COLGATE-PALMOLIVE COMPANY,
Petitioner

v.

NOBLE INNOVATIONS NC L.L.C.,
Patent Owner

United States Patent and Trademark Office
Patent Trial and Appeal Board
Case IPR2023-01254
U.S. Patent No. 8,881,332

Colgate's Demonstrative Exhibits for Oral Argument
October 31, 2024

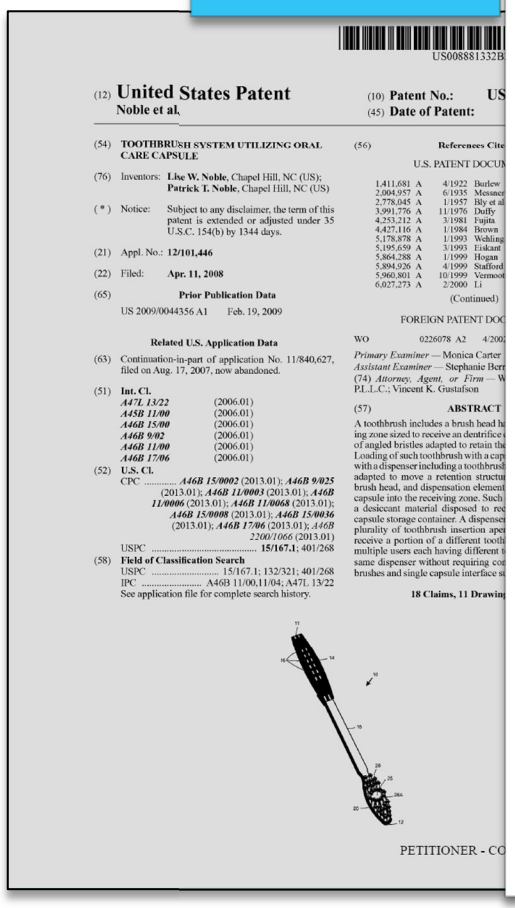
MUNCK WILSON MANDALA

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’332 Patent Overview; toothbrush and capsule dispenser

’332 Patent



US008881332B

(12) **United States Patent**
Noble et al.

(10) **Patent No.:** US
(45) **Date of Patent:**

(54) **TOOTHBRUSH SYSTEM UTILIZING ORAL CARE CAPSULE**

(76) Inventors: **Lise W. Noble**, Chapel Hill, NC (US); **Patrick T. Noble**, Chapel Hill, NC (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1344 days.

(21) Appl. No.: **12/101,446**

(22) Filed: **Apr. 11, 2008**

(65) **Prior Publication Data**

US 2009/0044356 A1 Feb. 19, 2009

Related U.S. Application Data

(63) Continuation-in-part of application No. 11/840,627, filed on Aug. 17, 2007, now abandoned.

(51) **Int. Cl.**
A47L 13/22 (2006.01)
A45B 11/00 (2006.01)
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A46B 9/02 (2006.01)
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A46B 17/06 (2006.01)

(52) **U.S. Cl.**
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USPC **15/167.1**; 401/268

(58) **Field of Classification Search**
USPC 15/167.1; 132/321; 401/268
IPC A46B 11/00,11/04; A47L 13/22
See application file for complete search history.

(56) **References Cite**
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5,894,926	A	4/1999	Stafford
5,960,801	A	10/1999	Vermoot
6,027,273	A	2/2000	Li

(Continued)

FOREIGN PATENT DOC

WO 0226078 A2 4/200

Primary Examiner — Monica Carter
Assistant Examiner — Stephanie Berr
(74) *Attorney, Agent, or Firm* — W
P.L.L.C.; Vincent K. Gustafson

(57) **ABSTRACT**

A toothbrush includes a brush head h
ing zone sized to receive an dentrifice
of angled bristles adapted to retain th
Loading of such toothbrush with a cap
with a dispenser including a toothbrus
adapted to move a retention structu
brush head, and dispensation element
capsule into the receiving zone. Such
a desiccant material disposed to re
capsule storage container. A dispense
plurality of toothbrush insertion aper
receive a portion of a different tooth
multiple users each having different t
same dispenser without requiring co
brushes and single capsule interface s

18 Claims, 11 Drawing

PETITIONER - CO

Thus, it would be desirable to provide toothbrushes and dentrifice dispensing systems that motivate children to initiate and perform oral care tasks properly, while minimizing dangers to such users, minimizing mess creation, reducing opportunities for pathogen growth, promoting consistent dentrifice dispensing, and promoting reliable dentrifice storage.

SUMMARY OF THE INVENTION

The present invention relates to toothbrushes and oral care (dentrifice) capsules, and methods of dispensing and using same, that are suitable for use by small children, and that overcome various limitations associated with such capsules.

In one aspect, the invention relates to a toothbrush comprising a brush head having a capsule receiving zone sized to receive an oral care capsule, and having a plurality of angled bristles adapted to retain an oral care capsule in the capsule receiving zone.

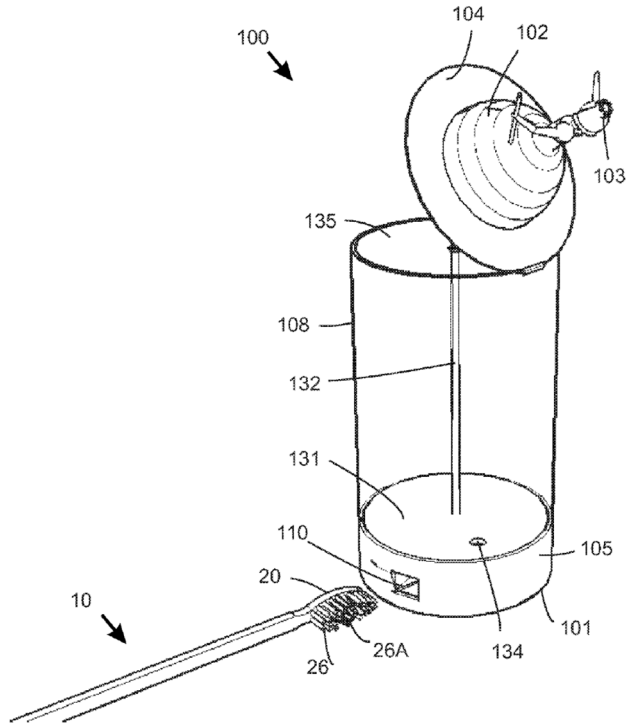
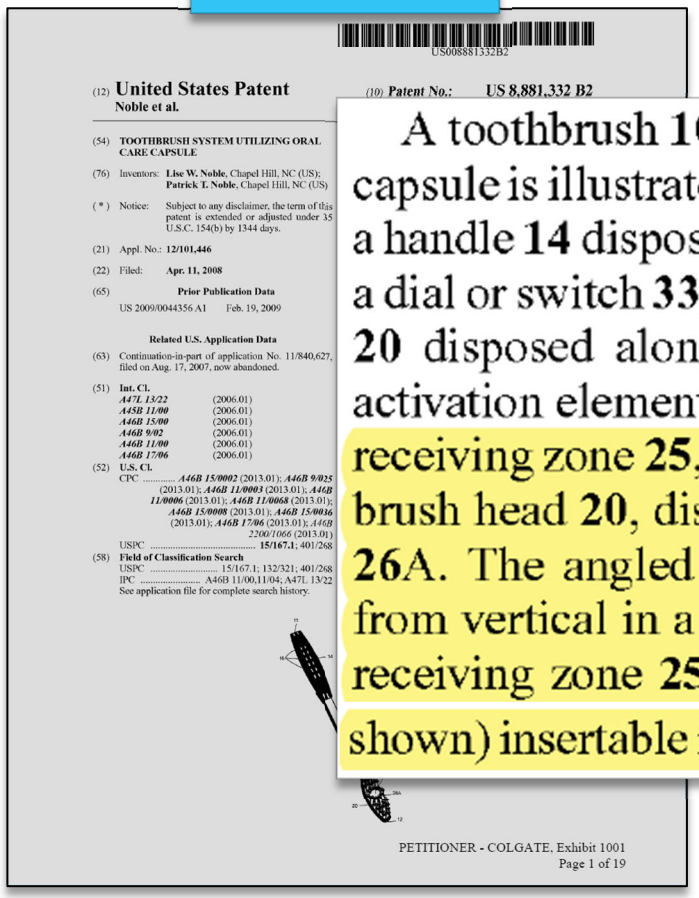


FIG. 4

Ex. 1001, ’332 Patent, at 2:43-61; FIG. 4.

’332 Patent – “angled bristles” to retain a capsule

’332 Patent



US008881332B2

(12) **United States Patent**
Noble et al.

(10) **Patent No.: US 8,881,332 B2**

(54) **TOOTHBRUSH SYSTEM UTILIZING ORAL CARE CAPSULE**

(76) Inventors: **Lise W. Noble**, Chapel Hill, NC (US); **Patrick T. Noble**, Chapel Hill, NC (US)

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(58) **Field of Classification Search**

USPC 15/167.1; 132/321; 401/268

IPC A46B 11/00,11/04; A47L 13/22

See application file for complete search history.

PETITIONER - COLGATE, Exhibit 1001
Page 1 of 19

A toothbrush **10** adapted to receive and retain an oral care capsule is illustrated in FIGS. **1-2**. The toothbrush **10** includes a handle **14** disposed along a first end **11** optionally including a dial or switch **33**, an intermediate shaft **15**, and a brush head **20** disposed along a second end **12** optionally having an activation element **31**. The brush head **20** includes a capsule receiving zone **25**, such as may include a recess defined in the brush head **20**, disposed within a plurality of angled bristles **26**A. The angled bristles **26**A are preferably canted away from vertical in a direction toward the center of the capsule receiving zone **25**, so as to retain an oral care capsule (not shown) insertable into the capsule receiving zone **25**.

Ex. 1001, ’332 Patent, at 4:57-5:1; Petition Paper 1 at 4-5.

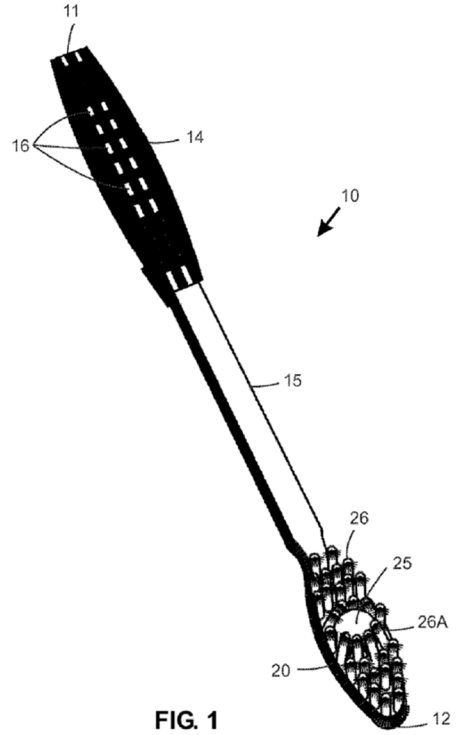
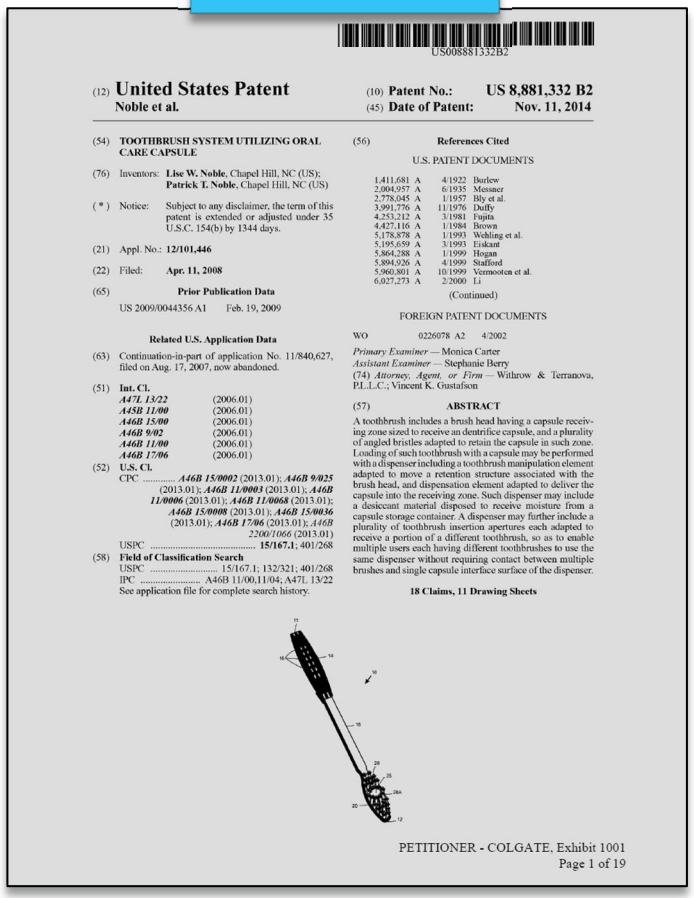


FIG. 1

’332 Patent – oral care capsules were known

’332 Patent



US008881332B2

(12) **United States Patent**
Noble et al.

(10) **Patent No.: US 8,881,332 B2**
(45) **Date of Patent: Nov. 11, 2014**

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(Continued)

FOREIGN PATENT DOCUMENTS

WO	0226078	A2	4/2002

Primary Examiner — Monica Carter
Assistant Examiner — Stephanie Berry
(74) *Attorney, Agent, or Firm* — Withrow & Terranova, P.L.L.C.; Vincent K. Gustafson

(57) **ABSTRACT**

A toothbrush includes a brush head having a capsule receiving zone sized to receive an dentrifice capsule, and a plurality of angled bristles adapted to retain the capsule in such zone. Loading of such toothbrush with a capsule may be performed with a dispenser including a toothbrush manipulation element adapted to move a retention structure associated with the brush head, and dispensation element adapted to deliver the capsule into the receiving zone. Such dispenser may include a desiccant material disposed to receive moisture from a capsule storage container. A dispenser may further include a plurality of toothbrush insertion apertures each adapted to receive a portion of a different toothbrush, so as to enable multiple users each having different toothbrushes to use the same dispenser without requiring contact between multiple brushes and single capsule interface surface of the dispenser.

18 Claims, 11 Drawing Sheets

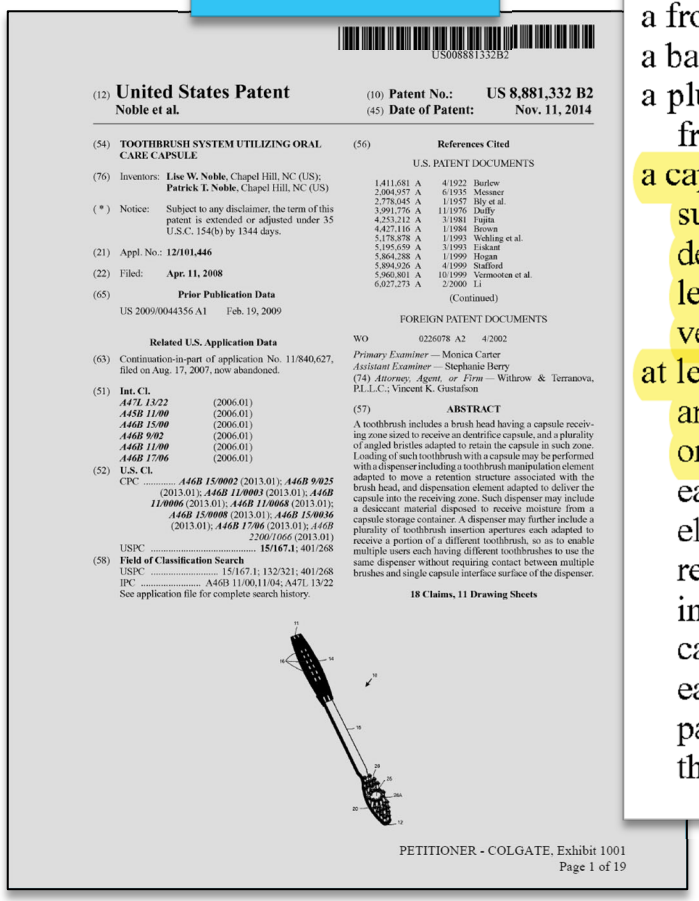
PETITIONER - COLGATE, Exhibit 1001
Page 1 of 19

Oral care capsules, which avoid some of the mess associated with conventional toothpaste, are known. Examples of various oral care capsules are disclosed in U.S. Patent Application Publication No. 2005/0260141 to Alexander (hereinafter “Alexander”), U.S. Pat. No. 7,074,390 to MacKinnon (hereinafter “MacKinnon”), and U.S. Pat. No. 4,427,116 to Brown (hereinafter “Brown”), each of which is hereby incorporated by reference.

Ex. 1001, ’332 Patent, at 1:51-58.

’332 Patent – Claim 1 (disputed elements)

’332 Patent



US008881332B2

(12) **United States Patent**
Noble et al.

(10) **Patent No.: US 8,881,332 B2**
(45) **Date of Patent: Nov. 11, 2014**

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Assistant Examiner — Stephanie Berry
(74) *Attorney, Agent, or Firm* — Withrow & Terranova, P.L.L.C.; Vincent K. Gustafson

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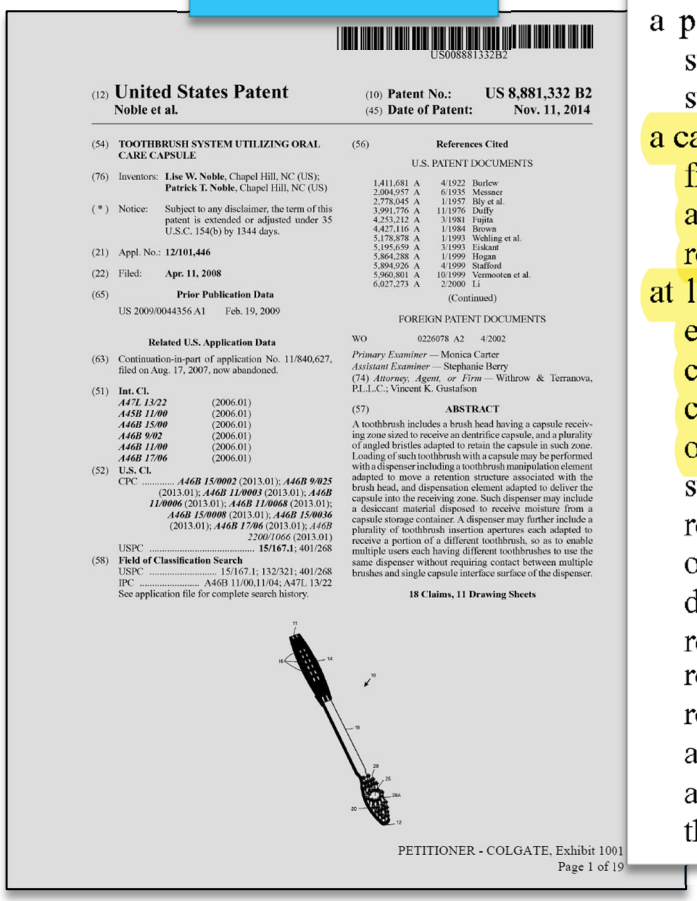
PETITIONER - COLGATE, Exhibit 1001
Page 1 of 19

1. A toothbrush comprising a brush head that includes:
a front surface;
a back surface;
a plurality of vertical bristles extending upward from the front surface;
a capsule receiving zone sized to receive an oral care capsule, the capsule receiving zone including a recess defined in the front surface and arranged to receive at least a portion of an oral care capsule inserted past the vertical bristles; and
at least one pair of angled capsule retaining elements that are elevated above the recess and configured to retain an oral care capsule in the capsule receiving zone, wherein each pair of the at least one pair angled capsule retaining elements includes a first and a second angled capsule retaining element arranged along diametrically opposing sides of an oral care capsule when present in the capsule receiving zone; and wherein at least a portion of each angled capsule retaining element of the at least one pair of capsule retaining elements is arranged to contact the oral care capsule.

Ex. 1001, ’332 Patent, at 10:30-50.

