Toothbrush with Dental Floss Dispenser

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Definition:
The toothbrush with dental floss dispenser is a toothbrush which has dental floss cartridges inserted into the handle. It also has a removable head at the top so that the bristles can be replaced when the time comes.

Function:
This product is ideal for a person who is constantly on the move or even for the average day person who just forgets to floss. The toothbrush with dental floss incorporated is approximately the same size as an average toothbrush. What makes it unique is that at the bottom of the handle a small cartridge of dental floss can be inserted. This makes it so that there is no need to replace the entire unit if the dental floss runs out. On the same note this function of replacement will allow the user to remove any unused floss from the handle if for some reason the handle must be replaced.

This unit also has a replaceable head of bristles at the top. Due to this function it is no longer a necessity to replace the entire toothbrush when the bristles get worn. This will help to reduce the amount of waste that is sent to the world’s landfills and will save money on the cost of replacement.

Parts:

![Figure 1 ~ Dental Floss Cartridge](image)
Figure 2 ~ Removable Brush Head

Figure 3 ~ Handle
Figure 4 ~ Handle (cross-sectional view)

Figure 5 ~ Full Assembly
Specifications:
When the brush head is attached the total length of the toothbrush is 7 inches shown in Figure 5. The handle of the toothbrush is 3.75 inches in length and has a cavity at both ends of the handle for the insertion of the dental floss cartridge and the toothbrush head on the opposite end. This can be seen in Figure 3. The attachable brush head itself is a total of 3.25 inches in length, including the male adaptor end and can be seen in Figure 2.

Operating Principle:
One end of the toothbrush has a detachable head which comprises the actual cleaning portion of the toothbrush. In order to remove the head from the toothbrush the user must turn the head $2\pi^{\text{rad}}$ counter-clockwise. At this point the friction lock in the threads of the head and handle will be disengaged and the head will be able to be removed with ease by pulling the pieces apart. In order to attach a new head the user must press the new head and handle together and then turn the new head $2\pi^{\text{rad}}$ clockwise. This turning reengages the friction lock in the threads and will hold the new head in securely in place. The friction lock will hold the new head in place during vigorous brushing.
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Glossary

A
Assembly: the putting together of components to make a finished product *

B
Bristles: the short stiff natural or synthetic hair on a brush *

Brush: an implement consisting of bristles, hair, or wire set into a handle, used for grooming the hair, painting, polishing, scrubbing, or sweeping *

C
Cartridge: a sealed plastic case containing something such as photographic film, a cassette, or a set of computer disks that can be loaded into an appropriate device *

D
Dental Floss: thread that is used to remove food and plaque from between the teeth *

Dispenser: a device that releases its contents in convenient or measured quantities when operated *

* Definition provided by Encarta Dictionary (Standard in Microsoft Word)