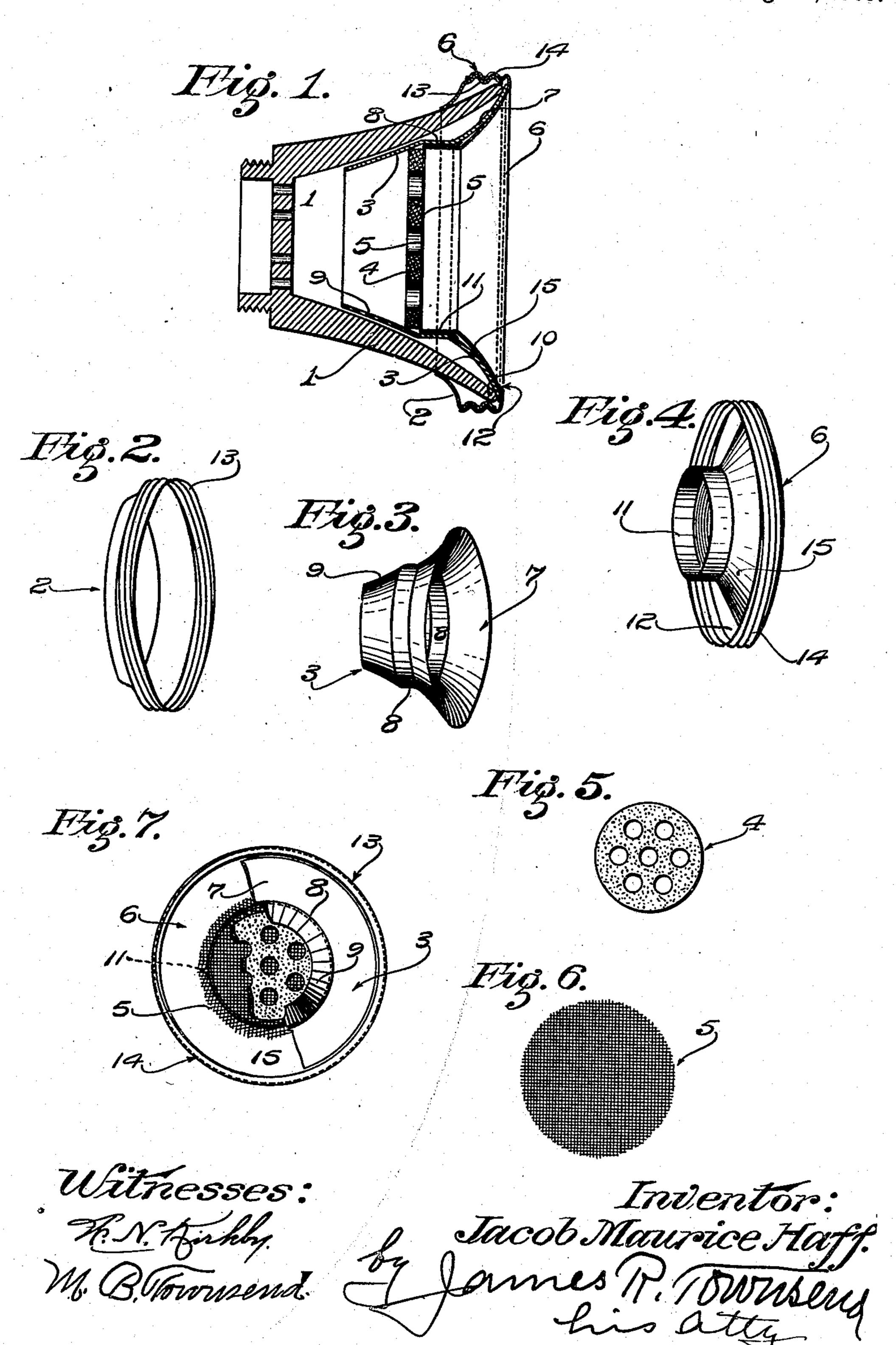
## J. M. HAFF. TELEPHONE ANTISEPTIC MOUTHPIECE. APPLICATION FILED APR. 24, 1907.

932,545.

Patented Aug. 31, 1909.



## UNITED STATES PATENT OFFICE.

JACOB MAURICE HAFF, OF LOS ANGELES, CALIFORNIA.

## TELEPHONE ANTISEPTIC MOUTHPIECE.

932,545.

Specification of Letters Patent. Patented Aug. 31, 1909.

Application filed April 24, 1907. Serial No. 370,084.

To all whom it may concern:

Be it known that I, JACOB MAURICE HAFF, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Telephone Antiseptic Mouthpiece, of which the following is a specification.