’332 Patent – Claim 10 (disputed elements)

’332 Patent



US008881332B2

(12) **United States Patent**
Noble et al.

(10) **Patent No.: US 8,881,332 B2**
(45) **Date of Patent: Nov. 11, 2014**

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18 Claims, 11 Drawing Sheets

PETITIONER - COLGATE, Exhibit 1001
Page 1 of 19

10. A toothbrush comprising a brush head that includes:

a front surface and a back surface that opposes the front surface;

a plurality of bristles extending upward from the front surface and arranged distal from a center of the front surface;

a capsule receiving zone including a recess defined in the front surface and arranged to receive at least a portion of an oral care capsule insertable past the bristles into the recess; and

at least three angled capsule retaining elements that are elevated above the recess, are configured to retain an oral care capsule in the capsule receiving zone, and are canted away from vertical in a direction toward a center of the capsule receiving zone, wherein each angled capsule retaining element of the at least three angled capsule retaining elements is arranged proximate to a perimeter of the capsule receiving zone at a position at least 108 degrees apart from at least one other angled capsule retaining element of the at least three angled capsule retaining elements relative to a center of the capsule receiving zone; and wherein at least a portion of each angled capsule retaining element of the at least three angled capsule retaining elements is arranged to contact the oral care capsule.

Ex. 1001, ’332 Patent, at 11:25-12:5.

Construction of "Angled Capsule Retaining Elements"

Noble argues the claims require "intentional" or "purposeful" angling of bristle "tufts."



UNITED STATES PATENT AND TRADEMARK

BEFORE THE PATENT TRIAL AND APPEAL B

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IPR2023-01254
U.S. Patent No. 8,881,332

PATENT OWNER NOBLE INNOVATIONS NC L.L.C.'

UNDER 37 C.F.R. § 42.220

Mail Stop PATENT BOARD
Patent Trial and Appeal Board
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

It is important to note that the "angled bristles" does not refer to a tuff [sic] of bristles where some of the individual bristles in the tuff fan inward and others fan outward. The '627 teaches that the tuffs themselves are angled inward. The angled retaining means is the tuffs of bristles or other equivalent structure. that are intentionally angled inward, not some stray bristles in a vertical clump. (EX 2001, Kodama Dec, ¶57)

Patent Owner's Response, Paper 21 at 5.

"A POSITA would understand the difference between purposefully angling bristle tuffs to secure an oral care capsule as taught in the '627 application, and the natural separation of individual bristles in a bristle cluster as they extend from the head of a toothbrush." The loosely spreading individual bristles do not perform the function of capsule retention provided by the capsule retaining means.

Patent Owner's Response, Paper 21 at 10.

Noble's narrow construction is unsupported.



Kelly R. Kodama

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRAIL AND APPEAL BOARD

COLGATE-PALMOLIVE COMPANY)
Petitioner,)
)
vs.) IPR2023-01254
) U.S. PATENT NO. 8,881,332
NOBLE INNOVATIONS NC L.L.C.)
Patent Owner)

ORAL DEPOSITION
KELLY R. KODAMA
JUNE 28, 2023

ORAL DEPOSITION OF KELLY R. KODAMA, produced as a witness at the instance of the Petitioner and duly sworn, was taken in the above-styled and numbered cause on the 28th day of June, 2024, from 11:40 a.m. to 3:35 p.m., before Katharene McCulley, Certified Shorthand Reporter in and for the State of Texas, reported by computerized stenotype machine via Zoom Communications, pursuant to the Federal Rules of Civil Procedure and the provisions stated on the record or attached hereto.

Page 1

Veritext Legal Solutions
800-336-4000

PETITIONER - COLGATE EXHIBIT 1019
Colgate v. Noble, IPR2023-01254
Page 1

- Noble presented no claim constructions.
- Noble cites no narrowing claim language or disclosures.

See Patent Owner's Response, Paper 21 at 5, 10; Pet. Reply, Paper 27 at 1.

Q All right. And given that, is it your understanding that all the terms and phrases that appear in the claims of the 332 patent should be construed according to their ordinary and plain meaning?

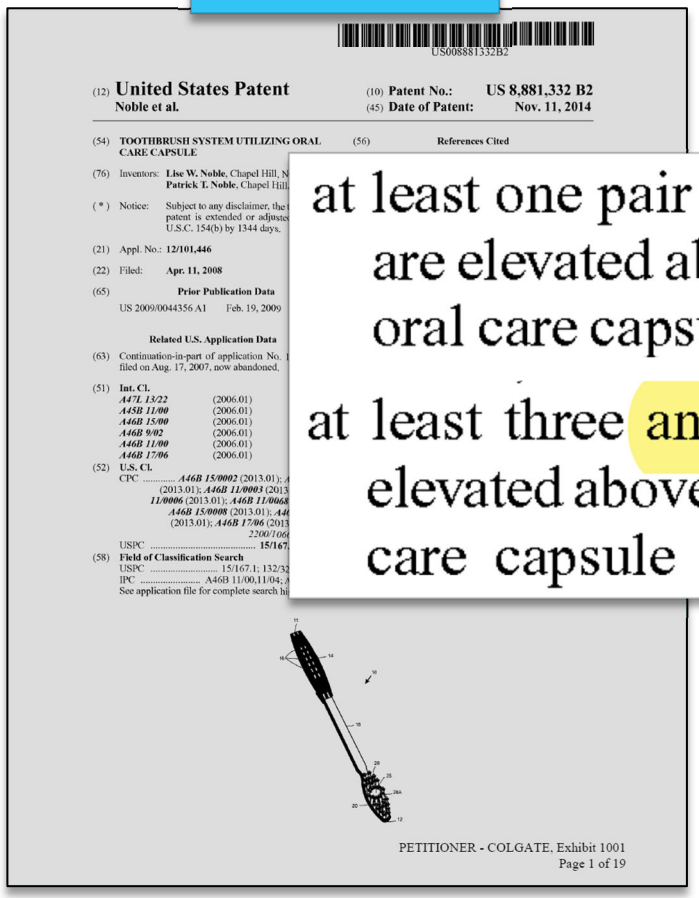
A Yes.

Ex. 1019, 13:2-6.

The claims only require “capsule retaining elements” that are “**angled**.”

Pet. Reply, Paper 27 at 2; Petition, Paper 1 at 8.

’332 Patent



US008881332B2

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U.S.C. 154(b) by 1344 days.

(21) Appl. No.: **12/101,446**

(22) Filed: **Apr. 11, 2008**

(65) **Prior Publication Data**

US 2009/0044356 A1 Feb. 19, 2009

Related U.S. Application Data

(63) Continuation-in-part of application No.
filed on Aug. 17, 2007, now abandoned.

(51) **Int. Cl.**

A47L 13/22	(2006.01)
A45B 11/00	(2006.01)
A46B 15/00	(2006.01)
A46B 9/02	(2006.01)
A46B 11/00	(2006.01)
A46B 17/06	(2006.01)

(52) **U.S. Cl.**
CPC ***A46B 15/0002*** (2013.01);
(2013.01); ***A46B 11/0003*** (2013
11/0006 (2013.01); ***A46B 11/0068***
A46B 15/0008 (2013.01); ***A4***
(2013.01); ***A46B 17/06*** (2013
2200/106
USPC ..... **15/167.**

(58) **Field of Classification Search**
USPC 15/167.1; 132/32
IPC A46B 11/00,11/04;
See application file for complete search hi

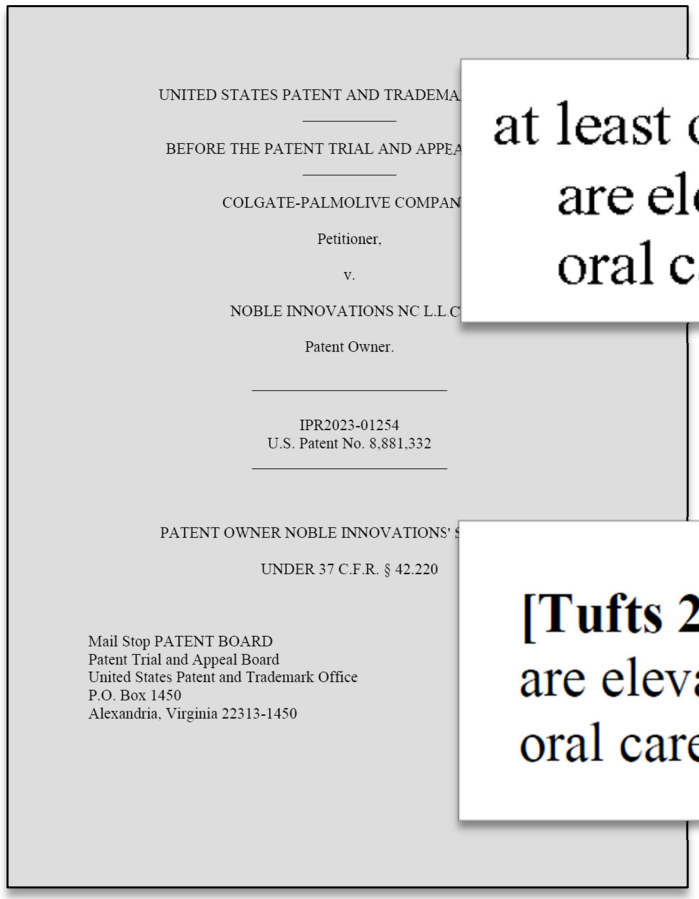
PETITIONER - COLGATE, Exhibit 1001
Page 1 of 19

at least one pair of angled capsule retaining elements that are elevated above the recess and configured to retain an oral care capsule in the capsule receiving zone, (Claim 1)

at least three angled capsule retaining elements that are elevated above the recess, are configured to retain an oral care capsule in the capsule receiving zone, (Claim 10)

Ex. 1001, ’332 Patent, at 10:40-42, 11:35-37.

Noble attempts to rewrite the claims as requiring “tufts” to avoid the prior art.



UNITED STATES PATENT AND TRADEMA

BEFORE THE PATENT TRIAL AND APPE

COLGATE-PALMOLIVE COMPAN

Petitioner,

v.

NOBLE INNOVATIONS NC L.L.C

Patent Owner.

IPR2023-01254
U.S. Patent No. 8,881,332

PATENT OWNER NOBLE INNOVATIONS'

UNDER 37 C.F.R. § 42.220

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at least one pair of angled capsule retaining elements that are elevated above the recess and configured to retain an oral care capsule in the capsule receiving zone, wherein

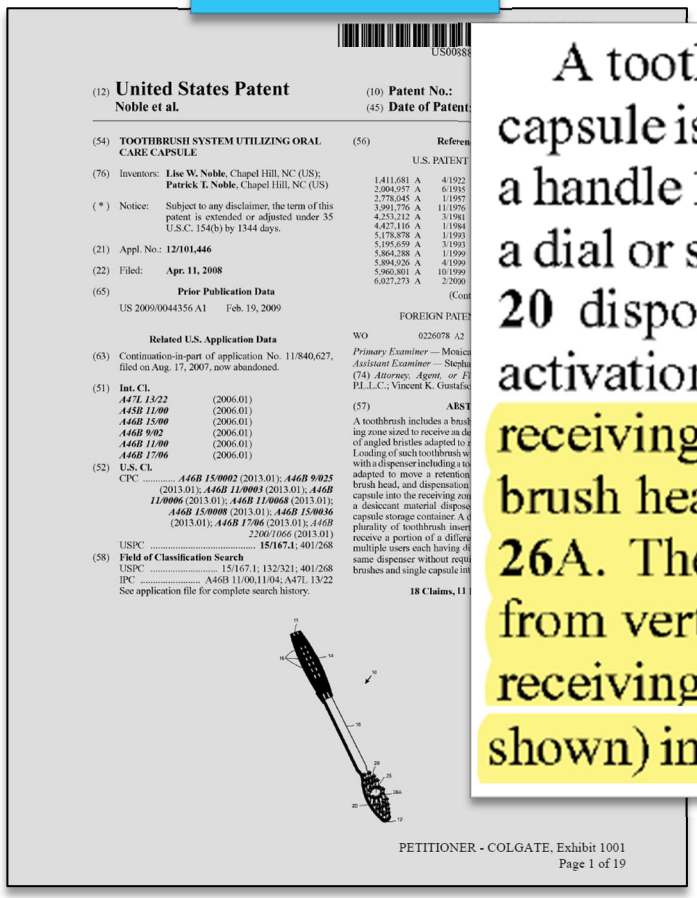
[Tufts 26A] at least one pair of angled capsule retaining elements that are elevated above the recess and configured to retain an oral care capsule in the capsule receiving zone,

Patent Owner’s Sur-Reply, Paper 28 at 3.

The ’332 Patent only describes “angled **bristles**,” not “angled tufts.”

Pet. Reply, Paper 27 at 3; See also Petition, Paper 1 at 8, 11.

’332 Patent



(12) **United States Patent**
Noble et al.

(10) **Patent No.:**
(45) **Date of Patent:**

(54) **TOOTHBRUSH SYSTEM UTILIZING ORAL CARE CAPSULE**

(76) Inventors: **Lise W. Noble**, Chapel Hill, NC (US); **Patrick T. Noble**, Chapel Hill, NC (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1344 days.

(21) Appl. No.: **12/101,446**

(22) Filed: **Apr. 11, 2008**

(65) **Prior Publication Data**

US 2009/0044356 A1 Feb. 19, 2009

Related U.S. Application Data

(63) Continuation-in-part of application No. 11/840,627, filed on Aug. 17, 2007, now abandoned.

(51) **Int. Cl.**
A47L 13/22 (2006.01)
A45B 11/00 (2006.01)
A46B 15/00 (2006.01)
A46B 9/02 (2006.01)
A46B 11/00 (2006.01)
A46B 17/06 (2006.01)

(52) **U.S. Cl.**
CPC ***A46B 15/0002*** (2013.01); ***A46B 9/025*** (2013.01); ***A46B 11/0003*** (2013.01); ***A46B 11/0006*** (2013.01); ***A46B 11/0068*** (2013.01); ***A46B 15/0008*** (2013.01); ***A46B 15/0036*** (2013.01); ***A46B 17/06*** (2013.01); ***A46B 2200/1066*** (2013.01)
USPC **15/167.1**; 401/268

(58) **Field of Classification Search**
USPC 15/167.1; 132/321; 401/268
IPC A46B 11/00,11/04; A47L 13/22
See application file for complete search history.

(56) **Referen**
U.S. PATENT
1,411,681 A 4/1922
2,004,957 A 6/1935
2,778,045 A 1/1957
3,991,776 A 11/1976
4,253,212 A 3/1981
4,427,116 A 1/1984
5,178,878 A 1/1993
5,195,659 A 3/1993
5,864,288 A 1/1999
5,894,926 A 4/1999
5,960,801 A 10/1999
6,027,273 A 2/2000
(Cont
FOREIGN PATE
WO 0226078 A2

Primary Examiner — Monica
Assistant Examiner — Stepha
(74) *Attorney, Agent, or Fi*
P.L.L.C.; Vincent K. Gustafso

(57) **ABST**
A toothbrush includes a brush
ing zone sized to receive an de
of angled bristles adapted to r
Loading of such toothbrush w
with a dispenser including a to
adapted to move a retention
brush head, and dispensation
capsule into the receiving zon
a desiccant material dispose
capsule storage container. A c
plurality of toothbrush inser
receive a portion of a differe
multiple users each having di
same dispenser without requi
brushes and single capsule int

18 Claims, 11

PETITIONER - COLGATE, Exhibit 1001
Page 1 of 19

A toothbrush **10** adapted to receive and retain an oral care capsule is illustrated in FIGS. **1-2**. The toothbrush **10** includes a handle **14** disposed along a first end **11** optionally including a dial or switch **33**, an intermediate shaft **15**, and a brush head **20** disposed along a second end **12** optionally having an activation element **31**. The brush head **20** includes a capsule receiving zone **25**, such as may include a recess defined in the brush head **20**, disposed within a plurality of angled bristles **26**A. The angled bristles **26**A are preferably canted away from vertical in a direction toward the center of the capsule receiving zone **25**, so as to retain an oral care capsule (not shown) insertable into the capsule receiving zone **25**.

Ex. 1001, ’332 Patent, at 4:57-5:1; see also Ex. 1001, ’332 Patent, at 2:59-61, 2:65-67, 3:20-22, 6:23-24, 6:26-30, 6:34-37, 7:19-23, 7:33-42, 9:61-10:1, 10:5-8.

Plain meaning of “bristles” refers to individual strands in a tuft.



Kelly R. Kodama

IN THE UNITED STATES PATENT AND TRADEMAR
BEFORE THE PATENT TRAIL AND APPEAL B

COLGATE-PALMOLIVE COMPANY)
Petitioner,)
)
vs.) IPR2023-01254
) U.S. PATENT N
NOBLE INNOVATIONS NC L.L.C.)
Patent Owner)

ORAL DEPOSITION
KELLY R. KODAMA
JUNE 28, 2023

ORAL DEPOSITION OF KELLY R. KODAMA, prod
witness at the instance of the Petitioner ar
sworn, was taken in the above-styled and num
on the 28th day of June, 2024, from 11:40 a.
3:35 p.m., before Katharene McCulley, Certif
Shorthand Reporter in and for the State of T
reported by computerized stenotype machine v
Communications, pursuant to the Federal Rule
Procedure and the provisions stated on the r
attached hereto.

Veritext Legal Solutions
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PETIT

Page 1

Q Okay. In the context of -- of this technology and, again, using the plain meaning, would you agree that a tuft of bristles is a cluster or grouping of several individual bristles that are bound together somehow?

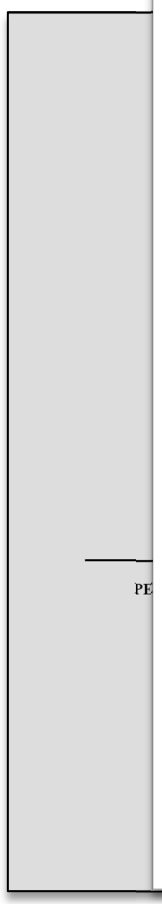
A Yes, a grouping of bristles.

Q Okay. And then as opposed to a bristle, which is -- could refer to an individual strand that might be -- could be part of a tuft of bristles, correct?

A Yes.

Ex. 1019, 14:4-13; Pet. Reply, Paper 27 at 4.

Nothing in the ’332 Patent specification narrows “angled capsule retaining elements.”



- The ’332 Patent does not:
  - Disclose or claim *how* bristles are mounted to the brush.
  - Require “intentional” angling of bristles.
  - Distinguish or disclaim tufts that include “naturally” spreading bristles.
  - Reference “tufts” at all (angled or otherwise).

Petitioner’s Reply, Paper 27 at 3.

The claims do not specify *how* the capsule retaining elements are "angled."



Kelly R. Kodama

IN THE UNITED STATES PATENT AND T
BEFORE THE PATENT TRAIL AND A

COLGATE-PALMOLIVE COMPANY)
Petitioner,)
)
vs.) IPR202
) U.S. P
NOBLE INNOVATIONS NC L.L.C.)
Patent Owner)

ORAL DEPOSITION
KELLY R. KODAMA
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ORAL DEPOSITION OF KELLY R. KODAM
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Shorthand Reporter in and for the Sta
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Q Is there any requirement in the claim language of the 332 patent that requires that the capsule retaining elements be angled at the point that they attach to the brush?

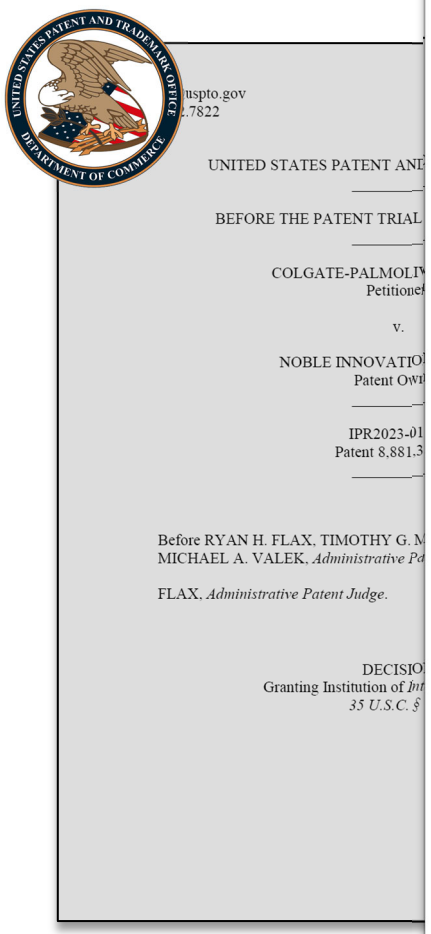
A They merely define an angle retaining element.

