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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
18/487,916	10/16/2023	Roger Ignon	EDGE.005C11	3841

20995 7590 08/06/2024

Knobbe, Martens, Olson & Bear, LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

EXAMINER
KNAUSS, CHRISTIAN D

ART UNIT	PAPER NUMBER
3771	

NOTIFICATION DATE	DELIVERY MODE
08/06/2024	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Atty.AdminCoordinator@knobbe.com
efiling@knobbe.com

APPLICATION NO.	ISSUE DATE	PATENT NO.
18/487,916	06-Aug-2024	12053607

Knobbe, Martens, Olson & Bear, LLP
2040 MAIN STREET
IRVINE, CA 92614

EGRANT NOTIFICATION

Your electronic patent grant (eGrant) is now available, which can be accessed via Patent Center at https://patentcenter.uspto.gov

The electronic patent grant is the official patent grant under 35 U.S.C. 153. For more information, please visit https://www.uspto.gov/electronicgrants

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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
18/487,916	08/06/2024	12053607	EDGE.005C11	3841

20995 7590 07/17/2024

Knobbe, Martens, Olson & Bear, LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

ISSUE NOTIFICATION

The projected patent number and issue date are specified above. The patent will issue electronically. The electronically issued patent is the official patent grant pursuant to 35 U.S.C. § 153. The patent may be accessed on or after the issue date through Patent Center at https://patentcenter.uspto.gov/. The patent will be available in both the public and the private sides of Patent Center. Further assistance in electronically accessing the patent, or about Patent Center, is available by calling the Patent Electronic Business Center at 1-888-217-9197.

The USPTO is implementing electronic patent issuance with a transition period, during which period the USPTO will mail a ceremonial paper copy of the electronic patent grant to the correspondence address of record. Additional copies of the patent (i.e., certified and presentation copies) may be ordered for a fee from the USPTO's Certified Copy Center at https://certifiedcopycenter.uspto.gov/index.html. The Certified Copy Center may be reached at (800)972-6382.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Center (https://patentcenter.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Patents Stakeholder Experience (OPSE), Stakeholder Support Division (SSD) at (571)-272-4200.

INVENTOR(s) (Please see PATENT CENTER site https://patentcenter.uspto.gov for additional inventors):

Roger Ignon, Redondo Beach, CA;
Scott Mallett, Coto De Caza, CA;
Abraham Solano, Corona, CA;
William Cohen, Los Alamitos, CA;

APPLICANT(s) (Please see PATENT CENTER site https://patentcenter.uspto.gov for additional applicants):

HydraFacial LLC, Long Beach, CA;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.

PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487916
	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
SHEET 41 OF 45	Attorney Docket No.	EDGE.005C11

FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[1]
	1131	EP 2206483	07-14-2010	Andrea Uterstaedt		Abs
	1132	EP 2240099	02-21-2018	Edge Systems LLC.		
	1133	EP 2451367	01-22-2020	Edge Systems LLC.		
	1134	EP 2544563	09-16-2015	LRC Products Limited		
	1135	EP 2618797	04-08-2020	Sharon Hilditch		
	1136	EP 2967633	04-25-2018	Edge Systems LLC		
	1137	EP 3217899	05-19-2016	CYTRELLIS BIOSYSTEMS INC		
	1138	EP 3237055	08-12-2020	Edge Systems LLC		
	1139	EP 3302319	04-11-2018	Koninklijke Philips N.V.		
	1140	EP 3319573	05-16-2018	Edge Systems LLC		
	1141	EP 3340908	07-04-2018	Koninklijke Philips N.V.		
	1142	EP 3388006	03-04-2020	Edge Systems LLC		
	1143	EP 3437575	04-21-2021	Edge Systems LLC.		
	1144	EP 3795204	03-24-2021	Edge Systems LLC.		
	1145	ES 1037776	04-01-1998	Concustell Gonfaus		Abs
Change(s) applied to document, /N.B.H./ 6/26/2024	**1146**	~~EU Doc.~~ 8794184-0001 EM	12-13-2021	Stallvärme Sverige AB		
	1147	~~EU Doc.~~ 8880371-0001 EM	05-20-2022	Edge Systems LLC		
	1148	FR 2712172	05-19-1995	Rabier		Abs
	1149	FR 2773461	07-16-1999	Favie Alain		Abs
	1150	GB 1372609	10-30-1974	Forenade Fabrik-Sverken		
	1151	GB 2306351	05-07-1997	Inahara		
	1152	GB 2585500	01-13-2021	Tube Tech International Limited		
	1153	IT 553076	12-01-1956	Facconi		
	1154	IT 1184922	03-22-1985	Porqueddu		
	1155	JP H05-042060	02-23-1993	Hara		X
	1156	JP (53-118927) S55-034863	08-29-1963			

Examiner Signature	Date Considered

***Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T[1] - Place a check mark in this area when an English language Translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /C.D.K/

PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487916
	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
SHEET 37 OF 45	Attorney Docket No.	EDGE.005C11

FOREIGN PATENT DOCUMENTS

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	1038	EP 3237055	08-12-2020	Edge Systems LLC		
	1039	EP 3302319	04-11-2018	Koninklijke Philips N.V.		
	1040	EP 3319573	05-16-2018	Edge Systems LLC		
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	1042	EP 3388006	03-04-2020	Edge Systems LLC		
	1043	EP 3437575	04-21-2021	Edge Systems LLC.		
	1044	EP 3795204	03-24-2021	Edge Systems LLC.		
	1045	ES 1037776	04-01-1998	Concustell Gonfaus		Abs
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	1048	FR 2712172	05-19-1995	Rabier		Abs
	1049	FR 2773461	07-16-1999	Favie Alain		Abs
	1050	GB 1372609	10-30-1974	Forenade Fabrik-Sverken		
	1051	GB 2306351	05-07-1997	Inahara		
	1052	GB 2585500	01-13-2021	Tube Tech International Limited		
	1053	IT 553076	12-01-1956	Facconi		
	1054	IT 1184922	03-22-1985	Porqueddu		
	1055	JP H05-042060	02-23-1993	Hara		X
	1056	JP (53-118927) S55-034863	08-29-1963			
	1057	JP1993-088552	12-03-1993	Sumitomo Bakelite Co., Ltd.		
	1058	JP 1997-294747	11-18-1997	Fukutaro, Yamazaki		
	1059	JP 2003-339713	12-02-2003	Twinbird Corp		
	1060	JP 2003-534881	11-25-2003	Becton, Dickinson and Company		Abs
	1061	JP 2004-275721	10-07-2004	Matsushita Electric Works		
	1062	JP 2006-503627 (English abstract of WO 2004/037098)	02-02-2006	Bionoface		

Examiner Signature	Date Considered
***Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

T[1] - Place a check mark in this area when an English language Translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /C.D.K/

PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487,916
	Filing Date	October 16, 2023
	First Named Inventor	Roger Ignon
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
SHEET 2 OF 3	Attorney Docket No.	EDGE.005C11

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	30	2012/0022435	01-26-2012	Ignon et al.	
	31	2013/0296807	11-07-2013	Lintern et al.	
	32	2014/0343481	11-20-2014	Ignon	
	33	2015/0231379	08-20-2015	Ignon et al.	
	34	2019/0133642	05-09-2019	Ignon et al.	
	35	2020/0093945	03-26-2020	Jeong	
	36	2021/0154455	05-27-2021	Ignon et al.	
	37	2021/0170150	06-10-2021	Hong et al.	
	38	2023/0000523	01-05-2023	Nicolas et al.	
	39	2023/0055346	02-23-2023	Fortkort et al.	
	40	2024/0017046	01-18-2024	Nebrigic et al.	
	41	2024/0075263	03-07-2024	Ignon et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[1]
	42	CN 3292006	04-30-2003	Zhang Haiqiang		
	43	CN 305941358	07-24-2020	Shi Enliang		
	44	CN 306109314	10-16-2020	Shantou Baili Plastic Products Co., Ltd.		
	45	CN 308188687	08-22-2023	Shenzhen Kemengya Intelligent Technology Co Ltd.		
Change(s) applied to document, /N.B.H./ 6/26/2024	**46**	EM ~~EU Des.~~ 015024621-0002	06-19-2023	Jean-Daniel Mondin		
	47	GB 6228947	09-02-2022	HydraFacial LLC		
	48	GB 6228949	03-04-2022	HydraFacial LLC		
	49	JP D1675782	01-04-2021	Hasluck Co., Ltd.		Abs
	50	KR 301238287.0000	11-13-2023	HydraFacial LLC		
	51	KR 301238288.0000	11-13-2023	HydraFacial LLC		
	52	TW D155201	08-01-2013	Heqin Industrial Co., Ltd.		X

Examiner Signature	/CHRISTIAN D KNAUSS/	Date Considered	05/18/2024

***Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T[1] - Place a check mark in this area when an English language Translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /C.D.K/

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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
18/487,916	**06/21/2024 07:29:02 PM Z ET**	**EDGE.005C11**

Title of Invention

DEVICES AND METHODS FOR TREATING SKIN

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	3841	FILED BY	Will Nguyen
PATENT CENTER #	66073137	FILING DATE	10/16/2023
CUSTOMER #	20995	FIRST NAMED INVENTOR	Roger Ignon
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Theodore Papagiannis

Documents

TOTAL DOCUMENTS: 2

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
EDGE-005C11_IFEE.pdf	1	Issue Fee Payment (PTO-85B)	358 KB
EDGE-005C11_COMMENT.pdf	2	Post Allowance Communication - Incoming	21 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
EDGE-005C11_IFEE.pdf	5AE862F7B065F3DB191B0BFAE9711BF6AD863F585C519EC5E D75197385945C1C1358B04456D2AC4307733F3E7CF9348A310 32EAD315662F64BA6908251F1CEAB

EDGE-005C11_COMMENT.pdf 24E7E33077894C4828038562F52B6C2E423CE9D79FCDC59AC4C8DA1C54508AAF1158F33898B496D3AF7896DCB6E24CD30565C50058EE3F0DAB1FAC3B4AE1385C

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Inventor: Roger Ignon	**Conf. No.:** 3841
Appl. No.: 18/487,916	**Filed:** October 16, 2023
Examiner: Christian D. Knauss	**Art Unit:** 3771
Title: DEVICES AND METHODS FOR TREATING SKIN	

COMMENTS ON STATEMENT OF REASONS FOR ALLOWANCE

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Examiner's Statement of Reasons for Allowance included in the Notice of Allowance mailed on June 20, 2024 (the "Examiner's Statement"), Applicant respectfully submits the following comments.

To the extent that there is any implication that the patentability of the claims rests on the recitation of a single feature or certain limited features, Applicant respectfully disagrees with the Examiner's Statement, as it is the combination of features that makes the claims patentable. Further, to the extent that any feature(s) recited in the Examiner's Statement are not present in any or all of the claims due to paraphrasing or because the features are in one claim but not in others, Applicant reserves the right to disagree with the Examiner's Statement.

In addition, Applicant does not necessarily agree with any characterization of any references and/or the state of the art generally mentioned in the Examiner's Statement.

Applicant respectfully submits that the pending claims, including the dependent claims, may also be allowable for reasons different from, or in addition to, those stated in the Examiner's Statement. Accordingly, Applicant reserves the right to argue that the claims of the present application are allowable because each of the claims recites a combination of features that are not taught or suggested by the references of record and/or any other art.

Authorization is provided to charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: June 21, 2024

By: /Theodore G. Papagiannis/
Theodore G. Papagiannis
Registration No. 61,546
Attorney of Record
Customer No. 20995
(949) 760-0404

59740047

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via the USPTO patent electronic filing system.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications. **Because electronic patent issuance may occur shortly after issue fee payment, any desired continuing application should preferably be filed prior to payment of this issue fee in order not to jeopardize copendency.**

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

20995 7590 06/20/2024
Knobbe, Martens, Olson & Bear, LLP
2040 MAIN STREET
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IRVINE, CA 92614

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via the USPTO patent electronic filing system or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
18/487,916	10/16/2023	Roger Ignon	EDGE.005C11	3841

TITLE OF INVENTION: DEVICES AND METHODS FOR TREATING SKIN

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$1200	$0.00	$0.00	$1200	09/20/2024

EXAMINER	ART UNIT	CLASS-SUBCLASS
KNAUSS, CHRISTIAN D	3771	604-022000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/AIA/122 or PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/AIA/47 or PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Knobbe, Martens, Olson & Bear, LLP
2
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: HydraFacial LLC

(B) RESIDENCE: (CITY and STATE OR COUNTRY): Long Beach, CA

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ☒ Corporation or other private group entity ❑ Government

4a. Fees submitted: ☒ Issue Fee ❑ Publication Fee (if required)

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

☒ Electronic Payment via the USPTO patent electronic filing system ❑ Enclosed check ❑ Non-electronic payment by credit card (Attach form PTO-2038)

☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. 11-1410

5. **Change in Entity Status** (from status indicated above)

❑ Applicant certifying micro entity status. See 37 CFR 1.29

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

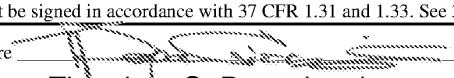
❑ Applicant asserting small entity status. See 37 CFR 1.27

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

❑ Applicant changing to regular undiscounted fee status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature  Date June 21, 2024

Typed or printed name Theodore G. Papagiannis Registration No. 61,546

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
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ELECTRONIC PAYMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
18/487,916	06/21/2024 07:29:02 PM Z ET	EDGE.005C11

Title of Invention

DEVICES AND METHODS FOR TREATING SKIN

Application Information

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PATENT CENTER #	66073137	AUTHORIZED BY	Theodore Papagiannis
CUSTOMER #	20995	FILING DATE	10/16/2023
CORRESPONDENCE ADDRESS	-	FIRST NAMED INVENTOR	Roger Ignon

Payment Information

PAYMENT METHOD	PAYMENT TRANSACTION ID	PAYMENT AUTHORIZED BY
CARD / 2598	E20246KJ30139623	Wendy Castorena

PRE-AUTHORIZED ACCOUNT	PRE-AUTHORIZED CATEGORY
111410	37 CFR 1.16 (National application filing, search, and examination fees); 37 CFR 1.17 (Patent application and reexamination processing fees)

FEE CODE	DESCRIPTION	ITEM PRICE($)	QUANTITY	ITEM TOTAL($)
1501	UTILITY ISSUE FEE	1200.00	1	1200.00
			TOTAL AMOUNT:	$1,200.00

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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NOTICE OF ALLOWANCE AND FEE(S) DUE

20995 7590 06/20/2024

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FOURTEENTH FLOOR
IRVINE, CA 92614

EXAMINER
KNAUSS, CHRISTIAN D

ART UNIT	PAPER NUMBER
3771	

DATE MAILED: 06/20/2024

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
18/487,916	10/16/2023	Roger Ignon	EDGE.005C11	3841

TITLE OF INVENTION: DEVICES AND METHODS FOR TREATING SKIN

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$1200	$0.00	$0.00	$1200	09/20/2024

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 40% the amount of undiscounted fees, and micro entity fees are 20% the amount of undiscounted fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via the USPTO patent electronic filing system.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications. **Because electronic patent issuance may occur shortly after issue fee payment, any desired continuing application should preferably be filed prior to payment of this issue fee in order not to jeopardize copendency.**

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

20995 7590 06/20/2024
Knobbe, Martens, Olson & Bear, LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via the USPTO patent electronic filing system or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
18/487,916	10/16/2023	Roger Ignon	EDGE.005C11	3841

TITLE OF INVENTION: DEVICES AND METHODS FOR TREATING SKIN

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$1200	$0.00	$0.00	$1200	09/20/2024

EXAMINER	ART UNIT	CLASS-SUBCLASS
KNAUSS, CHRISTIAN D	3771	604-022000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/AIA/122 or PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/AIA/47 or PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1_____
2_____
3_____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. Fees submitted: ❑Issue Fee ❑Publication Fee (if required)

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

❑ Electronic Payment via the USPTO patent electronic filing system ❑ Enclosed check ❑ Non-electronic payment by credit card (Attach form PTO-2038)

❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. **Change in Entity Status** (from status indicated above)

❑ Applicant certifying micro entity status. See 37 CFR 1.29
NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

❑ Applicant asserting small entity status. See 37 CFR 1.27
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

❑ Applicant changing to regular undiscounted fee status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
18/487,916	10/16/2023	Roger Ignon	EDGE.005C11	3841

20995 7590 06/20/2024

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EXAMINER	
KNAUSS, CHRISTIAN D	

ART UNIT	PAPER NUMBER
3771	

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Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. The United States Patent and Trademark Office (USPTO) collects the information in this record under authority of 35 U.S.C. 2. The USPTO's system of records is used to manage all applicant and owner information including name, citizenship, residence, post office address, and other information with respect to inventors and their legal representatives pertaining to the applicant's/ owner's activities in connection with the invention for which a patent is sought or has been granted. The applicable Privacy Act System of Records Notice for the information collected in this form is COMMERCE/PAT-TM-7 Patent Application Files, available in the Federal Register at 78 FR 19243 (March 29, 2013).
https://www.govinfo.gov/content/pkg/FR-2013-03-29/pdf/2013-07341.pdf

Routine uses of the information in this record may include disclosure to:

1) law enforcement, in the event that the system of records indicates a violation or potential violation of law;
2) a federal, state, local, or international agency, in response to its request;
3) a contractor of the USPTO having need for the information in order to perform a contract;
4) the Department of Justice for determination of whether the Freedom of Information Act (FOIA) requires disclosure of the record;
5) a Member of Congress submitting a request involving an individual to whom the record pertains, when the individual has requested the Member's assistance with respect to the subject matter of the record;
6) a court, magistrate, or administrative tribunal, in the course of presenting evidence, including disclosures to opposing counsel in the course of settlement negotiations;
7) the Administrator, General Services Administration (GSA), or their designee, during an inspection of records conducted by GSA under authority of 44 U.S.C. 2904 and 2906, in accordance with the GSA regulations and any other relevant (i.e., GSA or Commerce) directive, where such disclosure shall not be used to make determinations about individuals;
8) another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c));
9) the Office of Personnel Management (OPM) for personnel research purposes; and
10) the Office of Management and Budget (OMB) for legislative coordination and clearance.

If you do not furnish the information requested on this form, the USPTO may not be able to process and/or examine your submission, which may result in termination of proceedings, abandonment of the application, and/or expiration of the patent.

Notice of Allowability	**Application No.** 18/487,916	**Applicant(s)** Ignon et al.	
	Examiner CHRISTIAN D KNAUSS	**Art Unit** 3771	**AIA (FITF) Status** No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☑ This communication is responsive to the response filed 5/24/24.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☑ The allowed claim(s) is/are 17-31 and 33-37 . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information , please see **http://www.uspto.gov/patents/init_events/pph/index.jsp** or send an inquiry to **PPHfeedback@uspto.gov.**

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☐ All b) ☐ Some* c) ☐ None of the:

   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☑ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date. _____.
5. ☐ Examiner's Amendment/Comment
6. ☑ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/C.D.K/ Examiner, Art Unit 3771	/DARWIN P EREZO/ Supervisory Patent Examiner, Art Unit 3771

DETAILED ACTION

Notice of Pre-AIA or AIA Status

1. The present application is being examined under the pre-AIA first to invent provisions.

Response to Amendment

2. Claims 17-31 and 33-37 are pending in the application. Claims 1-16 and 32 have been canceled. Claims 27 and 37 have been amended.

Terminal Disclaimer

3. The terminal disclaimer filed on 5/30/24 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Patent No. 9,550,052 B2 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Information Disclosure Statement

4. The information disclosure statement (IDS) submitted on 5/30/24 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Allowable Subject Matter

5. Claims 17-31 and 33-37 are allowed.

6. The following is an examiner's statement of reasons for allowance: in the previous Office Action, claims 17-26 and 37 were indicated allowable pending a timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d). A terminal disclaimer has been filed, reviewed, and accepted (see above). In the previous Office Action, claim 32 was indicated allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Independent claim 27 has been amended to incorporate the limitations of claim 32, which has been canceled. Claims 28-31 and 33-36 are dependent on claim 27, thus are also allowable over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTIAN D KNAUSS whose telephone number is (571)272-8641. The examiner can normally be reached M-F 12:30-8:30.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darwin Erezo can be reached on 571-272-4695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: https://patentcenter.uspto.gov. Visit https://www.uspto.gov/patents/apply/patent-center for more information about Patent Center and https://www.uspto.gov/patents/docx for information about filing in DOCX format. For additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C.D.K/
Examiner, Art Unit 3771

/DARWIN P EREZO/
Supervisory Patent Examiner, Art Unit 3771

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	18/487,916	Ignon et al.
	Examiner	Art Unit
	CHRISTIAN D KNAUSS	3771

CPC - Searched*		
Symbol	**Date**	**Examiner**
A61B17/3205, 54, 545	05/17/2024	CDK
A61B2017/00199, 00761, 320004	05/17/2024	CDK
A61M1/774	05/17/2024	CDK
A61B2217/005, 007	05/17/2024	CDK
A61M35/003	05/17/2024	CDK

CPC Combination Sets - Searched*		
Symbol	**Date**	**Examiner**

US Classification - Searched*			
Class	**Subclass**	**Date**	**Examiner**

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

/C.D.K/ Examiner, Art Unit 3771	/DARWIN P EREZO/ Supervisory Patent Examiner, Art Unit 3771

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	18/487,916	Ignon et al.
	Examiner	Art Unit
	CHRISTIAN D KNAUSS	3771

Search Notes		
Search Notes	**Date**	**Examiner**
Reviewed parent applications	05/17/2024	CDK
Performed inventor and assignee searches	05/17/2024	CDK
Performed SEARCH	05/17/2024	CDK
Performed backward/forward searches	05/17/2024	CDK
Performed CPC subgroup/text searches and combinations	05/17/2024	CDK
Performed Similarity and More Like This searches	05/17/2024	CDK
Updated SEARCH	06/04/2024	CDK
Performed Interference Search	06/04/2024	CDK

Interference Search			
US Class/CPC Symbol	**US Subclass/CPC Group**	**Date**	**Examiner**
text search	USPAT; US-PGPUB	06/04/2024	CDK

/C.D.K/ Examiner, Art Unit 3771	/DARWIN P EREZO/ Supervisory Patent Examiner, Art Unit 3771

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	18/487,916	Ignon et al.
	Examiner	**Art Unit**
	CHRISTIAN D KNAUSS	3771

CPC						
Symbol					**Type**	**Version**
A61M	/	35	/	003	F	2013-01-01
A61B	/	17	/	54	I	2013-01-01
A61B	/	50	/	10	I	2016-02-01
A61B	/	50	/	13	I	2016-02-01
A61M	/	1	/	962	I	2021-05-01
A61B	/	17	/	545	I	2013-01-01
A61B	/	17	/	3205	I	2013-01-01
A61B	/	17	/	50	I	2013-01-01
A61M	/	37	/	00	I	2013-01-01
A61B	/	2017	/	00199	A	2013-01-01
A61B	/	2017	/	00761	A	2013-01-01
A61N	/	5	/	0616	A	2013-01-01
A61B	/	2217	/	005	A	2013-01-01
A61B	/	2017	/	320004	A	2013-01-01
A61M	/	2037	/	0007	A	2013-01-01

CPC Combination Sets							
Symbol					**Type**	**Set**	**Ranking**	**Version**
	/		/					

/C.D.K./ Examiner, Art Unit 3771 (Assistant Examiner)	04 June 2024 (Date)	**Total Claims Allowed:** 20	
/DARWIN P EREZO/ Supervisory Patent Examiner, Art Unit 3771 (Primary Examiner)	05 June 2024 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 1

U.S. Patent and Trademark Office — Part of Paper No.: 20240604

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	18/487,916	Ignon et al.
	Examiner	**Art Unit**
	CHRISTIAN D KNAUSS	3771

INTERNATIONAL CLASSIFICATION				
CLAIMED				
A61B17/54	/	17	/	54
A61B17/50	/	17	/	50

NON-CLAIMED				
	/		/	

US ORIGINAL CLASSIFICATION	
CLASS	**SUBCLASS**

CROSS REFERENCES(S)						
CLASS	**SUBCLASS (ONE SUBCLASS PER BLOCK)**					

/C.D.K./ Examiner, Art Unit 3771 (Assistant Examiner)	04 June 2024 (Date)	**Total Claims Allowed:** 20	
/DARWIN P EREZO/ Supervisory Patent Examiner, Art Unit 3771 (Primary Examiner)	05 June 2024 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 1

U.S. Patent and Trademark Office — Part of Paper No.: 20240604

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	18/487,916	Ignon et al.
	Examiner	**Art Unit**
	CHRISTIAN D KNAUSS	3771

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☑ T.D. ☐ R.1.47

CLAIMS

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
	1		10	3	19	12	28	20	37						
	2		11	4	20	13	29								
	3		12	5	21	14	30								
	4		13	6	22	15	31								
	5		14	7	23		32								
	6		15	8	24	16	33								
	7		16	9	25	17	34								
	8	1	17	10	26	18	35								
	9	2	18	11	27	19	36								

/C.D.K./ Examiner, Art Unit 3771 (Assistant Examiner)	04 June 2024 (Date)	**Total Claims Allowed:** 20	
/DARWIN P EREZO/ Supervisory Patent Examiner, Art Unit 3771 (Primary Examiner)	05 June 2024 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 1

U.S. Patent and Trademark Office — Part of Paper No.: 20240604

Bibliographic Data

Application No: 18/487,916

Foreign Priority claimed: ○ Yes ◉ No

35 USC 119 (a-d) conditions met: ☐ Yes ☐ No ☐ Met After Allowance

Verified and Acknowledged: /CHRISTIAN D KNAUSS/ Examiner's Signature | Initials

Title: DEVICES AND METHODS FOR TREATING SKIN

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
10/16/2023	604	3771	EDGE.005C11
RULE			

APPLICANTS

HydraFacial LLC, Long Beach, CA, UNITED STATES

INVENTORS

Roger Ignon, Redondo Beach, CA, UNITED STATES

Scott Mallett, Coto De Caza, CA, UNITED STATES

Abraham Solano, Corona, CA, UNITED STATES

William Cohen, Los Alamitos, CA, UNITED STATES

CONTINUING DATA OK /CK/

This application is a CON of 18094884 01/09/2023 PAT 11865287

18094884 is a CON of 17165820 02/02/2021 PAT 11547840

17165820 is a CON of 16517268 07/19/2019 PAT 11446477

16517268 is a CON of 15660750 07/26/2017 PAT 10357641

15660750 is a CON of 14700789 04/30/2015 PAT 9814868

14700789 is a CON of 13267554 10/06/2011 PAT 9474886

13267554 is a CON of 11392348 03/29/2006 PAT 8048089

11392348 has PRO of 60764668 02/02/2006

11392348 has PRO of 60755310 12/30/2005

FOREIGN APPLICATIONS none /CK/

IF REQUIRED, FOREIGN LICENSE GRANTED**

10/26/2023

STATE OR COUNTRY

UNITED STATES

ADDRESS

Knobbe, Martens, Olson & Bear, LLP

2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614
UNITED STATES

FILING FEE RECEIVED

$1,820

PE2E SEARCH - Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
L1	29	(roger near2 ignon).in.	(US-PGPUB; USPAT)	OR	OFF	OFF	2015/08/03 04:30 AM
L2	101	(scott near2 mallett).in.	(US-PGPUB; USPAT)	OR	OFF	OFF	2015/08/03 04:31 AM
L3	3	(abraham near2 solano).in.	(US-PGPUB; USPAT)	OR	OFF	OFF	2015/08/03 04:31 AM
L4	100	(william near2 cohen).in.	(US-PGPUB; USPAT)	OR	OFF	OFF	2015/08/03 04:31 AM
L5	0	14/700,789	(US-PGPUB; USPAT)	OR	OFF	OFF	2015/08/03 04:35 AM
L6	24	(edge near2 systems).as.	(US-PGPUB; USPAT)	OR	OFF	OFF	2015/08/03 04:36 AM
L7	117	A61M35/003	(US-PGPUB; USPAT)	OR	OFF	OFF	2015/08/03 04:40 AM
L8	848	A61M35/003.cpc.	(US-PGPUB; USPAT)	OR	OFF	OFF	2015/08/03 04:40 AM
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L12	387	A61B2017/00535.cpc.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 05:45 AM
L13	206	A61B2017/00561.cpc.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 06:18 AM
L14	406	A61B2017/00761.cpc.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 06:21 AM
L15	841	A61B2017/320004.cpc.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 06:33 AM
L16	436	A61B2017/320008.cpc.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 06:44 AM
L17	297	A61B2017/320012.cpc.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 06:51 AM
L18	419	A61M2037/0007.cpc.	(US-PGPUB; USPAT;	OR	OFF	OFF	2015/08/03

			USOCR)				06:58 AM
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L27	27	("5759185" | "6139554" | "6162232" | "6183483" | "6241739").PN. OR ("6641591").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 08:33 AM
L28	288	("4166457" | "4239046" | "4250878" | "4325367"	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 08:41 AM

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L31	1	"6277128".pn.	(US-PGPUB; USPAT)	OR	OFF	OFF	2015/08/03 11:44 AM
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L40	531	A61M2037/0007.cpc.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2016/06/15 07:07 AM
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L42	1039	microdermabras$6	(US-PGPUB; USPAT)	OR	OFF	OFF	2017/12/07 01:33 PM
L43	545	microdermabras$6 and (suction$4 vacuum$4)	(US-PGPUB; USPAT)	OR	OFF	OFF	2017/12/07 01:52 PM
L44	214	microdermabras$6 and (spiral)	(US-PGPUB; USPAT)	OR	OFF	OFF	2017/12/08 05:44 AM
L45	182	(US-0002960-$ | US-0005078-$ | US-0010222-$ | US-0010269-$ | US-0012415-$ | US-0015139-$ | US-0016601-$ | US-0018252-$ | US-0018317-$ | US-0022435-$ | US-0023351-$ | US-0027328-$ | US-0032047-$ | US-0036002-$ | US-0037034-$ | US-0037118-$ | US-0038183-$ | US-0038448-$ | US-0041338-$ | US-0041891-$ | US-0043382-$ | US-0045427-$ | US-	(US-PGPUB; USPAT)	OR	OFF	OFF	2017/12/08 06:08 AM

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		0178121-$ | US- 0187462-$ | US- 0188261-$ | US- 0189964-$ | US- 0191562-$ | US- 0192442-$ | US- 0193493-$ | US- 0198031-$ | US- 0200099-$ | US- 0200172-$ | US- 0200173-$ | US- 0200861-$ | US- 0203111-$ | US- 0208146-$ | US- 0208159-$ | US- 0208353-$ | US- 0209611-$ | US- 0212029-$ | US- 0212127-$ | US- 0212415-$ | US- 0214987-$ | US- 0215068-$ | US- 0217357-$ | US- 0219179-$ | US- 0221548-$ | US- 0222023-$ | US- 0230824-$ | US- 0230825-$ | US- 0231379-$ | US- 0236291-$ | US- 0239173-$ | US- 0243039-$ | US- 0243149-$ | US- 0253125-$ | US- 0254587-$ | US- 0256671-$ | US- 0264893-$ | US- 0265822-$ | US- 0267285-$ | US- 0272623-$ | US- 0280320-$ | US- 0283176-$ | US- 0287864-$ | US- 0290442-$ | US- 0300529-$ | US- 0300552-$ | US- 0305495-$ | US- 0343481-$ | US- 0343574-$ | US- 1234567-$ | US- 2608032-$ | US- 2631583-$ | US- 2701559-$ | US- 2712823-$ | US- 2867214-$ | US- 2881763-$ | US- 2921585-$ | US- 20010023351-$ | US-					

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		5119839-$ | US- 5122153-$ | US- 5207234-$ | US- 5222956-$ | US- 5242433-$ | US- 5254109-$ | US- 5368581-$ | US- 5391151-$ | US- 5417674-$ | US- 5419772-$ | US- 5460620-$ | US- 5470323-$ | US- 5484427-$ | US- 5562642-$ | US- 5611687-$ | US- 5612797-$ | US- 5674235-$ | US- 5676643-$ | US- 5676648-$ | US- 5683971-$ | US- 5697920-$ | US- 5707383-$ | US- 5713785-$ | US- 5735833-$ | US- 5759185-$ | US- 5779519-$ | US- 5800446-$ | US- 5807353-$ | US- 5810842-$ | US- 5813416-$ | US- 5817050-$ | US- 5846215-$ | US- 5848998-$ | US- 5861142-$ | US- 5873881-$ | US- 5879323-$ | US- 5882201-$ | US- 5885260-$ | US- 5908401-$ | US- 5919152-$ | US- 5954730-$ | US- 5971999-$ | US- 5980555-$ | US- 6019749-$ | US- 6024733-$ | US- 6027402-$).DID.					
L47	141	(US-6039745-$ | US- 6042552-$ | US- 6080165-$ | US- 6080166-$ | US- 6090085-$ | US- 6120512-$ | US- 6129701-$ | US- 6136008-$ | US- 6139553-$ | US- 6139554-$ | US- 6142155-$ | US-	(US-PGPUB; USPAT)	OR	OFF	OFF	2017/12/08 06:08 AM

		6149634-$ | US- 6159226-$ | US- 6162218-$ | US- 6162232-$ | US- 6183451-$ | US- 6183483-$ | US- 6193589-$ | US- 6231593-$ | US- 6235039-$ | US- 6238275-$ | US- 6241739-$ | US- 6264666-$ | US- 6277128-$ | US- 6283978-$ | US- 6299620-$ | US- 6306119-$ | US- 6306147-$ | US- 6322568-$ | US- 6368333-$ | US- 6387103-$ | US- 6401289-$ | US- 6409736-$ | US- 6410599-$ | US- 6414032-$ | US- 6420431-$ | US- 6423078-$ | US- 6423750-$ | US- 6432113-$ | US- 6432114-$ | US- 6471712-$ | US- 6477410-$ | US- 6482212-$ | US- 6488646-$ | US- 6494856-$ | US- 6500183-$ | US- 6503256-$ | US- 6511486-$ | US- 6514262-$ | US- 6527783-$ | US- 6535761-$ | US- 6540757-$ | US- 6562013-$ | US- 6562050-$ | US- 6564093-$ | US- 6565535-$ | US- 6582442-$ | US- 6589218-$ | US- 6592595-$ | US- 6629983-$ | US- 6641591-$ | US- 6645184-$ | US- 6652888-$ | US- 6673081-$ | US- 6673082-$ | US- 6685853-$ | US- 6687537-$ | US- 6695853-$ | US- 6735470-$ | US-					

		6743211-$ | US- 6743215-$ | US- 6764493-$ | US- 6869611-$ | US- 6905487-$ | US- 6911031-$ | US- 6926681-$ | US- 6942649-$ | US- 7001355-$ | US- 7004933-$ | US- 7044938-$ | US- 7052503-$ | US- 7069073-$ | US- 7070488-$ | US- 7083580-$ | US- 7087063-$ | US- 7094252-$ | US- 7115275-$ | US- 7135011-$ | US- 7153311-$ | US- 7197359-$ | US- 7198623-$ | US- 7232444-$ | US- 7241208-$ | US- 7276051-$ | US- 7314326-$ | US- 7316657-$ | US- 7318828-$ | US- 7320691-$ | US- 7320801-$ | US- 7354423-$ | US- 7364565-$ | US- 7384405-$ | US- 7427273-$ | US- 7458944-$ | US- 7476205-$ | US- 7477938-$ | US- 7482314-$ | US- 7489989-$ | US- 7507228-$ | US- 7582067-$ | US- 7597900-$ | US- 7597901-$ | US- 7658742-$ | US- 7678120-$ | US- 7744582-$ | US- 7789886-$ | US- 7837695-$ | US- 7901373-$ | US- 7951156-$ | US- 8025669-$ | US- 8048089-$ | US- 8066716-$ | US- 8088085-$ | US- 8128638-$ | US- 8221437-$ | US- 8236008-$ | US- 8277287-$ | US-					

		8337513-$ | US-8343116-$ | US-8814836-$ | US-9056193-$ | US-9468464-$ | US-9474886-$ | US-9486615-$ | US-9498610-$ | US-9550052-$ | US-9566088-$ | US-9642997-$ | US-9662482-$ | US-RE37796-$ | US-RE42960-$).DID.					
L48	21	("6241739" | "6500183").PN. OR ("7153311").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2017/12/08 06:52 AM
L49	51	(roger near2 ignon).in.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2017/12/08 06:58 AM
L50	1	"6277128".pn.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2017/12/08 07:05 AM
L51	23	("6277128").URPN.	(USPAT)	OR	OFF	OFF	2017/12/08 07:22 AM
L52	48	("2608032" | "2921585" | "3574239" | "3715838" | "4375740" | "4482322" | "4560373" | "4646480" | "4671867" | "4676749" | "4757814" | "4765099" | "5037431" | "5037432" | "5100412" | "5207234" | "5309683" | "5460604" | "5547376" | "5765759" | "5810587" | "5810842" | "6039745").PN. OR ("6277128").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2017/12/08 07:22 AM
L53	160	(tip and passage and outer and inner and spiral).clm.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2017/12/08 07:51 AM
L54	1813	A61N5/0616.cpc.	(US-PGPUB; USPAT)	OR	OFF	OFF	2017/12/08 12:10 PM
L55	263	A61N5/0616.cpc. and (abras$4 abrad$4 dermabra$4 microdermabra$4)	(US-PGPUB; USPAT)	OR	OFF	OFF	2017/12/08 12:12 PM
L56	41	("5759185" | "6139554" | "6162232" | "6183483" | "6241739").PN. OR ("6641591").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2017/12/08 12:17 PM
L57	4	("6277128" "8048089" "6629983" "20010037118").pn.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/03/14 06:17 AM
L58	0	(14/700,789 14/698,713 13/267,554	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/03/14 06:51 AM

		"14698,673").pn.					
L59	12	(14/700,789 14/698,713 13/267,554 "14698,673")	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/03/14 06:51 AM
L60	4	(tip and skin and (handle handpiece) and (lumen passage) and fluid and outer and inner and member and spiral$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/03/15 04:41 AM
L61	9	("20170224972"|"20170245876"|"20170266424"|"20170319836"|"20170333689"|"5490736"|"7293930"|"9775646"|"9814868").PN.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/03/15 05:16 AM
L62	1	15/660,750	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 01:36 PM
L63	1	15/660,777	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 01:37 PM
L64	32	("1651585"|"20130004230"|"20170209894"|"3037509"|"3468079"|"3481677"|"3505993"|"3968789"|"4225254"|"4289158"|"4718467"|"4811734"|"5054339"|"5171215"|"5192269"|"5387215"|"5441490"|"5512044"|"5562643"|"5762640"|"5857995"|"6023639"|"6165059"|"6196982"|"6322548"|"6332886"|"6666874"|"6800083"|"6960206"|"7485125"|"7993333"|"8105295").PN.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:33 PM
L65	1	("10035007").PN.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:34 PM
L75	5	("4940350" "10172644" "10179229" "20060222445" "20180318568").pn.	(US-PGPUB; USPAT)	OR	OFF	OFF	2019/03/02 11:08 AM
L76	79	(tip AND skin AND abra$4 AND vacuum AND hand$7).clm.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO); FPRS; EPO)	OR	ON	ON	2021/03/27 06:58 AM
L77	79	(tip AND skin AND abra$4 AND vacuum AND hand$7).clm.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO); EPO)	OR	ON	ON	2021/03/27 06:59 AM
L78	80	(roger near2 ignon).in.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO); EPO)	OR	ON	ON	2021/03/27 07:00 AM
L79	6	L78 AND (christian near2 knauss).xa.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO); EPO)	OR	ON	ON	2021/03/27 07:00 AM

L80	6	L79 AND angle$4	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO); EPO)	OR	ON	ON	2021/03/27 07:10 AM
L81	1	L79 AND (angle$4).clm.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO); EPO)	OR	ON	ON	2021/03/27 07:10 AM
L82	87	("6629983" "20010037118")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/04/10 03:47 PM
L83	2	("6629983" "20010037118").pn.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/04/10 03:48 PM
L84	2843	A61B17/50.cpc.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO); FPRS; EPO)	OR	OFF	OFF	2021/04/10 10:03 PM
L85	2739	A61B17/3205.cpc.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO); FPRS; EPO)	OR	OFF	OFF	2021/04/10 10:03 PM
L86	11297	A61B2017/00017.cpc.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO); FPRS; EPO)	OR	OFF	OFF	2021/04/10 10:04 PM
L87	537	("10035007"|"10076646"|"10130390"|"10176644"|"10179229"|"10188193"|"10206743"|"10220122"|"10238812"|"10251675"|"10314378"|"10334933"|"10357641"|"10369073"|"10456321"|"10456567"|"10485983"|"10524835"|"10556096"|"10556097"|"10667985"|"10737080"|"10758261"|"10918190"|"10946191"|"10993743"|"11020577"|"1651585"|"20010023351"|"20010049511"|"20020016601"|"20020041891"|"20020058952"|"20020107527"|"20020128663"|"20020133110"|"20020133176"|"20020151826"|"20020151908"|"20020162863"|"20020188261"|"20030012415"|"20030018252"|"20030060834"|"20030093040"|"20030093089"|"20030097139"|"20030167032"|"20030187462"|"20030208159"|"20030212127"|"20030212415"|"20040010222"|"20040010269"|"20040015139"|"20040087972"|"20040092895"|"20040092959"|"20040097967"|"20	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/09/26 03:02 AM

		040122447"|"20040127 914"|"20040138680"|"2 0040143274"|"2004016 2565"|"20040166172"|" 20040219179"|"200402 36291"|"20040243149"| "20040254587"|"20040 267285"|"20050037034 "|"20050038448"|"2005 0059940"|"2005008450 9"|"20050148958"|"200 50203111"|"200502096 11"|"20050283176"|"20 060002960"|"20060116 674"|"20060161178"|"2 0060189964"|"2006019 1562"|"20060200099"|" 20060200172"|"200602 00173"|"20060212029"| "20060222445"|"20060 253125"|"20060264893 "|"20060269580"|"2007 0005078"|"2007004338 2"|"20070065515"|"200 70088371"|"200701238 08"|"20070139630"|"20 070154502"|"20070156 124"|"20070178121"|"2 0070198031"|"2007020 8353"|"20070239173"|" 20080027328"|"200800 91179"|"20080103563"| "20080119781"|"20080 132914"|"20080139974 "|"20080154161"|"2008 0193493"|"2008020086 1"|"20080208146"|"200 80214987"|"200802150 68"|"20080221548"|"20 080243039"|"20080287 864"|"20080300529"|"2 0080300552"|"2009004 8557"|"20090053390"|" 20090062815"|"200900 99091"|"20090099093"| "20090124985"|"20090 138026"|"20090177171 "|"20090192442"|"2009 0222023"|"2010002300 3"|"20100045427"|"201 00049177"|"201000492 10"|"20100217357"|"20 100305495"|"20110054 490"|"20110066162"|"2 0110082415"|"2011029 5273"|"20120022435"|" 20120041338"|"201201 36374"|"20130004230"|					

		"20130018317"|"20130 066336"|"20130096577 "|"20130102978"|"2013 0144207"|"2013014428 0"|"20130158547"|"201 40079686"|"201402340 04"|"20140343481"|"20 140343574"|"20140378 887"|"20150032047"|"2 0150230824"|"2015023 0825"|"20150231379"|" 20150265822"|"201502 72632"|"20150290442"| "20160018100"|"20160 038183"|"20160235257 "|"20160250415"|"2017 0036002"|"2017004315 0"|"20170065801"|"201 70209894"|"201801403 29"|"20180185675"|"20 180318568"|"20190070 069"|"20190133642"|"2 0190143089"|"2019015 1637"|"20190223914"|" 20190336740"|"202000 09007"|"20200016342"| "20200171288"|"20200 171289"|"20200179220 "|"20200289161"|"2020 0316270"|"2020033858 6"|"20200390468"|"202 10085367"|"202101454 80"|"20210145481"|"20 210154453"|"20210154 454"|"20210177463"|"2 608032"|"2631583"|"27 01559"|"2712823"|"286 7214"|"2881763"|"2921 585"|"3037509"|"30855 73"|"3214869"|"346807 9"|"3476112"|"3481677" |"3505993"|"3560100"|" 3574239"|"3715838"|"3 865352"|"3866264"|"39 30598"|"3948265"|"396 4212"|"3968789"|"3977 084"|"4121388"|"41557 21"|"4170821"|"418232 9"|"4203431"|"4216233" |"4225254"|"4289158"|" 4299219"|"4342522"|"4 378804"|"4500222"|"45 60373"|"4646480"|"464 6482"|"4655743"|"4676 749"|"4706676"|"47184 67"|"4754756"|"475781 4"|"4764362"|"4795421" |"4811734"|"4836192"|"				

		4875287"|"4886078"|"4 887994"|"4900316"|"49 17086"|"4925450"|"494 0350"|"4957747"|"5006 004"|"5006339"|"50127 97"|"5035089"|"503743 1"|"5037432"|"5054339" |"5100412"|"5100424"|" 5119839"|"5122153"|"5 171215"|"5192269"|"52 07234"|"5222956"|"524 2433"|"5254109"|"5368 581"|"5387215"|"53911 51"|"5417674"|"541977 2"|"5441490"|"5460620" |"5470323"|"5484427"|" 5490736"|"5512044"|"5 562642"|"5562643"|"56 11687"|"5612797"|"567 4235"|"5676643"|"5676 648"|"5683971"|"56979 20"|"5707383"|"571378 5"|"5735833"|"5759185" |"5762640"|"5779519"|" 5800446"|"5807353"|"5 810842"|"5813416"|"58 17050"|"5834510"|"584 6215"|"5848998"|"5857 995"|"5861142"|"58738 81"|"5879323"|"588220 1"|"5885260"|"5908401" |"5919152"|"5954730"|" 5971999"|"5980555"|"6 019749"|"6023639"|"60 24733"|"6027402"|"603 9745"|"6042552"|"6080 165"|"6080166"|"60900 85"|"6120512"|"612970 1"|"6136008"|"6139553" |"6139554"|"6142155"|" 6149634"|"6159226"|"6 162218"|"6162232"|"61 65059"|"6183451"|"618 3483"|"6193589"|"6196 982"|"6231593"|"62350 39"|"6238275"|"624173 9"|"6264666"|"6283978" |"6299620"|"6306119"|" 6306147"|"6322548"|"6 322568"|"6332886"|"63 68333"|"6387103"|"640 1289"|"6409736"|"6410 599"|"6414032"|"64204 31"|"6423078"|"642375 0"|"6432113"|"6432114" |"6471712"|"6477410"|" 6482212"|"6488646"|"6 494856"|"6500183"|"65					

		03256"|"6508813"|"651 1486"|"6514262"|"6527 783"|"6535761"|"65372 42"|"6540757"|"656201 3"|"6562050"|"6564093" |"6565535"|"6582442"|" 6589218"|"6592595"|"6 626445"|"6629927"|"66 41591"|"6645184"|"665 2888"|"6666874"|"6673 081"|"6673082"|"66858 53"|"6687537"|"669585 3"|"6735470"|"6743211" |"6743215"|"6764493"|" 6800083"|"6869611"|"6 905487"|"6911031"|"69 26681"|"6938805"|"694 2649"|"6960206"|"7001 355"|"7004933"|"70449 38"|"7051907"|"705250 3"|"7069073"|"7070488" |"7083580"|"7087063"|" 7094252"|"7115275"|"7 135011"|"7153311"|"71 66086"|"7197359"|"719 8623"|"7232444"|"7241 208"|"7276051"|"72939 30"|"7314326"|"731665 7"|"7316671"|"7318828" |"7320691"|"7320801"|" 7354423"|"7364565"|"7 384405"|"7422567"|"74 27273"|"7458944"|"747 6205"|"7477938"|"7482 314"|"7485125"|"74899 89"|"7507228"|"758206 7"|"7597900"|"7597901" |"7658742"|"7678120"|" 7744582"|"7789886"|"7 837695"|"7857806"|"79 01373"|"7951156"|"799 3333"|"8025669"|"8048 089"|"8066716"|"80880 85"|"8105295"|"812863 8"|"8221437"|"8231292" |"8236008"|"8277287"|" 8337513"|"8343116"|"8 475507"|"8573874"|"85 79916"|"8721662"|"881 4836"|"8858570"|"8939 669"|"8945104"|"90501 33"|"9056193"|"907253 3"|"9468464"|"9474886" |"9486615"|"9498610"|" 9517085"|"9550052"|"9 566088"|"9642997"|"96 62482"|"9700684"|"973 1053"|"9775645"|"9775					

		646"|"9814868"|"9833261"|"9861442"|"9918727"|"9949552"|"9950147"|"9955769"|"D486915"|"D496101"|"D522360"|"D553005"|"D584151"|"D664254"|"D678783"|"D709617"|"D722172"|"D743558"|"D787054"|"D811381"|"D822845"|"D825763"|"D836781"|"D851759"|"D852962"|"D861913"|"D867587"|"D868981"|"D893024"|"RE37796"|"RE42960"). PN.					
L88	94	L87 AND (spiral$7 helical$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/09/26 03:09 AM
L89	1	"6641591".pn.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO)	OR	ON	ON	2021/09/26 03:15 AM
L90	47	(tip AND inner AND outer AND vacuum AND abra$4 AND angl$4).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO)	OR	ON	ON	2021/10/07 06:35 PM
L91	22	("3994290" | "6129469" | "6299620" | "6629983" | "6641591" | "7678120" | "7789886" | "8048089" | "8066716" | "8337513" | "20020016601" | "20030060834" | "20040153014" | "20070005078" | "20090198159" | "20100064459" | "20100262051" | "20130066336" | "20140014128" | "20140194900" | "20140202493" | "20150088050").pn. OR ("10912428").urpn. AND (PGPB | USPT | USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/07 06:37 PM
L92	5	((US-20100049177-A1 OR US-20170319836-A1).did. AND PGPB.dbnm.) OR ((US-8945104-B2 OR US-10357642-B2 OR US-	(USPAT; US-PGPUB; FPRS; USOCR; IBM_TDB; EPO; JPO; DERWENT; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS,	OR	ON	ON	2021/10/07 06:42 PM

		10912428-B2).did. AND USPT.dbnm.)	CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN))				
L93	5	((US-20100049177-A1 OR US-20170319836-A1).did. AND PGPB.dbnm.) OR ((US-8945104-B2 OR US-10357642-B2 OR US-10912428-B2).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2021/10/07 06:42 PM
L94	35	((US-20100049177-A1 OR US-20170319836-A1 OR US-20110082415-A1 OR US-20090177171-A1 OR US-20070239173-A1 OR US-20070208353-A1 OR US-20060200173-A1 OR US-20060200172-A1 OR US-20060189964-A1 OR US-20040254587-A1 OR US-20040186421-A1 OR US-20040143274-A1 OR US-20040097967-A1 OR US-20020016601-A1 OR US-20010037118-A1).did. AND PGPB.dbnm.) OR ((US-8945104-B2 OR US-10357642-B2 OR US-10912428-B2 OR US-8337513-B2 OR US-8066716-B2 OR US-8048089-B2 OR US-7789886-B2 OR US-7678120-B2 OR US-7364565-B2 OR US-7153311-B2 OR US-7044938-B2 OR US-6641591-B1 OR US-6926681-B1 OR US-6629983-B1 OR US-6511486-B2 OR US-6387103-B2 OR US-6299620-B1 OR US-6277128-B1 OR	(USPAT; US-PGPUB; FPRS; USOCR; IBM_TDB; EPO; JPO; DERWENT; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN))	OR	ON	ON	2021/10/07 07:27 PM

		US-5279543-A OR US-6162232-A).did. AND USPT.dbnm.)					
L95	117	("2701559" | "2712823" | "2867214" | "2881763" | "2921585" | "3964212" | "4378804" | "4957747" | "5012797" | "5037431" | "5037432" | "5100412" | "5207234" | "5800446" | "5810842" | "5971999" | "6042552").pn. OR ("6241739").urpn. AND (PGPB | USPT | USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/07 08:09 PM
L96	117	("2701559" | "2712823" | "2867214" | "2881763" | "2921585" | "3964212" | "4378804" | "4957747" | "5012797" | "5037431" | "5037432" | "5100412" | "5207234" | "5800446" | "5810842" | "5971999" | "6042552").pn. OR ("6241739").urpn. AND (PGPB | USPT | USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/08 03:12 PM
L97	86	("2701559" | "2712823" | "2867214" | "2881763" | "2921585" | "3964212" | "4121388" | "4378804" | "4646482" | "4957747" | "5012797" | "5035089" | "5037431" | "5037432" | "5100412" | "5207234" | "5800446" | "5810842" | "5971999" | "6042552" | "6423078").pn. OR ("6500183").urpn. AND (PGPB | USPT | USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/08 03:16 PM
L98	1254	L54 AND (slop$4 angl$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/08 03:18 PM
L99	3864	L54 AND (slop$4 angl$4)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO)	OR	ON	ON	2021/10/08 03:18 PM
L100	1685	L54 AND ((tip surface face) WITH (slop$4 angl$4))	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO)	OR	ON	ON	2021/10/08 03:18 PM

L101	404	L54 AND ((tip surface face) WITH (slop$4 angl$4)) AND (vacuum$4 suction$4 aspirat$4 negative ADJ pressure)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO)	OR	ON	ON	2021/10/08 03:19 PM
L102	18936	(derm$7 microderm$7) AND ((tip surface face) WITH (slop$4 angl$4)) AND (vacuum$4 suction$4 aspirat$4 negative ADJ pressure)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO)	OR	ON	ON	2021/10/08 03:22 PM
L103	18936	(derm$7 microderm$7) AND ((tip surface face) WITH (slop$4 angl$4)) AND (vacuum$4 suction$4 aspirat$4 (negative ADJ pressure))	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO)	OR	ON	ON	2021/10/08 03:22 PM
L104	3642	(derm$7 microderm$7) AND (abrad$4 abras$4) AND ((tip surface face) WITH (slop$4 angl$4)) AND (vacuum$4 suction$4 aspirat$4 (negative ADJ pressure))	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO)	OR	ON	ON	2021/10/08 03:23 PM
L105	1735	(derm$7 microderm$7) AND (abrad$4 abras$4) AND ((tip surface face) WITH (slop$4 angl$4)) AND (vacuum$4 suction$4 aspirat$4 (negative ADJ pressure))	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/08 03:31 PM
L106	1865	(derm$9 microderm$9) AND (abrad$4 abras$4) AND ((tip surface face) WITH (slop$4 angl$4)) AND (vacuum$4 suction$4 aspirat$4 (negative ADJ pressure))	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/08 03:33 PM
L107	5	("6171275" | "20070156124" | "20100049177" | "20110046539" | "20130345661").pn. OR ("9186490").urpn. AND (PGPB | USPT | USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/08 05:43 PM
L108	4	("20040092959" | "20090157094" | "20130002411" | "20130158547").pn. OR	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/08 05:47 PM

		("10456321").urpn. AND (PGPB | USPT | USOC).dbnm.					
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L110	8	("8573874" | "8864401" | "20090062815" | "20110123252" | "20110190672").pn. OR ("9565920").urpn. AND (PGPB | USPT | USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/09 08:23 PM
L111	197	L87 AND (angle$4 slop$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/09 08:34 PM
L112	11	("11202657"|"11213321"|"11224728"|"11241357"|"20060278661"|"20070093694"|"20080200863"|"20130261534"|"20210145479"|"20210353922"|"6635035").PN.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/05/06 04:33 AM
L113	0	(hydrafacial).as.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2022/09/02 12:05 AM
L114	2	("9550052" "11446477").pn.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2023/10/04 04:52 AM
L115	11	("20010049511" "20030093089" "20030018252" "3865352" "6277128" "6432114" "6695853" "7232444" "20060116674" "3930598" "6162232").pn.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2023/10/04 05:01 AM
L116	46	(Artificial Intelligence) Similar to: 18/094,884 with 0 CPC Selections and 0 Text Selections	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2023/10/04 05:32 AM

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L119	1133	A61B17/3205.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2023/10/04 08:27 PM
L120	189	L119 AND (console manifold)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2023/10/04 08:27 PM
L121	1764	A61B2017/320004.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2023/10/04 08:28 PM
L122	298	L121 AND (console manifold)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2023/10/04 08:29 PM
L123	0	hyrdafacial.as.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2023/10/04 09:25 PM

			IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)				
L124	5	hydrafacial.as.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2023/10/04 09:25 PM
L125	58516	moxibustion	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2023/10/10 05:06 PM
L126	3	("11744999" "20050245180" "2023164572").pn.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2023/10/20 05:15 PM
L127	952	("10004919"|"10010445"|"10022289"|"10035007"|"10052467"|"10076354"|"10076646"|"10080581"|"10092478"|"10105191"|"10130390"|"10130827"|"10149969"|"10	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2023/10/20 05:17 PM

		149984"|"10172644"|"1 0179229"|"10183183"|" 10188193"|"10206743"| "10207034"|"10220122" |"10238812"|"10238849 "|"10251675"|"1025204 4"|"10271900"|"102722 58"|"10307330"|"10308 378"|"10314378"|"1032 1948"|"10328277"|"103 34933"|"10335191"|"10 357641"|"10357642"|"1 0369073"|"10413359"|" 10456197"|"10456321"| "10456567"|"10463429" |"10471274"|"10485983 "|"10524835"|"1053730 4"|"10537640"|"105560 96"|"10556097"|"10583 037"|"10667985"|"1067 5481"|"10688290"|"107 02328"|"10716924"|"10 736653"|"10737080"|"1 0758261"|"10772658"|" 10792382"|"10799285"| "10799430"|"10813694" |"10835287"|"10835726 "|"10850095"|"1085690 0"|"10860026"|"108745 79"|"10893907"|"10912 428"|"10918190"|"1094 6191"|"10952811"|"109 52907"|"10980592"|"10 993743"|"11020577"|"1 1045661"|"11083515"|" 11123039"|"11141761"| "11154723"|"11172978" |"11202657"|"11213321 "|"11224728"|"1124135 7"|"11247039"|"112781 01"|"11291474"|"11291 498"|"11311721"|"1133 7745"|"11337755"|"113 51063"|"11419678"|"11 446477"|"11452852"|"1 1497553"|"11504148"|" 11517350"|"11540882"| "11547840"|"11590345" |"11602629"|"11612726 "|"11717326"|"1651585" |"20010023351"|"20010 049511"|"20020016601 "|"20020040199"|"2002 0041891"|"2002005895 2"|"20020099356"|"200 20107527"|"200201286 63"|"20020133110"|"20 020133176"|"20020151					

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		323253"|"8337513"|"83 43116"|"8360826"|"839 8621"|"8430104"|"8435 234"|"8475507"|"84783 96"|"8480721"|"849665 4"|"8496695"|"8535299" |"8545419"|"8545489"|" 8551104"|"8562626"|"8 573874"|"8579916"|"85 97284"|"8632378"|"865 6931"|"8668552"|"8679 039"|"8700176"|"87026 91"|"8702771"|"872166 2"|"8728064"|"8740917" |"8814836"|"8818500"|" 8821940"|"8834933"|"8 858570"|"8939669"|"89 45104"|"8945109"|"897 4442"|"9017391"|"9017 392"|"9044582"|"90501 33"|"9050156"|"905619 3"|"9072521"|"9072533" |"9072892"|"9084587"|" 9149322"|"9186490"|"9 227044"|"9227082"|"92 33207"|"9271755"|"927 8230"|"9283037"|"9314 302"|"9351792"|"93517 94"|"9375281"|"942126 0"|"9421261"|"9439964" |"9440093"|"9452013"|" 9468464"|"9474886"|"9 480836"|"9486615"|"94 98610"|"9517085"|"952 2287"|"9550052"|"9566 088"|"9566454"|"95728 80"|"9597527"|"963652 1"|"9636522"|"9642997" |"9662482"|"9669233"|" 9675817"|"9694199"|"9 700684"|"9731053"|"97 44315"|"9775645"|"977 5646"|"9775976"|"9814 485"|"9814647"|"98148 68"|"9814906"|"983326 1"|"9861442"|"9918727" |"9949552"|"9950147"|" 9955769"|"9962220"|"9 968800"|"D0117295"|"D 0151807"|"D0237776"|" D0237863"|"D0255325" |"D0258348"|"D025992 1"|"D0260176"|"D02882 93"|"D0290999"|"D0308 480"|"D0317719"|"D042 8142"|"D0472136"|"D04 86915"|"D0490561"|"D0 496101"|"D0499207"|"D					

		0499841"|"D0502288"|"D0502289"|"D0502569"|"D0517699"|"D0522360"|"D0533962"|"D0536481"|"D0545207"|"D0553005"|"D0557611"|"D0584151"|"D0625198"|"D0639164"|"D0664254"|"D0676764"|"D0678783"|"D0680437"|"D0697404"|"D0709617"|"D0722172"|"D0734154"|"D0743269"|"D0743558"|"D0765512"|"D0772481"|"D0782881"|"D0787054"|"D0811225"|"D0811381"|"D0822845"|"D0825763"|"D0833283"|"D0836781"|"D0851759"|"D0852962"|"D0861913"|"D0867587"|"D0868981"|"D0873430"|"D0873481"|"D0886370"|"D0886372"|"D0887571"|"D0893024"|"D0908282"|"D0917290"|"D0927008"|"D0928977"|"RE37796"|"RE42960").PN.					
L128	1	(skin AND console AND first AND second AND (bottle container) AND (handle handpiece) AND (block manifold) AND select$4 AND fluid AND (tube tubing conduit line) AND (vacuum$4 suction$4 aspirat$4) AND waste AND sequential$4).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2023/10/20 05:35 PM
L129	1	(skin AND console AND (first second third) AND (bottle container) AND (handle handpiece) AND (block manifold) AND select$4 AND fluid AND (tube tubing conduit line) AND (vacuum$4 suction$4 aspirat$4) AND waste AND sequential$4).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2023/10/20 05:35 PM
L130	2	(skin AND console AND (first second third) AND	(US-PGPUB; USPAT; USOCR; FIT (AP, AT,	OR	ON	ON	2023/10/20 05:36 PM

