

No. 641,715.

Patented Jan. 23, 1900.

J. A. MERRITT.  
ANTISEPTIC APPARATUS.

(Application filed May 25, 1899.)

(No Model.)

Fig. 1.

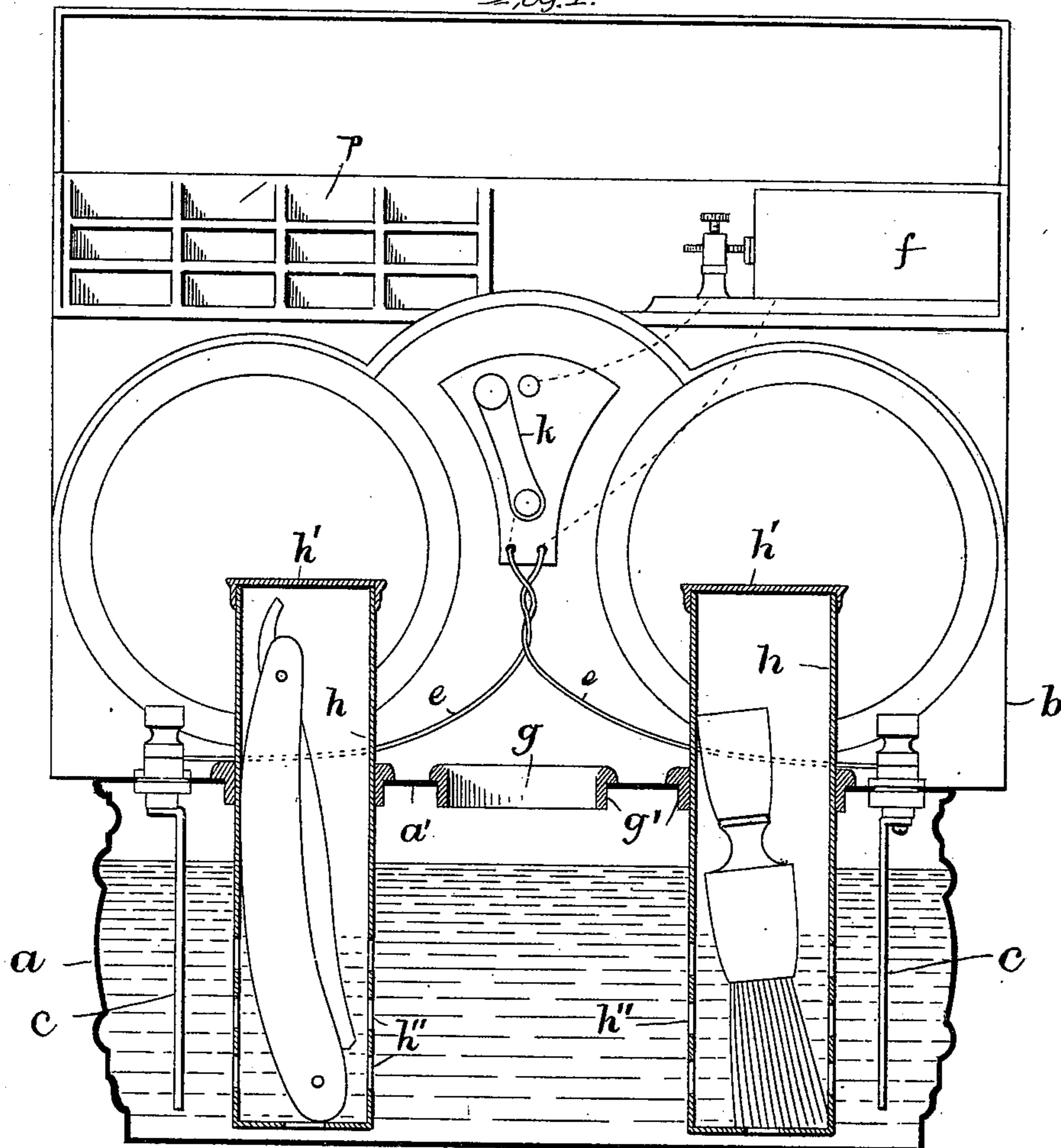
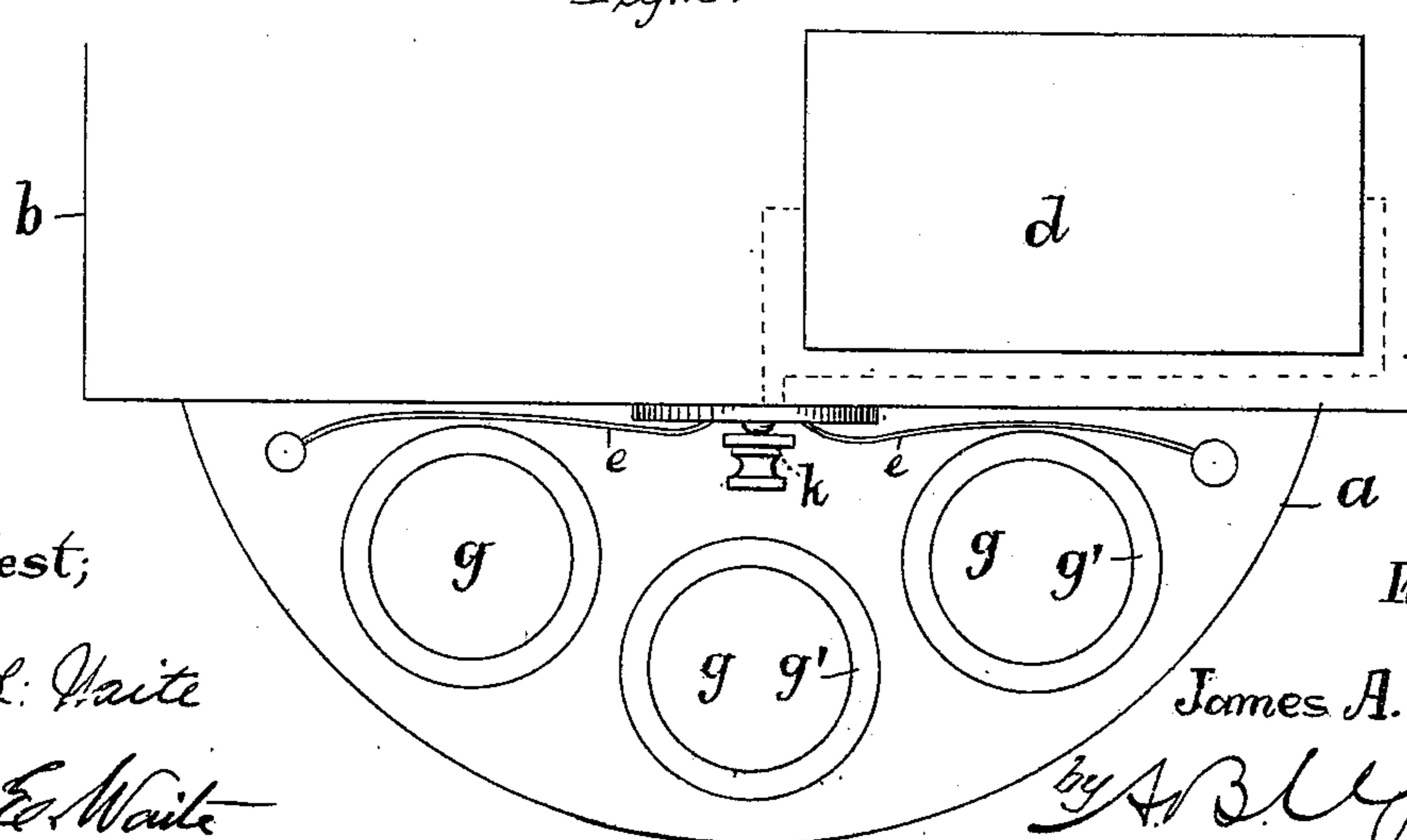


