Dec. 26, 1933. O. MAYS 1,940,763

COMB STERILIZER

Original Filed July 25, 1931

Fig. 1.

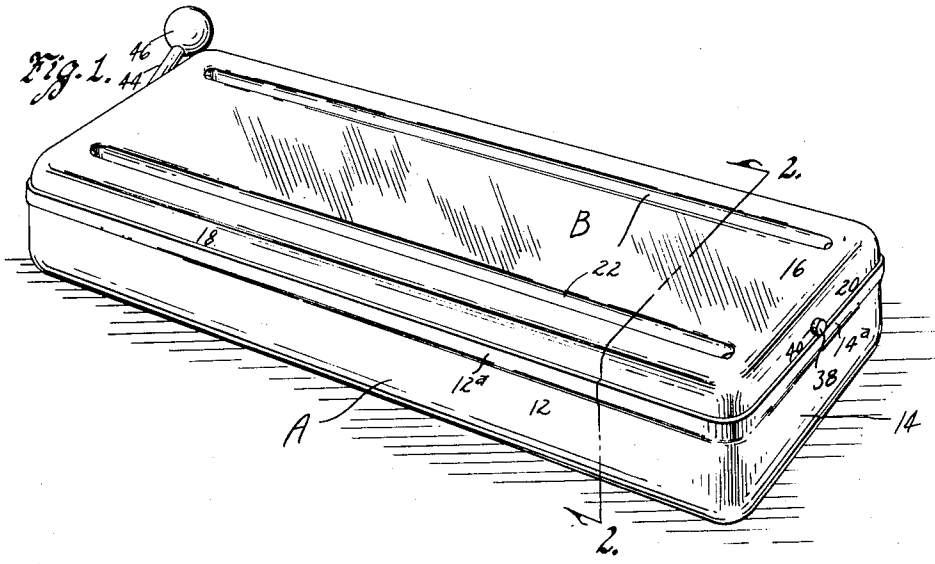


Fig. 2.

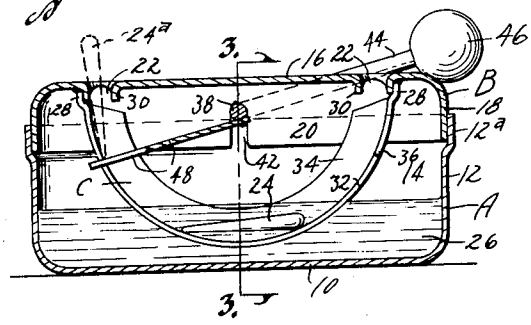
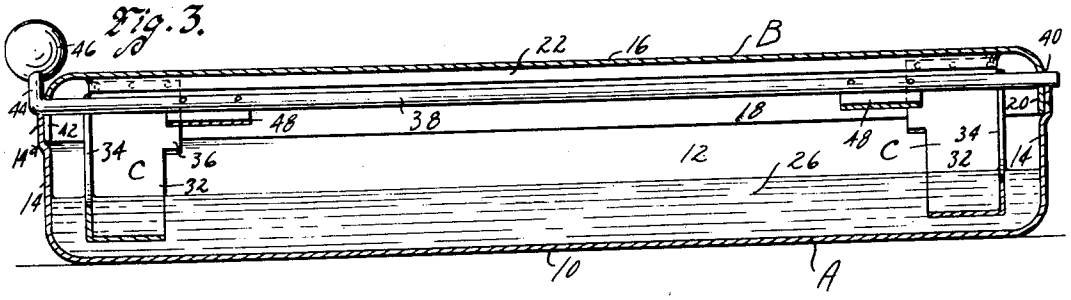


Fig. 3.



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Patented Dec. 26, 1933

1,940,763

UNITED STATES PATENT OFFICE

1,940,763

COMB STERILIZER

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Application July 25, 1931, Serial No. 553,103
Renewed May 8, 1933

11 Claims. (Cl. 167—3)

An object of my present invention is to provide a sterilizer for combs or other instruments which is of simple, durable and inexpensive construction.

A further object is to provide a sterilizer consisting of a receptacle and a cover therefor, slots being provided in the cover for the insertion of instruments into the receptacle, the receptacle being adapted for containing a sterilizing liquid.

A further object is to provide guides extending from the slots which will guide the instruments from their vertical inserted position to a horizontal supine sterilizing position beneath the level of the sterilizing liquid, whereby it takes less depth of the liquid to sterilize them than when they are held vertically as in some types of sterilizers.