		(bottle container) AND (handle handpiece) AND (block manifold) AND fluid AND (tube tubing conduit line) AND (vacuum$4 suction$4 aspirat$4) AND waste AND sequential$4).clm.	AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)				
L131	2	(skin AND console AND (first second third) AND (bottle container) AND (handle handpiece) AND (block manifold) AND treat$4 AND fluid AND (tube tubing conduit line) AND (vacuum$4 suction$4 aspirat$4) AND waste AND sequential$4).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2023/10/20 05:36 PM
L132	2	(skin AND console AND (first second third) AND (bottle container) AND (handle handpiece) AND (block manifold) AND treat$4 AND fluid AND (tube tubing conduit line lumen) AND (vacuum$4 suction$4 aspirat$4) AND waste AND sequential$4).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2023/10/20 05:37 PM
L133	7	(skin AND console AND (first second third) AND (bottle container) AND (handle handpiece) AND (block manifold) AND treat$4 AND fluid AND (tube tubing conduit line lumen) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2023/10/20 05:37 PM
L134	30	("9550052" "11446477")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2023/10/20 07:33 PM

L135	2	("9550052" "11446477").pn.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2023/10/20 07:33 PM
L136	6	(skin AND console AND container AND first AND second AND (handle handpiece) AND supply AND waste AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/10 12:30 PM
L137	18145	A61B17/0057.cpc. OR A61B2017/00606,0061,00615,00628,00632.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/10 02:27 PM
L138	18243	A61B17/0057.cpc. OR A61B2017/00606,0061,00615,00628,00632,00641.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/10 02:27 PM
L139	4720	L138 AND ((bunch$4 compress$4) WITH expan$4)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH,	OR	ON	ON	2024/05/10 02:28 PM

			TN, TR, TW, UA, VN, WO); EPO)				
L140	3	12/343,299	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/17 01:23 PM
L141	253	("3556079" | "3807048" | "4676256" | "4747824" | "4790823" | "4877934" | "4950245" | "4978336" | "5125837" | "5147323" | "5180371" | "5188603" | "5199949" | "5243982" | "5253578" | "5271527" | "5281198" | "5298023" | "5314412" | "5318522" | "5324258" | "5336188" | "5354284" | "5360410" | "5378233" | "5395326" | "5425366" | "5445614" | "5478323" | "5505704" | "5520658" | "5542934" | "5584815" | "5599312" | "5620479" | "5656016" | "5658247" | "5666946" | "5667487" | "5698787" | "5704918" | "5707365" | "5725494" | "5735811" | "5752515" | "5794612" | "5800421" | "5814022" | "5830187" | "5833627" | "RE35986" | "5876380" | "5908158" | "5917828" | "5924997" | "5935111" | "5951517" | "5961494" | "5980509" | "5984889" | "5997497" | "6022337" | "6024718" | "D422361" | "D423665" | "6045533" | "D427314" | "6126600" | "6132400" | "6132414" | "6152734" | "6199554" | "6200289" | "6223936" | "6234990" | "6264064" | "6273864" | "6308714" | "6322532" | "6350245" | "6352683"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/17 01:24 PM

		| "6390815" | "6394956" | "6416740" | "6428517" | "6461296" | "6475148" | "6487447" | "6488628" | "6491657" | "6508783" | "6527718" | "6537249" | "6565538" | "6565539" | "6585696" | "6589158" | "6601581" | "6607502" | "6610033" | "6610042" | "6635017" | "6645181" | "6652482" | "6659950" | "6689067" | "6689108" | "6695786" | "6702749" | "6716168" | "6719729" | "6723064" | "6723068" | "6726650" | "6726658" | "6731971" | "6733451" | "6786885" | "6796964" | "6808514" | "6842641" | "6858020" | "6875179" | "6887216" | "6905482" | "6908433" | "6917828" | "6929609" | "6936033" | "6939329" | "6945954" | "6966899" | "6972005" | "6994686" | "7037269" | "7041081" | "7077827" | "7078015" | "7169128" | "7214210" | "7235063" | "D558340" | "D566265" | "7361163" | "D579540" | "D579546" | "7445125" | "7449008" | "7473432" | "7510397" | "7618409" | "7625354" | "7789552" | "20010049608" | "20010051798" | "20010055610" | "20020045850" | "20020055702" | "20020077588" | "20020123678" | "20020133101" | "20020150539" | "20020151868" | "20020156376" | "20020183701" | "20030028112" | "20030073908" | "20030078533" | "20030120154" | "20030120201" | "20030120217" | "20030204141" | "20030229304" | "20030233046" |				

		"20040002647" | "20040019318" | "20040039368" | "20040064102" | "20040092821" | "20040097805" | "20040097806" | "20050038387" | "20050043681" | "20050075620" | "20050123482" | "20050171486" | "20050177054" | "20050203413" | "20050228256" | "20050260084" | "20050283110" | "20060106283" | "20060122555" | "20060247578" | "20060258977" | "20070032723" | "20070073235" | "20070073267" | "20070083155" | "20070088268" | "20070088271" | "20070129630" | "20070156092" | "20070167905" | "20070191781" | "20070197954" | "20070213660" | "20070244442" | "20070282221" | "20070299398" | "20070299399" | "20070299400" | "20080015512" | "20080045902" | "20080045925" | "20080058732" | "20080060970" | "20080086108" | "20080091104" | "20080091109" | "20080103564" | "20080154188" | "20080213729" | "20080281265" | "20080306436" | "20090018485" | "20090030366" | "20090103490" | "20090171191" | "20090171192" | "20090171193" | "20090171194" |				

		"20090171316" | "20090326482" | "20110021905").pn. OR ("8142414").urpn. AND (PGPB | USPT | USOC).dbnm.					
L142	77	L141 AND computer	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/17 01:25 PM
L143	1	"6390815".pn.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/17 01:33 PM
L144	135	("0611136" | "1672114" | "RE21187" | "2214230" | "2557222" | "2711586" | "2756740" | "2812765" | "2929510" | "2985285" | "3164153" | "3208145" | "3593423" | "3624907" | "3640304" | "3645497" | "3718973" | "3727310" | "3757421" | "3971375" | "4106198" | "4215476" | "4227878" | "4253831" | "4340365" | "4353694" | "4397640" | "4526573" | "4552531" | "4578055" | "4680026" | "D302586" | "4872837" | "5044953" | "5052927" | "5061180" | "5087198" | "5171146" | "5199604" | "5204004" | "5230704" | "5236356" | "5289919" | "5378149" | "5378150" | "5419772" | "5468148" | "5474450" | "5526841" | "5554026" | "5556279" | "5593304" | "5658144" | "5716210" | "5772433" | "5837204" | "5876201" | "5899692" | "5927977" | "5947729").pn. OR ("6390815").urpn. AND (PGPB | USPT | USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/17 01:35 PM
L145	303	("3176538" | "3556079" | "3807048" | "4005614" | "4236880" | "4676256" | "4747824" | "4790823" | "4795441" | "4877934" | "4950245" | "4978336" | "5125837" | "5147323" | "5176643" | "5180371" | "5188603" | "5199949" | "5207642" | "5243982" | "5253578" | "5271527" | "5281198" | "5298023"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/17 01:43 PM

		| "5314412" | "5318522" | "5324258" | "5336188" | "5354284" | "5360410" | "5378231" | "5378233" | "5395326" | "5411490" | "5425366" | "5445614" | "5478323" | "5505704" | "5520658" | "5542934" | "5584815" | "5588432" | "5599312" | "5611783" | "5620479" | "5647373" | "5656016" | "5658247" | "5666946" | "5667487" | "5698787" | "5704918" | "5707365" | "5725494" | "5735811" | "5752515" | "5794612" | "5800421" | "5814022" | "5830187" | "5833627" | "RE35986" | "5876380" | "5908158" | "5917828" | "5924997" | "5927977" | "5935111" | "5951517" | "5961494" | "5980509" | "5984889" | "5997497" | "6022337" | "6024718" | "D422361" | "D423665" | "6045533" | "D427314" | "6126600" | "6132400" | "6132414" | "6152734" | "6199554" | "6200289" | "6223936" | "6234990" | "6264064" | "6273864" | "6308714" | "6322532" | "6350245" | "6352683" | "6390815" | "6394956" | "6416740" | "6428517" | "6461296" | "6475148" | "6487447" | "6488628" | "6491657" | "6508783" | "6508791" | "6527718" | "6537249" | "6565538" | "6565539" | "6585696" | "6589158" | "6601581" | "6607502" | "6610033" | "6610042" | "6620138" | "6635017" | "6645181" | "6652482" | "6659950" | "6689067" | "6689108" | "6695786" | "6702749" | "6716168" | "6719729" | "6723064" | "6723068" | "6726650" | "6726658" | "6731971" | "6733451" | "6786885" | "6796964" | "6808514" | "6842641" | "6858020" | "6875179" | "6887216" |					

		"6905482" | "6908433" | "6917828" | "6929609" | "6936033" | "6939329" | "6945954" | "6966899" | "6972005" | "6994686" | "7037269" | "7041081" | "7077827" | "7078015" | "7169128" | "7182107" | "7214210" | "7235063" | "D558340" | "D566265" | "7361163" | "7418981" | "D579540" | "D579546" | "7445125" | "7449008" | "7473432" | "7510397" | "7618409" | "7625354" | "7789552" | "7815605" | "7837651" | "7975922" | "8002736" | "8007487" | "8079976" | "8142414" | "8425463" | "8425464" | "20010049608" | "20010051798" | "20010055610" | "20020016569" | "20020045850" | "20020055702" | "20020077588" | "20020123678" | "20020133101" | "20020150539" | "20020151868" | "20020156376" | "20020183701" | "20030028112" | "20030040700" | "20030073908" | "20030078533" | "20030120154" | "20030120201" | "20030120217" | "20030204141" | "20030229304" | "20030233046" | "20040002647" | "20040019318" | "20040039368" | "20040064102" | "20040092821" | "20040097805" | "20040097806" | "20040162484" | "20050038387" | "20050043681" | "20050075620" | "20050123482" | "20050165096" | "20050171486" |					

		"20050177054" | "20050203413" | "20050228256" | "20050260084" | "20050283110" | "20060106283" | "20060122555" | "20060217655" | "20060247578" | "20060258977" | "20070032723" | "20070073235" | "20070073267" | "20070083155" | "20070088268" | "20070088271" | "20070129630" | "20070156092" | "20070167905" | "20070191781" | "20070197954" | "20070213660" | "20070244442" | "20070282221" | "20070299398" | "20070299399" | "20070299400" | "20080015512" | "20080045902" | "20080045925" | "20080058711" | "20080058732" | "20080060970" | "20080086108" | "20080091104" | "20080091109" | "20080103564" | "20080140158" | "20080154188" | "20080213729" | "20080249409" | "20080281265" | "20080306436" | "20090018485" | "20090030366" | "20090103490" | "20090171192" | "20090171193" | "20090326482" | "20100204568" | "20110021905" | "20110306932" | "20120179036" | "20120253182" | "20120253269" | "20120259237" | "20130041258" | "20130079635").pn. OR				

		("8545440").urpn. AND (PGPB | USPT | USOC).dbnm.					
L146	116	L145 AND comput$7	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/17 01:47 PM
L147	47	(Artificial Intelligence) Similar to: 18/487,916 with 0 CPC Selections and 0 Text Selections Text: (US-20190336740-A1 OR US-20230158282-A1 OR US-20150231379-A1 OR US-8048089-B2 OR US-11547840-B2 OR US-20170319835-A1 OR US-10357642-B2 OR US-10357641-B2 OR US-20170319836-A1 OR US-20150272623-A1 OR US-11446477-B2 OR US-9550052-B2 OR US-20120022435-A1 OR US-9814868-B2 OR US-9474886-B2 OR US-11865287-B2 OR US-20070156124-A1 OR US-20210154455-A1 OR US-11612726-B2 OR US-20240033491-A1 OR US-20210154454-A1 OR US-9662482-B2 OR US-20150290442-A1 OR WO-2009088884-A1 OR EP-2240099-A1 OR US-20170266424-A1 OR EP-3388006-A1 OR US-20200171288-A1 OR EP-3388006-B1 OR EP-2240099-B1 OR US-20090177171-A1 OR US-20130102978-A1 OR US-10556096-B2 OR KR-20170040365-A OR US-8343116-B2 OR KR-20100129269-A OR WO-2023064718-A1 OR US-20230012684-A1 OR KR-101836310-B1 OR US-11883621-B2 OR US-9486615-B2 OR US-20230018295-	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/05/17 02:12 PM

		A1 OR CA-3234537-A1 OR US-20150032047-A1 OR JP-5508285-B2 OR US-20230033761-A1 OR US-9642997-B2 OR EP-3903704-B1 OR US-20210145481-A1 OR EP-3903704-A1).did.					
L148	46	(Artificial Intelligence) Similar to: 18/487,916 with 0 CPC Selections and 3 Text Selections Text: (US-4887594-A OR KR-102438033-B1 OR WO-2023163321-A1 OR US-7749260-B2 OR FI-124063-B OR DE-102006041726-A1 OR WO-2010061056-A1 OR EP-2352477-A1 OR US-20110237986-A1 OR WO-2023230615-A2 OR US-20180318568-A1 OR US-11925780-B2 OR US-20230271001-A1 OR US-20240075263-A1 OR US-20230321389-A1 OR EP-4324414-A2 OR US-10035007-B2 OR US-20160256671-A1 OR CA-2971728-A1 OR US-9498610-B2 OR US-20170065801-A1 OR EP-3795204-A1 OR EP-3237055-A1 OR WO-2016106396-A1 OR KR-101717703-B1 OR KR-20160120150-A OR JP-6100974-B2 OR US-20210379274-A1 OR US-11744999-B2 OR US-20210154453-A1 OR EP-3795204-B1 OR US-20150231379-A1 OR US-7131987-B2 OR JP-2016540554-A OR KR-101605399-B1 OR US-20240139482-A1 OR US-20170348143-A1 OR US-11266524-B2 OR KR-101483559-B1 OR	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/05/17 02:13 PM

		KR-102226112-B1 OR US-9814868-B2 OR US-20060200099-A1 OR US-20220233345-A1 OR WO-2017210619-A1 OR EP-3463132-A1 OR AU-2017200101-A1 OR US-7044938-B2 OR WO-2024003079-A1 OR EP-3189825-A2 OR US-20170196759-A1).did.					
L149	9	(console AND first AND second AND container AND (handle handpiece) AND skin AND (block manifold) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/17 02:24 PM
L150	0	medicreations.as.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/17 02:41 PM
L151	4	(console AND first AND second AND container AND (handle handpiece) AND skin AND (block manifold) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/17 02:44 PM
L152	3	(console AND first AND second AND container AND (handle handpiece) AND skin AND (block manifold) AND (vacuum$4 suction$4 aspirat$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/17 05:00 PM

		AND comput$4).clm.					
L153	0	(skin AND treat$4 AND console AND first AND second AND container AND treat$4 AND material AND (handle handpiece) AND tip AND sequential$4 AND supply AND waste AND line AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/17 08:40 PM
L154	1	(skin AND treat$4 AND console AND first AND second AND container AND treat$4 AND material AND (handle handpiece) AND tip AND sequential$4 AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/17 08:40 PM
L155	2969	(console WITH flow WITH rate WITH control$4)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/18 03:50 PM
L156	745	(console WITH flow WITH rate WITH control$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/18 03:50 PM
L157	213	(console WITH flow WITH rate WITH control$4) AND skin	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/18 03:50 PM
L158	1024	("10004919"|"10010445"|"10022289"|"10035007"|"10052467"|"10076354"|"10076646"|"10080581"|"10092478"|"10105191"|"10130390"|"10130827"|"10149969"|"10	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/18 03:55 PM

		149984"|"10172644"|"1 0179229"|"10183183"|" 10188193"|"10206743"| "10207034"|"10220122" |"10238812"|"10238849 "|"10251675"|"1025204 4"|"10271900"|"102722 58"|"10307330"|"10308 378"|"10314378"|"1032 1948"|"10328277"|"103 34933"|"10335191"|"10 357641"|"10357642"|"1 0369073"|"10413359"|" 10456197"|"10456321"| "10456567"|"10463429" |"10471274"|"10485983 "|"10524835"|"1053730 4"|"10537640"|"105560 96"|"10556097"|"10583 037"|"10667985"|"1067 5481"|"10688290"|"107 02328"|"10716924"|"10 736653"|"10737080"|"1 0758261"|"10772658"|" 10792382"|"10799285"| "10799430"|"10813694" |"10835287"|"10835726 "|"10850095"|"1085690 0"|"10860026"|"108745 79"|"10893907"|"10912 428"|"10918190"|"1094 6191"|"10952811"|"109 52907"|"10980592"|"10 993743"|"11020577"|"1 1045661"|"11083515"|" 11123039"|"11141761"| "11154723"|"11172978" |"11202657"|"11213321 "|"11224728"|"1124135 7"|"11247039"|"112781 01"|"11291474"|"11291 498"|"11311721"|"1133 7745"|"11337755"|"113 51063"|"11419678"|"11 446477"|"11452852"|"1 1497553"|"11504148"|" 11517350"|"11540882"| "11547840"|"11590345" |"11602629"|"11612726 "|"11717326"|"1174499 9"|"1651585"|"2001002 3351"|"20010049511"|" 20020016601"|"200200 40199"|"20020041891"| "20020058952"|"20020 099356"|"20020107527 "|"20020128663"|"2002 0133110"|"2002013317					

		6"|"20020151826"|"200 20162863"|"200201882 61"|"20020198488"|"20 030012415"|"20030018 252"|"20030060834"|"2 0030093040"|"2003009 3089"|"20030097139"|" 20030135388"|"200301 87462"|"20030208159"| "20030212127"|"20030 212415"|"20040005349 "|"20040010222"|"2004 0010269"|"2004001513 9"|"20040087972"|"200 40092895"|"200400929 59"|"20040097967"|"20 040122447"|"20040127 914"|"20040138680"|"2 0040162565"|"2004016 6172"|"20040176823"|" 20040210280"|"200402 19179"|"20040229295"| "20040236291"|"20040 236375"|"20040243149 "|"20040254587"|"2004 0267285"|"2005001507 7"|"20050037034"|"200 50038377"|"200500384 48"|"20050059940"|"20 050065461"|"20050070 977"|"20050075599"|"2 0050080465"|"2005008 4509"|"20050148958"|" 20050154333"|"200502 03111"|"20050203593"| "20050209611"|"20050 245180"|"20050283176 "|"20060002960"|"2006 0015059"|"2006005871 4"|"20060100567"|"200 60116674"|"200601611 78"|"20060184071"|"20 060189964"|"20060191 562"|"20060200099"|"2 0060200213"|"2006021 2025"|"20060212029"|" 20060222445"|"200602 35371"|"20060253078"| "20060253079"|"20060 253125"|"20060264893 "|"20060264926"|"2006 0269580"|"2006027866 1"|"20070005078"|"200 70020321"|"200700433 82"|"20070049901"|"20 070065515"|"20070073 327"|"20070078290"|"2 0070088245"|"2007008					

		8371"|"20070093694"|" 20070123808"|"200701 39630"|"20070149991"| "20070154502"|"20070 156124"|"20070178121 "|"20070198031"|"2007 0232987"|"2007023907 9"|"20070239173"|"200 70255355"|"200702646 25"|"20070270738"|"20 080009802"|"20080015 555"|"20080027328"|"2 0080027518"|"2008009 1126"|"20080091179"|" 20080103563"|"200801 19781"|"20080132914"| "20080139974"|"20080 146970"|"20080154161 "|"20080154183"|"2008 0161799"|"2008018884 0"|"20080193493"|"200 80200861"|"200802008 63"|"20080208146"|"20 080208179"|"20080214 987"|"20080215068"|"2 0080221548"|"2008023 4626"|"20080243039"|" 20080287864"|"200803 00529"|"20080300552"| "20090048557"|"20090 053390"|"20090062815 "|"20090099091"|"2009 0099093"|"2009011868 4"|"20090124985"|"200 90132012"|"200901380 26"|"20090171191"|"20 090171194"|"20090222 023"|"20090254014"|"2 0090299237"|"2010002 3003"|"20100045427"|" 20100048980"|"201000 49177"|"20100049210"| "20100056847"|"20100 063565"|"20100217357 "|"20100305495"|"2011 0054490"|"2011006027 0"|"20110066162"|"201 10067761"|"201101907 26"|"20110251523"|"20 110264028"|"20110270 137"|"20110270364"|"2 0110295273"|"2012004 1338"|"20120041523"|" 20120109041"|"201201 09043"|"20120136374"| "20120171636"|"20120 259252"|"20120289885 "|"20120302929"|"2013					

		0004230"|"2013001831 7"|"20130066336"|"201 30085421"|"201300965 46"|"20130096577"|"20 130144207"|"20130144 280"|"20130158547"|"2 0130204238"|"2013022 6075"|"20130226269"|" 20130261534"|"201302 68032"|"20130310906"| "20130317314"|"20130 345616"|"20140031801 "|"20140079686"|"2014 0081251"|"2014009471 8"|"20140114234"|"201 40135798"|"201402340 04"|"20140243589"|"20 140316492"|"20140378 887"|"20150039060"|"2 0150141877"|"2015015 7496"|"20150202007"|" 20150272623"|"201503 13993"|"20150351868"| "20160015962"|"20160 018100"|"20160175609 "|"20160220849"|"2016 0235257"|"2016025041 5"|"20160270850"|"201 60270851"|"201602873 33"|"20160324578"|"20 170043150"|"20170065 829"|"20170106206"|"2 0170128319"|"2017015 7419"|"20170196759"|" 20170209894"|"201702 52105"|"20170291007"| "20170340356"|"20170 343308"|"20180008500 "|"20180140329"|"2018 0185675"|"2018031097 9"|"20180318568"|"201 80326191"|"201900091 10"|"20190009111"|"20 190070069"|"20190076 193"|"20190083161"|"2 0190143089"|"2019015 1637"|"20190168016"|" 20190183562"|"201902 09859"|"20190224501"| "20190239939"|"20190 240110"|"20190240502 "|"20190257320"|"2019 0274759"|"2019027532 0"|"20190366067"|"202 00009007"|"202000163 42"|"20200030627"|"20 200101312"|"20200114 116"|"20200121354"|"2					

		0200171288"|"2020017 1289"|"20200179220"|" 20200206072"|"202002 54273"|"20200275945"| "20200288843"|"20200 289161"|"20200306555 "|"20200316270"|"2020 0330754"|"2020338586 "|"20200367961"|"202 00390468"|"202100011 48"|"20210052292"|"20 210085367"|"20210128 416"|"20210145479"|"2 0210154093"|"2021022 0631"|"20210236342"|" 20210236347"|"202102 36836"|"20210242657"| "20210259914"|"20210 267625"|"20210268304 "|"20210275406"|"2021 0282855"|"2021028342 1"|"20210290430"|"202 10330356"|"202103539 22"|"20210361525"|"20 210370049"|"20210370 089"|"20210393478"|"2 0210393974"|"2021039 3975"|"20210395071"|" 20210402208"|"202200 01198"|"20220001199"| "20220008122"|"20220 032082"|"20220054189 "|"20220071491"|"2022 0072332"|"2022008789 1"|"20220111198"|"202 20117632"|"202201257 06"|"20220126014"|"20 220133407"|"20220175 443"|"20220176092"|"2 0220203112"|"2022021 1424"|"20220211988"|" 20220218562"|"202202 26668"|"20220233400"| "20220241107"|"20220 241146"|"20220268536 "|"20220287910"|"2022 0312940"|"2022036252 9"|"20220401714"|"202 20409276"|"202300126 84"|"20230014299"|"20 230018295"|"20230019 979"|"20230033217"|"2 0230033761"|"2023004 2047"|"20230062185"|" 20230104221"|"202301 23145"|"20230158282"| "2608032"|"2631583"|"2 701559"|"2712823"|"28					

		67214"|"2881763"|"292 1585"|"3037509"|"3085 573"|"3214869"|"34680 79"|"3476112"|"348167 7"|"3505993"|"3560100" |"3574239"|"3608553"|" 3715838"|"3865352"|"3 866264"|"3930598"|"39 48265"|"3964212"|"396 8789"|"3977084"|"4121 388"|"4155721"|"41708 21"|"4182329"|"420343 1"|"4216233"|"4225254" |"4289158"|"4299219"|" 4342522"|"4378804"|"4 500222"|"4560373"|"46 46480"|"4646482"|"465 5743"|"4671412"|"4676 749"|"4706676"|"47184 67"|"4754756"|"475781 4"|"4764362"|"4795421" |"4811734"|"4836192"|" 4866202"|"4875287"|"4 886078"|"4887994"|"49 00316"|"4917086"|"492 5450"|"4940350"|"4957 747"|"4990841"|"50060 04"|"5006339"|"501279 7"|"5035089"|"5037431" |"5037432"|"5054339"|" 5100412"|"5100424"|"5 119839"|"5122153"|"51 71215"|"5192269"|"520 7234"|"5217455"|"5222 956"|"5242433"|"52541 09"|"5290273"|"536858 1"|"5387215"|"5391151" |"5417674"|"5419772"|" 5423803"|"5437372"|"5 441490"|"5460620"|"54 70323"|"5484427"|"549 0736"|"5512044"|"5562 642"|"5562643"|"56116 87"|"5612797"|"561827 5"|"5626631"|"5658323" |"5658583"|"5674235"|" 5676643"|"5676648"|"5 683971"|"5697920"|"57 07383"|"5713785"|"573 5833"|"5755751"|"5759 185"|"5762640"|"57795 19"|"5800446"|"580735 3"|"5810842"|"5813416" |"5817050"|"5817089"|" 5834510"|"5846215"|"5 848998"|"5857995"|"58 61142"|"5873881"|"587 9323"|"5879376"|"5882					

		201"|"5885260"|"59084 01"|"5911223"|"591915 2"|"5919479"|"5954730" |"5971999"|"5980555"|" 6019749"|"6023639"|"6 024733"|"6027402"|"60 27495"|"6032071"|"603 6684"|"6039745"|"6042 552"|"6074382"|"60801 65"|"6080166"|"609008 5"|"6093021"|"6113559" |"6120512"|"6129701"|" 6136008"|"6139553"|"6 139554"|"6142155"|"61 49634"|"6149644"|"615 9226"|"6162218"|"6162 232"|"6165059"|"61743 25"|"6176198"|"618345 1"|"6183483"|"6190376" |"6193589"|"6196982"|" 6231593"|"6235039"|"6 238275"|"6241739"|"62 45347"|"6264666"|"626 9271"|"6277116"|"6277 128"|"6280438"|"62839 78"|"6284266"|"629962 0"|"6306119"|"6306147" |"6322548"|"6322568"|" 6325381"|"6325769"|"6 332886"|"6334074"|"63 55054"|"6368333"|"638 3177"|"6387089"|"6387 103"|"6401289"|"64097 36"|"6410599"|"641403 2"|"6420431"|"6423078" |"6423750"|"6432113"|" 6432114"|"6458109"|"6 471712"|"6477410"|"64 82212"|"6488646"|"649 4856"|"6500183"|"6503 256"|"6508813"|"65114 86"|"6514243"|"651426 2"|"6514278"|"6518538" |"6520931"|"6527716"|" 6527783"|"6533776"|"6 535761"|"6537242"|"65 40757"|"6546281"|"656 2013"|"6562050"|"6564 093"|"6565535"|"65691 57"|"6582442"|"658773 0"|"6589218"|"6592595" |"6595934"|"6611706"|" 6626445"|"6629927"|"6 629971"|"6629974"|"66 29983"|"6635035"|"664 1591"|"6645184"|"6652 888"|"6666874"|"66730 81"|"6673082"|"668585					

		3"|"6687537"|"6689380" |"6695853"|"6699237"|" 6712805"|"6726673"|"6 735470"|"6743211"|"67 43215"|"6764493"|"678 0426"|"6800083"|"6800 849"|"6869611"|"68781 44"|"6887260"|"690548 7"|"6911031"|"6926681" |"6938805"|"6942649"|" 6960206"|"6980448"|"7 001355"|"7004933"|"70 31805"|"7044938"|"705 1907"|"7052503"|"7062 317"|"7069073"|"70704 88"|"7083580"|"708703 6"|"7087063"|"7094252" |"7108689"|"7115275"|" 7118563"|"7122029"|"7 135011"|"7153311"|"71 66086"|"7172572"|"718 9230"|"7197359"|"7198 623"|"7201765"|"72324 31"|"7232444"|"724120 8"|"7250045"|"7276051" |"7293930"|"7314326"|" 7316657"|"7316671"|"7 318828"|"7320691"|"73 20801"|"7326199"|"732 9252"|"7354423"|"7364 565"|"7367981"|"73844 05"|"7422567"|"742727 3"|"7440798"|"7458944" |"7476205"|"7477938"|" 7482314"|"7485125"|"7 489989"|"7494503"|"75 07228"|"7572238"|"758 2067"|"7597900"|"7597 901"|"7607972"|"76587 42"|"7678120"|"773097 9"|"7731570"|"7740651" |"7744582"|"7749260"|" 7758537"|"7771374"|"7 780652"|"7789886"|"78 14915"|"7837695"|"785 7806"|"7862564"|"7901 373"|"7927188"|"79511 56"|"7981111"|"798111 2"|"7993333"|"8025669" |"8048064"|"8048089"|" 8066716"|"8088085"|"8 105295"|"8128638"|"81 35475"|"8182473"|"822 1437"|"8226663"|"8231 292"|"8236008"|"82360 36"|"8241094"|"827308 0"|"8276592"|"8277287" |"8282630"|"8313480"|					

		8317781"|"8323253"|"8 337513"|"8343116"|"83 60826"|"8398621"|"843 0104"|"8435234"|"8475 507"|"8478396"|"84807 21"|"8496654"|"849669 5"|"8535299"|"8545419" |"8545489"|"8551104"|" 8562626"|"8573874"|"8 579916"|"8597284"|"86 32378"|"8656931"|"866 8552"|"8679039"|"8700 176"|"8702691"|"87027 71"|"8721662"|"872806 4"|"8740917"|"8814836" |"8818500"|"8821940"|" 8834933"|"8858570"|"8 939669"|"8945104"|"89 45109"|"8974442"|"901 7391"|"9017392"|"9044 582"|"9050133"|"90501 56"|"9056193"|"907252 1"|"9072533"|"9072892" |"9084587"|"9149322"|" 9186490"|"9227044"|"9 227082"|"9233207"|"92 71755"|"9278230"|"928 3037"|"9314302"|"9351 792"|"9351794"|"93752 81"|"9421260"|"942126 1"|"9439964"|"9440093" |"9452013"|"9468464"|" 9474886"|"9480836"|"9 486615"|"9498610"|"95 17085"|"9522287"|"955 0052"|"9566088"|"9566 454"|"9572880"|"95975 27"|"9636521"|"963652 2"|"9642997"|"9662482" |"9669233"|"9675817"|" 9694199"|"9700684"|"9 731053"|"9744315"|"97 75645"|"9775646"|"977 5976"|"9814485"|"9814 647"|"9814868"|"98149 06"|"9833261"|"986144 2"|"9918727"|"9949552" |"9950147"|"9955769"|" 9962220"|"9968800"|"D 117295"|"D151807"|"D2 37776"|"D237863"|"D25 5325"|"D258348"|"D259 921"|"D260176"|"D2882 93"|"D290999"|"D30848 0"|"D317719"|"D428142 "|"D472136"|"D486915"| "D490561"|"D496101"|" D499207"|"D499841"|					

		D502288"|"D502289"|"D502569"|"D517699"|"D522360"|"D533962"|"D536481"|"D545207"|"D553005"|"D557611"|"D584151"|"D625198"|"D639164"|"D664254"|"D676764"|"D678783"|"D680437"|"D697404"|"D709617"|"D722172"|"D734154"|"D743269"|"D743558"|"D765512"|"D772481"|"D782881"|"D787054"|"D811225"|"D811381"|"D822845"|"D825763"|"D833283"|"D836781"|"D851759"|"D852962"|"D861913"|"D867587"|"D868981"|"D873430"|"D873481"|"D886370"|"D886372"|"D887571"|"D893024"|"D908282"|"D917290"|"D927008"|"D928977"|"RE37796"|"RE42960"). PN.					
L159	61	L158 AND (touch ADJ screen)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/18 03:56 PM
L160	95	L158 AND (flow WITH (button switch))	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/18 05:05 PM
L161	8200	A61M35/003.CPC.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/18 06:53 PM

L162	2205	L161 AND (SUCTION$4 VACUUM$4 ASPIRAT$4)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/18 06:53 PM
L163	7	("10322233" D998143 "20040210167" "20110144410" "20160089525" "20160256671" "20240139482").pn.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/06/03 08:05 PM

PE2E SEARCH - Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
N66	5	(tip and (hand$8) and (passage hole lumen channel) and periph$6 and inner and outer and spiral$7 and (pattern shape) and abra$7 and skin).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:36 PM
N67	5	(tip and (hand$8) and (passage hole lumen channel) and periph$6 and inner and outer and spiral$7 and (pattern shape) and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:37 PM
N68	5	((tip cap) and (hand$8) and (passage hole lumen channel) and periph$6 and inner and outer and spiral$7 and (pattern shape) and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:38 PM
N69	8	((tip cap) and (hand$8) and (passage hole lumen channel) and inner and outer and spiral$7 and (pattern shape) and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:38 PM
N70	13	((tip cap) and (hand$8) and (passage hole	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:39 PM

		lumen channel) and inner and outer and spiral$7 and abra$7).clm.					
N71	19	((hand$8) and (passage hole lumen channel) and inner and outer and spiral$7 and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:39 PM
N72	7	((hand$8) and (passage hole lumen channel) and (vacuum$4 suction$4) and inner and outer and spiral$7 and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:41 PM
N73	10	((hand$8) and (passage hole lumen channel) and (fluid debris) and inner and outer and spiral$7 and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:41 PM
N74	23	((hand$8) and (passage hole lumen channel) and (fluid debris) and spiral$7 and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:42 PM
N76	5	("4940350" "10172644" "10179229" "20060222445" "20180318568").pn.	(US-PGPUB; USPAT)	OR	OFF	OFF	2019/03/02 11:00 AM
N77	5	((tip cap) and skin and hand$7 and (passage hole lumen channel) and fluid and inner and outer and spiral$7 and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2019/03/02 11:11 AM
N78	7	((tip cap) and hand$7 and (passage hole lumen channel) and fluid and inner and outer and spiral$7 and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2019/03/02 11:11 AM
N79	13	((tip cap) and hand$7 and (passage hole lumen channel) and inner and outer and spiral$7 and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2019/03/02 11:12 AM
N80	15	((tip cap) and hand$7 and (passage hole lumen channel) and (inner outer) and spiral$7 and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2019/03/02 11:13 AM

N81	25	((tip cap) and hand$7 and (passage hole lumen channel) and spiral$7 and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2019/03/02 11:13 AM
N82	18	((tip cap) and hand$7 and (vacuum$4 suction$4) and spiral$7 and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2019/03/02 11:15 AM
N83	3	(tip AND body AND skin AND treat$4 AND inner AND outer AND abra$7 AND spiral$7 AND (vacuum$4 suction$4 aspirat$4) AND (hole opening aperture recess lumen) AND (handle handpiece) AND angle$4 AND axis).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2022/05/21 05:48 PM
N84	3	(tip AND skin AND treat$4 AND inner AND outer AND abra$7 AND spiral$7 AND (vacuum$4 suction$4 aspirat$4) AND (hole opening aperture recess lumen) AND (handle handpiece) AND angle$4 AND axis).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2022/05/21 05:48 PM
N85	3	(tip AND skin AND treat$4 AND inner AND outer AND abra$7 AND spiral$7 AND (vacuum$4 suction$4 aspirat$4) AND (hole opening aperture recess lumen) AND (handle handpiece) AND angle$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2022/05/21 05:48 PM
N86	3	(tip AND treat$4 AND inner AND outer AND abra$7 AND spiral$7 AND (vacuum$4 suction$4 aspirat$4) AND (hole opening aperture recess lumen) AND (handle handpiece) AND angle$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2022/05/21 05:49 PM
N87	3	(tip AND inner AND outer AND abra$7 AND spiral$7 AND (vacuum$4 suction$4 aspirat$4) AND (hole	(US-PGPUB; USPAT)	OR	ON	ON	2022/05/21 05:49 PM

		opening aperture recess lumen) AND (handle handpiece) AND angle$4).clm.					
N88	10	(tip AND inner AND outer AND abra$7 AND spiral$7 AND (vacuum$4 suction$4 aspirat$4) AND (hole opening aperture recess lumen) AND (handle handpiece)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2022/05/21 05:49 PM
N89	1	(skin AND console AND first AND second AND (bottle container) AND (handle handpiece) AND (block manifold) AND select$4 AND fluid AND (tube tubing conduit line) AND (vacuum$4 suction$4 aspirat$4) AND waste AND sequential$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/10/20 05:37 PM
N90	2	(skin AND console AND first AND second AND (bottle container) AND (handle handpiece) AND (block manifold) AND select$4 AND fluid AND (tube tubing conduit line) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/10/20 05:39 PM
N91	2	(skin AND console AND first AND second AND (bottle container) AND (handle handpiece) AND (block manifold) AND select$7 AND fluid AND (tube tubing conduit line) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/10/20 05:40 PM
N92	3	(console AND (first second third) AND (bottle container) AND (handle handpiece) AND (block manifold) AND select$7 AND fluid AND (tube tubing conduit line lumen) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/10/20 05:40 PM
N93	7	(console AND (first	(US-PGPUB; USPAT)	OR	ON	ON	2023/10/20

		second third) AND (bottle container) AND (handle handpiece) AND (block manifold) AND fluid AND (tube tubing conduit line lumen) AND (vacuum$4 suction$4 aspirat$4)).clm.					05:42 PM
N94	9	(console AND (bottle container) AND (handle handpiece) AND (block manifold) AND fluid AND (tube tubing conduit line lumen) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/10/20 05:43 PM
N95	11	(console AND (bottle container) AND (handle handpiece) AND (block manifold) AND fluid AND (tube tubing conduit line lumen)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/10/20 05:44 PM
N96	2	(console AND first AND second AND third AND (bottle container) AND (handle handpiece) AND (block manifold) AND fluid AND (tube tubing conduit line lumen)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/10/20 05:44 PM
N97	1	(skin AND treat$4 AND console AND first AND second AND contain$4 AND treatment AND material AND (handle handpiece) AND tip AND supply$4 AND sequential$4 AND waste AND (vacuum$4 aspirat$4 suction$4) AND draw$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/05/18 03:26 PM
N98	0	(skin AND treat$4 AND console AND first AND second AND container AND material AND (handle handpiece) AND tip AND supply$4 AND waste AND sequential$4 AND (vacuum$4 suction$4 aspirat$4) AND flow AND rate AND control$4 AND user	(US-PGPUB; USPAT)	OR	ON	ON	2024/05/18 04:52 PM

		AND input).clm.					
N99	1	(skin AND treat$4 AND console AND first AND second AND container AND material AND (handle handpiece) AND tip AND supply$4 AND waste AND sequential$4 AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/05/18 04:53 PM
N100	80	L158 AND (flow WITH (button switch))	(US-PGPUB; USPAT)	OR	ON	ON	2024/05/18 05:04 PM
N101	0	(skin AND treat$4 AND console AND first AND second AND (bottle container) AND material AND (handle handpiece) AND tip AND (line conduit tube tubing) AND supply$4 AND waste AND (vacuum$4 suction$4 aspirat$4) AND source AND draw$4 AND press$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/06/03 07:53 PM
N102	1	(skin AND treat$4 AND console AND first AND second AND (bottle container) AND material AND (handle handpiece) AND tip AND (line conduit tube tubing) AND supply$4 AND waste AND (vacuum$4 suction$4 aspirat$4) AND source AND draw$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/06/03 07:53 PM
N103	1	(skin AND treat$4 AND console AND first AND second AND (bottle container) AND material AND (handle handpiece) AND tip AND (line conduit tube tubing) AND supply$4 AND waste AND (vacuum$4 suction$4 aspirat$4) AND source).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/06/03 07:54 PM
N104	1	(skin AND treat$4 AND console AND first AND second AND (bottle container) AND material AND (handle handpiece) AND tip	(US-PGPUB; USPAT)	OR	ON	ON	2024/06/03 07:54 PM

		AND (line conduit tube tubing) AND waste AND (vacuum$4 suction$4 aspirat$4) AND source).clm.					
N105	2	(skin AND treat$4 AND console AND first AND second AND (bottle container) AND material AND (handle handpiece) AND tip AND (line conduit tube tubing) AND (vacuum$4 suction$4 aspirat$4) AND source).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/06/03 07:54 PM
N106	2	(skin AND treat$4 AND console AND first AND second AND (bottle container) AND material AND (handle handpiece) AND tip AND (line conduit tube tubing) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/06/03 07:55 PM
N107	2	(skin AND treat$4 AND console AND (first second) AND (bottle container) AND material AND (handle handpiece) AND tip AND (line conduit tube tubing) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/06/03 07:56 PM
N108	1	(skin AND treat$4 AND console AND (first second) AND (bottle container) AND material AND (handle handpiece) AND tip AND (line conduit tube tubing) AND (vacuum$4 suction$4 aspirat$4) AND comput$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/06/03 07:57 PM
N109	2	(skin AND treat$4 AND console AND (first second) AND (bottle container) AND material AND (handle handpiece) AND tip AND (line conduit tube tubing) AND (vacuum$4 suction$4 aspirat$4) AND (control$4 comput$4) AND	(US-PGPUB; USPAT)	OR	ON	ON	2024/06/03 07:57 PM

		input$4).clm.					
N110	3	(skin AND treat$4 AND console AND (bottle container) AND material AND (handle handpiece) AND tip AND (line conduit tube tubing) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/06/03 07:59 PM
N111	5	(treat$4 AND console AND (bottle container) AND material AND (handle handpiece) AND tip AND (line conduit tube tubing) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/06/03 08:02 PM
N112	5	(console AND (bottle container) AND material AND (handle handpiece) AND tip AND (line conduit tube tubing) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/06/03 08:03 PM
N113	7	(console AND (bottle container) AND (handle handpiece) AND tip AND (line conduit tube tubing) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/06/03 08:03 PM

PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487,916
	Filing Date	October 16, 2023
	First Named Inventor	Roger Ignon
	Art Unit	3771
(Multiple sheets used when necessary)	Examiner	Christian D. Knauss
SHEET 1 OF 1	Attorney Docket No.	EDGE.005C11

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	1	10,322,233	06-18-2019	Hanson et al.	
	2	D998,143	09-05-2023	Nagao et al.	
	3	2004/0210167	10-21-2004	Webster	
	4	2011/0144410	06-16-2011	Kennedy	
	5	2016/0089525	03-31-2016	Grez et al.	
	6	2016/0256671	09-08-2016	Ignon et al.	
	7	2024/0139482	05-02-2024	Ignon et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	**T[1]**
	8	JP S54-63580A	05-22-1979	Yamada Toshihiro		X

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	**T[1]**

59618296

Examiner Signature	/CHRISTIAN D KNAUSS/	Date Considered	06/04/2024

***Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T[1] - Place a check mark in this area when an English language Translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /C.D.K/

INFORMATION DISCLOSURE STATEMENT

First Inventor: Roger Ignon	**Conf. No.:** 3841
Appl. No.: 18/487,916	**Filed:** October 16, 2023
Examiner: Christian D. Knauss	**Art Unit:** 3771
Title: DEVICES AND METHODS FOR TREATING SKIN	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

References and Listing

Pursuant to 37 CFR 1.56, an Information Disclosure Statement ("IDS") listing references is provided herewith. Copies of any listed foreign and non-patent literature references are being submitted. Any foreign references may also include English abstract(s) and/or machine translation(s), but no representation is made as to their accuracy. If the Examiner would like additional information regarding these references or if anything is unclear, the Examiner is invited to contact the undersigned for assistance. Identification herein is not an admission that any of the references are prior art to the above captioned application.

No Disclaimers or Admissions

To the extent that anything in IDS or the listed references could be construed as a disclaimer of any subject matter supported by the present application, Applicant hereby rescinds and retracts such disclaimer. Citation of a reference within this disclosure is not, and should not be construed as, an admission that the cited reference comes from an area that is analogous or directly applicable to the claimed inventions.

Timing of Disclosure

This Information Disclosure Statement is being filed after receipt of a First Office Action, but before the mailing date of a Final Action and before the mailing date of a Notice of Allowance.

This Statement is accompanied by the fees set forth in 37 CFR 1.17(p). The Commissioner is hereby authorized to charge any additional fees which may be required or to credit any overpayment to Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: May 30, 2024

By: /Theodore G. Papagiannis/
Theodore G. Papagiannis
Registration No. 61,546
Registered Practitioner
(949) 760-0404

PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT		
	Application No.	18/487,916
	Filing Date	October 16, 2023
	First Named Inventor	Roger Ignon
	Art Unit	3771
(Multiple sheets used when necessary)	Examiner	Christian D. Knauss
SHEET 1 OF 1	Attorney Docket No.	EDGE.005C11

U.S. PATENT DOCUMENTS					
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	4	2011/0144410	06-16-2011	Kennedy	
	5	2016/0089525	03-31-2016	Grez et al.	
	6	2016/0256671	09-08-2016	Ignon et al.	
	7	2024/0139482	05-02-2024	Ignon et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	**T[1]**
	8	JP S54-63580A	05-22-1979	Yamada Toshihiro		X

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	**T[1]**

59618296

Examiner Signature	Date Considered
***Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

T[1] - Place a check mark in this area when an English language Translation is attached.

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC PAYMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
18/487,916	05/30/2024 08:05:15 PM Z ET	EDGE.005C11

Title of Invention

DEVICES AND METHODS FOR TREATING SKIN

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	3841	FILED BY	Will Nguyen
PATENT CENTER #	65742466	AUTHORIZED BY	Theodore Papagiannis
CUSTOMER #	20995	FILING DATE	10/16/2023
CORRESPONDENCE ADDRESS	-	FIRST NAMED INVENTOR	Roger Ignon

Payment Information

PAYMENT METHOD	PAYMENT TRANSACTION ID	PAYMENT AUTHORIZED BY
CARD / 2549	E20245TK06225645	Chris Esparza

PRE-AUTHORIZED ACCOUNT
111410

PRE-AUTHORIZED CATEGORY
37 CFR 1.16 (National application filing, search, and examination fees); 37 CFR 1.17 (Patent application and reexamination processing fees)

FEE CODE	DESCRIPTION	ITEM PRICE($)	QUANTITY	ITEM TOTAL($)
1806	SUBMISSION OF AN INFORMATION DISCLOSURE STATEMENT	260.00	1	260.00
			TOTAL AMOUNT:	$260.00

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement

Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Inventor: Roger Ignon	**Conf. No.:** 3841
Appl. No.: 18/487,916	**Filed:** October 16, 2023
Examiner: Christian D. Knauss	**Art Unit:** 3771
Title: DEVICES AND METHODS FOR TREATING SKIN	

RESPONSE TO OFFICE ACTION

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner:

This response is being submitted following the Office Action mailed May 24, 2024 for the above-captioned application (the "Office Action").

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks begin on page 6 of this paper.

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of claims in the application. The listing of claims presents each claim with its respective status shown in parentheses.

1-16. *(Canceled)*

17. *(Previously Presented)* A skin treatment system, comprising:

a console configured to receive a first container containing a first treatment material and a second container containing a second treatment material;

a handpiece configured to couple to a tip that can be pressed against skin to perform skin treatment; a supply line connected between the handpiece and the console for sequentially delivering treatment material to the handpiece from the first container or the second container;

a waste line connected between the handpiece and the console; and

a vacuum source configured to create a vacuum that draws waste material from the handpiece through the waste line for disposal and that draws treatment material from either the first container or the second container to the handpiece when the tip is pressed against skin.

18. *(Previously Presented)* The system of Claim 17, further comprising:

a flow rate controller to adjust a flow rate of the first treatment material or the second treatment material to the handpiece, wherein the flow rate controller is located on the handpiece or on the console; and

a user input device to select the first treatment material or the second treatment material for delivery to the handpiece.

19. *(Previously Presented)* The system of Claim 17, further comprising a flow rate controller to adjust a flow rate of the first treatment material or the second treatment material to the handpiece.

20. *(Previously Presented)* The system of Claim 19, wherein the flow rate controller is located on the handpiece.

21. *(Previously Presented)* The system of Claim 19, wherein the flow rate controller is located on the console.

22. *(Previously Presented)* The system of Claim 17, further comprising a computing device configured to control at least one function of the system.

23. *(Previously Presented)* The system of Claim 17, further comprising a user input device to select the first treatment material or the second treatment material for delivery to the handpiece.

24. *(Previously Presented)* The system of Claim 23, wherein the user input device comprises a touch screen.

25. *(Previously Presented)* The system of Claim 23, wherein the user input device is positioned on the console.

26. *(Previously Presented)* The system of Claim 17, wherein the console comprises a display.

27. *(Currently Amended)* A skin treatment system, comprising:

a console configured to receive a first container containing a first treatment material and a second container containing a second treatment material;

a handpiece configured to couple to a tip that can be placed against skin to perform skin treatment;

a supply line extending between the handpiece and the console for sequentially delivering treatment material to the handpiece from the first container or the second container;

a waste line extending between the handpiece and the console;

a vacuum source configured to create a vacuum that draws waste material from the handpiece through the waste line for disposal and that draws treatment material from either the first container or the second container to the handpiece when the tip is placed against skin; and

a computing device configured to control at least one function of the system.

28. *(Previously Presented)* The system of Claim 27, further comprising:

a flow rate controller to adjust a flow rate of the first treatment material or the second treatment material to the handpiece, wherein the flow rate controller is located on the handpiece or on the console; and

a user input device to select the first treatment material or the second treatment material for delivery to the handpiece.

29. *(Previously Presented)* The system of Claim 27, further comprising a flow rate controller to adjust a flow rate of the first treatment material or the second treatment material to the handpiece.

30. *(Previously Presented)* The system of Claim 29, wherein the flow rate controller is located on the handpiece.

31. *(Previously Presented)* The system of Claim 29, wherein the flow rate controller is located on the console.

32. *(Canceled)*

33. *(Previously Presented)* The system of Claim 27, further comprising a user input device to select the first treatment material or the second treatment material for delivery to the handpiece.

34. *(Previously Presented)* The system of Claim 33, wherein the user input device comprises a touch screen.

35. *(Previously Presented)* The system of Claim 33, wherein the user input device is positioned on the console.

36. *(Previously Presented)* The system of Claim 27, wherein the console comprises a display.

37. *(Currently Amended)* A skin treatment system, comprising:

a console configured to receive a first container containing a first treatment material and a second container containing a second treatment material;

a handpiece configured to couple to a ~~toa~~ tip that can be pressed against skin to perform skin treatment;

a supply line connected between the handpiece and the console for sequentially delivering treatment material to the handpiece from the first container or the second container;

a waste line connected between the handpiece and the console;

a vacuum source configured to create a vacuum that draws waste material from the handpiece through the waste line for disposal and that draws treatment material from either the first container or the second container to the handpiece when the tip is pressed against skin;

a flow rate controller to adjust a flow rate of the first treatment material or the second treatment material to the handpiece, wherein the flow rate controller is located on the handpiece or on the console; and

a user input device to select the first treatment material or the second treatment material for delivery to the handpiece.

REMARKS

The foregoing amendments and the following remarks are responsive to the Office Action. Claims 17 to 37 are pending in this application. As reflected in the foregoing listing of claims, to advance prosecution of the present application and expedite allowance of the present application, Applicant is incorporating certain amendments herein to independent Claim 27. Specifically, although Applicant does not agree with or acquiescence to the obviousness rejection of Claim 27, Applicant is incorporating the language from allowable Claim 32 into Claim 27 in order to place the present application in condition of allowance sooner. Accordingly, Claim 32 is canceled without prejudice herein. A clarifying amendment is also being made to allowable independent Claim 37 to address a typographical error. As noted above, none of the amendments presented herein should be deemed as an acquiescence of the Applicant to any of the objections, rejections and/or other conclusions included in the Office Action. Applicant submits that no new matter is added by the foregoing clarifying amendments to the claims. Applicant reserves the right to pursue claims identical or similar to the original claims or previously-pending versions of the claims in a continuing application. For example, Applicant may pursue a claim of identical or similar scope as rejected independent Claim 27 in a pending or new continuing application.

Double Patenting Rejections

According to the Office Action, Claim 17 stands rejected on the ground of nonstatutory double patenting over certain claims of U.S. Patent No. 9,550,052. Further, each of Claims 18 to 23, 26, 27, 32 and 37 stands rejected on the ground of nonstatutory double patenting over certain claims of U.S. Patent No. 9,550,052 in view of an additional reference. Applicant respectfully disagrees and traverses these rejections. However, in the interest of placing the present application in condition of allowance, Applicant is submitting concurrently with the filing of this response a Terminal Disclaimer with respect to U.S. Patent No. 9,550,052. By filing the Terminal Disclaimer, Applicant does not acquiesce to any characterization or scope of the pending claims vis-à-vis U.S. Patent No. 9,550,052, or vice versa.

Allowable Subject Matter/Overview of Claim Amendments Presented Herein

Applicant thanks the Examiner for concluding: (i) "Claims 17-26 and 37 are in condition for allowance pending a timely filed terminal disclaimer" and (ii) "Claim 32 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims." See the bottom of Page 15 of the Office Action.

As noted above, Applicant submits that all the claims evaluated in the Office Action are novel, non-obvious and otherwise patentable. However, in order to expedite the receipt of a Notice of Allowance for this application, Applicant is making certain amendments herein. Namely, as reflected in the foregoing listing of claims, language from allowable Claim 32 is being incorporated into independent Claim 27. In view of these amendments, Claim 32 is canceled without prejudice herein. Further, as noted above, for the purpose of expediting allowance of the present application, Applicant is filing a Terminal Disclaimer herewith to overcome the nonstatutory double patenting rejections of certain pending claims presented in the Office Action.

In response to the Examiner's statement of reasons for the indication of allowable submit matter provided in the "Allowable Subject Matter" section of the Office Action (the "Examiner's Statement"), Applicant respectfully submits the following comments.

To the extent that there is any implication that the patentability of the claims rests on the recitation of a single feature or certain limited features, Applicant respectfully disagrees with the Examiner's Statement, as it is the combination of features that makes the claims patentable. Further, to the extent that any feature(s) recited in the Examiner's Statement are not present in any or all of the claims due to paraphrasing or because the features are in one claim but not in others, Applicant reserves the right to disagree with the Examiner's Statement. In addition, Applicant does not necessarily agree with any characterization of any references and/or the state of the art generally mentioned in the Examiner's Statement, including for example and without limitation, U.S. Publ. No. 2001/0049511 to Coleman et al ("Coleman"). Further, Applicant respectfully submits that the pending claims, including the dependent claims, may also be allowable for reasons different from, or in addition to, those stated in the Examiner's Statement. Accordingly, Applicant reserves the right to argue that the claims of the present application are allowable because each of the claims recites a combination of features that are not taught or suggested by the references of record and/or any other art.

Claim Rejections under 35 U.S.C. § 103

According to the Office Action, Claims 27 to 30 stand rejected under pre-AIA 35 U.S.C. §103(a) as being unpatentable over Coleman in view of U.S. Patent No. 6,162,232 to Shadduck et al. ("Shadduck"). Further, Claims 34 to 36 stand rejected under pre-AIA 35 U.S.C. §103(a) as being unpatentable over Coleman in view of Shadduck and U.S. Publ. No. 2003/0018252 to Duchon et al.

Applicant respectfully disagrees with and traverses the obviousness rejections presented in the Office Action. However, as noted above, in order to expedite the mailing of a Notice of Allowance for the present application, and without acquiescing to any of the rejections presented in the Office Action, Applicant is incorporating certain clarifying claim amendments herein (e.g., to take advantage of the conclusion regarding the allowability of certain claims in the Office Action). Accordingly, Applicant requests that the obviousness rejections presented in the Office Action be withdrawn and that the present application proceed to allowance.

No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

Patents and Patent Applications of Assignee

Applicant wishes to draw the Examiner's attention to the following U.S. patents and patent applications of the present application's assignee.

