

**OPINION UNDER SECTION 74A**

Patent	GB 2541416 B
Proprietor(s)	Playbrush Ltd
Exclusive Licensee	
Requester	Brushgate Oy
Observer(s)	Playbrush Ltd
Date Opinion issued	03 May 2018

**The request**

1. The comptroller has received a request from Brushgate Oy (the requester) to issue a validity opinion under section 74A(1)(b) in respect of patent GB 2541416 B (the patent) in the name of Playbrush Ltd (the proprietor).
2. The patent has a filing date of 18 August 2015 with no claim to priority. It was granted on 25 July 2017 and remains in force.
3. Observations were received from the proprietor and observations in reply were subsequently received from the requester.
4. The observations in reply included additional evidence which was considered to be not “strictly in reply” as required by the rules governing the opinions procedure. In any event this evidence comprised undated photographs which are of no help to the question being decided. I have not therefore considered this additional evidence any further.

**Invention**

5. The patent is titled toothbrush holder. Although the patent relates generally to a smart or intelligent toothbrush holder, i.e. a toothbrush holder incorporating electronics such as sensors, such features do not form part of the claimed invention. Rather, claim 1 is directed to the shape and construction of the toothbrush holder. In particular claim 1 requires that a sleeve into which the toothbrush is inserted has inner and outer walls which are spaced apart to allow the inner wall to flex toward the outer wall. This arrangement makes it easier to insert a toothbrush handle into the holder and to accommodate a wider variety of handle widths, whilst still providing a broad base for stably supporting the holder on a surface. This construction of spaced apart inner and

outer walls can be seen in figure 2 of the patent reproduced below. It is referred to by both the requester and proprietor as the double-wall construction.

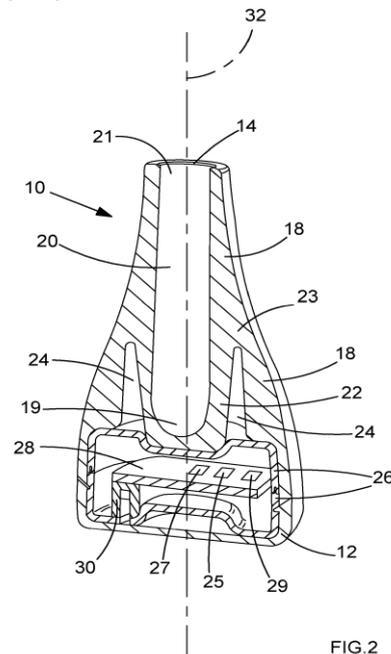


FIG. 2

6. The figure shows the flexible sleeve (20), for receiving the handle of a toothbrush, with inner wall (22) spaced from outer wall (18) so that a gap (24) is formed between the two walls. The holder also has a flat base (12) to allow the holder to stand on a flat surface.
7. Claim 1 of the patent reads as follows:
  1. *A toothbrush holder comprising:*
    - a sleeve for accommodating a toothbrush having a relatively narrow upper end and a relatively broad lower end, wherein the sleeve has a shape that is flared outwardly between the upper and lower ends; and*
    - a base for supporting the sleeve in a vertical direction;*
    - wherein the lower end of the sleeve comprises an elastic inner wall and an outer wall which are spaced apart to allow the elastic inner wall to flex toward the outer wall.*
8. No argument has been presented regarding how claim 1 should be construed.
9. Furthermore, the requester has not provided any information regarding how the features of the prior art correspond to the requirements of claim 1.
10. As will become clear, for the purpose of this opinion it is only necessary to consider whether or not the prior art discloses a sleeve having spaced apart inner and outer walls, i.e. the double wall construction, as specified in the characterising part of the claim.