Q All right. So they're silent -- the claim language is silent about where it has to be angled, correct?

A I don't believe the patent mentions anything about the attachment point.

Ex. 1019, 29:24-30:8; See Pet. Reply, Paper 27 at 4-5.

There is no dispute that "angled capsule retaining elements" includes angled bristles.


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UNITED STATES PATENT AN

BEFORE THE PATENT TRIAL

COLGATE-PALMOLI
Petitione

v.

NOBLE INNOVATI
Patent Ow

IPR2023-01
Patent 8,881,3

Before RYAN H. FLAX, TIMOTHY G. M
MICHAEL A. VALEK, *Administrative Pa*

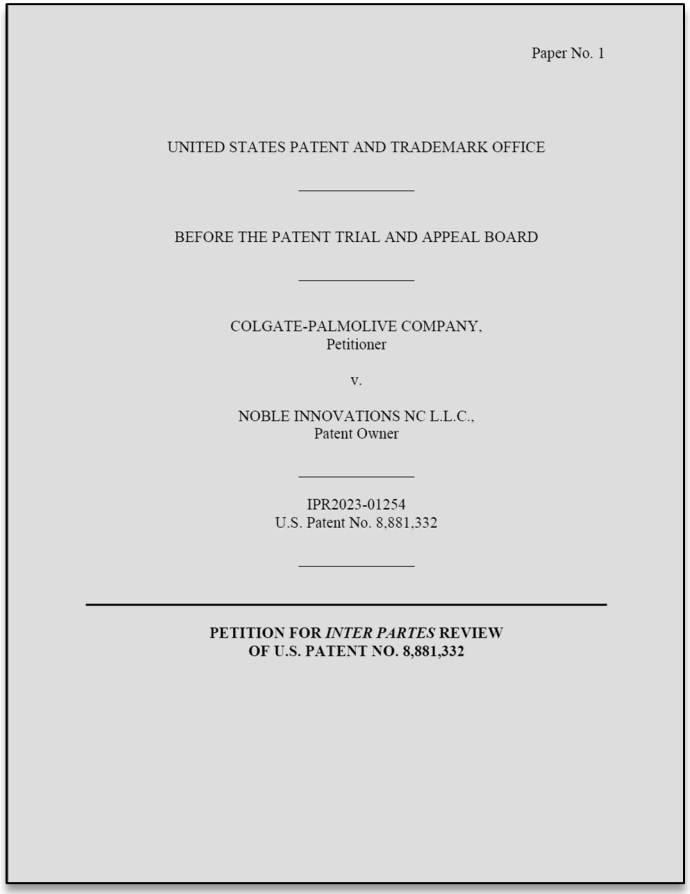
FLAX, *Administrative Patent Judge*.

DECISI
Granting Institution of *In*
35 U.S.C. §

For the purposes of this institution decision, we find it unnecessary to construe any claim language because there is no dispute that the "angled capsule retaining elements" limitation recited by the claims *includes angled bristles*, even if it may not be limited to only such a structure (and its equivalents), and we find that *angled bristles* appear to be taught in the prior art, as discussed below. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) ("[W]e need only construe terms 'that are in controversy, and only to the extent necessary to resolve the controversy.'" (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

Institution Decision, Paper 12 at 12;
Pet. Reply, Paper 27 at 1.

If Board further construes term, it should adopt Petitioner's construction.



Paper No. 1

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COLGATE-PALMOLIVE COMPANY,
Petitioner

v.

NOBLE INNOVATIONS NC L.L.C.,
Patent Owner

IPR2023-01254
U.S. Patent No. 8,881,332

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,881,332

Term/Claims	Proposed Construction
"angled capsule retaining elements" **(Claims 1, 2, 5-18)**	Means-plus-function under Pre-AIA 35 U.S.C. § 112, sixth paragraph Function: retaining an oral care capsule in a capsule receiving zone Structure: Angled bristles: Specification at Abstract, 2:59-61, 2:65-67, 3:20-22, 4:64-5:13, 6:23-24, 6:26-30, 6:34-37, 7:19-23, 7:33-42, 9:61-10:1, 10:5-8; FIGS. 1, 4, 5, 6: Element 26A

Petition, Paper 1 at 8-11; Ex. 1008, ¶¶ 96-97.

Legal standards for § 112, paragraph 6

Williamson v. Citrix Online, LLC,
792 F.3d 1339, 1348, 1350 (Fed. Cir. 2015)

"Generic terms such as 'mechanism,' 'element,' 'device,' and other nonce words that reflect nothing more than verbal constructs may be used in a claim in a manner that is tantamount to using the word 'means' because they typically do not connote sufficiently definite structure and therefore may invoke § 112, para. 6."

TriMed, Inc. v. Stryker Corp.,
514 F.3d 1256, 1259-60 (Fed. Cir. 2008)

"Sufficient structure exists when the claim language specifies the exact structure that performs the functions in question without need to resort to other portions of the specification or extrinsic evidence for an adequate understanding of the structure."

Mas-Hamilton Group v. LaGard, Inc.,
21 F. Supp. 2d 700, 729-30 (E.D. Ky. 1997)

"There is no evidence that a 'retaining element' has any commonly understood meaning in this art."

Petition, Paper 1 at 9-11.

Noble's expert agrees "retaining element" is a generic term.



Kelly R. Kodama

IN THE UNITED STATES PATENT AND TR
BEFORE THE PATENT TRAIL AND AP

COLGATE-PALMOLIVE COMPANY)
Petitioner,)
)
vs.) IPR2023
)U.S. PA
NOBLE INNOVATIONS NC L.L.C.)
Patent Owner)

ORAL DEPOSITION
KELLY R. KODAMA
JUNE 28, 2023

ORAL DEPOSITION OF KELLY R. KODAMA
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3:35 p.m., before Katharene McCulley,
Shorthand Reporter in and for the Stat
reported by computerized stenotype ma
Communications, pursuant to the Federa
Procedure and the provisions stated on
attached hereto.

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Q In your view as a POSA, does the term retaining element refer to any commonly known or understood device or particular structure?

A No.

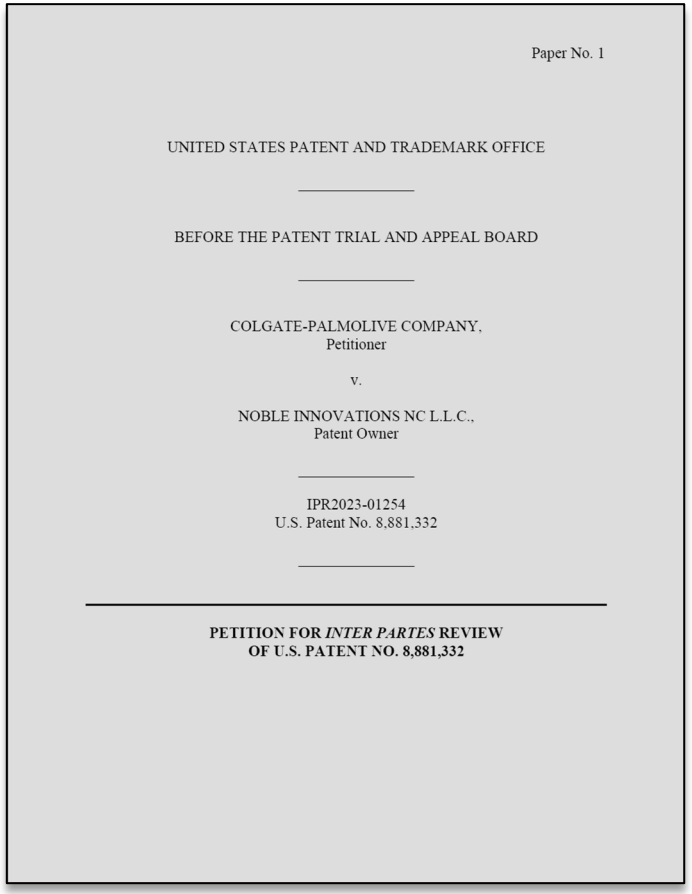
Q Would you agree that in the context of this patent, that retaining element is a generic term that could be used to refer to anything that can retain the capsule?

A Something that has a function of retaining the capsule, yes.

Ex. 1019, 16:1-10; See Pet. Reply, Paper 27 at 28-29.

Prior Art Toothbrushes Used Angled Bristles to Retain Dentifrice

Toothbrushes including angled bristles to retain dentifrice/capsules pre-date WWII.



Paper No. 1

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COLGATE-PALMOLIVE COMPANY,
Petitioner

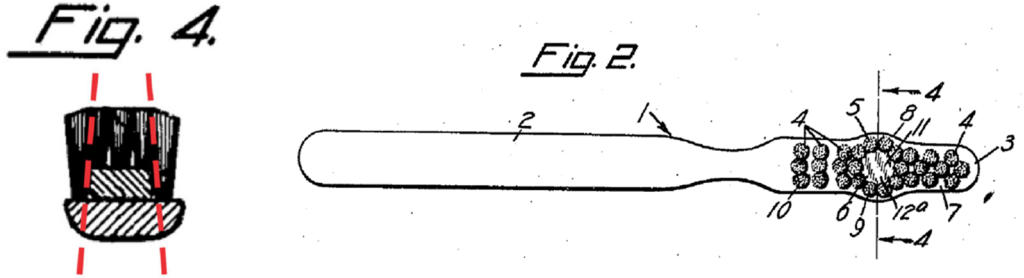
v.

NOBLE INNOVATIONS NC L.L.C.,
Patent Owner

IPR2023-01254
U.S. Patent No. 8,881,332

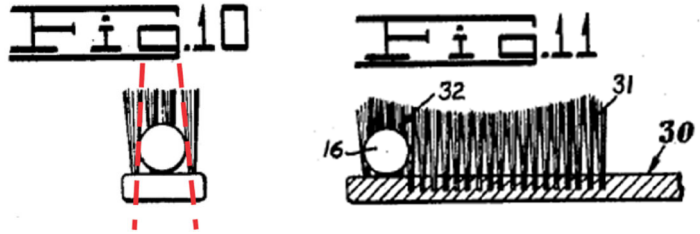
PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,881,332

Wolcott – 1941 (Ex. 1009):



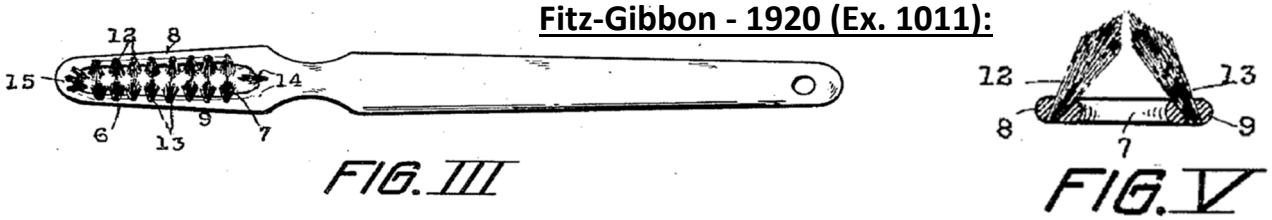
Petition, Paper 1 at 18-20, 29-36; Ex. 1008, ¶¶ 83-85, 127-145.

Young – 1935 (Ex. 1012):



Petition, Paper 1 at 22-24, 68-70; Ex. 1008, ¶¶ 86, 266-271.

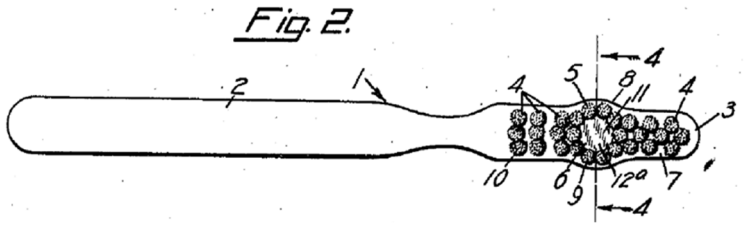
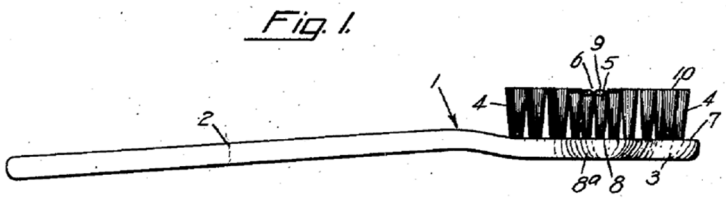
Fitz-Gibbon - 1920 (Ex. 1011):



Petition, Paper 1 at 21-22, 52-53; Ex. 1008, ¶¶ 87-88, 212-214.

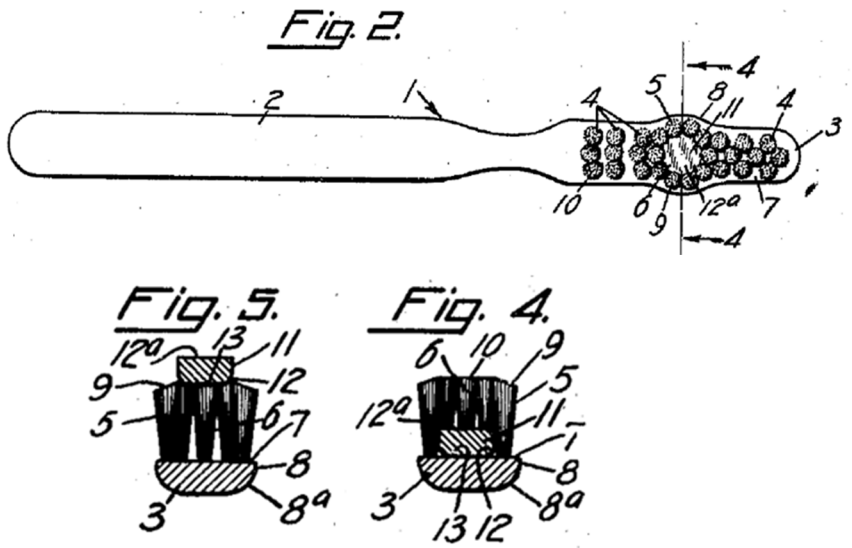
Obviousness Ground 1: Wolcott and Davidson

Ground 1: Wolcott's undisputed disclosures

Independent Claims 1 and 10	Wolcott
[1.0] A toothbrush comprising a brush head that includes: **[10.0]** A toothbrush comprising a brush head that includes:	
[1.1] a front surface; **[10.1]** a front surface and	
[1.2] a back surface; **[10.2]** a back surface that opposes the front surface;	
[1.3] a plurality of vertical bristles extending upward from the front surface; **[10.3]** a plurality of bristles extending upward from the front surface and arranged distal from a center of the front surface;	

Petition, Paper 1 at 28, 30-31; Ex. 1008 at ¶¶ 124-131; See also Kodama Depo, Ex. 1019, at 72:20-25 (vertical bristles).

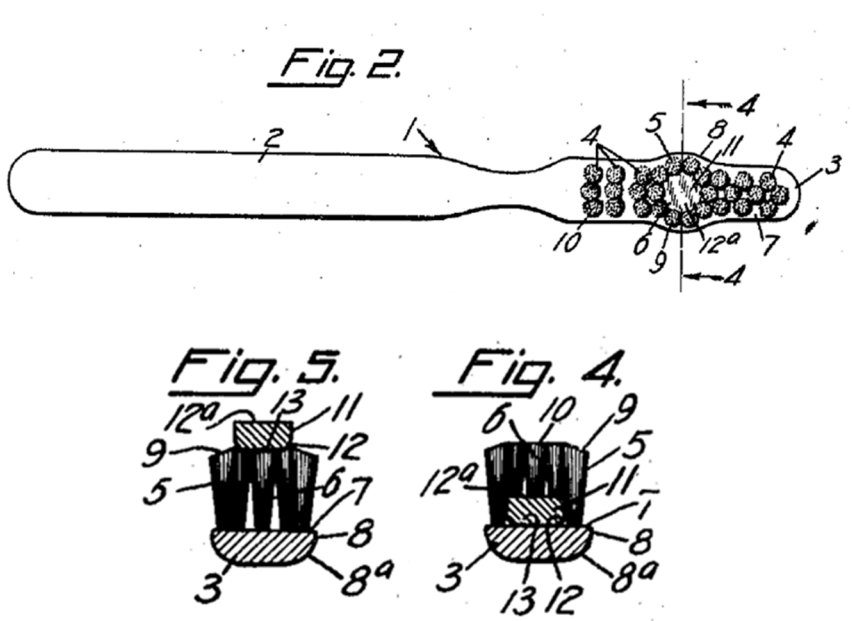
Ground 1: Wolcott discloses a “capsule receiving zone.”

Independent Claims 1 and 10	Wolcott
[1.4] a capsule receiving zone sized to receive an oral care capsule, **[10.4]** a capsule receiving zone	

Wolcott discloses a “**dentifrice receiving pocket**” or “**central pellet recess 6**” that is “**adapted to receive a dentifrice pellet**.”
Ex. 1009, 1:26-35, 2:38-45.
Petition, Paper 1 at 18-19, 31-33; Ex. 1008, ¶¶ 64, 72-73, 84-85, 132-135.

The bristles 4 are arranged distal from a center of the front surface because the bristles 4 are “at the front and rear ends” of the brush head, with the other **bristles 5 that form the dentifrice pocket/recess** being “intermediate the bristles 4.”
Ex. 1009, 2:33-39.
Petition, Paper 1 at 30-31; Ex. 1008 at ¶¶ 130-131.

Ground 1: Wolcott's "capsule receiving zone" is "arranged to receive at least a portion of an oral care capsule insertable past the bristles."

Independent Claims 1 and 10	Wolcott
[1.5] the capsule receiving zone including a recess defined in the front surface and arranged to receive at least a portion of an oral care capsule inserted past the vertical bristles; and **[10.5]** including a recess defined in the front surface and arranged to receive at least a portion of an oral care capsule insertable past the bristles into the recess; and	

"As ***the pellet moves downward into the recess***, the surfaces 12 on the pellet spring apart the bristles surrounding the recess, and these bristles then spring back in such manner as ***to securely position the pellet at the bottom of the recess***."
Ex. 1009 at 3:61- 67.
Petition, Paper 1 at 19-20; Ex. 1008, ¶¶ 64, 72-73, 84-85.

The pellet "**may be formed of any of various different dentifrices in powdered form, or even of hardened or enclosed tooth paste**."
Ex. 1009, 3:18-27.
Petition, Paper 1 at 32; Ex. 1008, ¶¶ 132-135.

Ground 1: Wolcott discloses "angled capsule retaining elements."

Independent Claims 1 and 10	Wolcott
[1.6] at least one pair of angled capsule retaining elements that are elevated above the recess and configured to retain an oral care capsule in the capsule receiving zone, **[10.6]** at least three angled capsule retaining elements that are elevated above the recess, are configured to retain an oral care capsule in the capsule receiving zone, and are canted away from vertical in a direction toward a center of the capsule receiving zone,	

- "…bristles extend clear around the pellet recess 6, in such a manner as thereby ***effectually to retain a pellet in said recess***."
- "…when the pellet is inserted in that recess, it is definitely located therein, due to the location and resiliency of the bristles, which latter causes them to ***swing back to reduce the size of the mouth of the recess 6*** after the insertion of the pellet, and further ***due to the engagement of the wider portion 12a of the pellet with the sides of the expanding bristles in the adjacent tufts***…");
- "As the pellet moves downward into the recess, the surfaces 12 on the pellet spring apart the bristles surrounding the recess, and ***these bristles then spring back in such manner as to securely position the pellet*** at the bottom of the recess…"; and
- "…should the brush be accidentally inverted befor [sic] inserting in the mouth, ***the pellet will still remain in its recess***, its portion 12a then engaging the wider expanded tuft portions or moving into engagement herewith."

