No. 676,299. Patented June 11, 1901.

H. F. BENSMANN & E. H. FIX.

STERILIZER FOR BARBERS.

(Application filed Sept. 22, 1900.)

(No Model.) 3 Sheets—Sheet 1.

Fig. 2.

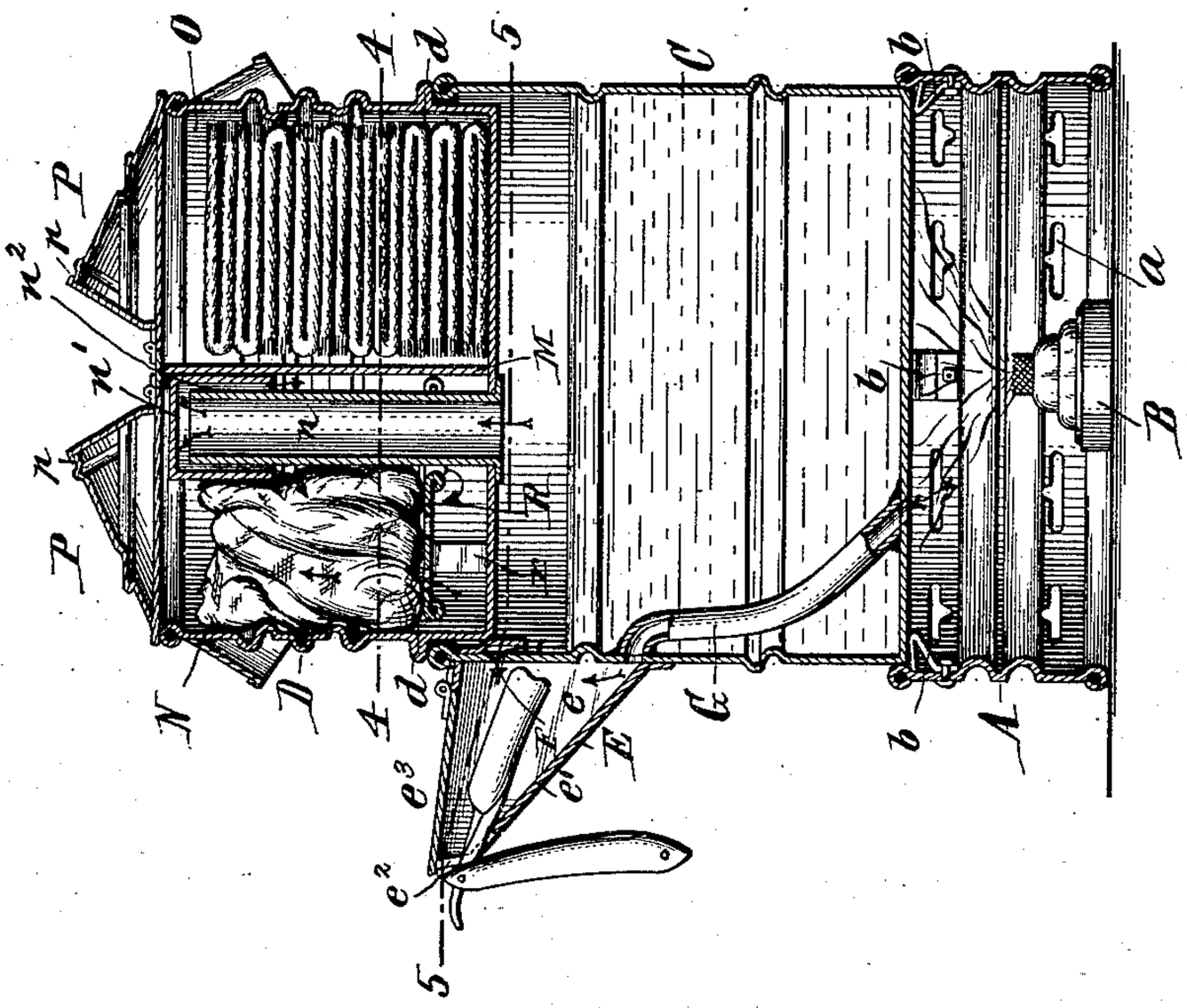
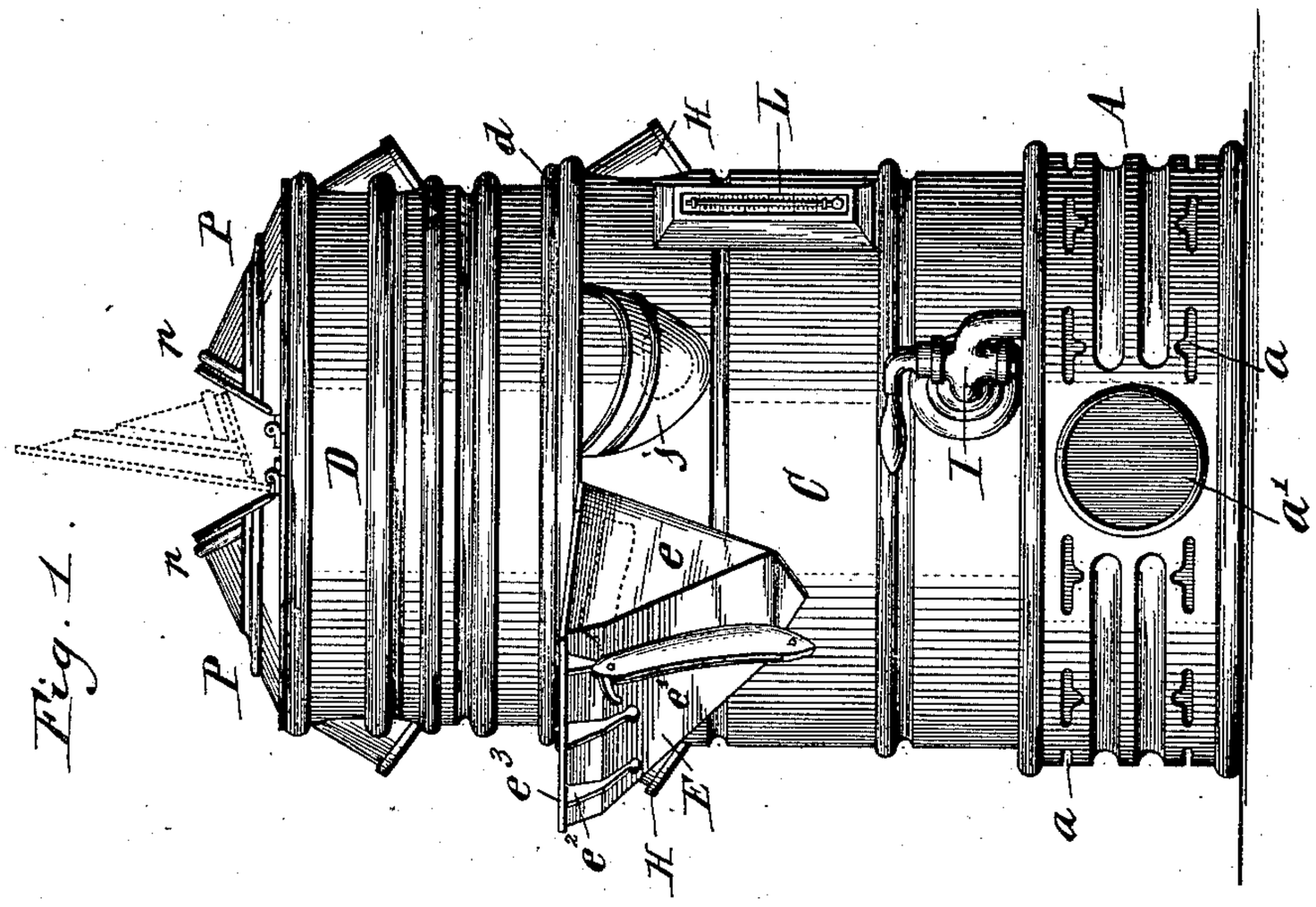


