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granted US patents**



(12) **United States Patent**
Mercier

(10) **Patent No.:** **US 8,627,537 B2**
(45) **Date of Patent:** **Jan. 14, 2014**

(54) **HAIRBRUSH, METHODS OF USE, AND METHODS OF MANUFACTURING THE SAME**

(75) Inventor: **Michel Mercier**, Hertzliya (IL)

(73) Assignee: **Michel Mercier Ltd.**, Tel Aviv (IL)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 430 days.

(21) Appl. No.: **12/903,203**

(22) Filed: **Oct. 12, 2010**

(65) **Prior Publication Data**

US 2011/0167580 A1 Jul. 14, 2011

Related U.S. Application Data

(60) Provisional application No. 61/250,057, filed on Oct. 9, 2009, provisional application No. 61/297,814, filed on Jan. 24, 2010, provisional application No. 61/298,205, filed on Jan. 25, 2010, provisional application No. 61/298,398, filed on Jan. 26, 2010, provisional application No. 61/367,447, filed on Jul. 25, 2010, provisional application No. 61/367,793, filed on Jul. 26, 2010.

(30) **Foreign Application Priority Data**

Oct. 11, 2010 (GB) 1017114.8

(51) **Int. Cl.**
A46B 9/02 (2006.01)

(52) **U.S. Cl.**
USPC **15/160**; 15/186; 15/DIG. 5; 132/120

(58) **Field of Classification Search**
USPC 15/159.5, 160, 186, 187, 188; 132/120, 132/137, 138, 141, 142, 148, 150, 152, 159
See application file for complete search history.

(56) **References Cited**

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Primary Examiner — Mark Spisich

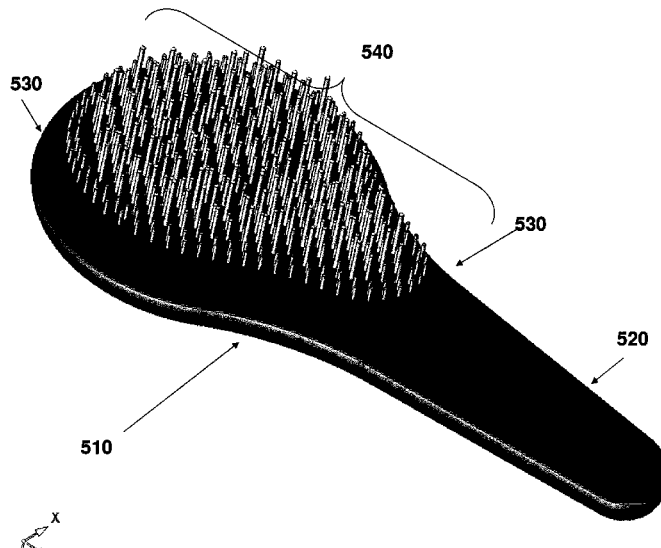
Assistant Examiner — Michael Jennings

(74) *Attorney, Agent, or Firm* — Marc Van Dyke

(57) **ABSTRACT**

Embodiments of the present invention relate to a hairbrush for detangling human or animal hair. In some embodiments, the hairbrush includes a field of bristles where bristle height is substantially random and substantially independent of position on the hairbrush. In some embodiments, within the bristle field, the bristle width and/or the bristle material may vary between bristles—for example, substantially randomly with respect to position and/or in a manner that is correlated with bristle height.

22 Claims, 40 Drawing Sheets





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

(10) **Patent No.:** **US 8,939,158 B2**
(45) **Date of Patent:** **Jan. 27, 2015**

(54) **AGENTS, COMPOSITIONS AND DEVICES FOR TEMPORARY COLORING LOCAL HAIR AREAS**

(75) Inventors: **Michel Mercier**, Hetzliya (IL); **Shula Recanati**, Tel Aviv (IL)

(73) Assignee: **S.O.S. Color Ltd.**, Tel Aviv (IL)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **12/817,524**

(22) Filed: **Jun. 17, 2010**

(65) **Prior Publication Data**

US 2011/0005538 A1 Jan. 13, 2011

Related U.S. Application Data

(63) Continuation of application No. PCT/IL2008/001630, filed on Dec. 17, 2008.

(60) Provisional application No. 61/006,068, filed on Dec. 17, 2007.