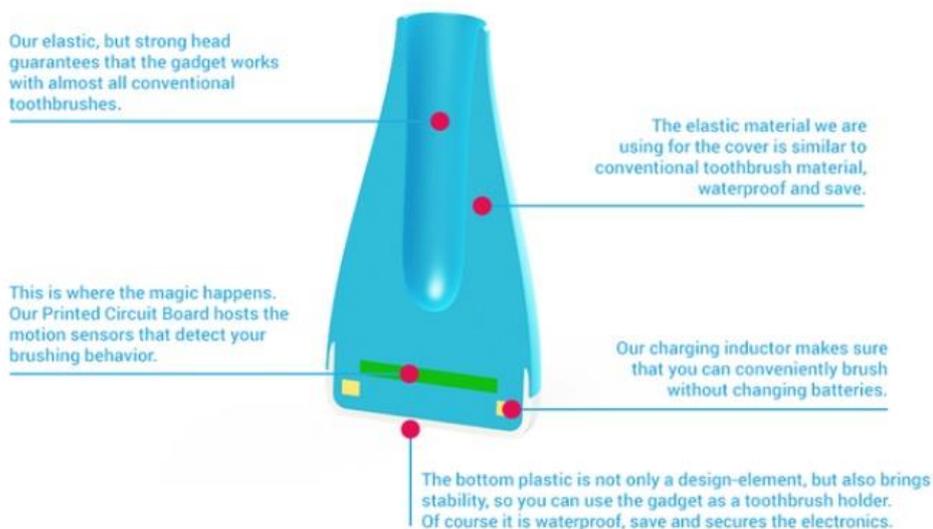
## Prior art

11. The requester has not set out their case particularly clearly. For example, there is no analysis of the features of the claims. As I understand it, the requester's principal argument is that the patent is invalid on the basis of prior public disclosure by the proprietor of a toothbrush holder having all the features of the claims by virtue of sales, demonstrations and/or trials of such a toothbrush holder. The evidence provided by the requester comprises Internet articles and videos which deal mainly with reports of sales, demonstrations and trials of a toothbrush holder before the filing of the patent. I will nevertheless also consider whether or not the evidence provided has any relevant disclosure which might anticipate the claims.
12. The evidence provided by the requester comprises the following:
  - i) "Playbrush – we make brushing teeth fun!", YouTube video, 14 October 2014.  
<http://www.youtube.com/watch?v=kliC0JaOUKo>
  - ii) "Stuff" document - "Playbrush dongle turns dental hygiene into a video game", S. Kiildsen; 10 April 2015.  
<http://www.stuff.tv/in/news/playbrush-dongle-turns-dental-hygiene-video-game>
  - iii) "Web archive" document - "Coming Spring 2015", Playbrush; 15 January 2015.  
<http://web.archive.org/web/20150115090940/playbrush.io/>
  - iv) "Playbrush – How it all began!", YouTube video, P. Varga; 9 April 2015.  
<http://www.youtube.com/watch?v=OgMarynkPms>
  - v) "Brushing isn't always easy", Playbrush; 18 January 2015.  
<https://www.playbrush.com/en/blog/brushing-isnt-always-easy/> - "
  - vi) "The World of Kitsch" document - "Kickstart the Playbrush & Make Teeth Cleaning Fun"; C. Smyth; 15 April 2015.  
<http://theworldofkitsch.com/worldofkitsch/2015/4/15/kickstart-the-playbrush-make-teeth-cleaning-fun>
  - vii) "VentureBeat" document - "PlayBrush turns any toothbrush into a game controller to help kids brush their teeth", P. Sawers; 14 April 2015.  
<http://venturebeat.com/2015/04/14/playbrush-turns-any-toothbrush-into-a-game-controller-to-help-kids-brush-their-teeth/>
  - viii) FT article - "Entrepreneurs sink their teeth into gaming", J. Moules; 31 May 2015.  
<http://www.ft.com/content/6581c476-ded7-11e4-b9ec-00144feab7de>
  - ix) UCL article - "Playbrush - toothbrushing made fun";  
<http://www.ucl.ac.uk/enterprise/enterprise-case-studies/playbrush>
  - x) "Playbrush @Mini Markt Vienna", Playbrush; 17 March 2015.  
<http://www.playbrush.com/en/blog/playbrush-mini-markt-vienna>
  - xi) "Playbrush forstoring STEM in the UK", Playbrush; 19 March 2015.  
<http://www.playbrush.com/en/blog/playbrush-fostering-stem-in-the-uk/>
13. It will be noted that all the documents relate to a "PlayBrush" toothbrush holder or add-

