963,794.

J. J. MOFFITT.
DENTAL WASTE RECEIVER.
APPLICATION FILED APR. 24, 1909.

Patented July 12, 1910.

Fig. 1.

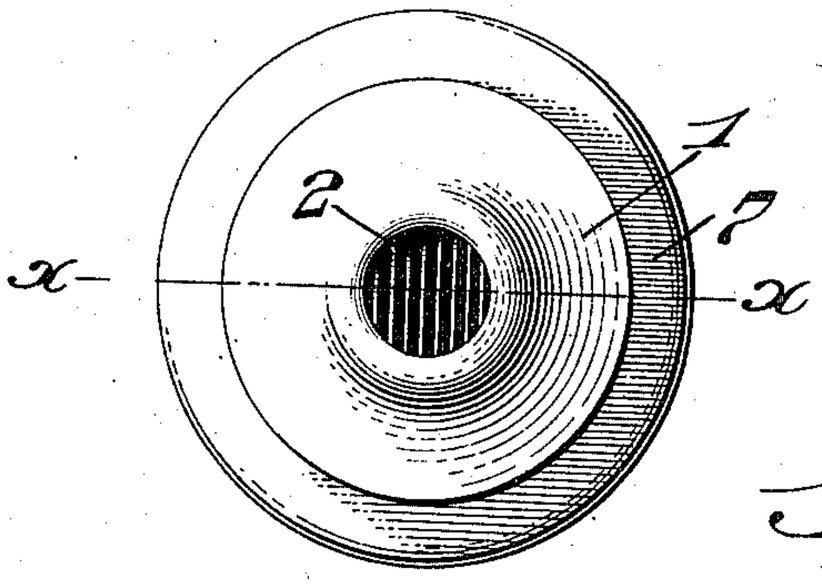

Fig. 7.

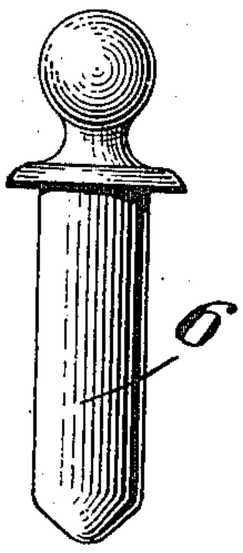

Fig. 2.

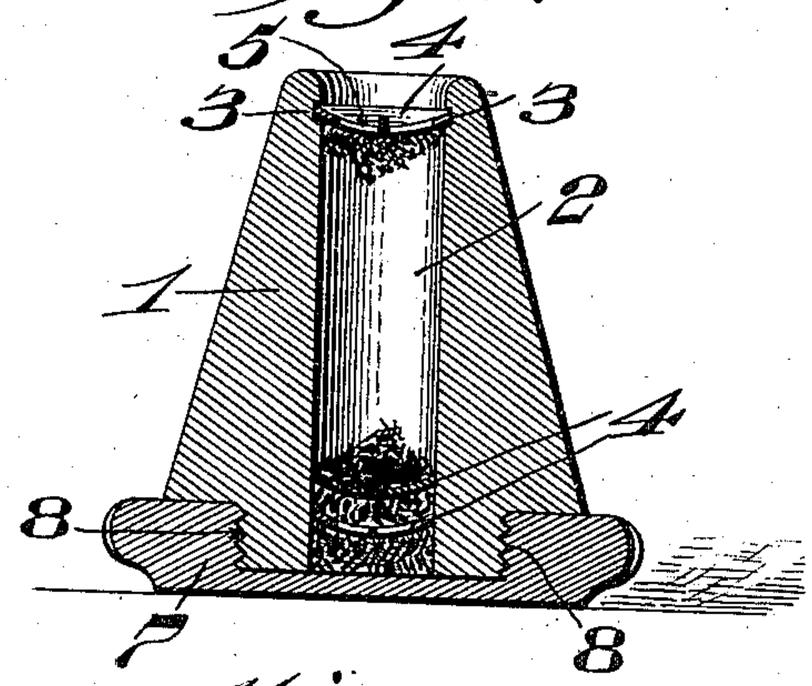

Fig. 3.

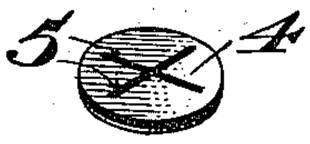

Fig. 6.