Antiseptics commonly known as satisfactory for use in connection with telephone mouthpieces are of such character that they attack the hard rubber of which the mouthpiece is usually constructed, thus making the use of such antiseptics undesirable on account of the destruction of the mouthpiece by such antiseptics. It is necessary in using such antiseptics for telephone mouthpieces that the antiseptic material be renewed from time to time.

An object of this invention is to provide a cheap, simple and convenient antiseptic device, whereby such antiseptic material can be applied to such mouthpiece or the like, and renewed from time to time without any liability of destruction or injury to the telephone mouthpiece or to the telephone diaphragm by the chemical action of the antiseptic substance.

Other objects and advantages may appear from the subjoined detailed description.

The antiseptics referred to are those liquid forms of substances which are adapted to throw off gases inimical to disease germs and with which a porous body mounted in the mouthpiece is saturated.

The accompanying drawings illustrate the

Figure 1 is an enlarged axial section of this invention applied in a telephone mouthpiece. Fig. 2 is a view of the attaching collar. Fig. 3 is a view of the open ended metal inner lining and support for the perforated antiseptic disk and wick and guard therefor. Fig. 4 is a view of the end cap and therefor. Fig. 5 is a plan of the perforated disk. Fig. 6 is a plan of the retaining gauze. Fig. 7 is a broken view of the inner lining in place in the end cap, both being removed from the telephone mouthpiece and carrying the perforated antiseptic disk and retaining gauze which are shown in place.

1 designates the ordinary flaring telephone mouthpiece; 2, a flaring collar fitted around the outer flaring end of said mouthpiece; 3 an annular inner lining forming a holder or support for the perforated antiseptic disk 4,

which in practice is of fibrous absorbent material saturated with some suitable germicide and antiseptic substance.

5 is a sheet of gauze and 6 the end cap or 60

retainer.

The annular inner lining and antiseptic holder 3 is a spun or stamped metal funnel device, having a flaring mouth 7, and a cylindrical portion 8 of approximately the same 65 diameter as the inner end of the flaring portion 7, which joins directly onto the cylindrical portion 8.

9 is an inner hollow conical terminal or extension to the inner lining or holder.

The lip or rim of the flaring portion 7 is equal to or greater in diameter than the outer lip or rim 10 of the mouthpiece 1, and is less than the inner diameter of the flaring rim of the collar.

The cap 6 is annular and is provided with two collars at its opposite rims as the inner collar, spigot or neck 11, and the outer collar or fastening flange 12. The fastening flange 12 is of greater external diameter than the 80 external diameter of the outer rim of the flaring collar 2. Said flange and collar are constructed to engage each other to secure the end cap or retainer 6 firmly to the flaring collar 2, which in practice is made to encircle the telephone mouthpiece 1. Preferably the means of engagement between the collar 2 and cap 6 consists of screwthreads 13, 14 on said collar and in the flange 12.

All of the parts 2, 3, and 6 heretofore de-90 scribed are preferably made of spun or stamped sheet metal, but they may be otherwise formed, without departing from the

The perforated antiseptic carrying disk 4 95 is approximately equal in diameter to the cylindrical portion 8 of the inner lining or support 3, and is approximately the same diameter as the spigot 11 and is also greater than the inner diameter of the conical terthan the inner diameter of the conical terminal 9 of the inner lining 3. Said disk is advisably made of felt or some other absorbent material of considerable thickness and having sufficient firmness of texture to maintain its disk-like form when inserted 105 into the inner lining, and brought into engagement with the tapering walls of the inner terminal 9.

The gauze sheet 5 is of greater diameter than the perforated disk 4 and is of sufficient 110 size to lap over around the neck 11.

To assemble the parts the collar 2 will be

placed upon the flaring mouthpiece as indicated in Fig. 1, and then the cap 6 will be inverted bringing the neck 11 uppermost whereupon the gauze sheet 5 may be placed centrally over the end of the neck and the perforated disk 4 placed on top of that, then the inner lining 3 will be brought into place, the flaring lip 7 coming in contact with the flange 12. The length of the lip 7 and cylin-10 drical portion 8 of the inner lining is proportioned relative to the depth of the conical web 15 and neck 11, so that when the inner lining is inserted into the cap 6 the neck 11 will be inserted into the cylindrical portion

8 of the inner lining.

The diameter of the gauze sheet 5 is such that when the spigot 11 enters the cylindrical body 8, its edges are thereby turned over the end of the neck and said neck fits 20 close enough into said body 8 to tauten the gauze sheet and hold it firmly in place. These parts are made to fit tightly enough so that the effect is to hold the inner lining firmly in the cap by friction between the 25 neck 11, the gauze sheet 5 and the cylindrical body 8, while at the same time the taut gauze and the end of the neck crowd the perforated disk 4 into the tapering terminal of the inner lining, so that all parts are firmly held together, then the cap 6 will be brought into place over the mouth of the mouthpiece 1 inserting the inner lining into said mouthpiece. In cases where the cap is provided with screwthreads as at 13 to screw onto the screw-threaded portion 14 of the fastening collar 2, the operator will then screw the cap into place on said collar. When the same is screwed tightly thereon the antiseptic pad or disk 4 will be firmly secured in place and 40 there held by the gauze 5 and neck or spigot 11.