on (often referred to as a dongle), and that they were all published before the filing date of the patent. Most of the documents describe the smart features of the Playbrush toothbrush holder, in particular, its ability to connect wirelessly to a mobile phone and interact with an app installed on the phone to encourage children to brush their teeth properly.

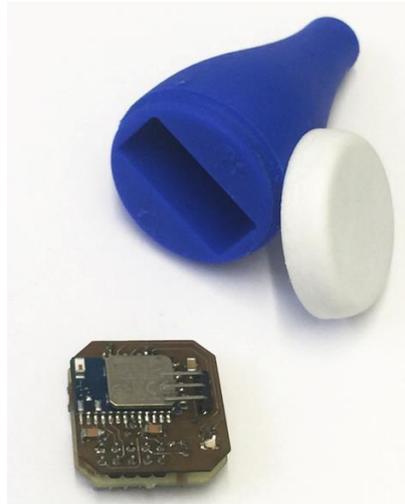
## Documentary disclosure

14. I will deal firstly with the disclosures of the documents provided by the requester.
15. If they are to be relevant to the primary issue of whether or not they disclose a toothbrush holder having a sleeve with spaced apart inner and outer walls then it is necessary that they either illustrate the internal arrangement of the sleeve, e.g. by way of a cross-sectional drawing, or they describe the internal construction of the sleeve.
16. I have carefully considered all the documents provided by the requester. However, the only document which contains any seemingly relevant disclosure is the “World of Kitsch” document. This document contains an annotated cross-sectional diagram of a Playbrush toothbrush holder which is reproduced below.



17. The sleeve for inserting a toothbrush can be seen but this arrangement does not have the spaced apart inner and outer walls required to fall within the scope of claim 1. Accordingly claim 1 is not anticipated by the disclosure of this document.
18. No argument has been put forward that the spaced inner and outer wall arrangement is obvious based on the disclosure of this document and I therefore consider that claim 1 is also inventive in relation to it.
19. The only other document which shows any aspect of the internal construction is the “Venturebeat” document. This document has a photograph (reproduced below) of a toothbrush holder with its bottom removed to reveal a cavity for apparently retaining an electronics module. There is a statement that “Playbrush is a little blue holder with a

motion-sensing chip in it...” Nothing further about the internal construction can be ascertained. I note that the image shows a somewhat different construction to that illustrated in the “World of Kitsch” document. I presume that it is an alternative prototype version, noting that the UCL article refers to a fourth version of the hardware prototype being launched on Kickstarter in Spring 2015. There is no disclosure of a double-wall construction and this document does not anticipate claim 1.



20. The remaining documents either show only the outside of the Playbrush toothbrush holder or do not show it at all. None of the documents describe the internal construction of the toothbrush holder.
21. In brief, and in agreement with the proprietor’s observations, the documents are all deficient for the following reasons:
  - i) “Playbrush – we make brushing teeth fun!” (YouTube) – Diagrammatically illustrates a toothbrush handle add-on. There is no suggestion it is a toothbrush holder and no details of its construction.
  - ii) “Stuff” document – Only the outside of the toothbrush holder is shown. There is no disclosure of the internal construction.
  - iii) “Web archive” document (Playbrush) – Provides only comments about using Playbrush. There is no disclosure of a toothbrush holder or its construction.
  - iv) “Playbrush – How it all began!” (YouTube) – Only the outside of the toothbrush holder is shown. There is no disclosure of the internal construction.
  - v) “Brushing isn’t always easy” (Playbrush) – Discusses difficulties with traditional brushing. There is no disclosure of a toothbrush holder.
  - vi) “The World of Kitsch” document – As discussed above, the internal construction of a Playbrush toothbrush holder is shown but it has a solid wall construction.
  - vii) “VentureBeat” document – As discussed above, a view of the inside of a Playbrush toothbrush holder is provided but nothing to suggest how the walls of the holder are constructed. There is no disclosure of the internal wall construction.
  - viii) FT article – The toothbrush holder is hardly visible in the included image. Only the