Attorney Docket	Appl. No. (Pat. No., if appl.)	Filing Date	Title
EDGE.004A	09/648,025 (Pat. No. 6,641,591)	Aug. 25, 2000	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS

Application No.: 18/487,916
Filing Date: October 16, 2023

Attorney Docket	Appl. No. (Pat. No., if appl.)	Filing Date	Title
EDGE.004C1	10/699,747 (Pat. No. 7,789886)	Nov. 3, 2003	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C1DV1	11/739,615 (Pat. No. 8,337,513)	Apr. 24, 2007	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C2	11/417,709 (Pat. No. 8,066,716)	May. 3, 2006	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C3	11/417,396 (Pat. No. 7,678,120)	May. 3, 2006	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C4	13/620,164	Sep. 14, 2012	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C5	14/702,509 (Pat. No. 9,775,646)	May. 1, 2015	DEVICES AND SYSTEMS FOR TREATING THE SKIN USING VACUUM
EDGE.004C6	14/702,486 (Pat. No. 9,468,464)	May. 1, 2015	METHODS FOR TREATING THE SKIN USING VACUUM
EDGE.004C7	15/953,337	Apr. 13, 2018	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.005A	11/392,348 (Pat. No. 8,048,089)	Mar. 29, 2006	APPARATUS AND METHODS FOR TREATING THE SKIN
EDGE.005C1	13/267,554 (Pat. No. 9,474,886)	Oct. 6, 2011	REMOVABLE TIPS FOR SKIN TREATMENT SYSTEMS
EDGE.005C2	14/698,673 (Pat. No. 9,550,052)	Apr. 28, 2015	CONSOLE SYSTEM FOR THE TREATMENT OF SKIN
EDGE.005C3	14/698,713 (Pat. No. 9,662,482)	Apr. 28, 2015	METHODS AND SYSTEMS FOR EXTRACTION OF MATERIALS FROM SKIN
EDGE.005C4	14/700,789 (Pat. No. 9,814,868)	Apr. 30, 2015	TIP WITH EMBEDDED MATERIALS FOR SKIN TREATMENT
EDGE.005C5	15/660,750 (Pat. No. 10,357,641)	Jul. 26, 2017	TIPS FOR SKIN TREATMENT DEVICE
EDGE.005C6	15/660,777 (Pat. No. 10,357,642)	Jul. 26, 2017	REMOVABLE TIPS FOR USE WITH SKIN TREATMENT SYSTEMS
EDGE.005C7	16/517,268 (Pat. No. 11,446,477)	Jul. 19, 2019	DEVICES AND METHODS FOR TREATING SKIN
EDGE.005C8	17/165,820 (Pat. No. 11,547,840)	Feb. 2, 2021	DEVICES AND METHODS FOR TREATING SKIN
EDGE.005C9	17/165,807 (Pat. No. 11,612,726)	Feb. 2, 2021	DEVICES AND METHODS FOR TREATING SKIN
EDGE.005C10	18/094,884 (Pat. No. 11,865,287)	Jan. 9, 2023	DEVICES AND METHODS FOR TREATING SKIN
EDGE.005C11	**18/487,916** ***(present application)***	**Oct. 16, 2023**	**DEVICES AND METHODS FOR TREATING SKIN**
EDGE.005C12	18/638,470	Apr. 17, 2024	DEVICES AND METHODS FOR TREATING SKIN
EDGE.005DP1	29/679,299	Feb. 4, 2019	SKIN TREATMENT DEVICE
EDGE.005DP2	29/679,306	Feb. 4, 2019	HANDPIECE ASSEMBLY TIP
EDGE.005DP3	29/679,302	Feb. 4, 2019	HANDPIECE ASSEMBLY TIP
EDGE.006A	09/294,254 (Pat. No. 6,162,232)	Apr. 19, 1999	INSTRUMENTS AND TECHNIQUES FOR HIGH-VELOCITY FLUID ABRASION OF EPIDERMAL LAYERS WITH SKIN COOLING
EDGE.007A	09/475,480 (Pat. No. 6,299,620)	Dec. 30, 1999	INSTRUMENTS AND TECHNIQUES FOR INDUCING NEOCOLLAGENESIS IN SKIN TREATMENTS
EDGE.008A	09/475,479 (Pat. No. 6,387,103)	Dec. 30, 1999	INSTRUMENTS AND TECHNIQUES FOR INDUCING NEOCOLLAGENESIS IN SKIN TREATMENTS

Attorney Docket	Appl. No. (Pat. No., if appl.)	Filing Date	Title
EDGE.022A	11/370,200	Mar. 7, 2006	MICRODERMABRASION METHOD AND APPARATUS
EDGE.044A	12/362,353 (Pat. No. 9,056,193)	Jan. 29, 2009	APPARATUS AND METHOD FOR TREATING THE SKIN
EDGE.044C1	14/734,995 (Pat. No. 11,020,577)	Jun. 9, 2015	DEVICES AND SYSTEMS FOR TREATING SKIN SURFACES
EDGE.044C2	17/332,897	May. 27, 2021	DEVICES, SYSTEMS, AND METHODS FOR TREATING THE SKIN
EDGE.044C3	17/952,569	Sep. 26, 2022	DEVICES, SYSTEMS AND METHODS FOR SKIN TREATMENT
EDGE.044C4	17/952,665	Sep. 26, 2022	DEVICES, SYSTEMS AND METHODS FOR SKIN TREATMENT
EDGE.044CP1	12/832,663 (Pat. No. 8,814,836)	Jul. 8, 2010	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN USING TIME-RELEASE SUBSTANCES
EDGE.044P1C1	14/455,762 (Pat. No. 9,642,997)	Aug. 8, 2014	DEVICES FOR TREATING SKIN USING TREATMENT MATERIALS LOCATED ALONG A TIP
EDGE.044P1C2	15/588,102 (Pat. No. 10,556,097)	May. 5, 2017	DEVICES FOR TREATING SKIN USING TREATMENT MATERIALS LOCATED ALONG A TIP
EDGE.044P1C3	16/784,850	Feb. 7, 2020	DEVICES AND METHODS FOR TREATING SKIN
EDGE.047A	12/346,582 (Pat. No. 8,343,116)	Dec. 30, 2008	APPARATUS AND METHOD FOR TREATING THE SKIN
EDGE.047C1	13/620,376 (Pat. No. 9,486,615)	Sep. 14, 2012	MICRODERMABRASION APPARATUS AND METHOD
EDGE.047C2	15/344,357 (Pat. No. 10,556,096)	Nov. 4, 2016	DEVICES AND METHODS FOR SKIN TREATMENT
EDGE.047C3	16/784,044 (Pat. No. 11,883,621)	Feb. 6, 2020	DEVICES AND METHODS FOR SKIN TREATMENT
EDGE.047C4	18/393,501	Dec. 21, 2023	DEVICES AND METHODS FOR SKIN TREATMENT
EDGE.050A	09/540,945 (Pat. No. 6,592,595)	Mar. 31, 2000	MICRODERMABRASION AND SUCTION MASSAGE APPARATUS AND METHOD
EDGE.050C1	09/698,409 (Pat. No. 6,527,783)	Oct. 27, 2000	MICRODERMABRASION AND SUCTION MASSAGE APPARATUS AND METHOD
EDGE.050DV1	10/177,173 (Pat. No. 6,673,082)	Jun. 20, 2002	MICRODERMABRASION HANDPIECE WITH SUPPLY AND RETURN LUMENS
EDGE.051A	10/315,478 (Pat. No. 6,942,649)	Dec. 10, 2002	MICRODERMABRASION FLUID APPLICATION SYSTEM AND METHOD
EDGE.052A	09/699,220 (Pat. No. 6,629,983)	Oct. 27, 2000	APPARATUS AND METHOD FOR SKIN/SURFACE ABRASION
EDGE.065A	14/211,089 (Pat. No. 10,238,812)	Mar. 14, 2014	SKIN TREATMENT SYSTEMS AND METHODS USING NEEDLES
EDGE.065C1	16/363,310	Mar. 25, 2019	SKIN TREATMENT SYSTEMS AND METHODS USING NEEDLES
EDGE.077A	14/211,290 (Pat. No. 9,566,088)	Mar. 14, 2014	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077C1	15/430,209 (Pat. No. 10,251,675)	Feb. 10, 2017	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077C2	16/376,956 (Pat. No. 11,717,326)	Apr. 5, 2019	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077C3	17/952,721	Sep. 26, 2022	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN

Attorney Docket	Appl. No. (Pat. No., if appl.)	Filing Date	Title
EDGE.077C4	17/952,676	Sep. 26, 2022	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NP	14/774,641 (Pat. No. 10,172,644)	Sep. 10, 2015	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC1	16/241,572 (Pat. No. 10,993,743)	Jan. 7, 2019	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC2	17/163,128 (Pat. No. 11,903,615)	Jan. 29, 2021	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC3	17/163,199 (Pat. No. 11,517,350)	Jan. 29, 2021	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC4	17/163,237 (Pat. No. 11,202,657)	Jan. 29, 2021	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC5	17/163,240 (Pat. No. 11,213,321)	Jan. 29, 2021	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC6	18/414,791	Jan. 17, 2024	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.090A	14/998,375 (Pat. No. 9,498,610)	Dec. 23, 2015	DEVICES AND METHODS FOR TREATING THE SKIN USING A ROLLERBALL OR A WICKING MEMBER
EDGE.090C1	15/354,754 (Pat. No. 10,035,007)	Nov. 17, 2016	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.090C2	16/040,397 (Pat. No. 11,925,780)	Jul. 19, 2018	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.090C3	17/164,580 (Pat. No. 11,744,999)	Feb. 1, 2021	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.090C4	18/460,003	Sep. 1, 2023	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.090P1	15/498,416 (Pat. No. 10,179,229)	Apr. 26, 2017	DEVICES AND METHODS FOR TREATING THE SKIN USING A POROUS MEMBER
EDGE.090P1C1	16/246,306 (Pat. No. 11,224,728)	Jan. 11, 2019	DEVICES AND METHODS FOR TREATING THE SKIN USING A POROUS MEMBER
EDGE.090P1C2	17/576,888 (Pat. No. 11,806,495)	Jan. 14, 2022	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.090P1C3	18/503,063	Nov. 6, 2023	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.091A	15/204,939 (Pat. No. 11,241,357)	Jul. 7, 2016	DEVICES, SYSTEMS AND METHODS FOR PROMOTING HAIR GROWTH
EDGE.091C1	17/592,432	Feb. 3, 2022	DEVICES, SYSTEMS AND METHODS FOR IMPROVING SCALP HEALTH
EDGE.131NP	18/035,723	May. 5, 2023	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.167NP	18/700,255	Apr. 10, 2024	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.171NP	18/690,694	Mar. 8, 2024	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.172DA	29/811,066	Oct. 11, 2021	SKIN TREATMENT SYSTEM
EDGE.173DA	29/807,430	Sep. 10, 2021	SKIN TREATMENT DEVICE
EDGE.174DA	29/807,428 (Pat. No. D1,016,615)	Sep. 10, 2021	CONTAINER FOR A SKIN TREATMENT DEVICE
EDGE.179DA	29/829,476	Mar. 4, 2022	LIGHT THERAPY DEVICE FOR SKIN CARE

Attorney Docket	Appl. No. (Pat. No., if appl.)	Filing Date	Title
EDGE.180DA	29/811,070	Oct. 11, 2021	SKIN TREATMENT TIP
EDGE.205DA	29/826,153	Feb. 9, 2022	DUAL TREATMENT DEVICE FOR TREATING ACNE OR WRINKLES
EDGE.205DC1	29/854,067	Sep. 21, 2022	TREATMENT DEVICE FOR SKIN
EDGE.212DA	29/884,441	Feb. 10, 2023	SKIN TREATMENT TIP
EDGE.235DA	29/904,162	Sep. 29, 2023	SKIN TREATMENT TIP
EDGE.236DA	29/904,160	Sep. 29, 2023	SKIN TREATMENT TIP
EDGE.239A	16/992,823 (Pat. No. 11,291,474)	Aug. 13, 2020	SKIN TREATMENT TOOL APPLICATOR TIP
EDGE.239C1	17/685,005	Mar. 2, 2022	SKIN TREATMENT TOOL APPLICATOR TIP
EDGE.245A	14/975,718 (Pat. No. 10,010,708)	Dec. 19, 2015	MICRONEEDLE CARTRIDGE AND NOSECONE ASSEMBLY
EDGE.245P1	15/424,871 (Pat. No. 10,137,289)	Feb. 5, 2017	MICRONEEDLE CARTRIDGE AND NOSECONE ASSEMBLY
EDGE.246A	15/978,928 (Pat. No. 10,441,763)	May. 14, 2018	STERILE APPLICATOR ASSEMBLY
EDGE.246P1	16/379,525 (Pat. No. 10,434,294)	Apr. 9, 2019	STERILE APPLICATOR ASSEMBLY WITH MICRONEEDLE ARRAY
EDGE.247A	16/989,874 (Pat. No. 10,967,163)	Aug. 10, 2020	STERILE APPLICATOR ASSEMBLY WITH HOLLOW MICRONEEDLE ARRAY
EDGE.248A	16/438,180 (Pat. No. 11,213,665)	Jun. 11, 2019	ANGLED MICRONEEDLE CARTRIDGE

Copies of these patents and patent applications, including any pending claims, office actions, allowances and/or other communications, are available through PALM and/or PAIR. However, if the Examiner so requests, Applicant will be happy to provide the Examiner with copies of any applications, pending claims, office actions, allowances, communications or any other documents, at any time.

Further, Applicant notes for the record that the claims of the present application are different and may be broader in scope than the claims in any related patent or application. To the extent that any statements made in a related case (such as amendments or characterizations regarding the scope of a claim or prior art) could be construed as a disclaimer of any subject matter supported by the present disclosure, Applicant rescinds and retracts such disclaimer. Accordingly, any listed or referenced prior art may need to be re-visited. Further, any objections or rejections made by the Examiner in the issued and allowed cases identified above may need to be re-visited.

CONCLUSION

Applicant has made a good faith effort to place the application in condition for allowance. Nevertheless, if any issues remain and/or if clarification is required, the Examiner is respectfully requested to contact Applicant's attorney at the below-listed telephone number to promptly resolve such issues.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: May 30, 2024

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APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
18/487,916	**05/30/2024 08:05:15 PM Z ET**	**EDGE.005C11**

Title of Invention

DEVICES AND METHODS FOR TREATING SKIN

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	3841	FILED BY	Will Nguyen
PATENT CENTER #	65742466	FILING DATE	10/16/2023
CUSTOMER #	20995	FIRST NAMED INVENTOR	Roger Ignon
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Theodore Papagiannis

Documents

TOTAL DOCUMENTS: 6

DOCUMENT		PAGES	DESCRIPTION	SIZE (KB)
EDGE-005C11_IDS.pdf		2	-	49 KB
EDGE-005C11_IDS-TRAN.LET.pdf	(1-1)	1	Transmittal Letter	17 KB
EDGE-005C11_IDS-IDS.pdf	(2-2)	1	Information Disclosure Statement (IDS) Form (SB08)	26 KB
FOR_JP_S54-63580_wMT.pdf		7	Foreign Reference	641 KB
EDGE-005C11_RESPONSE.pdf		13	-	88 KB

EDGE-005C11_RESPONSE-A....pdf	(1-1)	1	Amendment/Request for Reconsideration-After Non-Final Rejection	19 KB
EDGE-005C11_RESPONSE-CLM.pdf	(2-5)	4	Claims	33 KB
EDGE-005C11_RESPONSE-REM.pdf	(6-13)	8	Applicant Arguments/Remarks Made in an Amendment	66 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
EDGE-005C11_IDS.pdf	150322E28514B2DA62C1A82A60488B52DE48A494154C92D29718CA164C748D3AB38E335230C762DC3D6CD11253D2FD0AAE0F03175149B32BB85A808059036B01
EDGE-005C11_IDS-TRAN.LET.pdf	7856CD7A73B31A1D37A3E599BCAE78D6EEEBF6234C2179962CF63C0D38C9C02832A80B1546A7B55A8754D466F7974B09A49B9B93F5FA731D398ED1D1C37B4D9B
EDGE-005C11_IDS-IDS.pdf	6EEF46C00E570E8C3031DC80CCB976457395FD3172CDEB4971A47480AF497A361071143C8C491FD62BB110A7D475B2C0862D2C1C8E06614A0CD96E1CA0230130
FOR_JP_S54-63580_wMT.pdf	43EC80388806C90D944D2D0C8E3AC6C03B2846AAD6D070EBE6EA61D0D35B94743F5278432BACD78249540B5DDF398C68293ABFE050E361F2CE316BB6E51C8EFE
EDGE-005C11_RESPONSE.pdf	B288A23C988A0D00ADF978B2CB8CFDBC1B1126DE642A288EDC3DA86792EB9899D685594824403071A8F142C1D692CEA5611BB893A57B15B8B51450B64F95FAA4
EDGE-005C11_RESPONSE-A....pdf	18262CC14701248828E3F400A575DA065462A4DA467B7B2A3F6CA4430FE18C1C08396EB7B3A04AEC01DA7DDBC34DDC1136

	F7581493B7FC472ED62F128B779CAC
EDGE-005C11_RESPONSE-CLM.pdf	D42BC885B91772170DBFA451337DAE669361568987A38B6787F993EEEAFEC0DDD37AF70505FAF219562ABE97D2D1ACDB6F181229198CE4347FDB366B1A0B0512
EDGE-005C11_RESPONSE-REM.pdf	B77DE115AFAF0CBA7EFE108ACF764A03530D1370914E4250EFEC9D7E98E8599D8427DAEC6C3B6C1F117975FEF0B18524BD6888F5D0338DEB04F6F9EA1DF0D597

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If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

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New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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DESCRIPTION JPS5463580A

[0001]

13 Specification L Title of the invention Facial beauty cup and its rotation method 0 II. Scope of the Claims

[0002]

18 3. Detailed Description of the Invention The present invention relates to a facial beauty device that is moved in contact with the face and the human body surface, exerts a suction effect by reducing the pressure inside the cup using an electric motor, and simultaneously massages the skin by rotating the cup.

22 Conventionally, suction cups have been used as facial beauty devices, but these only suck the skin, and furthermore, the cup moves over the face, creating a large resistance from the skin. To solve the above-mentioned problems, the present invention provides a facial beauty device that moves lightly over the face by rotating the cup, and cleanses the skin by quickly sucking and removing dirt from inside the skin, while at the same time massaging the skin to improve metabolism. The configuration of the present invention will now be described with reference to the embodiment shown in the drawings. Reference numeral 1 denotes a main body case formed in a handheld portion, inside which an electric motor and a suction mechanism (not shown) are housed. Reference numeral 2 denotes a support shaft projecting from the bottom of the main body case 71 and having an air hole 3 at the center, which is connected to a suction pump in the main body 1 and opens into the cup. Although the suction mechanism has been described as using a rotary motor-driven suction pump, other methods such as an electromagnetic motor could also be used. In the latter case, it is of course possible to change the design so that an electromagnetic pressure reducing device is provided above the cup, without using the vent pipe 3. Reference numeral 4 denotes a circular flange portion provided on the outer periphery of the support shaft 2 . 5 is a rotor that is tightly fitted to the outer

periphery of the support shaft 2 and supported by the flange 4, and is provided so as to be freely rotatable around the support shaft 20, and has a gear 6 on the top. 7 is a gear fixed to the tip of the motor shaft 8 that protrudes from the seven-wheel built into the main body 1, and is designed to mesh with the rotor gear 6 to rotate the rotor in conjunction. 0 Although the illustrated method of rotation is explained as using gears, other methods such as using a belt or crank shaft may also be used for the method of rotation of the rotor 5. 09 is a switch that allows the motor to be reversed, and allows the rotor 5 to be rotated clockwise or counterclockwise as desired. A cup, and the edge 11 of the cup is smoothed to maintain airtightness and to make good contact with the skin. 012 is a massage body attached to the inside of the cup rim 11. As shown in Figure 3, any number of these with a spherical skin contact surface are attached. 0The arc-shaped massage bodies 13 shown in Figure 4 are attached alternately to the right and left sides of the cup rim 11. When rotating, one turns with the concave arc facing while the other rotates in the direction of the convex arc. First the convex arc is used to massage, and then the concave arc is used to scrape off cream such as cold cream. 0The dounara-shaped massage body 14 shown in Figure 5 is a small cup-shaped massage body attached to the inside of the cup rim 11 with a dounara-shaped surface facing the skin, which provides sharper skin pressure than a spherical massage body.

54 Other massage bodies of any shape may be used, such as those with a flat surface facing the skin or those with a large number of small protrusions on the surface facing the skin (not shown). In the embodiment shown in FIG. 6, a massage body 12 is attached to a cup cover 15 made of a flexible material such as rubber, plastic, or sponge, and is detachable from the cup 10. The brush body 16 shown in FIG. 7 is a face-washing brush attached to the cup cover 15. When the cup cover 15 is used, the cup 10 may be fixed to the rotating body 5 as a unit. The present invention is constructed as described above. When the cup 10 is attached to the rotating body 5 provided at the bottom of the main body case 1 and the switch 9 is turned on, the cup 10 rotates and at the same time suction is generated within the cup 10. In this case, if you apply a nourishing cream, fringing cream, etc. to your face before use, the cup edge 11 will remain airtight and will move smoothly over your face. Also, if you use the arc-shaped massage body 13, you can massage and scrape off dirty cream at the same time. Furthermore, by attaching a cup cover 15 equipped with a brush body 16 to the cup 10, you can use the brush to wash your face. Furthermore, by operating the switch 9, the cup can be rotated clockwise for the right half of the face and counterclockwise for the left half of the face, resulting in a great facial beauty effect. In the facial beauty cup with massage bodies of the present invention, the cup 10 rotates, and the massage bodies 12 attached to the inside of the cup edge 11 move in a spiral shape (circle) on the face due to the rotation of the cup 10 and the movement of the main body 1, providing the same massage as a light kneading and twisting massage with the fingertips. Also, when using the arc-shaped massage bodies 13, one massage body rotates with its arc-convex surface facing the face to massage the face, and the other massage body rotates with its arc-convex surface facing the face to scrape off cream. In this case, when the switch 9 is operated to reverse the cup 10, the arcuate convex surface becomes concave and the arcuate concave surface becomes convex, and they perform their respective roles interchangeably, so that the same effect is achieved on both the right and left

sides of the face regardless of whether the cup is reversed. In the present invention, a large amount of blood is collected under the skin by suction, and then a skin kneading massage is performed by rotation, so blood circulation is promoted and metabolism is increased.

138 In addition, due to the suction, the skin rises into a spherical shape inside the cup 10, and as the cup 10 rotates, opening up the pores, sebaceous lines, sebaceous glands, and other openings in the epidermis and smoothing out fine wrinkles in the skin, the cortex twists slightly, squeezing out dirt and grime from inside the skin. Furthermore, since it has rotation, it can be moved lightly and smoothly over the skin, making massage easy. Furthermore, by attaching the arc-shaped massage small body, massage and cream removal can be performed at the same time, making it easy to wipe down afterwards. Also, by attaching the brush body 16 to the cup, face washing is possible. Furthermore, since the cup 10 is freely detachable, cleaning of the device is also easy. As described above, the suction beauty cup of the present invention can perform suction and kneading massage at the same time, so there is no need to do massage and suction separately, which saves time. It also has the effect of sucking out pus, etc., by twisting the skin caused by the rotation, which makes it more powerful. Furthermore, since massage is performed by suction at areas where blood is concentrated, it promotes blood circulation, relieves fatigue in the skin, increases metabolism, and provides an ideal massage that rejuvenates the skin. Next, the effects of the present invention can be inverted: (1) suction and kneading can be performed simultaneously, thereby reducing time. (2) The rotation of the cup makes it light and easy to move on the skin. (3) The suction creates a spherical rise inside the cup, kneading the skin where blood is concentrated, providing a high massage effect. (4) The rotation of the cup squeezes out dirt from under the skin. (5) By using the arc-shaped massage body, the cream can be scraped off and wiping is also easy. (6) The cup can be easily attached and detached, making it easy to clean and allowing for easy facial washing with a brush.

[0003]

166 4. Brief Description of the Drawings The drawings show one embodiment of the present invention, in which Fig. 1 is an external perspective view, Fig. 2 is a partially cutaway sectional view of the main part of Fig. 1, Figs. 3, 4, and 5 are bottom views of each embodiment, and Figs. 6 and 7 are partially cutaway sectional views. 1. Main body case 9. Switch 2. Support, shaft 10 Cup 3. Air vent 11. Cup edge end 4. Flange 12. Massage body 5 Rotating body 13. Arc-shaped massage body 6. Rotating body gear 14. Donara-shaped massage body 7. Gear 15 Cup cover 8. Motor shaft 16. Brush body Patents: Ryoganjinzan 1) Rikan [End Page:

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CLAIMS JPS5463580A

1.

13 A facial beauty cup according to claim 1, characterized in that a massage body 12 is attached to the inside of the cup edge 11 in a suction facial beauty device that makes the L cup rotatable, and the skin contact portion of the massage body 12 attached to the inside of the cup edge 11 is spherical. 3. A facial beauty cup as claimed in claim 1, wherein the skin contact portion of the massage body attached to the inside of the cup edge portion 11 is formed in an arc shape 13. 4. A facial beauty cup as claimed in claim 1, in which the skin contact portion of the massage body attached to the inside of the cup edge portion 11 is formed into a dounara shape 14. 5. A method for rotating a facial beauty cup in which a gear 7 fixed to the tip of a motor shaft 8 and a gear 6 provided on the upper part of a rotating body 5 to which a cup 10 is attached mesh with each other to rotate.

⑲日本国特許庁(JP)　　⑪特許出願公開

⑫公開特許公報(A)　　昭54—63580

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A 61 H 7/00　94 A 43　6653—4C

発明の数　2
審査請求　未請求

(全 3 頁)

⑭美顔カップおよびその回転方法

⑳特　願　昭52—128889
㉒出　願　昭52(1977)10月26日
㉓発　明　者　山田利寛
大阪市旭区太子橋3丁目8番1—38号
㉑出　願　人　山田利寛
大阪市旭区太子橋3丁目8番1—38号

明　細　書

1. 発明の名称　美顔カップ及び、その回転方法。
2. 特許請求の範囲
   1. カップを回転可能となした吸引美顔器において、カップ縁端部11の内側にマッサージ小体12を取着したことを特徴とする美顔カップ。
   2. カップ縁端部11の内側に取着したマッサージ小体12の皮膚接触部を球面状となした特許請求の範囲第1項記載の美顔カップ。
   3. カップ縁端部11の内側に取着したマッサージ小体の皮膚接触部を円弧状13となした特許請求の範囲第1項記載の美顔カップ。
   4. カップ縁端部11の内側に取着したマッサージ小体の皮膚接触部をドウナツ形14となした、特許請求の範囲第1項記載の美顔カップ。
   5. モーター軸8の先端に固着した歯車7と、カップ10を取着した回転体5の上部に設けた歯車6が噛合って回動するようになした、美顔カップの回転方法。
3. 発明の詳細な説明

本発明は顔面、その他人体表面に接触移動せしめて、電動機により、カップ内に生起させた減圧による吸引作用を及ぼし、更にカップの回転による皮膚揉捻マッサージを同時に行なはしめるようになした美顔用器具に関するものである。

従来、一般に美顔用器具として吸引カップが使用されていたが、該吸引カップは皮膚を吸引するのみであり、更にカップは顔面上をずらして移動する為皮膚の抵抗が大きかつた。

本発明は上記の欠点を解消し、カップの回転により、顔面上を軽く移動し、更に皮膚内部の汚れを迅速に吸引除去して皮膚を清浄化すると同時に皮膚を揉捻マッサージして新陳代謝を高めた美顔用器具を提供するものである。

以下本発明の構成を図面に示す実施例について説明すると、1は手持部に形成した本体ケースであり、内部には電動モーター、及び吸引機構(図示せず)を収容してある。2は本体ケース1の下部に突出した支軸であり、中心部に通気孔3を有

しており、該通気孔3は本体1内の吸引ポンプより連通してカップ内に開口している。該吸引機構は回転モーターによる吸引ポンプを使用するものとして説明したが、電磁モーター等他の方法を使用しても差支えない。後者の場合、通気管3を使用せず、カップ上部に電磁式減圧装置を設けるように設計変更すればよいこと勿論である。4は支軸2の外周部に設けた円輪状の鍔部である。5は支軸2の外周部に密合して鍔部4に支えられ、該支軸2の周りを回転自在となして設けた回転体であり、上部に歯車6を有している。7は本体1内に内蔵されたモーターより突出したモーター軸8の先端に固着した歯車であり、回転体歯車6と噛み合って、回転体を連動回転せしめるようになしたものである。なを、図示の回転方法について、歯車によるものを説明したが、回転体5の回転方法について、ベルト・クランク軸等を利用した、他の方法によるものを使用しても差支えない。9はモーターを逆転可能となしたスイッチであり、任意に回転体5を右回り、左回り可能となしてある。10は上記回転体5に着脱自在となして取着したカップであり、カップ縁端部11は気密を保って皮膚えの接触もよいように角はなめらかに取ってある。12はマッサージ小体であり、カップ縁端部11の内側に取着したものであり、第3図に示すように皮膚接触面を球面状となしたものを任意の数取着したものである。第4図に示す円弧状マッサージ小体13はカップ縁端部11に右側部、左側部と交互に取着したものであり、回転に際しては、一方が円弧凹面を向けて回る際、一方が円弧凸面方向に回転するものであり、先ず円弧凸面でマッサージして次に円弧凹面でコールド等のクリームをかき取りするものである。第5図に示すドウナツ状マッサージ小体14はカップ縁端部11の内側に小カップ状のマッサージ小体を取着し対皮面がドウナツ形となしたものであり、球面状マッサージ小体より皮膚圧力が鋭くなったものである。その他マッサージ小体は対皮面を平面状となしたものや、対皮面に小突起を多数設けたもの（図示せず）等、任意の形状のものを使用しても差支えない。第6図に示す実施例はゴム、プラスチック、スポンジ等の柔軟性を有する材質で製したカップカバー15にマッサージ小体12を取着したものであり、カップ10に着脱自在となしたものである。第7図に示すブラシ体16はカップカバー15に洗顔ブラシを取着したものである。上記カップカバー15を使用する際、カップ10は回転体5と固着して一体化してもよい事勿論である。

本発明は以上のように構成してあるので使用に際しては、本体ケース1の下部に設けた回転体5にカップ10を取着して、スイッチ9を入れるとカップ10が回転し、同時にカップ10内に吸引が生じる。この場合顔面に栄養クリーム、クリンジングクリーム等を塗布して使用すれば、カップ縁端部11の気密がよく保持され、顔面上の移動もなめらかに出きるのである。又、円弧状マッサージ小体13を使用すると、マッサージと汚れたクリームのかき取が同時に出きるのである。更にカップ10にブラシ体16を設けたカップカバー15を取着することにより、ブラシ洗顔ができるのである。更に又、スイッチ9の操作により、顔面右半分はカップは右回転、顔面左半分はカップを左回転させることが出きるので、美顔効果が大きい。

本発明における、マッサージ小体付美顔カップは、カップ10が回転するので、カップ縁端部11の内側に取着したマッサージ小体12は、カップ10の回転と本体1の移動により、顔面上に螺旋形（ ）を描くように移動するので、指頭による軽擦揉捻マッサージと同じマッサージが出きるのである。又、円弧状マッサージ小体13を使用する際は、一方のマッサージ小体は円弧凸面を向けて回転して顔面のマッサージを行ない更に他方のマッサージ小体は円弧凹面を向けて回転して、クリームかき取をするのである。この場合、スイッチ9を操作してカップ10を逆転せしめると、それぞれ円弧凸面が凹面に、円弧凹面が凸面になり、それぞれの役割を交対するので、顔面右側も左側も、カップの反転にかかわらず、同じ効

果を有するのである。

本発明においては、吸引により、皮下に多量の血液が集まった所で、回転による皮膚採捻マッサージを行なうので血液の循環は保進され、新陳代謝を高める。又、皮膚は吸引により、カップ10内に球面状に盛り上りて、毛穴、汗線、皮脂腺等の表皮の穴は開いて皮膚の小じわも伸びた状態でカップ10が回転するので、皮膚がわずかにねじれて、皮膚内部の汚れ、脂をしぼり出すのである。更に、回転を有するので、皮膚上を軽く、なめらかに移動しやすく、マッサージが容易に出きる。更に又、円弧状マッサージ小体を取り着けることにより、マッサージとクリーム取り除きが同時にできるので、後の清拭も簡単である。又、ブラシ体16をカップに取りつける事により、洗顔でき更に又、カップ10は着脱自在なので、器具の清掃も簡単である。

以上のように、本発明による吸引美顔カップは吸引と採捻マッサージが同時に出きるので、マッサージと吸引を別々にやる必要がなく時間が短縮できる。更に吸引器の表皮の汚れ、脂、ニキビの膿等を吸い出すという効果も、回転による皮膚のひねりによって、より強力にしぼり出される。更に又、マッサージも吸引により、血液の集まった所にて行なう為、血液の循環を促がし、肌の疲労も取り去り、新陳代謝を高め、皮膚を若がえらせる理想的なマッサージが出きるのである。

次に本発明の効果を例記すれば

(1) 吸引と採捻が同時に出きるので時間が短縮できる。

(2) カップの回転により、皮膚上の移動が軽く容易である。

(3) 吸引により、カップ内に球面状に盛り上って、血液の集中した皮膚を採捻するのでマッサージ効果が高い。

(4) カップの回転により皮膚内の汚れをしぼり出す。

(5) 円弧状マッサージ小体を使用する事によりクリームのかき取りが出き清拭も簡単である。

(6) カップが着脱自在であり、カップの清掃も簡単であり、ブラシ洗顔も出きる等の数々の効果がある。

4. 図面の簡単な説明

図面は本発明の一実施例を示すもので

第1図は外観斜視図

第2図は第1図要部一部切欠断面図

第3、第4、第5図は各実施例の底面図

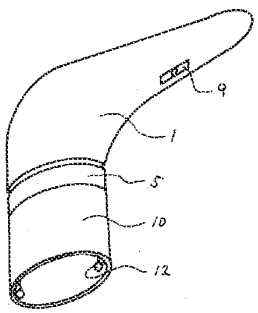
第6、第7図は一部切欠断面図である

1……本体ケース　9……スイッチ
2……支　　軸　10……カップ
3……通　気　孔　11……カップ縁端部
4……鍔　　部　12……マッサージ小体
5……回　転　体　13……円弧状マッサージ小体
6……回転体歯車　14……ドウナツ形マッサージ小体
7……歯　　車　15……カップカバー
8……モーター軸　16……ブラシ体

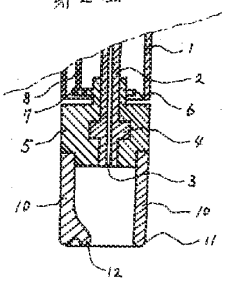
特許出願人

山　田　利　寛

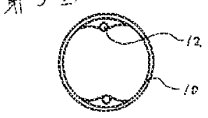
第1図



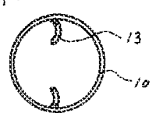
第2図



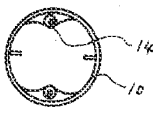
第3図



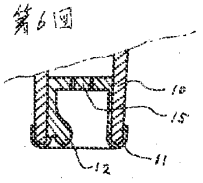
第4図



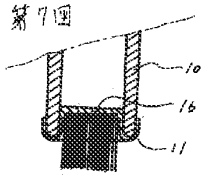
第5図



第6図



第7図



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TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING REJECTION OVER A PRIOR PATENT

APPLICATION #	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET #
18487916	10/16/2023	Roger Ignon	EDGE.005C11

Title of Invention

DEVICES AND METHODS FOR TREATING SKIN

☑ Filing of terminal disclaimer does not obviate requirement for response under 37 CFR 1.111 to outstanding Office Action

☑ This electronic Terminal Disclaimer is not being used for a Joint Research Agreement.

Owner	Percent Interest
HydraFacial LLC	100%
Total	100%

The owner(s) of percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending reference Application Number(s)

Application #	Filing Date

as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the reference application are commonly owned. This agreement runs with any patent granted on the

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The owner(s) of percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of prior patent number(s)

Patent #
9550052

as the term of said prior patent is presently shortened by any terminal disclaimer. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.
In making the above disclaimer, the owner does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term of the prior patent, "as the term of said prior patent is presently shortened by any terminal disclaimer," in the event that said prior patent later:
- expires for failure to pay a maintenance fee;
- is held unenforceable;
- is found invalid by a court of competent jurisdiction;
- is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321;
- has all claims canceled by a reexamination certificate;
- is reissued; or
- is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.

 Terminal disclaimer fee under 37 CFR 1.20(d) included with Electronic Terminal Disclaimer request.

Applicant claims the following entity status:
Regular Undiscounted

I hereby declare that all statements made herein of my own knowledge are true and that all statemnts made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

I certify, in accordance with 37 CFR 1.4(d)(4) that I am: An attorney or agent registered to practice before the Patent and Trademark Office who is of record in this application

Signature	Name	Registration #
/Theodore G. Papagiannis/	Theodore Papagiannis	61546

* Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner). Form PTO/SB/96 may be used for making this certification. See MPEP 324.

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APPROVAL LETTER

APPLICATION #	FILING DATE	APPLICANT/PATENT UNDER REEXAMINATION
18/487,916	10/16/2023	Roger Ignon

Title of Invention

DEVICES AND METHODS FOR TREATING SKIN

Electronic terminal disclaimer filed on 05/30/2024

☑ Approved

This patent is subject to a Terminal Disclaimer

Approved / Disapproved by: Electronic Terminal Disclaimer automatically approved

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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
18/487,916	**05/30/2024 07:16:51 PM Z ET**	**EDGE.005C11**

Title of Invention

DEVICES AND METHODS FOR TREATING SKIN

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	3841	FILED BY	MIREYA VELEZ
PATENT CENTER #	65742443	FILING DATE	10/16/2023
CUSTOMER #	20995	FIRST NAMED INVENTOR	Roger Ignon
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Theodore Papagiannis

Documents

TOTAL DOCUMENTS: 2

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
petition-request.pdf	3	Terminal Disclaimer-Filed (Electronic)	48 KB
grantLetter.pdf	1	Terminal Disclaimer-Electronic-Approved	19 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
petition-request.pdf	E5BB6A158F8AF5E3B724EE06940877F0BBBF54F0E07B14C2D882DEC59FFDE5216EB63738A56537F9AAAE118CB6F9BBE1E7

	A9028AF084AC2206B533F3EFBD66EC
grantLetter.pdf	40D43E22C47135DED8D486CA66A14584B7EA9234D36B0D1FE69870C40C4E6B708776A70C0589C0E970064B0FE7674286D7FB85583B2E2D839ACC2501F4716011

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National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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ELECTRONIC PAYMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
18/487,916	05/30/2024 07:16:51 PM Z ET	EDGE.005C11

Title of Invention

DEVICES AND METHODS FOR TREATING SKIN

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	3841	FILED BY	MIREYA VELEZ
PATENT CENTER #	65742443	AUTHORIZED BY	Theodore Papagiannis
CUSTOMER #	20995	FILING DATE	10/16/2023
CORRESPONDENCE ADDRESS	-	FIRST NAMED INVENTOR	Roger Ignon

Payment Information

PAYMENT METHOD	PAYMENT TRANSACTION ID	PAYMENT AUTHORIZED BY
DA / 111410	E20245TJ17297919	Theodore Papagiannis

FEE CODE	DESCRIPTION	ITEM PRICE($)	QUANTITY	ITEM TOTAL($)
1814	STATUTORY DISCLAIMER, INCLUDING TERMINAL DISCLAIMER	170.00	1	170.00
			TOTAL AMOUNT:	$170.00

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New International Application Filed with the USPTO as a Receiving Office

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PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 18/487,916	Filing Date 10/16/2023	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $100 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $480 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	05/30/2024	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 20	Minus	** 21	= 0		x $100 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0		x $480 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/Ruby Johnson/
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
18/487,916	10/16/2023	Roger Ignon	EDGE.005C11	3841

20995 7590 05/24/2024

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2040 MAIN STREET
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EXAMINER	
KNAUSS, CHRISTIAN D	

ART UNIT	PAPER NUMBER
3771	

NOTIFICATION DATE	DELIVERY MODE
05/24/2024	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Atty.AdminCoordinator@knobbe.com
efiling@knobbe.com

Office Action Summary	**Application No.** 18/487,916	**Applicant(s)** Ignon et al.	
	Examiner CHRISTIAN D KNAUSS	**Art Unit** 3771	**AIA (FITF) Status** No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 18 April 2024.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL.** 2b) ☑ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 17-37 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 17-37 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☑ The drawing(s) filed on 17 April 2024 is/are: a)☑ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☑ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

DETAILED ACTION

Notice of Pre-AIA or AIA Status

1. The present application is being examined under the pre-AIA first to invent provisions.

Response to Amendment

2. Claims 17-37 are pending in the application. Claims 1-16 have been canceled. Claims 17-37 are new.

Information Disclosure Statement

3. The information disclosure statements (IDS) submitted on 10/17/23, 4/11/24, and 4/15/24 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Claim Objections

4. Claim 37 objected to because of the following informalities: in line 4, “toa” should read --to a--. Appropriate correction is required.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double

patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on nonstatutory double patenting provided the reference application or patent either is shown to be commonly owned with the examined application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. See MPEP § 717.02 for applications subject to examination under the first inventor to file provisions of the AIA as explained in MPEP § 2159. See MPEP § 2146 *et seq.* for applications not subject to examination under the first inventor to file provisions of the AIA. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The filing of a terminal disclaimer by itself is not a complete reply to a nonstatutory double patenting (NSDP) rejection. A complete reply requires that the terminal disclaimer be accompanied by a reply requesting reconsideration of the prior Office action. Even where the NSDP rejection is provisional the reply must be complete. See MPEP § 804, subsection I.B.1. For a reply to a non-final Office action, see 37 CFR 1.111(a). For a reply to final Office action, see 37 CFR 1.113(c). A request for

reconsideration while not provided for in 37 CFR 1.113(c) may be filed after final for consideration. See MPEP §§ 706.07(e) and 714.13.

The USPTO Internet website contains terminal disclaimer forms which may be used. Please visit www.uspto.gov/patent/patents-forms. The actual filing date of the application in which the form is filed determines what form (e.g., PTO/SB/25, PTO/SB/26, PTO/AIA/25, or PTO/AIA/26) should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to www.uspto.gov/patents/apply/applying-online/eterminal-disclaimer.

6. Claim 17 is rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1 and 6 of U.S. Patent No. 9,550,052 B2. Although the claims at issue are not identical, they are not patentably distinct from each other because:

Regarding claim 17, US 9,550,052 B2 discloses a skin treatment system, comprising: a console configured to receive a first container containing a first treatment material and a second container containing a second treatment material (claim 1); a handpiece configured to couple to a tip that can be pressed against skin to perform skin treatment (claim 1); a supply line connected between the handpiece and the console for sequentially delivering treatment material to the handpiece from the first container or the second container (claims 1 and 6); a waste line connected between the handpiece and the console (claim 1); and a vacuum source configured to create a vacuum that draws waste material from the handpiece through the waste line for disposal and that draws

treatment material from either the first container or the second container to the handpiece when the tip is pressed against skin (claim 1).

7. Claims 18-20, 23, and 37 are rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1 and 6 of U.S. Patent No. 9,550,052 B2 in view of Coleman et al. (US 2001/0049511 A1) ("Coleman").

Regarding claim 18, US 9,550,052 B2 fails to disclose a flow rate controller to adjust a flow rate of the first treatment material or the second treatment material to the handpiece, wherein the flow rate controller is located on the handpiece or on the console; and a user input device to select the first treatment material or the second treatment material for delivery to the handpiece.

Coleman teaches (Coleman, Figures 5A and 5B) a flow rate controller (59A) to adjust a flow rate of the first treatment material or the second treatment material to the handpiece (paragraph 0052), wherein the flow rate controller is located on the handpiece (50) or on the console; and a user input device (59B) to select the first treatment material or the second treatment material for delivery to the handpiece (paragraph 0052).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the skin treatment system disclosed by US 9,550,052 B2 to comprise a flow rate controller to adjust a flow rate of the first treatment material or the second treatment material to the handpiece, wherein the flow rate controller is located on the handpiece or on the console; and a user input device to select the first treatment material or the second treatment material for delivery to the handpiece, as

taught by Coleman. These modifications would allow the surgeon to make adjustments during a procedure (Coleman, paragraph 0063).

Regarding claims 19 and 20, US 9,550,052 B2 fails to disclose a flow rate controller to adjust a flow rate of the first treatment material or the second treatment material to the handpiece.

Coleman teaches (Coleman, Figures 5A and 5B) a flow rate controller (59A) to adjust a flow rate of the first treatment material or the second treatment material to the handpiece (paragraph 0052), wherein the flow rate controller is located on the handpiece (50).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the skin treatment system disclosed by US 9,550,052 B2 to comprise a flow rate controller to adjust a flow rate of the first treatment material or the second treatment material to the handpiece, wherein the flow rate controller is located on the handpiece, as taught by Coleman. This modification would allow the surgeon to make adjustments during a procedure (Coleman, paragraph 0063).

Regarding claim 23, US 9,550,052 B2 fails to disclose a user input device to select the first treatment material or the second treatment material for delivery to the handpiece.

Coleman teaches (Coleman, Figures 5A and 5B) a user input device (59B) to select the first treatment material or the second treatment material for delivery to the handpiece (paragraph 0052).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the skin treatment system disclosed by US 9,550,052 B2

to comprise a user input device to select the first treatment material or the second treatment material for delivery to the handpiece, as taught by Coleman. This modification would allow the surgeon to make adjustments during a procedure (Coleman, paragraph 0063).

Regarding claim 37, US 9,550,052 B2 discloses a skin treatment system, comprising: a console configured to receive a first container containing a first treatment material and a second container containing a second treatment material (claim 1); a handpiece configured to couple to a tip that can be pressed against skin to perform skin treatment (claim 1); a supply line connected between the handpiece and the console for sequentially delivering treatment material to the handpiece from the first container or the second container (claims 1 and 6); a waste line connected between the handpiece and the console (claim 1); a vacuum source configured to create a vacuum that draws waste material from the handpiece through the waste line for disposal and that draws treatment material from either the first container or the second container to the handpiece when the tip is pressed against skin (claim 1). However, US 9,550,052 B2 fails to disclose: a flow rate controller to adjust a flow rate of the first treatment material or the second treatment material to the handpiece, wherein the flow rate controller is located on the handpiece or on the console; and a user input device to select the first treatment material or the second treatment material for delivery to the handpiece.

Coleman teaches (Coleman, Figures 5A and 5B) a skin treatment system comprising a flow rate controller (59A) to adjust a flow rate of the first treatment material or the second treatment material to the handpiece (paragraph 0052), wherein the flow rate controller is located on the handpiece (50) or on the console; and a user input

device (59B) to select the first treatment material or the second treatment material for delivery to the handpiece (paragraph 0052).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the skin treatment system disclosed by US 9,550,052 B2 to comprise: a flow rate controller to adjust a flow rate of the first treatment material or the second treatment material to the handpiece, wherein the flow rate controller is located on the handpiece or on the console; and a user input device to select the first treatment material or the second treatment material for delivery to the handpiece, as taught by Coleman. These modifications would allow the surgeon to make adjustments during a procedure (Coleman, paragraph 0063).

8. Claim 21 and 26 rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1 and 6 of U.S. Patent No. 9,550,052 B2 in view of Duchon et al. (US 2003/0018252 A1) ("Duchon").

Regarding claim 21, US 9,550,052 B2 fails to disclose a flow rate controller to adjust a flow rate of the first treatment material or the second treatment material to the handpiece, wherein the flow rate controller is located on the console.

Duchon teaches (Figure 1) a flow rate controller (66) to adjust a flow rate of treatment material (paragraph 0065), wherein the flow rate controller is located on the console (attached via cable 60).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the skin treatment system disclosed by US 9,550,052 B2 to comprise a flow rate controller to adjust a flow rate of the first treatment material or

the second treatment material to the handpiece, wherein the flow rate controller is located on the console, as taught by Duchon. This modification would allow a user to provide a command signal to adjust the flow rate of the system (Duchon, paragraph 0065).

Regarding claim 26, US 9,550,052 B2 fails to disclose that the console comprises a display.

Duchon teaches (Figure 1) that it was well-known in the art at the time the invention was made for a console (12) to include a display (58) to monitor the operational state of the system, including operation data, alerts, status information, and operator prompts (paragraphs 0063 and 0093).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the console disclosed by US 9,550,052 B2 to comprise a display. This modification would allow an operator to monitor the operational state of the system, including operation data, alerts, status information, and operator prompts (Duchon, paragraphs 0063 and 0093).

9. Claims 22, 27, and 32 rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1 and 6 of U.S. Patent No. 9,550,052 B2 in view of Shadduck (US 6,162,232).

Regarding claim 22, US 9,550,052 B2 fails to disclose a computing device configured to control at least one function of the system.

Shadduck teaches (Figures 2A, 2B) a skin treatment system with a computing device (25) to control and modulate the introduction and termination fluid flows into the

working end, as well as aspiration power settings, to insure optimal abrasion effects and the capture of spent fluids (Column 5, lines 33-37). Shadduck teaches that the computing device (25) is provided with algorithms to automatically balance fluid flow pressures and aspiration pressures (Column 10, lines 52-54).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the skin treatment system disclosed by US 9,550,052 B2 to comprise a computing device configured to control at least one function of the system, as taught by Shadduck. This modification would control and modulate the introduction and termination fluid flows into the working end, as well as aspiration power settings, to insure optimal abrasion effects and the capture of spent fluids (Shadduck, Column 5, lines 33-37).

Regarding claims 27 and 32, US 9,550,052 B2 discloses a skin treatment system, comprising: a console configured to receive a first container containing a first treatment material and a second container containing a second treatment material (claim 1); a handpiece configured to couple to a tip that can be placed against skin to perform skin treatment (claim 1); a supply line extending between the handpiece and the console for sequentially delivering treatment material to the handpiece from the first container or the second container (claim 1); a waste line extending between the handpiece and the console (claim 1); and a vacuum source configured to create a vacuum that draws waste material from the handpiece through the waste line for disposal (claim 1), and wherein the vacuum source is configured to create a vacuum that draws treatment material from either the first container or the second container to the handpiece when the tip is placed against skin (claim 1). However, US 9,550,052 B2

fails to disclose a computing device configured to control at least one function of the system.

Shadduck teaches (Figures 2A, 2B) a skin treatment system with a computing device (25) to control and modulate the introduction and termination fluid flows into the working end, as well as aspiration power settings, to insure optimal abrasion effects and the capture of spent fluids (Column 5, lines 33-37). Shadduck teaches that the computing device (25) is provided with algorithms to automatically balance fluid flow pressures and aspiration pressures (Column 10, lines 52-54).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the skin treatment system disclosed by US 9,550,052 B2 to comprise a computing device configured to control at least one function of the system, as taught by Shadduck. This modification would control and modulate the introduction and termination fluid flows into the working end, as well as aspiration power settings, to insure optimal abrasion effects and the capture of spent fluids (Shadduck, Column 5, lines 33-37).

Claim Rejections - 35 USC § 103

10. The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 27-30 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Coleman et al. (US 2001/0049511 A1) ("Coleman") in view of Shadduck (US 6,162,232).

Regarding claim 27, Coleman discloses (Figures 1-7) a skin treatment system, comprising: a console (Figure 6) configured to receive a first container (60C) containing a first treatment material (paragraph 0058) and a second container (60B) containing a second treatment material (paragraph 0058); a handpiece (Figures 5A and 5B) configured to couple to a tip (53/55) that can be placed against skin to perform skin treatment; a supply line (51A) extending between the handpiece and the console for sequentially delivering treatment material to the handpiece from the first container or the second container (paragraphs 0059 and 0060); a waste line (51B) extending between the handpiece and the console; and a vacuum source (65A) configured to create a vacuum that draws waste material from the handpiece through the waste line for disposal (paragraph 0061). Coleman fails to disclose a computing device configured to control at least one function of the system.

In the same field of endeavor, Shadduck teaches (Figures 2A, 2B) a skin treatment system with a computing device (25) to control and modulate the introduction and termination fluid flows into the working end, as well as aspiration power settings, to insure optimal abrasion effects and the capture of spent fluids (Column 5, lines 33-37). Shadduck teaches that the computing device (25) is provided with algorithms to automatically balance fluid flow pressures and aspiration pressures (Column 10, lines 52-54).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the skin treatment system disclosed by Coleman to comprise a computing device configured to control at least one function of the system, as taught by Shadduck. This modification would control and modulate the introduction and termination fluid flows into the working end, as well as aspiration power settings, to insure optimal abrasion effects and the capture of spent fluids (Shadduck, Column 5, lines 33-37).

Regarding claim 28, Coleman as modified by Shadduck teaches (Coleman, Figures 5A and 5B) a flow rate controller (59A) to adjust a flow rate of the first treatment material or the second treatment material to the handpiece (paragraph 0052), wherein the flow rate controller is located on the handpiece (50) or on the console; and a user input device (59B) to select the first treatment material or the second treatment material for delivery to the handpiece (paragraph 0052).

Regarding claim 29, Coleman as modified by Shadduck teaches (Coleman, Figures 5A and 5B) a flow rate controller (59A) to adjust a flow rate of the first treatment material or the second treatment material to the handpiece (paragraph 0052).

Regarding claim 30, Coleman as modified by Shadduck teaches (Coleman, Figures 5A and 5B) that the flow rate controller (59A) is located on the handpiece (50).

Regarding claim 33, Coleman as modified by Shadduck teaches (Coleman, Figures 5A and 5B) a user input device (59B) to select the first treatment material or the second treatment material for delivery to the handpiece (paragraph 0052).

12. Claims 34 and 35 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Coleman et al. (US 2001/0049511 A1) ("Coleman") in view of Shadduck (US 6,162,232) as applied to claim 33 above, and further in view of Duchon et al. (US 2003/0018252 A1) ("Duchon").

Regarding claims 34 and 35, Coleman in view of Shadduck the invention substantially as claimed. However, the combined teaching fails to teach that the user input device comprises a touch screen positioned on the console. Instead, Coleman discloses a button positioned on the handpiece.

Duchon teaches (Figure 11) that it was well-known in the art at the time the invention was made for a console (400) to include a touch screen user input (432). Duchon teaches that a touch screen is an equivalent structure to a selector dial, keypad, button, etc. that can be used by a user for console input (paragraph 0123).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the user input device taught by Coleman in view of Shadduck to be a touch screen user input positioned on the console because Duchon teaches that a touch screen is an equivalent structure to an input knob, button, keypad, dial, etc. that is known in the art for entering input into a console and controlling a system (Duchon, paragraphs 0123 and 0158).

13. Claim 36 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Coleman et al. (US 2001/0049511 A1) ("Coleman") in view of Shadduck (US 6,162,232) as applied to claim 27 above, and further in view of Duchon et al. (US 2003/0018252 A1) ("Duchon").

Regarding claim 36, Coleman in view of Shadduck teaches the invention substantially as claimed. However, the combined teaching fails to teach that the console comprises a display.

Duchon teaches (Figure 1) that it was well-known in the art at the time the invention was made for a console (12) to include a display (58) to monitor the operational state of the system, including operation data, alerts, status information, and operator prompts (paragraphs 0063 and 0093).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the console taught by Coleman in view of Shadduck to comprise a display. This modification would allow an operator to monitor the operational state of the system, including operation data, alerts, status information, and operator prompts (Duchon, paragraphs 0063 and 0093).

Allowable Subject Matter

14. Claims 17-26 and 37 are in condition for allowance pending a timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d).

15. Claim 32 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. The following is a statement of reasons for the indication of allowable subject matter: Regarding claim 17, the prior art of record fails to disclose or suggest a skin treatment system, comprising:

- a console configured to receive a first container containing a first treatment material and a second container containing a second treatment material;
- a handpiece configured to couple to a tip that can be pressed against skin to perform skin treatment;
- a supply line connected between the handpiece and the console for sequentially delivering treatment material to the handpiece from the first container or the second container;
- a waste line connected between the handpiece and the console; and
- a vacuum source configured to create a vacuum that draws waste material from the handpiece through the waste line for disposal and that draws treatment material from either the first container or the second container to the handpiece when the tip is pressed against skin.

The prior art of record fails to disclose a skin treatment system with the combination of features claimed. Coleman discloses a skin treatment system with a console, handpiece, supply line, waste line, and vacuum source. However, the vacuum source in Coleman is only configured to draw waste material from the handpiece through the waste line for disposal. It is not configured to also draw treatment material from either the first container or the second container to the handpiece when the tip is pressed against skin, as claimed. Claims 18-26 are dependent on claim 17, thus are

also allowable over the prior art of record pending a timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d).

Regarding claim 37 the prior art of record fails to disclose or suggest a skin treatment system, comprising:

- a console configured to receive a first container containing a first treatment material and a second container containing a second treatment material;
- a handpiece configured to couple toa tip that can be pressed against skin to perform skin treatment;
- a supply line connected between the handpiece and the console for sequentially delivering treatment material to the handpiece from the first container or the second container;
- a waste line connected between the handpiece and the console;
- a vacuum source configured to create a vacuum that draws waste material from the handpiece through the waste line for disposal and that draws treatment material from either the first container or the second container to the handpiece when the tip is pressed against skin;
- a flow rate controller to adjust a flow rate of the first treatment material or the second treatment material to the handpiece, wherein the flow rate controller is located on the handpiece or on the console; and
- a user input device to select the first treatment material or the second treatment material for delivery to the handpiece.

The prior art of record fails to disclose a skin treatment system with the combination of features claimed. Coleman discloses a skin treatment system with a console, handpiece, supply line, waste line, vacuum source, flow rate controller, and user input device. However, the vacuum source in Coleman is only configured to draw waste material from the handpiece through the waste line for disposal. It is not configured to also draw treatment material from either the first container or the second container to the handpiece when the tip is pressed against skin, as claimed.

Claim 32 is dependent on independent claim 27 and also recites that the vacuum source is configured to create a vacuum that draws treatment material from either the first container or the second container to the handpiece when the tip is placed against skin.

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTIAN D KNAUSS whose telephone number is (571)272-8641. The examiner can normally be reached M-F 12:30-8:30.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darwin Erezo can be reached on 571-272-4695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: https://patentcenter.uspto.gov. Visit https://www.uspto.gov/patents/apply/patent-center for more information about Patent Center and https://www.uspto.gov/patents/docx for information about filing in DOCX format. For additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C.D.K/
Examiner, Art Unit 3771

/DARWIN P EREZO/
Supervisory Patent Examiner, Art Unit 3771

Notice of References Cited	Application/Control No. 18/487,916	Applicant(s)/Patent Under Reexamination Ignon et al.	
	Examiner CHRISTIAN D KNAUSS	Art Unit 3771	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date YYYY-MM-DD	Name	CPC Classification	US Classification
*	A	US-9550052-B2	2017-01-24	Ignon; Roger	A61B50/10	1/1
*	B	US-20010049511-A1	2001-12-06	COLEMAN, WILLIAM P.	A61H9/00	604/290
*	C	US-6162232-A	2000-12-19	Shadduck; John H.	A61B17/545	604/289
*	D	US-20030018252-A1	2003-01-23	Duchon, Douglas J.	A61M5/172	600/432
	E					
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	N					
	O					
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	S					
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NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in YYYY-MM-DD format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	18/487,916	Ignon et al.
	Examiner	Art Unit
	CHRISTIAN D KNAUSS	3771

CPC - Searched*		
Symbol	**Date**	**Examiner**
A61B17/3205, 54, 545	05/17/2024	CDK
A61B2017/00199, 00761, 320004	05/17/2024	CDK
A61M1/774	05/17/2024	CDK
A61B2217/005, 007	05/17/2024	CDK
A61M35/003	05/17/2024	CDK

CPC Combination Sets - Searched*		
Symbol	**Date**	**Examiner**

US Classification - Searched*			
Class	**Subclass**	**Date**	**Examiner**

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	**Date**	**Examiner**
Reviewed parent applications	05/17/2024	CDK
Performed inventor and assignee searches	05/17/2024	CDK
Performed SEARCH	05/17/2024	CDK
Performed backward/forward searches	05/17/2024	CDK
Performed CPC subgroup/text searches and combinations	05/17/2024	CDK
Performed Similarity and More Like This searches	05/17/2024	CDK

/C.D.K/ Examiner, Art Unit 3771	

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Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

/C.D.K/ Examiner, Art Unit 3771	

Bibliographic Data

Application No: 18/487,916

Foreign Priority claimed: ○ Yes ◉ No

35 USC 119 (a-d) conditions met: ☐ Yes ☐ No ☐ Met After Allowance

Verified and Acknowledged: /CHRISTIAN D KNAUSS/ Examiner's Signature | Initials

Title: DEVICES AND METHODS FOR TREATING SKIN

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
10/16/2023	604	3771	
RULE			

APPLICANTS

HydraFacial LLC, Long Beach, CA, UNITED STATES

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Roger Ignon, Redondo Beach, CA, UNITED STATES

Scott Mallett, Coto De Caza, CA, UNITED STATES

Abraham Solano, Corona, CA, UNITED STATES

William Cohen, Los Alamitos, CA, UNITED STATES

CONTINUING DATA OK /CK/

This application is a CON of 18094884 01/09/2023 PAT 11865287

18094884 is a CON of 17165820 02/02/2021 PAT 11547840

17165820 is a CON of 16517268 07/19/2019 PAT 11446477

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FOREIGN APPLICATIONS none /CK/

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10/26/2023

STATE OR COUNTRY

UNITED STATES

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$1,820

PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487,916
	Filing Date	October 16, 2023
	First Named Inventor	Roger Ignon
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
SHEET 1 OF 3	Attorney Docket No.	EDGE.005C11

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	1	11,452,883	09-27-2022	Marchese et al.	
	2	11,806,495	11-07-2023	Ignon et al.	
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Examiner Signature	/CHRISTIAN D KNAUSS/	Date Considered	05/18/2024

***Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /C.D.K/

PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487,916
	Filing Date	October 16, 2023
	First Named Inventor	Roger Ignon
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
SHEET 2 OF 3	Attorney Docket No.	EDGE.005C11

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	52	TW D155201	08-01-2013	Heqin Industrial Co., Ltd.		X

Examiner Signature	/CHRISTIAN D KNAUSS/	Date Considered	05/18/2024

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PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487,916
	Filing Date	October 16, 2023
	First Named Inventor	Roger Ignon
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
SHEET 3 OF 3	Attorney Docket No.	EDGE.005C11

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[1]
	53	TW D176752	06-21-2016	Zhang Tingxuan		Abs
	54	WO 1999/23951	05-20-1999	Ronald Allan Greenberg		
	55	WO 2012/131623	10-04-2012	L'Oreal		

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Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[1]
	56	Amazon.com: IeBilif Facial Skin Care Machine, posted 12/14/2023 (retrieved online 3/29/2024) from https://www.amazon.com/IeBillif-Equipment-Esthetician-Essential-supplies/d (2023).	
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	58	"BeautyBio: GLOfacial Hydro-Infusion deep pore cleansing + Blue LED clarifying tool", found online at amazon.com 09/26/2023, ref. dated 11/15/2022, retrieved https://www.amazon.com/GLOfacial-Hyrdo-Infusion-Deep-Cleansing-Clarifying/dp/B0BGJLMSZP/.	
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Examiner Signature	/CHRISTIAN D KNAUSS/	Date Considered	05/18/2024

***Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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	Filing Date	October 16, 2023
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SHEET 1 OF 1	Attorney Docket No.	EDGE.005C11

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear

FOREIGN PATENT DOCUMENTS						
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	1	WO 1999/37229	07-29-1999	Very Inventive Physicians, Inc.		