Fig. 1.



Witnesses:

Harry H. Steinstocke.

Allen G. Fraser.

Henry F. Bensmann,
Edward H. Fix,
} Inventors.

By Neuhart & Burkhart,

Attorneys.

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Fig. 3.

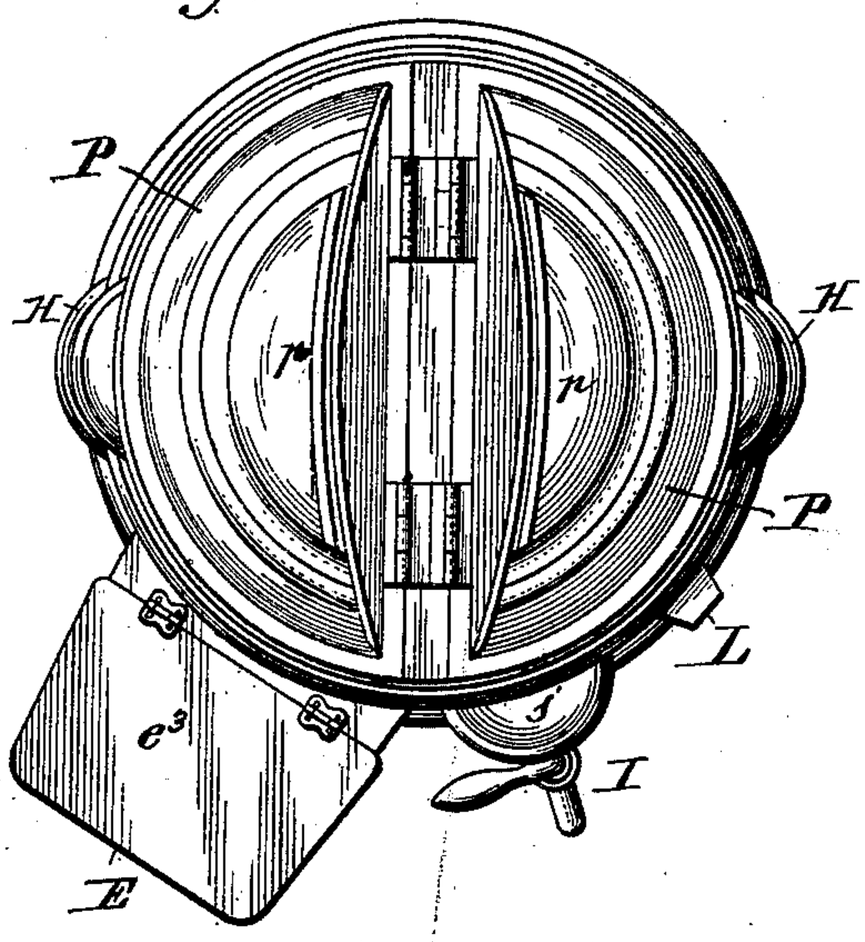


Fig. 4.

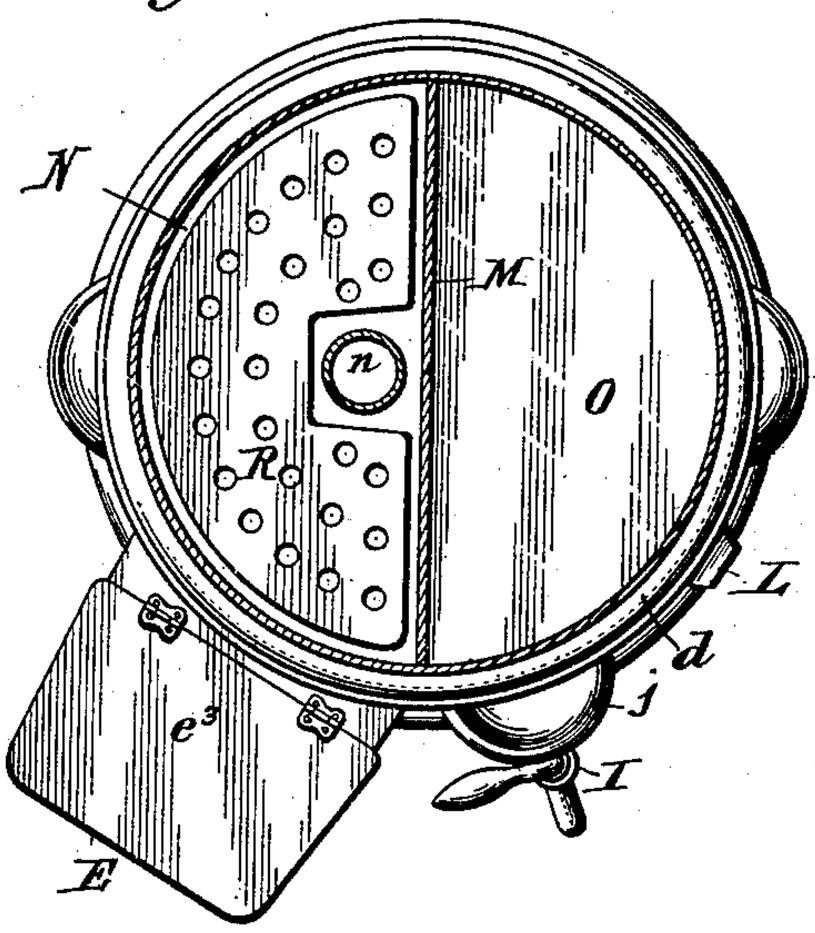


Fig. 5.

