

No. 695,657.

Patented Mar. 18, 1902.

R. F. W. SMITH.
OZONIZER FOR WOUNDS, &c.

(Application filed May 10, 1901.)

(No Model.)

2 Sheets—Sheet 1.

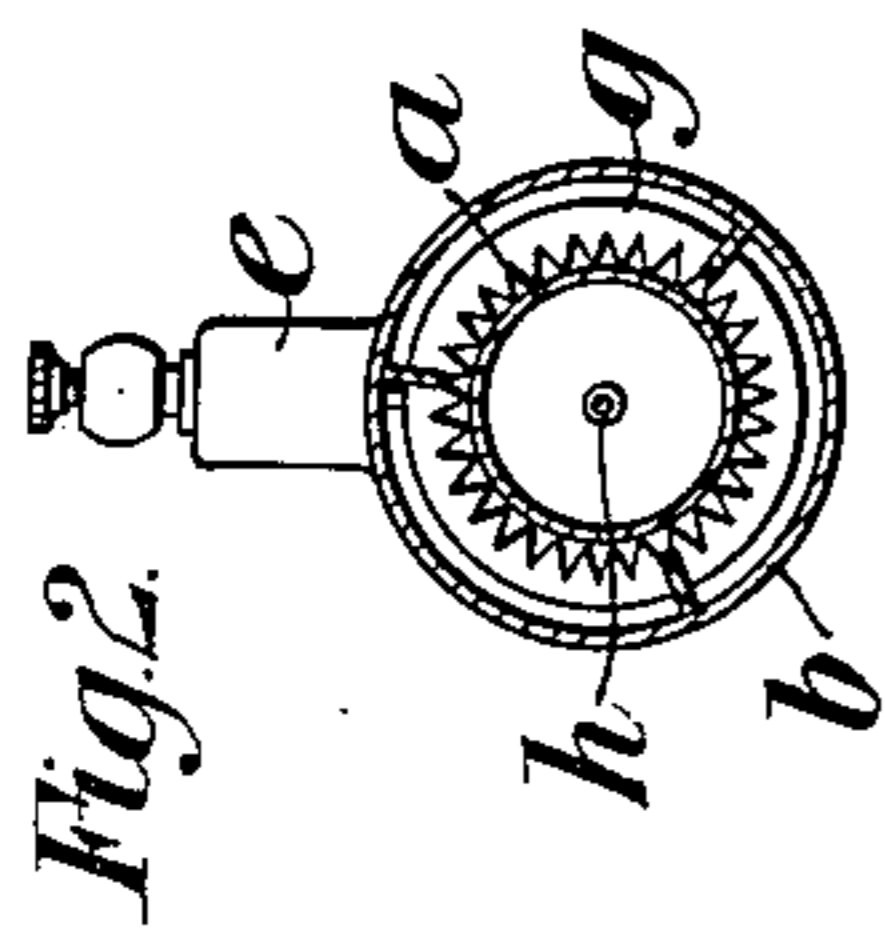


Fig. 2.