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[1]

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Examiner Signature	/CHRISTIAN D KNAUSS/	Date Considered	05/18/2024

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T[1] - Place a check mark in this area when an English language Translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /C.D.K/

PE2E SEARCH - Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
L1	29	(roger near2 ignon).in.	(US-PGPUB; USPAT)	OR	OFF	OFF	2015/08/03 04:30 AM
L2	101	(scott near2 mallett).in.	(US-PGPUB; USPAT)	OR	OFF	OFF	2015/08/03 04:31 AM
L3	3	(abraham near2 solano).in.	(US-PGPUB; USPAT)	OR	OFF	OFF	2015/08/03 04:31 AM
L4	100	(william near2 cohen).in.	(US-PGPUB; USPAT)	OR	OFF	OFF	2015/08/03 04:31 AM
L5	0	14/700,789	(US-PGPUB; USPAT)	OR	OFF	OFF	2015/08/03 04:35 AM
L6	24	(edge near2 systems).as.	(US-PGPUB; USPAT)	OR	OFF	OFF	2015/08/03 04:36 AM
L7	117	A61M35/003	(US-PGPUB; USPAT)	OR	OFF	OFF	2015/08/03 04:40 AM
L8	848	A61M35/003.cpc.	(US-PGPUB; USPAT)	OR	OFF	OFF	2015/08/03 04:40 AM
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		"20060200099" | "20060200172" | "20060200173" | "20060212029" | "20060253125" | "20060264893" | "20070005078" | "20070043382" | "20070065515" | "20070088371" | "20070114904" | "20070123808" | "20070154502" | "20070156124" | "20070178121" | "20070198031" | "20070208353" | "20070239173" | "20080027328" | "20080091179" | "20080119781" | "20080132914" | "20080139974" | "20080193493" | "20080200861" | "20080214987" | "20080215068" | "20080243039" | "20080287864" | "20080300529" | "20090048557" | "20090053390" | "20090099091" | "20090099093" | "20090124985" | "20090138026" | "20090177171" | "20090192442" | "20090222023" | "20100045427" | "20100049177" | "20100049210" | "20110054490" | "20110066162" | "20110082415" | "20120022435" | "20120136374" | "20130066336" | "20130096577" | "20130144280" | "20130158547" | "2608032" | "2701559" | "2712823" | "2867214" | "2881763" | "2921585" | "3085573" | "3214869" | "3476112" | "3574239" | "3715838").PN. OR ("3948265" | "3964212"					

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L11	138	A61B17/545.cpc.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 05:32 AM
L12	387	A61B2017/00535.cpc.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 05:45 AM
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L15	841	A61B2017/320004.cpc.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 06:33 AM
L16	436	A61B2017/320008.cpc.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 06:44 AM
L17	297	A61B2017/320012.cpc.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 06:51 AM
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			USOCR)				06:58 AM
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		| "6042552" | "6080165" | "6080166" | "6090085" | "6136008" | "6139553" | "6139554" | "6142155" | "6149634" | "6162232" | "6183451" | "6183483" | "6231593" | "6238275" | "6241739" | "6264666" | "6283978" | "6299620" | "6306119" | "6368333" | "6387103" | "6410599" | "6414032" | "6420431" | "6423078" | "6423750" | "6471712" | "6477410" | "6488646" | "6494856" | "6500183" | "6527783" | "6535761" | "6540757" | "6562013" | "6564093" | "6565535" | "6582442" | "6592595" | "6629983" | "6641591" | "6645184" | "6652888" | "6673081" | "6673082" | "6685853" | "6687537" | "6695853" | "6735470" | "6743215" | "6869611" | "6905487" | "6911031" | "6924649" | "6926681" | "6942649" | "7001355" | "7004933" | "7044938" | "7069073" | "7083580" | "7087063" | "7094252" | "7115275" | "7135011" | "7153311" | "7197359" | "7198623" | "7276051" | "7314326" | "7316657" | "7318828" | "7320691" | "7320801" | "7354423" | "7364565" | "7427273" | "7458944" | "7476205" | "7477938" | "7482314" | "7489989" | "7507228" | "7582067" | "7597900" | "7597901" | "7658742" | "7678120" | "7789886" | "7837695" | "7951156" | "8025669" | "RE37796").PN. OR ("8343116").URPN.					
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		"20030012415"|"20030 060834"|"2003093040 "|"20030093089"|"2003 0097139"|"2003018746 2"|"20030208159"|"200 30212127"|"200302124 15"|"20040010222"|"20 040010269"|"20040087 972"|"20040092895"|"2 0040097967"|"2004012 2447"|"20040143274"|" 20040166172"|"200402 19179"|"20040236291"| "20040243149"|"20040 267285"|"20050037034 "|"20050038448"|"2005 0059940"|"2005008450 9"|"20050148958"|"200 50203111"|"200502096 11"|"20050283176"|"20 060002960"|"20060191 562"|"20060200099"|"2 0060200172"|"2006020 0173"|"20060212029"|" 20060253125"|"200602 64893"|"20070005078"| "20070043382"|"20070 065515"|"20070088371 "|"20070123808"|"2007 0154502"|"2007015612 4"|"20070178121"|"200 70198031"|"200702083 53"|"20070239173"|"20 080027328"|"20080091 179"|"20080119781"|"2 0080132914"|"2008013 9974"|"20080193493"|" 20080200861"|"200802 14987"|"20080215068"| "20080243039"|"20080 287864"|"20080300529 "|"20080300552"|"2009 0048557"|"2009005339 0"|"20090099091"|"200 90099093"|"200901249 85"|"20090138026"|"20 090177171"|"20090192 442"|"20090222023"|"2 0100045427"|"2010004 9177"|"20100049210"|" 20110054490"|"201100 66162"|"20110082415"| "20120022435"|"20120 136374"|"20130018317 "|"20130066336"|"2013 0096577"|"2013010297 8"|"20130144280"|"201 30158547"|"201403434					

		81"|"20140343574"|"20150032047"|"3085573"|"3214869"|"3476112"|"3574239"|"3715838"|"3948265"|"3964212"|"3977084"|"4121388"|"4155721"|"4182329"|"4203431"|"4216233"|"4299219"|"4378804"|"4560373"|"4646480"|"4646482"|"4655743"|"4676749"|"4706676"|"4754756"|"4757814"|"4764362"|"4795421"|"4875287"|"4886078"|"4887994"|"4900316"|"4917086"|"4925450"|"4957747"|"5006004"|"5006339"|"5012797"|"5035089"|"5037431"|"5037432"|"5100412"|"5100424"|"5119839"|"5122153"|"5207234"|"5222956"|"5242433"|"5254109"|"5368581"|"5391151"|"5417674"|"5419772"|"5460620"|"5470323"|"5484427"|"5562642"|"5611687"|"5612797"|"5674235"|"5676643"|"5676648"|"5683971"|"5707383"|"5713785"|"5759185"|"5779519"|"5800446"|"5807353"|"5810842"|"5813416"|"5817050"|"5846215"|"5848998"|"5861142"|"5873881"|"5879323"|"5882201"|"5885260"|"5908401"|"5919152"|"5954730"|"5971999"|"5980555"|"6019749"|"6024733"|"6027402"|"6039745"|"6042552"|"6080165"|"6080166"|"6090085"|"6120512"|"6136008"|"6139553"|"6139554").pn.				
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		23750"|"6432113"|"6471712"|"6477410"|"6482212"|"6488646"|"6494856"|"6500183"|"6503256"|"6511486"|"6514262"|"6527783"|"6535761"|"6540757"|"6562013"|"6562050"|"6564093"|"6565535"|"6582442"|"6592595"|"6629983"|"6641591"|"6645184"|"6652888"|"6673081"|"6673082"|"6685853"|"6687537"|"6695853"|"6735470"|"6743215"|"6764493"|"6869611"|"6905487"|"6911031"|"6924649"|"6926681"|"6942649"|"7001355"|"7004933"|"7044938"|"7052503"|"7069073"|"7070488"|"7083580"|"7087063"|"7094252"|"7115275"|"7135011"|"7153311"|"7197359"|"7198623"|"7241208"|"7276051"|"7314326"|"7316657"|"7318828"|"7320691"|"7320801"|"7354423"|"7364565"|"7384405"|"7427273"|"7458944"|"7476205"|"7477938"|"7482314"|"7489989"|"7507228"|"7582067"|"7597900"|"7597901"|"7658742"|"7678120"|"7744582"|"7789886"|"7837695"|"7901373"|"7951156"|"8025669"|"8048089"|"8066716"|"8088085"|"8128638"|"8221437"|"8236008"|"8277287"|"8337513"|"8343116"|"8814836"|"RE37796"|"RE42960").PN.					
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		| "6080166" | "6136008" | "6139553" | "6139554" | "6162232").PN. OR ("6299620").URPN.					
L24	73	("2608032" | "2921585" | "3085573" | "3476112" | "3574239" | "3715838" | "4182329" | "4216233" | "4560373" | "4646480" | "4676749" | "4706676" | "4754756" | "4757814" | "4900316" | "4917086" | "5037432" | "5100412" | "5207234" | "5810842" | "5873881" | "5971999" | "6019749" | "6024733" | "6039745" | "6080165" | "6080166" | "6136008" | "6139553" | "6139554" | "6149634" | "6162232").PN. OR ("6387103").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 08:22 AM
L25	38	("0191775" | "0551973" | "1138346" | "1178898" | "3288140" | "3556097" | "3910266" | "4798599" | "5037431" | "5156846" | "5242392" | "5358494" | "5441482" | "5697920" | "5735833" | "5898211" | "5941859" | "5976556" | "6117433" | "6261275" | "6264666" | "6293929" | "6368595" | "6398767" | "6406447" | "6458109" | "6520982" | "6942649").PN. OR ("7364565").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 08:27 AM
L26	84	("2608032" | "2921585" | "3085573" | "3476122" | "3574239" | "3715838" | "4182329" | "4216233" | "4560373" | "4646480" | "4676749" | "4706676" | "4757814" | "4900316" | "5037432" | "5100412" | "5207234" | "5810842" | "5971999" | "6024733" | "6039745").PN. OR ("6162232").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 08:28 AM
L27	27	("5759185" | "6139554" | "6162232" | "6183483" | "6241739").PN. OR ("6641591").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 08:33 AM
L28	288	("4166457" | "4239046" | "4250878" | "4325367"	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 08:41 AM

		| "4329999" | "4383529" | "4406658" | "4411648" | "4416274" | "4419092" | "4456012" | "4474570" | "4477971" | "4557723" | "4585652" | "4595011" | "4602909" | "4622031" | "4633879" | "4640689" | "4679560" | "4689039" | "4693711" | "4699146" | "4700710" | "4702732" | "4706680" | "4708716" | "4713050" | "4717378" | "4721111" | "4722354" | "4722726" | "4725263" | "4727881" | "4731049" | "4731926" | "4744787" | "4747819" | "4752285" | "4756314" | "4764164" | "4767401" | "4786277" | "4786278" | "4808152" | "4810699" | "4820263" | "4823810" | "4832036" | "4842577" | "4848353").PN. OR ("5279543").URPN.					
L29	2179	A61B2217/005.cpc.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 10:35 AM
L30	304	L29 and spiral	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 11:21 AM
L31	1	"6277128".pn.	(US-PGPUB; USPAT)	OR	OFF	OFF	2015/08/03 11:44 AM
L32	38	("2608032" | "2921585" | "3574239" | "3715838" | "4375740" | "4482322" | "4560373" | "4646480" | "4671867" | "4676749" | "4757814" | "4765099" | "5037431" | "5037432" | "5100412" | "5207234" | "5309683" | "5460604" | "5547376" | "5765759" | "5810587" | "5810842" | "6039745").PN. OR ("6277128").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 11:45 AM
L33	294	("20010023351" | "20010049511" | "20020016601" | "20020041891" | "20020058952" | "20020107527" | "20020133110" | "20020188261" | "20030012415" | "20030060834" | "20030093089" |	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2015/08/03 11:49 AM

		"20030097139" | "20030187462" | "20030208159" | "20030212127" | "20030212415" | "20040087972" | "20040092895" | "20040097967" | "20040143274" | "20040166172" | "20040219179" | "20040236291" | "20040243149" | "20040267285" | "20050037034" | "20050038448" | "20050059940" | "20050084509" | "20050148958" | "20050203111" | "20050209611" | "20050283176" | "20060002960" | "20060200099" | "20060200172" | "20060200173" | "20060212029" | "20060253125" | "20060264893" | "20070005078" | "20070043382" | "20070065515" | "20070088371" | "20070114904" | "20070123808" | "20070154502" | "20070156124" | "20070178121" | "20070198031" | "20070208353" | "20070239173" | "20080027328" | "20080091179" | "20080119781" | "20080132914" | "20080139974" | "20080193493" | "20080200861" | "20080214987" | "20080215068" | "20080243039" | "20080287864" | "20080300529" | "20090048557" | "20090053390" | "20090099091" | "20090099093" | "20090124985" |				

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		| "6080165" | "6080166" | "6090085" | "6120512" | "6136008" | "6139553" | "6139554" | "6142155" | "6149634" | "6162232" | "6183451" | "6183483" | "6231593" | "6238275" | "6241739" | "6264666" | "6277128" | "6283978" | "6299620" | "6306119" | "6306147" | "6322568" | "6368333" | "6387103" | "6410599" | "6414032" | "6420431" | "6423078" | "6423750" | "6432113" | "6471712" | "6477410" | "6482212" | "6488646" | "6494856" | "6500183" | "6503256" | "6511486" | "6514262" | "6527783" | "6535761" | "6540757" | "6562013" | "6562050" | "6564093" | "6565535" | "6582442" | "6592595" | "6629983" | "6641591" | "6645184" | "6652888" | "6673081").PN. OR ("6673082" | "6685853" | "6687537" | "6695853" | "6735470" | "6743215" | "6764493" | "6869611" | "6905487" | "6911031" | "6924649" | "6926681" | "6942649" | "7001355" | "7004933" | "7044938" | "7052503" | "7069073" | "7070488" | "7083580" | "7087063" | "7094252" | "7115275" | "7135011" | "7153311" | "7197359" | "7198623" | "7241208" | "7276051" | "7314326" | "7316657" | "7318828" | "7320691" | "7320801" | "7354423" | "7364565" | "7384405" | "7427273" | "7458944" | "7476205" | "7477938" | "7482314" | "7489989" | "7507228" | "7582067" | "7597900" | "7597901" | "7658742" | "7678120" | "7789886" | "7837695" | "7901373" | "7951156" | "8025669" | "8048089" | "8066716" | "8088085" | "8128638" | "8221437" | "8236008" | "8277287" | "8337513"					

		| "8343116" | "RE37796").PN. OR ("8814836").URPN. and spiral					
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L36	67	("2701559" | "2712823" | "2867214" | "2881763" | "2921585" | "3964212" | "4378804" | "4572187" | "4957747" | "5012797" | "5037431" | "5037432" | "5100412" | "5207234" | "5354307" | "5800446" | "5810842" | "5954730" | "5971999" | "6019749" | "6039745" | "6042552" | "6080165" | "6162232" | "6299620" | "6391034" | "6423078" | "6432113").PN. OR ("6629983").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2016/05/18 05:36 AM
L37	294	("20010023351" | "20010049511" | "20020016601" | "20020041891" | "20020058952" | "20020107527" | "20020133110" | "20020188261" | "20030012415" | "20030060834" | "20030093089" | "20030097139" | "20030187462" | "20030208159" | "20030212127" | "20030212415" | "20040087972" | "20040092895" | "20040097967" | "20040143274" | "20040166172" |	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2016/05/18 06:01 AM

		"20040219179" | "20040236291" | "20040243149" | "20040267285" | "20050037034" | "20050038448" | "20050059940" | "20050084509" | "20050148958" | "20050203111" | "20050209611" | "20050283176" | "20060002960" | "20060200099" | "20060200172" | "20060200173" | "20060212029" | "20060253125" | "20060264893" | "20070005078" | "20070043382" | "20070065515" | "20070088371" | "20070114904" | "20070123808" | "20070154502" | "20070156124" | "20070178121" | "20070198031" | "20070208353" | "20070239173" | "20080027328" | "20080091179" | "20080119781" | "20080132914" | "20080139974" | "20080193493" | "20080200861" | "20080214987" | "20080215068" | "20080243039" | "20080287864" | "20080300529" | "20090048557" | "20090053390" | "20090099091" | "20090099093" | "20090124985" | "20090138026" | "20090177171" | "20090192442" | "20090222023" | "20100045427" | "20100049177" | "20100049210" | "20110054490" | "20110066162" | "20110082415" |				

		"20120022435" | "20120136374" | "20130066336" | "20130096577" | "20130144280" | "20130158547" | "2608032" | "2701559" | "2712823" | "2867214" | "2881763" | "2921585" | "3085573" | "3214869" | "3476112" | "3574239" | "3715838").PN. OR ("3948265" | "3964212" | "3977084" | "4121388" | "4155721" | "4182329" | "4203431" | "4216233" | "4378804" | "4560373" | "4646480" | "4646482" | "4676749" | "4706676" | "4754756" | "4757814" | "4764362" | "4795421" | "4875287" | "4886078" | "4887994" | "4900316" | "4917086" | "4925450" | "4957747" | "5006004" | "5006339" | "5012797" | "5035089" | "5037431" | "5037432" | "5100412" | "5119839" | "5122153" | "5207234" | "5222956" | "5242433" | "5254109" | "5368581" | "5417674" | "5460620" | "5470323" | "5484427" | "5562642" | "5611687" | "5612797" | "5674235" | "5676643" | "5676648" | "5683971" | "5713785" | "5759185" | "5779519" | "5800446" | "5810842" | "5813416" | "5846215" | "5861142" | "5873881" | "5879323" | "5882201" | "5885260" | "5908401" | "5919152" | "5954730" | "5971999" | "5980555" | "6019749" | "6024733" | "6027402" | "6039745" | "6042552" | "6080165" | "6080166" | "6090085" | "6120512" | "6136008" | "6139553" | "6139554" | "6142155" | "6149634" | "6162232" | "6183451" | "6183483" | "6231593" | "6238275" | "6241739" | "6264666" | "6277128" | "6283978" | "6299620" | "6306119"					

		| "6306147" | "6322568" | "6368333" | "6387103" | "6410599" | "6414032" | "6420431" | "6423078" | "6423750" | "6432113" | "6471712" | "6477410" | "6482212" | "6488646" | "6494856" | "6500183" | "6503256" | "6511486" | "6514262" | "6527783" | "6535761" | "6540757" | "6562013" | "6562050" | "6564093" | "6565535" | "6582442" | "6592595" | "6629983" | "6641591" | "6645184" | "6652888" | "6673081").PN. OR ("6673082" | "6685853" | "6687537" | "6695853" | "6735470" | "6743215" | "6764493" | "6869611" | "6905487" | "6911031" | "6924649" | "6926681" | "6942649" | "7001355" | "7004933" | "7044938" | "7052503" | "7069073" | "7070488" | "7083580" | "7087063" | "7094252" | "7115275" | "7135011" | "7153311" | "7197359" | "7198623" | "7241208" | "7276051" | "7314326" | "7316657" | "7318828" | "7320691" | "7320801" | "7354423" | "7364565" | "7384405" | "7427273" | "7458944" | "7476205" | "7477938" | "7482314" | "7489989" | "7507228" | "7582067" | "7597900" | "7597901" | "7658742" | "7678120" | "7789886" | "7837695" | "7901373" | "7951156" | "8025669" | "8048089" | "8066716" | "8088085" | "8128638" | "8221437" | "8236008" | "8277287" | "8337513" | "8343116" | "RE37796").PN. OR ("9056193").URPN.					
L38	39	("2631583"|"20010037118"|"20020133176"|"20020151908"|"20030018252"|"20030167032"|"20040092959"|"20040162565"|"20040254587"|"	(US-PGPUB; USPAT)	OR	OFF	OFF	2016/06/15 04:19 AM

		20060116674"|"20060161178"|"20060189964"|"20080103563"|"20080154161"|"20080221548"|"20090062815"|"20100217357"|"20120041338"|"20150230824"|"20150230825"|"20150231379"|"20150265822"|"20150272623"|"20150290442"|"20160038183"|"3865352"|"4170821"|"5697920"|"5735833"|"6129701"|"6162218"|"6193589"|"6235039"|"6432114"|"6589218"|"6695853"|"6743211"|"7232444"|"9056193").PN.					
L39	1	14/700,789	(US-PGPUB; USPAT)	OR	OFF	OFF	2016/06/15 07:04 AM
L40	531	A61M2037/0007.cpc.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2016/06/15 07:07 AM
L41	8	("4836192" "6401289" "9468464" "9474886" "9486615" "9498610" "20040015139" "20100305495").pn.	(US-PGPUB; USPAT)	OR	OFF	OFF	2017/02/01 03:47 AM
L42	1039	microdermabras$6	(US-PGPUB; USPAT)	OR	OFF	OFF	2017/12/07 01:33 PM
L43	545	microdermabras$6 and (suction$4 vacuum$4)	(US-PGPUB; USPAT)	OR	OFF	OFF	2017/12/07 01:52 PM
L44	214	microdermabras$6 and (spiral)	(US-PGPUB; USPAT)	OR	OFF	OFF	2017/12/08 05:44 AM
L45	182	(US-0002960-$ | US-0005078-$ | US-0010222-$ | US-0010269-$ | US-0012415-$ | US-0015139-$ | US-0016601-$ | US-0018252-$ | US-0018317-$ | US-0022435-$ | US-0023351-$ | US-0027328-$ | US-0032047-$ | US-0036002-$ | US-0037034-$ | US-0037118-$ | US-0038183-$ | US-0038448-$ | US-0041338-$ | US-0041891-$ | US-0043382-$ | US-0045427-$ | US-	(US-PGPUB; USPAT)	OR	OFF	OFF	2017/12/08 06:08 AM

		0048557-$ | US- 0049177-$ | US- 0049210-$ | US- 0049511-$ | US- 0053390-$ | US- 0054490-$ | US- 0058952-$ | US- 0059940-$ | US- 0060834-$ | US- 0062815-$ | US- 0065515-$ | US- 0065801-$ | US- 0066162-$ | US- 0066336-$ | US- 0082415-$ | US- 0084509-$ | US- 0087972-$ | US- 0088371-$ | US- 0091179-$ | US- 0092895-$ | US- 0092959-$ | US- 0093040-$ | US- 0093089-$ | US- 0096577-$ | US- 0097139-$ | US- 0097967-$ | US- 0099091-$ | US- 0099093-$ | US- 0102978-$ | US- 0103563-$ | US- 0107527-$ | US- 0116674-$ | US- 0119781-$ | US- 0122447-$ | US- 0123808-$ | US- 0124985-$ | US- 0127914-$ | US- 0128663-$ | US- 0132914-$ | US- 0133110-$ | US- 0133176-$ | US- 0136374-$ | US- 0138026-$ | US- 0139974-$ | US- 0143274-$ | US- 0144280-$ | US- 0148958-$ | US- 0151826-$ | US- 0151908-$ | US- 0154161-$ | US- 0154502-$ | US- 0156124-$ | US- 0158547-$ | US- 0161178-$ | US- 0162565-$ | US- 0166172-$ | US- 0167032-$ | US- 0177171-$ | US-						

		0178121-$ | US- 0187462-$ | US- 0188261-$ | US- 0189964-$ | US- 0191562-$ | US- 0192442-$ | US- 0193493-$ | US- 0198031-$ | US- 0200099-$ | US- 0200172-$ | US- 0200173-$ | US- 0200861-$ | US- 0203111-$ | US- 0208146-$ | US- 0208159-$ | US- 0208353-$ | US- 0209611-$ | US- 0212029-$ | US- 0212127-$ | US- 0212415-$ | US- 0214987-$ | US- 0215068-$ | US- 0217357-$ | US- 0219179-$ | US- 0221548-$ | US- 0222023-$ | US- 0230824-$ | US- 0230825-$ | US- 0231379-$ | US- 0236291-$ | US- 0239173-$ | US- 0243039-$ | US- 0243149-$ | US- 0253125-$ | US- 0254587-$ | US- 0256671-$ | US- 0264893-$ | US- 0265822-$ | US- 0267285-$ | US- 0272623-$ | US- 0280320-$ | US- 0283176-$ | US- 0287864-$ | US- 0290442-$ | US- 0300529-$ | US- 0300552-$ | US- 0305495-$ | US- 0343481-$ | US- 0343574-$ | US- 1234567-$ | US- 2608032-$ | US- 2631583-$ | US- 2701559-$ | US- 2712823-$ | US- 2867214-$ | US- 2881763-$ | US- 2921585-$ | US- 20010023351-$ | US-					

		20010037118-$ | US- 20010049511-$ | US- 20020016601-$ | US- 20020041891-$ | US- 20020058952-$ | US- 20020107527-$ | US- 20020128663-$ | US- 20020133110-$ | US- 20020133176-$ | US- 20020151826-$ | US- 20020151908-$ | US- 20020188261-$ | US- 20030012415-$ | US- 20030018252-$ | US- 20030060834-$ | US- 20030093040-$ | US- 20030093089-$ | US- 20030097139-$ | US- 20030167032-$ | US- 20030187462-$ | US- 20030208159-$ | US- 20030212127-$ | US- 20030212415-$ | US- 20040010222-$ | US- 20040010269-$ | US- 20040015139-$ | US- 20040087972-$ | US- 20040092895-$ | US- 20040092959-$ | US- 20040097967-$ | US- 20040122447-$ | US- 20040127914-$ | US- 20040143274-$ | US- 20040162565-$ | US- 20040166172-$ | US- 20040219179-$ | US- 20040236291-$ | US- 20040243149-$ | US- 20040254587-$ | US- 20040267285-$ | US- 20050037034-$ | US- 20050038448-$ | US- 20050059940-$ | US- 20050084509-$ | US- 20050148958-$).DID.					
L46	173	(US-20050203111-$ | US-20050209611-$ | US-20050283176-$ | US-20060002960-$ | US-20060116674-$ | US-20060161178-$ | US-20060189964-$ | US-20060191562-$ | US-20060200099-$ | US-20060200172-$ | US-20060200173-$ | US-20060212029-$ |	(US-PGPUB; USPAT)	OR	OFF	OFF	2017/12/08 06:08 AM

		US-20060253125-$ | US-20060264893-$ | US-20070005078-$ | US-20070043382-$ | US-20070065515-$ | US-20070088371-$ | US-20070123808-$ | US-20070154502-$ | US-20070156124-$ | US-20070178121-$ | US-20070198031-$ | US-20070208353-$ | US-20070239173-$ | US-20080027328-$ | US-20080091179-$ | US-20080103563-$ | US-20080119781-$ | US-20080132914-$ | US-20080139974-$ | US-20080154161-$ | US-20080193493-$ | US-20080200861-$ | US-20080208146-$ | US-20080214987-$ | US-20080215068-$ | US-20080221548-$ | US-20080243039-$ | US-20080287864-$ | US-20080300529-$ | US-20080300552-$ | US-20090048557-$ | US-20090053390-$ | US-20090062815-$ | US-20090099091-$ | US-20090099093-$ | US-20090124985-$ | US-20090138026-$ | US-20090177171-$ | US-20090192442-$ | US-20090222023-$ | US-20100045427-$ | US-20100049177-$ | US-20100049210-$ | US-20100217357-$ | US-20100305495-$ | US-20110054490-$ | US-20110066162-$ | US-20110082415-$ | US-20120022435-$ | US-20120041338-$ | US-20120136374-$ | US-20130018317-$ | US-20130066336-$ | US-20130096577-$ | US-20130102978-$ | US-20130144280-$ | US-20130158547-$ | US-20140343481-$ |					

		US-20140343574-$ | US-20150032047-$ | US-20150230824-$ | US-20150230825-$ | US-20150231379-$ | US-20150265822-$ | US-20150272623-$ | US-20150290442-$ | US-20160038183-$ | US-20160256671-$ | US-20170036002-$ | US-20170065801-$ | US-2106780-$ | US-26389231-$ | US-3085573-$ | US-3214869-$ | US-3476112-$ | US-3574239-$ | US-3715838-$ | US-3865352-$ | US-3866264-$ | US-3948265-$ | US-3964212-$ | US-3977084-$ | US-4121388-$ | US-4155721-$ | US-4170821-$ | US-4182329-$ | US-4203431-$ | US-4216233-$ | US-4299219-$ | US-4378804-$ | US-4560373-$ | US-4646480-$ | US-4646482-$ | US-4655743-$ | US-4676749-$ | US-4706676-$ | US-4754756-$ | US-4757814-$ | US-4764362-$ | US-4795421-$ | US-4836192-$ | US-4875287-$ | US-4886078-$ | US-4887994-$ | US-4900316-$ | US-4917086-$ | US-4925450-$ | US-4957747-$ | US-5006004-$ | US-5006339-$ | US-5012797-$ | US-5035089-$ | US-5037431-$ | US-5037432-$ | US-5100412-$ | US-5100424-$ | US-					

		5119839-$ | US- 5122153-$ | US- 5207234-$ | US- 5222956-$ | US- 5242433-$ | US- 5254109-$ | US- 5368581-$ | US- 5391151-$ | US- 5417674-$ | US- 5419772-$ | US- 5460620-$ | US- 5470323-$ | US- 5484427-$ | US- 5562642-$ | US- 5611687-$ | US- 5612797-$ | US- 5674235-$ | US- 5676643-$ | US- 5676648-$ | US- 5683971-$ | US- 5697920-$ | US- 5707383-$ | US- 5713785-$ | US- 5735833-$ | US- 5759185-$ | US- 5779519-$ | US- 5800446-$ | US- 5807353-$ | US- 5810842-$ | US- 5813416-$ | US- 5817050-$ | US- 5846215-$ | US- 5848998-$ | US- 5861142-$ | US- 5873881-$ | US- 5879323-$ | US- 5882201-$ | US- 5885260-$ | US- 5908401-$ | US- 5919152-$ | US- 5954730-$ | US- 5971999-$ | US- 5980555-$ | US- 6019749-$ | US- 6024733-$ | US- 6027402-$).DID.					
L47	141	(US-6039745-$ | US- 6042552-$ | US- 6080165-$ | US- 6080166-$ | US- 6090085-$ | US- 6120512-$ | US- 6129701-$ | US- 6136008-$ | US- 6139553-$ | US- 6139554-$ | US- 6142155-$ | US-	(US-PGPUB; USPAT)	OR	OFF	OFF	2017/12/08 06:08 AM

		6149634-$ | US- 6159226-$ | US- 6162218-$ | US- 6162232-$ | US- 6183451-$ | US- 6183483-$ | US- 6193589-$ | US- 6231593-$ | US- 6235039-$ | US- 6238275-$ | US- 6241739-$ | US- 6264666-$ | US- 6277128-$ | US- 6283978-$ | US- 6299620-$ | US- 6306119-$ | US- 6306147-$ | US- 6322568-$ | US- 6368333-$ | US- 6387103-$ | US- 6401289-$ | US- 6409736-$ | US- 6410599-$ | US- 6414032-$ | US- 6420431-$ | US- 6423078-$ | US- 6423750-$ | US- 6432113-$ | US- 6432114-$ | US- 6471712-$ | US- 6477410-$ | US- 6482212-$ | US- 6488646-$ | US- 6494856-$ | US- 6500183-$ | US- 6503256-$ | US- 6511486-$ | US- 6514262-$ | US- 6527783-$ | US- 6535761-$ | US- 6540757-$ | US- 6562013-$ | US- 6562050-$ | US- 6564093-$ | US- 6565535-$ | US- 6582442-$ | US- 6589218-$ | US- 6592595-$ | US- 6629983-$ | US- 6641591-$ | US- 6645184-$ | US- 6652888-$ | US- 6673081-$ | US- 6673082-$ | US- 6685853-$ | US- 6687537-$ | US- 6695853-$ | US- 6735470-$ | US-						

		6743211-$ | US- 6743215-$ | US- 6764493-$ | US- 6869611-$ | US- 6905487-$ | US- 6911031-$ | US- 6926681-$ | US- 6942649-$ | US- 7001355-$ | US- 7004933-$ | US- 7044938-$ | US- 7052503-$ | US- 7069073-$ | US- 7070488-$ | US- 7083580-$ | US- 7087063-$ | US- 7094252-$ | US- 7115275-$ | US- 7135011-$ | US- 7153311-$ | US- 7197359-$ | US- 7198623-$ | US- 7232444-$ | US- 7241208-$ | US- 7276051-$ | US- 7314326-$ | US- 7316657-$ | US- 7318828-$ | US- 7320691-$ | US- 7320801-$ | US- 7354423-$ | US- 7364565-$ | US- 7384405-$ | US- 7427273-$ | US- 7458944-$ | US- 7476205-$ | US- 7477938-$ | US- 7482314-$ | US- 7489989-$ | US- 7507228-$ | US- 7582067-$ | US- 7597900-$ | US- 7597901-$ | US- 7658742-$ | US- 7678120-$ | US- 7744582-$ | US- 7789886-$ | US- 7837695-$ | US- 7901373-$ | US- 7951156-$ | US- 8025669-$ | US- 8048089-$ | US- 8066716-$ | US- 8088085-$ | US- 8128638-$ | US- 8221437-$ | US- 8236008-$ | US- 8277287-$ | US-					

		8337513-$ | US-8343116-$ | US-8814836-$ | US-9056193-$ | US-9468464-$ | US-9474886-$ | US-9486615-$ | US-9498610-$ | US-9550052-$ | US-9566088-$ | US-9642997-$ | US-9662482-$ | US-RE37796-$ | US-RE42960-$).DID.					
L48	21	("6241739" | "6500183").PN. OR ("7153311").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2017/12/08 06:52 AM
L49	51	(roger near2 ignon).in.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2017/12/08 06:58 AM
L50	1	"6277128".pn.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2017/12/08 07:05 AM
L51	23	("6277128").URPN.	(USPAT)	OR	OFF	OFF	2017/12/08 07:22 AM
L52	48	("2608032" | "2921585" | "3574239" | "3715838" | "4375740" | "4482322" | "4560373" | "4646480" | "4671867" | "4676749" | "4757814" | "4765099" | "5037431" | "5037432" | "5100412" | "5207234" | "5309683" | "5460604" | "5547376" | "5765759" | "5810587" | "5810842" | "6039745").PN. OR ("6277128").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2017/12/08 07:22 AM
L53	160	(tip and passage and outer and inner and spiral).clm.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2017/12/08 07:51 AM
L54	1813	A61N5/0616.cpc.	(US-PGPUB; USPAT)	OR	OFF	OFF	2017/12/08 12:10 PM
L55	263	A61N5/0616.cpc. and (abras$4 abrad$4 dermabra$4 microdermabra$4)	(US-PGPUB; USPAT)	OR	OFF	OFF	2017/12/08 12:12 PM
L56	41	("5759185" | "6139554" | "6162232" | "6183483" | "6241739").PN. OR ("6641591").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2017/12/08 12:17 PM
L57	4	("6277128" "8048089" "6629983" "20010037118").pn.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/03/14 06:17 AM
L58	0	(14/700,789 14/698,713 13/267,554	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/03/14 06:51 AM

		"14698,673").pn.					
L59	12	(14/700,789 14/698,713 13/267,554 "14698,673")	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/03/14 06:51 AM
L60	4	(tip and skin and (handle handpiece) and (lumen passage) and fluid and outer and inner and member and spiral$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/03/15 04:41 AM
L61	9	("20170224972"|"20170245876"|"20170266424"|"20170319836"|"20170333689"|"5490736"|"7293930"|"9775646"|"9814868").PN.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/03/15 05:16 AM
L62	1	15/660,750	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 01:36 PM
L63	1	15/660,777	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 01:37 PM
L64	32	("1651585"|"20130004230"|"20170209894"|"3037509"|"3468079"|"3481677"|"3505993"|"3968789"|"4225254"|"4289158"|"4718467"|"4811734"|"5054339"|"5171215"|"5192269"|"5387215"|"5441490"|"5512044"|"5562643"|"5762640"|"5857995"|"6023639"|"6165059"|"6196982"|"6322548"|"6332886"|"6666874"|"6800083"|"6960206"|"7485125"|"7993333"|"8105295").PN.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:33 PM
L65	1	("10035007").PN.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:34 PM
L75	5	("4940350" "10172644" "10179229" "20060222445" "20180318568").pn.	(US-PGPUB; USPAT)	OR	OFF	OFF	2019/03/02 11:08 AM
L76	79	(tip AND skin AND abra$4 AND vacuum AND hand$7).clm.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO); FPRS; EPO)	OR	ON	ON	2021/03/27 06:58 AM
L77	79	(tip AND skin AND abra$4 AND vacuum AND hand$7).clm.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO); EPO)	OR	ON	ON	2021/03/27 06:59 AM
L78	80	(roger near2 ignon).in.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO); EPO)	OR	ON	ON	2021/03/27 07:00 AM
L79	6	L78 AND (christian near2 knauss).xa.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO); EPO)	OR	ON	ON	2021/03/27 07:00 AM

L80	6	L79 AND angle$4	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO); EPO)	OR	ON	ON	2021/03/27 07:10 AM
L81	1	L79 AND (angle$4).clm.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO); EPO)	OR	ON	ON	2021/03/27 07:10 AM
L82	87	("6629983" "20010037118")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/04/10 03:47 PM
L83	2	("6629983" "20010037118").pn.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/04/10 03:48 PM
L84	2843	A61B17/50.cpc.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO); FPRS; EPO)	OR	OFF	OFF	2021/04/10 10:03 PM
L85	2739	A61B17/3205.cpc.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO); FPRS; EPO)	OR	OFF	OFF	2021/04/10 10:03 PM
L86	11297	A61B2017/00017.cpc.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO); FPRS; EPO)	OR	OFF	OFF	2021/04/10 10:04 PM
L87	537	("10035007"|"10076646"|"10130390"|"10176644"|"10179229"|"10188193"|"10206743"|"10220122"|"10238812"|"10251675"|"10314378"|"10334933"|"10357641"|"10369073"|"10456321"|"10456567"|"10485983"|"10524835"|"10556096"|"10556097"|"10667985"|"10737080"|"10758261"|"10918190"|"10946191"|"10993743"|"11020577"|"1651585"|"20010023351"|"20010049511"|"20020016601"|"20020041891"|"20020058952"|"20020107527"|"20020128663"|"20020133110"|"20020133176"|"20020151826"|"20020151908"|"20020162863"|"20020188261"|"20030012415"|"20030018252"|"20030060834"|"20030093040"|"20030093089"|"20030097139"|"20030167032"|"20030187462"|"20030208159"|"20030212127"|"20030212415"|"20040010222"|"20040010269"|"20040015139"|"20040087972"|"20040092895"|"20040092959"|"20040097967"|"20	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/09/26 03:02 AM

		040122447"|"20040127 914"|"20040138680"|"2 0040143274"|"2004016 2565"|"20040166172"|" 20040219179"|"200402 36291"|"20040243149"| "20040254587"|"20040 267285"|"20050037034 "|"20050038448"|"2005 0059940"|"2005008450 9"|"20050148958"|"200 50203111"|"200502096 11"|"20050283176"|"20 060002960"|"20060116 674"|"20060161178"|"2 0060189964"|"2006019 1562"|"20060200099"|" 20060200172"|"200602 00173"|"20060212029"| "20060222445"|"20060 253125"|"20060264893 "|"20060269580"|"2007 0005078"|"2007004338 2"|"20070065515"|"200 70088371"|"200701238 08"|"20070139630"|"20 070154502"|"20070156 124"|"20070178121"|"2 0070198031"|"2007020 8353"|"20070239173"|" 20080027328"|"200800 91179"|"20080103563"| "20080119781"|"20080 132914"|"20080139974 "|"20080154161"|"2008 0193493"|"2008020086 1"|"20080208146"|"200 80214987"|"200802150 68"|"20080221548"|"20 080243039"|"20080287 864"|"20080300529"|"2 0080300552"|"2009004 8557"|"20090053390"|" 20090062815"|"200900 99091"|"20090099093"| "20090124985"|"20090 138026"|"20090177171 "|"20090192442"|"2009 0222023"|"2010002300 3"|"20100045427"|"201 00049177"|"201000492 10"|"20100217357"|"20 100305495"|"20110054 490"|"20110066162"|"2 0110082415"|"2011029 5273"|"20120022435"|" 20120041338"|"201201 36374"|"20130004230"|					

		"20130018317"|"20130 066336"|"20130096577 "|"20130102978"|"2013 0144207"|"2013014428 0"|"20130158547"|"201 40079686"|"201402340 04"|"20140343481"|"20 140343574"|"20140378 887"|"20150032047"|"2 0150230824"|"2015023 0825"|"20150231379"|" 20150265822"|"201502 72632"|"20150290442"| "20160018100"|"20160 038183"|"20160235257 "|"20160250415"|"2017 0036002"|"2017004315 0"|"20170065801"|"201 70209894"|"201801403 29"|"20180185675"|"20 180318568"|"20190070 069"|"20190133642"|"2 0190143089"|"2019015 1637"|"20190223914"|" 20190336740"|"202000 09007"|"20200016342"| "20200171288"|"20200 171289"|"20200179220 "|"20200289161"|"2020 0316270"|"2020033858 6"|"20200390468"|"202 10085367"|"202101454 80"|"20210145481"|"20 210154453"|"20210154 454"|"20210177463"|"2 608032"|"2631583"|"27 01559"|"2712823"|"286 7214"|"2881763"|"2921 585"|"3037509"|"30855 73"|"3214869"|"346807 9"|"3476112"|"3481677" |"3505993"|"3560100"|" 3574239"|"3715838"|"3 865352"|"3866264"|"39 30598"|"3948265"|"396 4212"|"3968789"|"3977 084"|"4121388"|"41557 21"|"4170821"|"418232 9"|"4203431"|"4216233" |"4225254"|"4289158"|" 4299219"|"4342522"|"4 378804"|"4500222"|"45 60373"|"4646480"|"464 6482"|"4655743"|"4676 749"|"4706676"|"47184 67"|"4754756"|"475781 4"|"4764362"|"4795421" |"4811734"|"4836192"|"				

		4875287"|"4886078"|"4 887994"|"4900316"|"49 17086"|"4925450"|"494 0350"|"4957747"|"5006 004"|"5006339"|"50127 97"|"5035089"|"503743 1"|"5037432"|"5054339" |"5100412"|"5100424"|" 5119839"|"5122153"|"5 171215"|"5192269"|"52 07234"|"5222956"|"524 2433"|"5254109"|"5368 581"|"5387215"|"53911 51"|"5417674"|"541977 2"|"5441490"|"5460620" |"5470323"|"5484427"|" 5490736"|"5512044"|"5 562642"|"5562643"|"56 11687"|"5612797"|"567 4235"|"5676643"|"5676 648"|"5683971"|"56979 20"|"5707383"|"571378 5"|"5735833"|"5759185" |"5762640"|"5779519"|" 5800446"|"5807353"|"5 810842"|"5813416"|"58 17050"|"5834510"|"584 6215"|"5848998"|"5857 995"|"5861142"|"58738 81"|"5879323"|"588220 1"|"5885260"|"5908401" |"5919152"|"5954730"|" 5971999"|"5980555"|"6 019749"|"6023639"|"60 24733"|"6027402"|"603 9745"|"6042552"|"6080 165"|"6080166"|"60900 85"|"6120512"|"612970 1"|"6136008"|"6139553" |"6139554"|"6142155"|" 6149634"|"6159226"|"6 162218"|"6162232"|"61 65059"|"6183451"|"618 3483"|"6193589"|"6196 982"|"6231593"|"62350 39"|"6238275"|"624173 9"|"6264666"|"6283978" |"6299620"|"6306119"|" 6306147"|"6322548"|"6 322568"|"6332886"|"63 68333"|"6387103"|"640 1289"|"6409736"|"6410 599"|"6414032"|"64204 31"|"6423078"|"642375 0"|"6432113"|"6432114" |"6471712"|"6477410"|" 6482212"|"6488646"|"6 494856"|"6500183"|"65					

		03256"|"6508813"|"651 1486"|"6514262"|"6527 783"|"6535761"|"65372 42"|"6540757"|"656201 3"|"6562050"|"6564093" |"6565535"|"6582442"|" 6589218"|"6592595"|"6 626445"|"6629927"|"66 41591"|"6645184"|"665 2888"|"6666874"|"6673 081"|"6673082"|"66858 53"|"6687537"|"669585 3"|"6735470"|"6743211" |"6743215"|"6764493"|" 6800083"|"6869611"|"6 905487"|"6911031"|"69 26681"|"6938805"|"694 2649"|"6960206"|"7001 355"|"7004933"|"70449 38"|"7051907"|"705250 3"|"7069073"|"7070488" |"7083580"|"7087063"|" 7094252"|"7115275"|"7 135011"|"7153311"|"71 66086"|"7197359"|"719 8623"|"7232444"|"7241 208"|"7276051"|"72939 30"|"7314326"|"731665 7"|"7316671"|"7318828" |"7320691"|"7320801"|" 7354423"|"7364565"|"7 384405"|"7422567"|"74 27273"|"7458944"|"747 6205"|"7477938"|"7482 314"|"7485125"|"74899 89"|"7507228"|"758206 7"|"7597900"|"7597901" |"7658742"|"7678120"|" 7744582"|"7789886"|"7 837695"|"7857806"|"79 01373"|"7951156"|"799 3333"|"8025669"|"8048 089"|"8066716"|"80880 85"|"8105295"|"812863 8"|"8221437"|"8231292" |"8236008"|"8277287"|" 8337513"|"8343116"|"8 475507"|"8573874"|"85 79916"|"8721662"|"881 4836"|"8858570"|"8939 669"|"8945104"|"90501 33"|"9056193"|"907253 3"|"9468464"|"9474886" |"9486615"|"9498610"|" 9517085"|"9550052"|"9 566088"|"9642997"|"96 62482"|"9700684"|"973 1053"|"9775645"|"9775					

		646"|"9814868"|"9833261"|"9861442"|"9918727"|"9949552"|"9950147"|"9955769"|"D486915"|"D496101"|"D522360"|"D553005"|"D584151"|"D664254"|"D678783"|"D709617"|"D722172"|"D743558"|"D787054"|"D811381"|"D822845"|"D825763"|"D836781"|"D851759"|"D852962"|"D861913"|"D867587"|"D868981"|"D893024"|"RE37796"|"RE42960"). PN.					
L88	94	L87 AND (spiral$7 helical$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/09/26 03:09 AM
L89	1	"6641591".pn.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO)	OR	ON	ON	2021/09/26 03:15 AM
L90	47	(tip AND inner AND outer AND vacuum AND abra$4 AND angl$4).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO)	OR	ON	ON	2021/10/07 06:35 PM
L91	22	("3994290" | "6129469" | "6299620" | "6629983" | "6641591" | "7678120" | "7789886" | "8048089" | "8066716" | "8337513" | "20020016601" | "20030060834" | "20040153014" | "20070005078" | "20090198159" | "20100064459" | "20100262051" | "20130066336" | "20140014128" | "20140194900" | "20140202493" | "20150088050").pn. OR ("10912428").urpn. AND (PGPB | USPT | USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/07 06:37 PM
L92	5	((US-20100049177-A1 OR US-20170319836-A1).did. AND PGPB.dbnm.) OR ((US-8945104-B2 OR US-10357642-B2 OR US-	(USPAT; US-PGPUB; FPRS; USOCR; IBM_TDB; EPO; JPO; DERWENT; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS,	OR	ON	ON	2021/10/07 06:42 PM

		10912428-B2).did. AND USPT.dbnm.)	CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN))				
L93	5	((US-20100049177-A1 OR US-20170319836-A1).did. AND PGPB.dbnm.) OR ((US-8945104-B2 OR US-10357642-B2 OR US-10912428-B2).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2021/10/07 06:42 PM
L94	35	((US-20100049177-A1 OR US-20170319836-A1 OR US-20110082415-A1 OR US-20090177171-A1 OR US-20070239173-A1 OR US-20070208353-A1 OR US-20060200173-A1 OR US-20060200172-A1 OR US-20060189964-A1 OR US-20040254587-A1 OR US-20040186421-A1 OR US-20040143274-A1 OR US-20040097967-A1 OR US-20020016601-A1 OR US-20010037118-A1).did. AND PGPB.dbnm.) OR ((US-8945104-B2 OR US-10357642-B2 OR US-10912428-B2 OR US-8337513-B2 OR US-8066716-B2 OR US-8048089-B2 OR US-7789886-B2 OR US-7678120-B2 OR US-7364565-B2 OR US-7153311-B2 OR US-7044938-B2 OR US-6641591-B1 OR US-6926681-B1 OR US-6629983-B1 OR US-6511486-B2 OR US-6387103-B2 OR US-6299620-B1 OR US-6277128-B1 OR	(USPAT; US-PGPUB; FPRS; USOCR; IBM_TDB; EPO; JPO; DERWENT; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN))	OR	ON	ON	2021/10/07 07:27 PM

		US-5279543-A OR US-6162232-A).did. AND USPT.dbnm.)					
L95	117	("2701559" | "2712823" | "2867214" | "2881763" | "2921585" | "3964212" | "4378804" | "4957747" | "5012797" | "5037431" | "5037432" | "5100412" | "5207234" | "5800446" | "5810842" | "5971999" | "6042552").pn. OR ("6241739").urpn. AND (PGPB | USPT | USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/07 08:09 PM
L96	117	("2701559" | "2712823" | "2867214" | "2881763" | "2921585" | "3964212" | "4378804" | "4957747" | "5012797" | "5037431" | "5037432" | "5100412" | "5207234" | "5800446" | "5810842" | "5971999" | "6042552").pn. OR ("6241739").urpn. AND (PGPB | USPT | USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/08 03:12 PM
L97	86	("2701559" | "2712823" | "2867214" | "2881763" | "2921585" | "3964212" | "4121388" | "4378804" | "4646482" | "4957747" | "5012797" | "5035089" | "5037431" | "5037432" | "5100412" | "5207234" | "5800446" | "5810842" | "5971999" | "6042552" | "6423078").pn. OR ("6500183").urpn. AND (PGPB | USPT | USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/08 03:16 PM
L98	1254	L54 AND (slop$4 angl$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/08 03:18 PM
L99	3864	L54 AND (slop$4 angl$4)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO)	OR	ON	ON	2021/10/08 03:18 PM
L100	1685	L54 AND ((tip surface face) WITH (slop$4 angl$4))	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO)	OR	ON	ON	2021/10/08 03:18 PM

L101	404	L54 AND ((tip surface face) WITH (slop$4 angl$4)) AND (vacuum$4 suction$4 aspirat$4 negative ADJ pressure)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO)	OR	ON	ON	2021/10/08 03:19 PM
L102	18936	(derm$7 microderm$7) AND ((tip surface face) WITH (slop$4 angl$4)) AND (vacuum$4 suction$4 aspirat$4 negative ADJ pressure)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO)	OR	ON	ON	2021/10/08 03:22 PM
L103	18936	(derm$7 microderm$7) AND ((tip surface face) WITH (slop$4 angl$4)) AND (vacuum$4 suction$4 aspirat$4 (negative ADJ pressure))	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO)	OR	ON	ON	2021/10/08 03:22 PM
L104	3642	(derm$7 microderm$7) AND (abrad$4 abras$4) AND ((tip surface face) WITH (slop$4 angl$4)) AND (vacuum$4 suction$4 aspirat$4 (negative ADJ pressure))	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO)	OR	ON	ON	2021/10/08 03:23 PM
L105	1735	(derm$7 microderm$7) AND (abrad$4 abras$4) AND ((tip surface face) WITH (slop$4 angl$4)) AND (vacuum$4 suction$4 aspirat$4 (negative ADJ pressure))	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/08 03:31 PM
L106	1865	(derm$9 microderm$9) AND (abrad$4 abras$4) AND ((tip surface face) WITH (slop$4 angl$4)) AND (vacuum$4 suction$4 aspirat$4 (negative ADJ pressure))	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/08 03:33 PM
L107	5	("6171275" | "20070156124" | "20100049177" | "20110046539" | "20130345661").pn. OR ("9186490").urpn. AND (PGPB | USPT | USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/08 05:43 PM
L108	4	("20040092959" | "20090157094" | "20130002411" | "20130158547").pn. OR	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/08 05:47 PM

		("10456321").urpn. AND (PGPB | USPT | USOC).dbnm.					
L109	15	13/840,889	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO)	OR	ON	ON	2021/10/09 08:22 PM
L110	8	("8573874" | "8864401" | "20090062815" | "20110123252" | "20110190672").pn. OR ("9565920").urpn. AND (PGPB | USPT | USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/09 08:23 PM
L111	197	L87 AND (angle$4 slop$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/09 08:34 PM
L112	11	("11202657"|"11213321"|"11224728"|"11241357"|"20060278661"|"20070093694"|"20080200863"|"20130261534"|"20210145479"|"20210353922"|"6635035").PN.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/05/06 04:33 AM
L113	0	(hydrafacial).as.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2022/09/02 12:05 AM
L114	2	("9550052" "11446477").pn.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2023/10/04 04:52 AM
L115	11	("20010049511" "20030093089" "20030018252" "3865352" "6277128" "6432114" "6695853" "7232444" "20060116674" "3930598" "6162232").pn.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2023/10/04 05:01 AM
L116	46	(Artificial Intelligence) Similar to: 18/094,884 with 0 CPC Selections and 0 Text Selections	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2023/10/04 05:32 AM

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L117	386	("2608032" | "2631583"	(US-PGPUB; USPAT;	OR	ON	ON	2023/10/04

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L119	1133	A61B17/3205.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2023/10/04 08:27 PM
L120	189	L119 AND (console manifold)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2023/10/04 08:27 PM
L121	1764	A61B2017/320004.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2023/10/04 08:28 PM
L122	298	L121 AND (console manifold)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2023/10/04 08:29 PM
L123	0	hyrdafacial.as.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2023/10/04 09:25 PM

			IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)				
L124	5	hydrafacial.as.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2023/10/04 09:25 PM
L125	58516	moxibustion	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2023/10/10 05:06 PM
L126	3	("11744999" "20050245180" "2023164572").pn.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2023/10/20 05:15 PM
L127	952	("10004919"|"10010445"|"10022289"|"10035007"|"10052467"|"10076354"|"10076646"|"10080581"|"10092478"|"10105191"|"10130390"|"10130827"|"10149969"|"10	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2023/10/20 05:17 PM

		149984"|"10172644"|"1 0179229"|"10183183"|" 10188193"|"10206743"| "10207034"|"10220122" |"10238812"|"10238849 "|"10251675"|"1025204 4"|"10271900"|"102722 58"|"10307330"|"10308 378"|"10314378"|"1032 1948"|"10328277"|"103 34933"|"10335191"|"10 357641"|"10357642"|"1 0369073"|"10413359"|" 10456197"|"10456321"| "10456567"|"10463429" |"10471274"|"10485983 "|"10524835"|"1053730 4"|"10537640"|"105560 96"|"10556097"|"10583 037"|"10667985"|"1067 5481"|"10688290"|"107 02328"|"10716924"|"10 736653"|"10737080"|"1 0758261"|"10772658"|" 10792382"|"10799285"| "10799430"|"10813694" |"10835287"|"10835726 "|"10850095"|"1085690 0"|"10860026"|"108745 79"|"10893907"|"10912 428"|"10918190"|"1094 6191"|"10952811"|"109 52907"|"10980592"|"10 993743"|"11020577"|"1 1045661"|"11083515"|" 11123039"|"11141761"| "11154723"|"11172978" |"11202657"|"11213321 "|"11224728"|"1124135 7"|"11247039"|"112781 01"|"11291474"|"11291 498"|"11311721"|"1133 7745"|"11337755"|"113 51063"|"11419678"|"11 446477"|"11452852"|"1 1497553"|"11504148"|" 11517350"|"11540882"| "11547840"|"11590345" |"11602629"|"11612726 "|"11717326"|"1651585" |"20010023351"|"20010 049511"|"20020016601 "|"20020040199"|"2002 0041891"|"2002005895 2"|"20020099356"|"200 20107527"|"200201286 63"|"20020133110"|"20 020133176"|"20020151					

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		|"6689380"|"6695853"|"6699237"|"6712805"|"6726673"|"6735470"|"6743211"|"6743215"|"6764493"|"6780426"|"6800083"|"6800849"|"6869611"|"6878144"|"6887260"|"6905487"|"6911031"|"6926681"|"6938805"|"6942649"|"6960206"|"6980448"|"7001355"|"7004933"|"7031805"|"7044938"|"7051907"|"7052503"|"7062317"|"7069073"|"7070488"|"7083580"|"7087036"|"7087063"|"7094252"|"7108689"|"7115275"|"7118563"|"7122029"|"7135011"|"7153311"|"7166086"|"7172572"|"7189230"|"7197359"|"7198623"|"7201765"|"7232431"|"7232444"|"7241208"|"7250045"|"7276051"|"7293930"|"7314326"|"7316657"|"7316671"|"7318828"|"7320691"|"7320801"|"7326199"|"7329252"|"7354423"|"7364565"|"7367981"|"7384405"|"7422567"|"7427273"|"7440798"|"7458944"|"7476205"|"7477938"|"7482314"|"7485125"|"7489989"|"7494503"|"7507228"|"7572238"|"7582067"|"7597900"|"7597901"|"7607972"|"7658742"|"7678120"|"7730979"|"7731570"|"7740651"|"7744582"|"7749260"|"7758537"|"7771374"|"7780652"|"7789886"|"7814915"|"7837695"|"7857806"|"7862564"|"7901373"|"7927188"|"7951156"|"7981111"|"7981112"|"7993333"|"8025669"|"8048064"|"8048089"|"8066716"|"8088085"|"8105295"|"8128638"|"8135475"|"8182473"|"8221437"|"8226663"|"8231292"|"8236008"|"8236036"|"8241094"|"8273080"|"8276592"|"8277287"|"8282630"|"8313480"|"8317781"|"8				

		323253"|"8337513"|"83 43116"|"8360826"|"839 8621"|"8430104"|"8435 234"|"8475507"|"84783 96"|"8480721"|"849665 4"|"8496695"|"8535299" |"8545419"|"8545489"|" 8551104"|"8562626"|"8 573874"|"8579916"|"85 97284"|"8632378"|"865 6931"|"8668552"|"8679 039"|"8700176"|"87026 91"|"8702771"|"872166 2"|"8728064"|"8740917" |"8814836"|"8818500"|" 8821940"|"8834933"|"8 858570"|"8939669"|"89 45104"|"8945109"|"897 4442"|"9017391"|"9017 392"|"9044582"|"90501 33"|"9050156"|"905619 3"|"9072521"|"9072533" |"9072892"|"9084587"|" 9149322"|"9186490"|"9 227044"|"9227082"|"92 33207"|"9271755"|"927 8230"|"9283037"|"9314 302"|"9351792"|"93517 94"|"9375281"|"942126 0"|"9421261"|"9439964" |"9440093"|"9452013"|" 9468464"|"9474886"|"9 480836"|"9486615"|"94 98610"|"9517085"|"952 2287"|"9550052"|"9566 088"|"9566454"|"95728 80"|"9597527"|"963652 1"|"9636522"|"9642997" |"9662482"|"9669233"|" 9675817"|"9694199"|"9 700684"|"9731053"|"97 44315"|"9775645"|"977 5646"|"9775976"|"9814 485"|"9814647"|"98148 68"|"9814906"|"983326 1"|"9861442"|"9918727" |"9949552"|"9950147"|" 9955769"|"9962220"|"9 968800"|"D0117295"|"D 0151807"|"D0237776"|" D0237863"|"D0255325" |"D0258348"|"D025992 1"|"D0260176"|"D02882 93"|"D0290999"|"D0308 480"|"D0317719"|"D042 8142"|"D0472136"|"D04 86915"|"D0490561"|"D0 496101"|"D0499207"|"D					

		0499841"|"D0502288"|"D0502289"|"D0502569"|"D0517699"|"D0522360"|"D0533962"|"D0536481"|"D0545207"|"D0553005"|"D0557611"|"D0584151"|"D0625198"|"D0639164"|"D0664254"|"D0676764"|"D0678783"|"D0680437"|"D0697404"|"D0709617"|"D0722172"|"D0734154"|"D0743269"|"D0743558"|"D0765512"|"D0772481"|"D0782881"|"D0787054"|"D0811225"|"D0811381"|"D0822845"|"D0825763"|"D0833283"|"D0836781"|"D0851759"|"D0852962"|"D0861913"|"D0867587"|"D0868981"|"D0873430"|"D0873481"|"D0886370"|"D0886372"|"D0887571"|"D0893024"|"D0908282"|"D0917290"|"D0927008"|"D0928977"|"RE37796"|"RE42960").PN.				
L128	1	(skin AND console AND first AND second AND (bottle container) AND (handle handpiece) AND (block manifold) AND select$4 AND fluid AND (tube tubing conduit line) AND (vacuum$4 suction$4 aspirat$4) AND waste AND sequential$4).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2023/10/20 05:35 PM
L129	1	(skin AND console AND (first second third) AND (bottle container) AND (handle handpiece) AND (block manifold) AND select$4 AND fluid AND (tube tubing conduit line) AND (vacuum$4 suction$4 aspirat$4) AND waste AND sequential$4).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2023/10/20 05:35 PM
L130	2	(skin AND console AND (first second third) AND	(US-PGPUB; USPAT; USOCR; FIT (AP, AT,	OR	ON	ON	2023/10/20 05:36 PM

		(bottle container) AND (handle handpiece) AND (block manifold) AND fluid AND (tube tubing conduit line) AND (vacuum$4 suction$4 aspirat$4) AND waste AND sequential$4).clm.	AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)				
L131	2	(skin AND console AND (first second third) AND (bottle container) AND (handle handpiece) AND (block manifold) AND treat$4 AND fluid AND (tube tubing conduit line) AND (vacuum$4 suction$4 aspirat$4) AND waste AND sequential$4).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2023/10/20 05:36 PM
L132	2	(skin AND console AND (first second third) AND (bottle container) AND (handle handpiece) AND (block manifold) AND treat$4 AND fluid AND (tube tubing conduit line lumen) AND (vacuum$4 suction$4 aspirat$4) AND waste AND sequential$4).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2023/10/20 05:37 PM
L133	7	(skin AND console AND (first second third) AND (bottle container) AND (handle handpiece) AND (block manifold) AND treat$4 AND fluid AND (tube tubing conduit line lumen) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2023/10/20 05:37 PM
L134	30	("9550052" "11446477")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2023/10/20 07:33 PM

L135	2	("9550052" "11446477").pn.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2023/10/20 07:33 PM
L136	6	(skin AND console AND container AND first AND second AND (handle handpiece) AND supply AND waste AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/10 12:30 PM
L137	18145	A61B17/0057.cpc. OR A61B2017/00606,0061,00615,00628,00632.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/10 02:27 PM
L138	18243	A61B17/0057.cpc. OR A61B2017/00606,0061,00615,00628,00632,00641.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/10 02:27 PM
L139	4720	L138 AND ((bunch$4 compress$4) WITH expan$4)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH,	OR	ON	ON	2024/05/10 02:28 PM

			TN, TR, TW, UA, VN, WO); EPO)				
L140	3	12/343,299	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/17 01:23 PM
L141	253	("3556079" | "3807048" | "4676256" | "4747824" | "4790823" | "4877934" | "4950245" | "4978336" | "5125837" | "5147323" | "5180371" | "5188603" | "5199949" | "5243982" | "5253578" | "5271527" | "5281198" | "5298023" | "5314412" | "5318522" | "5324258" | "5336188" | "5354284" | "5360410" | "5378233" | "5395326" | "5425366" | "5445614" | "5478323" | "5505704" | "5520658" | "5542934" | "5584815" | "5599312" | "5620479" | "5656016" | "5658247" | "5666946" | "5667487" | "5698787" | "5704918" | "5707365" | "5725494" | "5735811" | "5752515" | "5794612" | "5800421" | "5814022" | "5830187" | "5833627" | "RE35986" | "5876380" | "5908158" | "5917828" | "5924997" | "5935111" | "5951517" | "5961494" | "5980509" | "5984889" | "5997497" | "6022337" | "6024718" | "D422361" | "D423665" | "6045533" | "D427314" | "6126600" | "6132400" | "6132414" | "6152734" | "6199554" | "6200289" | "6223936" | "6234990" | "6264064" | "6273864" | "6308714" | "6322532" | "6350245" | "6352683"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/17 01:24 PM

		| "6390815" | "6394956" | "6416740" | "6428517" | "6461296" | "6475148" | "6487447" | "6488628" | "6491657" | "6508783" | "6527718" | "6537249" | "6565538" | "6565539" | "6585696" | "6589158" | "6601581" | "6607502" | "6610033" | "6610042" | "6635017" | "6645181" | "6652482" | "6659950" | "6689067" | "6689108" | "6695786" | "6702749" | "6716168" | "6719729" | "6723064" | "6723068" | "6726650" | "6726658" | "6731971" | "6733451" | "6786885" | "6796964" | "6808514" | "6842641" | "6858020" | "6875179" | "6887216" | "6905482" | "6908433" | "6917828" | "6929609" | "6936033" | "6939329" | "6945954" | "6966899" | "6972005" | "6994686" | "7037269" | "7041081" | "7077827" | "7078015" | "7169128" | "7214210" | "7235063" | "D558340" | "D566265" | "7361163" | "D579540" | "D579546" | "7445125" | "7449008" | "7473432" | "7510397" | "7618409" | "7625354" | "7789552" | "20010049608" | "20010051798" | "20010055610" | "20020045850" | "20020055702" | "20020077588" | "20020123678" | "20020133101" | "20020150539" | "20020151868" | "20020156376" | "20020183701" | "20030028112" | "20030073908" | "20030078533" | "20030120154" | "20030120201" | "20030120217" | "20030204141" | "20030229304" | "20030233046" |					

