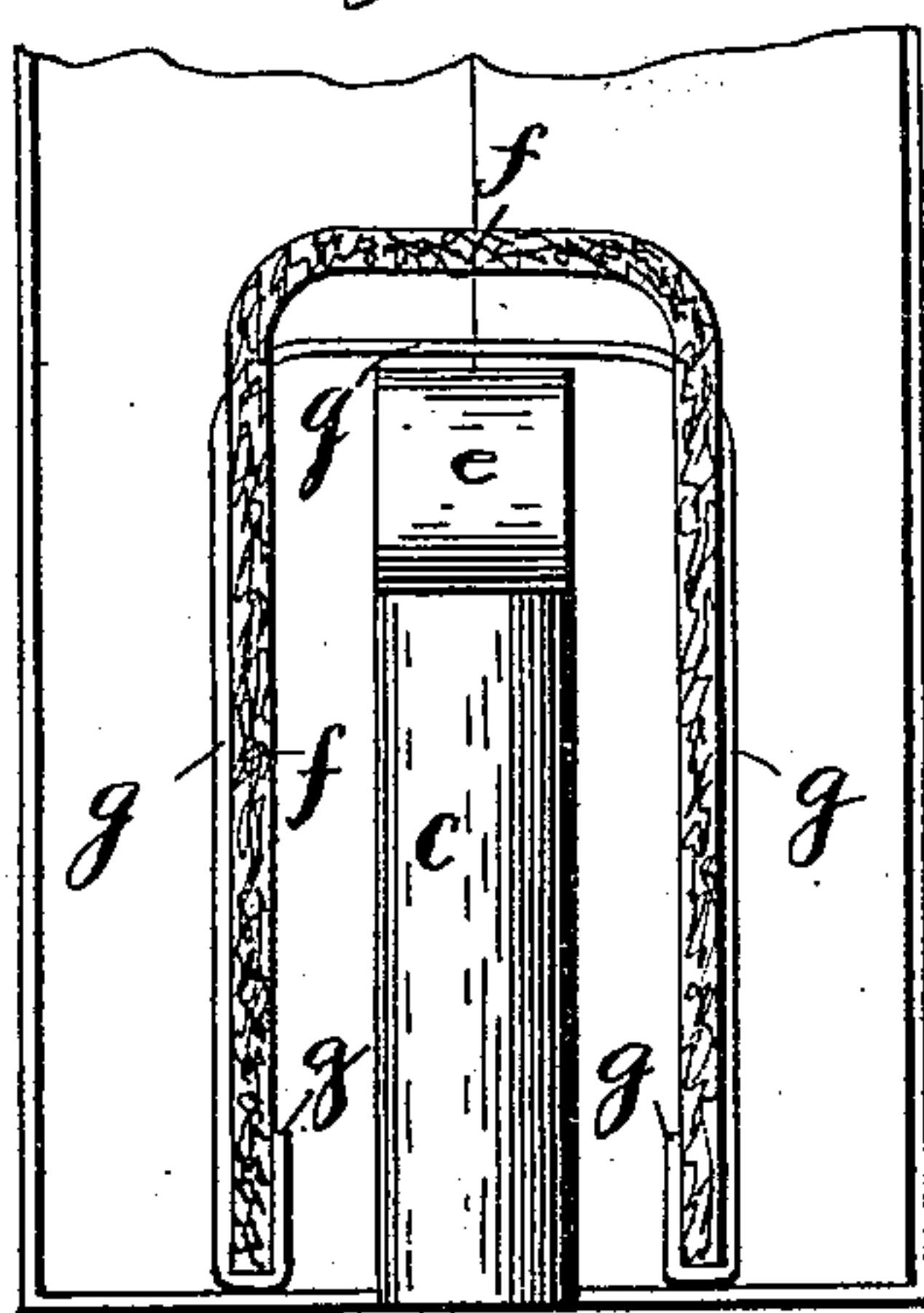