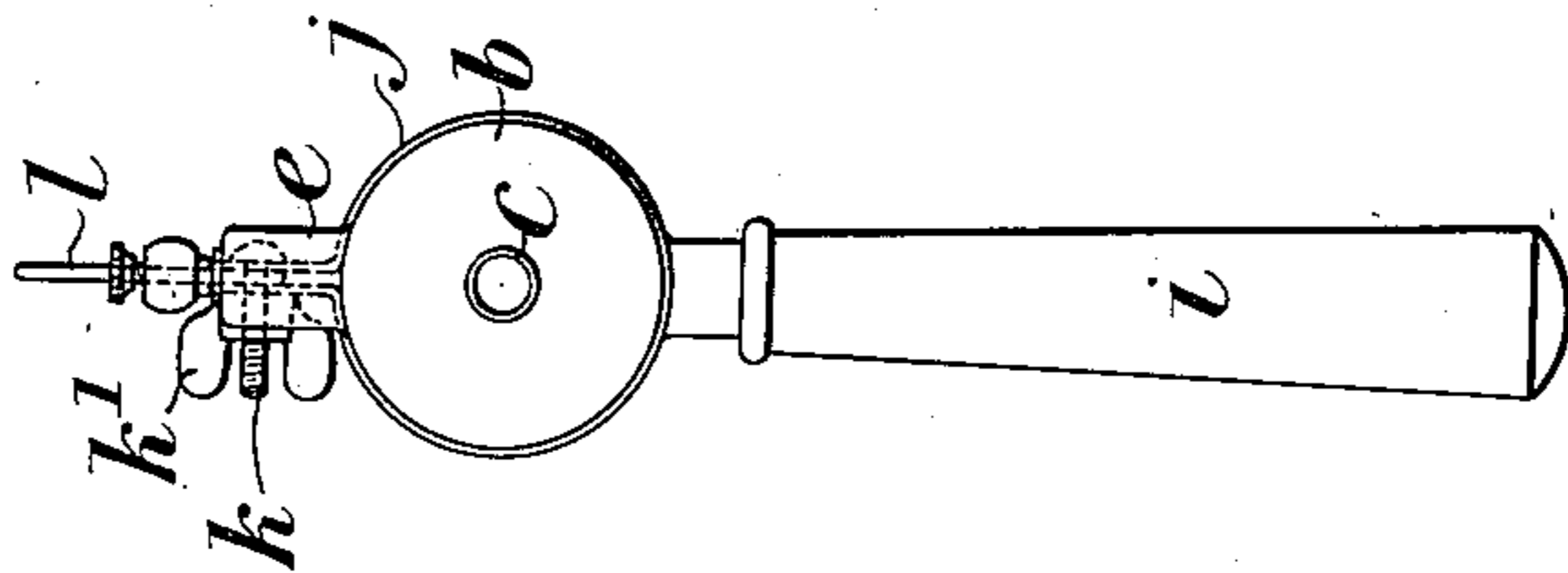


Fig. 4.

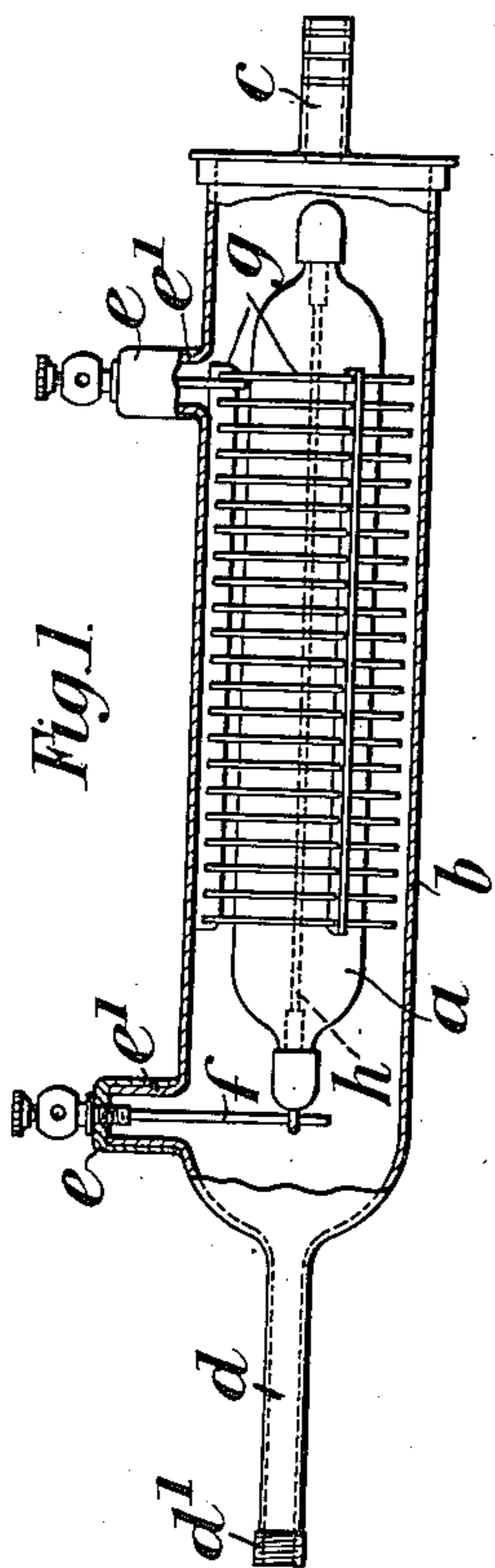


Fig. 1.