Ex. 1009, 2:49-3:1, 3:44-52, 3:61-67, 4:4-9. Petition, Paper 1 at 19-20, 35-37; Ex. 1008, ¶¶ 26, 64, 72-73, 84-85, 142-147; Pet. Reply, Paper 27 at 4-6.

Ground 1: Wolcott discloses “angled capsule retaining elements.”

Pet. Reply, Paper 27 at 4-6.



Kelly R. Kodama

IN THE UNITED STATES PATENT AND T
BEFORE THE PATENT TRAIL AND A

COLGATE-PALMOLIVE COMPANY)
Petitioner,)
)
vs.) IPR202
) U.S. P
NOBLE INNOVATIONS NC L.L.C.)
Patent Owner)

ORAL DEPOSITION
KELLY R. KODAMA
JUNE 28, 2023

ORAL DEPOSITION OF KELLY R. KODAM
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3:35 p.m., before Katharene McCulley,
Shorthand Reporter in and for the Sta
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Procedure and the provisions stated o
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PETITIONER - COLGATE EXHIBIT 1019
Colgate v. Noble, IPR2023-01254
Page 1

Q Okay. So I mean, at least in all of the prior art that we're looking at of record, at least Wolcott, Davidson, Fitz-Gibbon, and Young, which we'll go through, when those pieces of prior art display tufts of bristles, it is routine and expected that the bristles along the perimeter of the tuft are going to splay out, as you say, at an angle, correct?

A As shown in those four prior art patents, yes.

Ex. 1019, 29:5-11.

Ground 1: Wolcott discloses “angled capsule retaining elements.”

Pet. Reply, Paper 27 at 4-6.



Kelly R. Kodama

IN THE UNITED STATES PATENT AND T
BEFORE THE PATENT TRAIL AND A

COLGATE-PALMOLIVE COMPANY)
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Colgate v. Noble, IPR2023-01254
Page 1

Q And I appreciate that. I just want to make sure, the ones that are on the interior, the bristles that are closest to the receiving zone for the pellet in Wolcott, do you agree that those particular bristles are angled in a direction towards the center of the capsule-receiving zone of Wolcott?

A Yes, sir. They're angled toward the receiving zone.

Ex. 1019, 69:11-18.

Ground 1: Noble's expert agrees Wolcott's angled bristles retain the pellet.

Pet. Reply, Paper 27 at 4-5.



Kelly R. Kodama

IN THE UNITED STATES PATENT AND TRADEMARK OFFI
BEFORE THE PATENT TRAIL AND APPEAL BOARD

COLGATE-PALMOLIVE COMPANY)
Petitioner,)
)
vs.) IPR2023-01254
) U.S. PATENT NO. 8,8
NOBLE INNOVATIONS NC L.L.C.)
Patent Owner)

ORAL DEPOSITION
KELLY R. KODAMA
JUNE 28, 2023

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PETITIONER - COLGATE EXHIBIT 1019
Colgate v. Noble, IPR2023-01254
Page 1

Q Okay. And so in this disclosure in Column 4, would you agree that Wolcott discloses that the angled bristles help retain the pellet when the brush is inverted?

A Yes.

Ex. 1019, 36:3-7.

Ground 1: Board found Wolcott's bristles "angled."

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UNITED STATES PATENT AND TRADEMARK

BEFORE THE PATENT TRIAL AND APPEAL B

COLGATE-PALMOLIVE COMPANY,
Petitioner,

v.

NOBLE INNOVATIONS NC L.L.C.,
Patent Owner.

IPR2023-01254
Patent 8,881,332 B2

Before RYAN H. FLAX, TIMOTHY G. MAJORS, and MICHAEL A. VALEK, *Administrative Patent Judges*.

FLAX, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

Regarding Patent Owner's arguments over Wolcott, we are unpersuaded. Patent Owner argues Wolcott's bristles "extend straight up," but Petitioner reasonably argues, and illustrates via an annotated version of Wolcott's Figure 4, that Wolcott discloses bristles surrounding a dentifrice receiving pocket and a dentifrice pellet, when present, that are provided at angles inclined toward that pocket and pellet. *See* Pet. 35 (citing Ex. 1008 ¶¶ 26, 142). We reproduce this annotated figure below:

Fig. 4.

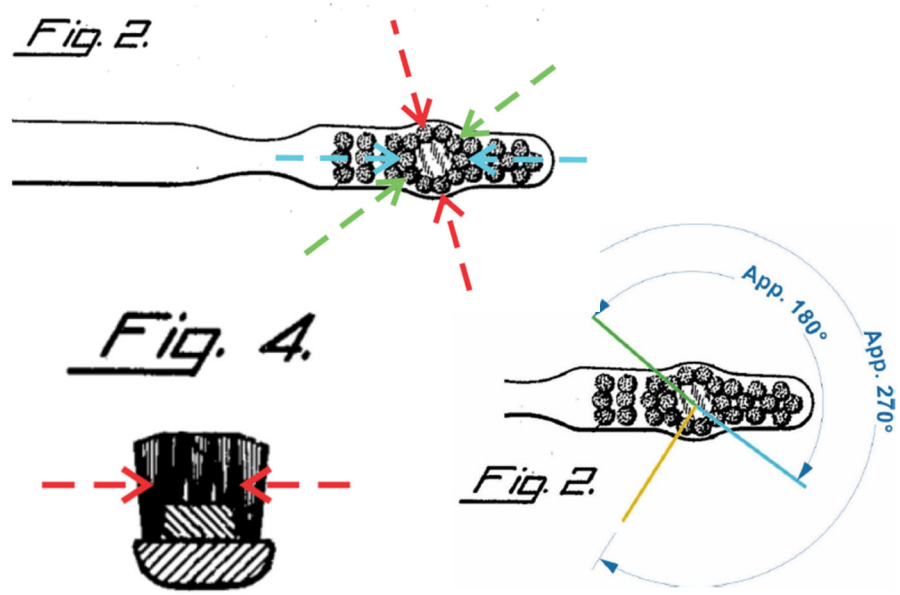


The annotated Wolcott Figure 4 shows an end-cross-sectional view of the toothbrush where bristles (highlighted by red dashed lines) are angled inwardly toward a dentifrice pellet. On this evidence, it appears that Patent Owner's argument inaccurately characterizes the prior art's disclosure as the annotated bristles clearly are not illustrated to only "extend straight up," but are angled.

Institution Decision, Paper 12 at 27-28; Pet. Reply, Paper 27 at 4.

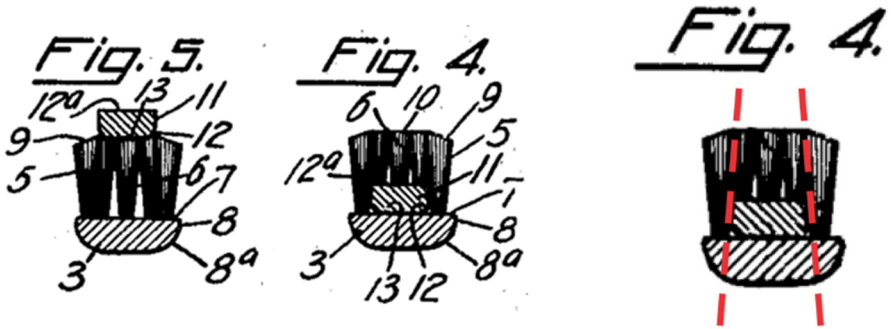
DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Ground 1: Wolcott has angled bristles that are "diametrically opposed" and "at least 108 degrees apart."

Independent Claims 1 and 10	Wolcott
[1.7] wherein each pair of the at least one pair angled capsule retaining elements includes a first and a second angled capsule retaining element arranged along diametrically opposing sides of an oral care capsule when present in the capsule receiving zone; and **[10.7]** wherein each angled capsule retaining element of the at least three angled capsule retaining elements is arranged proximate to a perimeter of the capsule receiving zone at a position at least 108 degrees apart from at least one other angled capsule retaining element of the at least three angled capsule retaining elements relative to a center of the capsule receiving zone; and	

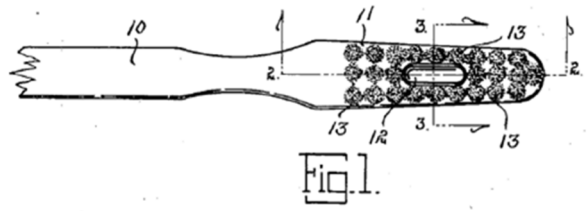
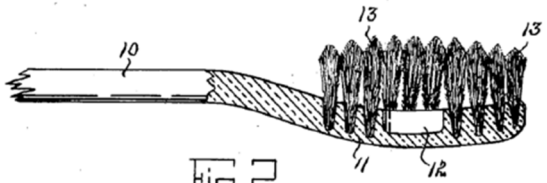
- Wolcott's "dentifrice receiving pocket" has angled bristles that "***extend clear around the pellet recess 6***." Ex. 1009, 2:49-3:1; Petition, Paper 1 at 35; Ex. 1008, ¶¶ 141-42.
- "tufts of bristles 5 are circularly arranged around the pocket/pellet, and thus the angled bristles form diametrically opposite pairs." Petition, Paper 1 at 39; Ex. 1008, ¶¶ 26, 148-59.
- "Wolcott also includes at least three angled bristles . . . and each are at a position at least 108° apart from at least one other one of the at least three angled capsule retaining elements relative to a center of the recess." Petition, Paper 1 at 39-40; Ex. 1008, ¶¶ 26, 151-52.

Ground 1: Wolcott's angled bristles contact the oral care capsule.

Independent Claims 1 and 10	Wolcott
[1.8] wherein at least a portion of each angled capsule retaining element of the at least one pair of capsule retaining elements is arranged to contact the oral care capsule. **[10.8]** wherein at least a portion of each angled capsule retaining element of the at least three angled capsule retaining elements is arranged to contact the oral care capsule.	

"**the sides of the expanding bristles**" have "**engagement of ... the pellet**" and "**securely position the pellet at the bottom of the recess**."
Ex. 1009, 3:44-54, 3:61-67.
Petition, Paper 1 at 40-41; Ex. 1008, ¶¶ 155-157.

Ground 1: Davidson discloses “a recess defined in the front surface” of a brush head

Independent Claims 1 and 10	Davidson
[1.5] the capsule receiving zone including a recess defined in the front surface and arranged to receive at least a portion of an oral care capsule inserted past the vertical bristles; and **[10.5]** including a recess defined in the front surface and arranged to receive at least a portion of an oral care capsule insertable past the bristles into the recess; and	 Fig. 1.  Fig. 2.

- “a centrally located receiving area within the bristles” having a “**well 12**” “**formed in the bottom of the head portion 11**”; and

- “[b]y the well 12 being closed at all points except its top, ***it will have a tendency to hold the dentifrice, regardless of the type of the dentifrice, by suction***.”

Ex. 1010, 1:1-10, 1:51-55, 3:20-24; Petition, Paper 1 at 20-21, 32-35; Ex. 1008 at ¶¶ 74-75, 136-140.

Ground 1: Motivation to modify Wolcott to include Davidson's well/recess.



Timothy P. Fletcher

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COLGATE-PALMOLIVE COMPANY,
Petitioner

v.

NOBLE INNOVATIONS NC L.L.C.,
Patent Owner

U.S. Patent No. 8,881,332

**DECLARATION OF TIMOTHY P. FLETCHER
IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW O
U.S. PATENT NO. 8,881,332**

PETITIONER - COLGATE, Ex
Pag

121. Given that a primary concern in Wolcott is to maintain the pellet even if a user were to turn the brush upside down (invert the brush) before inserting the brush into the user's mouth, a POSITA would have been motivated to combine Wolcott and Davidson to increase the ability of Wolcott's toothbrush to retain a pellet by incorporating the well of Davidson to provide additional suction on the pellet, reducing movement of the pellet within the recess and chances of the pellet falling out of the recess.

122. The disclosures of Wolcott and Davidson include straightforward teachings that would have provided a POSITA with a predictable set of options for retaining dentifrice in a head of a toothbrush, and a POSITA would have been strongly motivated, and it would have been an obvious design choice, to combine these options to maximize the resulting toothbrush's ability to retain Wolcott's pellet. Combining Wolcott and Davidson, and particularly modifying Wolcott based on Davidson's disclosure, would require only ordinary skill to define a well in the front surface of Wolcott's toothbrush head, producing predictable results such as retaining Wolcott's dentifrice pellet within the well.

Ex. 1008, ¶¶ 121-122; See Petition, Paper 1 at 26-28.

Ground 1: Noble's expert agrees that "well" and "recess" are the same.



Kelly R. Kodama

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PETITIONER - COLGATE EXHIBIT 1019
Colgate v. Noble, IPR2023-01254
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From your perspective, is there any distinction to a POSA in the context of this technology between a well and a recess?

A No.

Ex. 1019, 38:19-22; Pet. Reply, Paper 27 at 7.

Ground 1: Noble's expert: a POSA could adapt Davidson's well to "any shape."



Kelly R. Kodama

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PETITIONER - COLGATE EXHIBIT 1019
Colgate v. Noble, IPR2023-01254
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Is there any engineering challenge of modifying the size and shape of the well in Davidson so that it could accommodate a spherical capsule?

A No.

Q And so if you asked one of your colleagues who had a design engineering degree and five years of experience in industrial design, they -- he or she could easily adapt the well we see in Davidson so that it was rounded and big enough to hold a particular gel cap, right?

A Yes, the portion that's in the brush -- toothbrush itself, that could be modified to any shape.

Ex. 1019, 40:2-13; Pet. Reply, Paper 27 at 7.

Ground 1: Wells that hold spherical objects are commonplace.



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PETITIONER - COLGA
Colgate v. Nobl

Q Well, and I guess my question was: Spherical recesses to hold ball-shaped objects are -- are known commonly by everyone, not just POSAs, right?

A That's correct.

Q I mean, an egg carton has spherical recesses, right?

A Yes.

. . .

Q I assume you have a socket set at home?

A Yes, of course.

Q And any engineer would, I assume, but those have round recesses that hold the individual sockets, right?

A Some of them do, yes.

Q All right. These are common things to use to hold spherical or round objects in everyday life, not just something that POSAs are familiar with, would you agree?

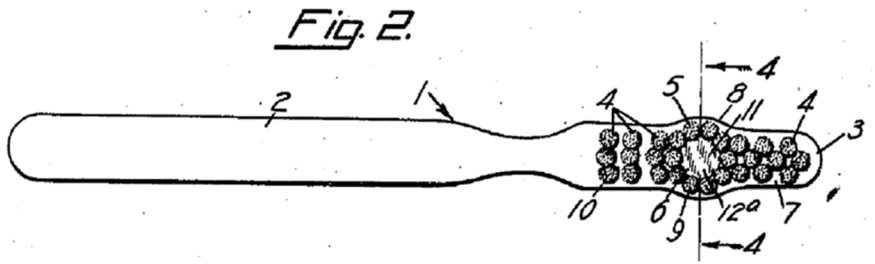
A Yes.

Ex. 1019, 40:14-41:17;
Pet. Reply, Paper 27 at 7.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Obviousness Ground 2: Wolcott, Davidson, & Fitz-Gibbon

Ground 2: Wolcott, Davidson, Fitz-Gibbon combination includes "angled capsule retaining elements."

Independent Claims 1 and 10	References
[1.6] at least one pair of angled capsule retaining elements that are elevated above the recess and configured to retain an oral care capsule in the capsule receiving zone, **[10.6]** at least three angled capsule retaining elements that are elevated above the recess, are configured to retain an oral care capsule in the capsule receiving zone, and are canted away from vertical in a direction toward a center of the capsule receiving zone,	**Wolcott – 1941 (Ex. 1009):**  **Fitz-Gibbon - 1920 (Ex. 1011):**  FIG. V

"[B]rush tufts or clusters 12" and "13" are "so disposed on the brush head as to provide a dentifrice holding chamber or pocket."

Ex. 1011, 1:58-67, 1:79-87; Petition, Paper 1 at 21-22; Ex. 1008, ¶¶ 76-77, 87-88.

Ground 2: Angling bristle tufts over a dentifrice pocket was also known.

Paper No. 1

UNITED STATES PATENT AND TRADEMARK OFFICE

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IPR2023-01254
U.S. Patent No. 8,881,332

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,881,332

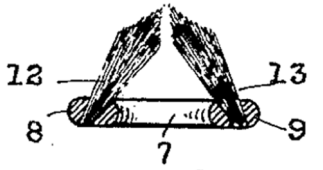


FIG. V



FIG. III

Fitz-Gibbon's toothbrush had:

"a relatively large opening formed in the brush back or head and bristles associated therewith to provide a pocket for holding the dentifrice or sterilizing medium employed" (Ex. 1011, 1:18-23); and

angled "brush tufts or clusters 12" and "13" on opposing sides of the brush head and "so disposed on the brush head as to provide a dentifrice holding chamber or pocket" (Ex. 1011, 1:58-67, 1:79-87).

Petition, Paper 1 at 21-22; Ex. 1008, ¶¶ 76-77, 87-88.

Ground 2: Motivation to modify the toothbrush of the Wolcott-Davidson combination based on Fitz-Gibbon to include angled bristle tufts.



Timothy P. Fletcher

UNITED STATES PATENT AND TRADEMARK OFFICE

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U.S. Patent No. 8,881,332

DECLARATION OF TIMOTHY P. FLETCHER IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,881,332

PETITIONER - COLGATE, Exhibit 1008
Page 1 of 208

204. As indicated above, Wolcott is concerned with preventing the pellet from falling off the brush if a user inverts the brush to be brush-side down prior to brushing. Fitz-Gibbon is also concerned with preventing dry dentifrice from falling off the toothbrush while the toothbrush is held brush-side down. Thus, in addition to including a well as taught in Davidson to provide suction on the dentifrice pellet (Ex. 1010, 3:20-24), a POSITA would have been motivated to tilt the tufts of bristles 5 of the toothbrush of the Wolcott-Davidson combination to further enhance the pellet retaining strength of the toothbrush. This would require simply tilting the tufts of bristles 5 in the Wolcott-Davidson combination towards the center dentifrice receiving area of the brush head, as shown in FIGS. 3 and 5 of Fitz-Gibbon, below.

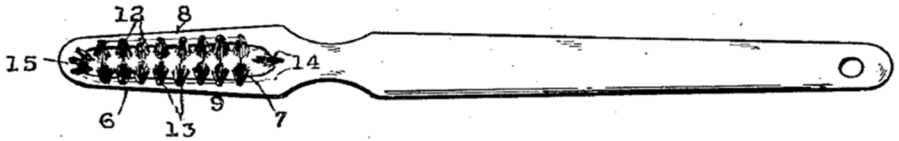


FIG. III



FIG. V

Ex. 1008, ¶ 204;
Petition, Paper 1 at 49-51.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Ground 2: Motivation to modify the toothbrush of the Wolcott-Davidson combination based on Fitz-Gibbon to include angled bristle tufts.



Timothy P. Fletcher

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U.S. PATENT NO. 8,881,332**

PETITIONER - COLGATE

207. The disclosures of Wolcott, Davidson, and Fitz-Gibbon include straightforward teachings that would have provided a POSITA with a predictable set of options for retaining dentifrice in a head of a toothbrush, and a POSITA would have been strongly motivated, and it would have been an obvious design choice, to combine these options to maximize the resulting toothbrush's ability to retain Wolcott's dentifrice pellet. Combining Wolcott, Davidson, and Fitz-Gibbon, and particularly modifying Wolcott based on Davidson's and Fitz-Gibbon's disclosures, would require only ordinary skill to define a well in the front surface of Wolcott's toothbrush head and tilt Wolcott's bristle tufts around the well, producing predictable results such as retaining Wolcott's dentifrice pellet within the well with the assistance of the angled bristle tufts.

Ex. 1008, ¶¶ 205-207;
Petition, Paper 1 at 49-51.

Ground 2: Noble's expert: benefit of angled retention "known."



