



US010028810B2

United States Patent
Korten et al.(10) Patent No.: **US 10,028,810 B2**
(45) Date of Patent: **Jul. 24, 2018**(54) **METHOD OF CAPTURING DATA FROM A PATIENT'S DENTITION AND SYSTEM FOR PERFORMING SUCH METHOD**(52) U.S. CL.
CPC *A61C 13/082* (2013.01); *A61B 1/051* (2013.01); *A61B 1/24* (2013.01); *A61C 9/0053* (2013.01); *A61C 13/34* (2013.01); *G01J 3/508* (2013.01)(71) Applicant: **3M INNOVATIVE PROPERTIES COMPANY**, St. Paul, MN (US)(72) Inventors: **Malte Korten**, Moorenweis (DE);
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Gallus Schechner, Hersching (DE);
Gioacchino Raia, Turkenfeld (DE)(58) **Field of Classification Search**
CPC ... *A61C 13/082*; *A61C 13/0004*; *A61C 13/34*;
A61C 9/0053; *A61C 1/051*; *A61C 1/24*;
G01J 3/508

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433/24(73) Assignee: **3M Innovative Properties Company**,
St. Paul, MN (US)(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 96 days.(21) Appl. No.: **14/785,432**

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(22) PCT Filed: **Apr. 24, 2014**CN 200945199 9/2007
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(Continued)(86) PCT No.: **PCT/US2014/035227**

§ 371 (c)(1),

(2) Date: **Oct. 19, 2015**

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(87) PCT Pub. No.: **WO2014/179141**International Search Report for PCT International Application No.
PCT/US2014/035227 dated Aug. 11, 2014, 4 pages.PCT Pub. Date: **Nov. 6, 2014**

Primary Examiner — Ralph Lewis

(55) **Prior Publication Data**

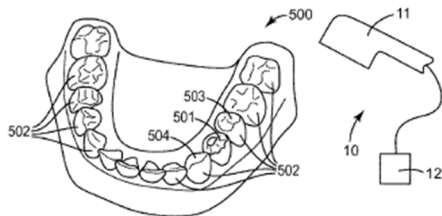
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(57) **ABSTRACT**A method of capturing data from a patient's dentition with
the steps of positioning a first optical sensor relative to
patient's dentition, capturing the shape of a tooth in the
patient's dentition, independent from capturing the shape,
measuring a color at a location on the tooth, and providing
a correlation between the location of the color and a coor-
dinate in the captured shape. The invention helps providing
a dental restoration at a relatively high optical, mechanical,
and geometric quality.

14 Claims, 3 Drawing Sheets

(51) **Int. CL.**
A61C 13/08 (2006.01)
A61C 9/00 (2006.01)

(Continued)



US010695151B2

United States Patent
Esbech et al.(10) Patent No.: **US 10,695,151 B2**
(45) Date of Patent: ***Jun. 30, 2020**(54) **DETECTING TOOTH SHADE**(58) **Field of Classification Search**
CPC *G06T 17/00*; *G06T 15/04*; *G06K 2209/05*;
G06K 2209/40(71) Applicant: **3SHAPE A/S**, Copenhagen K (DK)(72) Inventors: **Bo Esbech**, Gentofte (DK); **Rune**
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patent is extended or adjusted under 35
U.S.C. 154(b) by 168 days.

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This patent is subject to a terminal dis-
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(22) Filed: **Feb. 5, 2018**(65) **Prior Publication Data** International Search Report (PCT/ISA/210) dated May 11, 2015, by**US 10,695,151 B2**
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See application file for complete search history.

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