(51) **Int. Cl.**

- A45D 24/22* (2006.01)
- A45D 34/04* (2006.01)
- A61K 8/72* (2006.01)
- A45D 19/02* (2006.01)
- A61K 8/19* (2006.01)
- A61K 8/60* (2006.01)
- A61Q 5/06* (2006.01)
- A45D 19/00* (2006.01)

(52) **U.S. Cl.**

- CPC . *A61K 8/72* (2013.01); *A45D 19/02* (2013.01); *A45D 24/22* (2013.01); *A45D 34/04* (2013.01); *A61K 8/19* (2013.01); *A61K 8/60* (2013.01); *A61Q 5/06* (2013.01); *A45D 34/04* (2013.01); *A45D 2019/0083* (2013.01); *A45D 2200/057* (2013.01)

USPC 132/112; 132/116

(58) **Field of Classification Search**

USPC 132/112–116, 160; 401/190, 290, 272, 401/17, 25–27; 222/402.13, 402.15
See application file for complete search history.

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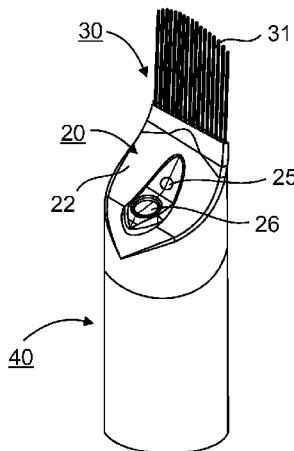
Primary Examiner — Robyn Doan

(74) *Attorney, Agent, or Firm* — Marc Van Dyke

(57) **ABSTRACT**

Hair-coloring applicators comprising a shield to protect the scalp, polymers of tannic acid having iron ions bound thereto, hair-coloring compositions comprising same and/or melanoidin, and novel alcohol-free carriers, are disclosed, as well uses thereof for coloring hair.

24 Claims, 4 Drawing Sheets



(12) **United States Patent**
Mercier

(10) **Patent No.:** **US 9,427,060 B2**
(45) **Date of Patent:** **Aug. 30, 2016**

(54) **DEVICE, KIT AND METHOD FOR COLORING HAIR**

(75) Inventor: **Michel Mercier**, Hertzliya (IL)
(73) Assignee: **KAMPALOOK LTD.**, Tel Aviv
(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1287 days.

(21) Appl. No.: **13/169,115**
(22) Filed: **Jun. 27, 2011**

(65) **Prior Publication Data**
US 2011/0315157 A1 Dec. 29, 2011
Related U.S. Application Data

(60) Provisional application No. 61/358,507, filed on Jun. 25, 2010.

(51) **Int. Cl.**
A45D 19/02 (2006.01)
A45D 24/22 (2006.01)
A45D 19/00 (2006.01)

(52) **U.S. Cl.**
CPC **A45D 19/02** (2013.01); **A45D 24/22** (2013.01); **A45D 2019/0083** (2013.01); **A45D 2200/057** (2013.01)

(58) **Field of Classification Search**
CPC **A45D 19/0008**; **A45D 19/02**; **A45D 2019/0075**; **A45D 2019/0058**; **A45D 24/22**; **A45D 2200/057**
USPC **132/107–116, 124, 126, 120–121, 132/159–160, 212, 333, 148, 270; 401/196, 401/268; 119/611–612, 603–604**
See application file for complete search history.

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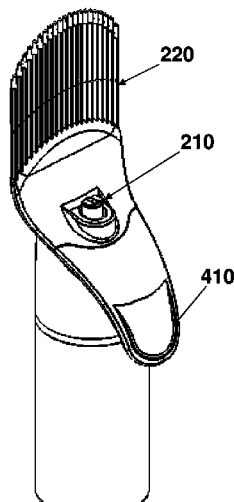
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Primary Examiner — Todd E Manahan
Assistant Examiner — Brienne Kalach
(74) *Attorney, Agent, or Firm* — Mark Van Dyke

(57) **ABSTRACT**

A hair-penetrating shield **220** comprises a tooth array having top **280** and bottom **290** surfaces. In some embodiments, for a majority of the teeth, a cross section of each tooth (for example, triangular in shape) has an asymmetric width profile such that the tooth cross section, on average, is narrower near the top of the tooth and wider near the bottom of the tooth. In some embodiments, a ratio between: i) a first average tooth width describing the average tooth width below the top-bottom midpoint; and ii) a second average tooth width describing the average tooth width above the top-bottom midpoint is at least 1.2, or at least 1.6. In some embodiments, a non-viscous hair-coloring agent is dispensed as a mist over the top of the surface of the shield so as to color roots of hair passing through the spaces between the teeth of the user's hair. In some embodiments, closely-spaced teeth of the hair penetrating shield protect the user's scalp from the non-viscous hair-coloring agent. Related methods and kits are disclosed herein.