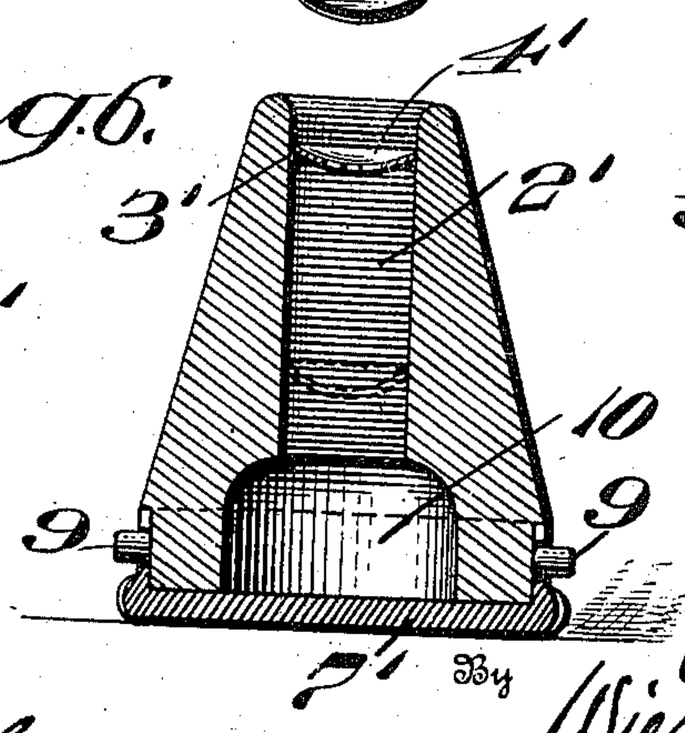

Fig. 4.

Fig. 5.

Witnesses
H. G. Dieterich
L. Conville.

Inventor
John J. Moffitt.
By Wiedersheim & Kaufmann
Attorneys

UNITED STATES PATENT OFFICE.

JOHN J. MOFFITT, OF HARRISBURG, PENNSYLVANIA.

DENTAL WASTE-RECEIVER.

963,794. Specification of Letters Patent. **Patented July 12, 1910.**

Application filed April 24, 1909. Serial No. 492,019.

To all whom it may concern:

Be it known that I, JOHN J. MOFFITT, a citizen of the United States, residing in the city of Harrisburg, county of Dauphin, and State of Pennsylvania, have invented a new and useful Dental Waste-Receiver, of which the following is a specification.

My invention provides for the aseptic and immediate concealment of unsightly or infectious matter in dental operations and of odoriferous applications and waste cotton or other absorbent materials with the least possible delay to the operator or assistant.

A purpose of my invention is to provide for depositing dental material from different patients in the same receptacle while maintaining separate aseptization of the instruments for each patient.

A further purpose of my invention is to separate the cotton and other matter used in connection with each patient from those used with another within the same receiver.

A further purpose of my invention is to provide a support for a removable engaging piece or top of square, round or other shape preferably initially flat and thin and which I prefer to call a top or disk, against which the dental applicator is pressed to deposit material therefrom, and to supply separate tops for use with the different patients.

A further purpose of my invention is to provide a receiver having a removable bottom and a plurality of tops or disks, one only of which is employed with the instruments used for each patient, the disks fitting within the receiver and when pressed down, carrying down, compressing and retaining the contained waste out of the way of the succeeding operation.

A further purpose of my invention is to provide a support and spring disks of any desired shape therefor providing for deposit of dental waste through said disks.

A further purpose of my invention is to provide a support having a substantially uniform, interior of any desired cross section for a sufficient distance, what I here call a bore, and a stop therein or thereon for a top or disk, and to supply separate tops or disks for temporary engagement against the stops, having frictional engagement throughout the bore.

A further purpose of my invention is to provide a support having a substantially uniform interior diameter for the required distance and to supply disks or tops therefor capable of retention therein by frictional engagement therewith and to supply means on said disks or tops for disengagement of material from the dental applicators.

For the purpose of illustrating my invention I have shown some forms or embodiments of the same which presented the greatest number of advantages, notwithstanding that I recognize that many forms would embody and present some features of the same to perhaps even better advantage than the form which I have illustrated.

It further consists of other novel features of construction, all as will be hereinafter fully set forth.

Figure 1 is a top plan view of a structure embodying my invention. Fig. 2 is a vertical section of the structure of Fig. 1 upon the line x—x thereof. Fig. 3 is a perspective of one form of top made use of by me. Figs. 4 and 5 are perspectives of other forms of top made use of by me. Fig. 6 is a vertical section of a modified form of my invention. Fig. 7 represents in side elevation a plunger useful in seating the disks.