Kelly R. Kodama

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PETIT

Q And if a POSA were to modify Wolcott so that the tufts were at -- the entire tuft was inserted at an angle, would they understand that that would help retain a pellet of dentifrice?

A Potentially, depending on how it's arranged and whether the dentifrice pellet is coming from the front or the back.

Q I mean, it's no great engineering -- it doesn't take any great engineering mind to understand that if bristles are put at an angle, it could help hold an object beneath it in place, right?

A Right. There's a -- an angle would be helpful to retain something.

Q And that would be known to a POSA as of the date, priority date of the 332 patent, right?

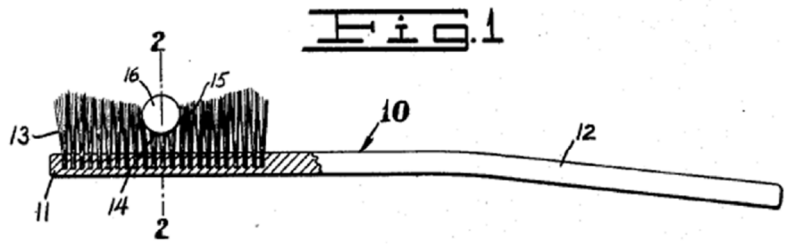
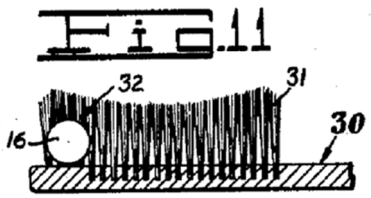
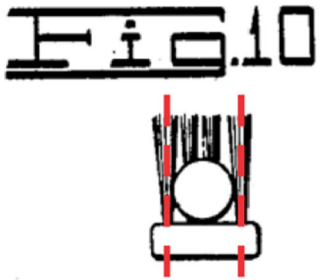
A Yes.

Ex. 1019, 53:1-16;
Pet. Reply, Paper 27 at 12.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Obviousness Ground 3: Young and Davidson

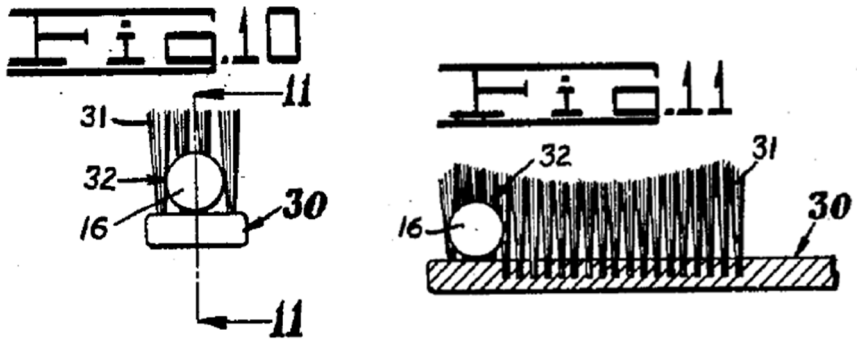
Ground 3: Young's undisputed disclosures

Independent Claims 1 and 10	Young
[1.0] A toothbrush comprising a brush head that includes: **[10.0]** A toothbrush comprising a brush head that includes:	 
[1.1] a front surface; **[10.1]** a front surface and	
[1.2] a back surface; **[10.2]** a back surface that opposes the front surface;	
[1.3] a plurality of vertical bristles extending upward from the front surface; **[10.3]** a plurality of bristles extending upward from the front surface and arranged distal from a center of the front surface;	

Young's embodiments include "a head 11 and a handle 12," the head having "a plurality of bristle tufts 13."

Ex. 1012, 1:36-40.
Petition, Paper 1 at 63; Ex. 1008 ¶¶ 252-253.

Ground 3: Young discloses a "capsule receiving zone."

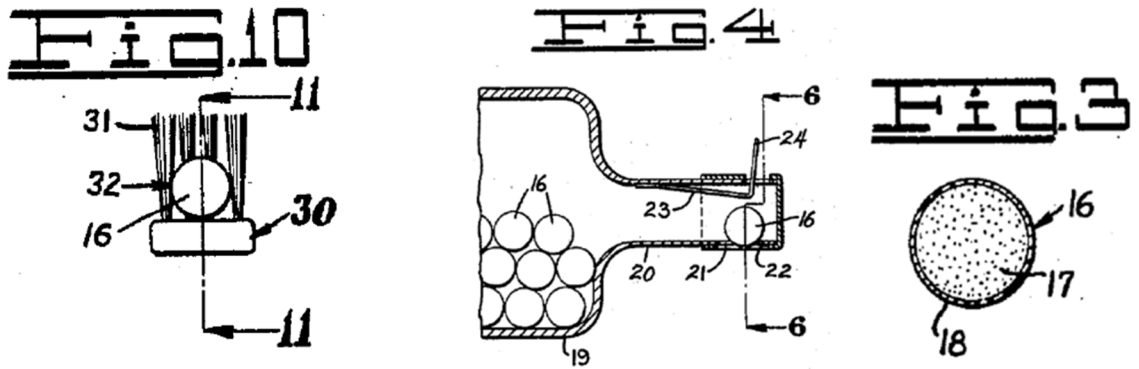
Independent Claims 1 and 10	Young
[1.4] a capsule receiving zone sized to receive an oral care capsule, **[10.4]** a capsule receiving zone	

- "[A] portion of the bristles are arranged to form ***a pocket*** for the reception of a pellet of dentifrice." Ex. 1012, 1:3-9.

- "In Figs. 10 and 11, the brush 30 is provided with bristles 31. These bristles in the center of the brush at one end are omitted thus forming ***a pocket 32 in which the pellet 16 will be retained*** in place by the resiliency of the bristles."

Ex. 1012, 1:3-9, 2:30-34.
Petition, Paper 1 at 23-24, 65-66; Ex. 1008 at ¶¶ 256-257.

Ground 3: Young's "capsule receiving zone" is "arranged to receive at least a portion of an oral care capsule insertable past the bristles."

Independent Claims 1 and 10	Young
[1.5] the capsule receiving zone including a recess defined in the front surface and arranged to receive at least a portion of an oral care capsule inserted past the vertical bristles; and **[10.5]** including a recess defined in the front surface and arranged to receive at least a portion of an oral care capsule insertable past the bristles into the recess; and	

- "Fig. 4 is a fragmentary sectional view, showing my novel dispensing container for the pellets."
- "[A] portion of the bristles are arranged to form ***a pocket for the reception of a pellet of dentifrice***." Ex. 1012, 1:3-9.
- "In Figs. 10 and 11, the brush 30 is provided with bristles 31. These bristles in the center of the brush at one end are omitted thus forming ***a pocket 32 in which the pellet 16 will be retained*** in place by the resiliency of the bristles."
- "This pellet comprises a central or core portion 17 which may be a powder or which may be plastic in the nature of a cream and a covering 18 which may be made of such material as starch, or any material having the desired inert or other properties and which is soluble in water."

Ex. 1012, 1:21-22, 1:3-9, 2:30-34, 1:50-2:4. Petition, Paper 1 at 23-24, 65-66; Ex. 1008 at ¶¶ 256-259.

Ground 3: Young discloses "angled capsule retaining elements."

Independent Claims 1 and 10	Young
[1.6] at least one pair of angled capsule retaining elements that are elevated above the recess and configured to retain an oral care capsule in the capsule receiving zone, **[10.6]** at least three angled capsule retaining elements that are elevated above the recess, are configured to retain an oral care capsule in the capsule receiving zone, and are canted away from vertical in a direction toward a center of the capsule receiving zone,	

- "[A] portion of the bristles are arranged to form ***a pocket*** for the reception of a pellet of dentifrice." Ex. 1012, 1:3-9.
- "In Figs. 10 and 11, the brush 30 is provided with bristles 31. These bristles in the center of the brush at one end are omitted thus forming ***a pocket 32 in which the pellet 16 will be retained*** in place by the resiliency of the bristles."
- "The bristles are resilient and thus … a pellet … is engaged and retained by the bristles…"

Ex. 1012, 1:3-9, 2:30-34, 2:26-29.
Petition, Paper 1 at 23-24, 69; Ex. 1008 at ¶¶ 26, 266-271.

Ground 3: Noble's expert agrees Young's angled bristles retain the pellet.

Pet. Reply, Paper 27 at 13.



Kelly R. Kodama

Q And like the other prior patents that we've discussed today, you do agree that all of the tufts of bristles disclosed in Young do have bristles that fan out at an angle from where they are attached to the brush, correct?

A Yes.

Q And the bristles that are at the interior, they're in contact with the dentifrice in Figure 8, correct?

A Yes, it appears to be from the figure.

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PETITIONER - COLGATE EXHIBIT 1019
Colgate v. Noble, IPR2023-01254
Page 1

Ex. 1019, 58:9-24.

Q Okay. And so at least in the position shown in Figure 8, the angled bristles are retaining the capsule in place, agreed?

A That's what's being shown in Figure 8, yes.

Q And the patent in Young discloses that the bristles or the resiliency of the bristles will engage and retain the pellet, correct?

A Yes, that's correct.

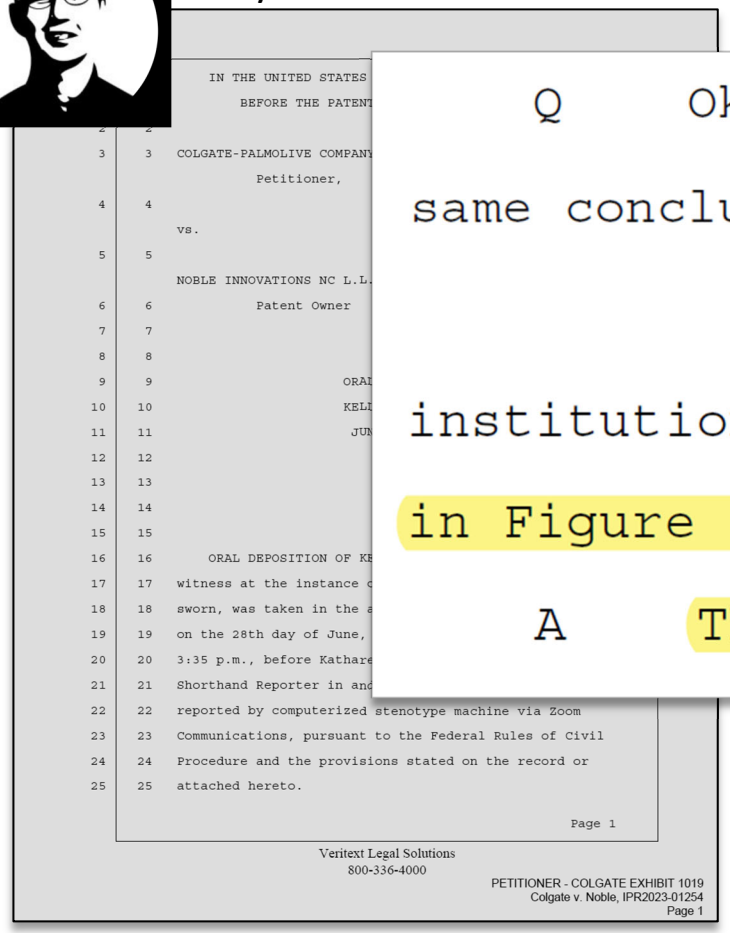
Ex. 1019, 59:6-13.

Ground 3: Noble's expert agrees Young's angled bristles retain the pellet.

Pet. Reply, Paper 27 at 13.



Kelly R. Kodama



IN THE UNITED STATES
BEFORE THE PATENT

COLGATE-PALMOLIVE COMPANY
Petitioner,

vs.

NOBLE INNOVATIONS NC L.L.
Patent Owner

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KELL
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ORAL DEPOSITION OF KE
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sworn, was taken in the a
on the 28th day of June,
3:35 p.m., before Kathare
Shorthand Reporter in and
reported by computerized stenotype machine via Zoom
Communications, pursuant to the Federal Rules of Civil
Procedure and the provisions stated on the record or
attached hereto.

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PETITIONER - COLGATE EXHIBIT 1019
Colgate v. Noble, IPR2023-01254
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Q Okay. And the institution decision makes the same conclusion as to Figure 10.

Do you agree or disagree with the institution decision's conclusion that Young's bristles in Figure 10 are angled to retain a dentifrice pellet?

A That's what Figure 10 shows, yes.

Ex. 1019, 61:23-62:3.

Ground 3: The Board: Young has angled bristles to retain a pellet.

uspto.gov
.7822 Date: F

UNITED STATES PATENT AND TRADEMARK

BEFORE THE PATENT TRIAL AND APPEAL B

COLGATE-PALMOLIVE COMPANY,
Petitioner,

v.

NOBLE INNOVATIONS NC L.L.C.,
Patent Owner.

IPR2023-01254
Patent 8,881,332 B2

Before RYAN H. FLAX, TIMOTHY G. MAJORS, and MICHAEL A. VALEK, *Administrative Patent Judges*.

FLAX, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

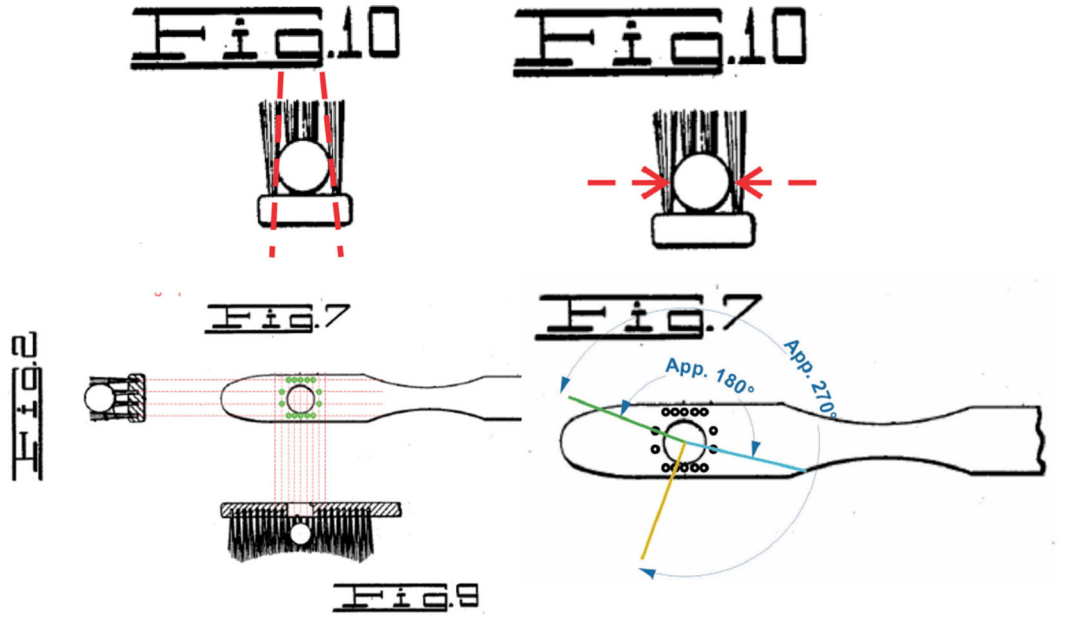
Regarding whether Young discloses angled bristles, we find the facts here similar to those regarding Wolcott per Grounds 1 and 2, as discussed above. Petitioner provides annotated versions of Young's Figures 8 and 10 illustrating how, according to Petitioner's and its witness's understanding, Young's bristles are angled to retain a dentifrice pellet. We reproduce these annotated figures below:



By annotation (red dashed lines), Figures 8 and 10 highlight angled bristles surrounding a dentifrice pellet, retaining it in a pocket. *See* Pet. 69; Ex. 1008 ¶¶ 26, 266, 267. We find no error in this understanding of Young. Patent Owner's distinction between tufts of bristles and bristles appears to be misplaced, as the '332 patent describes and the claims recite bristles, not tufts. *See, e.g.*, Ex. 1001, 2:59–61, 4:64–67, 10:51–54 ("angled bristles").

Institution Decision, Paper 12 at 31-32; Pet. Reply, Paper 27 at 13.

Ground 3: Young has angled bristles that are "diametrically opposed" and "at least 108 degrees apart."

Independent Claims 1 and 10	Young
[1.7] wherein each pair of the at least one pair angled capsule retaining elements includes a first and a second angled capsule retaining element arranged along diametrically opposing sides of an oral care capsule when present in the capsule receiving zone; and **[10.7]** wherein each angled capsule retaining element of the at least three angled capsule retaining elements is arranged proximate to a perimeter of the capsule receiving zone at a position at least 108 degrees apart from at least one other angled capsule retaining element of the at least three angled capsule retaining elements relative to a center of the capsule receiving zone; and	

- "Young's bristles are arranged around a circular dentifrice receiving zone. As such, Young includes at least one pair of diametrically opposed."
- "Additionally, since the angled bristles are arranged around a circular pocket, each angled bristle is also 108° apart from at least one other angled bristle."

Petition, Paper 1 at 71-73; Ex. 1008 at ¶¶ 272-278.

Ground 3: Young's angled bristles contact the oral care capsule.

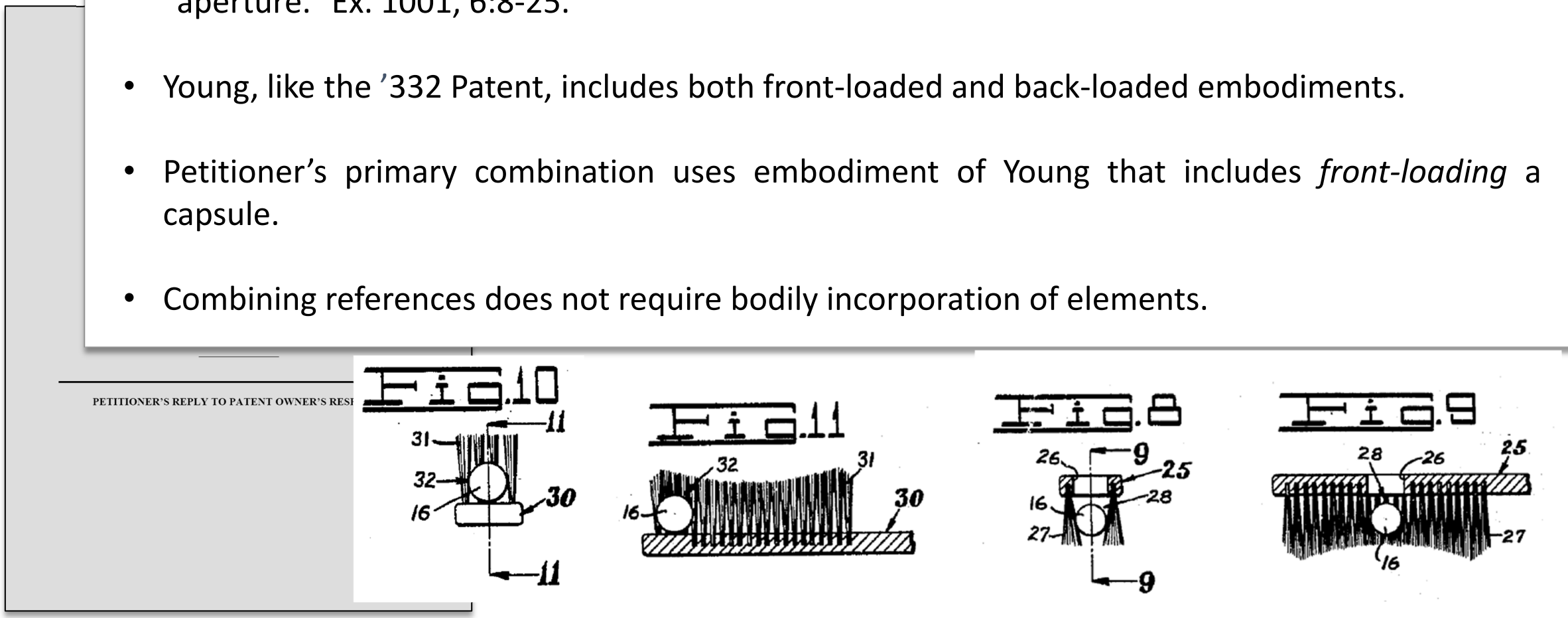
Independent Claims 1 and 10	Young
[1.8] wherein at least a portion of each angled capsule retaining element of the at least one pair of capsule retaining elements is arranged to contact the oral care capsule. **[10.8]** wherein at least a portion of each angled capsule retaining element of the at least three angled capsule retaining elements is arranged to contact the oral care capsule.	