outside can be glimpsed. There is no disclosure of the internal construction.

- ix) UCL article – No toothbrush holder is shown. The disclosure relates only to an add-on for conventional toothbrushes and there is no disclosure of a toothbrush holder.
  - x) “Playbrush @Mini Markt Vienna” (Playbrush) - The toothbrush holder can just about be made out in the photographs. However, only the outside can be seen and there is no disclosure of the internal construction.
  - xi) “Playbrush forstoring STEM in the UK” (Playbrush) - The toothbrush holder is hardly visible in the included photograph. Only the outside can be glimpsed. There is no disclosure of the internal construction.
22. None of the documents referred to disclose a toothbrush holder with the double-wall construction required by claim 1 of the patent and claim 1 is therefore not anticipated by any of these documents. Claim 1 is also considered to be inventive.

### **Playbrush Prior Use Disclosure**

23. I will now deal with the alleged prior use disclosure by the proprietor.
24. The evidence that the requester has provided undoubtedly establishes that a version of the Playbrush toothbrush holder was in the public domain prior to the filing of the patent. It was evidently demonstrated in public and samples were provided for trial purposes. It is also apparent that the main purpose of the trials and demonstrations was to showcase the smart features of the toothbrush holder. Although the invention relates to an internal feature, if the samples were provided unconditionally, then details of the construction could be obtained by dismantling or analysing the samples (even to destruction), such that the internal features would be considered to be disclosed.
25. In any event, the proprietor acknowledges there were tests and demonstrations of a Playbrush device. In their observations they make the following statement (section 3.2):

*“It is acknowledged that, before the filing date of the patent, various tests and demonstrations of a Playbrush device were carried out. However, importantly, these tests and demonstrations were all of a prototype version of the product, which did not have the features of claim 1 of the patent.”*

*“The prototype toothbrush holder which was used for tests and demonstrations is shown in the “The World of Kitsch” document cited by the requester...”*

*“... the prototype version of the toothbrush holder which was used for tests and demonstrations had a single-wall construction, rather than the double wall construction required by claim 1 of the patent.”*

26. Later in their observations they state (section 3.4):

*“The Playbrush product was actually released on 25 November 2015. A press*

*release stating that the date of launch of the product was 25 November 2015 is enclosed as evidence.”*