		"20040002647" | "20040019318" | "20040039368" | "20040064102" | "20040092821" | "20040097805" | "20040097806" | "20050038387" | "20050043681" | "20050075620" | "20050123482" | "20050171486" | "20050177054" | "20050203413" | "20050228256" | "20050260084" | "20050283110" | "20060106283" | "20060122555" | "20060247578" | "20060258977" | "20070032723" | "20070073235" | "20070073267" | "20070083155" | "20070088268" | "20070088271" | "20070129630" | "20070156092" | "20070167905" | "20070191781" | "20070197954" | "20070213660" | "20070244442" | "20070282221" | "20070299398" | "20070299399" | "20070299400" | "20080015512" | "20080045902" | "20080045925" | "20080058732" | "20080060970" | "20080086108" | "20080091104" | "20080091109" | "20080103564" | "20080154188" | "20080213729" | "20080281265" | "20080306436" | "20090018485" | "20090030366" | "20090103490" | "20090171191" | "20090171192" | "20090171193" | "20090171194" |				

		"20090171316" | "20090326482" | "20110021905").pn. OR ("8142414").urpn. AND (PGPB | USPT | USOC).dbnm.					
L142	77	L141 AND computer	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/17 01:25 PM
L143	1	"6390815".pn.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/17 01:33 PM
L144	135	("0611136" | "1672114" | "RE21187" | "2214230" | "2557222" | "2711586" | "2756740" | "2812765" | "2929510" | "2985285" | "3164153" | "3208145" | "3593423" | "3624907" | "3640304" | "3645497" | "3718973" | "3727310" | "3757421" | "3971375" | "4106198" | "4215476" | "4227878" | "4253831" | "4340365" | "4353694" | "4397640" | "4526573" | "4552531" | "4578055" | "4680026" | "D302586" | "4872837" | "5044953" | "5052927" | "5061180" | "5087198" | "5171146" | "5199604" | "5204004" | "5230704" | "5236356" | "5289919" | "5378149" | "5378150" | "5419772" | "5468148" | "5474450" | "5526841" | "5554026" | "5556279" | "5593304" | "5658144" | "5716210" | "5772433" | "5837204" | "5876201" | "5899692" | "5927977" | "5947729").pn. OR ("6390815").urpn. AND (PGPB | USPT | USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/17 01:35 PM
L145	303	("3176538" | "3556079" | "3807048" | "4005614" | "4236880" | "4676256" | "4747824" | "4790823" | "4795441" | "4877934" | "4950245" | "4978336" | "5125837" | "5147323" | "5176643" | "5180371" | "5188603" | "5199949" | "5207642" | "5243982" | "5253578" | "5271527" | "5281198" | "5298023"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/17 01:43 PM

		| "5314412" | "5318522" | "5324258" | "5336188" | "5354284" | "5360410" | "5378231" | "5378233" | "5395326" | "5411490" | "5425366" | "5445614" | "5478323" | "5505704" | "5520658" | "5542934" | "5584815" | "5588432" | "5599312" | "5611783" | "5620479" | "5647373" | "5656016" | "5658247" | "5666946" | "5667487" | "5698787" | "5704918" | "5707365" | "5725494" | "5735811" | "5752515" | "5794612" | "5800421" | "5814022" | "5830187" | "5833627" | "RE35986" | "5876380" | "5908158" | "5917828" | "5924997" | "5927977" | "5935111" | "5951517" | "5961494" | "5980509" | "5984889" | "5997497" | "6022337" | "6024718" | "D422361" | "D423665" | "6045533" | "D427314" | "6126600" | "6132400" | "6132414" | "6152734" | "6199554" | "6200289" | "6223936" | "6234990" | "6264064" | "6273864" | "6308714" | "6322532" | "6350245" | "6352683" | "6390815" | "6394956" | "6416740" | "6428517" | "6461296" | "6475148" | "6487447" | "6488628" | "6491657" | "6508783" | "6508791" | "6527718" | "6537249" | "6565538" | "6565539" | "6585696" | "6589158" | "6601581" | "6607502" | "6610033" | "6610042" | "6620138" | "6635017" | "6645181" | "6652482" | "6659950" | "6689067" | "6689108" | "6695786" | "6702749" | "6716168" | "6719729" | "6723064" | "6723068" | "6726650" | "6726658" | "6731971" | "6733451" | "6786885" | "6796964" | "6808514" | "6842641" | "6858020" | "6875179" | "6887216" |					

		"6905482" | "6908433" | "6917828" | "6929609" | "6936033" | "6939329" | "6945954" | "6966899" | "6972005" | "6994686" | "7037269" | "7041081" | "7077827" | "7078015" | "7169128" | "7182107" | "7214210" | "7235063" | "D558340" | "D566265" | "7361163" | "7418981" | "D579540" | "D579546" | "7445125" | "7449008" | "7473432" | "7510397" | "7618409" | "7625354" | "7789552" | "7815605" | "7837651" | "7975922" | "8002736" | "8007487" | "8079976" | "8142414" | "8425463" | "8425464" | "20010049608" | "20010051798" | "20010055610" | "20020016569" | "20020045850" | "20020055702" | "20020077588" | "20020123678" | "20020133101" | "20020150539" | "20020151868" | "20020156376" | "20020183701" | "20030028112" | "20030040700" | "20030073908" | "20030078533" | "20030120154" | "20030120201" | "20030120217" | "20030204141" | "20030229304" | "20030233046" | "20040002647" | "20040019318" | "20040039368" | "20040064102" | "20040092821" | "20040097805" | "20040097806" | "20040162484" | "20050038387" | "20050043681" | "20050075620" | "20050123482" | "20050165096" | "20050171486" |					

		"20050177054" | "20050203413" | "20050228256" | "20050260084" | "20050283110" | "20060106283" | "20060122555" | "20060217655" | "20060247578" | "20060258977" | "20070032723" | "20070073235" | "20070073267" | "20070083155" | "20070088268" | "20070088271" | "20070129630" | "20070156092" | "20070167905" | "20070191781" | "20070197954" | "20070213660" | "20070244442" | "20070282221" | "20070299398" | "20070299399" | "20070299400" | "20080015512" | "20080045902" | "20080045925" | "20080058711" | "20080058732" | "20080060970" | "20080086108" | "20080091104" | "20080091109" | "20080103564" | "20080140158" | "20080154188" | "20080213729" | "20080249409" | "20080281265" | "20080306436" | "20090018485" | "20090030366" | "20090103490" | "20090171192" | "20090171193" | "20090326482" | "20100204568" | "20110021905" | "20110306932" | "20120179036" | "20120253182" | "20120253269" | "20120259237" | "20130041258" | "20130079635").pn. OR				

		("8545440").urpn. AND (PGPB | USPT | USOC).dbnm.					
L146	116	L145 AND comput$7	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/17 01:47 PM
L147	47	(Artificial Intelligence) Similar to: 18/487,916 with 0 CPC Selections and 0 Text Selections Text: (US-20190336740-A1 OR US-20230158282-A1 OR US-20150231379-A1 OR US-8048089-B2 OR US-11547840-B2 OR US-20170319835-A1 OR US-10357642-B2 OR US-10357641-B2 OR US-20170319836-A1 OR US-20150272623-A1 OR US-11446477-B2 OR US-9550052-B2 OR US-20120022435-A1 OR US-9814868-B2 OR US-9474886-B2 OR US-11865287-B2 OR US-20070156124-A1 OR US-20210154455-A1 OR US-11612726-B2 OR US-20240033491-A1 OR US-20210154454-A1 OR US-9662482-B2 OR US-20150290442-A1 OR WO-2009088884-A1 OR EP-2240099-A1 OR US-20170266424-A1 OR EP-3388006-A1 OR US-20200171288-A1 OR EP-3388006-B1 OR EP-2240099-B1 OR US-20090177171-A1 OR US-20130102978-A1 OR US-10556096-B2 OR KR-20170040365-A OR US-8343116-B2 OR KR-20100129269-A OR WO-2023064718-A1 OR US-20230012684-A1 OR KR-101836310-B1 OR US-11883621-B2 OR US-9486615-B2 OR US-20230018295-	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/05/17 02:12 PM

		A1 OR CA-3234537-A1 OR US-20150032047-A1 OR JP-5508285-B2 OR US-20230033761-A1 OR US-9642997-B2 OR EP-3903704-B1 OR US-20210145481-A1 OR EP-3903704-A1).did.					
L148	46	(Artificial Intelligence) Similar to: 18/487,916 with 0 CPC Selections and 3 Text Selections Text: (US-4887594-A OR KR-102438033-B1 OR WO-2023163321-A1 OR US-7749260-B2 OR FI-124063-B OR DE-102006041726-A1 OR WO-2010061056-A1 OR EP-2352477-A1 OR US-20110237986-A1 OR WO-2023230615-A2 OR US-20180318568-A1 OR US-11925780-B2 OR US-20230271001-A1 OR US-20240075263-A1 OR US-20230321389-A1 OR EP-4324414-A2 OR US-10035007-B2 OR US-20160256671-A1 OR CA-2971728-A1 OR US-9498610-B2 OR US-20170065801-A1 OR EP-3795204-A1 OR EP-3237055-A1 OR WO-2016106396-A1 OR KR-101717703-B1 OR KR-20160120150-A OR JP-6100974-B2 OR US-20210379274-A1 OR US-11744999-B2 OR US-20210154453-A1 OR EP-3795204-B1 OR US-20150231379-A1 OR US-7131987-B2 OR JP-2016540554-A OR KR-101605399-B1 OR US-20240139482-A1 OR US-20170348143-A1 OR US-11266524-B2 OR KR-101483559-B1 OR	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/05/17 02:13 PM

		KR-102226112-B1 OR US-9814868-B2 OR US-20060200099-A1 OR US-20220233345-A1 OR WO-2017210619-A1 OR EP-3463132-A1 OR AU-2017200101-A1 OR US-7044938-B2 OR WO-2024003079-A1 OR EP-3189825-A2 OR US-20170196759-A1).did.					
L149	9	(console AND first AND second AND container AND (handle handpiece) AND skin AND (block manifold) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/17 02:24 PM
L150	0	medicreations.as.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/17 02:41 PM
L151	4	(console AND first AND second AND container AND (handle handpiece) AND skin AND (block manifold) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/17 02:44 PM
L152	3	(console AND first AND second AND container AND (handle handpiece) AND skin AND (block manifold) AND (vacuum$4 suction$4 aspirat$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/17 05:00 PM

		AND comput$4).clm.					
L153	0	(skin AND treat$4 AND console AND first AND second AND container AND treat$4 AND material AND (handle handpiece) AND tip AND sequential$4 AND supply AND waste AND line AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/17 08:40 PM
L154	1	(skin AND treat$4 AND console AND first AND second AND container AND treat$4 AND material AND (handle handpiece) AND tip AND sequential$4 AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/17 08:40 PM
L155	2969	(console WITH flow WITH rate WITH control$4)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/18 03:50 PM
L156	745	(console WITH flow WITH rate WITH control$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/18 03:50 PM
L157	213	(console WITH flow WITH rate WITH control$4) AND skin	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/18 03:50 PM
L158	1024	("10004919"|"10010445"|"10022289"|"10035007"|"10052467"|"10076354"|"10076646"|"10080581"|"10092478"|"10105191"|"10130390"|"10130827"|"10149969"|"10	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/18 03:55 PM

		149984"|"10172644"|"1 0179229"|"10183183"|" 10188193"|"10206743"| "10207034"|"10220122" |"10238812"|"10238849 "|"10251675"|"1025204 4"|"10271900"|"102722 58"|"10307330"|"10308 378"|"10314378"|"1032 1948"|"10328277"|"103 34933"|"10335191"|"10 357641"|"10357642"|"1 0369073"|"10413359"|" 10456197"|"10456321"| "10456567"|"10463429" |"10471274"|"10485983 "|"10524835"|"1053730 4"|"10537640"|"105560 96"|"10556097"|"10583 037"|"10667985"|"1067 5481"|"10688290"|"107 02328"|"10716924"|"10 736653"|"10737080"|"1 0758261"|"10772658"|" 10792382"|"10799285"| "10799430"|"10813694" |"10835287"|"10835726 "|"10850095"|"1085690 0"|"10860026"|"108745 79"|"10893907"|"10912 428"|"10918190"|"1094 6191"|"10952811"|"109 52907"|"10980592"|"10 993743"|"11020577"|"1 1045661"|"11083515"|" 11123039"|"11141761"| "11154723"|"11172978" |"11202657"|"11213321 "|"11224728"|"1124135 7"|"11247039"|"112781 01"|"11291474"|"11291 498"|"11311721"|"1133 7745"|"11337755"|"113 51063"|"11419678"|"11 446477"|"11452852"|"1 1497553"|"11504148"|" 11517350"|"11540882"| "11547840"|"11590345" |"11602629"|"11612726 "|"11717326"|"1174499 9"|"1651585"|"2001002 3351"|"20010049511"|" 20020016601"|"200200 40199"|"20020041891"| "20020058952"|"20020 099356"|"20020107527 "|"20020128663"|"2002 0133110"|"2002013317					

		6"|"20020151826"|"200 20162863"|"200201882 61"|"20020198488"|"20 030012415"|"20030018 252"|"20030060834"|"2 0030093040"|"2003009 3089"|"20030097139"|" 20030135388"|"200301 87462"|"20030208159"| "20030212127"|"20030 212415"|"20040005349 "|"20040010222"|"2004 0010269"|"2004001513 9"|"20040087972"|"200 40092895"|"200400929 59"|"20040097967"|"20 040122447"|"20040127 914"|"20040138680"|"2 0040162565"|"2004016 6172"|"20040176823"|" 20040210280"|"200402 19179"|"20040229295"| "20040236291"|"20040 236375"|"20040243149 "|"20040254587"|"2004 0267285"|"2005001507 7"|"20050037034"|"200 50038377"|"200500384 48"|"20050059940"|"20 050065461"|"20050070 977"|"20050075599"|"2 0050080465"|"2005008 4509"|"20050148958"|" 20050154333"|"200502 03111"|"20050203593"| "20050209611"|"20050 245180"|"20050283176 "|"20060002960"|"2006 0015059"|"2006005871 4"|"20060100567"|"200 60116674"|"200601611 78"|"20060184071"|"20 060189964"|"20060191 562"|"20060200099"|"2 0060200213"|"2006021 2025"|"20060212029"|" 20060222445"|"200602 35371"|"20060253078"| "20060253079"|"20060 253125"|"20060264893 "|"20060264926"|"2006 0269580"|"2006027866 1"|"20070005078"|"200 70020321"|"200700433 82"|"20070049901"|"20 070065515"|"20070073 327"|"20070078290"|"2 0070088245"|"2007008					

		8371"|"20070093694"|" 20070123808"|"200701 39630"|"20070149991"| "20070154502"|"20070 156124"|"20070178121 "|"20070198031"|"2007 0232987"|"2007023907 9"|"20070239173"|"200 70255355"|"200702646 25"|"20070270738"|"20 080009802"|"20080015 555"|"20080027328"|"2 0080027518"|"2008009 1126"|"20080091179"|" 20080103563"|"200801 19781"|"20080132914"| "20080139974"|"20080 146970"|"20080154161 "|"20080154183"|"2008 0161799"|"2008018884 0"|"20080193493"|"200 80200861"|"200802008 63"|"20080208146"|"20 080208179"|"20080214 987"|"20080215068"|"2 0080221548"|"2008023 4626"|"20080243039"|" 20080287864"|"200803 00529"|"20080300552"| "20090048557"|"20090 053390"|"20090062815 "|"20090099091"|"2009 0099093"|"2009011868 4"|"20090124985"|"200 90132012"|"200901380 26"|"20090171191"|"20 090171194"|"20090222 023"|"20090254014"|"2 0090299237"|"2010002 3003"|"20100045427"|" 20100048980"|"201000 49177"|"20100049210"| "20100056847"|"20100 063565"|"20100217357 "|"20100305495"|"2011 0054490"|"2011006027 0"|"20110066162"|"201 10067761"|"201101907 26"|"20110251523"|"20 110264028"|"20110270 137"|"20110270364"|"2 0110295273"|"2012004 1338"|"20120041523"|" 20120109041"|"201201 09043"|"20120136374"| "20120171636"|"20120 259252"|"20120289885 "|"20120302929"|"2013					

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		3"|"6687537"|"6689380" |"6695853"|"6699237"|" 6712805"|"6726673"|"6 735470"|"6743211"|"67 43215"|"6764493"|"678 0426"|"6800083"|"6800 849"|"6869611"|"68781 44"|"6887260"|"690548 7"|"6911031"|"6926681" |"6938805"|"6942649"|" 6960206"|"6980448"|"7 001355"|"7004933"|"70 31805"|"7044938"|"705 1907"|"7052503"|"7062 317"|"7069073"|"70704 88"|"7083580"|"708703 6"|"7087063"|"7094252" |"7108689"|"7115275"|" 7118563"|"7122029"|"7 135011"|"7153311"|"71 66086"|"7172572"|"718 9230"|"7197359"|"7198 623"|"7201765"|"72324 31"|"7232444"|"724120 8"|"7250045"|"7276051" |"7293930"|"7314326"|" 7316657"|"7316671"|"7 318828"|"7320691"|"73 20801"|"7326199"|"732 9252"|"7354423"|"7364 565"|"7367981"|"73844 05"|"7422567"|"742727 3"|"7440798"|"7458944" |"7476205"|"7477938"|" 7482314"|"7485125"|"7 489989"|"7494503"|"75 07228"|"7572238"|"758 2067"|"7597900"|"7597 901"|"7607972"|"76587 42"|"7678120"|"773097 9"|"7731570"|"7740651" |"7744582"|"7749260"|" 7758537"|"7771374"|"7 780652"|"7789886"|"78 14915"|"7837695"|"785 7806"|"7862564"|"7901 373"|"7927188"|"79511 56"|"7981111"|"798111 2"|"7993333"|"8025669" |"8048064"|"8048089"|" 8066716"|"8088085"|"8 105295"|"8128638"|"81 35475"|"8182473"|"822 1437"|"8226663"|"8231 292"|"8236008"|"82360 36"|"8241094"|"827308 0"|"8276592"|"8277287" |"8282630"|"8313480"|					

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L159	61	L158 AND (touch ADJ screen)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/05/18 03:56 PM
L160	95	L158 AND (flow WITH (button switch))	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/18 05:05 PM
L161	8200	A61M35/003.CPC.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/18 06:53 PM

L162	2205	L161 AND (SUCTION$4 VACUUM$4 ASPIRAT$4)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); EPO)	OR	ON	ON	2024/05/18 06:53 PM

PE2E SEARCH - Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
N66	5	(tip and (hand$8) and (passage hole lumen channel) and periph$6 and inner and outer and spiral$7 and (pattern shape) and abra$7 and skin).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:36 PM
N67	5	(tip and (hand$8) and (passage hole lumen channel) and periph$6 and inner and outer and spiral$7 and (pattern shape) and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:37 PM
N68	5	((tip cap) and (hand$8) and (passage hole lumen channel) and periph$6 and inner and outer and spiral$7 and (pattern shape) and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:38 PM
N69	8	((tip cap) and (hand$8) and (passage hole lumen channel) and inner and outer and spiral$7 and (pattern shape) and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:38 PM
N70	13	((tip cap) and (hand$8) and (passage hole lumen channel) and inner and outer and spiral$7 and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:39 PM
N71	19	((hand$8) and (passage hole lumen channel)	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:39 PM

		and inner and outer and spiral$7 and abra$7).clm.					
N72	7	((hand$8) and (passage hole lumen channel) and (vacuum$4 suction$4) and inner and outer and spiral$7 and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:41 PM
N73	10	((hand$8) and (passage hole lumen channel) and (fluid debris) and inner and outer and spiral$7 and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:41 PM
N74	23	((hand$8) and (passage hole lumen channel) and (fluid debris) and spiral$7 and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2018/09/12 03:42 PM
N76	5	("4940350" "10172644" "10179229" "20060222445" "20180318568").pn.	(US-PGPUB; USPAT)	OR	OFF	OFF	2019/03/02 11:00 AM
N77	5	((tip cap) and skin and hand$7 and (passage hole lumen channel) and fluid and inner and outer and spiral$7 and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2019/03/02 11:11 AM
N78	7	((tip cap) and hand$7 and (passage hole lumen channel) and fluid and inner and outer and spiral$7 and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2019/03/02 11:11 AM
N79	13	((tip cap) and hand$7 and (passage hole lumen channel) and inner and outer and spiral$7 and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2019/03/02 11:12 AM
N80	15	((tip cap) and hand$7 and (passage hole lumen channel) and (inner outer) and spiral$7 and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2019/03/02 11:13 AM
N81	25	((tip cap) and hand$7 and (passage hole lumen channel) and spiral$7 and abra$7).clm.	(US-PGPUB; USPAT)	OR	OFF	OFF	2019/03/02 11:13 AM
N82	18	((tip cap) and hand$7	(US-PGPUB; USPAT)	OR	OFF	OFF	2019/03/02

		and (vacuum$4 suction$4) and spiral$7 and abra$7).clm.					11:15 AM
N83	3	(tip AND body AND skin AND treat$4 AND inner AND outer AND abra$7 AND spiral$7 AND (vacuum$4 suction$4 aspirat$4) AND (hole opening aperture recess lumen) AND (handle handpiece) AND angle$4 AND axis).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2022/05/21 05:48 PM
N84	3	(tip AND skin AND treat$4 AND inner AND outer AND abra$7 AND spiral$7 AND (vacuum$4 suction$4 aspirat$4) AND (hole opening aperture recess lumen) AND (handle handpiece) AND angle$4 AND axis).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2022/05/21 05:48 PM
N85	3	(tip AND skin AND treat$4 AND inner AND outer AND abra$7 AND spiral$7 AND (vacuum$4 suction$4 aspirat$4) AND (hole opening aperture recess lumen) AND (handle handpiece) AND angle$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2022/05/21 05:48 PM
N86	3	(tip AND treat$4 AND inner AND outer AND abra$7 AND spiral$7 AND (vacuum$4 suction$4 aspirat$4) AND (hole opening aperture recess lumen) AND (handle handpiece) AND angle$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2022/05/21 05:49 PM
N87	3	(tip AND inner AND outer AND abra$7 AND spiral$7 AND (vacuum$4 suction$4 aspirat$4) AND (hole opening aperture recess lumen) AND (handle handpiece) AND angle$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2022/05/21 05:49 PM
N88	10	(tip AND inner AND outer AND abra$7 AND	(US-PGPUB; USPAT)	OR	ON	ON	2022/05/21 05:49 PM

		spiral$7 AND (vacuum$4 suction$4 aspirat$4) AND (hole opening aperture recess lumen) AND (handle handpiece)).clm.					
N89	1	(skin AND console AND first AND second AND (bottle container) AND (handle handpiece) AND (block manifold) AND select$4 AND fluid AND (tube tubing conduit line) AND (vacuum$4 suction$4 aspirat$4) AND waste AND sequential$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/10/20 05:37 PM
N90	2	(skin AND console AND first AND second AND (bottle container) AND (handle handpiece) AND (block manifold) AND select$4 AND fluid AND (tube tubing conduit line) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/10/20 05:39 PM
N91	2	(skin AND console AND first AND second AND (bottle container) AND (handle handpiece) AND (block manifold) AND select$7 AND fluid AND (tube tubing conduit line) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/10/20 05:40 PM
N92	3	(console AND (first second third) AND (bottle container) AND (handle handpiece) AND (block manifold) AND select$7 AND fluid AND (tube tubing conduit line lumen) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/10/20 05:40 PM
N93	7	(console AND (first second third) AND (bottle container) AND (handle handpiece) AND (block manifold) AND fluid AND (tube tubing conduit line	(US-PGPUB; USPAT)	OR	ON	ON	2023/10/20 05:42 PM

		lumen) AND (vacuum$4 suction$4 aspirat$4)).clm.					
N94	9	(console AND (bottle container) AND (handle handpiece) AND (block manifold) AND fluid AND (tube tubing conduit line lumen) AND (vacuum$4 suction$4 aspirat$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/10/20 05:43 PM
N95	11	(console AND (bottle container) AND (handle handpiece) AND (block manifold) AND fluid AND (tube tubing conduit line lumen)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/10/20 05:44 PM
N96	2	(console AND first AND second AND third AND (bottle container) AND (handle handpiece) AND (block manifold) AND fluid AND (tube tubing conduit line lumen)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/10/20 05:44 PM
N97	1	(skin AND treat$4 AND console AND first AND second AND contain$4 AND treatment AND material AND (handle handpiece) AND tip AND supply$4 AND sequential$4 AND waste AND (vacuum$4 aspirat$4 suction$4) AND draw$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/05/18 03:26 PM
N98	0	(skin AND treat$4 AND console AND first AND second AND container AND material AND (handle handpiece) AND tip AND supply$4 AND waste AND sequential$4 AND (vacuum$4 suction$4 aspirat$4) AND flow AND rate AND control$4 AND user AND input).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/05/18 04:52 PM
N99	1	(skin AND treat$4 AND console AND first AND second AND container AND material AND (handle handpiece)	(US-PGPUB; USPAT)	OR	ON	ON	2024/05/18 04:53 PM

		AND tip AND supply$4 AND waste AND sequential$4 AND (vacuum$4 suction$4 aspirat$4)).clm.					
N100	80	L158 AND (flow WITH (button switch))	(US-PGPUB; USPAT)	OR	ON	ON	2024/05/18 05:04 PM

PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487916
	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
SHEET 1 OF 45	Attorney Docket No.	EDGE.005C11

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	1	RE 37,796	07-23-2002	Henley	
	2	1,651,585	12-06-1927	Clair	
	3	2,608,032	08-26-1952	Garver	
	4	2,631,583	03-17-1953	Lavergne	
	5	2,701,559	02-05-1955	Cooper	
	6	2,712,823	07-12-1955	Kurtin	
	7	2,867,214	01-06-1959	Wilson	
	8	2,881,763	04-14-1959	Robbins	
	9	2,921,585	01-19-1960	Schumann	
	10	3,037,509	06-05-1962	Schutz	
	11	3,085,573	04-16-1963	Meyer et al.	
	12	3,214,869	11-02-1965	Stryker	
	13	3,468,079	09-23-1969	Kaufman	
	14	3,476,112	11-04-1969	Elstein	
	15	3,481,677	12-02-1969	Abrahamson	
	16	3,505,993	04-14-1970	Lewes et al.	
	17	3,574,239	04-13-1971	Sollerud	
	18	3,560,100	02-02-1971	Spatz	
	19	3,608,553	09-28-1971	Balamuth	
	20	3,715,838	02-13-1973	Young et al.	
	21	3,865,352	02-11-1975	Nelson et al.	
	22	3,866,264	02-18-1975	Engquist	
	23	3,930,598	01-06-1976	Slagle	
	24	3,948,265	04-06-1976	Al Ani	
	25	3,964,212	06-22-1976	Karden	
	26	3,968,789	07-13-1976	Simoncini	
	27	3,977,084	08-31-1976	Sloan	
	28	4,121,388	10-24-1978	Wilson	
	29	4,155,721	05-22-1979	Fletcher	

Examiner Signature	Date Considered
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PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487916
	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	30	4,170,821	10-16-1979	Booth	
	31	4,182,329	01-08-1980	Smit et al.	
	32	4,203,431	05-20-1980	Abura et al.	
	33	4,216,233	08-05-1980	Stein	
	34	4,225,254	09-30-1980	Holberg et al.	
	35	4,289,158	09-15-1981	Nehring	
	36	4,299,219	11-10-1981	Norris, Jr.	
	37	4,342,522	08-03-1982	Mackles	
	38	4,378,804	04-05-1983	Cortese	
	39	4,500,222	02-19-1985	Clading-Boel	
	40	4,560,373	12-24-1985	Sugino et al.	
	41	4,646,480	03-03-1987	Williams	
	42	4,646,482	03-03-1987	Chitjian	
	43	4,655,743	04-07-1987	Hyde	
	44	4,671,412	06-09-1987	Gatten	
	45	4,676,749	06-30-1987	Mabille	
	46	4,706,676	11-17-1987	Peck	
	47	4,718,467	01-12-1988	Di Gianfilippo et al.	
	48	4,754,756	07-05-1988	Shelanski	
	49	4,757,814	07-19-1988	Wang et al.	
	50	4,764,362	08-16-1988	Barchas	
	51	4,795,421	01-03-1989	Blasius, Jr. et al.	
	52	4,811,734	03-14-1989	McGurk-Burleson et al	
	53	4,836,192	06-06-1989	Abbate	
	54	4,866,202	09-12-1989	Weil	
	55	4,875,287	10-24-1989	Creasy et al.	
	56	4,886,078	12-12-1989	Shiffman	
	57	4,887,994	12-12-1989	Bedford	
	58	4,900,316	02-13-1990	Yamamoto	

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U.S. PATENT DOCUMENTS					
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	59	4,917,086	04-17-1990	Feltovich et al.	
	60	4,925,450	05-15-1990	Imonti et al.	
	61	4,940,350	07-10-1990	Kim	
	62	4,957,747	09-18-1990	Stiefel	
	63	4,990,841	02-05-1991	Elder	
	64	5,006,004	04-09-1991	Dirksing et al.	
	65	5,006,339	04-09-1991	Bargery et al.	
	66	5,012,797	05-07-1991	Clarke	
	67	5,035,089	07-30-1991	Tillman et al.	
	68	5,037,431	08-06-1991	Summers et al.	
	69	5,037,432	08-06-1991	Molinari	
	70	5,054,339	10-08-1991	Yacowitz	
	71	5,100,412	03-31-1992	Rosso	
	72	5,100,424	03-31-1992	Jang	
	73	5,119,839	06-09-1992	Rudolph	
	74	5,122,153	06-16-1992	Harrel	
	75	5,171,215	12-15-1992	Flanagan	
	76	5,192,269	03-09-1993	Poli et al.	
	77	5,207,234	05-04-1993	Rosso	
	78	5,217,455	06-08-1993	Tan	
	79	5,222,956	06-29-1993	Waldron	
	80	5,242,433	09-07-1993	Smith et al.	
	81	5,254,109	10-19-1993	Smith et al.	
	82	5,290,273	03-01-1994	Tan	
	83	5,368,581	11-29-1994	Smith et al.	
	84	5,387,215	02-07-1995	Fisher	
	85	5,391,151	02-21-1995	Wilmot	
	86	5,417,674	05-23-1995	Smith et al.	
	87	5,419,772	05-30-1995	Teitz et al.	

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U.S. PATENT DOCUMENTS					
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	88	5,423,803	06-13-1995	Tankovich et al.	
	89	5,437,372	08-01-1995	Per-Lee	
	90	5,441,490	08-15-1995	Svedman	
	91	5,460,620	10-24-1995	Smith et al.	
	92	5,470,323	11-28-1995	Smith et al.	
	93	5,484,427	01-16-1996	Gibbons	
	94	5,490,736	02-13-1996	Haber et al.	
	95	5,512,044	04-30-1996	Duer	
	96	5,562,642	10-08-1996	Smith et al.	
	97	5,562,643	10-08-1996	Johnson	
	98	5,611,687	03-18-1997	Wagner	
	99	5,612,797	03-18-1997	Clarke	
	100	5,618,275	04-08-1997	Bock	
	101	5,626,631	05-06-1997	Eckhouse	
	102	5,658,323	08-19-1997	Miller	
	103	5,658,583	08-19-1997	Zhang et al.	
	104	5,674,235	10-07-1997	Parisi	
	105	5,676,643	10-14-1997	Cann et al.	
	106	5,676,648	10-14-1997	Henley	
	107	5,683,971	11-04-1997	Rose et al.	
	108	5,697,920	12-16-1997	Gibbons	
	109	5,707,383	01-13-1998	Bays	
	110	5,713,785	02-03-1998	Nishio	
	111	5,735,833	04-07-1998	Olson	
	112	5,755,751	05-26-1998	Eckhouse	
	113	5,759,185	06-02-1998	Grinberg	
	114	5,762,640	06-09-1998	Kajiwara et al.	
	115	5,779,519	07-14-1998	Oliver	
	116	5,800,446	09-01-1998	Banuchi	

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U.S. PATENT DOCUMENTS					
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	117	5,807,353	09-15-1998	Schmitz	
	118	5,810,842	09-22-1998	Di Fiore at al.	
	119	5,813,416	09-29-1998	Rudolph	
	120	5,817,050	10-06-1998	Klein	
	121	5,817,089	10-06-1998	Tankovich et al.	
	122	5,834,510	11-10-1998	Yu et al.	
	123	5,846,215	12-08-1998	Zygmont	
	124	5,848,998	12-15-1998	Marasco, Jr.	
	125	5,857,995	01-12-1999	Thomas et al.	
	126	5,861,142	01-19-1999	Schick	
	127	5,873,881	02-23-1999	McEwen et al.	
	128	5,879,323	03-09-1999	Henley	
	129	5,879,376	03-09-1999	Miller	
	130	5,882,201	03-16-1999	Salem	
	131	5,885,260	03-23-1999	Mehl, Sr. et al.	
	132	5,908,401	06-01-1999	Henley	
	133	5,911,223	06-15-1999	Weaver et al.	
	134	5,919,152	07-06-1999	Zygmont	
	135	5,919,479	07-06-1999	Zhang et al.	
	136	5,954,730	09-21-1999	Bernabei	
	137	5,971,999	10-26-1999	Naldoni	
	138	5,980,555	11-09-1999	Barbut et al.	
	139	6,019,749	02-01-2000	Fields et al.	
	140	6,023,639	02-08-2000	Hakky et al.	
	141	6,024,733	02-15-2000	Eggers et al.	
	142	6,027,402	02-22-2000	Oliver	
	143	6,027,495	02-22-2000	Miller	
	144	6,032,071	02-29-2000	Binder	
	145	6,036,684	03-14-2000	Tankovich et al.	

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U.S. PATENT DOCUMENTS					
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	146	6,039,745	03-21-2000	Di Fiore et al.	
	147	6,042,552	03-28-2000	Cornier	
	148	6,074,382	06-13-2000	Asah et al.	
	149	6,080,165	06-27-2000	DeJacma	
	150	6,080,166	06-27-2000	McEwen et al.	
	151	6,090,085	07-18-2000	Mehl, Sr. Et al.	
	152	6,093,021	07-25-2000	Rainey	
	153	6,113,559	09-05-2000	Klopotek	
	154	6,120,512	09-19-2000	Bernabei	
	155	6,129,701	10-10-2000	Cimino	
	156	6,136,008	10-24-2000	Becker et al.	
	157	6,139,553	10-31-2000	Dotan	
	158	6,139,554	10-31-2000	Karkar et al.	
	159	6,142,155	11-07-2000	Rudolph	
	160	6,149,634	11-21-2000	Bernabei	
	161	6,149,644	11-21-2000	Xie	
	162	6,159,226	12-12-2000	Kim	
	163	6,162,218	12-19-2000	Elbrecht et al.	
	164	6,162,232	12-19-2000	Shadduck	
	165	6,165,059	12-26-2000	Parkin et al.	
	166	6,174,325	01-16-2001	Eckhouse	
	167	6,176,198	01-23-2001	Kao et al.	
	168	6,183,451	02-06-2001	Mehl, Sr. et al.	
	169	6,183,483	02-06-2001	Chang	
	170	6,190,376	02-20-2001	Asah et al.	
	171	6,193,589	02-27-2001	Khalaj	
	172	6,196,982	03-06-2001	Ball	
	173	6,231,593	05-15-2001	Meserol	
	174	6,235,039	05-22-2001	Parkin et al.	

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	175	6,238,275	05-29-2001	Metcalf et al.	
	176	6,241,739	06-05-2001	Waldron	
	177	6,245,347	06-12-2001	Zhang et al.	
	178	6,264,666	07-24-2001	Coleman et al.	
	179	6,269,271	07-31-2001	Bernabei	
	180	6,277,116	08-21-2001	Utely et al.	
	181	6,277,128	08-21-2001	Muldner	
	182	6,280,438	08-28-2001	Eckhouse et al.	
	183	6,283,978	09-04-2001	Cheski et al.	
	184	6,284,266	09-04-2001	Zhang et al.	
	185	6,299,620	10-09-2001	Shadduck	
	186	6,306,119	10-23-2001	Weber et al.	
	187	6,306,147	10-23-2001	Bernabei et al.	
	188	6,322,548	11-27-2001	Payne et al.	
	189	6,322,568	11-27-2001	Bernabei et al.	
	190	6,325,381	12-04-2001	von Engelbrechten	
	191	6,325,769	12-04-2001	Klopotek	
	192	6,332,886	12-25-2001	Green et al.	
	193	6,334,074	12-25-2001	Spertell	
	194	6,355,054	03-12-2002	Neuberger	
	195	6,368,333	04-09-2002	Bernabei et al.	
	196	6,383,177	05-07-2002	Balle-Petersen et al.	
	197	6,387,089	05-14-2002	Kreindel et al.	
	198	6,387,103	05-14-2002	Shadduck	
	199	6,401,289	06-11-2002	Herbert	
	200	6,409,736	06-25-2002	Bernabei	
	201	6,410,599	06-25-2002	Johnson	
	202	6,414,032	07-02-2002	Johnson	
	203	6,420,431	07-16-2002	Johnson	

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	204	6,423,078	07-23-2002	Bays et al.	
	205	6,423,750	07-23-2002	Johnson	
	206	6,432,113	08-13-2002	Parkin et al.	
	207	6,432,114	08-13-2002	Rosso	
	208	6,458,109	10-01-2002	Henley et al.	
	209	6,471,712	10-29-2002	Burres	
	210	6,477,410	11-05-2002	Henley et al.	
	211	6,482,212	11-19-2002	Bernabei et al.	
	212	6,488,646	12-03-2002	Zygmont	
	213	6,494,856	12-17-2002	Zygmont	
	214	6,500,183	12-31-2002	Waldron	
	215	6,503,256	01-07-2003	Parkin et al.	
	216	6,508,813	01-21-2003	Altshuler	
	217	6,511,486	01-28-2003	Mercier et al.	
	218	6,514,243	02-04-2003	Eckhouse et al.	
	219	6,514,262	02-04-2003	Di Fiore et al.	
	220	6,514,278	02-04-2003	Hibst et al.	
	221	6,518,538	02-11-2003	Bernabei	
	222	6,520,931	02-18-2003	Suh	
	223	6,527,716	03-04-2003	Eppstein	
	224	6,527,783	03-04-2003	Ignon	
	225	6,533,776	03-18-2003	Asah et al.	
	226	6,535,761	03-18-2003	Bernabei	
	227	6,537,242	03-25-2003	Palmer	
	228	6,540,757	04-01-2003	Hruska et al.	
	229	6,546,281	04-08-2003	Zhang et al.	
	230	6,562,013	05-13-2003	Marasco, Jr.	
	231	6,562,050	05-13-2003	Owen	
	232	6,564,093	05-13-2003	Ostrow et al.	

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	233	6,565,535	05-20-2003	Zaias et al.	
	234	6,569,157	05-27-2003	Shain et al.	
	235	6,582,442	06-24-2003	Simon et al.	
	236	6,587,730	07-01-2003	Bernabei	
	237	6,589,218	07-08-2003	Garcia	
	238	6,592,595	07-15-2003	Mallett et al.	
	239	6,595,934	07-22-2003	Hissong et al.	
	240	6,611,706	08-26-2003	Avrahami et al.	
	241	6,626,445	09-30-2003	Murphy et al.	
	242	6,629,927	10-07-2003	Mesaros et al.	
	243	6,629,971	10-07-2003	McDaniel	
	244	6,629,974	10-07-2003	Penny et al.	
	245	6,629,983	10-07-2003	Ignon	
	246	6,635,035	10-21-2003	Marasco et al.	
	247	6,641,591	11-04-2003	Shadduck	
	248	6,645,184	11-11-2003	Zelickson et al.	
	249	6,652,888	11-25-2003	Rhoades	
	250	6,666,874	12-23-2003	Heitzmann et al.	
	251	6,673,081	01-06-2004	Tavger et al.	
	252	6,673,082	01-06-2004	Mallett et al.	
	253	6,685,853	02-03-2004	Angelopoulous et al.	
	254	6,687,537	02-03-2004	Bernabei	
	255	6,689,380	02-10-2004	Marchitto et al.	
	256	6,695,853	02-24-2004	Karasiuk	
	257	6,699,237	03-02-2004	Weber et al.	
	258	6,712,805	03-30-2004	Weimann	
	259	6,726,673	04-27-2004	Zhang et al.	
	260	6,735,470	05-11-2004	Henley et al.	
	261	6,743,211	06-01-2004	Prausnitz et al.	

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	262	6,743,215	06-01-2004	Bernabei	
	263	6,764,493	07-20-2004	Weber et al.	
	264	6,780,426	08-24-2004	Zhang et al.	
	265	6,800,083	10-05-2004	Hiblar et al.	
	266	6,800,849	10-05-2004	Staats	
	267	6,869,611	03-22-2005	Kligman et al.	
	268	6,878,144	04-12-2005	Altshuler et al.	
	269	6,887,260	05-03-2005	McDaniel	
	270	6,905,487	06-14-2005	Zimmerman	
	271	6,911,031	06-28-2005	Muldner	
	272	6,926,681	08-09-2005	Ramey et al.	
	273	6,938,805	09-06-2005	Brincat	
	274	6,942,649	09-13-2005	Ignon et al.	
	275	6,960,206	11-01-2005	Keane	
	276	6,980,448	12-27-2005	Foss et al.	
	277	7,001,355	02-21-2006	Nunomura et al.	
	278	7,004,933	02-28-2006	McDaniel	
	279	7,031,805	04-18-2006	Lee et al.	
	280	7,044,938	05-16-2006	La Bianco et al.	
	281	7,051,907	05-30-2006	Brincat	
	282	7,052,503	05-30-2006	Bernabei	
	283	7,062,317	06-13-2006	Avrahami et al.	
	284	7,069,073	06-27-2006	Henley et al.	
	285	7,070,488	07-04-2006	Suissa et al.	
	286	7,083,580	08-01-2006	Bernabei	
	287	7,087,036	08-08-2006	Busby et al.	
	288	7,087,063	08-08-2006	Carson et al.	
	289	7,094,252	08-22-2006	Koop	
	290	7,108,689	09-19-2006	Eckhouse et al.	

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PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487916
	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	291	7,115,275	10-03-2006	Clarot et al.	
	292	7,118,563	10-10-2006	Weckwerth et al.	
	293	7,122,029	10-17-2006	Koop et al.	
	294	7,135,011	11-14-2006	Powers et al.	
	295	7,153,311	12-26-2006	Chung	
	296	7,166,086	01-23-2007	Haider et al.	
	297	7,172,572	02-06-2007	Diamond et al.	
	298	7,189,230	03-13-2007	Knowlton	
	299	7,197,359	03-27-2007	Tokudome et al.	
	300	7,198,623	04-03-2007	Fischer et al.	
	301	7,201,765	04-10-2007	McDaniel	
	302	7,232,431	06-19-2007	Weimann	
	303	7,232,444	06-19-2007	Chang	
	304	7,241,208	07-10-2007	Suissa et al.	
	305	7,250,045	07-31-2007	Island et al.	
	306	7,276,051	10-02-2007	Henley et al.	
	307	7,293,930	11-13-2007	Chuang	
	308	7,314,326	01-01-2008	Rosenberg	
	309	7,316,657	01-08-2008	Kleinhenz et al.	
	310	7,316,671	01-08-2008	Lastovich et al.	
	311	7,318,828	01-15-2008	Revivo	
	312	7,320,691	01-22-2008	Pilcher et al.	
	313	7,320,801	01-22-2008	Kelly	
	314	7,326,199	02-05-2008	MacFarland et al.	
	315	7,329,252	02-12-2008	Yamazaki et al.	
	316	7,354,423	04-08-2008	Zelickson et al.	
	317	7,364,565	04-29-2008	Freeman	
	318	7,367,981	05-06-2008	Bernaz	
	319	7,384,405	06-10-2008	Rhoades	

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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	320	7,422,567	09-09-2008	Lastovich et al.	
	321	7,427,273	09-23-2008	Mitsui	
	322	7,440,798	10-21-2008	Redding, Jr.	
	323	7,458,944	12-02-2008	Liste et al.	
	324	7,476,205	01-13-2009	Erdmann	
	325	7,477,938	01-13-2009	Sun et al.	
	326	7,482,314	01-27-2009	Grimes et al.	
	327	7,485,125	02-03-2009	Sjostrom	
	328	7,489,989	02-10-2009	Sukhanov et al.	
	329	7,494,503	02-24-2009	McDaniel	
	330	7,507,228	03-24-2009	Sun et al.	
	331	7,582,067	09-01-2009	Van Acker	
	332	7,572,238	08-11-2009	Rhoades	
	333	7,597,900	10-06-2009	Zimmer et al.	
	334	7,597,901	10-06-2009	Clarot et al.	
	335	7,607,972	10-27-2009	Groman	
	336	7,658,742	02-09-2010	Karasiuk	
	337	7,678,120	03-16-2010	Shadduck	
	338	7,730,979	06-08-2010	Kahrig	
	339	7,731,570	06-08-2010	Groman	
	340	7,740,651	06-22-2010	Barak et al.	
	341	7,744,582	06-29-2010	Sadowski et al.	
	342	7,749,260	07-06-2010	Da Silva et al.	
	343	7,758,537	07-20-2010	Brunell et al.	
	344	7,771,374	08-10-2010	Slatkine	
	345	7,780,652	08-24-2010	MacFarland et al.	
	346	7,789,886	09-07-2010	Shadduck	
	347	7,814,915	10-19-2010	Davenport et al.	
	348	7,837,695	11-23-2010	Hart et al.	

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U.S. PATENT DOCUMENTS					
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	349	7,857,806	12-28-2010	Karpowicz et al.	
	350	7,862,564	01-04-2011	Goble	
	351	7,901,373	03-08-2011	Tavger	
	352	7,927,188	04-19-2011	Groman	
	353	7,951,156	05-31-2011	Karasiuk	
	354	7,981,111	07-19-2011	Grove et al.	
	355	7,981,112	07-19-2011	Neev	
	356	7,993,333	08-09-2011	Oral et al.	
	357	8,025,669	09-27-2011	David et al.	
	358	8,048,064	11-01-2011	Hwang et al.	
	359	8,048,089	11-01-2011	Ignon et al.	
	360	RE42,960	11-22-2011	Waldron	
	361	8,066,716	11-29-2011	Shadduck	
	362	8,088,085	01-03-2012	Thiebaut et al.	
	363	8,105,295	01-31-2012	Blott et al.	
	364	8,128,638	03-06-2012	Karasiuk et al.	
	365	8,135,475	03-13-2012	Kreindel et al.	
	366	8,182,473	05-22-2012	Altshuler et al.	
	367	8,221,437	07-17-2012	Waldron et al.	
	368	8,226,663	07-24-2012	Remsburg et al.	
	369	8,231,292	07-31-2012	Rabe et al.	
	370	8,236,008	08-07-2012	Boone, III et al.	
	371	8,236,036	08-07-2012	Frost	
	372	8,241,094	08-14-2012	Groman	
	373	8,273,080	09-25-2012	Mehta	
	374	8,276,592	10-02-2012	Davenport et al.	
	375	8,277,287	10-02-2012	Hart	
	376	8,282,630	10-09-2012	Neev	
	377	8,313,480	11-20-2012	Neev	

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	378	8,317,781	11-27-2012	Owens et al.	
	379	8,323,253	12-04-2012	Hantash et al.	
	380	8,337,513	12-25-2012	Shadduck	
	381	8,343,116	01-01-2013	Ignon et al.	
	382	8,360,826	01-29-2013	Groman	
	383	8,398,621	03-19-2013	Beerwerth et al.	
	384	8,430,104	04-30-2013	Hennings et al.	
	385	8,435,234	05-07-2013	Chan et al.	
	386	8,475,507	07-02-2013	Dewey et al.	
	387	8,478,396	07-02-2013	Tsao et al.	
	388	8,480,721	07-09-2013	Owens et al.	
	389	8,496,654	07-30-2013	Adanny et al.	
	390	8,496,695	07-30-2013	Kang et al.	
	391	8,535,299	09-17-2013	Giovannoli	
	392	8,545,419	10-01-2013	Kim	
	393	8,545,489	10-01-2013	Giovannoli	
	394	8,551,104	10-08-2013	Weckwerth et al.	
	395	8,562,626	10-22-2013	Sabir et al.	
	396	8,573,874	11-05-2013	Neuner	
	397	8,579,916	11-12-2013	Cheney	
	398	8,597,284	12-03-2013	Castro	
	399	8,632,378	01-21-2014	Groman	
	400	8,656,931	02-25-2014	Davenport et al.	
	401	8,668,552	03-11-2014	Groman	
	402	8,679,039	03-25-2014	Tieu et al.	
	403	8,700,176	04-15-2014	Azar et al.	
	404	8,702,691	04-22-2014	Weber et al.	
	405	8,702,771	04-22-2014	Frost	
	406	8,721,662	05-13-2014	Karasiuk	

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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	407	8,728,064	05-20-2014	Schomacker et al.	
	408	8,740,917	06-03-2014	Pilcher et al.	
	409	8,814,836	08-26-2014	Ignon et al.	
	410	8,818,500	08-26-2014	Duquet et al.	
	411	8,821,940	09-02-2014	Harris et al.	
	412	8,834,933	09-16-2014	Harris et al.	
	413	8,858,570	10-14-2014	Chang	
	414	8,939,669	01-27-2015	Le et al.	
	415	8,945,104	02-03-2015	Boone, III et al.	
	416	8,945,109	02-03-2015	Mehta	
	417	8,974,442	03-10-2015	Boss, Jr.	
	418	9,017,391	04-28-2015	McDaniel	
	419	9,017,392	04-28-2015	Owens et al.	
	420	9,044,582	06-02-2015	Chang et al.	
	421	9,050,133	06-09-2015	Boone, III et al.	
	422	9,050,156	06-09-2015	Groman	
	423	9,056,193	06-16-2015	Ignon et al.	
	424	9,072,521	07-07-2015	Levi et al.	
	425	9,072,533	07-07-2015	Liu et al.	
	426	9,072,892	07-07-2015	Owens et al.	
	427	9,084,587	07-21-2015	Eckhouse et al.	
	428	9,149,322	10-06-2015	Knowlton	
	429	9,186,490	11-17-2015	Chang et al.	
	430	9,227,044	01-05-2016	Bansal et al.	
	431	9,227,082	01-05-2016	McDaniel	
	432	9,233,207	01-12-2016	Polyakov et al.	
	433	9,271,755	03-01-2016	Luzon et al.	
	434	9,278,230	03-08-2016	Levin et al.	
	435	9,283,037	03-15-2016	Bragagna et al.	

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	436	9,314,302	04-19-2016	Dougal	
	437	9,351,792	05-31-2016	Manstein et al.	
	438	9,351,794	05-31-2016	Suckewer et al.	
	439	9,375,281	06-28-2016	Moench et al.	
	440	9,421,260	08-23-2016	Harris et al.	
	441	9,421,261	08-23-2016	Harris et al.	
	442	9,439,964	09-13-2016	Harris et al.	
	443	9,440,093	09-13-2016	Homer	
	444	9,452,013	09-27-2016	Manstein	
	445	9,468,464	10-18-2016	Shadduck	
	446	9,474,886	10-25-2016	Ignon et al.	
	447	9,480,836	11-01-2016	Na	
	448	9,486,615	11-08-2016	Ignon et al.	
	449	9,498,610	11-22-2016	Ignon et al.	
	450	9,517,085	12-13-2016	Karasiuk	
	451	9,522,287	12-20-2016	Owens et al.	
	452	9,550,052	01-24-2017	Ignon et al.	
	453	9,566,088	02-14-2017	Ignon et al.	
	454	9,566,454	02-14-2017	Barthe et al.	
	455	9,572,880	02-21-2017	Harris et al.	
	456	9,597,527	03-21-2017	Buchholz et al.	
	457	9,636,521	05-02-2017	Isserow et al.	
	458	9,636,522	05-02-2017	Oversluizen et al.	
	459	9,642,997	05-09-2017	Ignon et al.	
	460	9,662,482	05-30-2017	Ignon et al.	
	461	9,669,233	06-06-2017	Quisenberry et al.	
	462	9,675,817	06-13-2017	Isserow et al.	
	463	9,694,199	07-04-2017	Duquet et al.	
	464	9,700,684	07-11-2017	Vlodaver et al.	

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	465	9,731,053	08-15-2017	Alai	
	466	9,744,315	08-29-2017	Levi	
	467	9,775,645	10-03-2017	Boone, III	
	468	9,775,646	10-03-2017	Shadduck	
	469	9,775,976	10-03-2017	Grez	
	470	9,814,485	11-14-2017	Pratt et al.	
	471	9,814,647	11-14-2017	Ajiki	
	472	9,814,868	11-14-2017	Ignon et al.	
	473	9,814,906	11-14-2017	McDaniel	
	474	9,833,261	12-05-2017	Boone, III et al.	
	475	9,861,442	01-09-2018	Tankovich et al.	
	476	9,918,727	03-20-2018	Boone, III et al.	
	477	9,949,552	04-24-2018	Rabe et al.	
	478	9,950,147	04-24-2018	Mehta	
	479	9,955,769	05-01-2018	Rabe et al.	
	480	9,962,220	05-08-2018	Domankevitz	
	481	9,968,800	05-15-2018	Anderson et al.	
	482	10,004,919	06-26-2018	Lemmens et al.	
	483	10,010,445	07-03-2018	Isserow et al.	
	484	10,022,289	07-17-2018	Ajiki et al.	
	485	10,035,007	07-31-2018	Ignon et al.	
	486	10,052,467	08-21-2018	Bansal et al.	
	487	10,076,354	09-18-2018	Knowlton	
	488	10,076,646	09-18-2018	Casasanta, III et al.	
	489	10,080,581	09-25-2018	Knowlton	
	490	10,092,478	10-09-2018	Amit	
	491	10,105,191	10-23-2018	Blanco et al.	
	492	10,130,390	11-20-2018	Hart et al.	
	493	10,130,827	11-20-2018	Buchholz et al.	

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	494	10,149,969	12-11-2018	Grez et al.	
	495	10,149,984	12-11-2018	Modi et al.	
	496	10,172,644	01-08-2019	Ignon et al.	
	497	10,179,229	01-15-2019	Ignon et al.	
	498	10,183,183	01-22-2019	Burdette	
	499	10,188,193	01-29-2019	Rabe et al.	
	500	10,206,743	02-19-2019	Tankovich et al.	
	501	10,207,034	02-19-2019	Collins	
	502	10,220,122	03-05-2019	Clark, III et al.	
	503	10,238,812	03-26-2019	Ignon	
	504	10,238,849	03-26-2019	Britva et al.	
	505	10,251,675	04-09-2019	Ignon et al.	
	506	10,252,044	04-09-2019	Bock	
	507	10,271,900	04-30-2019	Marchitto et al.	
	508	10,272,258	04-30-2019	Quisenberry et al.	
	509	10,307,330	06-04-2019	Sedic	
	510	10,308,378	06-04-2019	Goodwin et al.	
	511	10,314,378	06-11-2019	Rabe et al.	
	512	10,321,948	06-18-2019	Knowlton	
	513	10,328,277	06-25-2019	Modi et al.	
	514	10,334,933	08-06-2019	Rosario et al.	
	515	10,335,191	07-02-2019	Knowlton	
	516	10,357,641	07-23-2019	Ignon et al.	
	517	10,357,642	07-23-2019	Ignon et al.	
	518	10,369,073	08-06-2019	Rosario et al.	
	519	10,413,359	09-17-2019	Felsenstein et al.	
	520	10,456,197	10-29-2019	Felsenstein et al.	
	521	10,456,321	10-29-2019	Shadduck	
	522	10,456,567	10-29-2019	Streeter	

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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	523	10,463,429	11-05-2019	Deem et al.	
	524	10,471,274	11-12-2019	Liu et al.	
	525	10,485,983	11-26-2019	Boone, III et al.	
	526	10,524,835	01-07-2020	Shadduck et al.	
	527	10,537,304	01-21-2020	Barthe et al.	
	528	10,537,640	01-21-2020	Harris et al.	
	529	10,556,096	02-11-2020	Ignon et al.	
	530	10,556,097	02-11-2020	Ignon et al.	
	531	10,583,037	03-10-2020	Isserow et al.	
	532	10,667,985	06-02-2020	Decaux et al.	
	533	10,675,481	06-09-2020	Tankovich	
	534	10,688,290	06-23-2020	Yuval	
	535	10,702,328	07-07-2020	Slatkine et al.	
	536	10,716,924	07-21-2020	Knowlton	
	537	10,736,653	08-11-2020	Knowlton	
	538	10,737,080	08-11-2020	Patterson	
	539	10,758,261	09-01-2020	Richardson	
	540	10,772,658	09-15-2020	Knowlton	
	541	10,792,382	10-06-2020	Rafko	
	542	10,799,285	10-13-2020	Mulholland	
	543	10,799,430	10-13-2020	Danto	
	544	10,813,694	10-27-2020	Johnson et al.	
	545	10,835,287	11-17-2020	Shadduck et al.	
	546	10,835,726	11-17-2020	Redding, Jr.	
	547	10,850,095	12-01-2020	Ebbers et al.	
	548	10,856,900	12-08-2020	Knowlton	
	549	10,860,026	12-08-2020	Nguyen et al.	
	550	10,874,579	12-29-2020	Rembert	
	551	10,893,907	01-19-2021	Kim	

Examiner Signature	Date Considered
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PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487916
	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	552	10,912,428	02-09-2021	Daffer	
	553	10,918,190	02-16-2021	Laudati	
	554	10,946,191	03-16-2021	Cazares Delgadillo	
	555	10,952,811	03-23-2021	Blanco et al.	
	556	10,952,907	03-23-2021	Carver	
	557	10,980,592	04-20-2021	Horton et al.	
	558	10,993,743	05-04-2021	Ignon et al.	
	559	11,020,577	06-01-2021	Ignon et al.	
	560	11,045,661	06-29-2021	Oversluizen et al.	
	561	11,083,515	08-10-2021	Slatkine et al.	
	562	11,123,039	09-21-2021	Barthe et al.	
	563	11,141,761	10-12-2021	Connelly et al.	
	564	11,154,723	10-26-2021	Lee	
	565	11,172,978	11-16-2021	Wootten et al.	
	566	11,202,657	12-21-2021	Ignon et al.	
	567	11,213,321	01-04-2022	Ignon et al.	
	568	11,224,728	01-18-2022	Ignon et al.	
	569	11,241,357	02-08-2022	Ignon et al.	
	570	11,247,039	02-15-2022	Schwarz	
	571	11,278,101	03-22-2022	Jeannin et al.	
	572	11,291,474	04-05-2022	Nicolas et al.	
	573	11,291,498	04-05-2022	Slatkine et al.	
	574	11,311,721	04-26-2022	Ebbers et al.	
	575	11,337,745	05-24-2022	Kim	
	576	11,337,755	05-24-2022	Hancock et al.	
	577	11,351,063	06-07-2022	Locke et al.	
	578	11,419,678	08-23-2022	Deem et al.	
	579	11,446,477	09-20-2022	Ignon et al.	
	580	11,452,852	09-27-2022	Quan et al.	