"In Figs. 10 and 11, the brush 30 is provided with bristles 31. These bristles in the center of the brush at one end are omitted thus forming ***a pocket 32 in which the pellet 16 will be retained*** in place ***by the resiliency of the bristles***."

Ex. 1012, 2:30-34.
Petition, Paper 1 at 71-75; Ex. 1008 at ¶¶ 26, 272-281.

Ground 3: Young does not "teach away" from front-loaded capsules.

- In an alternate embodiment of the '332 Patent, capsules are back-loaded through an "aperture." Ex. 1001, 6:8-25.
- Young, like the '332 Patent, includes both front-loaded and back-loaded embodiments.
- Petitioner's primary combination uses embodiment of Young that includes *front-loading* a capsule.
- Combining references does not require bodily incorporation of elements.



Petition, Paper 1 at 7, 22-24; Pet. Reply, Paper 27 at 14-15; See PO Resp., Paper 21 at 9-11, 18-19.

Ground 3: Young does not "teach away" from front-loaded capsules.

Pet. Reply, Paper 27 at 13-15.



Kelly R. Kodama

Q Is there any statement in Young that would criticize or discourage a POSA from using angled retaining elements?

A Oh, I see what you're saying.

No, there's nothing specifically referencing the angled retaining elements.

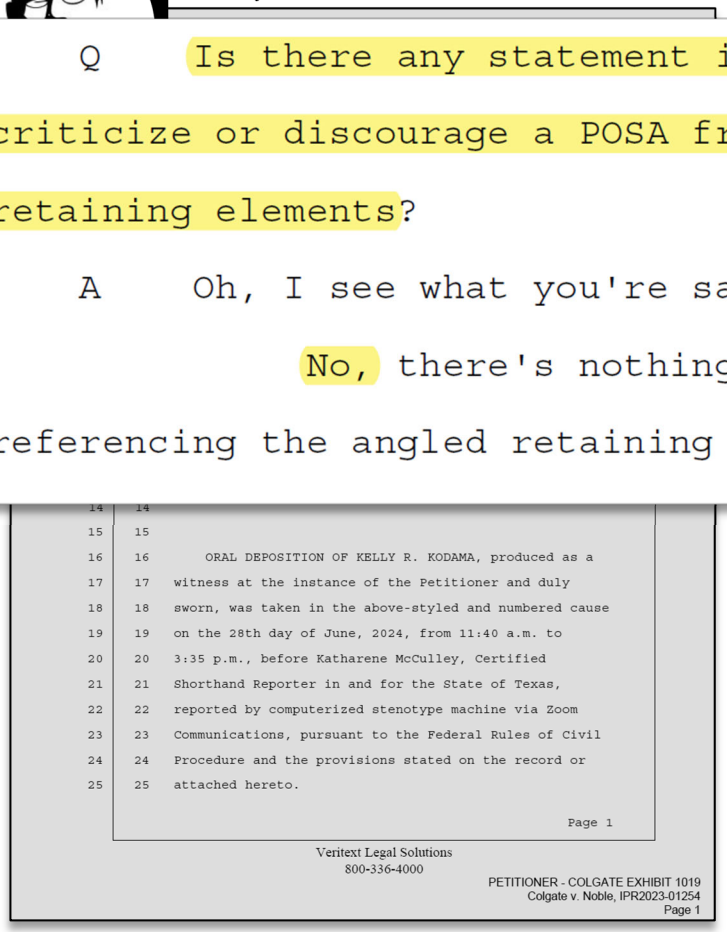
Ex. 1019, 56:7-12.

Q And so, with respect to that argument about teaching away, there is no teaching away with respect to the embodiment that is disclosed in Figure 1 or the embodiment that is disclosed --
bit?

Q (By Mr. Wilson) -- in Figures 10 and 11?

A Those have the dentifrice pellet coming from the front, yes.

Ex. 1019, 56:21-24, 57:2-4.



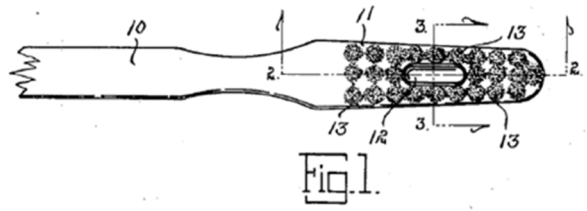
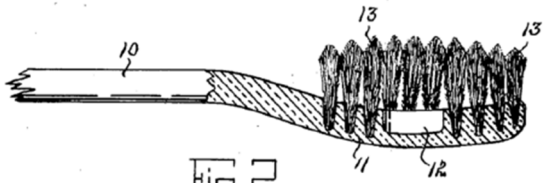
ORAL DEPOSITION OF KELLY R. KODAMA, produced as a witness at the instance of the Petitioner and duly sworn, was taken in the above-styled and numbered cause on the 28th day of June, 2024, from 11:40 a.m. to 3:35 p.m., before Katharene McCulley, Certified Shorthand Reporter in and for the State of Texas, reported by computerized stenotype machine via Zoom Communications, pursuant to the Federal Rules of Civil Procedure and the provisions stated on the record or attached hereto.

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PETITIONER - COLGATE EXHIBIT 1019
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Ground 3: Davidson discloses “a recess defined in the front surface” of a brush head

Independent Claims 1 and 10	Davidson
[1.5] the capsule receiving zone including a recess defined in the front surface and arranged to receive at least a portion of an oral care capsule inserted past the vertical bristles; and **[10.5]** including a recess defined in the front surface and arranged to receive at least a portion of an oral care capsule insertable past the bristles into the recess; and	 Fig. 1.  Fig. 2.

- “a centrally located receiving area within the bristles” having a “**well 12**” “**formed in the bottom of the head portion 11**”; and

- “[b]y the well 12 being closed at all points except its top, ***it will have a tendency to hold the dentifrice, regardless of the type of the dentifrice, by suction***.”

Ex. 1010, 1:1-10, 1:51-55, 3:20-24; Petition, Paper 1 at 20-21, 66-68; Ex. 1008 at ¶¶ 74-75, 260-265.

Ground 3: Motivation to modify Young to include Davidson's well/recess.



Timothy P. Fletcher

UNITED STATES PATENT AND TRADEMARK OF

BEFORE THE PATENT TRIAL AND APPEAL BO

COLGATE-PALMOLIVE COMPANY,
Petitioner

v.

NOBLE INNOVATIONS NC L.L.C.,
Patent Owner

U.S. Patent No. 8,881,332

**DECLARATION OF TIMOTHY P. FLETCHER
IN SUPPORT OF PETITION FOR *INTER PARTES* REVI
U.S. PATENT NO. 8,881,332**

PETITIONER - COLGAT

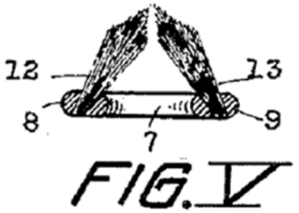
247. Given that a primary concern in Young is to provide a toothbrush that can receive and effectively retain a dentifrice pellet, a POSITA would have been motivated to combine Young and Davidson to increase the ability of Young's toothbrush to retain a pellet by incorporating the well of Davidson to provide additional suction on the pellet. This would reduce movement of the pellet within Young's dentifrice pocket and reduce the chances of the pellet falling out of the pocket, such as if the toothbrush is turned upside down.

248. For example, to more effectively maintain the pellet based on the disclosure of the well in Davidson, a POSITA would have been motivated to modify the embodiment of Young, shown in FIGS. 10 and 11, in which the pellet is front-loaded through the bristles to rest on the front surface of the brush head by moving the pocket 32 to a center of the brush head, and to include a well in the center of the brush head, as taught in Davidson, to allow for more effective retaining of the pellet.

Ex. 1008, ¶¶ 247-248; See Petition, Paper 1 at 58-62.

Obviousness Ground 4: Young, Davidson, & Fitz-Gibbon

Ground 4: Young, Davidson, Fitz-Gibbon combination includes "angled capsule retaining elements."

Independent Claims 1 and 10	References
[1.6] at least one pair of angled capsule retaining elements that are elevated above the recess and configured to retain an oral care capsule in the capsule receiving zone, **[10.6]** at least three angled capsule retaining elements that are elevated above the recess, are configured to retain an oral care capsule in the capsule receiving zone, and are canted away from vertical in a direction toward a center of the capsule receiving zone,	**Young – 1935 (Ex. 1012):**  **Fitz-Gibbon - 1920 (Ex. 1011):** 

"The Young-Davidson-Fitz-Gibbon combination discloses these elements of claims 1 and 10 because Young, as modified, includes bristles angled towards the center of the receiving zone, as taught by Fitz-Gibbon. Therefore, the angled bristles include at least a pair of angled capsule retaining elements configured to retain an oral care capsule, and at least three angled retaining elements that are canted away from vertical in a direction toward a center of the capsule receiving zone."

Ex. 1008, ¶¶ 332-334; Petition at 85-87.

Ground 4: Angling bristle tufts over a dentifrice pocket was also known.

Paper No. 1

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COLGATE-PALMOLIVE COMPANY,
Petitioner

v.

NOBLE INNOVATIONS NC L.L.C.,
Patent Owner

IPR2023-01254
U.S. Patent No. 8,881,332

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,881,332

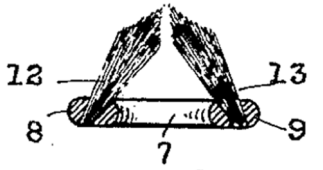


FIG. V



FIG. III

Fitz-Gibbon's toothbrush had:

"a relatively large opening formed in the brush back or head and bristles associated therewith to provide a pocket for holding the dentifrice or sterilizing medium employed" (Ex. 1011, 1:18-23); and

angled "brush tufts or clusters 12" and "13" on opposing sides of the brush head and "so disposed on the brush head as to provide a dentifrice holding chamber or pocket" (Ex. 1011, 1:58-67, 1:79-87).

Petition, Paper 1 at 21-22; Ex. 1008, ¶¶ 76-77, 87-88.

Ground 4: Motivation to modify the toothbrush of the Young-Davidson combination based on Fitz-Gibbon to include angled bristle tufts.



Timothy P. Fletcher

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COLGATE-PALMOLIVE COMPANY,
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v.

NOBLE INNOVATIONS NC L.L.C.,
Patent Owner

U.S. Patent No. 8,881,332

**DECLARATION OF TIMOTHY P. FLETCHER
IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW
U.S. PATENT NO. 8,881,332**

PETITIONER - COLGATE, E

327. As indicated above, Young is concerned with preventing a dentifrice pellet from falling off the brush, and seeks to retain the pellet on the brush head. Fitz-Gibbon is also concerned with preventing dry dentifrice from falling off the toothbrush while the toothbrush is held brush-side down. Thus, in addition to including a well as taught in Davidson to provide suction on the dentifrice pellet (Ex. 1010, 3:20-24), a POSITA would have been motivated to tilt the tufts of bristles of the toothbrush of the Young-Davidson combination to further enhance the pellet retaining strength of the toothbrush, such as if the user turns the toothbrush bristle-side down prior to brushing. This would require simply tilting the bristle tufts surrounding the dentifrice pocket of the Young-Davidson combination towards a center of the dentifrice pocket, as demonstrated in FIGS. 3 and 5 of Fitz-Gibbon, below.



FIG. III



FIG. V

Ex. 1008, ¶¶ 327;
Petition, Paper 1 at 83-85.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Ground 4: Motivation to modify the toothbrush of the Young-Davidson combination based on Fitz-Gibbon to include angled bristle tufts.



Timothy P. Fletcher

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U.S. Patent No. 8,881,332

DECLARATION OF TIMOTHY P. FLETCHE
IN SUPPORT OF PETITION FOR *INTER PARTES* RE
U.S. PATENT NO. 8,881,332

PETITIONER - COLGATE, Exhibit 1008
Page 1 of 208

330. The disclosures of Young, Davidson, and Fitz-Gibbon include straightforward teachings that would have provided a POSITA with a predictable set of options for retaining dentifrice in a head of a toothbrush, and a POSITA would have been strongly motivated, and it would have been an obvious design choice, to combine these options to maximize the resulting toothbrush's ability to retain Young's dentifrice pellet. Combining Young, Davidson, and Fitz-Gibbon, and particularly modifying Young based on Davidson's and Fitz-Gibbon's disclosures, would require only ordinary skill to define a well in the front surface of Young's toothbrush head and tilt Young's bristle tufts around the well, producing predictable results such as retaining Young's dentifrice pellet within the well with the assistance of the angled bristle tufts.

Ex. 1008, ¶¶ 330;
Petition, Paper 1 at 83-85.

SECONDARY CONSIDERATIONS

Legal standards for secondary considerations

ZUP, LLC v. Nash Mfg., Inc.,
896 F.3d 1365, 1373 (Fed. Cir. 2018)

"[A] patentee bears the burden of production with respect to evidence of secondary considerations."

Dow Chem. Co. v. Halliburton Oil Well Cementing Co.,
324 U.S. 320, 339 (1945)

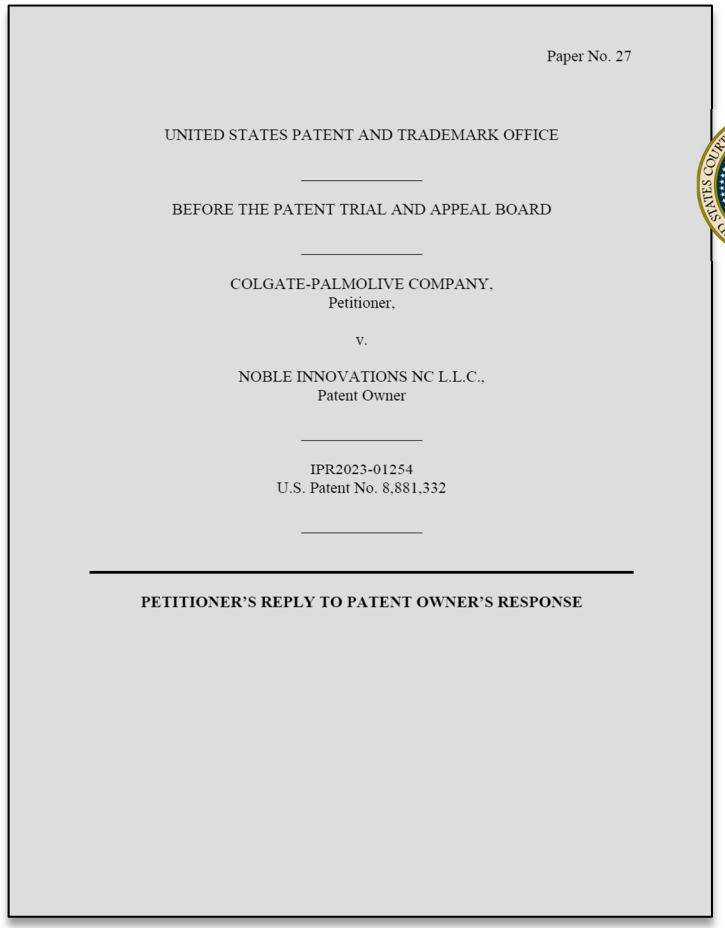
"But these considerations are relevant only in a close case where all other proof leaves the question of invention in doubt."

Ohio Willow Wood Co. v. Alps S., LLC,
735 F.3d 1333, 1344 (Fed. Cir. 2013)

"[w]here a claimed invention represents no more than the predictable use of prior art elements according to established functions … evidence of secondary indicia are frequently deemed inadequate to establish non-obviousness."

Pet. Reply, Paper 27 at 16-17.

Patent Owner must show “nexus.”



Paper No. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COLGATE-PALMOLIVE COMPANY,
Petitioner,

v.

NOBLE INNOVATIONS NC L.L.C.,
Patent Owner

IPR2023-01254
U.S. Patent No. 8,881,332

PETITIONER’S REPLY TO PATENT OWNER’S RESPONSE

Fox Factory, Inc. v. SRAM, LLC,
944 F.3d 1366, 1373 (Fed. Cir. 2019)

“In order to accord substantial weight to secondary considerations in an obviousness analysis, ‘the evidence of secondary considerations must have a ‘nexus’ to the claims, i.e., there must be ‘a legally and factually sufficient connection’ between the evidence and the patented invention.’”

“The patentee bears the burden of showing that a nexus exists.”

Pet. Reply, Paper 27 at 17.

There is no “proof” of commercial success or industry praise.

PO’s Ex. 2005:

COLGATE-PALMOLIVE

Colgate-Palmolive Introduces Colgate Wisp

NEW YORK, NEW YORK (April 6, 2009) -- Colgate-Palmolive, the world leader in oral care, introduces Colgate® Wisp™ - a single-use mini-toothbrush with a breath freshening bead. It offers a just brushed clean, anytime, anywhere - no water or rinsing required.

Colgate® Wisp™ has unique bristles which gently remove food and plaque from between teeth to give you a just brushed clean. As you brush, a refreshing liquid filled bead releases a burst of freshness in your mouth. No need for water or rinsing - you can truly brush on-the-go.

Use It Anytime, Anywhere

Whether you're in the office, getting off a plane or on a date, the Colgate® Wisp™ single-use mini-toothbrush is easy to keep on hand whenever you need it. Smaller than a lipstick or a car key, Colgate® Wisp™ fits in a pocket or purse and is conveniently packaged in a portable case for on-the-go cleaning and breath freshening.

"We are very excited to announce this breakthrough innovation and offer consumers a convenient way to both clean and freshen their mouths on-the-go," said Spencer Pingel, Colgate-Palmolive, U.S. Oral Care. "Whether a consumer is looking to freshen their breath after a meal or to remove that filmy feeling after a cup of coffee, Colgate now offers the perfect portable, effective solution."

Available in Peppermint, Spearmint and Cinnamint, Colgate® Wisp™ will be available in the oral care aisle at retailers nationwide beginning in April 2009. The suggested retail price is $2.39 for a 4-pack and $7.99 for a 16-pack.

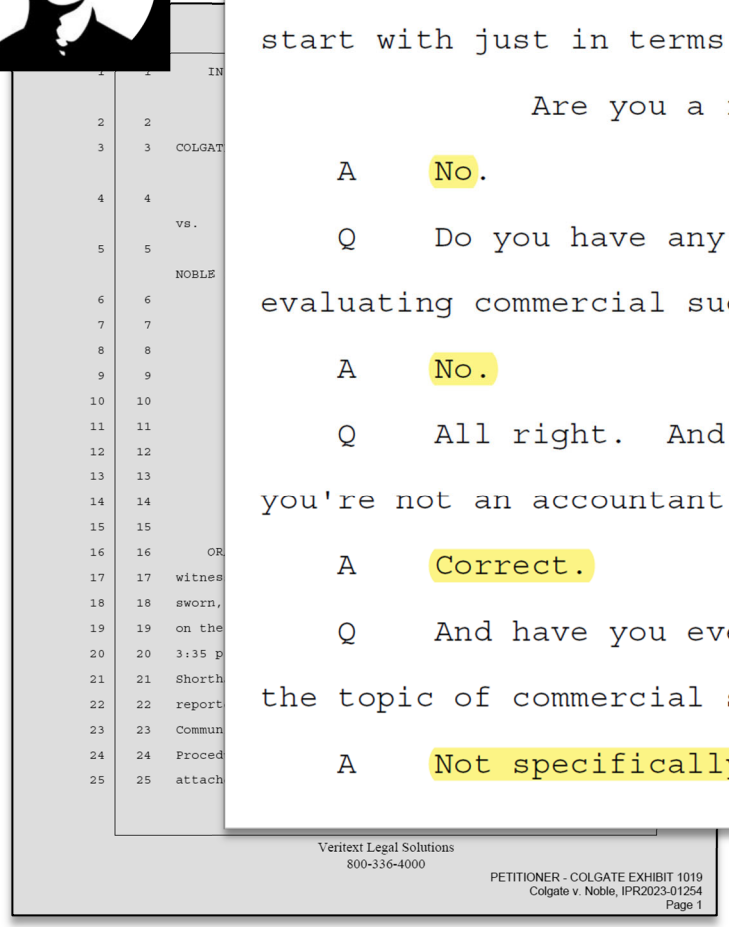
There is no "proof" of commercial success or industry praise.