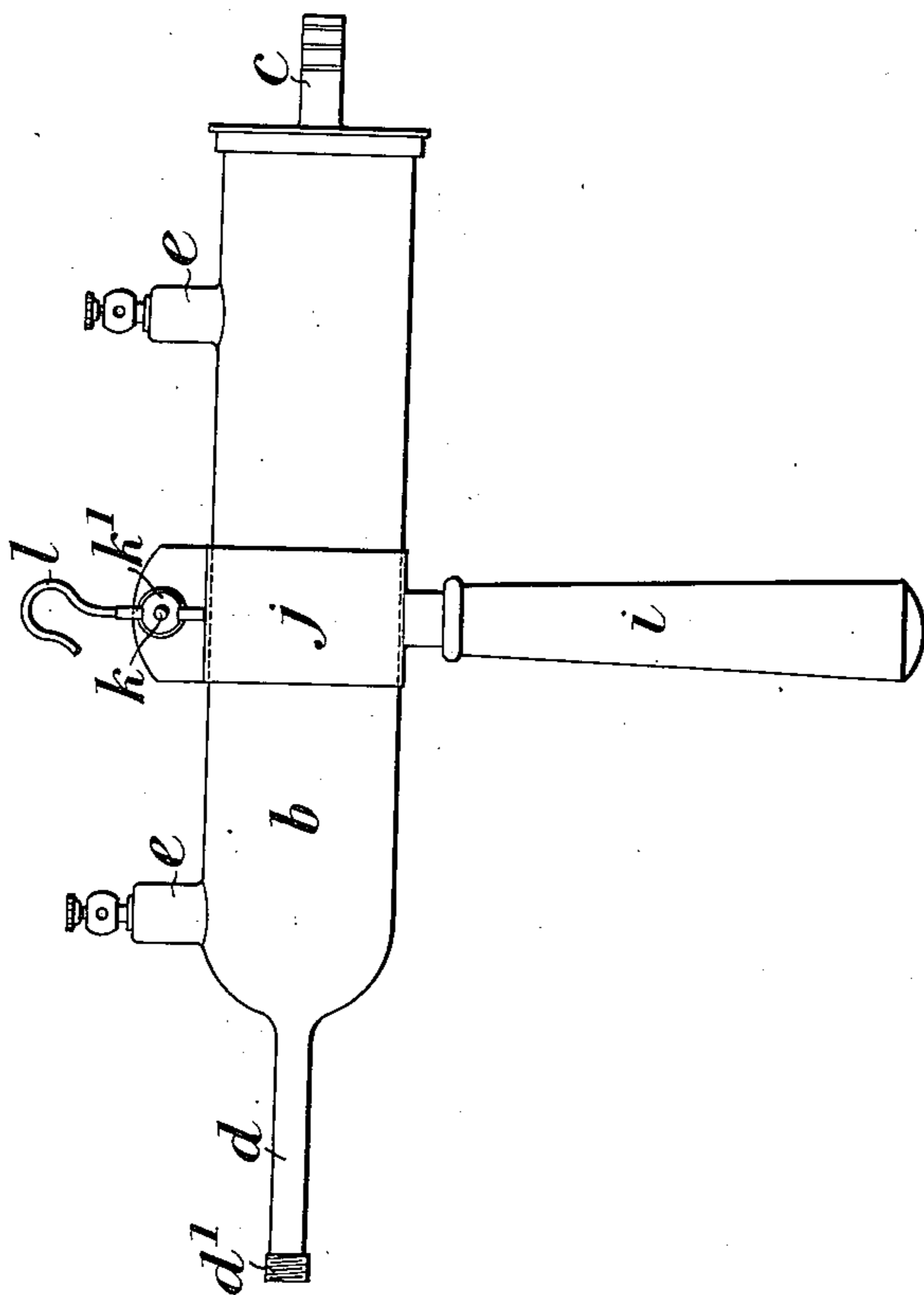


Fig. 3.