A further object is to provide extracting means for the instrument for engaging the instrument and moving it along the guides to a position extending through the slot in the cover from which it may be removed by the operator.

Still a further object is to counter balance said extracting means so that it can be used for supporting an instrument in the slot in the cover in which position the instrument is allowed to dry.

Further objects are to provide specific arc shaped guide means and extracting means, etc.

With these and other objects in view my invention consists in the construction, arrangement and combination of the various parts of my device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims and illustrated in the accompanying drawing. Although the invention is susceptible of a variety of embodiments, it is unnecessary to fully describe and illustrate more than one in order to give a full understanding of the invention both from its structural and functional standpoints. Accordingly, I have illustrated a preferred and desirable embodiment of the invention in the accompanying drawing, in which:

Figure 1 is a perspective view of a comb sterilizer embodying my invention.

Figure 2 is an enlarged transverse sectional view on the line 2—2 of Figure 1; and

Figure 3 is a longitudinal sectional view on the line 3—3 of Figure 2.

On the accompanying drawing I have used the reference character A to indicate generally a receptacle and B the cover therefor. The receptacle A has a bottom 10, sides 12 and ends 14. The cover B has a top 16, sides 18 and ends 20. The sides 18 are adapted to fit within off-set portions 12*a* of the sides 12. Thus the shoulders between the sides 12 and the portions 12*a* thereof form rests for the removable cover B as shown in Figures 2 and 3.

Instrument reception slots 22 are formed in the top 16 of the cover B. On the device illustrated, these are adapted to receive combs 24, but may be designed for other instruments if desired.

Arc shaped guides C extend from one slot 22 to the other one with their intermediate portions below the normal level of the sterilizing liquid 26 in the receptacle A. The guides C have off-set end portions 28 spot welded or otherwise secured to the flanges 30 of the slots 22 (see Figure 2).

The guides C have arc shaped supporting flanges 32 and end guide flanges 34. The flanges 32 are provided with stop shoulders 36, the purpose of which will hereinafter be described. The end guide flanges 34 are substantially coincident with the ends of the slots 22.

I provide an extractor means consisting of a rock shaft 38 having one end journalled through an opening 40 in one end 20 of the cover B and its other end journalled in a slot 42. The upper edge 14*a* of the end 14 of the receptacle A (see left hand end of Figure 3) serves as a rest for the portion of the rock shaft 38 in the slot 42.

An operating handle 44 extends from one end of the rock shaft 38 and terminates in a counter weight 46. Within the receptacle A, instrument engaging arms 48 are spot welded or otherwise secured to the rock shaft 38 in position for engaging the comb 24 extending between the arc shaped guides C and in position to engage the stop shoulders 36.

Practical operation

In the operation of my device, assuming the parts to be in the position shown in Figure 2, a comb 24*a* may be inserted in the left hand slot 22 whereupon the counter weight 46 may be

swung counter clock-wise which will cause the arms 48 to engage the comb 24 and slide it up the right hand ends of the guides C so that it will extend through the right hand slot 22. This allows the comb 24*a* to assume the supine position in the sterilizer liquid 26 first occupied by the comb 24 and removes the comb 24 therefrom to a position opposite the illustrated position of the comb 24*a* in which position the comb 24 may be left to dry if desired. The counter weight 46 is sufficiently heavy to retain either comb in position extending upwardly through the slot 22.

Whenever desired a comb may be inserted in the right hand slot 22 when the parts are in the position shown in Figure 2 and then the handle 44 immediately reversed for withdrawing the comb from the sterilizing liquid. It will be obvious that guiding the comb to a supine position will allow full immersion thereof in the sterilizing liquid 26 without the necessity of carrying much liquid in the receptacle. The single pair of arms 48 serve effectively to extract a comb through either slot.

For renewing the liquid 26 the cover B and the rock shaft 38 can be easily removed from the receptacle A. Because of the slot 42 the rock shaft 38 and its appended parts may then be easily removed from the cover B for cleaning purposes or the like.

A comb sterilizer of this character is especially desirable for the use of a barber and is readily operable and much more convenient and sanitary than providing an open receptacle for the sterilizing liquid into which the barber must insert his fingers when removing a comb therefrom.