- Ex. 2005 provides no proof the Colgate Wisp was commercially successful.
- Ex. 2005 is ***Colgate's own marketing publication, not "industry" praise***
- No "nexus" to ***claimed features***. Ex. 2005 discusses that Wisp:
  - is a "single-use mini-toothbrush";
  - is "conveniently packaged in a portable case for on-the-go cleaning and breath freshening"; and
  - has "no need for water or rinsing."

Pet. Reply, Paper 27 at 18, 24-25 (discussing PO Resp., Paper 21 at 26, 39).

Patent Owner's expert is not qualified.





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PETITIONER - COLGATE EXHIBIT 1019
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Q All right. So, I want to talk about the idea of commercial success for a product and I'm going to start with just in terms of your qualifications on that.

Are you a financial expert?

A No.

Q Do you have any degrees that are relevant to evaluating commercial success of a product?

A No.

Q All right. And I know this is clear, but you're not an accountant or an economist, correct?

A Correct.

Q And have you ever offered expert opinions on the topic of commercial success of a product?

A Not specifically, no.

Ex. 1019, 81:4-17.

Q Okay. Do you know whether or not commercial success refers to financial success in the context of a secondary consideration analysis?

A I do not.

Q Okay. You don't cite -- and I assume you don't have any knowledge of what the sales of the Wisp have been; is that fair?

A I do not.

Q Do you know what profits Colgate has earned from sales of the Wisp?

A No.

Q Do you have any information about Wisp's market share in the toothbrush market?

A No.

Ex. 1019, 82:1-14.

Pet. Reply, Paper 27 at 18.

Patent Owner's expert is not qualified.



Kelly R. Kodama

IN THE UNITED STATES PATENT AND TRADE
BEFORE THE PATENT TRAIL AND APPEA

COLGATE-PALMOLIVE COMPANY)
Petitioner,)
)
vs.) IPR2023-01
) U.S. PATEN
NOBLE INNOVATIONS NC L.L.C.)
Patent Owner)

ORAL DEPOSITION
KELLY R. KODAMA
JUNE 28, 2023

ORAL DEPOSITION OF KELLY R. KODAMA, p
witness at the instance of the Petitioner
sworn, was taken in the above-styled and
on the 28th day of June, 2024, from 11:40
3:35 p.m., before Katharene McCulley, Cer
Shorthand Reporter in and for the State o
reported by computerized stenotype machin
Communications, pursuant to the Federal R
Procedure and the provisions stated on th
attached hereto.

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Q Okay. And that's -- I don't know, there might be seven or eight different secondary considerations that the law talks about.

My question to you is, you're saying i Paragraphs 32 and 41, secondary considerations of un-obviousness exist and weigh strongly. And in Paragraph 41, several secondary considerations indicate novelty and non-obviousness.

And my question is: Which secondary considerations do you believe show that?

A I don't believe I opine on that in my report.

Q So, you're not able to point to me to which secondary considerations you think are relevant?

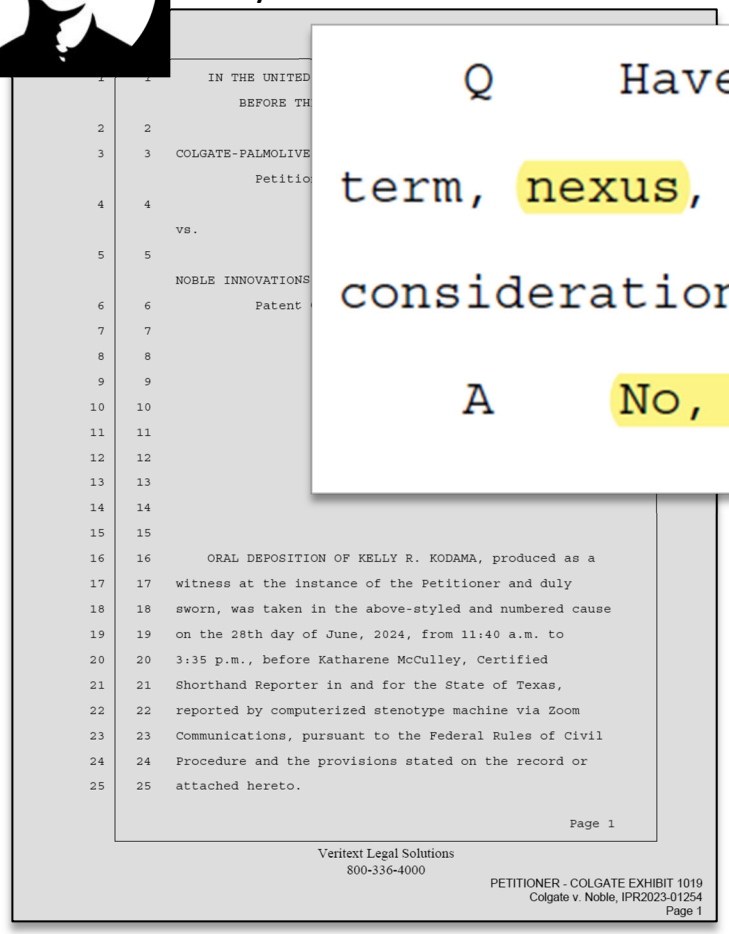
A I don't list that in my report.

Ex. 1019, 80:10-23; Pet. Reply, Paper 27 at 26.

Patent Owner's expert is not qualified.



Kelly R. Kodama



IN THE UNITED
BEFORE TH

COLGATE-PALMOLIVE
Petitio

vs.

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Patent

ORAL DEPOSITION OF KELLY R. KODAMA, produced as a witness at the instance of the Petitioner and duly sworn, was taken in the above-styled and numbered cause on the 28th day of June, 2024, from 11:40 a.m. to 3:35 p.m., before Katharene McCulley, Certified Shorthand Reporter in and for the State of Texas, reported by computerized stenotype machine via Zoom Communications, pursuant to the Federal Rules of Civil Procedure and the provisions stated on the record or attached hereto.

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Q Have you ever -- are you familiar with a -- the term, nexus, it may relate to relying upon secondary considerations to show non-obviousness?

A No, I don't know that term.

Ex. 1019, 82:21-24; Pet. Reply, Paper 27 at 26.

There is no proof of copying.

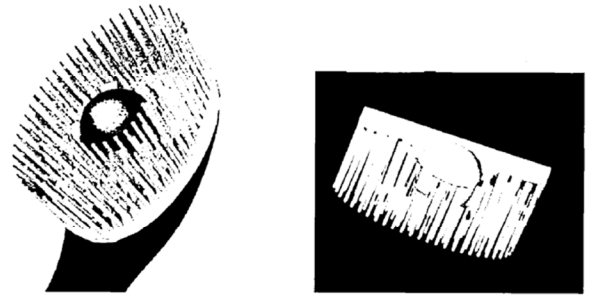
Colgate's internal invention disclosure (Ex. 1020) dated Feb. 26, 2007 is prior to:

- PO's first patent application, filed Aug. 17, 2007 (App. No. 11/840,627);
- Filing of '332 Patent on April 11, 2008 (published Feb. 19, 2009); and
- Publication of PO's toothbrush on toothpods.com (earliest date on Internet Archive is April 21, 2009 (see Ex. 1022)).

Pet. Reply, Paper 27 at 18-21; Ex. 1020.



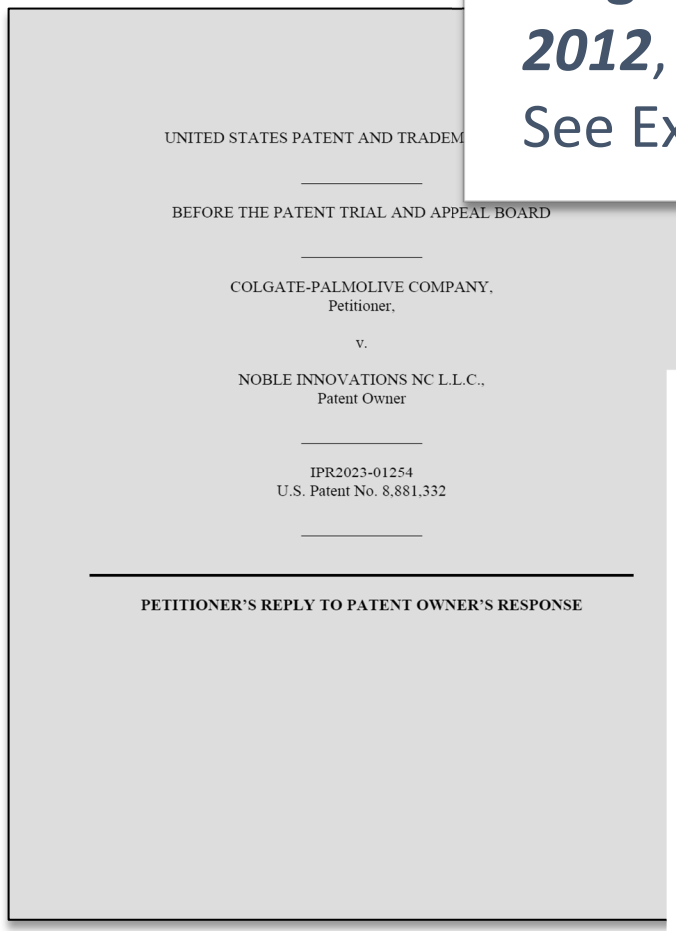
Previous full, rigid retaining ring (with bead in place, and cross section without bead)



New, four discreet prong design (with bead in place, and cross section without bead)

Patent Owner first adopted “retaining elements” in 2012.

Colgate released the Wisp in 2009. *At all times before October 5, 2012*, Noble’s patent applications included only “angled bristles.” See Ex. 1003, 16-31; Ex. 1002, 347-365.



UNITED STATES PATENT AND TRADEM

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IPR2023-01254
U.S. Patent No. 8,881,332

PETITIONER’S REPLY TO PATENT OWNER’S RESPONSE

Pet. Reply, Paper 27 at 21-22.

Ex. 1002 at 224, 236 (’332 AMD Dated Oct. 5, 2012):

1. **(Currently amended)** A toothbrush comprising a brush head ~~having~~ that includes:

a front surface;

a back surface;

a plurality of vertical bristles extending upward from the front surface;

a capsule receiving zone sized to receive an oral care capsule, the capsule receiving zone including a recess defined in the front surface and arranged to receive at least a portion of an oral care capsule inserted past the vertical bristles; and ~~having~~

a plurality of angled capsule retaining elements that are elevated above the recess and ~~bristles~~ adapted to retain an oral care capsule in the capsule receiving zone.

Patent Owner's website showed bristles, not prongs.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COLGATE-PALMOLIVE COMPANY,
Petitioner,

v.

NOBLE INNOVATIONS NC L.L.C.,
Patent Owner

IPR2023-01254
U.S. Patent No. 8,881,332

PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE

The toothbrush on toothpods.com had angled bristles:



Ex. 1022

Pet. Reply, Paper 27 at 21-22.

There is no proof of long-felt need or failure of others.

Tex. Instruments Inc. v. U.S. Int'l Trade Comm'n,
988 F.2d 1165, 1178 (Fed. Cir. 1993) (emphasis added)

"[l]ong-felt need is analyzed as of the date of an ***articulated*** identified problem and evidence of efforts to solve that problem."

In re Kahn,
441 F.3d 977, 990 (Fed. Cir. 2006)

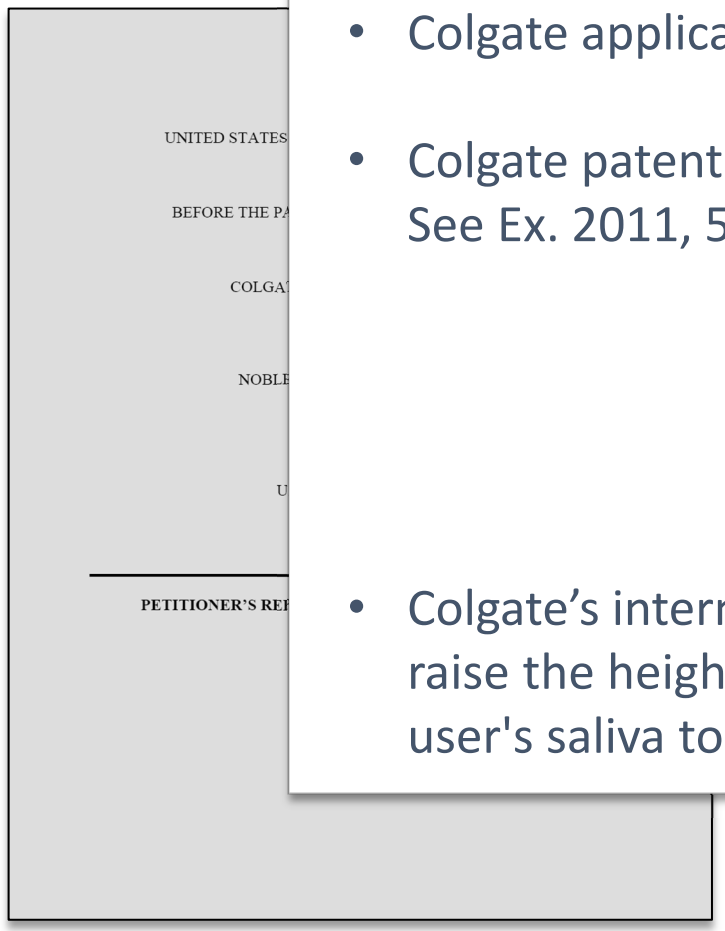
"[o]ur precedent requires that the applicant submit actual evidence of long-felt need, as opposed to argument."

Iron Grip Barbell Co., Inc. v. USA Sports, Inc.,
392 F.3d 1317, 1322 (Fed. Cir. 2004)

"[a]bsent a showing of a long-felt need or the failure of others, the mere passage of time without the claimed invention is not evidence of nonobviousness."

Pet. Reply, Paper 27 at 22-23.

There is no proof of long-felt need or failure of others.


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- Colgate applications show no industry desire for better capsule retaining elements.
- Colgate patents prior to Sorrentino successfully retained a capsule in the brush head. See Ex. 2011, 5:57-64.

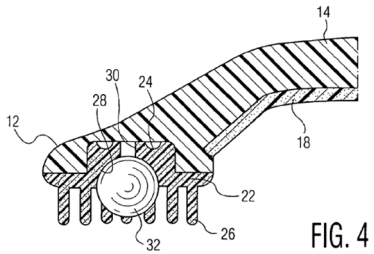


FIG. 4

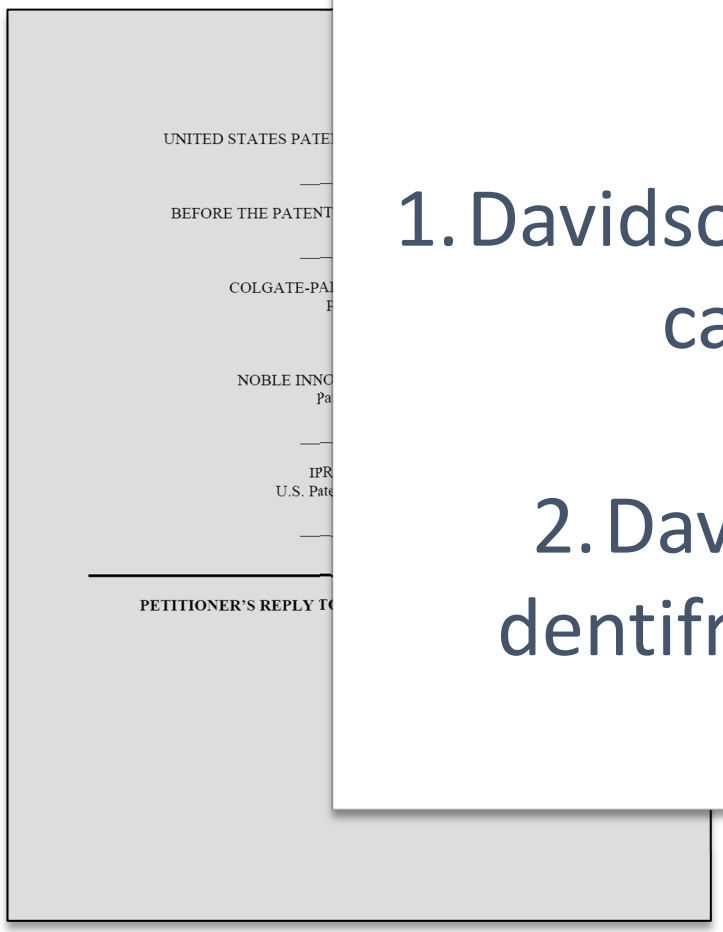
Ex. 2011, Fig. 4.

- Colgate's internal invention disclosure (Ex. 1020) shows curved prongs were added to raise the height of the capsule "to expose more surface area of the bead … to the user's saliva to improve the 'mouth-feel' and expedite the dissolving of the bead."

Pet. Reply, Paper 27 at 23-24.

Patent Owner's Non-obviousness Arguments are Flawed

Ground 1: Patent Owner misconstrues the combination of Wolcott and Davidson.


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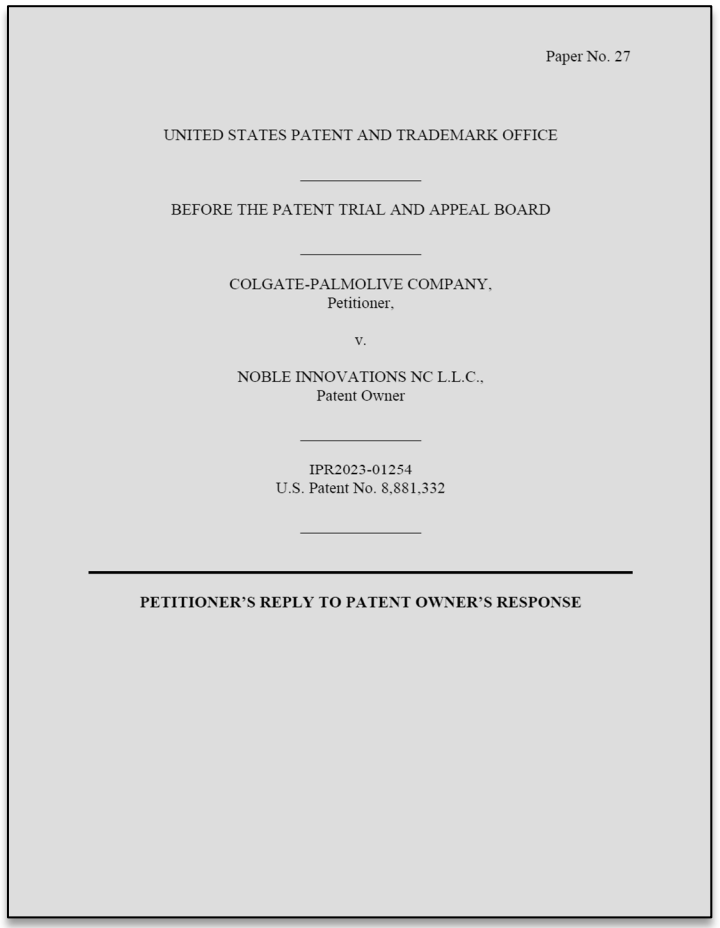
Patent Owner asserts that:

1. Davidson does not disclose retaining oral care capsules using angled bristles; and

2. Davidson's well is for paste or powder dentifrice and adding Davidson's well would not improve pellet-retention.

See PO Resp., Paper 21 at 9-11, 18-19.

Ground 1: Patent Owner misconstrues the combination of Wolcott and Davidson.