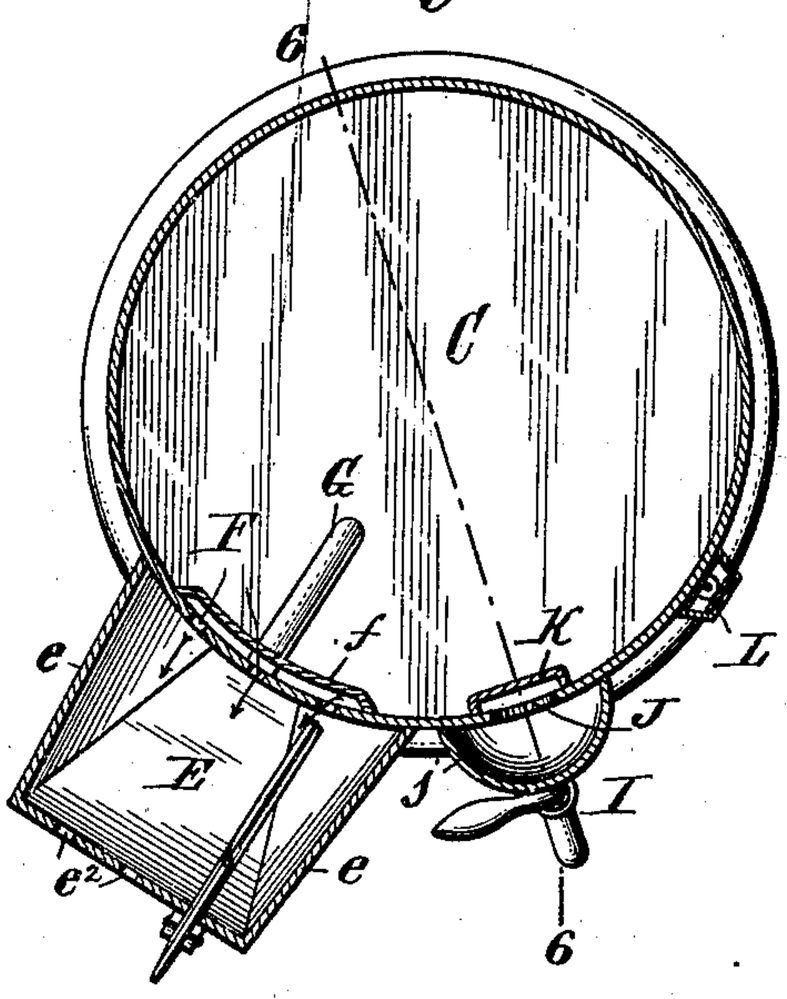
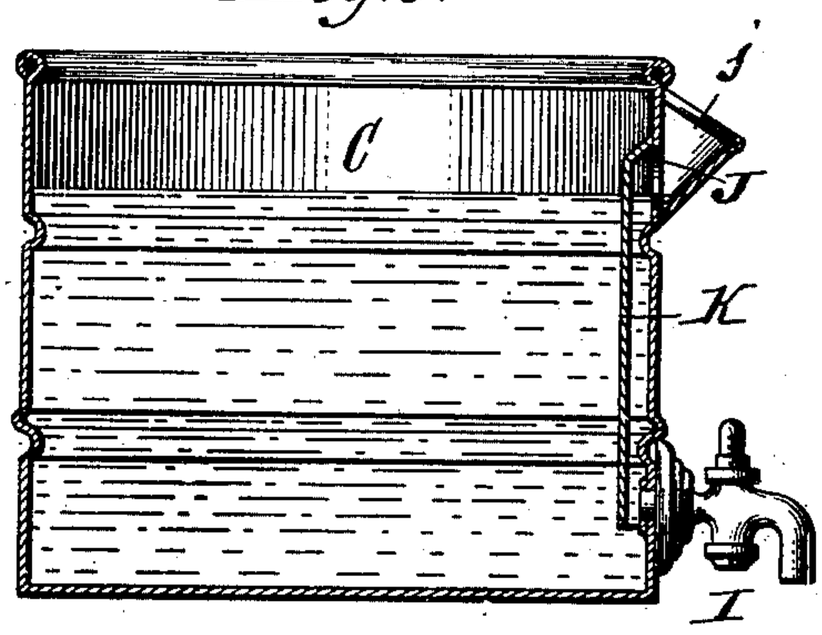


Fig. 6.



Witnesses:
Harry F. Steinstocke
Allen G. Fraser.

Henry F. Bensmann,
Edward H. Fix,
} Inventors.

By Neuhart & Burkhart,
Attorneys.

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Fig. 8.

