



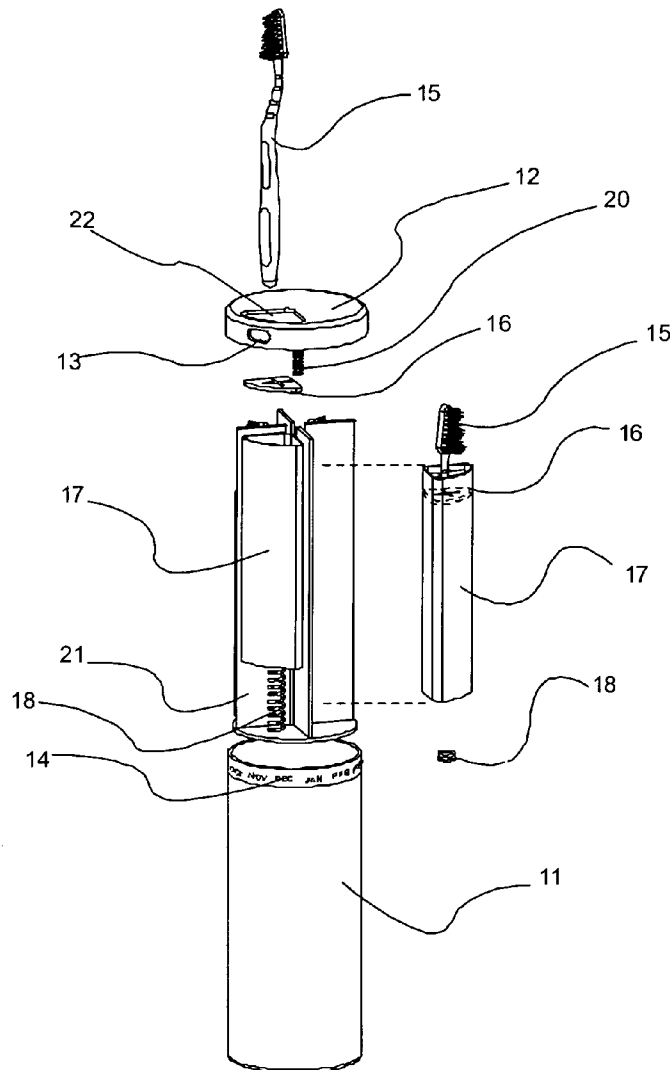
US 20090050500A1

(19) **United States**(12) **Patent Application Publication**  
**Ultimo**(10) **Pub. No.: US 2009/0050500 A1**(43) **Pub. Date: Feb. 26, 2009**(54) **DEVICE FOR REMINDING THE USER WHEN  
TO DISPOSE OF A TOOTHBRUSH**(52) **U.S. Cl. .... 206/362.1; 132/310; 116/278;  
206/459.1**(76) **Inventor: Judith Ultimo, Brockton, MA (US)**

Correspondence Address:

**CLIFFORD H. KRAFT****320 ROBIN HILL DR.****NAPERVILLE, IL 60540 (US)**(21) **Appl. No.: 12/229,166**(22) **Filed: Aug. 20, 2008****Related U.S. Application Data**(60) **Provisional application No. 60/965,826, filed on Aug.  
23, 2007.****Publication Classification**(51) **Int. Cl.****A45C 11/00** (2006.01)**A45D 44/00** (2006.01)**A46B 17/00** (2006.01)(57) **ABSTRACT**

This invention discloses a device for reminding a user about when to change his toothbrush. In a first embodiment, the present invention is a storage device for four toothbrushes to be disposed of, one at a time, on a regular basis, such as every three months. The storage device has at least four compartments intended to hold one toothbrush each. As the top is rotated the next compartment is opened, thus exposing the next toothbrush in sequence. The top also rotates to show the name of the month or the date on which the toothbrush is to be disposed of, or the date on which the toothbrush was first used. In this manner, the user is reminded as to when to change the toothbrush. A second embodiment of the present invention is a molded elastic form that adds a soft grip texture to the toothbrush handle and includes a date or the name of a month and is also intended to remind the user when it is time to dispose/change his toothbrush.