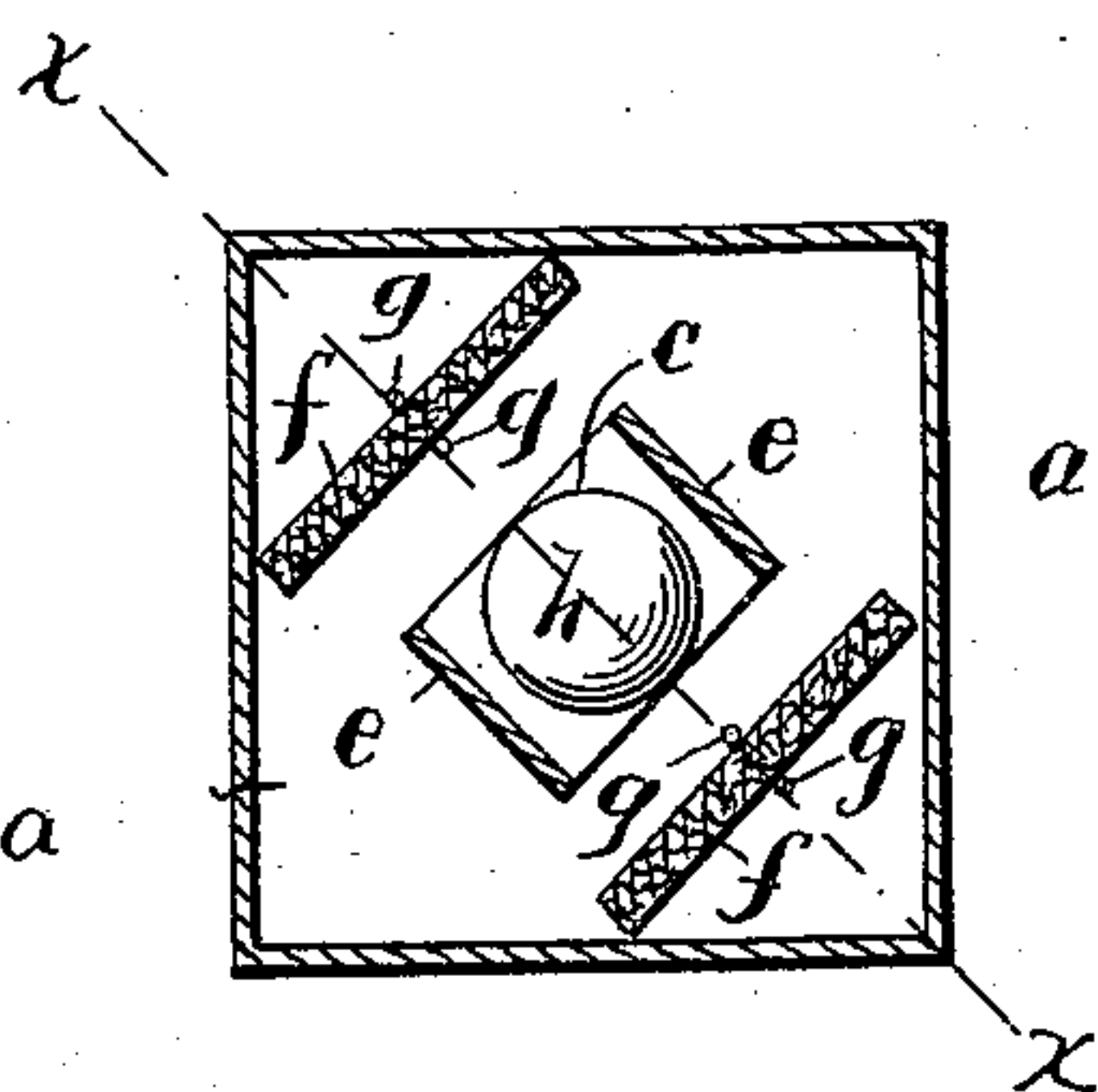