27. The onus is on the requester to demonstrate on the balance of probabilities that the Playbrush product demonstrated and tested prior to the filing date of the patent fell within the scope of claim 1. In formal litigation proceedings the requester may have the benefit of disclosure and cross-examination, but those options are not available and I must rely on the evidence provided.
28. The requester’s evidence is circumstantial at best when it comes to establishing the features of the Playbrush product disclosed prior to the filing date. The requester would like me to infer that the product disclosed prior to the filing date is the same as the one disclosed in the patent and/or the same as the production version released in November 2015. That is not an inference I can make. In the absence of any evidence to the contrary, I am entitled to rely on the proprietor’s statement that the prior disclosure did not disclose all the features of claim 1.
29. In the observations in reply, the requester seeks to cast doubt on the proprietor’s statements that the product was launched in November 2015 and that no sales were made prior to that date. In particular, the requester points to remarks in the evidence suggesting that sales were made prior to the filing date of the patent, especially after 30th April 2015. However, I consider that the evidence the requester wishes to rely in no way contradicts the statements made by the proprietor. For the avoidance of doubt I would record that prior disclosure does not rely on the product being sold (and delivered) to members of the public, it is enough that the product is available for inspection by members of the public who are not otherwise under a duty of confidentiality.
30. As a first example, the requester points to the “Playbrush @Mini Markt Vienna” article which refers to the Mini Markt event as a “refreshing market sale concept” (requester’s emphasis). This comment is directed at the format and style of the event, and there is nothing to suggest the Playbrush was being sold at this time.
31. In a further example, the FT article refers to Playbrush being lent money to create a saleable product, but there is nothing to suggest anything was sold prior to the November launch date.
32. Finally, the Venturebeat and Stuff documents refer to the purchase price of the toothbrush holder and the amount of money raised via Kickstarter. KickStarter is a platform for raising money for new products by allowing people to pre-order the product. The price and amount of money raise therefore relate to pre-orders of the production version, and those pre-orders were not delivered until November 2015. I note in fact that the Kickstarter project<sup>1</sup> (launched in April 2015) indicated delivery of products would be in November 2015, and this supports the date given by the proprietor.
33. The requester also points to the statement in the UCL article that “The prototype was finished by September 2014...” as apparently suggesting that the production version must have been created and made available to the public in the interim period prior to

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<sup>1</sup> [www.kickstarter.com/projects/479441910/playbrush-we-make-brushing-teeth-fun](http://www.kickstarter.com/projects/479441910/playbrush-we-make-brushing-teeth-fun)

filing the patent. The UCL article also states “the fourth version of its hardware prototype ... was launched on KickStarter in spring 2015”. This indicates that a number of different prototype versions were created. However, no evidence has been provided of their construction, and I reject the implication that the production version was made available prior to November 2015 simply because there was a completed prototype as early as September 2014.

34. On the evidence before me I consider that the production version of the Playbrush toothbrush holder was not made available to members of the public prior to the filing of the patent whether by sales or otherwise. Accordingly there was no prior disclosure of the production version.
35. Furthermore, and in the absence of any evidence to the contrary, I accept the proprietor’s explanation regarding the different constructions of the prototype and production versions of the Playbrush device, particularly in the light of the cross-sectional illustration in the “World of Kitsch” document.
36. Although the requester alleges in their observations in reply that the product demonstrated prior to the filing date did in fact have the double-wall construction, there is simply no evidence to support this allegation. Ultimately, the only disclosure of the double-wall construction in the opinion request was that in the patent itself. I reiterate that the onus is on the requester to provide the evidence that establishes on the balance of probabilities that the double-wall construction was made available to the public prior to the filing date. Yet no evidence of that has been provided. Furthermore, in the context of the opinions procedure all the supporting evidence should be filed with the request so that the proprietor has an opportunity to make suitable counter-arguments.
37. Accordingly I do not consider that the prototype Playbrush device had the spaced inner and outer walls required to fall within the scope of claim 1, and claim 1 is therefore novel in relation to it.
38. In the absence of any suggestion by the requester that the claims lack an inventive step based on the prototype Playbrush device, I also consider that the claims are inventive.

## **Opinion**

39. On the basis that the production version of the Playbrush toothbrush holder was not made available to the public prior to the filing date of the patent, and that the previously available prototype version did not have the double-wall construction, it is my opinion that the patent is novel and inventive in relation to the prior disclosure of the toothbrush holder by Playbrush.
40. Furthermore, none of the documents referred to by the requester disclose the double-wall construction and in my opinion the patent is also novel and inventive in relation to these documents.

Matthew Jefferson  
Examiner

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**NOTE**

*This opinion is not based on the outcome of fully litigated proceedings. Rather, it is based on whatever material the persons requesting the opinion and filing observations have chosen to put before the Office.*