Witnesses

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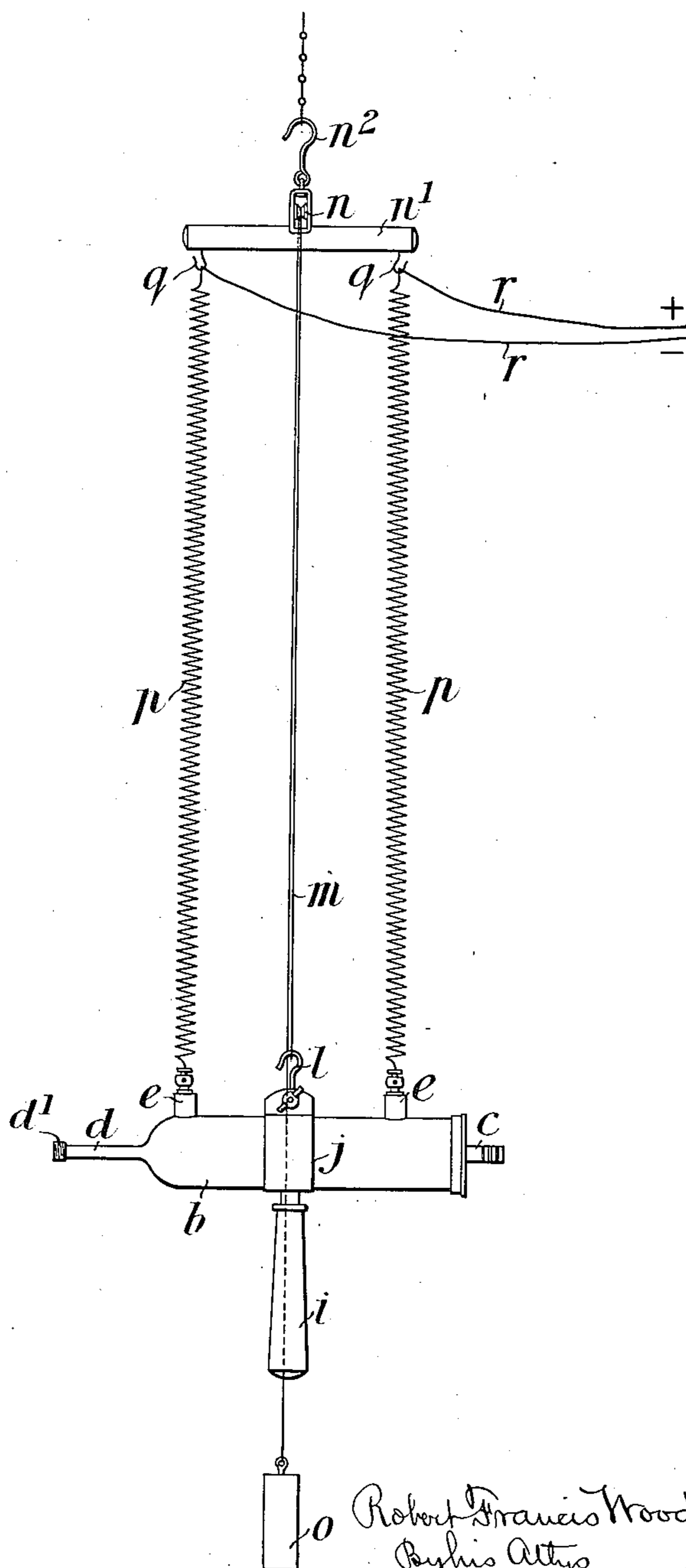
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2 Sheets—Sheet 2.

Fig. 5



Witnesses.

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UNITED STATES PATENT OFFICE.

ROBERT FRANCIS WOOD SMITH, OF LONDON, ENGLAND, ASSIGNOR TO THE
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OZONIZER FOR WOUNDS, &c.

SPECIFICATION forming part of Letters Patent No. 695,657, dated March 18, 1902.

Application filed May 10, 1901. Serial No. 59,653. (No model.)

To all whom it may concern:

Be it known that I, ROBERT FRANCIS WOOD SMITH, a subject of the King of Great Britain, residing at 89 Bartholomew Close, London, England, have invented new and useful Improvements in and Connected with Ozonizers, of which the following is a specification.