16 Claims, 55 Drawing Sheets



(12) **United States Design Patent**
Mercier

(10) **Patent No.:** **US D637,818 S**
(45) **Date of Patent:** **** *May 17, 2011**

(54) **HAIRBRUSH**

(76) Inventor: **Michel Mercier**, Hetzliya (IL)

(**) Term: **14 Years**

(21) Appl. No.: **29/354,421**

(22) Filed: **Jan. 24, 2010**

(51) **LOC (9) Cl.** **04-02**

(52) **U.S. Cl.** **D4/136**

(58) **Field of Classification Search** D4/130,
D4/132-134, 136; D24/200, 214, 211; D28/63;
15/159.1, 160, 186-188, 207.2, DIG. 5; 132/120,
132/313, 901; 401/28; 601/109, 136, 137;
119/600, 612, 615, 632

See application file for complete search history.

(56) **References Cited**

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Primary Examiner — Melanie H Tung
Assistant Examiner — Lavone D Tabor

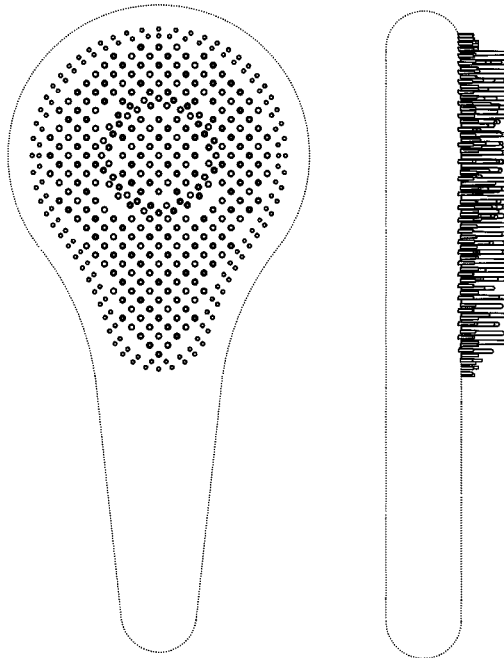
(57) **CLAIM**

The ornamental design for a hairbrush, as shown and described.

DESCRIPTION

FIG. 1 is a front view of a hairbrush embodying the design.
FIG. 2 is a back view thereof.
FIGS. 3-4 are side views thereof.
FIG. 5 is a top view thereof.
FIG. 6 is a bottom view thereof; and,
FIG. 7 is an isometric view thereof.
The broken-line showing of a back and handle illustrates portions of the hairbrush that form no part of the claimed design.

1 Claim, 5 Drawing Sheets





US00D741005S

(12) **United States Design Patent**
Mercier

(10) **Patent No.:** **US D741,005 S**

(45) **Date of Patent:** **** Oct. 13, 2015**

(54) **HAIR COLORING APPARATUS**

(56) **References Cited**

(71) Applicant: **Michel Mercier Ltd.**, Tel Aviv (IL)

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(72) Inventor: **Michel Mercier**, Hetzliya (IL)

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2011/0315157	A1		12/2011	Mercier		

(73) Assignee: **S.O.S. COLOR LTD.**, Tel Aviv (IL)

(**) Term: **14 Years**

(21) Appl. No.: **29/454,336**

(22) Filed: **May 9, 2013**

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Related U.S. Application Data

(63) Continuation of application No. 29/397,379, filed on Jul. 14, 2011, now abandoned, and a continuation-in-part of application No. 13/169,115, filed on Jun. 27, 2011.

(60) Provisional application No. 61/358,507, filed on Jun. 25, 2010.

(51) **LOC (10) Cl.** **28-03**

(52) **U.S. Cl.**
USPC **D28/7**

(58) **Field of Classification Search**

USPC D28/7, 8, 20-22, 30-31, 76, 85, 99;
132/108, 202, 208, 317, 320;
401/202-207, 261-267; D24/119,
D24/124-126; D1/126, 127, 130, 199;
D6/595-601; D32/40-45; 15/209.1,
15/244.1, 244.2, 244.3, 244.4
CPC A45D 33/00; A45D 33/34; A45D 33/36
See application file for complete search history.

Primary Examiner — Zenia Bennett

(74) *Attorney, Agent, or Firm* — Marc Van Dyke

(57) **CLAIM**

The ornamental design for a hair coloring apparatus, as shown and described.

DESCRIPTION

FIG. 1 is a front view of a hair coloring apparatus embodying the design.

FIG. 2 is a back view thereof.

FIG. 3-4 are side views thereof.

FIG. 5 is a bottom view thereof.

FIG. 6 is a top view thereof; and,

FIG. 7 is an isometric view thereof.

The broken lines in the drawings are for illustrative purposes only and do not form part of the claimed design.

1 Claim, 6 Drawing Sheets