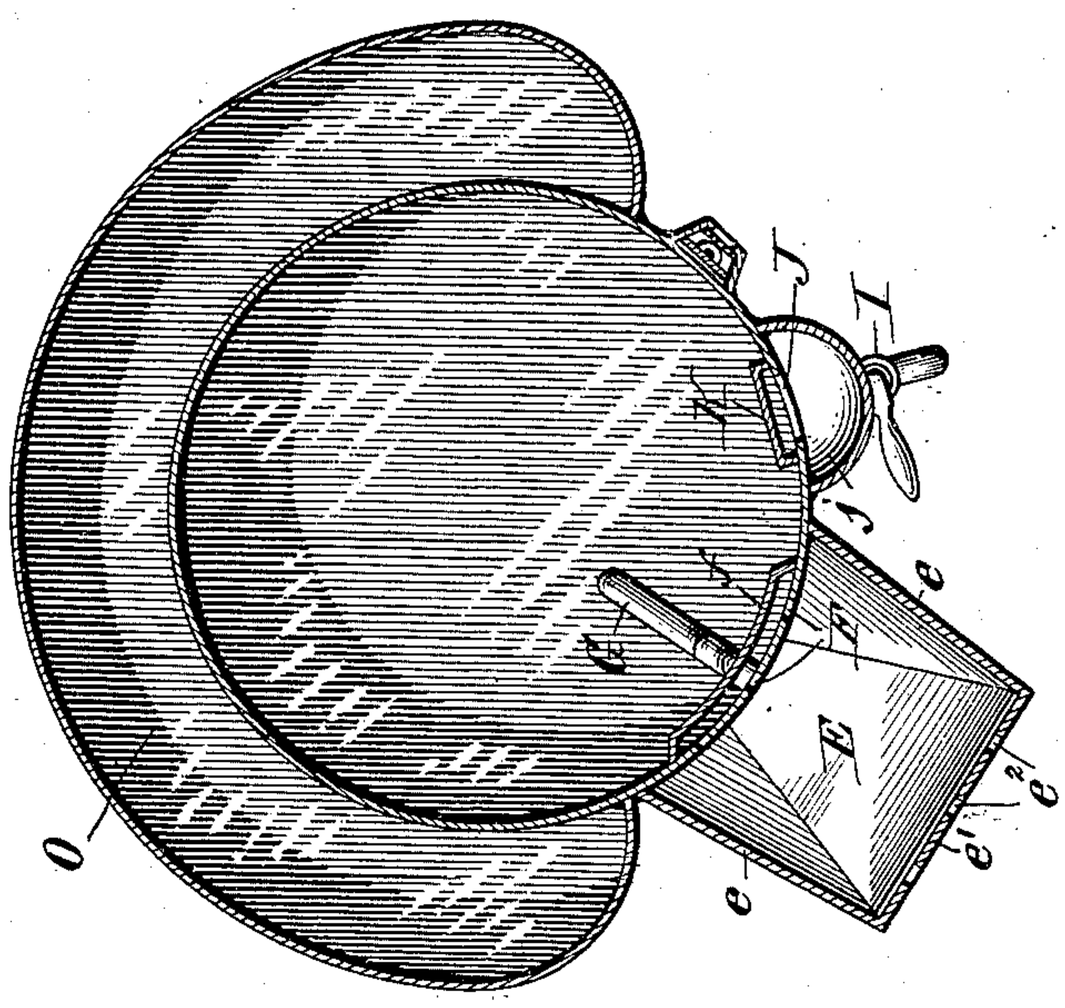
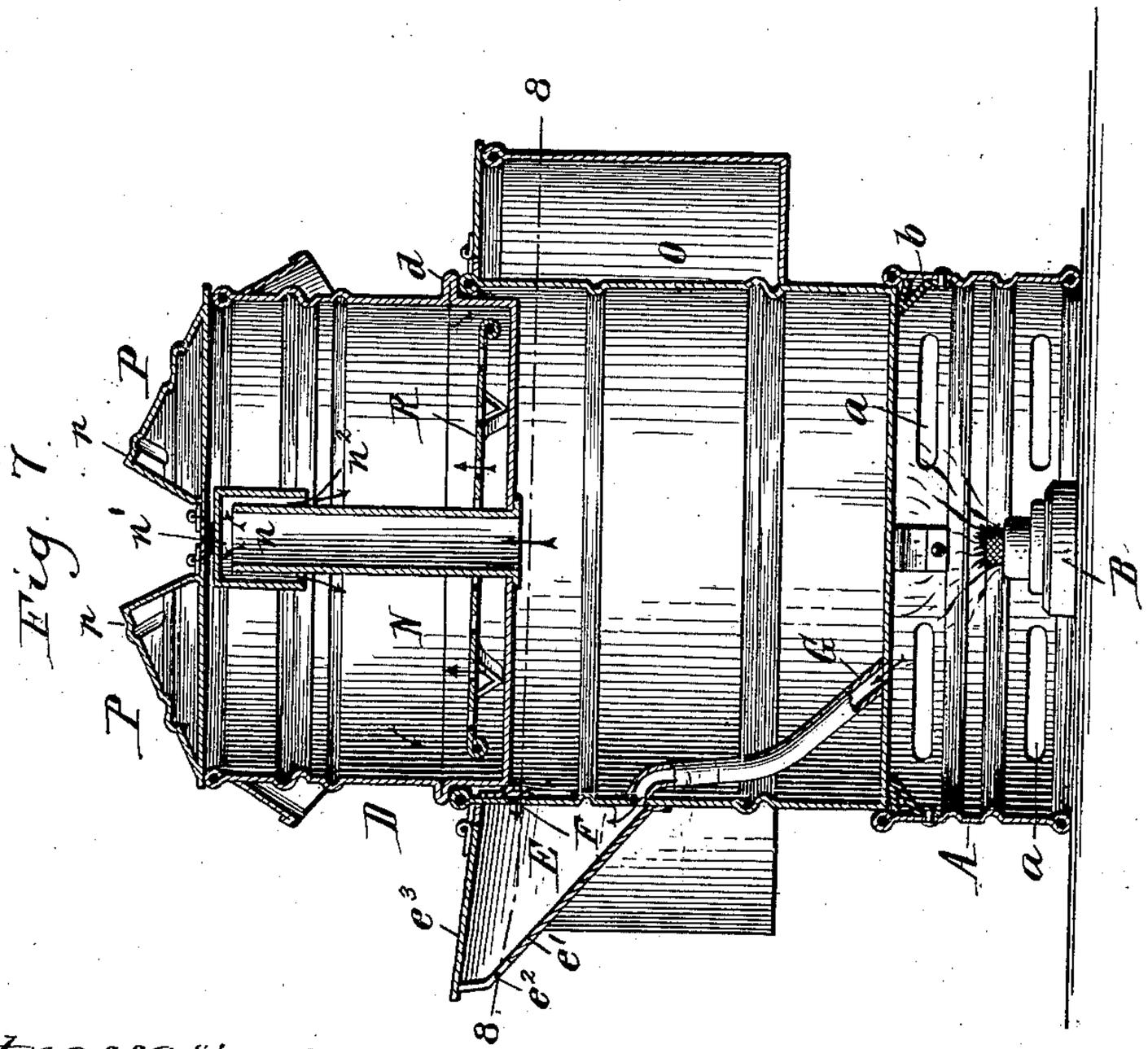