This invention relates to improvements in and connected with ozonizers, the object being to provide a portable instrument specially adapted for use medically for the treatment of wounds and the like, for sterilizing water, and for similar purposes.

According to the invention I make use of an ozonizer of the kind known as the "Andreoli" ozonizer, the said ozonizer being inclosed in a glass jacket or envelop, one end of which is provided with a nipple to receive an air-supply tube and the other end of which may be formed with an outlet-tube for the ozonized air. This outlet-tube is adapted to receive any one of a series of nozzles suited for the different purposes for which the instrument is to be used. The terminals are suitably attached (for example, cemented) on nipples or sockets formed upon the glass jacket, the said terminals having pins passing through the jacket and in contact, respectively, with the external metal conductor of the ozonizer and the wire running through the ozonizer-tube. Where the ozonizer is intended for use medically—for example, for the treatment of suppurating or gangrenous surfaces—it is advantageously provided with a handle having a clip which is secured to the outer jacket, the said clip being attached to the end of a cord which passes up and over a pulley upon a bar secured in any suitable position by means of a hook, the other end of the cord being provided with a counterweight. The bar is also provided with spring-wires which pass down through suitable receptacles and are connected to the terminals for supplying current to the ozonizer, thus enabling the apparatus to be used in any desired position and to readily move back after use to its original position.

In the accompanying drawings, Figure 1 is a sectional elevation of an ozonizer made according to the invention. Fig. 2 is a transverse section thereof. Fig. 3 is a side ele-

vation of the ozonizer fitted with a handle. Fig. 4 is an end view of the same, and Fig. 5 is an elevation showing the mode of suspending the ozonizer when used for medical purposes.

Referring first to Figs. 1 and 2, *a* is the ozonizer, of the Andreoli type, and *b* is the glass jacket or envelop, *c* being the nipple provided upon one end of the said envelop for receiving an air-supply tube, and *d* being the outlet-tube for the ozonized air, the said outlet-tube being shown provided at its outer extremity with a screw-thread *d'*, which enables any one of a series of nozzles to be screwed onto the said outlet-tube *d*, these nozzles being of different shapes to suit the different purposes for which the instrument is to be used. *e e* are the terminals, the said terminals being shown cemented onto glass nipples or sockets *e' e'*, formed upon the glass jacket or envelop *b*, and *f f* are the pins which are connected to the said terminals, as clearly shown in Fig. 1, and which extend down through the aforesaid nipples or sockets *e' e'* and are in contact, respectively, with the external metal conductor *g* of the ozonizer and with the wire *h*, passing through the ozonizer-tube.

In Figs. 3 and 4 the ozonizer is shown mounted in a suitable handle comprising the grip *i*, having the clip *j*, which is passed around the outer jacket or envelop *b* and is clamped by means of the screw *k* and wing-nut *k'*. By this means the ozonizer can be conveniently manipulated.

Fig. 5 illustrates the arrangement for suspending the ozonizer where such suspension is advantageous—for example, where the apparatus is intended for use medically, as above mentioned. In this arrangement the clip *j* is provided with the hook *l*, which is secured to one end of a cord *m*, passing upward and over the pulley *n*, mounted upon the bar *n'*, adapted to be suspended by means of the hook *n²* in any suitable position. *o* is the counterweight, which is attached to the other end of the cord *m* and which is of sufficient mass to counterbalance the weight of the ozonizer and handle. *p p* are the spring-wires, which are secured at their lower ends to the terminals *e e* and at their upper ends

to hooks *q q* upon the underside of the bar *n'*, these hooks also being in connection by means of the wires *r r* to the terminals for supplying electric current to the ozonizer.

5 With this arrangement the ozonizer can be conveniently manipulated and used in any desired position, the spring-wires *p p* returning the ozonizer to its normal position after use.

10 All the joints of the ozonizer are preferably made with a cement or other suitable fixing material able to withstand the temperature which is required for sterilizing the apparatus.

15 Having now particularly described and as-

certained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

The combination with an ozonizer of a cord passing over a pulley mounted upon a suspension-bar and attached at one end to the ozonizer and at the other to a counterweight, and of spring-wires secured respectively to the terminals of the ozonizer and to terminals upon the suspension-bar, substantially as hereinbefore described. 20 25

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Witnesses:

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