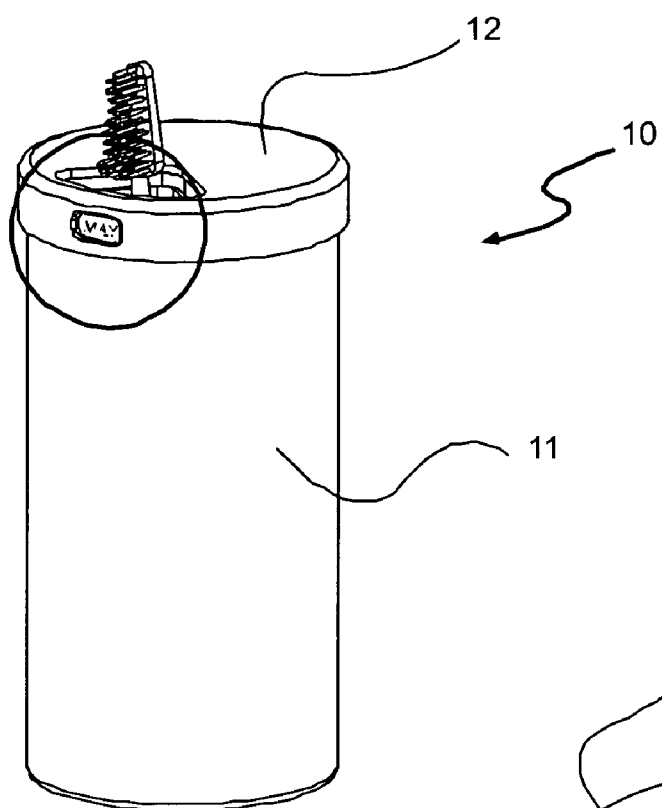


FIG. 1

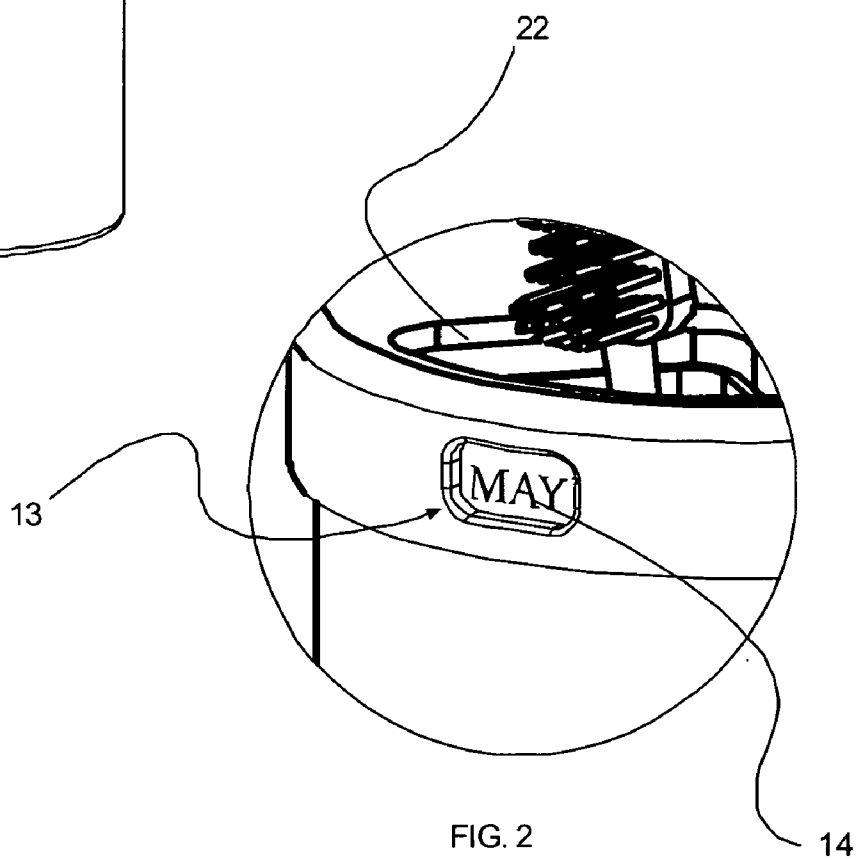


FIG. 2