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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	581	11,497,553	11-15-2022	Reinhard et al.	
	582	11,504,148	11-22-2022	Friend	
	583	11,517,350	12-06-2022	Ignon et al.	
	584	11,540,882	01-03-2023	Masotti et al.	
	585	11,547,840	01-10-2023	Ignon et al.	
	586	11,590,345	02-28-2023	Danitz et al.	
	587	11,602,629	03-14-2023	Schwarz et al.	
	588	11,612,726	03-28-2023	Ignon et al.	
	589	11,717,326	08-08-2023	Ignon et al.	
	590	11,744,999	09-05-2023	Ignon et al.	
	591	D117,295	10-24-1939	Smith	
	592	D151,807	11-23-1948	Berkowitz	
	593	D237,776	11-25-1975	Arassa et al.	
	594	D237,863	12-02-1975	Peters et al.	
	595	D255,325	06-10-1980	Hoyt	
	596	D258,348	02-24-1981	Hoyt	
	597	D259,921	07-21-1981	Hartmann	
	598	D260,176	08-11-1981	Boschetti et al.	
	599	D288,293	02-17-1987	Arvans	
	600	D290,999	07-21-1987	Novak	
	601	D308,480	06-12-1990	Hoyt	
	602	D317,719	06-25-1991	Hestehave et al.	
	603	D428,142	07-11-2000	Stromblad	
	604	D472,136	03-25-2003	Hermann	
	605	D486,915	02-17-2004	Warschewske et al.	
	606	D490,561	05-25-2004	Angeletta	
	607	D496,101	09-14-2004	Davison	
	608	D499,207	11-30-2004	Angeletta	
	609	D499,841	12-14-2004	Angeletta	

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U.S. PATENT DOCUMENTS					
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	610	D502,288	02-22-2005	Longoria	
	611	D502,289	02-22-2005	Longoria	
	612	D502,569	03-01-2005	Longoria	
	613	D517,699	03-21-2006	Lansohn	
	614	D522,360	06-06-2006	Caserta et al.	
	615	D533,962	12-19-2006	Angeletta	
	616	D536,481	02-06-2007	Angeletta	
	617	D545,207	06-26-2007	De Baschmakoff	
	618	D553,005	10-16-2007	Py et al.	
	619	D557,611	12-18-2007	Ingemarsson	
	620	D584,151	01-06-2009	Murphy	
	621	D625,198	10-12-2010	Hall	
	622	D639,164	06-07-2011	Walsh	
	623	D664,254	07-24-2012	Yokoyama et al.	
	624	D676,764	02-26-2013	Moore et al.	
	625	D678,783	03-26-2013	Wilcox et al.	
	626	D680,437	04-23-2013	Bartolo et al.	
	627	D697,404	01-14-2014	Johnson et al.	
	628	D709,617	07-22-2014	Iliesco de Grimaldi et al.	
	629	D722,172	02-03-2015	Amemiya et al.	
	630	D734,154	07-14-2015	Johnson et al.	
	631	D743,269	11-17-2015	Pape	
	632	D743,558	11-17-2015	Kim et al.	
	633	D765,512	09-06-2016	Joulia	
	634	D772,481	11-22-2016	Paquet	
	635	D782,881	04-04-2017	Seiders et al.	
	636	D787,054	05-16-2017	Rini et al.	
	637	D811,225	02-27-2018	Newson	
	638	D811,381	02-27-2018	Morohoshi et al.	

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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	639	D822,845	07-10-2018	Shimobayashi et al.	
	640	D825,763	08-14-2018	Lim et al.	
	641	D833,283	11-13-2018	Rock	
	642	D836,781	12-25-2018	Meurer et al.	
	643	D851,759	06-18-2019	Jones et al.	
	644	D852,962	07-02-2019	Chang	
	645	D861,913	10-01-2019	Stamm et al.	
	646	D868,981	12-03-2019	Salamon et al.	
	647	D867,587	11-19-2019	Holtz	
	648	D873,430	01-21-2020	Accolla	
	649	D873,481	01-21-2020	Larkin	
	650	D886,370	06-02-2020	Soutelo Gomes	
	651	D886,372	06-02-2020	Weinrich	
	652	D887,571	06-16-2020	Liu	
	653	D893,024	08-11-2020	Whiteside	
	654	D908,282	01-19-2021	Kim	
	655	D917,290	04-27-2021	Bravman et al.	
	656	D927,008	08-03-2021	Rappaport	
	657	D928,977	08-24-2021	Dijkstra	
	658	2001/0023351	09-20-2001	Eilers	
	659	2001/0049511	12-06-2001	Coleman et al.	
	660	2002/0016601	02-07-2002	Shadduck	
	661	2002/0040199	04-04-2002	Klopotek	
	662	2002/0041891	04-11-2002	Cheski	
	663	2002/0058952	05-16-2002	Weber et al.	
	664	2002/0099356	07-25-2002	Unger et al.	
	665	2002/0107527	08-08-2002	Burres	
	666	2002/0128663	09-12-2002	Mercier et al.	
	667	2002/0133110	09-19-2002	Citow	

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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	668	2002/0133176	09-19-2002	Parkin et al.	
	669	2002/0151826	10-17-2002	Ramey et al	
	670	2002/0162863	11-07-2002	Brincat	
	671	2002/0188261	12-12-2002	Hruska	
	672	2002/0198488	12-26-2002	Yao	
	673	2003/0012415	01-16-2003	Cossel	
	674	2003/0018252	01-23-2003	Duchon et al.	
	675	2003/0060834	03-27-2003	Muldner	
	676	2003/0093040	05-15-2003	Mikszta et al.	
	677	2003/0093089	05-15-2003	Greenberg	
	678	2003/0097139	05-22-2003	Karasiuk	
	679	2003/135388	07-17-2003	Martucci et al.	
	680	2003/0187462	10-14-2003	Chang	
	681	2003/0208159	11-06-2003	Ignon et al.	
	682	2003/0212127	11-13-2003	Glassman et al.	
	683	2003/0212415	11-13-2003	Karasiuk	
	684	2004/0005349	01-08-2004	Neev	
	685	2004/0010222	01-15-2004	Nunomura et al.	
	686	2004/0010269	01-15-2004	Grimes et al.	
	687	2004/0015139	01-22-2004	La Bianco	
	688	2004/0087972	05-06-2004	Mulholland et al.	
	689	2004/0092895	05-13-2004	Harmon	
	690	2004/0092959	05-13-2004	Bernaz	
	691	2004/0097967	05-20-2004	Ignon	
	692	2004/0122447	06-24-2004	Harmon et al.	
	693	2004/0127914	07-01-2004	Chung	
	694	2004/0138680	07-15-2004	Twitchell et al.	
	695	2004/0162565	08-19-2004	Carson et al.	
	696	2004/0166172	08-26-2004	Rosati et al.	

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	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	697	2004/0176823	09-09-2004	Island et al.	
	698	2004/0210280	10-21-2004	Liedtke	
	699	2004/0219179	11-04-2004	McDaniel	
	700	2004/0229295	11-18-2004	Marchitto et al.	
	701	2004/0236291	11-25-2004	Zelickson et al.	
	702	2004/0236375	11-25-2004	Redding, Jr.	
	703	2004/0243149	12-02-2004	Lee, John B. JR.	
	704	2004/0254587	12-16-2004	Park	
	705	2004/0267285	12-30-2004	Chang	
	706	2005/0015077	01-20-2005	Kuklin et al.	
	707	2005/0037034	02-17-2005	Rhoades	
	708	2005/0038377	02-17-2005	Redding, Jr.	
	709	2005/0038448	02-17-2005	Chung	
	710	2005/0059940	03-17-2005	Weber et al.	
	711	2005/0065461	03-24-2005	Redding, Jr.	
	712	2005/0070977	03-31-2005	Molina	
	713	2005/0075599	04-07-2005	Redding, Jr.	
	714	2005/0080465	04-14-2005	Zelickson et al.	
	715	2005/0084509	04-21-2005	Bernstein	
	716	2005/0148958	07-07-2005	Rucinski	
	717	2005/0154333	07-14-2005	Mulholland et al.	
	718	2005/0203111	09-15-2005	David	
	719	2005/0203593	09-15-2005	Shanks et al.	
	720	2005/0209611	09-22-2005	Greenberg	
	721	2005/0245180	11-03-2005	Suissa et al.	
	722	2005/0283176	12-22-2005	Law	
	723	2006/0002960	01-05-2006	Zoeteweij et al.	
	724	2006/0015059	01-19-2006	Redding, Jr.	
	725	2006/0058714	03-16-2006	Rhoades	

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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	726	2006/0100567	05-11-2006	Marchitto et al.	
	727	2006/0116674	06-01-2006	Goble et al.	
	728	2006/0161178	07-20-2006	Lee	
	729	2006/0184071	08-17-2006	Klopotek	
	730	2006/0189964	08-24-2006	Anderson	
	731	2006/0191562	08-31-2006	Numomura	
	732	2006/0200099	09-07-2006	La Bianco et al.	
	733	2006/0200213	09-07-2006	McDaniel	
	734	2006/0212025	09-21-2006	McDaniel	
	735	2006/0212029	09-21-2006	Villacampa et al.	
	736	2006/0222445	10-05-2006	Chuang	
	737	2006/0235371	10-19-2006	Wakamatsu et al.	
	738	2006/0253078	11-09-2006	Wu et al.	
	739	2006/0253079	11-09-2006	McDonough et al.	
	740	2006/0253125	11-09-2006	Ignon	
	741	2006/0264893	11-23-2006	Sage, Jr. et al.	
	742	2006/0264926	11-23-2006	Kochamba	
	743	2006/0269580	11-30-2006	Cole et al.	
	744	2006/0278661	12-14-2006	Cooper et al.	
	745	2007/0005078	01-04-2007	Hart et al.	
	746	2007/0020321	01-25-2007	Redding et al.	
	747	2007/0043382	02-22-2007	Cheney	
	748	2007/0049901	03-01-2007	Wu et al.	
	749	2007/0065515	03-22-2007	Key	
	750	2007/0073327	03-29-2007	Giovannoli	
	751	2007/0078290	04-05-2007	Esenaliev	
	752	2007/0088245	04-19-2007	Babaev et al.	
	753	2007/0088371	04-19-2007	Karasiuk	
	754	2007/0093694	04-26-2007	Fassuliotis et al.	

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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	755	2007/0123808	05-31-2007	Rhoades	
	756	2007/0139630	06-21-2007	Kleman et al.	
	757	2007/0149991	06-28-2007	Mulholland	
	758	2007/0154502	07-05-2007	Hattendorf et al.	
	759	2007/0156124	07-05-2007	Ignon et al.	
	760	2007/0178121	08-02-2007	First et al.	
	761	2007/0198031	08-23-2007	Kellogg	
	762	2007/0232987	10-04-2007	Diaz et al.	
	763	2007/0239079	10-11-2007	Manstein et al.	
	764	2007/0239173	10-11-2007	Khalaj	
	765	2007/0255355	11-01-2007	Altshuler et al.	
	766	2007/0264625	11-15-2007	DeBenedictis et al.	
	767	2007/0270738	11-22-2007	Wu et al.	
	768	2008/0009802	01-10-2008	Lambino et al.	
	769	2008/0015555	01-17-2008	Manstein et al.	
	770	2008/0027328	01-31-2008	Klopotek et al.	
	771	2008/0027518	01-31-2008	Island et al.	
	772	2008/0091126	04-17-2008	Greenburg	
	773	2008/0091179	04-17-2008	Durkin et al.	
	774	2008/0103563	05-01-2008	Powell	
	775	2008/0119781	05-22-2008	King	
	776	2008/0132914	06-05-2008	Bossard et al.	
	777	2008/0139974	06-12-2008	Da Silva	
	778	2008/0146970	06-19-2008	Litman et al.	
	779	2008/0154161	06-26-2008	Abbott	
	780	2008/0154183	06-26-2008	Baker et al.	
	781	2008/0161799	07-03-2008	Stangenes et al.	
	782	2008/0188840	08-07-2008	Johnson et al.	
	783	2008/0193493	08-14-2008	Rhoades	

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PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487916
	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	784	2008/0200861	08-21-2008	Shalev et al.	
	785	2008/0200863	08-21-2008	Chomas et al.	
	786	2008/0208146	08-28-2008	Brandwein et al.	
	787	2008/0208179	08-28-2008	Chan et al.	
	788	2008/0214987	09-04-2008	Xu	
	789	2008/0215068	09-04-2008	Hart et al.	
	790	2008/0221548	09-11-2008	Danenberg et al.	
	791	2008/0234626	09-25-2008	Chelak	
	792	2008/0243039	10-02-2008	Rhoades	
	793	2008/0287864	11-20-2008	Rosenberg	
	794	2008/0300529	12-04-2008	Reinstein	
	795	2008/0300552	12-04-2008	Cichocki et al.	
	796	2009/0048557	02-19-2009	Yeshurun et al.	
	797	2009/0053390	02-26-2009	Sakou et al.	
	798	2009/0062815	03-05-2009	Karasiuk et al.	
	799	2009/0099091	04-16-2009	Hantash	
	800	2009/0099093	04-16-2009	Hantash	
	801	2009/0118684	05-07-2009	Da Silva et al.	
	802	2009/0124985	05-14-2009	Hasenoehrl et al.	
	803	2009/0132012	05-21-2009	Shanks	
	804	2009/0138026	05-28-2009	Wu	
	805	2009/0171191	07-02-2009	Patrick et al.	
	806	2009/0171194	07-02-2009	Patrick et al.	
	807	2009/0222023	09-03-2009	Boone, III et al.	
	808	2009/0254014	10-08-2009	Son	
	809	2009/0299237	12-03-2009	Rhoades	
	810	2010/0023003	01-28-2010	Mulholland	
	811	2010/0045427	02-25-2010	Boone, III et al.	
	812	2010/0048980	02-25-2010	De Jong et al.	

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U.S. PATENT DOCUMENTS					
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	813	2010/0049177	02-25-2010	Boone, III et al.	
	814	2010/0049210	02-25-2010	Boone, III et al.	
	815	2010/0056847	03-04-2010	De Jong et al.	
	816	2010/0063565	03-11-2010	Beerwerth et al.	
	817	2010/0217357	08-26-2010	Da Silva	
	818	2010/0305495	12-02-2010	Anderson et al.	
	819	2011/0054490	03-03-2011	Hart	
	820	2011/0060270	03-10-2011	Eppstein	
	821	2011/0066162	03-17-2011	Cohen	
	822	2011/0067761	06-09-2011	King	
	823	2011/0190726	08-04-2011	Hantash et al.	
	824	2011/0251523	10-13-2011	Kim	
	825	2011/0264028	10-27-2011	Ramdas et al.	
	826	2011/0270137	11-03-2011	Goren et al.	
	827	2011/0270364	11-03-2011	Kreindel et la.	
	828	2011/0295273	12-01-2011	Waldron et al.	
	829	2012/0041338	02-16-2012	Chickering III et al.	
	830	2012/0041523	02-16-2012	Solomon et al.	
	831	2012/0109041	05-03-2012	Munz	
	832	2012/0109043	05-03-2012	Zhou et al.	
	833	2012/0136374	05-31-2012	Karasiuk	
	834	2012/0171636	07-05-2012	Groman	
	835	2012/0259252	10-11-2012	Thorn-Leeson et al.	
	836	2012/0289885	11-15-2012	Cottrell et la.	
	837	2012/0302929	11-29-2012	Tkachenko	
	838	2013/0004230	01-03-2013	Kirk, III et al.	
	839	2013/0018317	01-17-2013	Bobroff et al.	
	840	2013/0066336	03-14-2013	Boone, III et al.	
	841	2013/0085421	04-04-2013	Gillespie et al.	

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U.S. PATENT DOCUMENTS					
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	842	2013/0096546	04-18-2013	Mirkov et al.	
	843	2013/0096577	04-18-2013	Shadduck	
	844	2013/0144207	06-06-2013	Gonon	
	845	2013/0144280	06-06-2013	Eckhouse et al.	
	846	2013/0158547	06-20-2013	David	
	847	2013/0204238	08-08-2013	Lederman et al.	
	848	2013/0226075	08-29-2013	Hennings et al.	
	849	2013/0226269	08-29-2013	Eckhouse et al.	
	850	2013/0261534	10-03-2013	Niezgoda et al.	
	851	2013/0268032	10-10-2013	Neev	
	852	2013/0310906	11-21-2013	Neev	
	853	2013/0317314	11-28-2013	Lampson	
	854	2013/0345616	12-26-2013	Chang	
	855	2014/0031801	01-30-2014	Giovannoli	
	856	2014/0079686	03-20-2014	Barman et al.	
	857	2014/0081251	03-20-2014	Giovannoli	
	858	2014/0094718	04-03-2014	Feldman	
	859	2014/0114234	04-24-2014	Redding, Jr.	
	860	2014/0135798	05-15-2014	David	
	861	2014/0234004	08-21-2014	Thorpe et al.	
	862	2014/0243589	08-28-2014	Rowan	
	863	2014/0316492	10-23-2014	Min et al.	
	864	2014/0378887	12-25-2014	Chang et al.	
	865	2015/0039060	02-05-2015	Paulussen et al.	
	866	2015/0141877	05-21-2015	Feldman	
	867	2015/0157496	06-11-2015	Horton et al.	
	868	2015/0202007	07-23-2015	Mainstein et al.	
	869	2015/0272623	10-01-2015	Ignon et al.	
	870	2015/0313993	11-05-2015	Bock	

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U.S. PATENT DOCUMENTS					
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	871	2015/0351868	12-10-2015	Groman	
	872	2016/0015962	01-21-2016	Maragheh et al.	
	873	2016/0018100	01-21-2016	Batt et al.	
	874	2016/0175609	06-23-2016	Dye et al.	
	875	2016/0220849	08-04-2016	Knowlton	
	876	2016/0235257	08-18-2016	Daffer	
	877	2016/0250415	09-01-2016	Yagi et al.	
	878	2016/0270850	09-22-2016	Manstein et al.	
	879	2016/0270851	09-22-2016	Moench et al.	
	880	2016/0287333	10-06-2016	Morrison	
	881	2016/0324578	11-10-2016	Manstein et al.	
	882	2017/0043150	02-16-2017	Kim	
	883	2017/0065829	03-09-2017	Ku	
	884	2017/0106206	04-20-2017	Seckel	
	885	2017/0128319	05-11-2017	Decaux et al.	
	886	2017/0157419	06-08-2017	Jeong	
	887	2017/0196759	07-13-2017	Palomaki et al.	
	888	2017/0209894	07-27-2017	Sporrer	
	889	2017/0252105	09-07-2017	Deem et al.	
	890	2017/0291007	10-12-2017	Dubey et al.	
	891	2017/0340356	11-30-2017	Presser et al.	
	892	2017/0343308	11-30-2017	Wojciechowski, III et al.	
	893	2018/0008500	01-11-2018	Anderson et al.	
	894	2018/0140329	05-24-2018	Beijens et al.	
	895	2018/0185675	07-05-2018	Kern et al.	
	896	2018/0310979	11-01-2018	Peled et al.	
	897	2018/0318568	11-08-2018	Ignon et al.	
	898	2018/0326191	11-15-2018	Bansal et al.	
	899	2019/0009110	01-10-2019	Gross et al.	

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U.S. PATENT DOCUMENTS					
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	900	2019/0009111	01-10-2019	Myhr et al.	
	901	2019/0070069	03-07-2019	Gertner et al.	
	902	2019/0076193	03-14-2019	Clementi et al.	
	903	2019/0083161	03-21-2019	Harle et al.	
	904	2019/0143089	05-16-2019	Ignon et al.	
	905	2019/0151637	05-23-2019	Groop et al.	
	906	2019/0168016	06-06-2019	Anderson et al.	
	907	2019/0183562	06-20-2019	Widgerow	
	908	2019/0209859	07-11-2019	Quisenberry et al.	
	909	2019/0224501	07-25-2019	Burdette	
	910	2019/0239939	08-08-2019	Boll et al.	
	911	2019/0240110	08-08-2019	Sedic	
	912	2019/0240502	08-08-2019	Anderson et al.	
	913	2019/0257320	08-22-2019	Petit et al.	
	914	2019/0274759	09-12-2019	Royon et al.	
	915	2019/0275320	09-12-2019	Kim et al.	
	916	2019/0366067	12-05-2019	Ginggen et al.	
	917	2020/0009007	01-09-2020	Shadduck	
	918	2020/0016342	01-16-2020	Ignon	
	919	2020/0030627	01-30-2020	Eltorai et al.	
	920	2020/0101312	04-02-2020	Pai et al.	
	921	2020/0114116	04-16-2020	Dubey et al.	
	922	2020/0121354	04-23-2020	Ginggen et a l.	
	923	2020/0171288	06-04-2020	Ignon et al.	
	924	2020/0171289	06-04-2020	Ignon et al.	
	925	2020/0179220	06-11-2020	Jablow	
	926	2020/0206072	07-02-2020	Capelli et al.	
	927	2020/0254273	08-13-2020	Jafari et al.	
	928	2020/0275945	09-03-2020	Knowlton	

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	Art Unit	Unassigned
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U.S. PATENT DOCUMENTS					
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	929	2020/0288843	09-17-2020	Verheem	
	930	2020/0289161	09-17-2020	Scooros	
	931	2020/0306555	10-01-2020	Ebbesson	
	932	2020/0316270	10-08-2020	Dijkstra et al.	
	933	2020/0330754	10-22-2020	Kim et al.	
	934	2020/0338586	10-29-2020	Park	
	935	2020/0367961	11-26-2020	Podmore et al.	
	936	2020/0390468	12-17-2020	Alexander	
	937	2021/0001148	01-07-2021	Verheem	
	938	2021/0052292	02-25-2021	Karni	
	939	2021/0085367	03-25-2021	Shadduck et al.	
	940	2021/0128416	05-06-2021	Danto	
	941	2021/0145479	05-20-2021	Ignon et al.	
	942	2021/0154093	05-27-2021	Boone, III et al.	
	943	2021/0220631	07-22-2021	Ok et al.	
	944	2021/0236342	08-05-2021	Long et al.	
	945	2021/0236347	08-05-2021	Carver	
	946	2021/0236836	08-05-2021	Schwarz et al.	
	947	2021/0242657	08-05-2021	Yi et al.	
	948	2021/0259914	08-26-2021	Holbert	
	949	2021/0267625	09-02-2021	Carver	
	950	2021/0268304	09-02-2021	Lee	
	951	2021/0275406	09-09-2021	Danto	
	952	2021/0282855	09-16-2021	Boinagrov et al.	
	953	2021/0283421	09-16-2021	Kang et al.	
	954	2021/0290430	09-23-2021	Kim	
	955	2021/0330356	10-28-2021	Del Rosario et al.	
	956	2021/0353922	11-18-2021	Ignon et al.	
	957	2021/0361525	11-25-2021	Park et al.	

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Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	958	2021/0370049	12-02-2021	Moss et al.	
	959	2021/0370089	12-02-2021	Anash	
	960	2021/0393478	12-23-2021	Bhatti	
	961	2021/0393974	12-23-2021	Kim et al.	
	962	2021/0393975	12-23-2021	Eltorai et al.	
	963	2021/0395071	12-23-2021	Zubrum et al.	
	964	2021/0402208	12-30-2021	Edgar	
	965	2022/0001198	01-06-2022	Lee	
	966	2022/0001199	01-06-2022	Beerwerth et al.	
	967	2022/0008122	01-13-2022	Johnston et al.	
	968	2022/0032082	02-03-2022	Shenfarber et al.	
	969	2022/0054189	02-24-2022	Wootten	
	970	2022/0071491	03-10-2022	Bae et al.	
	971	2022/0072332	03-10-2022	Park et al.	
	972	2022/0087891	03-24-2022	Goodman et al.	
	973	2022/0111198	04-14-2022	Jung	
	974	2022/0117632	04-21-2022	Walker et al.	
	975	2022/0125706	04-28-2022	Horinek et al.	
	976	2022/0126014	04-28-2022	Cederna et al.	
	977	2022/0133407	05-05-2022	Anderson et al.	
	978	2022/0175443	06-09-2022	Slatkine et al.	
	979	2022/0176092	06-09-2022	Quan et al.	
	980	2022/0203112	06-30-2022	Iger et al.	
	981	2022/0211424	07-07-2022	Wootten et al.	
	982	2022/0211988	07-07-2022	Ignon et al.	
	983	2022/0218562	07-14-2022	Capelli et al.	
	984	2022/0226668	07-21-2022	Lee et al.	
	985	2022/0233400	07-28-2022	Oh et al.	
	986	2022/0241107	08-04-2022	Kim et al.	

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	987	2022/0241146	08-04-2022	Jeong	
	988	2022/0268536	08-25-2022	Stephenson et al.	
	989	2022/0287910	09-15-2022	Boone, III et al.	
	990	2022/0312940	10-06-2022	Hong et al.	
	991	2022/0362529	11-17-2022	Castro	
	992	2022/0401714	12-22-2022	Quan et al.	
	993	2022/0409276	12-29-2022	Choi	
	994	2023/0012684	01-19-2023	Ignon et al.	
	995	2023/0014299	01-19-2023	Lee, Jr. et al.	
	996	2023/0018295	01-19-2023	Ignon et al.	
	997	2023/0019979	01-19-2023	Deem et al.	
	998	2023/0033217	02-02-2023	Ignon et al.	
	999	2023/0033761	02-02-2023	Ignon et al.	
	1000	2023/0042047	02-09-2023	Kim et al.	
	1001	2023/0062185	03-02-2023	Nazarian et al.	
	1002	2023/0104221	04-06-2023	Aharon	
	1003	2023/0123145	04-20-2023	Ko	
	1004	2023/0158282	05-25-2023	Ignon et al.	

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Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	**T[1]**
	1005	AT 400305	12-27-1995	Devida Ges MBH		
	1006	AU 1014299	05-31-1999	Greenberg		
	1007	CA 2340154	09-09-2002	Hoffman et al.		
	1008	CA 2784209	08-04-2011	KCI Licensing Inc		
	1009	CN 1708261	12-14-2005	Palomar Medical Technologies, Inc.		X
	1010	CN 107920948	04-17-2018	Edge Systems LLC		

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FOREIGN PATENT DOCUMENTS						
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	1011	CN 306995346	12-10-2021	Zhu Li		Abs
	1012	DE 234608	04-09-1986	Rath		
	1013	DE 599521	07-04-1934	Strickler et al.		
	1014	DE 2415633	10-16-1975	Nubert Geb KG		Abs
	1015	DE 3338057	08-09-1984	Krueger-Beuster		Abs
	1016	DE 3421390	12-12-1985	Schubert		
	1017	DE 3503343	08-14-1986	Frenkel		Abs
	1018	DE 8330191	06-04-1987	Krueger-Beuster		
	1019	DE 3740902	12-22-1988	Schlicksupp		Abs
	1020	DE 4237940	05-19-1993	Berens et al.		Abs
	1021	DE 29808395	08-27-1998	Ionto-Comed GmbH		
	1022	DE 10-2004-015815	11-03-2005	Bundersrepublik Deutschland		
	1023	EP 0258901	09-03-1987	Tonokura Ika Kogyo Co. LTD		
	1024	EP 0479121	04-08-1992	Fidia SpA		
	1025	EP 0564392	03-03-1993	Fructuoso Martinez		
	1026	EP 0784997	07-23-1997	Koblinger Gerald Ing		Abs
	1027	EP 1238643	04-07-2000	S.O.R Internacional		
	1028	EP 1453558	09-08-2004	Envy Medical, Inc.		
	1029	EP 2106780	03-09-2016	Pomar		
	1030	EP 2865867	05-04-2016	Delavan Inc.		
	1031	EP 2206483	07-14-2010	Andrea Uterstaedt		Abs
	1032	EP 2240099	02-21-2018	Edge Systems LLC.		
	1033	EP 2451367	01-22-2020	Edge Systems LLC.		
	1034	EP 2544563	09-16-2015	LRC Products Limited		
	1035	EP 2618797	04-08-2020	Sharon Hilditch		
	1036	EP 2967633	04-25-2018	Edge Systems LLC		
	1037	EP 3217899	05-19-2016	CYTRELLIS BIOSYSTEMS INC		

Examiner Signature	Date Considered
***Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487916
	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
SHEET 37 OF 45	Attorney Docket No.	EDGE.005C11

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[1]
	1038	EP 3237055	08-12-2020	Edge Systems LLC		
	1039	EP 3302319	04-11-2018	Koninklijke Philips N.V.		
	1040	EP 3319573	05-16-2018	Edge Systems LLC		
	1041	EP 3340908	07-04-2018	Koninklijke Philips N.V.		
	1042	EP 3388006	03-04-2020	Edge Systems LLC		
	1043	EP 3437575	04-21-2021	Edge Systems LLC.		
	1044	EP 3795204	03-24-2021	Edge Systems LLC.		
	1045	ES 1037776	04-01-1998	Concustell Gonfaus		Abs
	1046	EU Des. 8794184-0001	12-13-2021	Stallvärme Sverige AB		
	1047	EU Des. 8880371-0001	05-20-2022	Edge Systems LLC		
	1048	FR 2712172	05-19-1995	Rabier		Abs
	1049	FR 2773461	07-16-1999	Favie Alain		Abs
	1050	GB 1372609	10-30-1974	Forenade Fabrik-Sverken		
	1051	GB 2306351	05-07-1997	Inahara		
	1052	GB 2585500	01-13-2021	Tube Tech International Limited		
	1053	IT 553076	12-01-1956	Facconi		
	1054	IT 1184922	03-22-1985	Porqueddu		
	1055	JP H05-042060	02-23-1993	Hara		X
	1056	JP (53-118927) S55-034863	08-29-1963			
	1057	JP1993-088552	12-03-1993	Sumitomo Bakelite Co., Ltd.		
	1058	JP 1997-294747	11-18-1997	Fukutaro, Yamazaki		
	1059	JP 2003-339713	12-02-2003	Twinbird Corp		
	1060	JP 2003-534881	11-25-2003	Becton, Dickinson and Company		Abs
	1061	JP 2004-275721	10-07-2004	Matsushita Electric Works		
	1062	JP 2006-503627 (English abstract of WO 2004/037098)	02-02-2006	Bionoface		

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	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
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FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[1]
	1063	JP 2006-204767	10-08-2006	Matsushita Electric Works		
	1064	JP 2012-527967	11-12-2012	General Hospital Corp		
	1065	JP 2013-215621	10-24-2013	Corium International Inc.		X
	1066	JP D1581877	07-24-2017	Lexington International LLC		X
	1067	JP D1609357	06-22-2018	Pocket Sky OG		X
	1068	JP 2018-527052	09-20-2018	Edge Systems LLC		
	1069	KR 10-1836310	03-02-2018	Edge Systems LLC		
	1070	KR 20-0280320 (with English machine translation obtained from Korean Intellectual Property Office website, http://eng.kipris.or.kr/enghome/main.jsp)	07-02-2002	Lee		X
	1071	KR 10-20070070173	07-03-2007	Dermanew Inc.		Abs
	1072	KR 10-2018-0030607	03-23-2018	Edge Systems LLC		
	1073	TW D214226	09-21-2021	Baoliwang Health Technology Co., Ltd.		X
	1074	WO 1994/024980	11-10-1994	D+P Cosmetics AG		
	1075	WO 1997/000707	01-09-1997	Chattanooga Group, Inc.		
	1076	WO 1997/011650	03-04-1997	Cawley		
	1077	WO 2000/015300	03-23-2000	Ultra Cure Ltd		
	1078	WO 2000/79540	12-28-2000	DAUGHTON JAMES M; NONVOLATILE ELECTRONICS INC; POHM ARTHUR V		
	1079	WO 2001/93931	12-13-2001	Becton, Dickinson and Company		
	1080	WO 2003/073917	09-12-2003	Edge Systems		
	1081	WO 2004/037098	05-06-2004	Bionoface		

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	1082	WO 2004/108091	12-16-2001	Board of Regents, The Universioty of Texas System		
	1083	WO 2004/037287	05-06-2004	Palomar Medical Technologies, Inc.		
	1084	WO 2005/061042	07-07-2005	CMS Co., Ltd.		X
	1085	WO 2005/070313	08-04-2005	Crystal Clear International Limited		
	1086	WO 2006/018731	02-23-2006	Mc Anton Holding SA		
	1087	WO 2006/031413	03-23-2006	Dermanew Inc.		
	1088	WO 2007/114904	10-11-2007	Amcol International Corporation		
	1089	WO 2008/012324	01-31-2008	Maurizio Busoni		
	1090	WO 2009/086182	07-09-2009	Carticept Medical, Inc.		
	1091	WO 2009/088884	07-16-2009	Edge Systems Corporation	JP 5508285 WO 2009/088884	
	1092	WO 2009/097451	08-06-2009	Edge Systems Corporation		
	1093	WO 2010/022396	02-25-2010	Envy Medical, Inc.		
	1094	WO 2010/068960	06-24-2010	Silverbrook Research Pty Ltd		
	1095	WO 2010/151704	12-29-2010	Carticept Medical, Inc.		
	1096	WO 2011/006009	01-13-2011	Edge Systems Corporation		
	1097	WO 2011/110840	09-15-2011	LRC Products Limited		
	1098	WO 2012/145667	10-26-2012	Sun-Less, Inc.		
	1099	WO 2013/030117	03-07-2013	Medic Activ Vertriebs GMBH		
	1100	WO 2014/091035	06-19-2014	Decaux		
	1101	WO 2014/151104	09-25-2014	Edge Systems LLC		
	1102	WO 2016/052818	04-07-2016	LG Electronics Inc.		
	1103	WO 2016/106396	06-30-2016	Edge Systems LLC		

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	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
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FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[1]
	1104	WO 2017/007939	01-12-2017	Edge Systems LLC		
	1105	AT 400305	12-27-1995	Devida Ges MBH		
	1106	AU 1014299	05-31-1999	Greenberg		
	1107	CA 2340154	09-09-2002	Hoffman et al.		
	1108	CA 2784209	08-04-2011	KCI Licensing Inc		
	1109	CN 1708261	12-14-2005	Palomar Medical Technologies, Inc.		X
	1110	CN 107920948	04-17-2018	Edge Systems LLC		
	1111	CN 306995346	12-10-2021	Zhu Li		Abs
	1112	DE 234608	04-09-1986	Rath		
	1113	DE 599521	07-04-1934	Strickler et al.		
	1114	DE 2415633	10-16-1975	Nubert Geb KG		Abs
	1115	DE 3338057	08-09-1984	Krueger-Beuster		Abs
	1116	DE 3421390	12-12-1985	Schubert		
	1117	DE 3503343	08-14-1986	Frenkel		Abs
	1118	DE 8330191	06-04-1987	Krueger-Beuster		
	1119	DE 3740902	12-22-1988	Schlicksupp		Abs
	1120	DE 4237940	05-19-1993	Berens et al.		Abs
	1121	DE 29808395	08-27-1998	Ionto-Comed GmbH		
	1122	DE 10-2004-015815	11-03-2005	Bundersrepublik Deutschland		
	1123	EP 0258901	09-03-1987	Tonokura Ika Kogyo Co. LTD		
	1124	EP 0479121	04-08-1992	Fidia SpA		
	1125	EP 0564392	03-03-1993	Fructuoso Martinez		
	1126	EP 0784997	07-23-1997	Koblinger Gerald Ing		Abs
	1127	EP 1238643	04-07-2000	S.O.R Internacional		
	1128	EP 1453558	09-08-2004	Envy Medical, Inc.		
	1129	EP 2106780	03-09-2016	Pomar		
	1130	EP 2865867	05-04-2016	Delavan Inc.		

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	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
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FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[1]
	1131	EP 2206483	07-14-2010	Andrea Uterstaedt		Abs
	1132	EP 2240099	02-21-2018	Edge Systems LLC.		
	1133	EP 2451367	01-22-2020	Edge Systems LLC.		
	1134	EP 2544563	09-16-2015	LRC Products Limited		
	1135	EP 2618797	04-08-2020	Sharon Hilditch		
	1136	EP 2967633	04-25-2018	Edge Systems LLC		
	1137	EP 3217899	05-19-2016	CYTRELLIS BIOSYSTEMS INC		
	1138	EP 3237055	08-12-2020	Edge Systems LLC		
	1139	EP 3302319	04-11-2018	Koninklijke Philips N.V.		
	1140	EP 3319573	05-16-2018	Edge Systems LLC		
	1141	EP 3340908	07-04-2018	Koninklijke Philips N.V.		
	1142	EP 3388006	03-04-2020	Edge Systems LLC		
	1143	EP 3437575	04-21-2021	Edge Systems LLC.		
	1144	EP 3795204	03-24-2021	Edge Systems LLC.		
	1145	ES 1037776	04-01-1998	Concustell Gonfaus		Abs
	1146	EU Des. 8794184-0001	12-13-2021	Stallvärme Sverige AB		
	1147	EU Des. 8880371-0001	05-20-2022	Edge Systems LLC		
	1148	FR 2712172	05-19-1995	Rabier		Abs
	1149	FR 2773461	07-16-1999	Favie Alain		Abs
	1150	GB 1372609	10-30-1974	Forenade Fabrik-Sverken		
	1151	GB 2306351	05-07-1997	Inahara		
	1152	GB 2585500	01-13-2021	Tube Tech International Limited		
	1153	IT 553076	12-01-1956	Facconi		
	1154	IT 1184922	03-22-1985	Porqueddu		
	1155	JP H05-042060	02-23-1993	Hara		X
	1156	JP (53-118927) S55-034863	08-29-1963			

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487916
	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
SHEET 42 OF 45	Attorney Docket No.	EDGE.005C11

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[1]
	1157	JP1993-088552	12-03-1993	Sumitomo Bakelite Co., Ltd.		
	1158	JP 1997-294747	11-18-1997	Fukutaro, Yamazaki		
	1159	JP 2003-339713	12-02-2003	Twinbird Corp		
	1160	JP 2003-534881	11-25-2003	Becton, Dickinson and Company		Abs
	1161	JP 2004-275721	10-07-2004	Matsushita Electric Works		
	1162	JP 2006-503627 (English abstract of WO 2004/037098)	02-02-2006	Bionoface		
	1163	JP 2006-204767	10-08-2006	Matsushita Electric Works		
	1164	JP 2012-527967	11-12-2012	General Hospital Corp		
	1165	JP 2013-215621	10-24-2013	Corium International Inc.		X
	1166	JP D1581877	07-24-2017	Lexington International LLC		X
	1167	JP D1609357	06-22-2018	Pocket Sky OG		X
	1168	JP 2018-527052	09-20-2018	Edge Systems LLC		
	1169	KR 10-1836310	03-02-2018	Edge Systems LLC		
	1170	KR 20-0280320 (with English machine translation obtained from Korean Intellectual Property Office website, http://eng.kipris.or.kr/enghome/main.jsp)	07-02-2002	Lee		X
	1171	KR 10-20070070173	07-03-2007	Dermanew Inc.		Abs
	1172	KR 10-2018-0030607	03-23-2018	Edge Systems LLC		
	1173	TW D214226	09-21-2021	Baoliwang Health Technology Co., Ltd.		X
	1174	WO 1994/024980	11-10-1994	D+P Cosmetics AG		
	1175	WO 1997/000707	01-09-1997	Chattanooga Group, Inc.		
	1176	WO 1997/011650	03-04-1997	Cawley		
	1177	WO 2000/015300	03-23-2000	Ultra Cure Ltd		

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	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
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SHEET 43 OF 45	Attorney Docket No.	EDGE.005C11

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[1]
	1178	WO 2000/79540	12-28-2000	DAUGHTON JAMES M; NONVOLATILE ELECTRONICS INC; POHM ARTHUR V		
	1179	WO 2001/93931	12-13-2001	Becton, Dickinson and Company		
	1180	WO 2003/073917	09-12-2003	Edge Systems		
	1181	WO 2004/037098	05-06-2004	Bionoface		
	1182	WO 2004/108091	12-16-2001	Board of Regents, The Universioty of Texas System		
	1183	WO 2004/037287	05-06-2004	Palomar Medical Technologies, Inc.		
	1184	WO 2005/061042	07-07-2005	CMS Co., Ltd.		X
	1185	WO 2005/070313	08-04-2005	Crystal Clear International Limited		
	1186	WO 2006/018731	02-23-2006	Mc Anton Holding SA		
	1187	WO 2006/031413	03-23-2006	Dermanew Inc.		
	1188	WO 2007/114904	10-11-2007	Amcol International Corporation		
	1189	WO 2008/012324	01-31-2008	Maurizio Busoni		
	1190	WO 2009/086182	07-09-2009	Carticept Medical, Inc.		
	1191	WO 2009/088884	07-16-2009	Edge Systems Corporation	JP 5508285 WO 2009/088884	
	1192	WO 2009/097451	08-06-2009	Edge Systems Corporation		
	1193	WO 2010/022396	02-25-2010	Envy Medical, Inc.		
	1194	WO 2010/068960	06-24-2010	Silverbrook Research Pty Ltd		
	1195	WO 2010/151704	12-29-2010	Carticept Medical, Inc.		
	1196	WO 2011/006009	01-13-2011	Edge Systems Corporation		
	1197	WO 2011/110840	09-15-2011	LRC Products Limited		
	1198	WO 2012/145667	10-26-2012	Sun-Less, Inc.		

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	1199	WO 2013/030117	03-07-2013	Medic Activ Vertriebs GMBH		
	1200	WO 2014/091035	06-19-2014	Decaux		
	1201	WO 2014/151104	09-25-2014	Edge Systems LLC		
	1202	WO 2016/052818	04-07-2016	LG Electronics Inc.		
	1203	WO 2016/106396	06-30-2016	Edge Systems LLC		
	1204	WO 2017/007939	01-12-2017	Edge Systems LLC		
	1205	WO 2017/111481	06-29-2017	Amore Pacific Co., Ltd.		X
	1206	WO 2021/018765	02-04-2021	L'Oreal		
	1207	WO 2021/113343	06-10-2021	Sorrento Therapeutics, Inc.		
	1208	WO 2022/099318	05-12-2022	Edge Systems LLC		
	1209	WO 2023/039524	03-16-2023	Hydrafacial LLC		
	1210	WO 2023/064718	04-20-2023	Hydrafacial LLC		
	1211	WO 2023/164572	08-31-2023	Hydrafacial LLC		

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[1]
	1212	Amazon, FAZJEUNE 7 Color LED Light, LED Face Mask Skin Rejevenation PDT Photon Facial Skin Care Mask Skin Tightening Lamp SPA Face Device Beauty Salon Equipment Anti-aging Remove Wrinkle, Customer reviewed on 9/2020, retrieved from internet at https://www.amazon.com/FAZJEUNE-Rejuvenation-Tightening-Equipment-Anti-aging/dp/B08B4M8RQQ/ref=psdc_11061121_t3_B08ZSPZSF4	
	1213	Beautimate adjustable Hydra Needle Microneedling Serium Applicator, https://www.beautimate.com/products/adjustable-hydra-needle, first accessed August 12, 2023.	
	1214	File History of Reissue Application No. 11/027,590, filed December 29, 2004 (Reissue of U.S. Patent No. 6,500,183, issued December 31, 2002).	
	1215	File History of Reexamination No. 90/007,683 (Reexamination of U.S. Patent No. 6,241,739, issued June 5, 2001).	
	1216	File History of Reexamination No. 90/013,284 filed July 2, 2014 (Reexamination of US Patent No. 6,241,739, issued June 5, 2001).	
	1217	COX III et al., Decreased Splatter in Dermabrasion, Arch Facial Plastic Surgery, Jan-Mar 2000, Vol. 2, pp. 23-26	

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SHEET 45 OF 45	Attorney Docket No.	EDGE.005C11

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[1]
	1218	DITRE et al., Effect of α-hydroxy acids on photoaged skin: A pilot clinical, histologic, and ultrastructural study, Journal of American Academy of Dermatology, February 1996, Vol. 34, No. 2, Part 1, pp.187-195.	
	1219	HARRIS et al., Combining Manual Dermasanding with Low Strength Trichloroacetic Acid to Improve Antinically Injured Skin, The Journal of Dermatologic Surgery and Oncology, July 1994, Vol. 20, No. 7, pp. 436-442.	
	1220	HYDRAFACIAL® TOWER - User guide. Edge Systems. Revised june 23, 2016. Page no. 16.	
	1221	Hydrafacial Hydropeel Vortex Fusion Tips, https://mergesouq.com/products/hydrafacial-hydropeel-vortex-fusion-tips, first accessed August 12, 2023.	
	1222	Microdermabrader Pepita Instruction Manual, Mattioli Engineering S.R.L., PEP_USA2.doc Rev 1.1, 09-29-1997	

58426020

Examiner Signature	/CHRISTIAN D KNAUSS/	Date Considered	05/18/2024

***Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T[1] - Place a check mark in this area when an English language Translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /C.D.K/

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
18/487,916	10/16/2023	Roger Ignon	EDGE.005C11	3841

20995 7590 05/13/2024

Knobbe, Martens, Olson & Bear, LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

EXAMINER	
KNAUSS, CHRISTIAN D	

ART UNIT	PAPER NUMBER
3771	

NOTIFICATION DATE	DELIVERY MODE
05/13/2024	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Atty.AdminCoordinator@knobbe.com
efiling@knobbe.com

UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of	:	
HydraFacial LLC	:	
Application No. 18/487,916	:	
Filed: 16 Oct 2023	:	DECISION ON PETITION
For: DEVICES AND METHODS FOR TREATING SKIN	:	

This is a decision on the renewed petition under 37 CFR 1.78(e), filed April 23, 2024, to accept an unintentionally delayed claim under 35 U.S.C. 120 for the benefit of priority to the prior-filed nonprovisional applications listed in the concurrently filed application data sheet (ADS). In addition, this decision addresses the petition under 37 CFR 1.182, filed April 23, 2024, to expedite consideration of the aforementioned delayed benefit petition.[1]

The petition under 37 CFR 1.182 is **GRANTED**. The petition under 37 CFR 1.78 (e), filed April 23, 2024, is being taken up for consideration on an expedited basis.

The petition under 37 CFR 1.78(e) is **GRANTED**.

A petition for acceptance of a claim for late priority under 37 CFR 1.78(e) is only applicable to those applications in which a proper benefit claim is filed after the expiration of the period specified in 37 CFR 1.78(d)(3). In addition, the petition under 37 CFR 1.78(e) must be accompanied by:

(1) the reference required by 35 U.S.C. 120 and 37 CFR 1.78(d)(2) of the prior-filed application, which must be filed in an ADS, unless previously submitted;
(2) the petition fee set forth in § 1.17(m); and
(3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(d)(3) and the date the claim was filed was unintentional. The Director may require additional where there is a question whether the delay was unintentional.

[1] The Office acknowledges receipt of the required $420 petition fee.

With respect to (1): It is noted that a renewed petition under 37 CFR 1.78(e), filed April 8, 2024, in Application No. 18/094,884 was granted on April 22, 2024. Therefore, the reference required by 35 U.S.C. 120 and 37 CFR 1.78(d)(2) of the prior filed applications in the Domestic Priority Information section of the April 23, 2024 ADS is proper.

With respect to (2): Applicant paid the $2100 petition fee on March 12, 2024.

With respect to (3) above: The required statement of unintentional delay was provided in the March 12, 2024 initial petition under 37 CFR 1.78(e).

All the above requirements having been satisfied, the petition is granted. The late claim for benefit of priority under 35 U.S.C. 120 is accepted as being unintentionally delayed.

Petitioner is advised that this decision grants the petition to accept the unintentionally delayed domestic benefit claim to the prior filed applications because the petition requirements of 37 CFR 1.78(e) and the formal requirements for claiming domestic benefit (see MPEP 211.01 et. seq.) have been met. This acceptance should not be construed as meaning that this application is entitled to the benefit of the prior-filed applications. Whether a claimed invention in a nonprovisional application is entitled to the benefit of the filing date of a prior-filed application on the basis of the disclosure thereof is determined during examination if it becomes necessary to do so (e.g., intervening reference and interference proceeding). See MPEP 211.05.

A replacement filing receipt including the change in benefit information will be mailed separately.

Any questions concerning this matter may be directed to the undersigned at (571) 272-3230. All other inquiries concerning either the examination procedures or status of the application should be directed to the Technology Center G.A.U. 3771.

/SHIRENE W BRANTLEY/
Attorney Advisor, OPET

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
18/487,916	10/16/2023	3771	1920	EDGE.005C11	15	2

CONFIRMATION NO. 3841

REPLACEMENT FILING RECEIPT

20995
Knobbe, Martens, Olson & Bear, LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614



Date Mailed: 05/09/2024

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a corrected Filing Receipt, including a properly marked-up ADS showing the changes with strike-through for deletions and underlining for additions. If you received a "Notice to File Missing Parts" or other Notice requiring a response for this application, please submit any request for correction to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections provided that the request is grantable.

Inventor(s)

Roger Ignon, Redondo Beach, CA;
Scott Mallett, Coto De Caza, CA;
Abraham Solano, Corona, CA;
William Cohen, Los Alamitos, CA;

Applicant(s)

HydraFacial LLC, Long Beach, CA;

Power of Attorney: The patent practitioners associated with Customer Number 20995

Domestic Priority data as claimed by applicant

This application is a CON of 18/094,884 01/09/2023 PAT 11,865,287
which is a CON of 17/165,820 02/02/2021 PAT 11,547,840
which is a CON of 16/517,268 07/19/2019 PAT 11,446,477
which is a CON of 15/660,750 07/26/2017 PAT 10,357,641
which is a CON of 14/700,789 04/30/2015 PAT 9,814,868
which is a CON of 13/267,554 10/06/2011 PAT 9,474,886
which is a CON of 11/392,348 03/29/2006 PAT 8,048,089
which claims benefit of 60/755,310 12/30/2005
and claims benefit of 60/764,668 02/02/2006

Foreign Applications for which priority is claimed (You may be eligible to benefit from the Patent Prosecution Highway program at the USPTO. Please see http://www.uspto.gov for more information.) - None.

Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 10/26/2023

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 18/487,916**

Projected Publication Date: 02/01/2024

Non-Publication Request: No

Early Publication Request: No

Title

DEVICES AND METHODS FOR TREATING SKIN

Preliminary Class

604

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign

patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

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The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
18/487,916	10/16/2023	Roger Ignon	EDGE.005C11	3841

20995 7590 04/30/2024

Knobbe, Martens, Olson & Bear, LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

EXAMINER
CENTRAL, DOCKET

ART UNIT	PAPER NUMBER
OPAP	

NOTIFICATION DATE	DELIVERY MODE
04/30/2024	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Atty.AdminCoordinator@knobbe.com
efiling@knobbe.com

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In re Application of	:	
Ignon, Roger	:	
Application No. 18/487,916	:	DECISION ON PETITION
Filed: 16 Oct 2023	:	
For: DEVICES AND METHODS FOR TREATING SKIN	:	

This is a decision on the petition under 37 CFR 1.102(c)(1), filed March 27, 2024 to make the above-identified application special based on applicant's age as set forth in MPEP § 708.02, Section II.

The petition is **GRANTED**.

A grantable petition to make an application special under 37 CFR 1.102(c)(1) and MPEP § 708.02, Section II: Applicant's Age, must be accompanied by evidence showing that the applicant is 65 years of age, or more, such as applicant's statement or a statement from a registered practitioner that he or she has evidence that the applicant is 65 years of age or older. No fee is required.

The instant petition includes a statement by registered attorney Daniel M. Mittelstein having evidence showing that one of the inventors in the application is 65 years or older. Accordingly, the above-identified application has been accorded "special" status.

Telephone inquiries concerning this decision should be directed to Paula Britton at 571-272-1556. All other inquiries concerning the examination or status of the application is in the Patent Center at http://patentcenter.uspto.gov.

/PAULA S BRITTON/
Paralegal, OPET

APPLICATION DATA SHEET

Application Information

Application Number: 18/487,916

Filing Date: October 16, 2023

Title: DEVICES AND METHODS FOR TREATING SKIN

Attorney Docket Number: EDGE.005C11

Domestic Priority Information

Application:	**Continuity Type:**	**Prior Appl. No.:**	**Prior Appl. Filing Date:**	**Prior Appl. Patent No.:**	**Prior Appl. Issue Date:**
	~~Continuation~~ Continuation	~~18/094884~~ 18/094884	~~2023-01-09~~ 2023-01-09	11865287	2024-01-09
18/094884	Continuation	17/165820	2021-02-02	11547840	2023-01-10
17/165820	Continuation	16/517268	2019-07-19	11446477	2022-09-20
~~16/517268~~	~~Continuation~~	~~15/660777~~	~~2017-07-26~~	~~10357642~~	~~2019-07-23~~
~~15/660777~~ 16/517268	~~Continuation~~ Continuation	~~15/660750~~ 15/660750	~~2017-07-26~~ 2017-07-26	~~10357641~~ 10357641	~~2019-07-23~~ 2019-07-23
15/660750	Continuation	14/700789	2015-04-30	9814868	2017-11-14
~~14/700789~~	~~Continuation~~	~~14/698713~~	~~2015-04-28~~	~~9662482~~	~~2017-05-30~~
~~14/698713~~	~~Continuation~~	~~14/698673~~	~~2015-04-28~~	~~9550052~~	~~2017-01-24~~
~~14/698673~~ 14/700789	~~Continuation~~ Continuation	~~13/267554~~ 13/267554	~~2011-10-06~~ 2011-10-06	~~9474886~~ 9474886	~~2016-10-25~~ 2016-10-25
13/267554	Continuation	11/392348	2006-03-29	8048089	2011-11-01
11/392348	Claims benefit of provisional	60/764668	2006-02-02		
11/392348	Claims benefit of provisional	60/755310	2005-12-30		

Correspondence Information

Correspondence Customer Number: 20995

Phone Number: (949) 760-0404

Fax Number: (949) 760-9502

E-Mail Address: efiling@knobbe.com

Representative Information

Representative Customer Number: 20995

Dated: April 23, 2024

By: /Theodore G. Papagiannis/
Theodore G. Papagiannis
Registration No. 61,546
Registered Practitioner
Customer No. 20995
(949) 760-0404

PETITION TO EXPEDITE PURSUANT TO 37 C.F.R. §1.182

First Inventor: Roger Ignon	**Conf. No.:** 3841
Appl. No.: 18/487,916	**Filed:** October 16, 2023
Examiner: Unassigned	**Art Unit:** Unassigned
Title: DEVICES AND METHODS FOR TREATING SKIN	

Mail Stop Petition
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner:

Applicant hereby requests that the Office expedite consideration of the Renewed Petition for Acceptance of an Unintentionally Delayed Correction of a Benefit Claim under 37 C.F.R. §1.78(e) filed concurrently herewith.

A Petition to Expedite was filed on March 12, 2024 with a Petition for Acceptance of an Unintentionally Delayed Correction of a Benefit Claim. Accordingly, if review of the Renewed Petition will be expedited based on that initial Petition to Expedite and an additional petition fee is not required, Commissioner is hereby requested to refund the petition fee provided herewith. Commissioner is authorized to charge the fee set forth in 37 C.F.R. §1.17(f), charge any necessary additional fees and/or issue a refund to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: April 23, 2024

By: /Theodore G. Papagiannis/
Theodore G. Papagiannis
Registration No. 61,546
Attorney of Record
Customer No. 20995
(949) 760-0404

59439285

RENEWED PETITION FOR ACCEPTANCE OF AN UNINTENTIONALLY DELAYED CORRECTION OF A BENEFIT CLAIM UNDER 37 C.F.R. §1.78(e)

First Inventor: Roger Ignon	**Conf. No.:** 3841
Appl. No.: 18/487,916	**Filed:** October 16, 2023
Examiner: Unassigned	**Art Unit:** Unassigned
Title: DEVICES AND METHODS FOR TREATING SKIN	

Mail Stop Petition
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner:

In response to the Decision on Petition having a notification date of April 2, 2024 (the "Decision"), Applicant submits this Renewed Petition for Acceptance of an Unintentionally Delayed Correction of a Benefit Claim under 37 CFR §1.78(e). Applicant respectfully requests reconsideration of the Decision and requests that the petition for acceptance of an unintentional delayed priority claim be granted.

The Decision notes that the Petition for Acceptance of an Unintentionally Delayed Correction of a Benefit Claim under 37 CFR §1.78(e) filed on March 12, 2024 (the "Original Petition") was dismissed. Specifically, the Decision indicates that a prerequisite for correcting the priority claim of the present application is to have the priority claim of the parent application, U.S. Appl. 18/094,884 filed January 9, 2023 and issued as U.S. Pat. 11,865,287 on January 9, 2024, corrected via a granted petition under 37 CFR §1.78(e). In accordance with a communication from the USPTO dated April 22, 2024, the petition to correct priority for the parent has now been granted. The Decision also points out an inconsistency with the Application Data Sheet submitted with the Original Petition. That oversight is addressed by the corrected Application Data Sheet accompanying this Renewed Petition pursuant to 37 C.F.R. §1.78(e). Accordingly, in view of the petition being granted for the parent application and the corrected Application Data Sheet provided herewith, Applicant respectfully requests that the Original Petition, which is incorporated and made part of the present Renewed Petition, be renewed, reconsidered and granted.

Applicant notes that a Petition to Expedite Pursuant to 37 C.F.R. §1.182 is being filed herewith to expedite the processing of the Renewed Petition. The required fee for the petition to expedite is also provided.

Applicant respectfully requests the Office to update the priority claim in accordance with this request and issue a Corrected Filing Receipt.

Commissioner is hereby authorized to charge any additional fee required for this request, if determined that additional petition fee is required, to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: April 23, 2024

By:/Theodore G. Papagiannis/
Theodore G. Papagiannis
Registration No. 61,546
Attorney of Record
Customer No. 20995
(949) 760-0404

59439329

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
18/487,916	**04/23/2024 08:02:49 PM Z ET**	**EDGE.005C11**

Title of Invention

DEVICES AND METHODS FOR TREATING SKIN

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	3841	FILED BY	Will Nguyen
PATENT CENTER #	65215870	FILING DATE	10/16/2023
CUSTOMER #	20995	FIRST NAMED INVENTOR	Roger Ignon
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Theodore Papagiannis

Documents

TOTAL DOCUMENTS: 3

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
EDGE-005C11_EXPEDITE.pdf	1	Petition for review by the Office of Petitions	18 KB
EDGE-005C11_PETITION.pdf	2	Petition for review by the Office of Petitions	23 KB
EDGE-005C11_CORRADS.pdf	2	Application Data Sheet	38 KB

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Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
EDGE-005C11_EXPEDITE.pdf	A7D2E5349F708218E190E6156635C7073EF27FF777AA3DDD438BEBEB7C06541DB33035E6841A3C98A7F922129C1B2028A9C09F0D8D409C31961BD4231B18A5A8
EDGE-005C11_PETITION.pdf	918F994CE9CA7674531132D8C198030B91E2C6C5452A06A90309BADF00CAE4A6E2DA959C2D59622BA8C9799EF0BA2DA81EA4F785074C604005740A15134A8997
EDGE-005C11_CORRADS.pdf	8E74F73AB27243C0FCBB2D30E42A61795AA559DEF2B23A105A984A414697167DB28938308C37FEE2550DE32B3549788D447C1C5815BFB24BB48C0F4F6171A7BD

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES
PATENT AND TRADEMARK OFFICE

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ELECTRONIC PAYMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
18/487,916	04/23/2024 08:02:49 PM Z ET	EDGE.005C11

Title of Invention

DEVICES AND METHODS FOR TREATING SKIN

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	3841	FILED BY	Will Nguyen
PATENT CENTER #	65215870	AUTHORIZED BY	Theodore Papagiannis
CUSTOMER #	20995	FILING DATE	10/16/2023
CORRESPONDENCE ADDRESS	-	FIRST NAMED INVENTOR	Roger Ignon

Payment Information

PAYMENT METHOD	PAYMENT TRANSACTION ID	PAYMENT AUTHORIZED BY
CARD / 3923	E20244MK04097630	Jennifer Neat

PRE-AUTHORIZED ACCOUNT	PRE-AUTHORIZED CATEGORY
111410	37 CFR 1.16 (National application filing, search, and examination fees); 37 CFR 1.17 (Patent application and reexamination processing fees)

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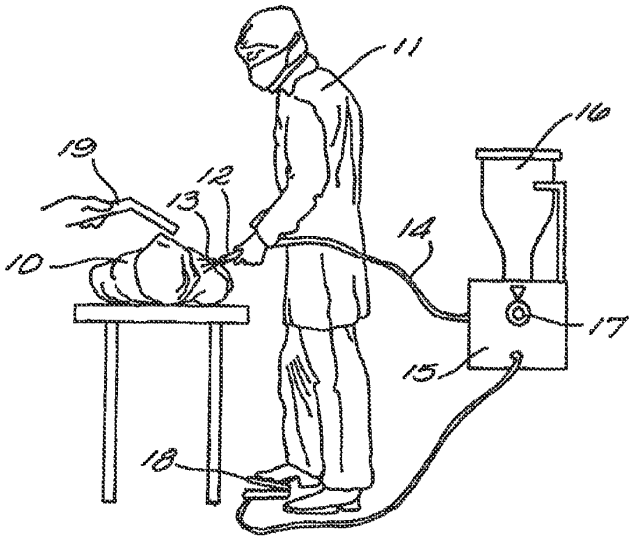
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(54) Title: EPIDERMAL AND DERMAL SKIN REMOVAL APPARATUS



(57) Abstract

This invention is a system for the removal of epidermal and dermal skin through the use of a pressurized stream of water. The surgeon (11) chooses the pressure of the water (12) to obtain the desired abrasive effect. In one embodiment, a variety of medications are added to the water e.g. anesthetics to deaden the skin being abraded; coagulants to minimize bleeding in the abraded area (13); and antiseptics to combat infection after treatment is applied. In one embodiment of the invention, a catch reservoir (56) is positioned around the site being treated to collect to withdraw the spent liquid and remove cells.

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EPIDERMAL AND DERMAL SKIN REMOVAL APPARATUS

Background of the Invention:

This invention relates generally to cosmetic surgery and more particularly to drilling operations of the skin.

Within cosmetic surgery, dermatological treatments remain one of the largest problems. The current modalities available for skin resurfacing include chemical peeling, dermabrasion, and laser resurfacing.

Chemical peeling involves the application of a variety of chemicals to the skin with the intent of producing a chemical burn of a predictable depth. Depending on the agent applied, the skin responds as a chemical burn. Necrotic tissue peels off and is scavenged by macrophages eventually leading to a healing wound. Depending on the depth of the wound new collagen fibers are produced resulting in a thicker more elastic (youthful) appearing skin. At the same time, surface irregularities such as pigmentation problems or textural problems are removed by the peeling and new smoother skin of a more even color replaces it.

Dermabrasion involves removing layers of skin through an abrasive process. Either a diamond fraise or a wire brush is attached to a motor driven rotating device which allows the operator to "sand" down the skin to a given depth. This is different than chemical peeling in that an abrasive wound begins to heal immediately after the injury. There is no delay in wound healing for tissue to peel off or for macrophages to clean up necrotic cells. Abraded wounds depending on the depth also result in improved texture and skin color as well as the deposition of new collagen fibers for thicker more youthful skin. Motorized dermabrasion has also been used for almost a century for smoothing facial scars.