An object of the gauze is to prevent the displacement of the pad or disk 4 without the exertion of considerable force and to 45 guard against thoughtlessness of telephone users, who are apt to punch the diaphragm with pencils or sharp instruments. The gauze sheet may be of linen, cotton or any other suitable material and I find the same 50 to be a sufficient protection against ordinary thoughtless meddling by persons having access to the telephone. Care should be had in manufacturing the device that the neck or spigot 11 be of sufficient diameter com-55 pared with the cylindrical portion 8 to clamp the gauze material tightly between the surfaces.

By making a tight fit of the parts, the gauze will be clamped so firmly that it cannot be punched out and the disk 4 can only be damaged by first punching a hole through the gauze sheet.

It is advisable to keep the appliance in antiseptic condition by renewing the anti-65 septic from time to time. This may be done

by an attendant, who will remove the disk by reversing the operation above described for assembling the parts and when the parts are disassembled he will replace the old disk with a new one freshly saturated. Whereupon the old disk may be discarded.

What I claim is:—

1. The combination of a telephone mouthpiece, a lining therefor, an absorbent antiseptic disk in the lining, a gauze retainer for 75 securing said disk in said lining, and means to clamp the gauze in the lining.

2. The combination of a telephone mouthpiece, a lining therefor, an antiseptic disk of fibrous material in the lining, and a 80 gauze retainer for securing said disk in the

lining.

3. The combination with a telephone mouthpiece of a collar loosely engaging the mouthpiece, a cap engaging said collar, an 85 antiseptic disk, and means interposed between said collar and cap for securing said antiseptic disk in place.

4. The combination with a collar adapted to engage a mouthpiece, of a cap engaging 90 said collar, an annular holder within said cap, an antiseptic disk carried by said holder, and means carried by said cap for securing said antiseptic disk in said holder.

5. The combination with a collar loosely 95 adapted to engage a mouthpiece, of a cap engaging said collar and having an annular opening, a holder fitting said cap, an antiseptic disk carried by said holder, and means carried by said cap for securing said disk in 100 said holder.

6. An antiseptic holding device for telephone mouthpieces and the like, comprising a collar, a cap engaging said collar, a holder fitting said cap and provided with an ex- 105 tension, an antiseptic disk carried by said extension, and means for securing said disk in said extension.

7. An antiseptic holding device for telephones and the like, comprising an exteriorly 110 screw-threaded collar arranged to engage the back side of the flaring end of the mouthpiece, an antiseptic holder fitting within the mouthpiece, and a screw-threaded cap screwed upon the collar and fitting within 115 the antiseptic holder within the mouthpiece to hold the antiseptic holder adjustably in place.

8. An antiseptic holding device for telephone mouthpieces and the like comprising 120 a collar arranged to engage a mouthpiece, an antiseptic holder to fit said mouthpiece, said holder being provided with an annular opening gradually diminishing rearwardly, an antiseptic disk in said rearwardly dimin- 125 ishing portion of said holder, and a cap engaging said collar, said cap being provided with a neck arranged to engage the annular opening of and to secure in place said holder.

9. The combination with a telephone 130

mouthpiece, of a screw-threaded collar fitting against the back side of the flaring mouthpiece, an antiseptic holder fitting within the mouthpiece, and a screw-threaded 5 cap fitting within the antiseptic holder and adjustably screw-seated upon the collar for securing the antiseptic holder adjustably within the mouthpiece and out of contact therewith, there being an antiseptic disk in

10 the holder. 10. The combination with a telephone mouthpiece and means for securing antiseptic material in said mouthpiece comprising a collar loosely engaging the mouthpiece end 15 of the telephone, an antiseptic carrying device composed of a substantially concial body, the wall for a portion of its length being straight and the remainder convergent, an antiseptic disk in said convergent end, a 20 disk of gauze, and a cap engaging said collar and provided with an annular opening and

a neck, said neck being arranged to engage the gauze and secure said gauze in place in the straight portion of said antiseptic holding device.

11. A screwthreaded cap, having a neck, a disk holder seated in said cap, the same converging rearwardly and provided with an intermediate cylindrical portion, an antiseptic disk at the end of said cylindrical por- 30 tion, a gauze retainer over the disk and engaging the cylindrical portion and an annular screwthreaded collar screwed into the

cap. In testimony whereof, I have hereunto set 35 my hand at Los Angeles California this 9th

day of February 1907.

## JACOB MAURICE HAFF.

In presence of— JAMES R. TOWNSEND, Julia Townsend.