Fig. 2.



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# UNITED STATES PATENT OFFICE.

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## ANTISEPTIC APPARATUS.

SPECIFICATION forming part of Letters Patent No. 641,715, dated January 23, 1900.

Application filed May 25, 1899. Serial No. 718,142. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES A. MERRITT, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Antiseptic Apparatus, of which the following is a full, clear, and exact description.

The object of this invention is the construction of improved apparatus by means of which the razors, lather-brushes, combs, and similar articles in use by public hair-dressers and others may be quickly and thoroughly rendered incapable of transmitting infectious germs or other organic matter from customer to customer. This I accomplish by the construction hereinafter set forth, and illustrated in the drawings forming part of this specification, in which—

Figure 1 is a front sectional elevation of the invention, and Fig. 2 is a plan view of the major part thereof.

My apparatus comprises a base *a*, constituting a receptacle for the antiseptic solution, an upper portion *b*, adapted to hold the battery, an induction-coil, and the razor-pockets, and the removable holders *h*, into which the articles are placed for treatment. Said receptacle *a*, which is preferably circular in plan and formed from sheet metal, has the electrode-plates *c* suspended from its ceiling, at approximately diametrical points thereof, and suitably insulated therefrom. These electrodes are connected through suitable wires *e* to the battery *d*. (Shown in Fig. 2.)

Through the top *a'* of the receptacle *a* are three apertures *g*, more or less, each provided with an insulating-rim *g'*. The inner diameter of these rims is made approximately equal to the exterior diameter of the tubular holder *h*, being thereby adapted to sustain a holder when placed therein, as shown in Fig. 1. Said holders are each made of suitable dimensions to receive a razor, lather-brush, comb, or similar article, while the covers *h'* are adapted to be pressed thereon tightly enough to be air-tight. The lower ends of these holders are perforated, as at *h''*, to permit free access therein and passage therethrough of the antiseptic solution contained in the receptacle and of the electric current for energizing the same.