Laser resurfacing is the newest skin resurfacing modality. Currently, ultra pulsed lasers are used to vaporize skin. This extremely precise process burns away tissue to a specific depth. Thermal damage to the remaining tissue is kept at a minimum because the laser pulses at an extremely rapid rate but some

necrotic tissue is left behind which must be scavenged by macrophage before wound healing can ensue. Laser resurfacing also results in more even color and texture to skin as well as the deposition of new collagen fibers.

The three current modalities for skin resurfacing are able to be used interchangeably. Each has its own specific advantages according to the pathology involved and the location of the skin being treated.

None of these modalities provides the ideal method of skin resurfacing. Dermabrasion comes most close to the ideal in that wound healing is able to begin immediately after the surgery. Thus the potential for infection from bacteria and viruses is reduced over chemical peeling and especially laser resurfacing. However, dermabrasion results in brisk bleeding during surgery. This has been suggested to present a danger to both the surgeon and assistants. In aerolized form, the bleeding can also contaminate other individuals in the vicinity of the ventilation system. Also patients are unhappy with the appearance of abrasive wounds and are naturally fearful of bleeding surgical sites.

It is clear from the foregoing that there is a need for an efficient and safe mechanism for the treatment of dermatological conditions.

Summary of the Invention:

The present invention creates a medical or surgical drill in which a high pressure jet of water or other medically acceptable liquid is injected into the patient's skin to create a hole. The drill itself is a probe which is preferably held by the surgeon during the treatment.

Water, benign liquids, or medicinally treated water is provided under high pressure to the probe. When drilling is sought, a burst of the high pressure liquid is directed against a single location on the patient. The burst causes a hole to be created in the patient's skin.

Since only a burst is provided, a drilling, as opposed to a cutting, effect is obtained. The drilling of holes is useful for a variety of medical treatments, including, but not limited to, hair implantation.

In one embodiment, the probe's or applicator's tip is removable allowing the characteristics of the tip to be easily changed by the surgeon for the particular requirements of the procedure. By varying the tip, the size and shape of the hole created is controlled. In the application described above, a small hole size is required for hair implantation, while a much larger hole size is used for body piercing.

In some embodiments, multiple holes in the tip are utilized. These tips permit the surgeon to place the tip and create many holes which are then all useable for the procedure. For example, in one embodiment, four orifices are provided in the tip. The resulting four holes permit the surgeon to implant four separate hair grafts.

Besides round orifices, some embodiments of the opening in the tip have an irregular shape (i.e. star shaped or oval). This allows the surgeon to create, in a single step, a pre-defined shape such as a star.

Activation of the drill is through a variety of techniques including a valve which is activated when the probe's tip is pressed against the skin of the patient. In this embodiment, as the tip is pressed against the skin, the valve is opened allowing

the drilling to be accomplished.

In other embodiments, a finger activated valve allows the surgeon to selectively create the blast of water to drill the site. In alternative embodiments, the valve is activated by a foot pedal.

In other embodiments, the probe's tip is maintained a distance from the patient's skin through the use of a gauge. This type of arrangement assures that the tip is kept a preselected distance from the site.

When a gauge is utilized, the preferred valve is one in which pressure on the gauge itself activates the valve in the probe. The surgeon is then able to "bounce" the probe/gauge from site to site and create the desired drilling affect.

Ideally, medicines are added to the water-jet to create a methodology for applying medicines sub-dermally. The medicines are applied either to the water within the reservoir or are added as the blast is created.

This application is particularly useful where an anti-bacterial medicine is to be applied over a large area beneath the skin. The surgeon simply creates a series of holes using the water/medicine spray allowing the water/medicine to penetrate beneath the skin during the spraying operation.

In the case of a burn victim, the power of the spray is significantly reduced to minimize trauma, and very fine holes are used to implant a local anesthetic and for anti-bacterial solution.

Further, some embodiments of the invention, which are not adapted for the drilling procedure, are utilized for the removal of epidermal and dermal skin through the use of a pressurized stream of water. Water, or another stream of liquid, is directed against the skin layer to abrade the surface cells of the epidermis.

The abrasion process involves repeatedly passing the stream of pressurized water against a site to selectively remove successive cell layers until the proper effect is obtained.

In this task, the surgeon chooses the pressure of the water

to obtain the desired abrasive affect. The key is to obtain the desired water pressure that removes the layer without cutting the skin too deeply.

The pressure chosen must also be tempered with the width of the water spray being used. A wider diameter spray, even at a high pressure is less likely to cut than a thinner spray. In the preferred embodiment, the tip of the probe is equipped with replaceable nozzles which direct the spray in varying bands and which can be adjusted by the surgeon to have a particular orientation (from horizontal to a vertical orientation).

In this context, a water jet dissector is modifiable for skin abrasion.

In another embodiment of the invention, a benign abrasive is added to the water to assist in the removal of the surface cells of the skin. This abrasive is chosen so that any fragments which may remain embedded in the skin after the treatment, do not have any adverse affects upon the patient and are naturally removed by the patient's own immune system.

Some such abrasive include rock salt, ice, and hardened starch. Often such abrasives react with water and are softened by prolonged exposure to the water. In this case, the abrasive is applied to the water as proximate in time to use of the abrasive as possible to keep the abrasive from losing its ability to abrade the skin.

In other embodiments, a variety of medications are added to the water such as: anesthetics to anesthesize the skin being abraded; coagulants to minimize bleeding in the abraded area; and antiseptics to combat infection after treatment has been applied.

Those of ordinary skill in the art readily recognize a variety of medications which serve the above functions and other medications which can be used in this context.

Note that the medications are forced into the epidermis due to the water pressure applied during application and as such form a layer of medicated skin after the surgical procedure has been completed.

While in most applications the waste water and debris the

procedure generates are removed using a catch reservoir positioned around the site being treated. The catch basin collects and withdraws the spent liquid and removed cells.

The preferred catch reservoir is a generally circular shaped mechanism which is place around the surgical site and is then connected to a vacuum pump. The vacuum pump draws air through a channel within the catch reservoir with strategically placed portals so that the waste water and debris is pulled away from the surgical site for appropriate disposal.

This attribute assists in keeping the surgical site clear of water so that the pressurized spray from the surgeon has optimal effectiveness and also assures a clear site for viewing by the surgeon.

In the preferred embodiment, the apparatus is a water driven device with various sized skin probes. The probe both delivers water at high speeds and at the same time suctions away debris and contaminated water. In this manner, the device removes the epidermis and upper dermis. The depth of skin removal is controlled by the rate of water delivery.

Through the use of various sized probes, local skin removal or large areas of skin removal is easily and effectively accomplished.

Water resurfacing is highly advantageous since a clean wound is created while at the same time avoiding the potential for blood splatter and contamination is significantly reduced. The clean wound created by the water resurfacing is much less prone to bacterial and viral infections and more rapidly heals than any of the other resurfacing modalities.

While there are a variety of embodiments envisioned for this invention, in the preferred embodiment, high pressure water is generated by mixing air with a stream of water and/or by introducing a vacuum to a stream of water. This causes "particlization" of the water stream.

The high pressure water is directed through a small orifice usually made through a diamond or sapphire housed in a hand piece. The emitted high pressure stream of water from the hand piece is

directed toward tissue. Control of the high pressure stream is done either free hand or by using a robotic device or a scanner to create more precise patterns of tissue exposure.

The depth of skin penetration is modulated by changing the pounds per square inch of water pressure, the distance of the hand piece from tissue, and/ or the size of the orifice/hand piece.

One embodiment of the invention is intended to assist in the practice of hair transplantation. In this use the high pressure water is used to drill holes through the skin to the layer of the subcutaneous tissue. Small grafts of hair follicles and skin harvested from a donor site in the occipital scalp are then placed into these holes. The theory of donor dominance states that a tissue graft retains all of its original characteristics. Thus hair harvested from the portion of the scalp not influenced by genetic and hormonal factors causing male pattern hair loss retains all of its characteristics when transplanting to balding areas. Thus the hair grows and survives as it would have in its original location i.e. throughout life.

The advantage of using water drilling of recipient holes for hair transplantation is that recipient scalp tissue can be removed as with punching and laser drilling without the need for a secondary step of extracting tissue manually and without the potential thermal effects of laser.

High PSI (3-5000 PSI) water streams cause erosion of skin and allow drilling through the dermis. In this use, the hand piece is manufactured to produce a stream for drilling the approximate size hole or slit (usually in the range of 1x1 to 1x2mm).

A more efficient use of water drilling utilizes a stencil with pre-defined perforated holes located at approximate distances from each other to allow the ideal placement of recipient holes in the scalp. The stencil is placed over the bald scalp and water drilling is applied over the scalp replicating the perforated pattern of the stencil on the scalp. The water drilling can be employed either manually or robotically to expedite the drilling.

Water jets of this invention are also ideally used for preparation of the donor tissue. This tissue is usually harvested

in a long strip from the occipital scalp. The strip is removed either by excising with the water jet discussed above or with a scalpel blade. The donor site is then sutured close.

The harvested strip of hair bearing scalp is then sectioned into small individual grafts usually between 1x1mm and 1x2mm. These grafts are easily sectioned using the water jet by placing the small strips of tissue in an elongated metal housing with linear perforations 1mm apart. The housing holds the strip of tissue securely. The water jet is then applied either manually or robotically to the housing sectioning of the strip into 1 cm segments.

These small segments of hair bearing skin are then manually inserted into the previously drilled recipient site.

In this manner, the water jet of this invention provides a higher level of precision than has been available before since exactly 1mm wide segments of hair bearing scalp are provided.

Should the use of robotic devices be made, this process is made much more efficient and hundreds of grafts are easily sectioned using the water jet technology.

The invention, together with various embodiments thereof, will explained in more detail by the accompanying drawings and following description.

Drawings in Brief:

Figure 1 is a side view of an embodiment of the invention being used by a surgeon.

Figure 2 is a side view of an embodiment of the probe used for the water abrasion of epidermal cells.

Figure 3 is a side view of the pump illustrated in figure 1 showing the plumbing and electrical connections.

Figures 4A and 4B are side and top views of the preferred catch basin.

Figures 5A and 5B are side and top views of the preferred embodiment of the probe.

Figure 6 is a side view of the preferred pump mechanism.

Figure 7 is a side view of a mechanism used to deliver pressurized water.

Figure 8 is a functional layout of the preferred embodiment of the surgical/medical drill.

Figures 9A and 9B are side and cutaway views of an embodiment of the surgical/medical drill in which pressure applied to the tip of the drill activate the drill.

Figure 10A is a side view of an embodiment of the surgical drill in which the tip is removable from the drill body.

Figures 10B, 10C, and 10D are end views of alternative tips for the surgical drill illustrated in figure 10A.

Figure 11 is a side view of an embodiment of the invention which utilizes a surgeon adjusted gauge to maintain the drill a prescribed distance from the patient.

Figure 12A is a side view of an embodiment of the surgical drill in which a suction ring is provided as a guide member.

Figures 12B and 12C are close-up views of the suction member /surgical drill and an end view of the same mechanism.

Figure 13 is a functional layout of a dosage embodiment for the surgical drill.

Figure 14 is a perspective view of an embodiment of the invention using a template for the creation of holes for hair transplantation.

Drawings in Detail:

Figure 1 is a side view of an embodiment of the invention being used by a surgeon.

Surgeon 11 directs probe 12 to the area for the abrasion of epidermal cells on patient 10. A stream of pressurized water 13 is emitted from probe 12 to impact the site. Successive movement across the site dislodges successive layers of epidermal and dermal cells. In this embodiment, suction tube 19 is manipulated to withdraw spent water and debris from the site.

Pressurized water is provided to probe 12 via hose 14 which is connected to pump 15. Water is withdrawn from reservoir 16 for use in this process. The level of pressurization of stream 13 is established via control knob 17.

When surgeon 11 depresses foot switch 18, water is directed from pump 15 to probe 13 for use thereby.

As noted before, within this context sterile water is the preferred liquid although other suitable liquids are also obvious to those of ordinary skill in the art including alcohol or a combination of alcohol and water.

Figure 2 is a side view of an embodiment of the probe used for the water abrasion of epidermal cells.

Probe 12, first illustrate Through proper selection of nozzle 20, characteristics of spray 13 are readily alterable to accomplish the task chosen by the surgeon.

Probe 12 is connected to hose 14 via male connector 21 which slips into and is secured to slide connector 22. In this manner, a variety of probes are easily interchanged and connected to hose 14 for selected uses by the surgeon.

Figure 3 is a side view of the pump illustrated in figure 1 showing the plumbing and electrical connections.

As noted with relation to figure 1, reservoir 16 holds the sterile water which is to be used in this application. Water from reservoir 16 is communicated by pipe 36B to pump 32 which provides a cter from pump 32 is discharged into pipe 36C.

When water is not being used in the abrading function, valve 31A is open and valve 31B is closed; hence, the pressurized water

within pipe 36C is communicated via pipe 36A back into reservoir 16.

When water is being used for abrasion, valve 31B is open and valve 31A is closed; pressurized water is then passed from pipe 36C through valve 31B into pipe 36D for communication through connector 33 to hose 14 which communicates with the probe (not shown in this illustration).

Electrical energy is used to control valves 31A and 31B. Electrical energy is obtained via plug, electrical energy is directed to flow to pump 32 via wire 37B and to foot switch 18 via wire 37A.

The foot switch, when activated, communicates the electrical energy back to valves 31A and 31B via wire 37C. In a passive condition, valve 31A is open and valve 31B is closed. When electrical energy is applied, valves 31A and 31B change to the opposing state (closed and open respectively).

In this manner, a selected water pressure level is obtained and maintained for the surgeon's use.

Figures 4A and 4B are side and top views of the preferred catch basin.

Referring to both figures 4A and 4B, in this embodiment catch basin 40 is generally circular in shape and is secured to skin 46 of patient via adhesive 45. Since catch basin 40 is open in the center, probe 12 is able to direct pressurized water 13 via nozzle 20 against the epidermis at the surgical site.

An internal channel 42 extends around the circumference of catch basin 40. The internal channel 42 communicates with the interior portion via portal channels 42 which exit proximate to the base of the catch basin. Tube 44 communicates with internal channel 42 and a suction pump (not shown).

The suction pump creates a partial vacuum which draws spent water 43 and debris through channels 42, into internal channel 42 to finally be discarded. In this manner, the surgical site is kept free of spent water and debris providing the surgeon a clear view of the site.

Figures 5A s thumb rest 52. Pressure adjustment switch 59A

is positioned to be controlled by the surgeon's fore-finger. In similar manner, on/off switch 59B is also positioned to be activated by the surgeon's fore-finger.

As discussed before, pressurized water is communicated to the probe via hose 51A. The pressurized water is communicated via an internal channel within the probe to exit via nozzle 55.

In this embodiment, shield 53 is secured to probe 50 via screws 57A and 57B which allow rotational adjustment of shield 53 as shown by arrows 58A and 58B. This rotation of shield 53 provides a depth control guide. In application, the base of shield 53 is pulled or pushed along the skin; shield 53 maintains nozzle 55 at the chosen distance from the skin. By maintaining nozzle 55 at a set distance from the skin layer, optimal abrasion without excessive damage is obtained.

Shield 53 is further equipped in this embodiment with a catch tray 56 which collects the spent water 48. This spent water is drawn through holes (not shown) near the catch tray to be drawn through hose 51B and then properly discarded.

To assist with the viewing of the site, this embodiment is equipped with lamp 54. Power for lamp 54, as well as communication channels for pressure adjustment switch 59A and on/off switch 59B, is provided by electrical hook-up 49 which communicates with the pump (not shown).

Figure 6 is a side view of the preferred pump mechanism.

Reservoir 60A is used to contain a benign abrasive; reservoir 60B is used to contain a chosen medicinal component or combination of medicines; and reservoir 60C is used to contain the sterile water.

Water from reservoir 60C is communicated into internal reservoir 61A. In a manner similar to that described in figure 3, pump 65B draws water from internal reservoir 61A and provides pressurized water to valves 62C and 62D which are selectively activated by control circuit 67 to either re-circulate the water to internal reservoir 61A or to be communicated via connector 63A to hose 51A for use by the probe described in figures 5A and 5B.

When pressurized water is communicated to the probe via

connector 63A, valve 62A is opened to let the benign abrasive enter the channel, and valve 62B is opened to permit the medicine to enter the channel to form a composite stream of water/abrasive/medicine to the probe.

Motor 66 is used to drive pump 65B and pump 65A. Pump 65A is used to suction spent water and debris via hose 51B from the surgical site via connector 63B and to deposit the spent water and debris into internal reservoir 61B. After the surgery, the contents of internal reservoir 61B are dumped into drain 70.

Control circuit 67 is used to operate motor 66 and to activate valves 62A, 62B, 62C, and 62D. Power to control circuit 67 is provided from plug 69 which connects through connector box 68 with control circuit 67 as well as with light 54 via electrical connector 64B.

Surgeon adjustment of the control circuit 67 is provided from switches 59A and 59B (described in figures 5A and 5B) and are communicated via connector 64A.

Figure 7 is a side view of a mechanism used to deliver pressurized water.

Pressure container 71 contains both a volume of sterile water 75B and an air volume 75A. An air pressure source is turned off/on by valve 74 which communicates with adjustment valve 72. The pressure level of air volume 75A is controlled by the surgeon through adjustment of handle 7.

Pressure in air volume 75A is transferred to the water volume 75B which is forced through tubing 76 and is communicated to valve 78. As the surgeon depresses foot lever 77, valve 78 is opened letting the sterile water to pass through tubing 79 to probe 12.

In this manner, the surgeon is able to select the desired pressure and then selectively use the pressurized water for the abrading operation.

Figure 8 is a functional layout of the preferred embodiment of the surgical/medical drill.

Probe 80 is held by the surgeon 83A and is directed towards a surgical site on patient 86. Probe 80 is provided a high pressure supply of liquid from reservoir 82 via pump 81.

Activation of probe 80 to create a burst of liquid 87, in this embodiment, is accomplished via the foot 83B w of the surgeon which activates foot switch 85. Activation of foot switch 85 causes valve 88 to open for a very short period of time to allow a single burst 87 to be created.

The impact of burst 87 onto the surgical site of patient 86 causes a hole to be created.

Figures 9A and 9B are side and cutaway views of an embodiment of the surgical/medical drill in which pressure applied to the tip of the drill activate the drill.

Probe or handle 90 is attached to the high pressure source via coupling 91 which communicates with interior bore 93.

In this embodiment, when tip 92A is pressed against the patient (not shown) to move the tip to position 92B, a single burst is created to cause the drilling or boring action.

Within interior bore 93 is imposed valve ball 94 which has an opening 95 extending completely therethrough. As valve ball 94 is rotated from its dormant position, as shown, opening 95 becomes aligned with interior bore 93, allowing the high pressure water to escape therethrough as burst 97.

Valve ball 94 is activated by movement of tip 92A which forces connecting rod 98 to quickly rotate armature 96A through position 98B and then back.

In this way, the embodiment of figure 9A and 9B allow the surgeon to simply "tap" the surgical site to have the drilling operation performed.

Figure 10A is a side view of an embodiment of the surgical drill in which the tip is removable from the drill body.

Handle 100 is secured to the high pressure source via connector 101. At the opposing end of handle 100 is threaded portion 104 which accepts tip 102A. The ability to remove tip 102A permits the surgeon to select the size and shape of the orifice being used and also facilitates in the cleaning and sterilizing of the instrument.

Figures 10B, 10C, and 10D are end views of alternative tips for the surgical drill illustrated in figure 10A.

Each of tips 102A, 102B, and 102C have differing orifices 103A, 103B, and 103C which form different shaped drilling actions. As example, the hole created by orifice 103A (round having a relative large diameter) is totally different from the drilled hole created by orifice 103C ("+" shaped).

Those of ordinary skill in the art readily recognize that the size and shaped of the holes created by this invention are practically limitless and provide the surgeon with heretofore unavailable options; the current art is simply a circular shape (the cross section of a drill).

Figure 11 is a side view of an embodiment of the invention which utilizes a surgeon adjusted gauge to maintain the drill a prescribed distance from the patient.

Handle 110 has gauge 112 secured thereto to maintain tip 114 a set distance from the patient. Gauge 112 is generally circular in shape with a hole therein to permit the burst of water to pass therethrough.

Legs 113 of gauge 112 are secured and adjusted through set screws 111. In this manner, the surgeon is able to adjust the distance between gauge 112 and tip 113.

This particular embodiment is particularly useful for the treatment of acne cysts and other skin lesions as the drilling affect removes the underlying lesion, cleanses, and in the embodiment where the water burst is medicated, also medicates the lesion site.

Another use for this embodiment, is the removal of warts. The drilling effect simply erodes the wart leaving a small hole where the wart used to be. Larger warts are treated by delivering medication into the wart itself.

Figure 12A is a side view of an embodiment of the surgical drill in which a suction ring is provided as a guide member.

Figures 12B and 12C are close-up views of the suction member /surgical drill and an end view of the same mechanism.

Surgeon 119 grasps the apparatus which includes probe 120 and gauge 125. Through a motion as indicated by arrow 126, bursts of drilling water 128 are generated from orifice 120A which impacts

and "drills" into the patient.

The high pressure water is provided by pump 121 which draws its source from a medicated reservoir 122 which is a combination of water and medicine.

Gauge 125 is a hollow member and is connected to suction pump 124 which draws water and debris as depicted by arrows 129 which are communicated to a waste receptacle.

The surgical site is illuminated by fiber-optics 127 which receive their source illumination from light 123. In this manner, the surgeon is able to easily see the surgical site.

Figure 13 is a functional layout of a dosage embodiment for the surgical drill.

Drug 131 is dropped into the channel and is retained by retaining ring 132. Retaining ring 132 is a flexible membrane which is adapted to "open" under pressure. This pressure is provided when high pressure water 130 is applied; but, the pressure generated by drug 131 alone is insufficient to open retaining ring 132.

Once the high pressure water 130 is provided, retaining ring 132 opens and a mixture 133 of drug and water is injected into the patient in a drill operation.

Figure 14 is a perspective view of an embodiment of the invention using a template for the creation of holes for hair transplantation.

Often, high PSI (3000-5000 PSI) water streams can cause erosion of skin and allow drilling through the dermis. In this use, the hand piece is manufactured to produce a stream for drilling the approximate size hole or slit (usually in the range of 1x1 to 1x2mm).

A more efficient use of water drilling utilizes a stencil 141 with pre-defined perforated holes located at approximate distances from each other to allow the ideal placement of recipient holes in the scalp 142. Stencil 141A is placed over the bald scalp 142 and water drilling 143 is applied over the stencil 141A to replicate the perforated pattern of stencil 141 on the scalp 142.

It is clear that the present invention creates a highly

improved mechanism for a variety of surgical requirements.

What is claimed is:

1. A surgical drill comprising:

a) a reservoir containing a liquid;

b) pumping means connected to said reservoir, for supplying said liquid under high pressure;

c) an applicator adapted to receive said liquid under high pressure, said applicator including a valve adapted to selectively communicate a burst of said liquid under high pressure from a tip thereof against a surgical site, said burst adapted to pierce said surgical site.

2. The surgical drill according to claim 1, wherein said valve is activated by longitudinal pressure applied to the tip of said applicator when pressed against the surgical site.

3. The surgical drill according to claim 2, wherein said tip is removable from said applicator.

4. The surgical drill according to claim 1, further including a gauge connected to said applicator adapted to maintain said tip of said applicator a pre-selected distance from the surgical site.

5. The surgical drill according to claim 4, wherein said gauge is adjustable by a surgeon.

6. The surgical drill according to claim 5, wherein pressure applied to said gauge by a surgeon pressing said gauge against said surgical site activates said valve.

7. The surgical drill according to claim 1, further including means for including a therapeutic drug in said burst of liquid.

8. A medical drill comprising:

a) means for applying a stationary piercing burst of high

pressure water against a surgical site until a chosen depth has been reached by said high pressure water; and,

b) means for evacuating said surgical site of water and bio-debris.

9. The medical drill according to claim 8,

a) further including a removable tip secured to said applicator; and,

10. An apparatus for body contouring comprising:

a) a vacuum mechanism;

b) a water pump adapted to provide a sterile liquid under pressure; and,

c) a probe having,

1) a handle portion adapted to be grasped by a surgeon,

2) a first cannula secured to said handle and having an open distal end adapted to be placed near a surgical site, said first cannula receiving pressurized water from said water pump, and,

3) a second cannula secured to said handle and having an open distal end positioned proximate to the open distal end of said first cannula, said second cannula in communication with said vacuum mechanism.

11. The apparatus according to claim 10,

a) further including an endoscope; and,

b) wherein said probe further includes a bracket for attaching said probe to a distal end of said endoscope.

12. The apparatus according to claim 11, further including operator adjustment means for selectively varying a pressure of said sterile liquid from said water pump.

13. The apparatus according to claim 12, wherein said pressure is insufficient to damage nerves.

14. The apparatus according to claim 13, wherein said sterile liquid includes a vaso-constrictor.

15. A surgical probe comprising:

a) a handle adapted to be grasped by a surgeon;

b) a first cannula secured to said handle and having an open distal end adapted to be placed near a surgical site, said first cannula conducting pressurized water; and,

c) a second cannula secured to said handle and having an open distal end positioned proximate to the open distal end of said first cannula, said second cannula adapted to withdraw liquid and debris from said surgical site.

16. A method for abrading skin from a patient comprising the steps of:

a) identifying a surface area of skin for abrading; and,

b) repeatedly directing a pressurized stream of water sufficient to remove surface cells from said area of skin.

17. The method according to claim 16, further including the step of applying an anesthetic to said stream of water.

18. The method according to claim 17, further including the step of applying a coagulant to said steam of water.

19. An apparatus adapted for the selective abrasion of an epidermis of a patient comprising:

a) a reservoir containing water;

b) a pump connected to said reservoir, said pump generating an operator defined water pressure; and,

c) a handle member having,

1) a nozzle,

2) a light source directed to emit light past said nozzle, and,

3) a valve adapted to direct water from said pump through said nozzle, said valve being selectively engaged by a surgeon.

20. The apparatus according to claim 19, further including:

a) a catch reservoir adapted to be positioned around a chosen site of skin and allowing surgeon access therethrough to said site of skin, said catch reservoir having an internal channel, and a plurality of portals extending from said internal channel, said plurality of portals exposed

proximate to a lower portion of said catch reservoir; and,

b) evacuation means connected to said internal channel for withdrawing liquids entering said plurality of portals.

21. The apparatus according to claim 20, wherein said catch reservoir is adapted to direct liquid to said plurality of portals.

22. The apparatus according to claim 21, further including an adhesive positioned on a first side of said catch reservoir and adapted to secure said catch reservoir to skin of a patient around the site of epidermis.

23. An epidermal and dermal skin removal system adapted for the selective abrasion of an epidermis and dermal of a patient comprising:

a) a source of a sterile liquid conveyed under selected pressure;

b) a handheld nozzle; and,

c) an operator manipulatable valve adapted to direct sterile liquid from said source to said handheld nozzle.

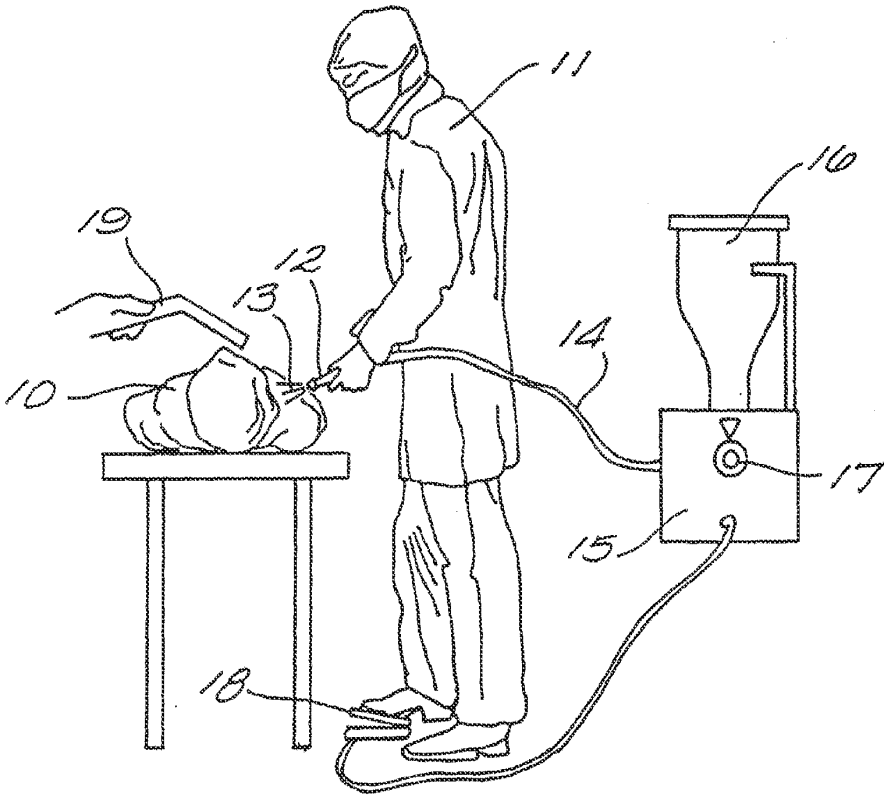


FIG. 1

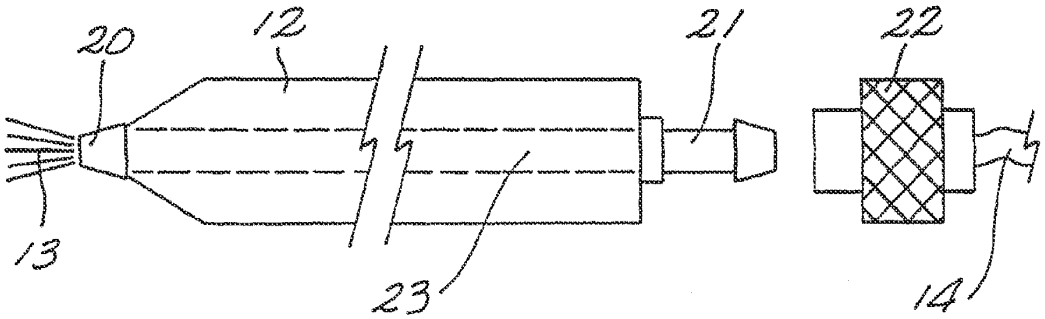


FIG. 2

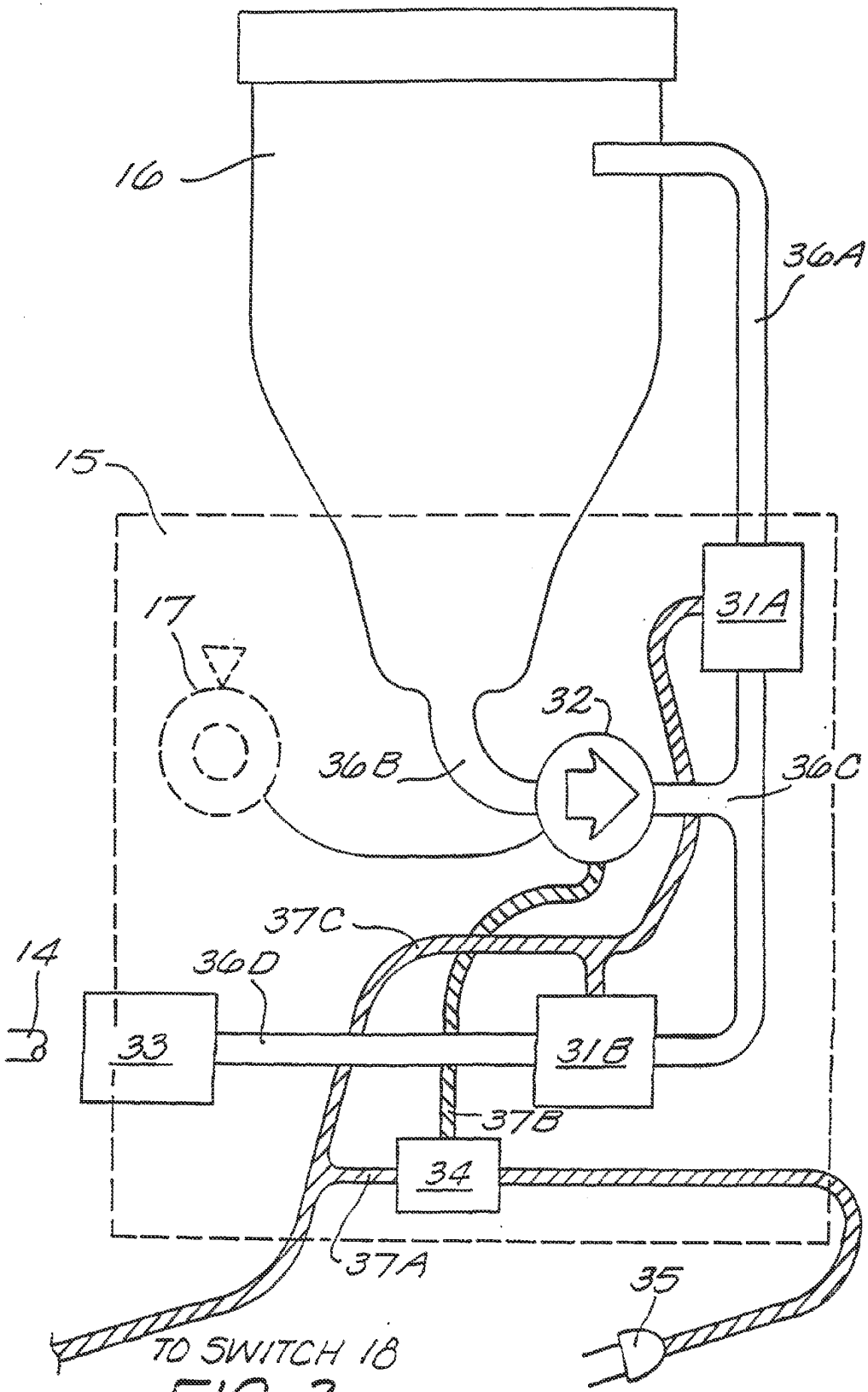
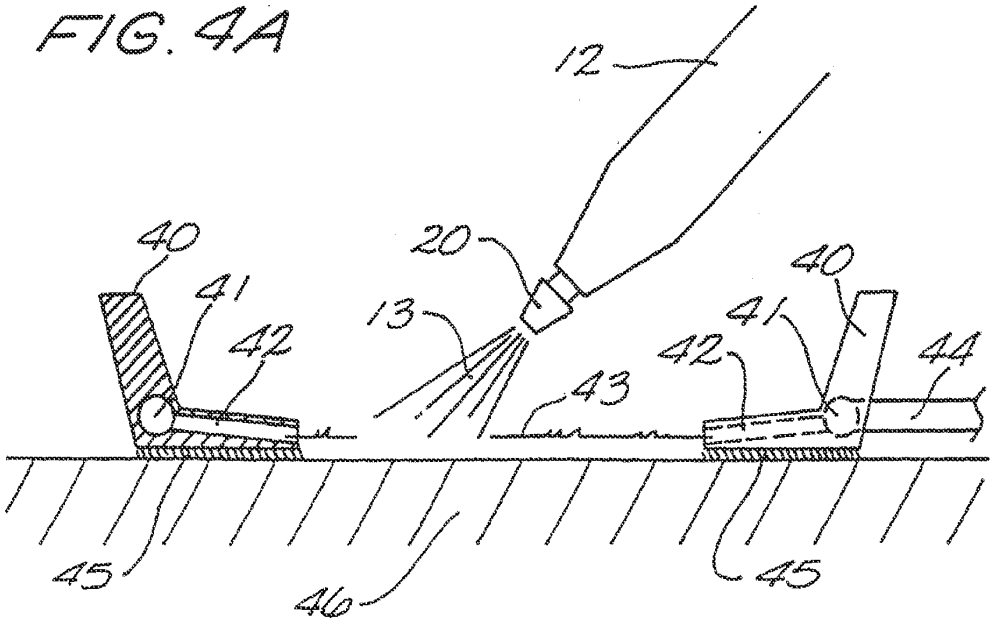

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36A
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17
31A
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36B
36C
37C
14
36D
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31B
37B
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37A
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TO SWITCH 18

FIG. 3

FIG. 4A



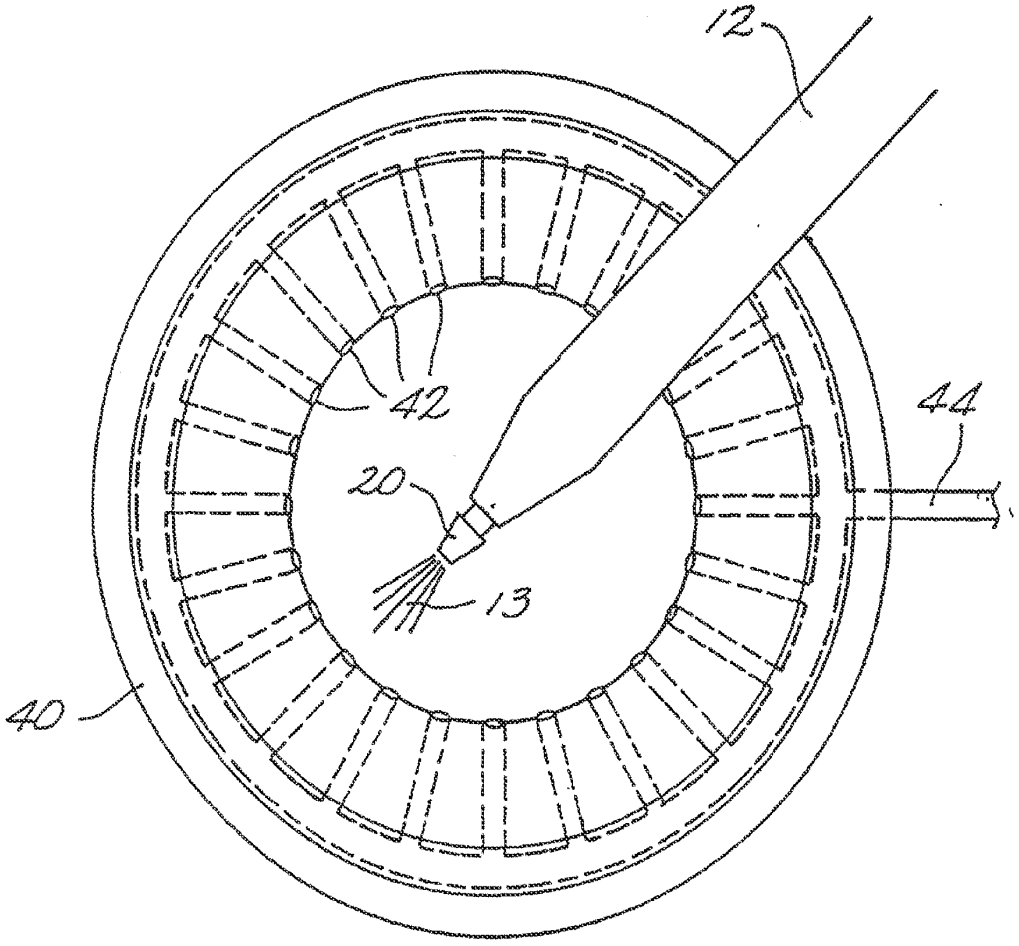


FIG. 4B

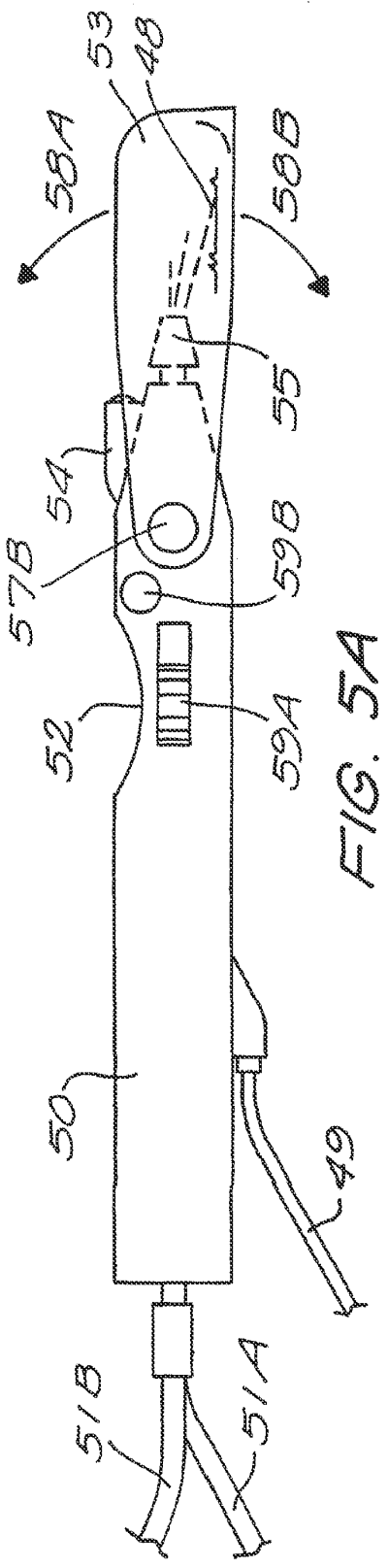

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58A
58B
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57B
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59A
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51B
51A

FIG. 5A

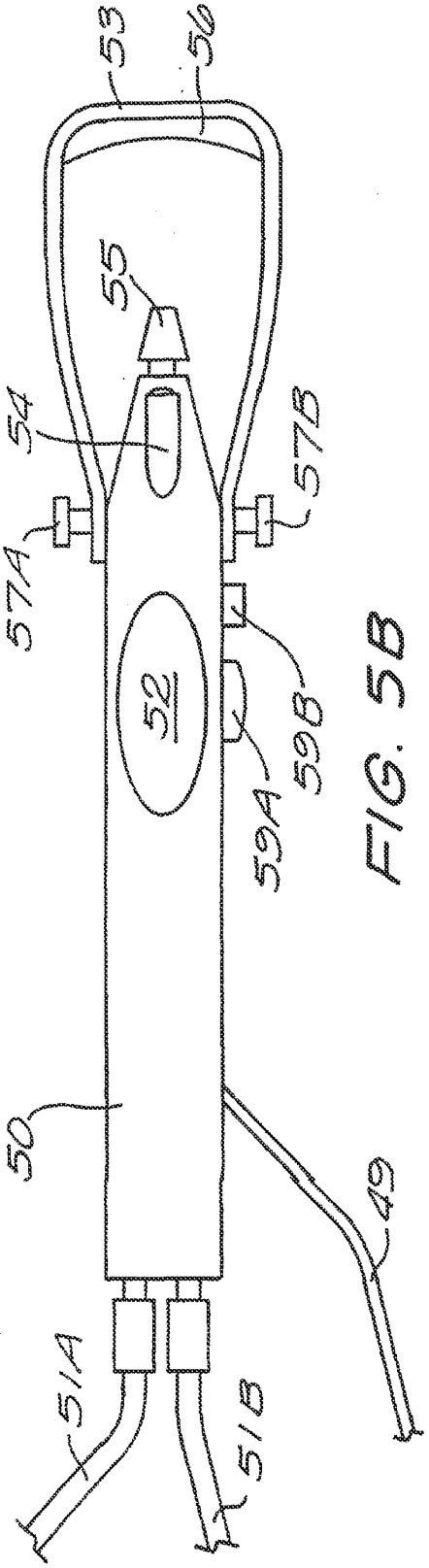

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FIG. 5B

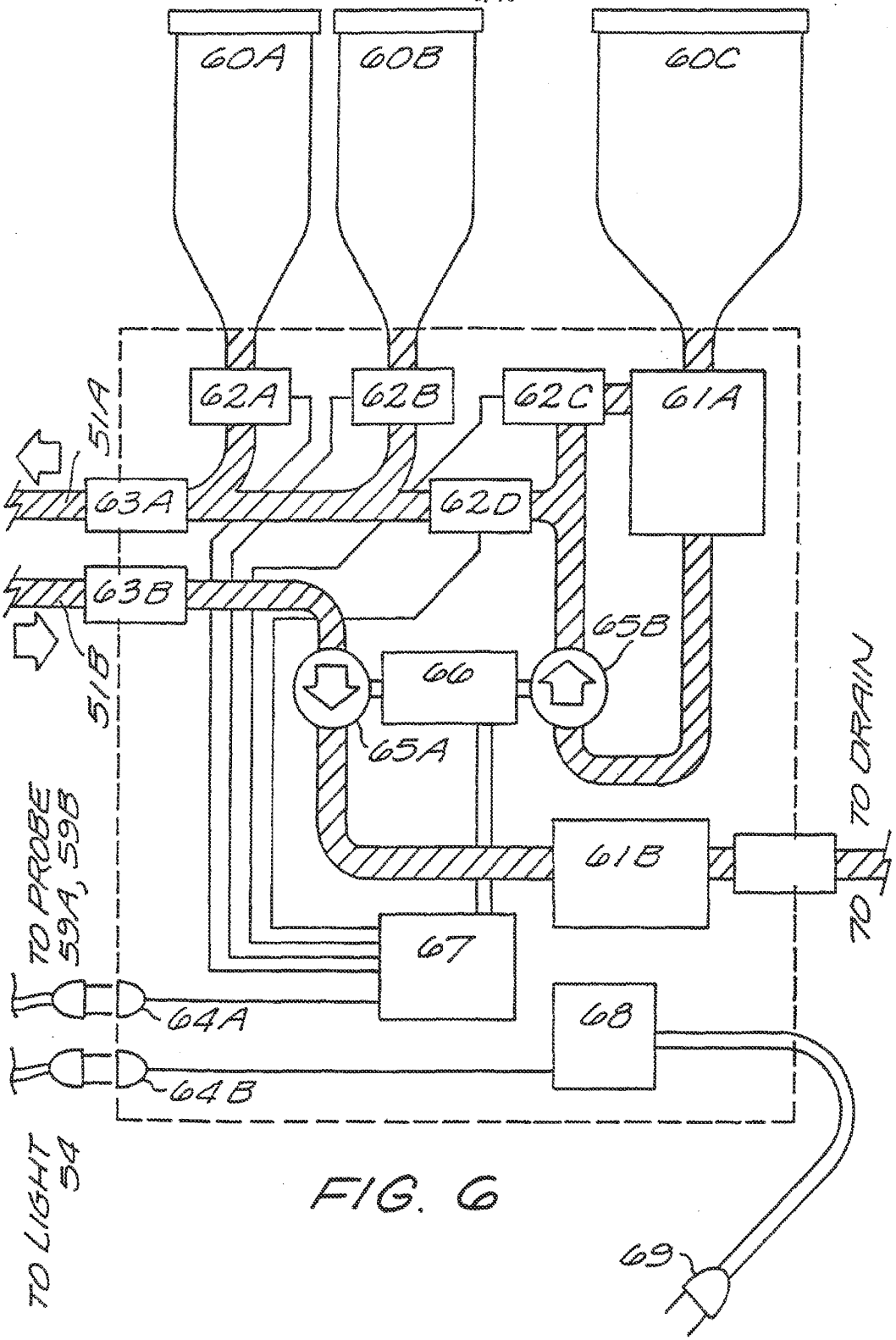

60A
60B
60C
62A
62B
62C
61A
51A
63A
62D
63B
65B
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51B
65A
TO DRAIN
TO PROBE 594, 596
61B
67
68
64A
64B
TO LIGHT 54
69

FIG. 6

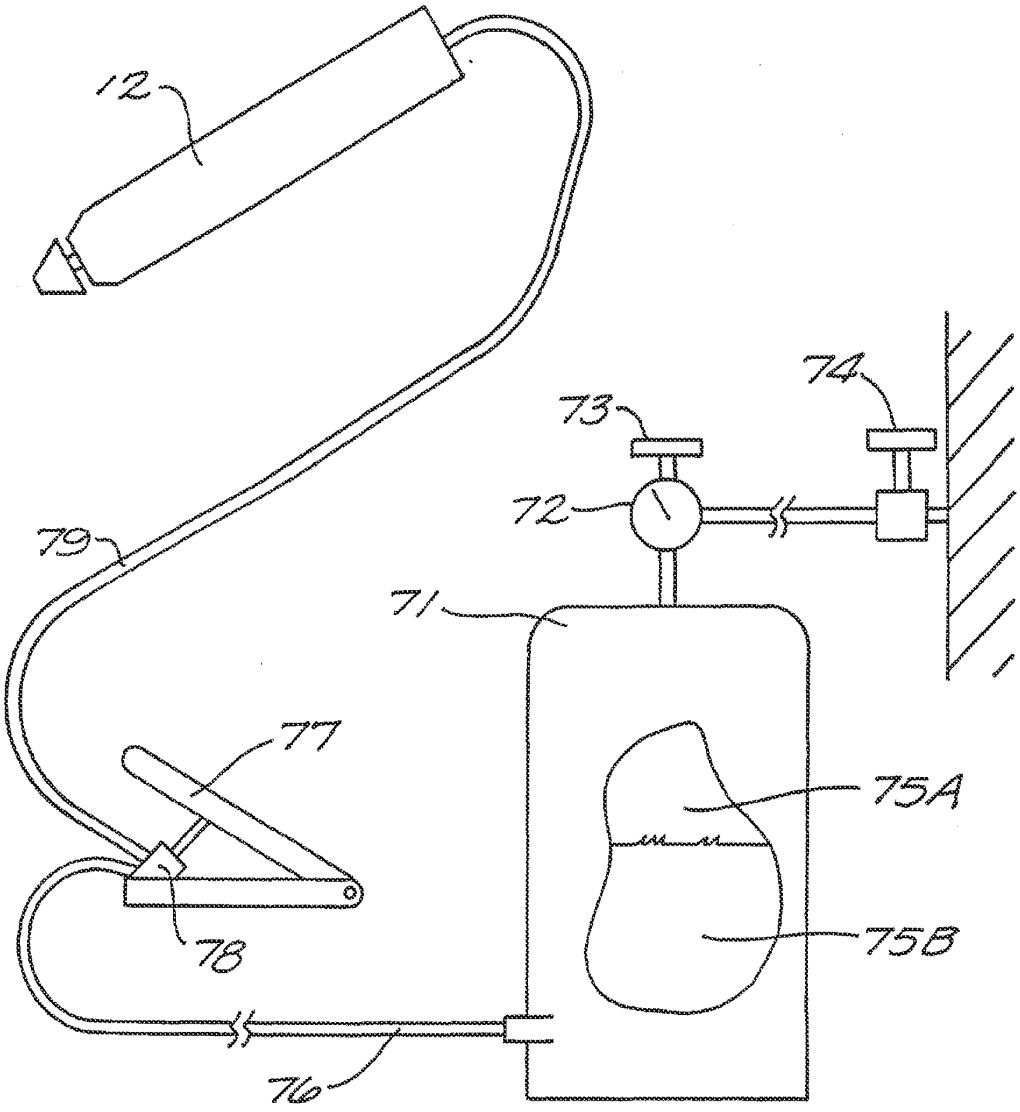


FIG. 7

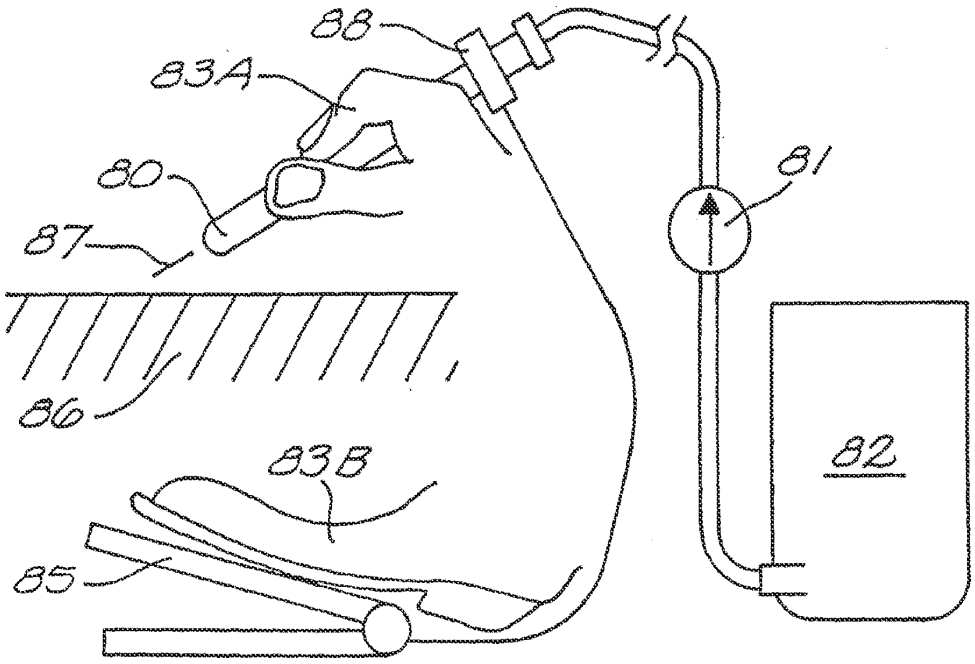


FIG. 8

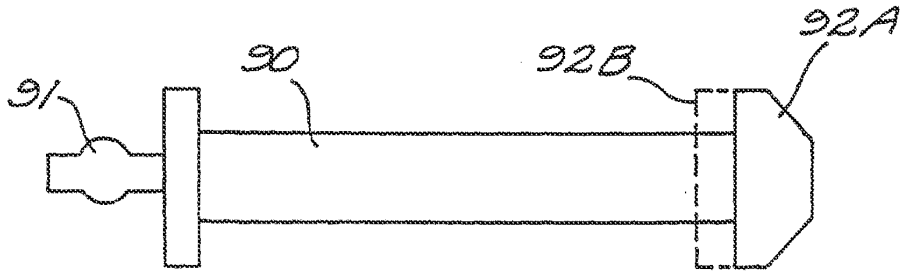


FIG. 9A

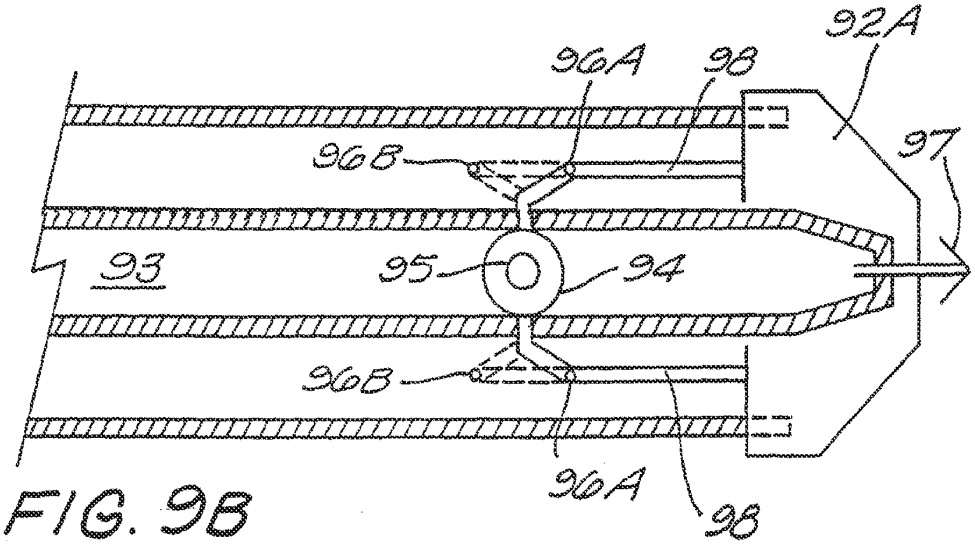


FIG. 9B

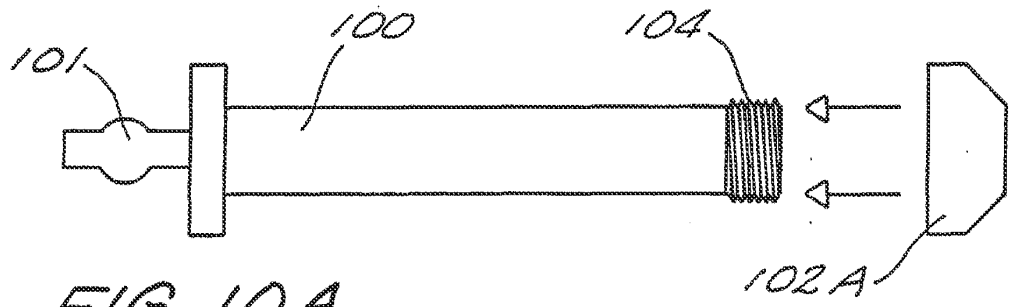


FIG. 10A

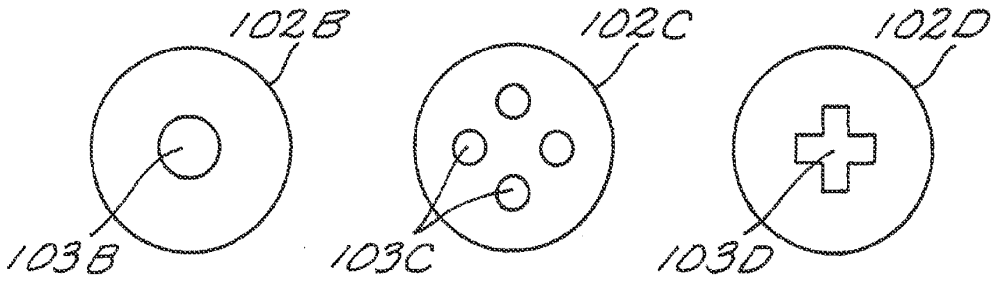


FIG. 10B FIG. 10C FIG. 10D

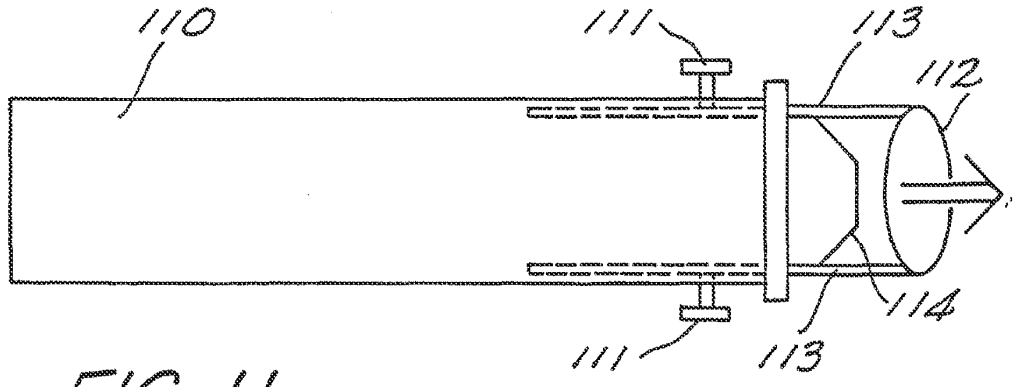


FIG. 11

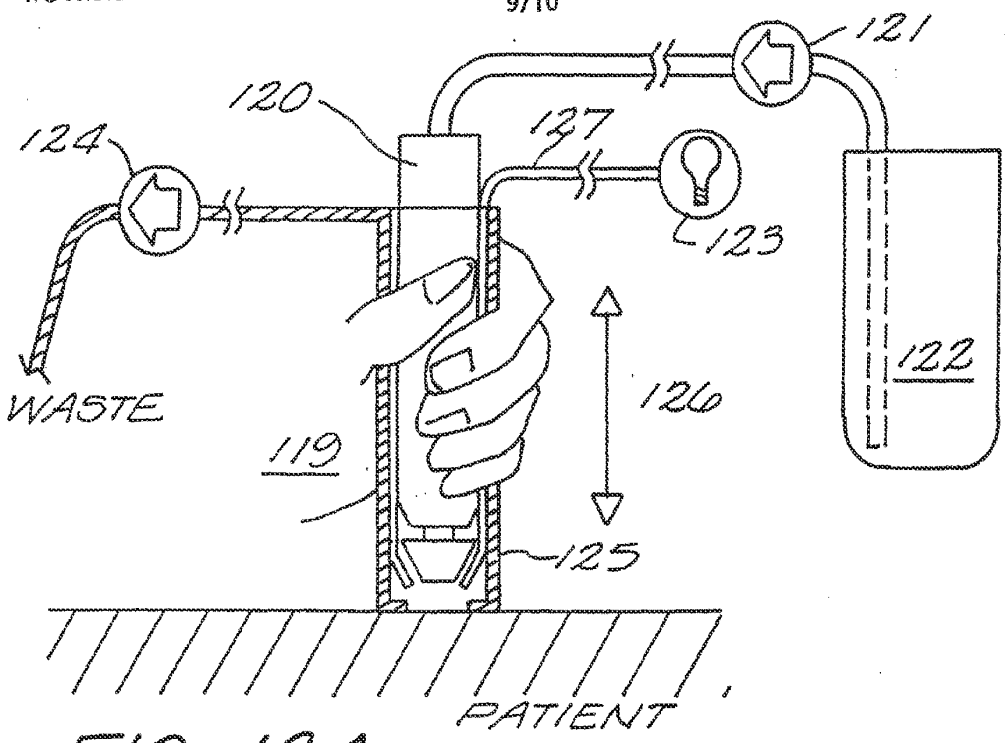


FIG. 12A

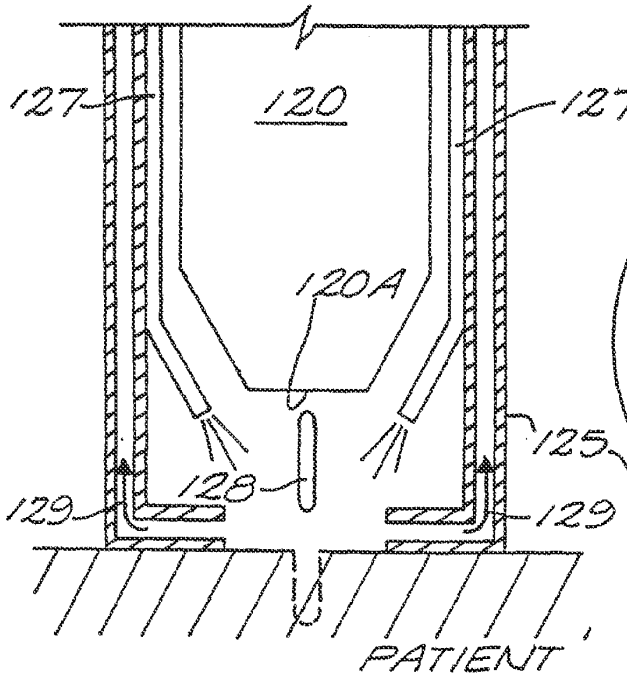


FIG. 12B

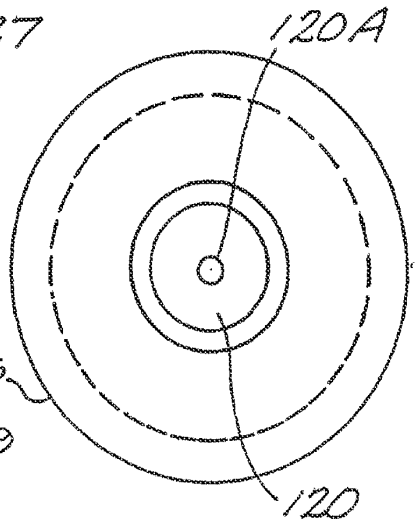


FIG. 12C

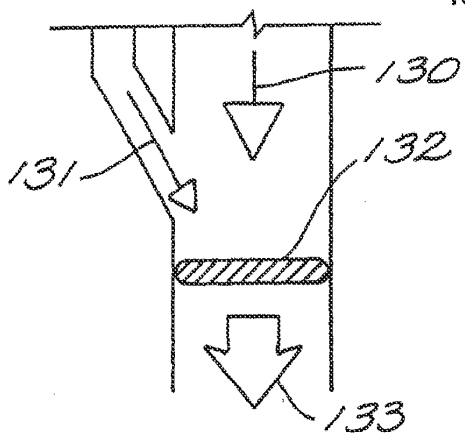


FIG. 13

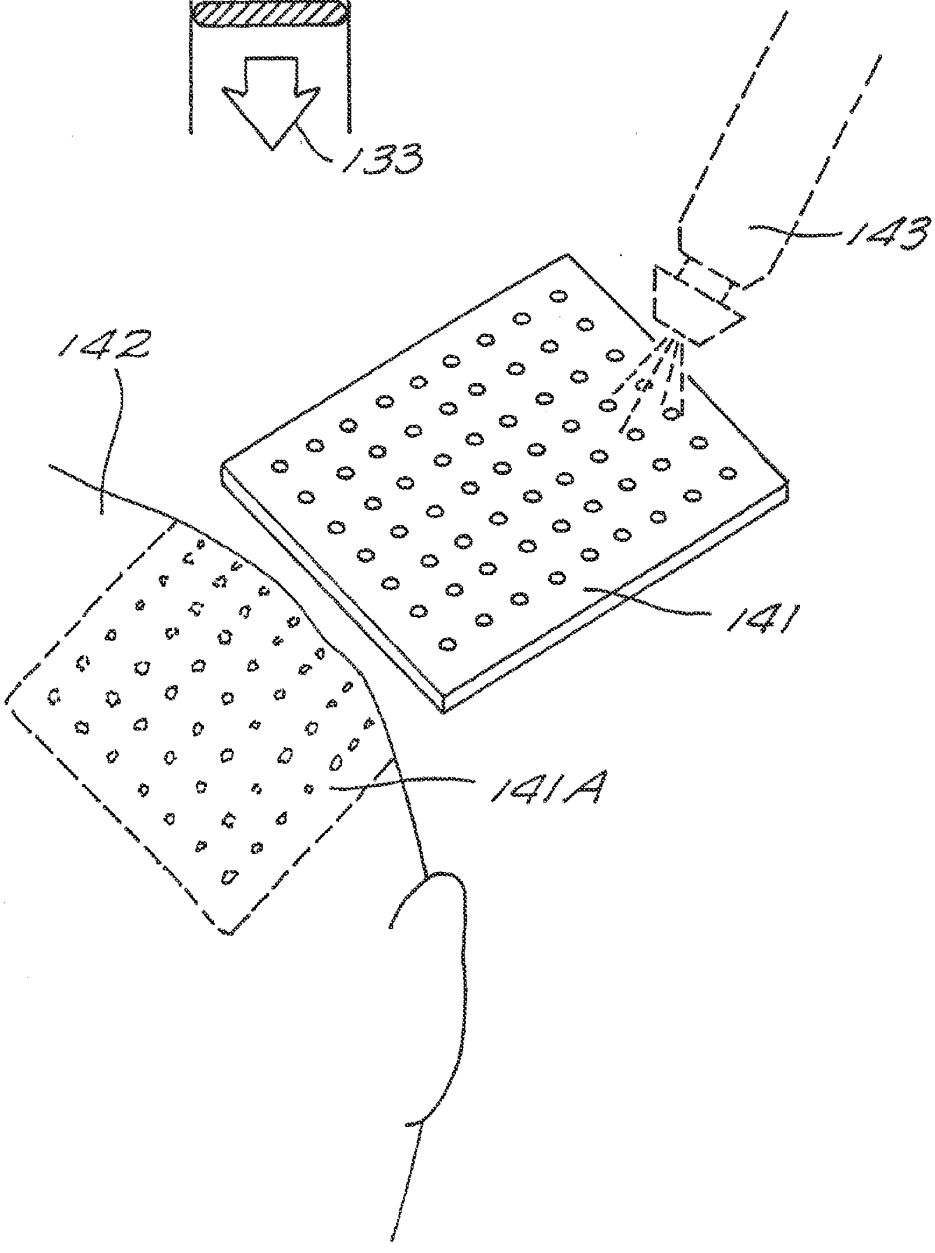


FIG. 14

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/01440

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :A61B 17/50
US CL :604/289; 606/9, 131

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 606/131, 9; 604/289

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,037,431 A (SUMMERS et al.) 06 August 1991, col. 2 lines 33-68; AND col. 3 lines 1-33.	10-23
X	US 5,037,432 A (MOLINARI) 06 August 1991, col. 2, 3 and 4.	10-23
Y	US 5,012,797 A (LIANG et al.) 07 May 1991, col. 2 lines 20-51.	12, 17
X	US 5,100,412 A (ROSSO) 31 May 1992, col. 2 lines 1-68.	10-23

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

*	Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E"	earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search 25 FEBRUARY 1999	Date of mailing of the international search report 28 MAY 1999
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 308-2708	Authorized officer (JACKIE) TAN-UYEN THI HO Telephone No. (703) 306-3421

Form PCT/ISA/210 (second sheet)(July 1992)*

PRELIMINARY AMENDMENT

First Inventor: Roger Ignon	**Conf. No.:** 3841
Appl. No.: 18/487,916	**Filed:** October 16, 2023
Examiner: Unassigned	**Art Unit:** Unassigned
Title: DEVICES AND METHODS FOR TREATING SKIN	

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner:

Prior to examination on the merits, please amend the above-referenced application as provided below.