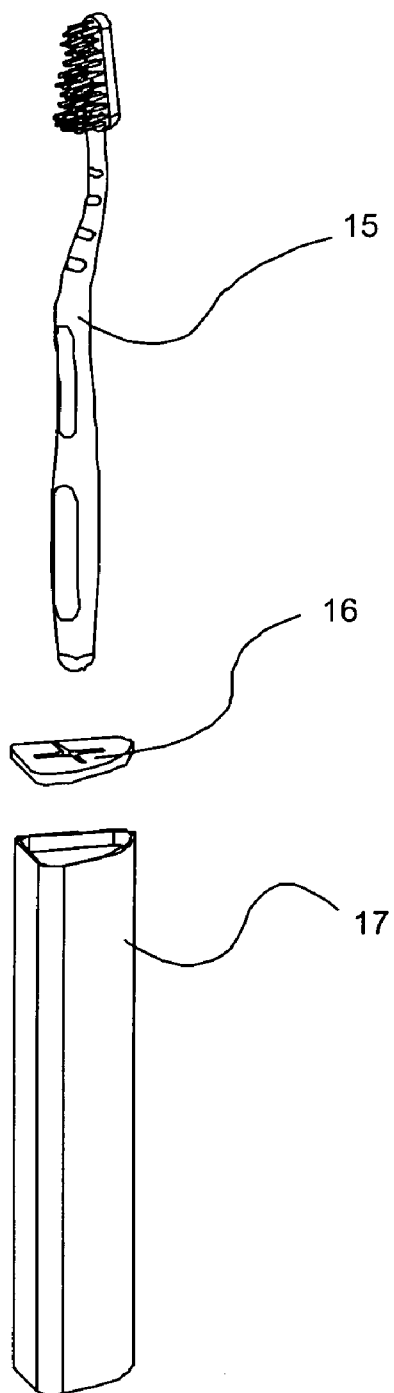


FIG. 3

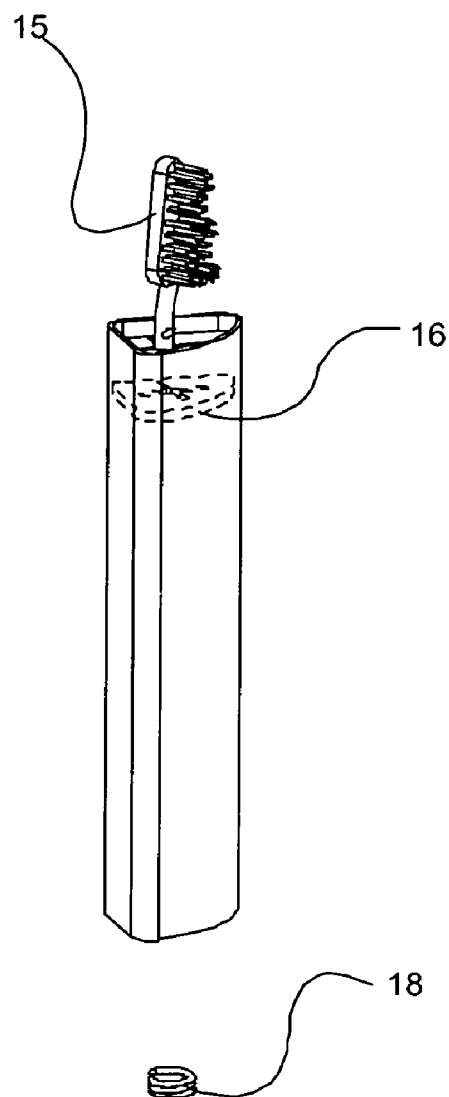


FIG. 4