Instead of connecting the electrodes *c* directly with the battery *d* I introduce the induction-coil *f* into the circuit in order that the rapid alternating currents thus formed and the vastly-intensified electromotive force obtained thereby shall quickly and positively assure the destruction of the infectious and otherwise harmful germs and organic particles clinging to the articles.

A switch *k*, introduced into the circuit *e*, as shown in Fig. 1, permits the current to be turned on and off, as desired.

Although I have shown but two holders *h* in the apparatus, one of the apertures *g* being for the sake of added clearness illustrated in Fig. 1 as unsupplied, it is intended that all said apertures shall be normally closed by the insertion of a holder, whether the latter contain an article or otherwise. This is done in order to prevent the escape of the antiseptic solution by unnecessary evaporation.

In using this apparatus the hair-dresser or other operator employing the same removes one of the holders, withdraws the cover, and tips out the article which has been disinfected therein. He then places in the same a second article requiring treatment and permits it to remain while the other is being used. For instance, if the article be the lather-brush which he has just removed he drops a second one into the holder and replaces the latter within the receptacle *a*, and so allows it to be rendered aseptic while the first one is being employed. He does the same in connection with the razor, comb, and other articles. In this manner he always has a freshly-disinfected article to use upon the very instant a customer is seated in the chair, and the time for such disinfection is assured to be sufficiently long to make the treatment absolutely effective. In case the customers are somewhat infrequent the attendant turns the switch *k* and so shuts off the current for a time. Through the hastening action of the electricity the articles will be sufficiently treated if the current is turned on as a prospective customer comes in, and this acceleration of the treatment is absolutely necessary in order that each article shall be thoroughly aseptic when customer follows customer in rapid succession.

The action of the apparatus is as follows: The holders *h* being perforated at their lower ends, the solution passes freely into such part thereof, but owing to the air-tight closure of the covers *h'* can rise no higher therein than the uppermost of such apertures *h''*. The instant the switch *k* is turned the intense alternating currents, with all their destructive effect, flow through the solution from electrode to electrode and so penetrate equally the solution within the holders *h*. The effect of these currents is not alone to intensify and increase the disinfective action of the solution, but to hasten and multiply the generation of the vapor and gases from the same, and such vapors being lighter than the air rise in the holders and accumulate therein. Further, the upper ends of these holders being higher than the top of the receptacle the air is soon displaced by such vapors in the holders, the air escaping therefrom through the perforations *h''* into the receptacle. By this means the upper portion of each holder becomes quickly filled with an antiseptic vapor, the aseptic action of which is even more rapid than that of the liquid, and thereby effectually disinfects the upper portions of the articles placed in the holders. To thus enable certain portions of each article to be treated by vapor instead of the solution itself is of much benefit in many directions. In the case of the lather-brush the handle is kept entirely dry and free from liquid when taken into the hand of the user. It does not require wiping before being employed. The handle does not become injuriously affected by remaining in a solution. The greater part of the razor-handle and that part of the blade or stem which comes into contact with the operator's hand is also perfectly dry and ready for instant use.

In general construction this apparatus is most convenient as well as effective. The ease and quickness with which the various articles can be inserted and removed from the holders renders the apparatus especially valuable. The prevention of the escape of the solution through free evaporation into the air is a further most important improvement, not alone as a point of economy, but to keep the atmosphere of the room from revealing the presence of any antiseptic agent. The ap-

pearance of the apparatus is to a high degree ornamental and renders its employment by a hair-dresser a means for attracting and holding custom.

The object in having the rims *g'* non-conductive is that the electric current may not spring from the first electrode to the nearest holder and from thence along the receptacle-top to the final holder and so to the opposite electrode. Should such course be permitted to the electric current, the required passage thereof through the solution would be out of the question and the whole action of the apparatus be prevented.

What I claim as my invention, and desire to secure by Letters Patent, is as follows, to wit:

1. In a disinfecting apparatus, the combination of the receptacle containing an antiseptic solution, battery-electrodes located in said solution at widely-separated points, a battery and induction-coil connected with said electrodes, and the elongated holders perforated at their lower ends and provided with air-tight covers at their upper ends, and each adapted to receive a razor or other article, whereby when said holders have their perforated ends immersed in said solution between said electrodes, the articles contained therein are quickly and thoroughly disinfected, substantially as set forth.

2. In a disinfecting apparatus, the combination of the receptacle adapted to contain an antiseptic solution and formed with the apertures through its top, the non-conductive rims applied to said apertures, the holders fitting in said rims and formed with the perforated lower ends immersed in said solution, the air-tight covers for said holders, the electrodes suspended in said solution with said holders located between them, the battery and induction-coil, and conductors between said electrodes, battery and induction-coil, substantially as set forth.

In testimony that I claim the foregoing invention I have hereunto set my hand this 20th day of May, 1899.

JAMES A. MERRITT.

Witnesses:

A. B. UPHAM,  
EDWARD C. BATES.