In dental treatment extreme care has been exercised by most dentists for years to secure complete aseptization of the instruments for each patient and this is important from a general standpoint of cleanliness, because of the decay of any animal matter thereon, and because of the possibility of conveying disease from one patient to another if care be not exercised. Notwithstanding this care initially in regard to the instrument the benefit of it has been lost largely, if not entirely, because of carelessness in the disposal of waste matter or "waste" as I will here call it, intending to include by this name in this specification and claims, all matter removed from or used in treatment of the teeth, whether cotton, decayed matter, applications, whether odoriferous or not, etc. The aseptization is lost usually in the removal of this waste from applicators or other instruments during the use of the same and because of a lack of proper facilities for such removal. Such appliances as have been offered for this purpose have been of such a character as to invite their continued use for different patients

either by reason of their expensive cost, their structure, or for both of these reasons.

The practice of removing materials from the dental instruments without special appliances, as for example, by contact with the edges of a waste receiver of any character has of course contributed to the loss of asepsis and has been due both to habits formed before any special receptacles of the kind were offered, and to a lack of suitability of those at present available for the purpose.

While my invention is intended primarily for manufacture and sale as to a separate, distinct and complete receptacle and to avoid the necessity for the usual uncleanly waste receptacles in use by many dentists and to avoid the danger of stoppage of water passages by removal of the waste along with water supply or by means thereof, I recognize that a small part of the benefit of my invention could be obtained by the use of a skeleton or bottomless structure mounted upon or over a waste receptacle of some character and carrying the tops or disks provided by me or any suitable removable cap or cover within or against which the waste may be deposited and removed. The degree of advantage to be thus attained is of course measured largely by the approach to sanitary conditions of the complete structure thus formed.

In order to insure effective sanitation, I much prefer to make my structure complete in itself, embodying removable means for engagement with the applicator, by which name I shall hereinafter refer to the instrument used, whatever its character, to remove the waste therefrom and a receiver for support of this means and retention of the waste. I also provide for the separation or insulation of the deposit of waste used for one person from that used for each other by means of the disengagers, tops or disks, which remove the waste from the applicators. The receiver is then emptied at such intervals as may be convenient, which may be done by simply forcing a plunger through its bore and expelling its contents into a fire or other suitable place.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings:—1 designates the body of the receiver, which I prefer to make of tapered form, in order to decrease the given weight for any required stability, provided with an approximately uniform interior or bore 2 throughout a portion of its length and of any desired cross section, inside and out.

In Figs. 1 and 2 I thus form a cylindrical interior surface extending practically from top to bottom.

Any suitable material may be used for the body, metals presenting the advantage of weight and indestructibility while other materials lend themselves more readily to decoration. Transparency is usually undesirable and is not necessary, as other means, such as the plunger, show the quantity of waste within.

While my removable "disengager" might be of advantage as a cap or exterior top for the receptacle and replaced by another for each patient I much prefer to place the top partially within the bore when in use and dispose of it by downward movement carrying the waste along with it and spacing and "insulating" successive deposits of waste in this manner. The simplest form of such a top is of course a disk to engage with the bore, and, as stated, this bore may be of any desired cross section. In Fig. 6 I have shown it as square at 2′. The uniformity of cross section of this bore is preferably interrupted, two forms of which are shown at 3 (Fig. 2) and 3′ (Fig. 6). Of these the annular recess at 3 is preferred because it protects most fully against reverse movement of the top at the same time that it sufficiently supports the disengager 4 against premature downward movement.

The disengager, which for convenience I will hereafter call the top, may be in any of widely different forms, capable of being shoved from position of use down into the receiver or not as desired. I have illustrated three forms, all so capable as I prefer making this use of them. That of Fig. 3 is round for a round bore and slitted in cross form at 5; that of Fig. 4 is cupped with a round surface at 4′ and also slitted at 5′, though in different form; that of Fig. 5 is square for a square bore and this form 4″ is apertured at 5″ with radial slits beyond the aperture.

In the form shown in Fig. 6 the square disengager or top 4″ is pressed down against stops 3′. Preferably, each of these three forms of tops shown is constructed slightly larger than the bore so as to frictionally engage its surface with the desired friction. Each of these tops is most desirably made of paper, card-board or other light material presenting the requisite flexibility, elasticity and strength. The slits, at right angles or in other form, receive waste, which is passed through the slits by applicators and their walls prevent the withdrawal of the waste. The slits serve the additional purpose of increasing the flexibility and spring of the top.