Fig. 3.



WITNESSES:

C. C. Duffy.

Hubert B. Peck.

INVENTOR

C. F. Johnson

BY

C. C. Duffy

ATTORNEY.

UNITED STATES PATENT OFFICE.

CHARLES F. JOHNSON, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO HENRY M. SOULE, OF SAME PLACE.

VAPORIZER.

SPECIFICATION forming part of Letters Patent No. 488,790, dated December 27, 1892.

Application filed January 28, 1892. Serial No. 419,568. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. JOHNSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Vaporizers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 part of this specification.

This invention relates to certain improvements in vaporizers.

The object of the invention is to provide an improved vaporizer exceedingly cheap, simple and durable in construction and which will thoroughly deodorize and purify the atmosphere by diffusing a volatile deodorizer or disinfectant in the air.

The invention consists in certain novel features of construction and in combinations of parts more fully described hereinafter and particularly pointed out in the claims.

Referring to the accompanying drawings, Figure 1, is a perspective view of the improved vaporizer. Fig. 2, is a longitudinal vertical section. Fig. 3, is a cross section. Fig. 4 is a detail sectional view.

In the drawings reference letter *a*, indicates a box or casing provided with the perforations *a'*, at the upper portions of its sides so that the atmosphere communicates with the interior of the box. This box is provided at the top with the cover *b*.

c, is a vertical air pipe within the box and extending upwardly from the bottom thereof a suitable distance preferably, to a point below the said air perforations *a'*. This pipe at its lower end opens through the bottom of the box and is open at its upper end which is covered by a hood or deflector *e*, to direct the air flowing up through the pipe laterally in two directions.

f, is a strip or section of absorbent material, such as felt, located within the box and extending over the hood on the upper end of the air pipe so that the air passing up through said pipe flows around and in contact with

the felt. This felt is saturated with a suitable deodorizer, disinfectant or other air purifying liquid which is volatile and easily diffused throughout the atmosphere. When the absorbent material is properly saturated, air flows up through the vertical air pipe into the lower portion of the casing, and around and in contact with the absorbent material, so that the disinfectant therein is diffused throughout the air, and the air thus saturated and loaded rises and passes out through the perforations. When this device is secured to the wall of a room hot air passes up through the air tube and keeps a continuous circuit of air through the device. All the air in the room will soon become purified and deodorized. The absorbent material is preferably in the form of a strip which is held in an inverted U-shaped position by means of the stiffening wires *g*, in the manner shown, and the strip thus formed is passed down in the box, with the ends against the bottom of the box, and the arch over and opposite the open sides or ends of the hood *e*, as clearly shown.

h, is a ball or other valve at or in the open end of the air inlet tube *c*, to regulate or cut off the inflow of air. This valve is freely movable vertically and is held in the desired vertical adjustment by a bent spring wire *i*, extending down into the tube *c*, and pressing against the sides thereof, as clearly shown, thereby holding the parts in the proper position by friction.

The great utility and many advantages of this invention are obvious.

It is evident that various slight changes might be made in the form, arrangement and constructions of the parts described, hence I do not wish to limit myself to the exact construction herein shown, but consider myself entitled to all such advantages as fall within the spirit and scope of my invention.

Having thus fully described my invention what I claim and desire to secure by Letters Patent is:—

1. The vaporizer, consisting of the box having the top openings, the air inlet pipe extending upwardly within the box from the bottom thereof, and having the open top, and

the strip of absorbent material bent U-shape at its upper portion provided with a stiffening strip of wire, and extending over the top of the pipe as set forth.

5 2. The vaporizer comprising a casing containing absorbent material, the air inlet pipe, and the ball held in the desired position at an end of the pipe by a spring, within and frictionally engaging the sides of the pipe,
10 whereby the inflow of air can be regulated substantially as described.

3. The vaporizer comprising a casing containing absorbent material with which the air passes in contact, the vertical air inlet pipe
15 having the open upper end, and the ball above said open end to regulate inflow of air, and provided with a bent spring extending down into and bearing against the sides of the pipe to hold the ball in desired position.

4. A vaporizer consisting of a box provided with air exit openings at the upper portion, the air inlet pipe extending up in the box from the lower portion thereof and provided with lateral air discharge openings at its upper end, and the strip of absorbent material
25 in the lower part of the box extending up as an arch over the end of said pipe opposite said discharge openings so that the air passes against and up around the edges of said strip, as set forth. 30

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

CHARLES F. JOHNSON.

Witnesses:

EVERETT M. MARSHALL,
A. C. NORCROSS.