Paper No. 27

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Patent Owner

IPR2023-01254
U.S. Patent No. 8,881,332

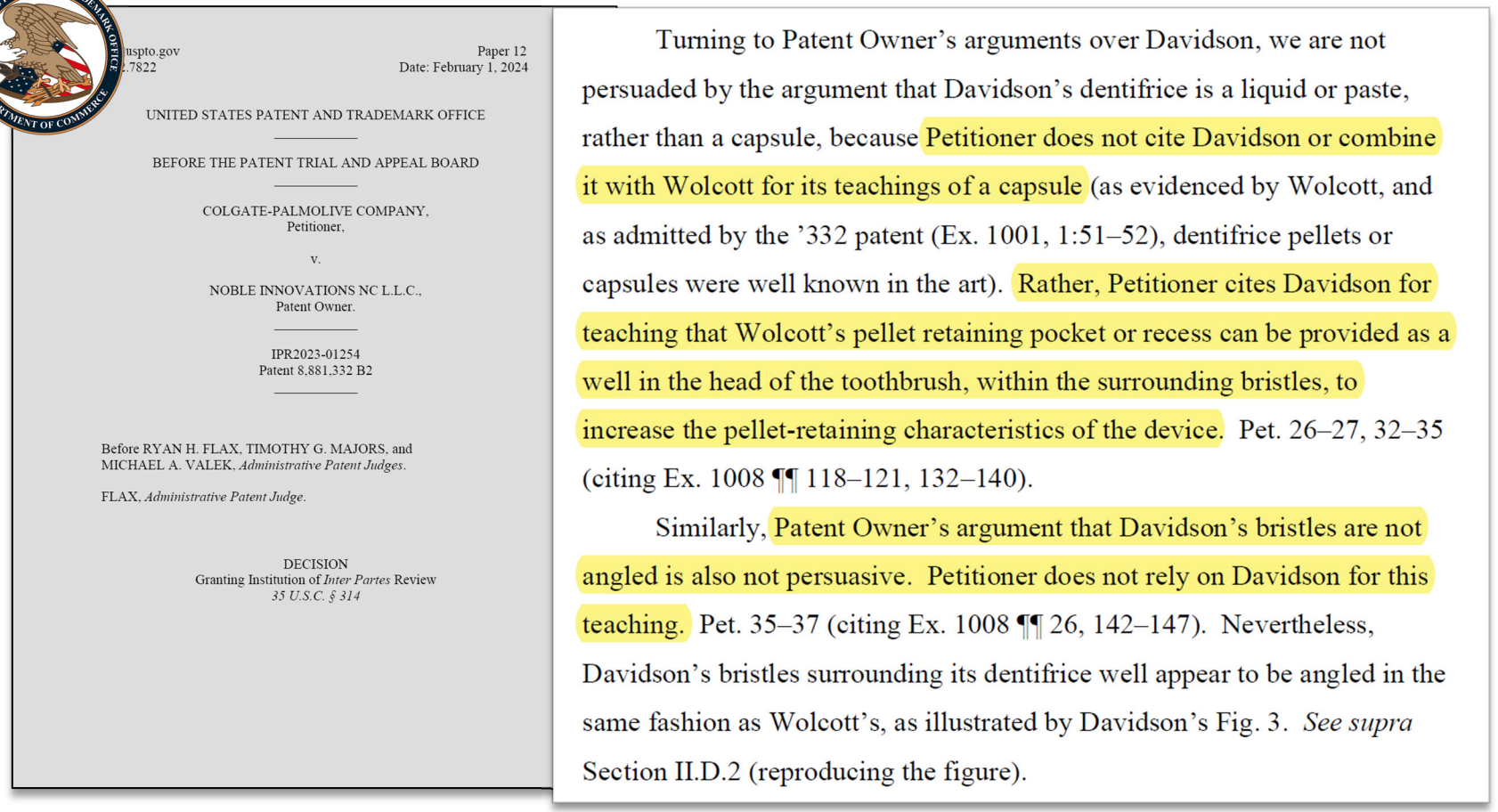
PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE

Wolcott, *not Davidson*, is used to demonstrate that oral care capsules and angled bristles to retain a capsule were known in the art:

- Ground 1 relies on Davidson for its disclosure that a well or recess in a toothbrush head provides improved dentifrice retaining characteristics.
- As to ***that*** teaching, Davidson expressly teaches that its well works for any type of dentifrice: "[b]y the well 12 being closed at all points except its top, **it will have a tendency to hold the dentifrice**, ***regardless of the type of the dentifrice*****, by suction**."
- The combination modifies ***Wolcott's*** toothbrush to include Davidson's well to "increase the ability of Wolcott's toothbrush to retain a pellet."

Pet. Reply, Paper 27 at 7-8.

Ground 1: The Board rejected Noble's arguments.



uspto.gov
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Paper 12
Date: February 1, 2024

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COLGATE-PALMOLIVE COMPANY,
Petitioner,

v.

NOBLE INNOVATIONS NC L.L.C.,
Patent Owner.

IPR2023-01254
Patent 8,881,332 B2

Before RYAN H. FLAX, TIMOTHY G. MAJORS, and MICHAEL A. VALEK, *Administrative Patent Judges*.

FLAX, *Administrative Patent Judge*.

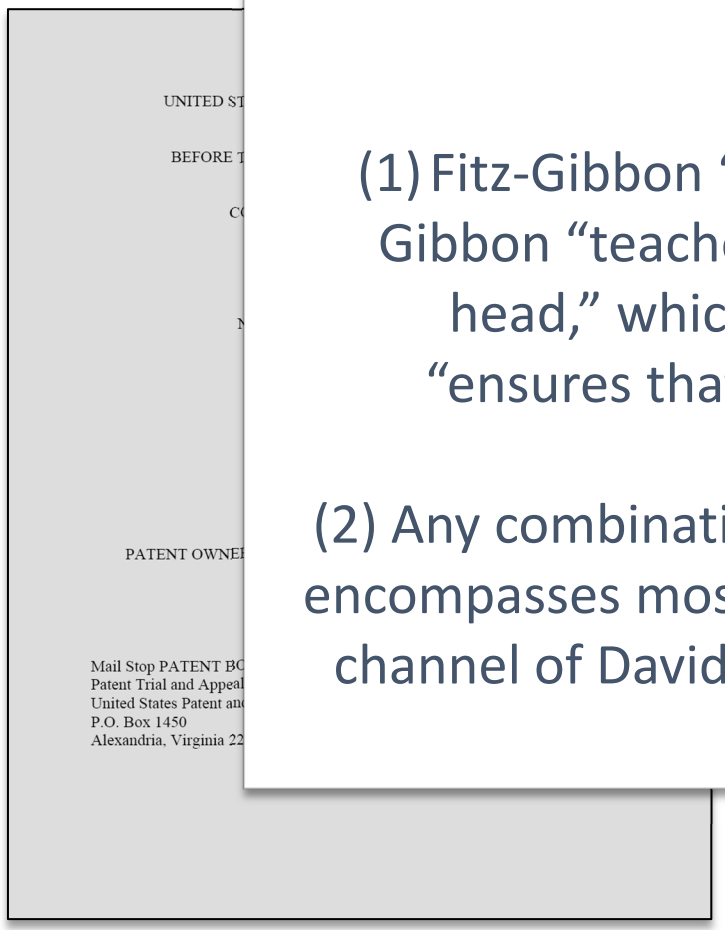
DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

Turning to Patent Owner's arguments over Davidson, we are not persuaded by the argument that Davidson's dentifrice is a liquid or paste, rather than a capsule, because Petitioner does not cite Davidson or combine it with Wolcott for its teachings of a capsule (as evidenced by Wolcott, and as admitted by the '332 patent (Ex. 1001, 1:51–52), dentifrice pellets or capsules were well known in the art). Rather, Petitioner cites Davidson for teaching that Wolcott's pellet retaining pocket or recess can be provided as a well in the head of the toothbrush, within the surrounding bristles, to increase the pellet-retaining characteristics of the device. Pet. 26–27, 32–35 (citing Ex. 1008 ¶¶ 118–121, 132–140).

Similarly, Patent Owner's argument that Davidson's bristles are not angled is also not persuasive. Petitioner does not rely on Davidson for this teaching. Pet. 35–37 (citing Ex. 1008 ¶¶ 26, 142–147). Nevertheless, Davidson's bristles surrounding its dentifrice well appear to be angled in the same fashion as Wolcott's, as illustrated by Davidson's Fig. 3. *See supra* Section II.D.2 (reproducing the figure).

Institution Decision, Paper 12 at 28.

Grounds 2 and 4: Patent Owner misconstrues the asserted combinations.


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Alexandria, Virginia 22

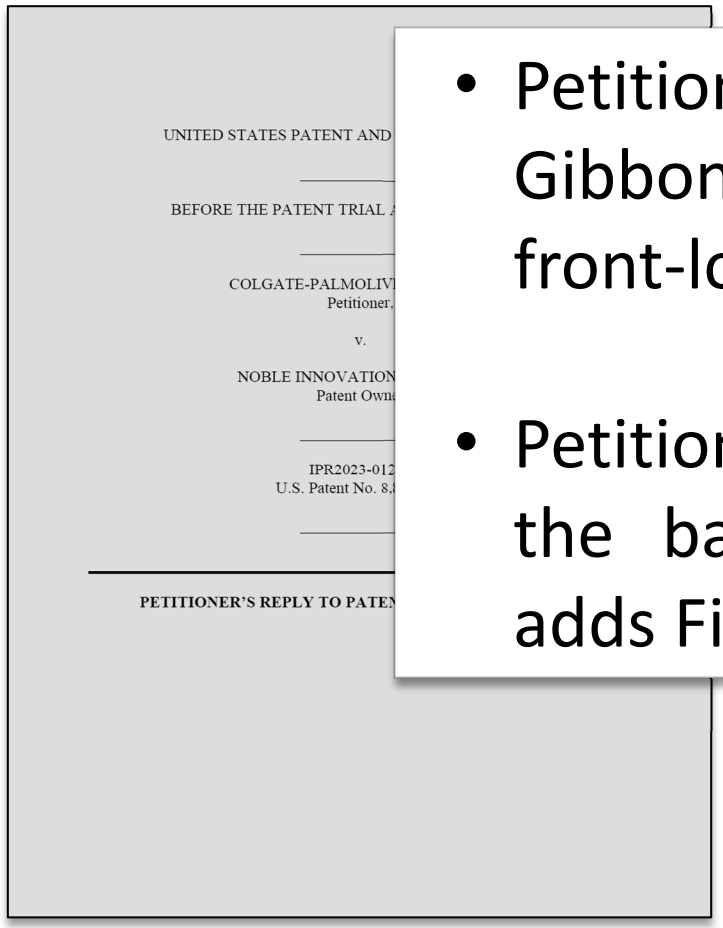
Patent Owner asserts that:

(1) Fitz-Gibbon "teaches away" from the '332 Patent because Fitz-Gibbon "teaches depositing a dentifrice from the back of the brush head," which is "completely opposed to the '332 patent" and "ensures that nothing is inserted past the vertical bristles"; and

(2) Any combination involving Fitz-Gibbon must include "a hole which encompasses most of the toothbrush head" that "would eliminate the channel of Davidson and … dump the powder out of the back of the brush."

PO Resp., Paper 21 at 15-17, 19-20, 25-26.

Grounds 2 and 4: Patent Owner misconstrues the asserted combinations.


UNITED STATES PATENT AND

BEFORE THE PATENT TRIAL

COLGATE-PALMOLIV
Petitioner,

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NOBLE INNOVATION
Patent Own

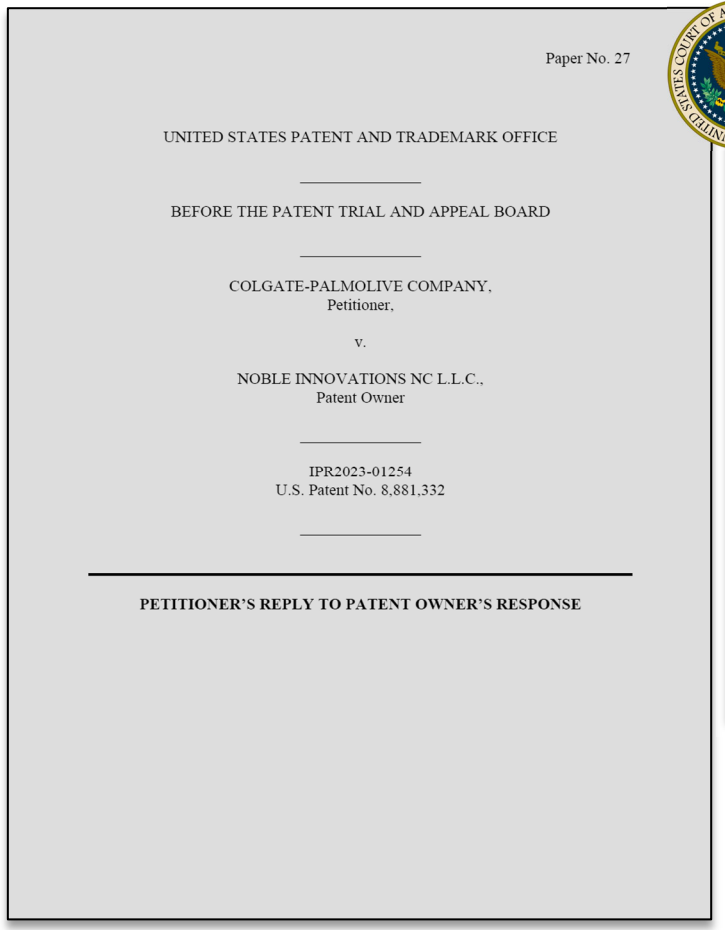
IPR2023-012
U.S. Patent No. 8,

PETITIONER'S REPLY TO PATEN

- Petitioner relies on Wolcott and Young—not Fitz-Gibbon—for teaching a circular pocket, capsule, and front-loading a capsule.
- Petitioner's combination does *not* utilize the hole in the back of Fitz-Gibbon's toothbrush—it simply adds Fitz-Gibbons tilted bristle tufts.

Pet. Reply, Paper 27 at 10-11; Petition, Paper 1 at 49-53.

Grounds 2 and 4: Patent Owner ignores well-established tenets of obviousness.



Paper No. 27

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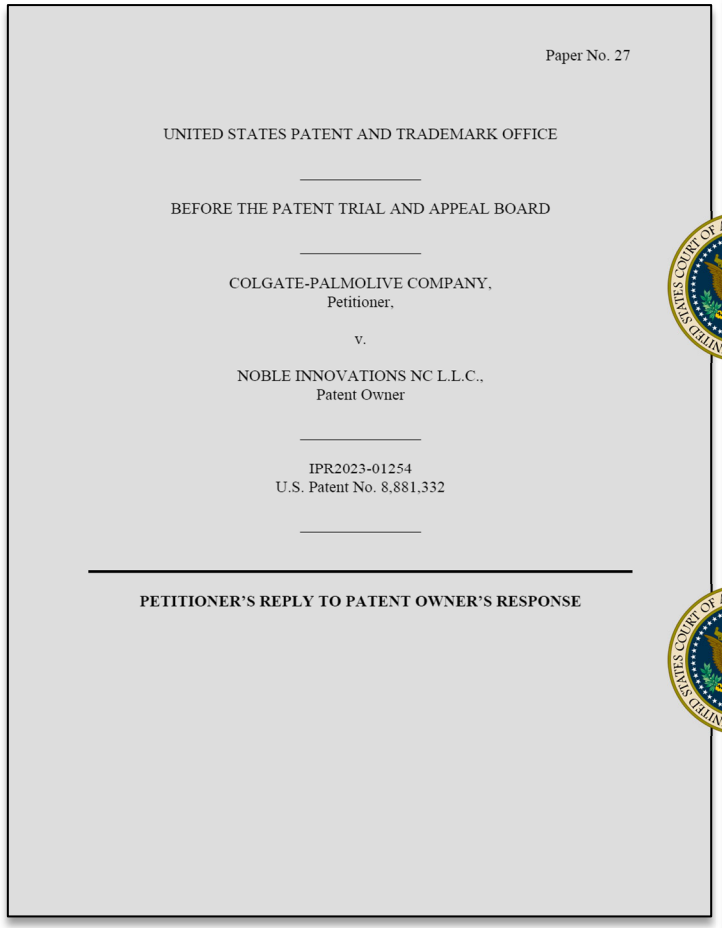
PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE

In re Urbanski,
809 F.3d 1237, 1240-44 (Fed. Cir. 2016)

"Substantial evidence, moreover, supports the Board's finding that Gross does not otherwise teach away from the claimed method. 'A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.' *In re Gurley*, 27 F.3d 551, 553 (Fed.Cir.1994). Although Gross generally discloses a relatively longer reaction time that results in fiber capable of forming stable dispersions, Gross does not criticize or discredit the use of a shorter reaction time."

Pet. Reply, Paper 27 at 10.

Grounds 2 and 4: Patent Owner ignores well-established tenets of obviousness.



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PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE

Pet. Reply, Paper 27 at 11-12.

Facebook, Inc. v. Windy City Innovations, LLC,
973 F.3d 1321, 1343 (Fed. Cir. 2020)

"[T]he fact that it would take some creativity to carry out the combination does not defeat a finding of obviousness."

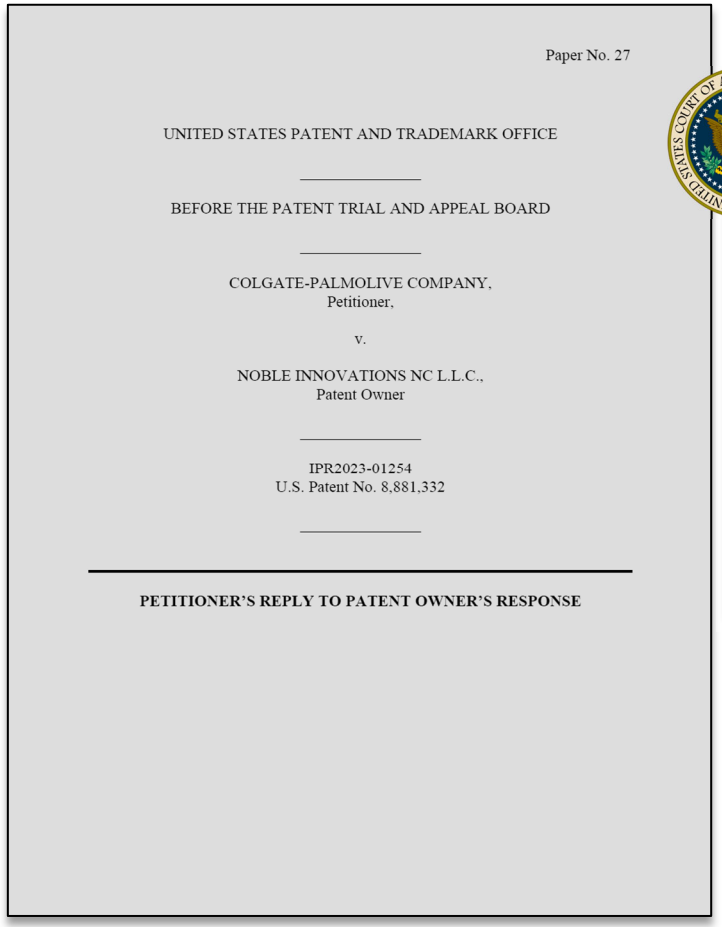
ClassCo, Inc. v. Apple, Inc.,
838 F.3d 1214, 1219 (Fed. Cir. 2016)

"The rationale of KSR does not support … that a person of ordinary skill can only perform combinations of a puzzle element A with a perfectly fitting puzzle element B."

In re Mouttet,
698 F.3d 1322, 1332 (Fed. Cir. 2012)

"It is well-established that a determination of obviousness based on teachings from multiple references does not require an actual, physical substitution of elements."

Grounds 2 and 4: Patent Owner ignores well-established tenets of obviousness.



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PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE

MCM Portfolio LLC v. Hewlett-Packard Co.,
812 F.3d 1284, 1294 (Fed. Cir. 2015) (quoting In re Keller, 642 F.2d 413, 425 (CCPA 1981)) (emphasis added)

"The test for obviousness is ***not*** whether the features of a secondary reference may be ***bodily incorporated*** into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references," but, "[r]ather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art."

Pet. Reply, Paper 27 at 11-12.