Fig. 7.



Witnesses:
Harry H. Heinstock
Allen G. Fraser.

Henry F. Bensmann,
Edward H. Fix,
} Inventors
By Neuhart & Burkhart
Attorneys.

UNITED STATES PATENT OFFICE.

HENRY F. BENSMANN AND EDWARD H. FIX, OF BUFFALO, NEW YORK.

STERILIZER FOR BARBERS.

SPECIFICATION forming part of Letters Patent No. 676,299, dated June 11, 1901.

Application filed September 22, 1900. Serial No. 30,846. (No model.)

To all whom it may concern:

Be it known that we, HENRY F. BENSMANN and EDWARD H. FIX, citizens of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Sterilizers for Barbers, &c., of which the following is a specification.

Our invention relates to sterilizers, and more particularly to a barber's sterilizer, in which razors, towels, cups, &c., are subjected to the action of steam or hot air, or both steam and hot air.

It very frequently happens that contagious diseases are caused to become spread among patrons of a barber by the use of a towel, razor, or other article which may have been previously used on another person afflicted with a skin or other disease. Several sterilizers have been devised, but are objectionable, for the reason that they are unsanitary and fail to provide against the spread of disease, since they require the article to be sterilized to be positioned directly over the water, which therefore receives the drippings and germs from the article, and is thereby contaminated. This water is drawn from the vessel or receptacle for use in shaving-cups and is applied to the face of the patron in the form of lather. It is therefore highly essential that this water remain pure and free from any foreign matter in order to provide a sanitary and hygienic sterilizer.

The objects of our invention are to overcome the objections mentioned above, and also to overcome practical structural objections; to provide means whereby the razors are subjected to both the action of steam and hot air, which leaves them perfectly dry without the necessity of wiping the same before using, and to so construct the device that the towels which are being sterilized are subjected to the action of steam in such a manner that they may be taken from the sterilizing-chamber ready for use without the necessity of wringing out, as heretofore required, as no surplus moisture is contained therein.

The invention consists in the combination of elements or parts, as will be hereinafter described, and pointed out in the claims.

The fundamental features of this invention are susceptible to a wide range of variation without departing from the essence thereof; but the preferred embodiment is shown in the accompanying drawings, in which—

Figure 1 is an elevation of our improved sterilizer. Fig. 2 is a central vertical section through the same. Fig. 3 is a plan view thereof. Fig. 4 is a horizontal section taken on line 4 4, Fig. 2. Fig. 5 is a similar section taken on line 5 5, Fig. 2. Fig. 6 is a vertical section of the water-receptacle detached, taken on line 6 6, Fig. 5. Fig. 7 is a central vertical section through a sterilizer embodying our improvements in a modified form. Fig. 8 is a horizontal section on line 8 8, Fig. 7.

Referring to the drawings in detail, like letters of reference refer to like parts in the several figures.

We construct our device by providing a base A, having air-apertures *a*, arranged ornamentally around the same, and an opening *a'* of sufficient size for lighting the heater B placed therein, which latter may be a gas or gasolene heater, as desired. If desired, the water-receptacle may be set directly on a stove of any common construction without the need of the base A and heater B. To the inner periphery of the base supporting-brackets *b* are secured, on which the water-receptacle C is supported. This receptacle is of a diameter slightly less than the diameter of the base, so as to enter the same, and is filled with water, which is heated by the heater B to generate steam. It is made water-tight and has its upper end open to receive the lower end of a superposed receptacle D, having an annular flange *d* formed thereon, which rests on the upper edge of the water-receptacle and positions the bottom of the receptacle D the proper distance from the upper edge of the water-receptacle.