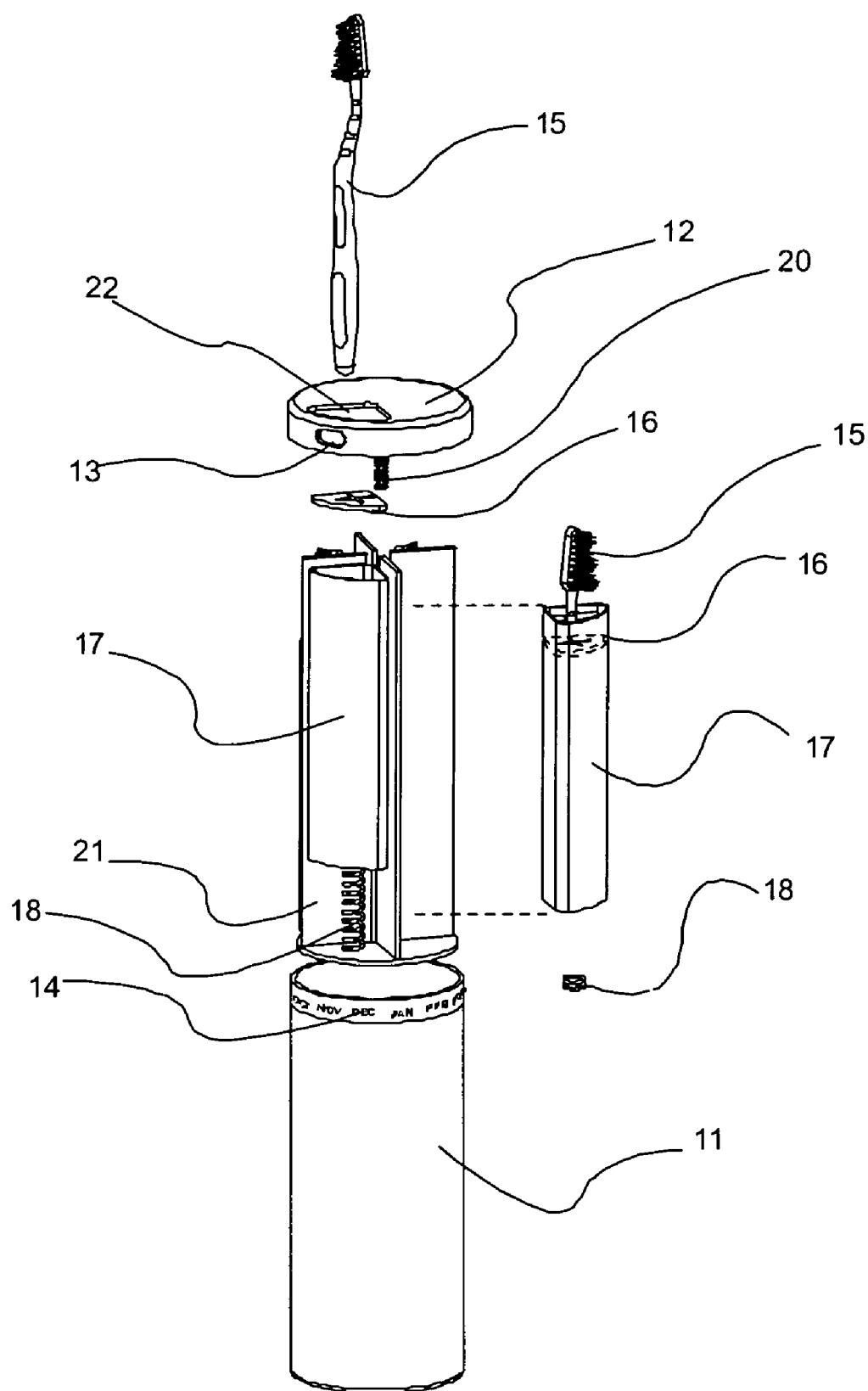
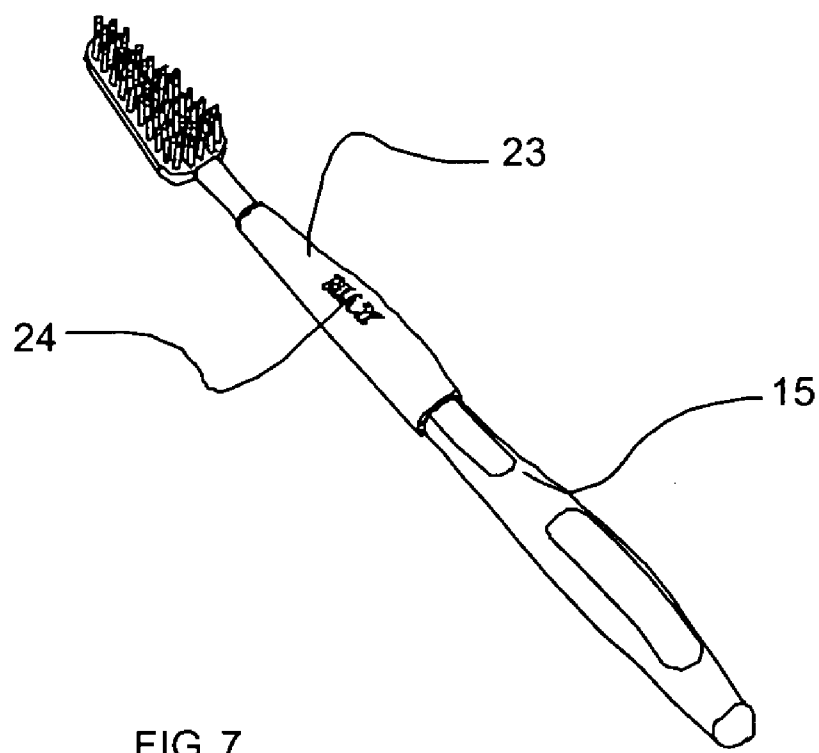
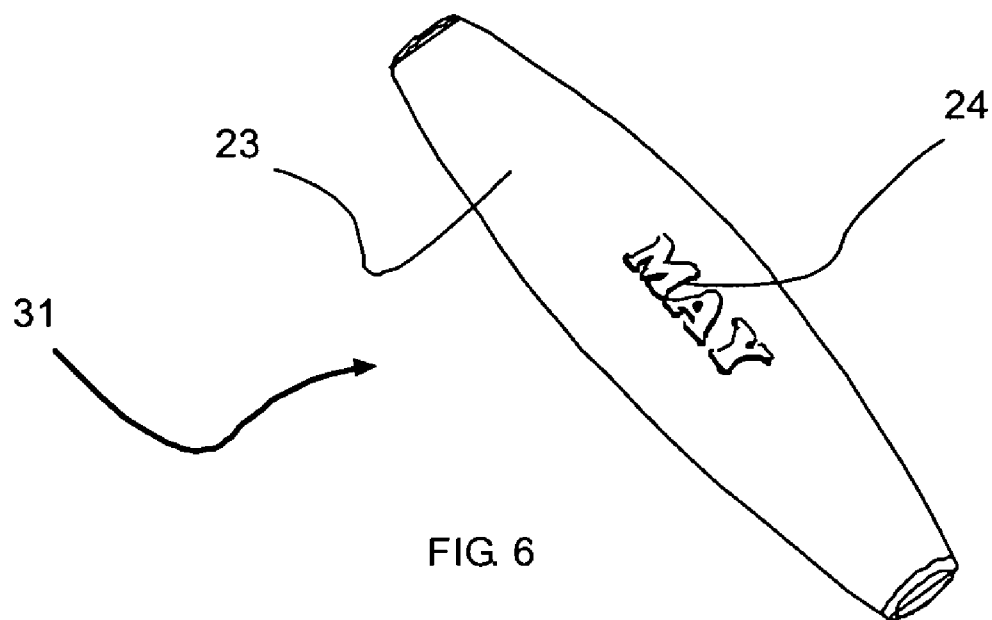