While a part of my invention would be attained by use of partially or wholly exterior caps or tops changed with each patient and mounted upon a support over a waste receiver or upon a support which was itself such a receiver a large part of the ad-

vantage of my invention resides in the successive deposition of the waste from different patients within the same receiver, insulating and spacing them by the same means used for engagement with the applicators to remove the waste.

In the preferred form, that illustrated, the tops are set by hand or by means of a short plunger just within the bore of the receiver which bore is closed at the bottom by the removable base 7 which I have shown in Fig. 2 as attached by means of screw threads 8 but which can evidently be retained in any other well recognized or suitable manner, as in Fig. 6 where it is joined by bayonet joints to pins 9. The base may be made to add stability as well as decorative effect to the receiver.

While I have shown the bore as of substantially uniform cross section throughout the entire length of the receiver in Fig. 2, I recognize that the spacing and insulation desirable for aseptic purposes can be attained without using the entire length of the receiver for insulating and spacing purposes and in Fig. 6 I show a receiver having a shorter length of uniform bore opening into an enlarged container at 10. It will be evident that the tops can be successively shoved down in this bore, though preferably not beyond it, shutting off the space beneath and thus providing the requisite insulation for protection of the top then in use and instruments passing through it. The length of bore can be made sufficient to retain any desired number of deposits of waste, all in excess of this number falling into the larger space below.

In Fig. 8 I have shown a plunger 6 for the purpose of initially seating and afterward shoving down the forms of tops, preferred by me. The length is shown as adapted to shove the tops through part of the length of the bore, for such use as in Fig. 6, though evidently this plunger may be made of any length desired and for the form shown in Figs. 1 and 2 may be made to expel the various charges from the receptacle when the bottom has been removed.

The longer form of plunger is also quite useful, particularly in the form shown in Fig. 2 for the purpose of compressing the charges so that the receiver need not be emptied frequently.

The waste is passed through apertures in the top and is caught by the top when the applicator is withdrawn, the waste sticking to the top or dropping to the top last previously used. When the work for this patient has been completed the top just used is pressed down to the desired position, compressing charges in place if desired, and a new disk placed for the next patient.

It will be evident that the possibility of compressing the waste in the receiver is important, though not essential, to my invention as it avoids inconvenience to the operator.

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

1. In a dental waste receiver, a body having a hollow interior of substantially uniform bore throughout a part of its length, a top fitting in said bore and permitting waste to pass through the top, and means within the bore for retarding the movement of the top therein.

2. In a dental waste receptacle, a body having a bore of substantially uniform section for a portion of its length in combination with a plurality of tops engaging said bore and each provided with means permitting the insertion of waste therethrough.

3. In a dental waste receiver, a body having a substantially uniform bore for a portion of its length, a removable bottom for said body and a removable top for said body.

4. In a dental waste receiver, a body having a bore of uniform size throughout substantially its entire length and a top engaging with said bore and apertured for disposal of dental waste therethrough.

5. In a dental waste receiver, a hollow body, a removable bottom therefor, permitting removal of waste therefrom and a top removably supported by the body, and carrying means for engagement with the dental applicators to remove waste therefrom.

6. In a dental waste receiver, a hollow body of substantially uniform bore throughout a portion of its length and internally grooved near its upper end, a removable bottom for said body and a top of slightly larger size than the bore engaging said groove, and carrying means permitting the insertion of waste therethrough.

7. In a dental waste receiver, a body having a part of its bore substantially uniform and interrupted near the top, a removable bottom for the body, and a plurality of tops fitting within the bore and engageable with the interruption thereof.

8. In a dental waste receiver, a body and a top removably supported within said body and provided with means for engagement with waste to remove it from dental applicators.

9. In a dental waste receiver, a plurality of tops, each provided with means for engagement with dental applicators to remove waste therefrom, a support for receiving the tops in turn, and a receiver for the waste and tops below the support.

10. A dental waste receiver and a plurality of removable tops so conforming to the interior shape of the receiver that each one, after use, when forced down, will retain the

compressed waste as far as possible from the clean top and entering instrument points of the subsequent operation.

11. A dental waste receiver and a plurality of tops adapted to engage successively with the receiver at its top and, after use, be shoved down while maintaining frictional engagement with the interior walls of the receiver.

JOHN J. MOFFITT.

Witnesses:
JOHN FOX WISS,
PAUL A. STRICKLER.