Extending from one side of the water-receptacle C is a razor-sterilizing chamber E, which may be of any shape or form, but as shown in the drawings has its upper end open and extending out from the periphery of the water-receptacle a distance somewhat greater than the length of an ordinary razor-blade and slightly wider at the periphery of the water-receptacle than at its outer end. The side walls *e* of the same are made converging, and the outer wall *e'* is inclined from the

outer end of the chamber inwardly to the periphery of the water-receptacle. From the upper edge of the outer wall e' slots e^2 are formed, which are gradually narrowed from their outer ends inwardly, so as to receive and hold razors of different sizes. A cover e^3 is hinged to the chamber at a point near its rear end and overlaps the front wall e'. By having this chamber arranged on the outside of the water-receptacle the razors can be conveniently placed therein or taken therefrom without bringing the edges of the same in contact with any part of the sterilizer. Apertures F are formed in the wall or casing of the water-receptacle in line with the slots e^2, and a hood f is soldered or otherwise secured to the inner side of said wall or casing, so as to cover said apertures, its lower end only being open and communicating with the water-receptacle, and its object being to prevent the distillation of steam from entering said apertures. A tube G, communicating with the base A and razor-sterilizing chamber, passes through the water-receptacle and has one end thereof secured in or to the bottom of said receptacle and its other end to the wall or casing of the same at a point in line with the vertical center of the razor-sterilizing chamber and even with the lowest point thereof, the tube being well soldered to the wall and bottom of the receptacle, so as to make the same water-tight. The razors, as shown in Figs. 1, 2, and 5, are placed in the slots e^2 edge up, that portion of the blade adjacent to the handle entering the slot and the handle turned on the blade to extend down. This brings the blades in line with the apertures F, formed in the wall or casing of the water-receptacle. The steam enters the chamber E through the apertures F and is directed against the blades of the razors, while hot air from the base A enters through the tube G and also comes in contact with the razors. When the heater is properly regulated, the hot air passing up through the tube G consumes the steam and leaves the razors perfectly dry and ready for use without the necessity of wiping the same, as heretofore required. The razors are thus subjected to both the action of steam and hot air, which assures entire destruction of the germs and prevents the communication of diseases by shaving. The apertures F also act as steam-escapes in the event of there being an overpressure of steam in the water-receptacle. The excess steam passes down through the tube G where it is consumed by the heater B.

The water-receptacle is provided with handles H, whereby it may be lifted from the base for cleaning the heater. A faucet I is secured in the wall of the water-receptacle, from which water may be drawn for use in shaving-cups. A water-inlet J is formed in the wall or casing of the water-receptacle at a point near its upper end, and a funnel-like receptacle j is soldered to said wall or casing directly over the inlet J, into which the water is poured and enters said inlet. A tube K is secured to the inner side of said wall or casing directly in rear of the water-inlet J. This tube extends from above said inlet to a point near the bottom of the water-receptacle and is closed at all points except at its bottom, it forming a water seal to prevent the escape of steam through the inlet J. When the water lowers to a point below the bottom of this tube, the steam enters the same and escapes through the inlet J, thereby showing the need of more water. A thermometer L is secured to the water-receptacle to show the degree of heat of the water, which can be regulated by the heater as desired.

The superposed receptacle D is divided by a partition or diaphragm M into two chambers N O, each having a cover P, which is practically steam-tight and hinged near the center of the receptacle. The chamber O has its walls and bottom imperforate and acts as a hot-air chamber for heating dry towels, &c., the air contained therein being heated by the hot water in the receptacle below.

The chamber N is used for sterilizing towels, cups, brushes, &c., it having a tube n passing through its bottom, which is soldered thereto and extends up to within a short distance from the cover of the chamber. A cap or hood n' of a size in diameter somewhat larger than the diameter of the said tube is positioned over the mouth thereof and slightly elevated above the upper edge of the same to form a steam-passage n^2. This cap is held by soldering to the partition M or in any other suitable manner. In the chamber N a perforated false bottom R is placed, which is elevated from the true or imperforate bottom by legs r, secured to the under side of the same. This perforated bottom is removable and is somewhat smaller than the chamber in which it is placed, so as to form a space all around the same. The towels or other articles to be sterilized are placed thereon, and the steam from the water-receptacle passes up through the tube n, at the upper end of which it is directed downwardly by the cap n' against the towels and around the perforated bottom, thence underneath the same and through the perforations, as shown by arrows in Fig. 2, thus thoroughly sterilizing the towels or other articles. By directing the steam in this manner the towels are properly steamed without becoming too wet, which necessitates their being wrung out before being used.