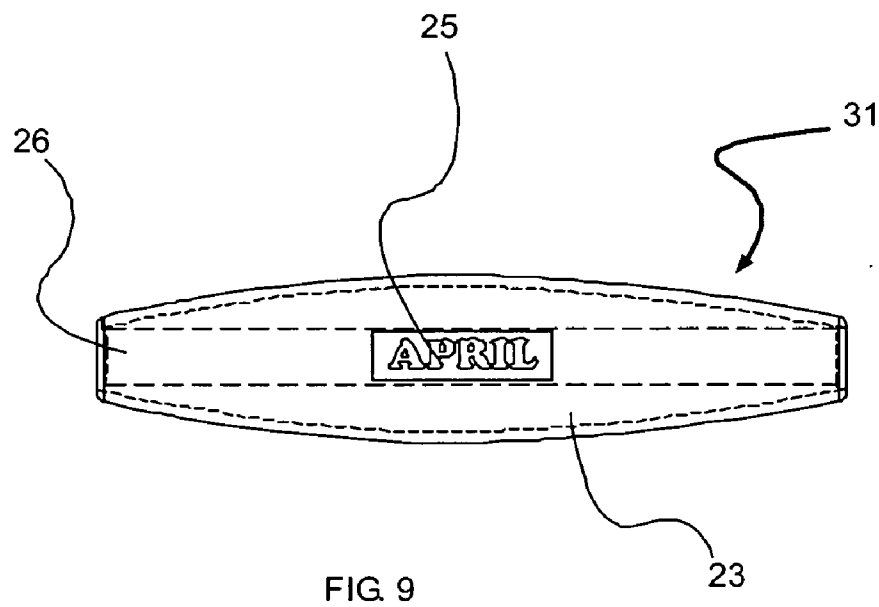
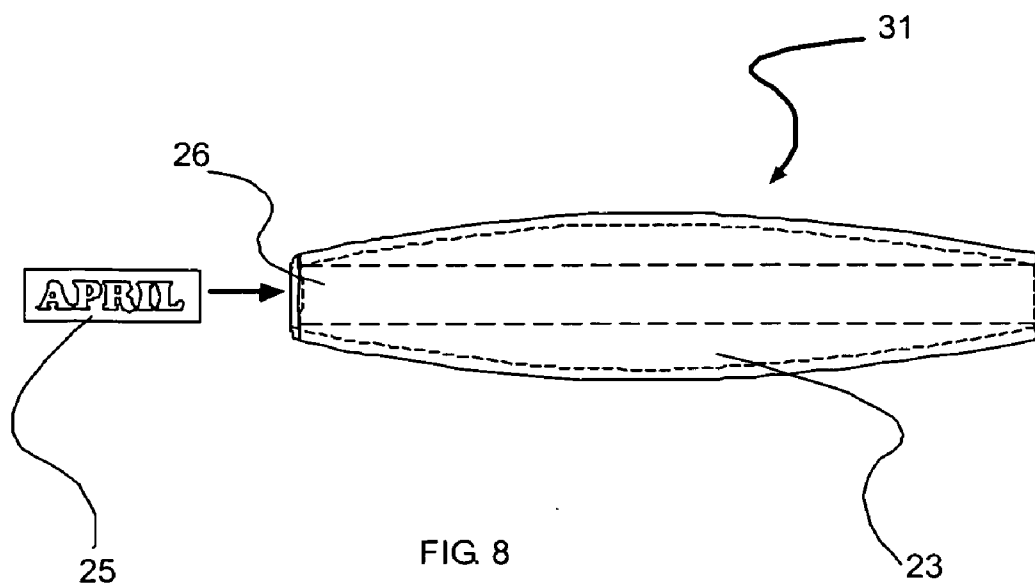