Some changes may be made in the construction and arrangement of the parts of my device without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims, any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim as my invention:

1. In a sterilizer, a receptacle for sterilizing liquid, a cover therefor, said cover having a slot through which an instrument may be inserted into said receptacle, guide means extending downwardly from said slot and having a curved lower end below the normal level of liquid in said receptacle and serving to guide said instrument from a vertical position as it is inserted through the slot to a supine position below the liquid level and means controllable from outside said receptacle for engaging said instrument on said guide and moving it therealong to a position extending through said slot, said means comprising a rock shaft and an instrument engaging arm thereon.

2. In a sterilizer, a receptacle for sterilizing liquid, a cover therefor, said cover having a slot through which an instrument may be inserted into said receptacle, said cover having a second slot guide means to guide said instrument from said first slot to said second slot and means controllable from outside said receptacle for engaging said instrument on said guide and moving it therealong to a position extending through said slot, said means comprising a rock shaft and an instrument engaging arm thereon.

3. In a sterilizer, a receptacle for sterilizing liquid, a cover therefor, said cover having a slot through which an instrument may be inserted into said receptacle, guide means extending downwardly from said slot and having a curved lower end below the normal level of liquid in said receptacle and serving to guide said instrument from a vertical position as it is inserted through the slot to a supine position below the liquid level and means for extracting said instrument from said receptacle and positioning it in said slot, said means comprising a rock shaft and an arm extending laterally therefrom and beyond said guide to engage said instrument.

4. In a sterilizer, a receptacle for sterilizing liquid, a removable cover therefor having a slot through which an instrument may be inserted into said receptacle, guide means extending downwardly from said slot for guiding said instrument into said receptacle and means for engaging said instrument within said receptacle and moving it to a position extending through said slot, said last means comprising a rock shaft journalled on and removable from said cover and an instrument arm extending laterally therefrom.

5. In a sterilizer, a receptacle for sterilizing liquid, a cover therefor, said cover having a slot through which an instrument may be inserted into said receptacle, a rock shaft, a guide for said instrument extending downwardly from said slot and being arc-shaped about said rock shaft and an extractor arm extending from said rock shaft and engageable with said instrument arm on said guide to move it therealong and to a position extending through said slot.

6. In a sterilizer, a receptacle for sterilizing liquid, a cover therefor, said cover having a slot through which an instrument may be inserted into said receptacle, a rock shaft, a guide for said instrument extending downwardly from said slot and being arc-shaped about said rock shaft and an extractor arm extending from said rock shaft engageable with said instrument arm on said guide to move it therealong and to a position extending through said slot, stop means to limit the rocking movement of said rock shaft and a counter weight for said rock shaft to retain it engaged with said stop means and the extractor arm on said rock shaft supporting an instrument extending from said slot.

7. In a sterilizer, a receptacle for sterilizing liquid, a cover therefor, said cover having a pair of slots, an arc-shaped instrument guide extending from one slot to the other one and arranged within said receptacle, a rock shaft journaled on said cover and means extending from said rock shaft for moving an instrument along said guide.

8. In a sterilizer, a receptacle for sterilizing liquids, a cover therefor, said cover having a pair of slots, an arc-shaped instrument guide extending from one slot to the other one and arranged within said receptacle, a rock shaft between said slots and an instrument engaging arm extending laterally therefrom for moving said instrument along said guide.

9. In a sterilizer, a receptacle for sterilizing liquids, a cover therefor, said cover having a pair of slots, an arc-shaped instrument guide extending from one slot to the other one and arranged within said receptacle, a rock shaft between said slots and an instrument engaging arm extending laterally therefrom for moving said instrument along said guide and stops on said arc-shaped guide to limit the rocking movement of said rock shaft.

10. In a sterilizer, a receptacle for sterilizing liquids, a cover therefor, said cover having a pair of slots, an arc-shaped instrument guide extending from one slot to the other one and arranged within said receptacle, a rock shaft between said slots and an instrument engaging arm extending

laterally therefrom for moving said instrument along said guide, stops for limiting the rocking movement of said rock shaft and an operating handle on said rock shaft.

11. In a sterilizer, a receptacle for sterilizing liquids, a cover therefor, said cover having a pair of slots, an arc-shaped instrument guide extending from one slot to the other one and arranged within said receptacle, a rock shaft between said slots and an instrument engaging arm extending laterally therefrom for moving said instrument along said guide, stops for limiting the rocking movement of said rock shaft, an operating handle on said rock shaft, said handle extending in an opposite direction from said arm and a counter weight on said operating handle.

OSCAR MAYS.