Each cover P is formed with a ridge or elevation p, caused by inclining the same from its rear end upwardly and slightly forward and by inclining the same from its front end upwardly and rearwardly to meet the inclined rear face. This inclined rear face forms a stop or rest for the opposite cover when open, as shown in Fig. 1. By reason of the formation of the cover as described when one cover is open the ridge or elevation of the same bears against the rear inclined face of the op-

posite cover, which latter will on the slightest move toward opening the same cause the open cover to swing on its hinges and close the same.

In the modification shown in Figs. 7 and 8 the hot-air chamber O is shown as partly surrounding the water-receptacle, while the entire superposed receptacle D is utilized as the sterilizing-chamber N.

Having thus described our invention, what we claim is—

1. In a sterilizer, the combination with the heater, of a water-receptacle, a razor-sterilizing chamber separated therefrom by a wall or partition, and a hot-air tube passing through the water-receptacle and extending from a point at or near the heater to said sterilizing-chamber, substantially as set forth.

2. In a sterilizer, the combination with the heater, of a water-receptacle, a razor-sterilizing chamber separated from said water-receptacle by a wall or partition, a hot-air tube passing through the water-receptacle and extending from a point at or near the heater to said sterilizing-chamber, and a second sterilizing-chamber having connection with the water-receptacle by a passage through which steam may enter from said water-receptacle, substantially as set forth.

3. In a sterilizer, the combination with the heater, of a water-receptacle, a razor-sterilizing chamber separated from said water-receptacle by a wall or partition, a hot-air tube passing through the water-receptacle and extending from a point at or near the heater to said sterilizing-chamber, a second sterilizing-chamber positioned over said water-receptacle, and a tube connecting said second sterilizing-chamber with said water-receptacle, said tube extending from the bottom of said chamber to a point near its upper end, substantially as set forth.

4. In a sterilizer, the combination with the heater, of a water-receptacle, a razor-sterilizing chamber separated from said water-receptacle by a wall or partition, a hot-air tube passing through the water-receptacle and extending from a point at or near the heater to said sterilizing-chamber, a second sterilizing-chamber positioned over said water-receptacle, a tube secured to the bottom of the last-mentioned chamber and extending to a point near its upper end, said tube connecting the water-receptacle with the said chamber, and a hood or cap somewhat larger in diameter than said tube secured to the upper end of the same, substantially as set forth.

5. In a sterilizer, the combination of the water-receptacle, a razor-sterilizing chamber separated therefrom by a wall or partition having an aperture for the passage of steam through the same, a hot-air tube passing from a point at or near the base of the water-receptacle to said sterilizing-chamber, and a tube arranged on the water-receptacle and extending from a point at or near the upper end of the latter to a point near its bottom, thus allowing the escape of steam through said tube only, when the water reaches a point below the bottom of the same, substantially as set forth.

6. In a sterilizer, the combination of the water-receptacle, a razor-sterilizing chamber separated therefrom by a wall or partition having an aperture for the passage of steam through the same, and a hot-air tube passing from a point at or near the base of the water-receptacle to said razor-sterilizing chamber, substantially as set forth.

7. In a sterilizer, the combination of the water-receptacle, a razor-sterilizing chamber separated therefrom by a wall or partition having an aperture for the passage of steam through the same, a hot-air tube passing from a point at or near the base of the water-receptacle to the razor-sterilizing chamber, and a second sterilizing-chamber separated from the water-receptacle by a wall or partition having a steam-passage, substantially as and for the purpose set forth.

8. In a sterilizer, the combination of the water-receptacle, a razor-sterilizing chamber separated therefrom by a wall or partition having an aperture for the passage of steam through the same, a hot-air tube passing from a point at or near the base of the water-receptacle to said sterilizing-chamber, a second sterilizing-chamber separated from said water-receptacle by a wall or partition having a steam-passage formed therein, and a hot-air chamber separated from the water-receptacle by a wall or partition, substantially as set forth.

9. In a sterilizer, the combination with the heater, of a water-receptacle heated thereby, a razor-sterilizing chamber formed on one side of said water-receptacle and being separated therefrom by a wall or partition having an aperture for the passage of steam through the same, a downwardly-opening hood secured to said wall in the water-receptacle so as to cover said aperture, a hot-air tube passing through the water-receptacle and terminating at one end above the heater and at the other end at the bottom of the razor-sterilizing chamber, upwardly-opening slots for holding the razors formed in the outer wall of said razor-sterilizing chamber, a hot-air chamber and a second sterilizing-chamber having a steam-inlet, both located above the water-receptacle, substantially as set forth.

HENRY F. BENSMANN.
EDWARD H. FIX.

Witnesses:
EMIL NEUHART,
HARRY H. WEINSTOCK.