FIG. 5





## DEVICE FOR REMINDING THE USER WHEN TO DISPOSE OF A TOOTHBRUSH

### CLAIM OF PRIORITY

**[0001]** This application claims priority from Provisional Patent Application, Ser. No. 60/965,826, filed on Aug. 23, 2007. Application 60/965,826 is hereby incorporated by reference.

### BACKGROUND OF THE INVENTION

**[0002]** 1. Field of the Invention

**[0003]** The present invention is a device for reminding a user about when to dispose of a toothbrush.

**[0004]** 2. Description of the Related Art

**[0005]** Many dentists routinely recommend that a toothbrush be replaced regularly. It is quite common for users to wait too long to replace a toothbrush. Bristles on a worn toothbrush tend to fray and flare outwards. Once this breakdown starts to happen, the toothbrush fails to work as effectively or efficiently as one with bristles that are standing straight up. Most dentists consider changing a toothbrush regularly to be a good practice.

**[0006]** The prior art describes devices related to toothbrushes and timing devices related to toothbrushes. U.S. Pat. No. 6,606,755 describes a toothbrush that is provided with a light source for signaling when a recommended brushing time interval has started and ended. U.S. Pat. No. 5,930,858 is directed to a method and an electric toothbrush which includes a timing circuit that serves to signal to a user the expiration of a time period corresponding to the expiration of the optimum brushing time. U.S. Pat. No. 7,237,560 describes a disposable combination toothbrush and dental floss dispenser. The toothbrush includes a hollow cavity at one end for receiving a dental floss dispenser which includes a supply of dental floss.

**[0007]** The principal object of the present invention is to mitigate and/or obviate the disadvantages of the above devices by providing a new and improved device for reminding a user about when to change her toothbrush. Specifically, the devices and arrangements of the present invention are compatible and work well with any type of toothbrush while many of the prior art devices are not as versatile.

**[0008]** Other objects of the present invention, as well as particular features, elements, and advantages, will be elucidated in the following description and figures.

### SUMMARY OF THE INVENTION

**[0009]** The present invention is, in one embodiment, a storage device for four toothbrushes to be disposed of, one at a time, on a regular basis, or every three months. The storage device has at least four compartments intended to hold one toothbrush each. As the top is rotated, the next compartment is opened, thus exposing the next toothbrush in sequence. The top also rotates to show the name of the month or the date on which the toothbrush is to be disposed of, or the date on which the toothbrush was first used. In this manner, the user is reminded as to when to change the toothbrush. A second embodiment of the present invention is a molded elastic form that adds a soft grip texture to the toothbrush handle and includes a date or the name of the month.

**[0010]** Specifically, in one embodiment, the present invention relates to a device that serves as a reminder and comprises a vessel designed to hold at least one toothbrush, and the

vessel has a top end fitted with a cap that is rotatably engaged with the vessel, and the vessel also displays time-related information that is visible through a first opening in the cap, such that the time-related information on the vessel can be set to correspond to an event relating to the usage of the toothbrush, and the cap has a second opening through which the toothbrush can be inserted into the vessel or be removed from the vessel.

**[0011]** In a second specific embodiment, the present invention relates to a device that serves as a reminder and comprises a hollow, flexible form that is capable of being stretched over a handle of a toothbrush, and this hollow, flexible form also displays time-related information corresponding to the usage of the toothbrush. In addition, the hollow, flexible form may be formed from a transparent material and may contain a window for receiving a card containing time-related information that corresponds to toothbrush use.

### BRIEF DESCRIPTION OF THE DRAWINGS

**[0012]** The present invention and its various aspects are illustrated in the accompanying figures. These figures, which are for illustration only and not intended to define the scope of the invention, are:

**[0013]** FIG. 1 is a three-quarter, perspective view of a first embodiment of this invention;

**[0014]** FIG. 2 is a detailed view of an area of the first embodiment of this invention;

**[0015]** FIG. 3 is an exploded view of a segment of the first embodiment of this invention;

**[0016]** FIG. 4 is an exploded view of a segment of the first embodiment of this invention;

**[0017]** FIG. 5 is an exploded view of the first embodiment of this invention;

**[0018]** FIG. 6 is a perspective view of a second embodiment iteration of this invention

**[0019]** FIG. 7 is a perspective view of the second embodiment of this invention, as placed on a toothbrush;

**[0020]** FIG. 8 is a front view of the second embodiment of the present invention; and

**[0021]** FIG. 9 is a front view of the second embodiment of the present invention.

### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

**[0022]** In general, the present invention improves on the prior art which incorporates timing devices with toothbrushes.

**[0023]** To achieve the objective of incorporating a date with a toothbrush to allow the user to remember when to change or dispose of the toothbrush, the present invention provides a place to put a date or the name of a month on a toothbrush holder and/or on a toothbrush itself. The figures described above are provided for purposes of illustration only.

**[0024]** A first embodiment of the present invention 10 is illustrated in FIGS. 1 through 6. The first embodiment of this invention 10 comprises a vessel 11 with a cap 12 rotatably engaged with said vessel 11. The cap has an opening (i.e., hole) 22 to allow access to a toothbrush 15 and a second opening (i.e., hole) 13 to allow the user to see the name of the month 14 located on the vessel 11. An interior support structure 21 is contained within the vessel 11. The interior support structure 21 holds at least four containers 17. The containers 17 have a soft material 16 fixedly engaged with the container

17 in order to that allow a toothbrush 15 to be inserted and held upright. A spring 18 is located beneath the container 17 and between the container and the interior support structure 21. The portion of the surface of the vessel 14 that may be seen through the window in the cap 13 displays time-related information, such as the months of the year sequentially around the vessel or specific dates corresponding to the usage of the toothbrush. The cap has a detent that meets a protrusion in the interior support structure such that when pushing downward and rotating the cap, the interior contents rotate about the vessel along with the cap, thus allowing the user to choose which month should be displayed in the window. A spring 20 keeps the detent in the cap and the protrusion on the interior support structure separate until the user pushes downward on the cap 12. Such detents and protrusion combinations are common and well-known. For example, these arrangements are found in plastic pill containers used to hold prescription medication, and these containers employ a suitably rotatable cap that serves as a child guard to prevent access to the prescription medication by children.

[0025] The user inserts the toothbrushes 15 into the containers 17 by rotating the cap 12 so as to expose the top of each container 17 through the opening 22. By pushing downward and engaging the detent with the protrusion, the entire inner support structure 21, containers 17 and toothbrushes 15 are rotated about the interior of the vessel 11. The names of the months 14, visible on the outer surface 14 of the vessel 11, show through the window in the cap 13. When a toothbrush 15 has expired and is removed from the unit, the user may rotate the cap 12 without depressing, thus moving the opening 22 to the next container 17. A spring 18 pushes each container 17 upward so that when the opening 22 aligns with the container 17, the container and toothbrush rise so as to expose the top of the toothbrush through the opening 22.

[0026] A second embodiment of the present invention 31 is displayed in FIGS. 6 through 9. This second embodiment of the present invention comprises a hollow flexible form 23 that can be stretched and fitted over the handle of a toothbrush 15. The hollow flexible form 23 may be molded or cut from extruded material. Many modern elastomers can be molded or extruded to create such a form. The month or date that the toothbrush should be replaced in may be embossed 24 on the surface of the device, see FIGS. 6 and 7. When the flexible form 23 comprises a transparent material, the date on which the toothbrush 15 should be replaced may alternatively be written or printed on a card 25 and placed into an interior receptacle 26 in the flexible form 23, see FIGS. 8 and 9.

[0027] In the embodiments of the present invention described above, individual elements and/or features thereof are not necessarily limited to a particular embodiment, but, where applicable, are interchangeable and can be used in any selected embodiment even though such elements or features may not be specifically shown. Spatially orienting terms such as "above," "below," "upper," "lower," "inner," "outer," "inwardly," "outwardly," "vertical," "horizontal," when used herein, refer to the positions of the respective elements shown on the accompanying figures. However, the present invention is not necessarily limited to such positions.

[0028] It will thus be seen that the objects set forth above, among those made apparent from the preceding description, are efficiently attained and, since certain changes may be made in the above construction without departing from the scope of the invention, it is intended that all matter contained

in the above description or shown on the accompanying drawing figures shall be interpreted as illustrative only and not in a limiting sense.

[0029] The following claims are intended to cover all the generic and specific features of the invention described herein, and all statements of the scope of the invention which, as a matter of language, might be said to fall there between.

What is claimed is:

1. A device that serves as a reminder comprising:  
a vessel designed to hold at least one toothbrush;  
said vessel having a top end fitted with a cap rotatably engaged with said vessel; and  
said vessel also displaying time-related information that is visible through a first opening in said cap such that said time-related information on said vessel can be set to correspond to an event relating to the usage of said at least one toothbrush.
2. The device of claim 1 wherein said vessel comprises an interior support structure that further comprises at least one container, said at least one container having an opening and being designed to hold said at least one toothbrush.
3. The device of claim 2 further comprising a spring between said at least one container and said interior support structure.
4. The device of claim 2 wherein said cap for said vessel contains a detent that mates with a protrusion in said interior support structure when said cap is pushed against said vessel and rotated in order to display said time-related information through said first opening in said cap.
5. The device of claim 2 wherein said cap has a second opening through which said at least one toothbrush can be inserted in said at least one container or removed from said at least one container.
6. The device of claim 4 wherein said spring keeps said detent in said cap and said protrusion in said interior support structure separate until said cap is pushed against said vessel.
7. The device of claim 5 wherein said spring pushes said container against said cap such that when said second opening in said cap aligns with said opening in said at least one container, said at least one toothbrush is pushed out through said second opening in said cap.
8. The device of claim 5 wherein said spring pushes said container against said cap such that when said second opening in said cap aligns with said opening in said at least one container, said at least one toothbrush may be pushed into said container through said second opening in said cap.
9. The device of claim 2 wherein said time-related information can be set by suitably rotating said cap when said at least one toothbrush is removed from or inserted into said at least one container.
10. The device of claim 1 wherein said time-related information corresponds to a date or a month when said at least one toothbrush was first used.
11. The device of claim 1 wherein said time-related information corresponds to a date or a month when said at least one toothbrush is to be replaced.
12. The device of claim 1 wherein said cap has a second opening through which said at least one toothbrush can be inserted into said at least one container or removed from said at least one container.
13. A device that serves as a reminder comprising:  
a vessel designed to hold at least one toothbrush;  
said vessel having a top end fitted with a cap rotatably engaged with said vessel;



said vessel also displaying time-related information that is visible through a first opening in said cap such that said time-related information on said vessel can be set to correspond to an event relating to the usage of said at least one toothbrush; and

said cap has a second opening through which said at least one toothbrush can be inserted into said vessel or removed from said vessel.

**14.** A device that serves as a reminder comprising:

a hollow, flexible form that is capable of being stretched over a handle of a toothbrush; and

said form displaying time-related information corresponding to the usage of said toothbrush.

**15.** The device of claim **14** wherein said time-related information corresponds to a date or a month when said toothbrush was first used.

**16.** The device of claim **14** wherein said time-related information corresponds to a date or a month when said toothbrush is to be replaced.

**17.** The device of claim **14** wherein said form comprises a transparent material in whole or in part.

**18.** The device of claim **14** wherein said form further comprises a window for receiving a card containing said time-related information.

**19.** The device of claim **18** wherein said time-related information corresponds to a date or a month when said toothbrush was first used.

**20.** The device of claim **18** wherein said time-related information corresponds to a date or a month when said toothbrush is to be replaced.

\* \* \* \* \*