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks begin on page 5 of this paper.

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of claims in the application. The listing of claims presents each claim with its respective status shown in parentheses.

1-16. *(Canceled)*

17. *(New)* A skin treatment system, comprising:

a console configured to receive a first container containing a first treatment material and a second container containing a second treatment material;

a handpiece configured to couple to a tip that can be pressed against skin to perform skin treatment; a supply line connected between the handpiece and the console for sequentially delivering treatment material to the handpiece from the first container or the second container;

a waste line connected between the handpiece and the console; and

a vacuum source configured to create a vacuum that draws waste material from the handpiece through the waste line for disposal and that draws treatment material from either the first container or the second container to the handpiece when the tip is pressed against skin.

18. *(New)* The system of Claim 17, further comprising:

a flow rate controller to adjust a flow rate of the first treatment material or the second treatment material to the handpiece, wherein the flow rate controller is located on the handpiece or on the console; and

a user input device to select the first treatment material or the second treatment material for delivery to the handpiece.

19. *(New)* The system of Claim 17, further comprising a flow rate controller to adjust a flow rate of the first treatment material or the second treatment material to the handpiece.

20. *(New)* The system of Claim 19, wherein the flow rate controller is located on the handpiece.

21. *(New)* The system of Claim 19, wherein the flow rate controller is located on the console.

22. *(New)* The system of Claim 17, further comprising a computing device configured to control at least one function of the system.

23. *(New)* The system of Claim 17, further comprising a user input device to select the first treatment material or the second treatment material for delivery to the handpiece.

24. *(New)* The system of Claim 23, wherein the user input device comprises a touch screen.

25. *(New)* The system of Claim 23, wherein the user input device is positioned on the console.

26. *(New)* The system of Claim 17, wherein the console comprises a display.

27. *(New)* A skin treatment system, comprising:

a console configured to receive a first container containing a first treatment material and a second container containing a second treatment material;

a handpiece configured to couple to a tip that can be placed against skin to perform skin treatment;

a supply line extending between the handpiece and the console for sequentially delivering treatment material to the handpiece from the first container or the second container;

a waste line extending between the handpiece and the console;

a vacuum source configured to create a vacuum that draws waste material from the handpiece through the waste line for disposal; and

a computing device configured to control at least one function of the system.

28. *(New)* The system of Claim 27, further comprising:

a flow rate controller to adjust a flow rate of the first treatment material or the second treatment material to the handpiece, wherein the flow rate controller is located on the handpiece or on the console; and

a user input device to select the first treatment material or the second treatment material for delivery to the handpiece.

29. *(New)* The system of Claim 27, further comprising a flow rate controller to adjust a flow rate of the first treatment material or the second treatment material to the handpiece.

30. *(New)* The system of Claim 29, wherein the flow rate controller is located on the handpiece.

31. *(New)* The system of Claim 29, wherein the flow rate controller is located on the console.

32. *(New)* The system of Claim 27, wherein the vacuum source is configured to create a vacuum that draws treatment material from either the first container or the second container to the handpiece when the tip is placed against skin.

33. *(New)* The system of Claim 27, further comprising a user input device to select the first treatment material or the second treatment material for delivery to the handpiece.

34. *(New)* The system of Claim 33, wherein the user input device comprises a touch screen.

35. *(New)* The system of Claim 33, wherein the user input device is positioned on the console.

36. *(New)* The system of Claim 27, wherein the console comprises a display.

37. *(New)* A skin treatment system, comprising:

a console configured to receive a first container containing a first treatment material and a second container containing a second treatment material;

a handpiece configured to couple toa tip that can be pressed against skin to perform skin treatment;

a supply line connected between the handpiece and the console for sequentially delivering treatment material to the handpiece from the first container or the second container;

a waste line connected between the handpiece and the console;

a vacuum source configured to create a vacuum that draws waste material from the handpiece through the waste line for disposal and that draws treatment material from either the first container or the second container to the handpiece when the tip is pressed against skin;

a flow rate controller to adjust a flow rate of the first treatment material or the second treatment material to the handpiece, wherein the flow rate controller is located on the handpiece or on the console; and

a user input device to select the first treatment material or the second treatment material for delivery to the handpiece.

REMARKS

As reflected in the foregoing section, the pending claims (Claims 2 to 16) are canceled without prejudice herein. These claims will be presented in identical form in a new continuation application that will be filed concurrently with or shortly after the filing of this Preliminary Amendment. As noted in the Preliminary Amendment dated and filed October 16, 2023 for the present application, Claims 2 to 16 were pending in the parent application of the present application, Appl. 18/094,884. In order to expedite the allowance of Appl. 18/094,884, certain claim amendments were submitted in an Office Action response filed on October 16, 2023 for Appl. 18/094,884. Applicant remains interested in pursuing these claims as it believes they are patentable in their current form; however, as noted above, such claims will be presented in a new continuation of the present application.

Further, new Claims 17 to 37 are added herein. Support for the foregoing claim amendments can be found throughout the application as originally filed, and Applicant submits that no new matter is added by such amendments. Applicant reserves the right to pursue claims similar to the original claims and/or previously-pending versions of the claims in a continuing application.

No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

Patents and Patent Applications of Assignee

Applicant wishes to draw the Examiner's attention to the following U.S. patents and patent applications of the present application's assignee.

Attorney Docket No.	Appl. No. (Pat. No., if appl.)	Filing Date	Title
EDGE.004A	09/648,025 (Pat. No. 6,641,591)	Aug. 25, 2000	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C1	10/699,747 (Pat. No. 7,789886)	Nov. 3, 2003	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C1DV1	11/739,615 (Pat. No. 8,337,513)	Apr. 24, 2007	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C2	11/417,709 (Pat. No. 8,066,716)	May. 3, 2006	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C3	11/417,396 (Pat. No. 7,678,120)	May. 3, 2006	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C4	13/620,164	Sep. 14, 2012	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C5	14/702,509 (Pat. No. 9,775,646)	May. 1, 2015	DEVICES AND SYSTEMS FOR TREATING THE SKIN USING VACUUM
EDGE.004C6	14/702,486 (Pat. No. 9,468,464)	May. 1, 2015	METHODS FOR TREATING THE SKIN USING VACUUM
EDGE.004C7	15/953,337	Apr. 13, 2018	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.005A	11/392,348 (Pat. No. 8,048,089)	Mar. 29, 2006	APPARATUS AND METHODS FOR TREATING THE SKIN
EDGE.005C1	13/267,554 (Pat. No. 9,474,886)	Oct. 6, 2011	REMOVABLE TIPS FOR SKIN TREATMENT SYSTEMS
EDGE.005C2	14/698,673 (Pat. No. 9,550,052)	Apr. 28, 2015	CONSOLE SYSTEM FOR THE TREATMENT OF SKIN
EDGE.005C3	14/698,713 (Pat. No. 9,662,482)	Apr. 28, 2015	METHODS AND SYSTEMS FOR EXTRACTION OF MATERIALS FROM SKIN
EDGE.005C4	14/700,789 (Pat. No. 9,814,868)	Apr. 30, 2015	TIP WITH EMBEDDED MATERIALS FOR SKIN TREATMENT
EDGE.005C5	15/660,750 (Pat. No. 10,357,641)	Jul. 26, 2017	TIPS FOR SKIN TREATMENT DEVICE
EDGE.005C6	15/660,777 (Pat. No. 10,357,642)	Jul. 26, 2017	REMOVABLE TIPS FOR USE WITH SKIN TREATMENT SYSTEMS
EDGE.005C7	16/517,268 (Pat. No. 11,446,477)	Jul. 19, 2019	DEVICES AND METHODS FOR TREATING SKIN
EDGE.005C8	17/165,820 (Pat. No. 11,547,840)	Feb. 2, 2021	DEVICES AND METHODS FOR TREATING SKIN
EDGE.005C9	17/165,807 (Pat. No. 11,612,726)	Feb. 2, 2021	DEVICES AND METHODS FOR TREATING SKIN
EDGE.005C10	18/094,884 (Pat. No. 11,865,287)	Jan. 9, 2023	DEVICES AND METHODS FOR TREATING SKIN
EDGE.005C11	**18/487,916** ***(present application)***	**Oct. 16, 2023**	**DEVICES AND METHODS FOR TREATING SKIN**
EDGE.005DP1	29/679,299	Feb. 4, 2019	SKIN TREATMENT DEVICE
EDGE.005DP2	29/679,306	Feb. 4, 2019	HANDPIECE ASSEMBLY TIP
EDGE.005DP3	29/679,302	Feb. 4, 2019	HANDPIECE ASSEMBLY TIP
EDGE.006A	09/294,254 (Pat. No. 6,162,232)	Apr. 19, 1999	INSTRUMENTS AND TECHNIQUES FOR HIGH-VELOCITY FLUID ABRASION OF EPIDERMAL LAYERS WITH SKIN COOLING
EDGE.007A	09/475,480 (Pat. No. 6,299,620)	Dec. 30, 1999	INSTRUMENTS AND TECHNIQUES FOR INDUCING NEOCOLLAGENESIS IN SKIN TREATMENTS
EDGE.008A	09/475,479 (Pat. No. 6,387,103)	Dec. 30, 1999	INSTRUMENTS AND TECHNIQUES FOR INDUCING NEOCOLLAGENESIS IN SKIN TREATMENTS

Attorney Docket No.	Appl. No. (Pat. No., if appl.)	Filing Date	Title
EDGE.022A	11/370,200	Mar. 7, 2006	MICRODERMABRASION METHOD AND APPARATUS
EDGE.044A	12/362,353 (Pat. No. 9,056,193)	Jan. 29, 2009	APPARATUS AND METHOD FOR TREATING THE SKIN
EDGE.044C1	14/734,995 (Pat. No. 11,020,577)	Jun. 9, 2015	DEVICES AND SYSTEMS FOR TREATING SKIN SURFACES
EDGE.044C2	17/332,897	May. 27, 2021	DEVICES, SYSTEMS, AND METHODS FOR TREATING THE SKIN
EDGE.044C3	17/952,569	Sep. 26, 2022	DEVICES, SYSTEMS AND METHODS FOR SKIN TREATMENT
EDGE.044C4	17/952,665	Sep. 26, 2022	DEVICES, SYSTEMS AND METHODS FOR SKIN TREATMENT
EDGE.044CP1	12/832,663 (Pat. No. 8,814,836)	Jul. 8, 2010	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN USING TIME-RELEASE SUBSTANCES
EDGE.044P1C1	14/455,762 (Pat. No. 9,642,997)	Aug. 8, 2014	DEVICES FOR TREATING SKIN USING TREATMENT MATERIALS LOCATED ALONG A TIP
EDGE.044P1C2	15/588,102 (Pat. No. 10,556,097)	May. 5, 2017	DEVICES FOR TREATING SKIN USING TREATMENT MATERIALS LOCATED ALONG A TIP
EDGE.044P1C3	16/784,850	Feb. 7, 2020	DEVICES AND METHODS FOR TREATING SKIN
EDGE.047A	12/346,582 (Pat. No. 8,343,116)	Dec. 30, 2008	APPARATUS AND METHOD FOR TREATING THE SKIN
EDGE.047C1	13/620,376 (Pat. No. 9,486,615)	Sep. 14, 2012	MICRODERMABRASION APPARATUS AND METHOD
EDGE.047C2	15/344,357 (Pat. No. 10,556,096)	Nov. 4, 2016	DEVICES AND METHODS FOR SKIN TREATMENT
EDGE.047C3	16/784,044 (Pat. No. 11,883,621)	Feb. 6, 2020	DEVICES AND METHODS FOR SKIN TREATMENT
EDGE.047C4	18/393,501	Dec. 21, 2023	DEVICES AND METHODS FOR SKIN TREATMENT
EDGE.050A	09/540,945 (Pat. No. 6,592,595)	Mar. 31, 2000	MICRODERMABRASION AND SUCTION MASSAGE APPARATUS AND METHOD
EDGE.050C1	09/698,409 (Pat. No. 6,527,783)	Oct. 27, 2000	MICRODERMABRASION AND SUCTION MASSAGE APPARATUS AND METHOD
EDGE.050DV1	10/177,173 (Pat. No. 6,673,082)	Jun. 20, 2002	MICRODERMABRASION HANDPIECE WITH SUPPLY AND RETURN LUMENS
EDGE.051A	10/315,478 (Pat. No. 6,942,649)	Dec. 10, 2002	MICRODERMABRASION FLUID APPLICATION SYSTEM AND METHOD
EDGE.052A	09/699,220 (Pat. No. 6,629,983)	Oct. 27, 2000	APPARATUS AND METHOD FOR SKIN/SURFACE ABRASION
EDGE.065A	14/211,089 (Pat. No. 10,238,812)	Mar. 14, 2014	SKIN TREATMENT SYSTEMS AND METHODS USING NEEDLES
EDGE.065C1	16/363,310	Mar. 25, 2019	SKIN TREATMENT SYSTEMS AND METHODS USING NEEDLES
EDGE.077A	14/211,290 (Pat. No. 9,566,088)	Mar. 14, 2014	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077C1	15/430,209 (Pat. No. 10,251,675)	Feb. 10, 2017	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077C2	16/376,956 (Pat. No. 11,717,326)	Apr. 5, 2019	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077C3	17/952,721	Sep. 26, 2022	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077C4	17/952,676	Sep. 26, 2022	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN

Attorney Docket No.	Appl. No. (Pat. No., if appl.)	Filing Date	Title
EDGE.077NP	14/774,641 (Pat. No. 10,172,644)	Sep. 10, 2015	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC1	16/241,572 (Pat. No. 10,993,743)	Jan. 7, 2019	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC2	17/163,128 (Pat. No. 11,903,615)	Jan. 29, 2021	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC3	17/163,199 (Pat. No. 11,517,350)	Jan. 29, 2021	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC4	17/163,237 (Pat. No. 11,202,657)	Jan. 29, 2021	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC5	17/163,240 (Pat. No. 11,213,321)	Jan. 29, 2021	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC6	18/414,791	Jan. 17, 2024	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.090A	14/998,375 (Pat. No. 9,498,610)	Dec. 23, 2015	DEVICES AND METHODS FOR TREATING THE SKIN USING A ROLLERBALL OR A WICKING MEMBER
EDGE.090C1	15/354,754 (Pat. No. 10,035,007)	Nov. 17, 2016	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.090C2	16/040,397 (Pat. No. 11,925,780)	Jul. 19, 2018	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.090C3	17/164,580 (Pat. No. 11,744,999)	Feb. 1, 2021	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.090C4	18/460,003	Sep. 1, 2023	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.090P1	15/498,416 (Pat. No. 10,179,229)	Apr. 26, 2017	DEVICES AND METHODS FOR TREATING THE SKIN USING A POROUS MEMBER
EDGE.090P1C1	16/246,306 (Pat. No. 11,224,728)	Jan. 11, 2019	DEVICES AND METHODS FOR TREATING THE SKIN USING A POROUS MEMBER
EDGE.090P1C2	17/576,888 (Pat. No. 11,806,495)	Jan. 14, 2022	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.090P1C3	18/503,063	Nov. 6, 2023	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.091A	15/204,939 (Pat. No. 11,241,357)	Jul. 7, 2016	DEVICES, SYSTEMS AND METHODS FOR PROMOTING HAIR GROWTH
EDGE.091C1	17/592,432	Feb. 3, 2022	DEVICES, SYSTEMS AND METHODS FOR IMPROVING SCALP HEALTH
EDGE.131NP	18/035,723	May. 5, 2023	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.167NP	18/700,255	Apr. 10, 2024	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.171NP	18/690,694	Mar. 8, 2024	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.172DA	29/811,066	Oct. 11, 2021	SKIN TREATMENT SYSTEM
EDGE.173DA	29/807,430	Sep. 10, 2021	SKIN TREATMENT DEVICE
EDGE.174DA	29/807,428 (Pat. No. D1,016,615)	Sep. 10, 2021	CONTAINER FOR A SKIN TREATMENT DEVICE
EDGE.179DA	29/829,476	Mar. 4, 2022	LIGHT THERAPY DEVICE FOR SKIN CARE
EDGE.180DA	29/811,070	Oct. 11, 2021	SKIN TREATMENT TIP

Attorney Docket No.	Appl. No. (Pat. No., if appl.)	Filing Date	Title
EDGE.205DA	29/826,153	Feb. 9, 2022	DUAL TREATMENT DEVICE FOR TREATING ACNE OR WRINKLES
EDGE.205DC1	29/854,067	Sep. 21, 2022	TREATMENT DEVICE FOR SKIN
EDGE.212DA	29/884,441	Feb. 10, 2023	SKIN TREATMENT TIP
EDGE.235DA	29/904,162	Sep. 29, 2023	SKIN TREATMENT TIP
EDGE.236DA	29/904,160	Sep. 29, 2023	SKIN TREATMENT TIP
EDGE.239A	16/992,823 (Pat. No. 11,291,474)	Aug. 13, 2020	SKIN TREATMENT TOOL APPLICATOR TIP
EDGE.239C1	17/685,005	Mar. 2, 2022	SKIN TREATMENT TOOL APPLICATOR TIP
EDGE.245A	14/975,718 (Pat. No. 10,010,708)	Dec. 19, 2015	MICRONEEDLE CARTRIDGE AND NOSECONE ASSEMBLY
EDGE.245P1	15/424,871 (Pat. No. 10,137,289)	Feb. 5, 2017	MICRONEEDLE CARTRIDGE AND NOSECONE ASSEMBLY
EDGE.246A	15/978,928 (Pat. No. 10,441,763)	May. 14, 2018	STERILE APPLICATOR ASSEMBLY
EDGE.246P1	16/379,525 (Pat. No. 10,434,294)	Apr. 9, 2019	STERILE APPLICATOR ASSEMBLY WITH MICRONEEDLE ARRAY
EDGE.247A	16/989,874 (Pat. No. 10,967,163)	Aug. 10, 2020	STERILE APPLICATOR ASSEMBLY WITH HOLLOW MICRONEEDLE ARRAY
EDGE.248A	16/438,180 (Pat. No. 11,213,665)	Jun. 11, 2019	ANGLED MICRONEEDLE CARTRIDGE

Copies of these patents and patent applications, including any pending claims, office actions, allowances and/or other communications, are available through PALM and/or PAIR. However, if the Examiner so requests, Applicant will be happy to provide the Examiner with copies of any applications, pending claims, office actions, allowances, communications or any other documents, at any time.

Further, Applicant notes for the record that the claims of the present application are different and may be broader in scope than the claims in any related patent or application. To the extent that any statements made in a related case (such as amendments or characterizations regarding the scope of a claim or prior art) could be construed as a disclaimer of any subject matter supported by the present disclosure, Applicant rescinds and retracts such disclaimer. Accordingly, any listed or referenced prior art may need to be re-visited. Further, any objections or rejections made by the Examiner in the issued and allowed cases identified above may need to be re-visited.

CONCLUSION

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: April 15, 2024

By: /Theodore G. Papagiannis/
Theodore G. Papagiannis
Registration No. 61,546
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(949) 760-0404

59400494

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC PAYMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
18/487,916	04/15/2024 06:38:58 PM Z ET	EDGE.005C11

Title of Invention

DEVICES AND METHODS FOR TREATING SKIN

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	3841	FILED BY	Will Nguyen
PATENT CENTER #	65101639	AUTHORIZED BY	Theodore Papagiannis
CUSTOMER #	20995	FILING DATE	10/16/2023
CORRESPONDENCE ADDRESS	-	FIRST NAMED INVENTOR	Roger Ignon

Payment Information

PAYMENT METHOD	PAYMENT TRANSACTION ID	PAYMENT AUTHORIZED BY
CARD / 2549	E20244EI40109104	Chris Esparza

PRE-AUTHORIZED ACCOUNT	PRE-AUTHORIZED CATEGORY
111410	37 CFR 1.16 (National application filing, search, and examination fees); 37 CFR 1.17 (Patent application and reexamination processing fees)

FEE CODE	DESCRIPTION	ITEM PRICE($)	QUANTITY	ITEM TOTAL($)
1202	EACH CLAIM IN EXCESS OF 20	100.00	1	100.00
			TOTAL AMOUNT:	$100.00

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
18/487,916	**04/15/2024 06:38:58 PM Z ET**	**EDGE.005C11**

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CONFIRMATION #	3841	FILED BY	Will Nguyen
PATENT CENTER #	65101639	FILING DATE	10/16/2023
CUSTOMER #	20995	FIRST NAMED INVENTOR	Roger Ignon
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Theodore Papagiannis

Documents

TOTAL DOCUMENTS: 6

DOCUMENT		PAGES	DESCRIPTION	SIZE (KB)
EDGE-005C11_IDS.pdf		2	-	43 KB
EDGE-005C11_IDS-TRAN.LET.pdf	(1-1)	1	Transmittal Letter	16 KB
EDGE-005C11_IDS-IDS.pdf	(2-2)	1	Information Disclosure Statement (IDS) Form (SB08)	24 KB
FOR_WO_1999-037229A1.pdf		34	Foreign Reference	4406 KB
EDGE-005C11_PRELIM.pdf		10	-	73 KB
EDGE-005C11_PRELIM-	(1-1)	1	Preliminary Amendment	18 KB

A.PE.pdf				
EDGE-005C11_PRELIM-CLM.pdf	(2-4)	3	Claims	31 KB
EDGE-005C11_PRELIM-REM.pdf	(5-10)	6	Applicant Arguments/Remarks Made in an Amendment	52 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
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This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

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New International Application Filed with the USPTO as a Receiving Office

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INFORMATION DISCLOSURE STATEMENT

First Inventor: Roger Ignon	**Conf. No.:** 3841
Appl. No.: 18/487,916	**Filed:** October 16, 2023
Examiner: Unassigned	**Art Unit:** Unassigned
Title: DEVICES AND METHODS FOR TREATING SKIN	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

References and Listing

Pursuant to 37 CFR 1.56, an Information Disclosure Statement listing references is provided herewith. Copies of any listed foreign and non-patent literature references are being submitted. Identification herein is not an admission that any of the references are prior art to the above captioned application.

No Disclaimers or Admissions

To the extent that anything in the Information Disclosure Statement or the listed references could be construed as a disclaimer of any subject matter supported by the present application, Applicant hereby rescinds and retracts such disclaimer.

Citation of a reference within this disclosure is not, and should not be construed as, an admission that the cited reference comes from an area that is analogous or directly applicable to the claimed invention.

Timing of Disclosure

This Information Disclosure Statement is being filed before the receipt of a First Office Action on the merits, and presumably no fee is required.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: April 15, 2024

By: /Theodore G. Papagiannis/
Theodore G. Papagiannis
Registration No. 61,546
Registered Practitioner
(949) 760-0404

59400858

PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487,916
	Filing Date	October 16, 2023
	First Named Inventor	Roger Ignon
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
SHEET 1 OF 1	Attorney Docket No.	EDGE.005C11

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[1]
	1	WO 1999/37229	07-29-1999	Very Inventive Physicians, Inc.		

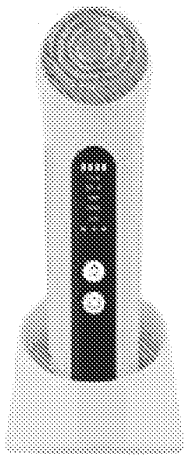
NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[1]

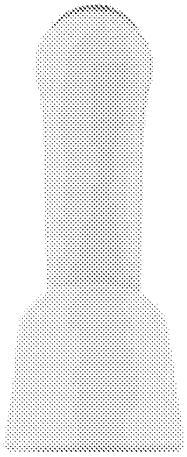
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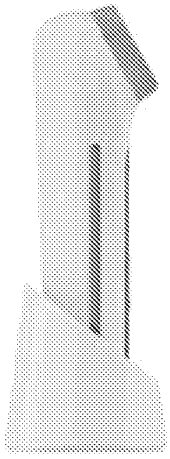
Examiner Signature	Date Considered
***Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

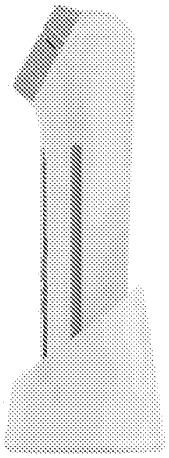
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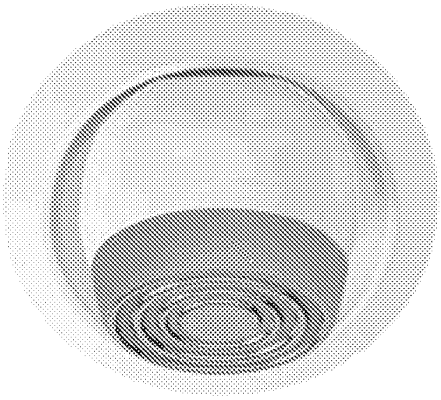
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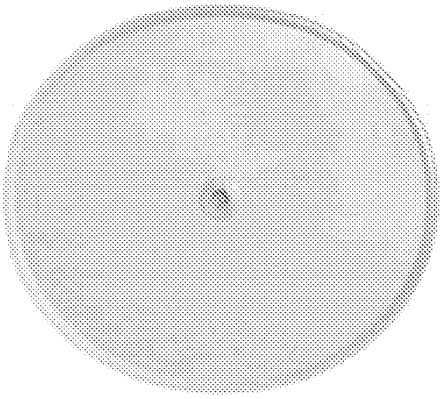


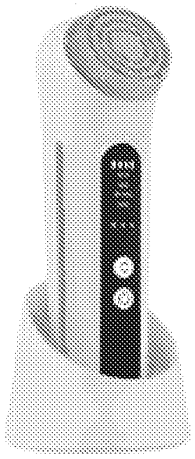












Serial number of registration
308188687
Country code
CN
Designation in English
Radio frequency ice compress phototherapy **facial** cleanser
Original title
射频冰敷光疗洁面仪
Locarno class
28-03
Name and address of owner
Shenzhen Kemengya Intelligent Technology Co Ltd, D10, 2nd Floor, Baoyunda R&D Complex Building, Fuhua Community, Xixiang Street, Bao'an District, Guangdong Province, 518000 Shenzhen City, Baoan District, (CN)
Name and address of owner (Original)
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Owner address
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Creator
Xia Xianggui
Creator (Original)
夏祥贵
Creator address
Xia Xianggui
Agent name and address
Shenzhen Lanfeng Shengshi Intellectual Property Agency Co Ltd
Agent name and address (Original)
深圳市兰锋盛世知识产权代理有限公司
Agent country
深圳市兰锋盛世知识产权代理有限公司

Application number
202330247958.0
App. date
2023-04-28
Date of the registration
2023-08-22
Publication date
2023-08-22
Description
1. The name of this exterior design product is: Radio frequency ice compress phototherapy facial cleanser.
2. The purpose of this appearance design product: It belongs to a beauty instrument and is used to care for beauty skin.
3. The design key point of this exterior design product is its shape.
4. The image or photo that best illustrates the design points: a stereoscopic view.
Original description
1.本外观设计产品的名称：射频冰敷光疗洁面仪。

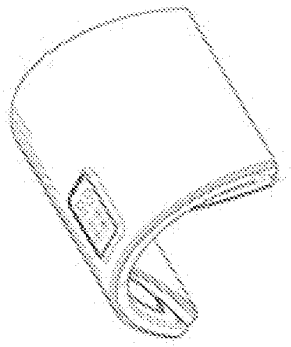
2.本外观设计产品的用途：属于美容仪器，用于护理美容皮肤。

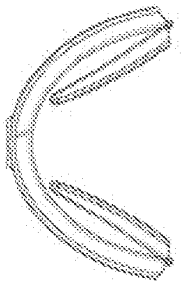
3.本外观设计产品的设计要点：在于形状。

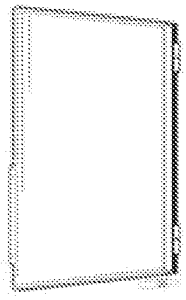
4.最能表明设计要点的图片或照片：立体图。

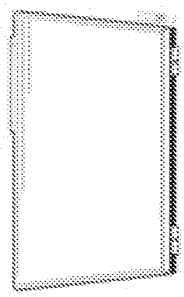
Fig. 1: 主视图
Fig. 2: 后视图
Fig. 3: 左视图
Fig. 4: 右视图
Fig. 5: 俯视图
Fig. 6: 仰视图
Fig. 7: 立体图
Expiration date of renewal
2038-04-28
Legal status
2023-08-22 - Granted

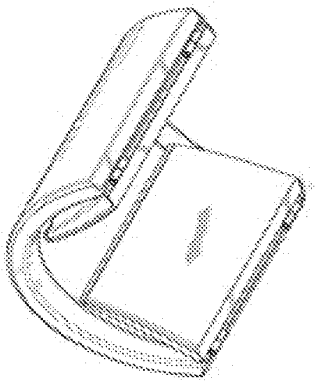
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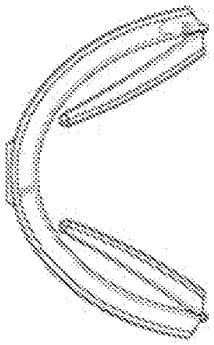


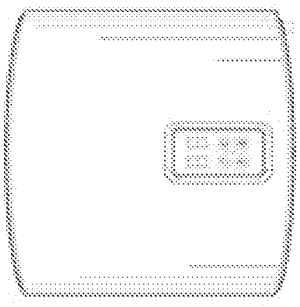


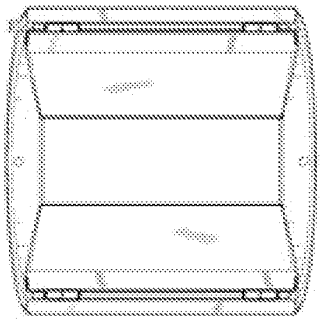










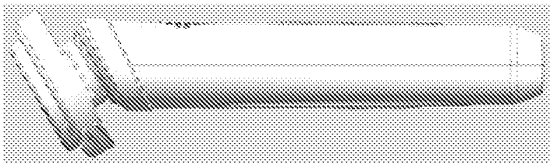


Title
Light Therapy Device for Skin Care
Country code
GB
Serial number of registration
6228949
Date of the registration
2022-09-02
Duration of protection
5
Expiration date of renewal
2027-09-02
Application number
6228949

App. date
2022-09-02
Priority data
US, 2022-03-04, 29/829,476
Priority number
US, 2022-03-04, 29/829,476
Priority date
2022-03-04
Priority country
US
Publication date
2022-09-29
Locarno class
24-01
Designation in English
Light Therapy Device for Skin Care
Name and address of owner
HydraFacial LLC, 2165 E. Spring Street, Long Beach, CA , 90806
Owner name
HydraFacial LLC
Owner address
2165 E. Spring Street, Long Beach, CA , 90806
Agent name and address
Zacco UK Limited, The Surrey Technology Centre, The Surrey Research Park, Guildford, GU2 7YG, (GB)
Legal status
2022-09-28 - Granted

DESIGNview

Design number: 202030100793.0



China data last updated on: 01/02/2024

Locarno class	28.03
Domestic classification	-
Design number	202030100793.0
Application number	202030100793.0
Application language code	ZH
Registration office code	CN
Application date	23/03/2020
Registration date	24/07/2020
Publication date	24/07/2020
Verbal element	-
Design description	1. 2. 3. 4.
Expiry date	-
Effective date	24/07/2020
Design current status code	Design lapsed
Designated countries	-
Design current status date	11/03/2022

Owner

Applicant identifier	-
Name	
Applicant nationality code	-
Applicant legal entity	-
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Address country	CN
Address	315000 110

Representative

No entry found for the selected design

Correspondence address

Name	-
Address country	-
Address	-

DESIGNview

Design number: 202030100793.0

Exhibition Priority

No entry found for the selected design

Publication

Number		Date	Page
305941358	Registration	24/07/2020	-

Designer

Designer identifier -
Address

Priority

No entry found for the selected design

Renewals

No entry found for the selected design

Recordals

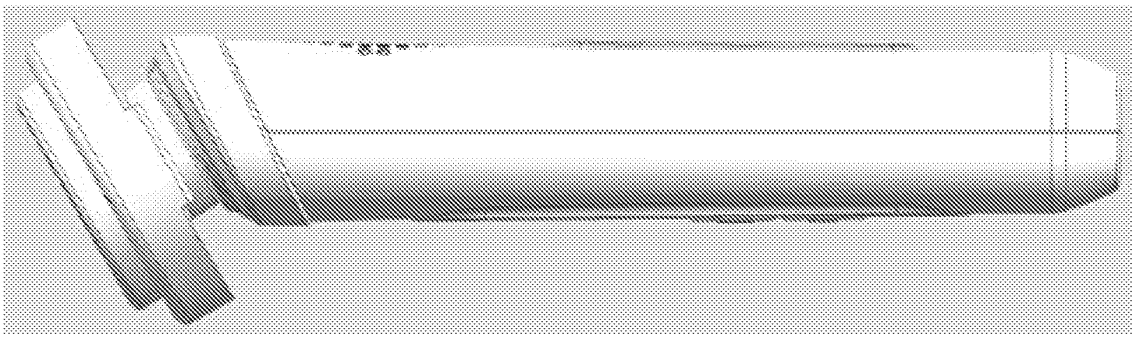
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Termination of design right due to unpaid annual fee
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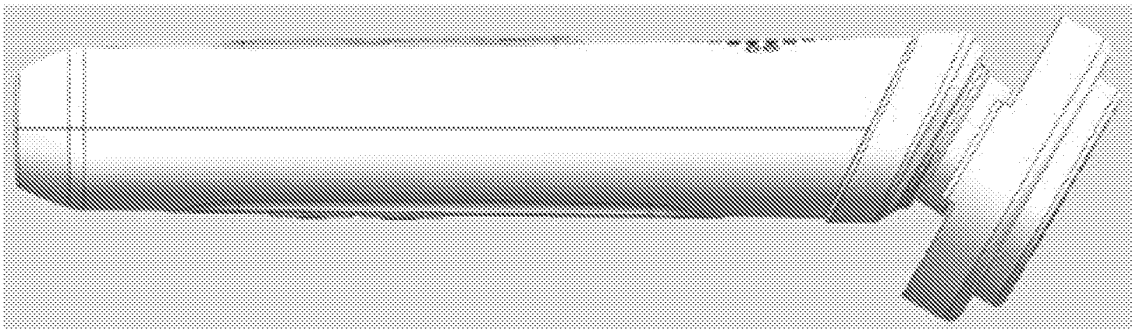
Representation (views of design)

DESIGN view

Design number: 202030100793.0



Representation (views of design)



Representation (views of design)

DESIGNview

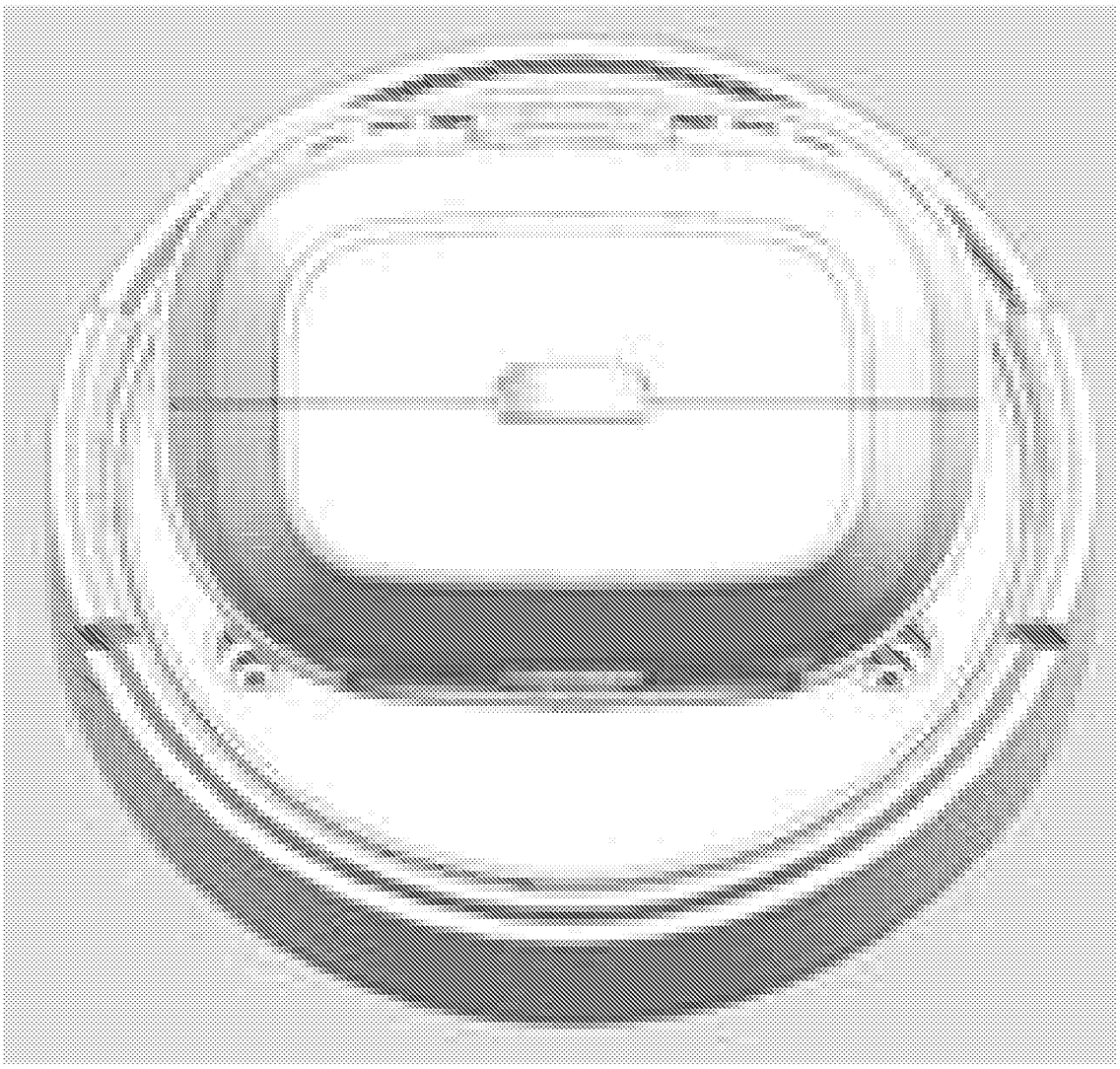
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Representation (views of design)

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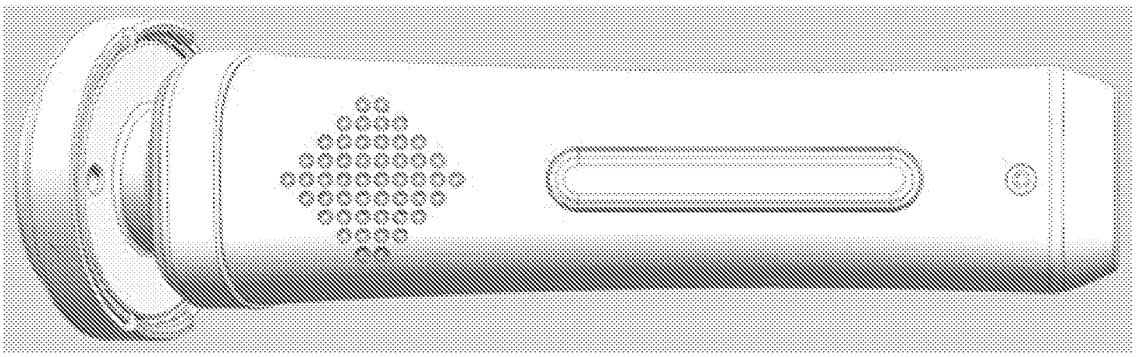
Design number: 202030100793.0



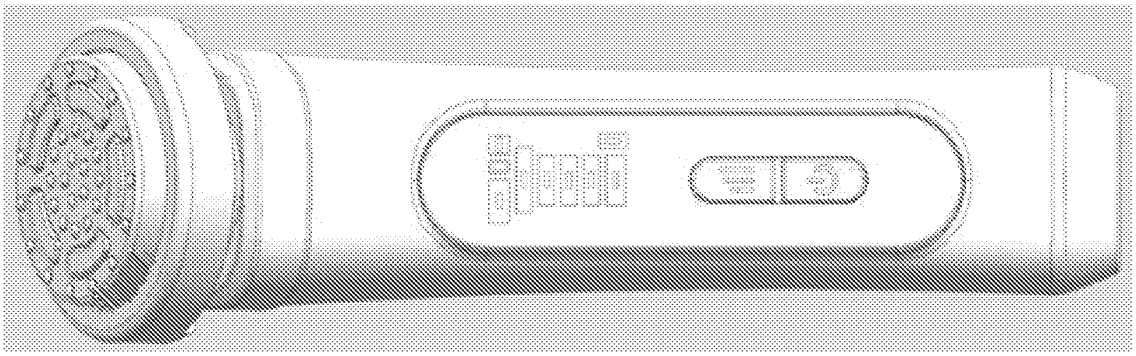
Representation (views of design)

DESIGN view

Design number: 202030100793.0



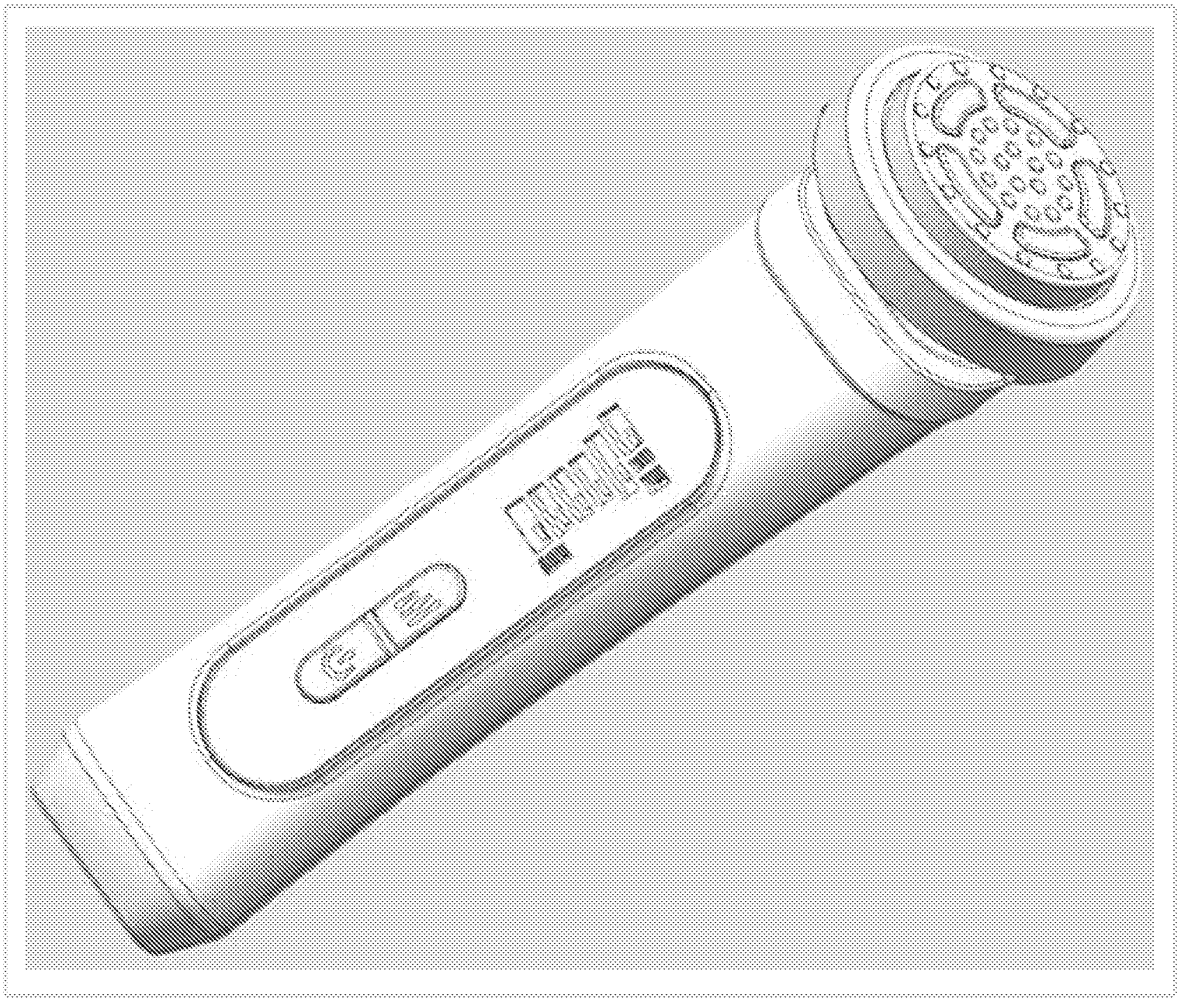
Representation (views of design)



Representation (views of design)

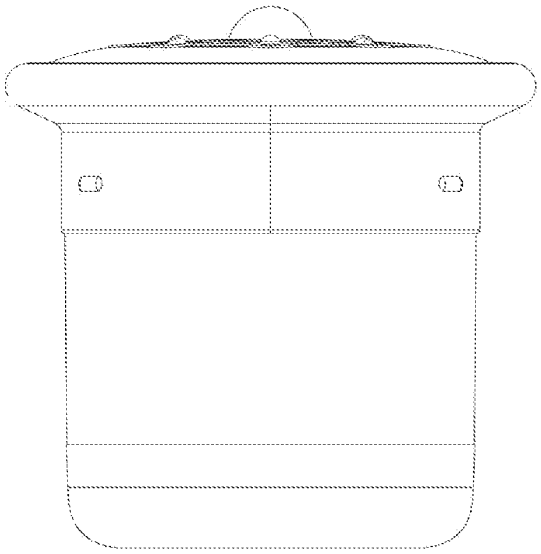
DESIGN view

Design number: 202030100793.0



DESIGNview

Design number: 202030368016.4



China data last updated on: 01/02/2024

BL-A029

Locarno class	28.03
Domestic classification	-
Design number	202030368016.4
Application number	202030368016.4
Application language code	ZH
Registration office code	CN
Application date	09/07/2020
Registration date	16/10/2020
Publication date	16/10/2020
Verbal element	-
Design description	1.BL-A029 2. 3. 4.
Expiry date	-
Effective date	16/10/2020
Design current status code	Registered and fully published
Designated countries	-
Design current status date	16/10/2020

Owner

Applicant identifier	-
Name	
Applicant nationality code	-
Applicant legal entity	-
	-
Address country	CN
Address	515000

Representative

No entry found for the selected design

Correspondence address

Name	-
Address country	-
Address	-

DESIGNview

Design number: 202030368016.4

Exhibition Priority

No entry found for the selected design

Publication

Number		Date	Page
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Designer

Designer identifier -
Address

Priority

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Renewals

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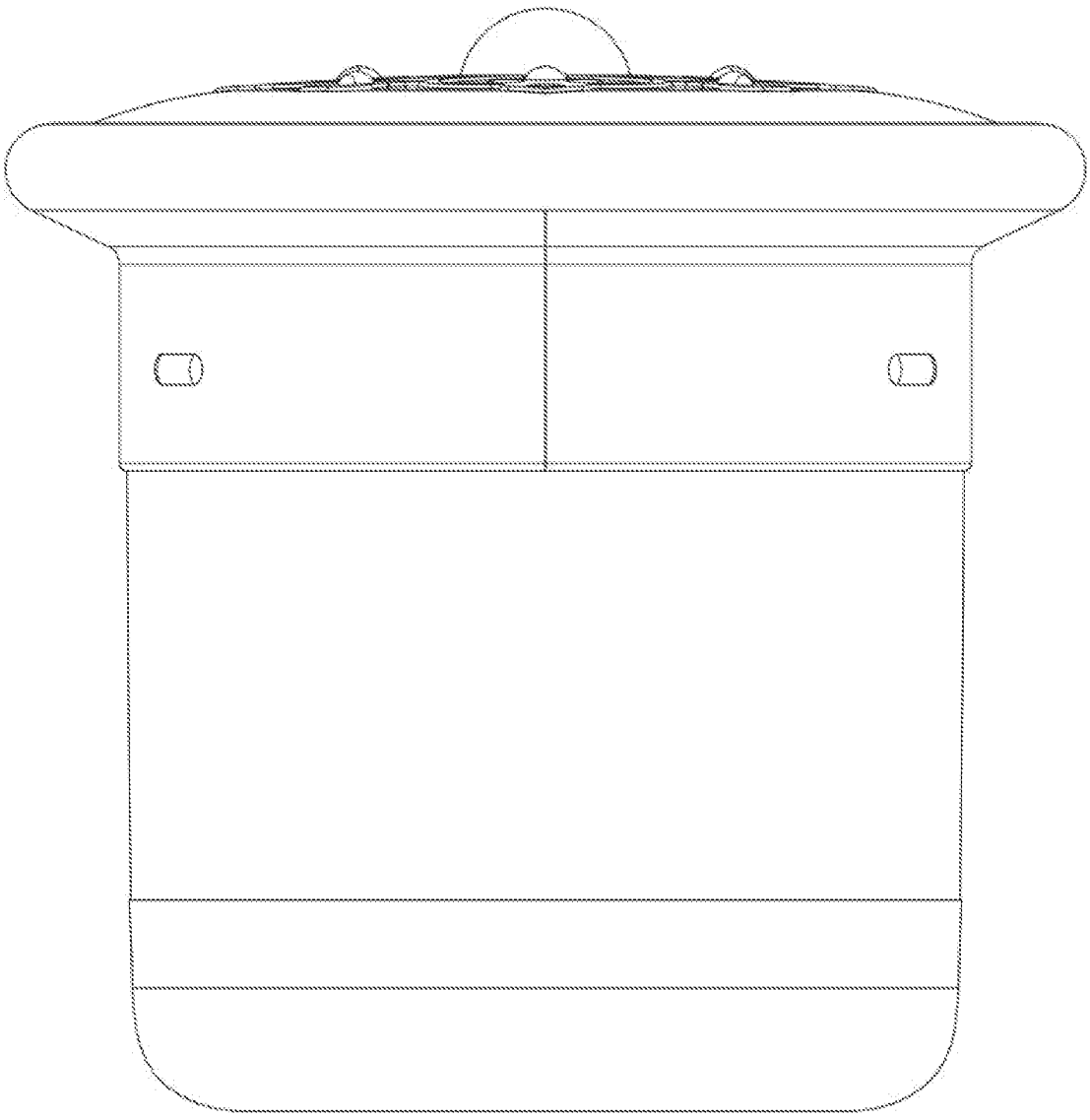
Recordals

	Grant of patent right for design
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Representation (views of design)

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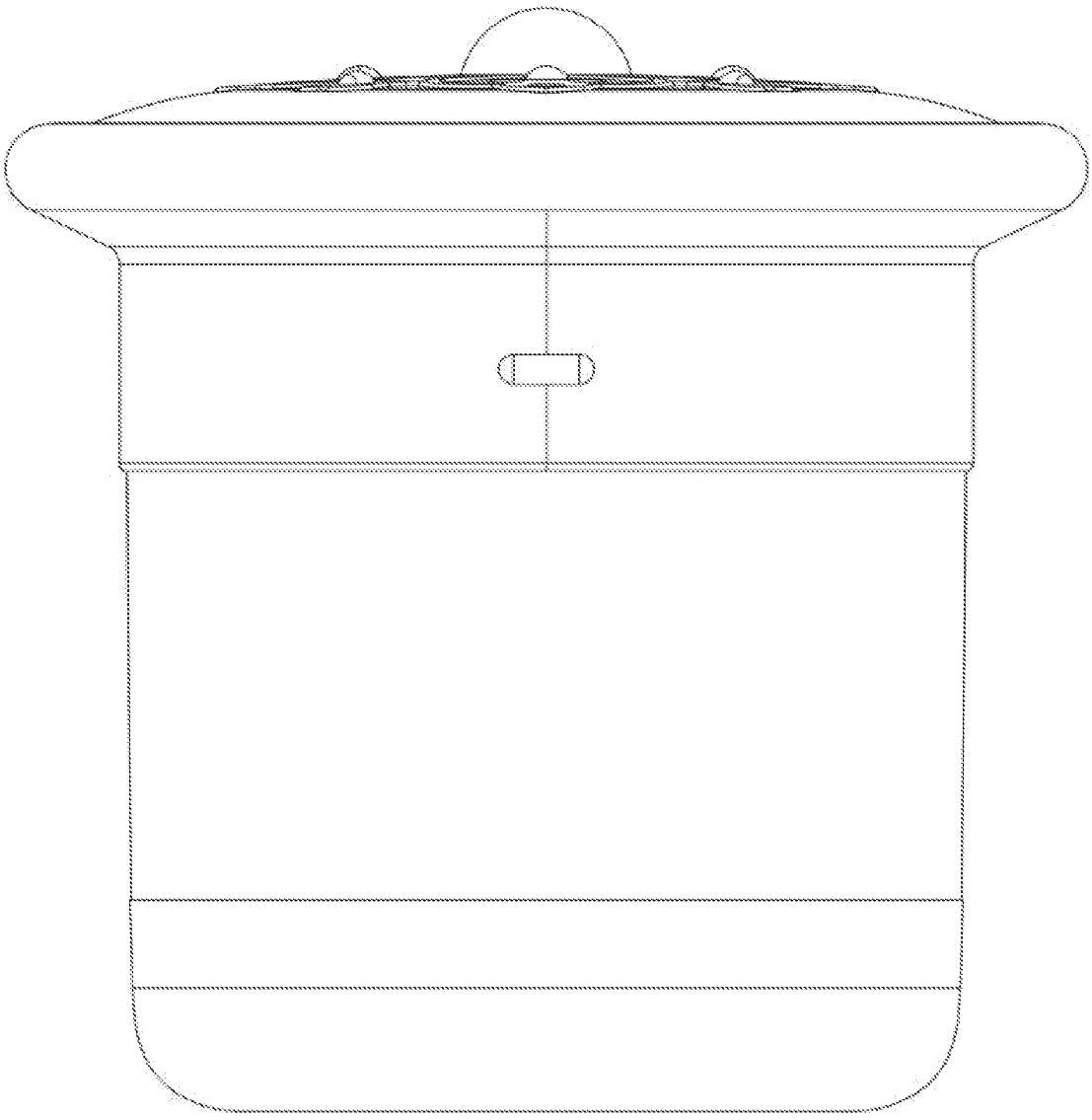
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Representation (views of design)

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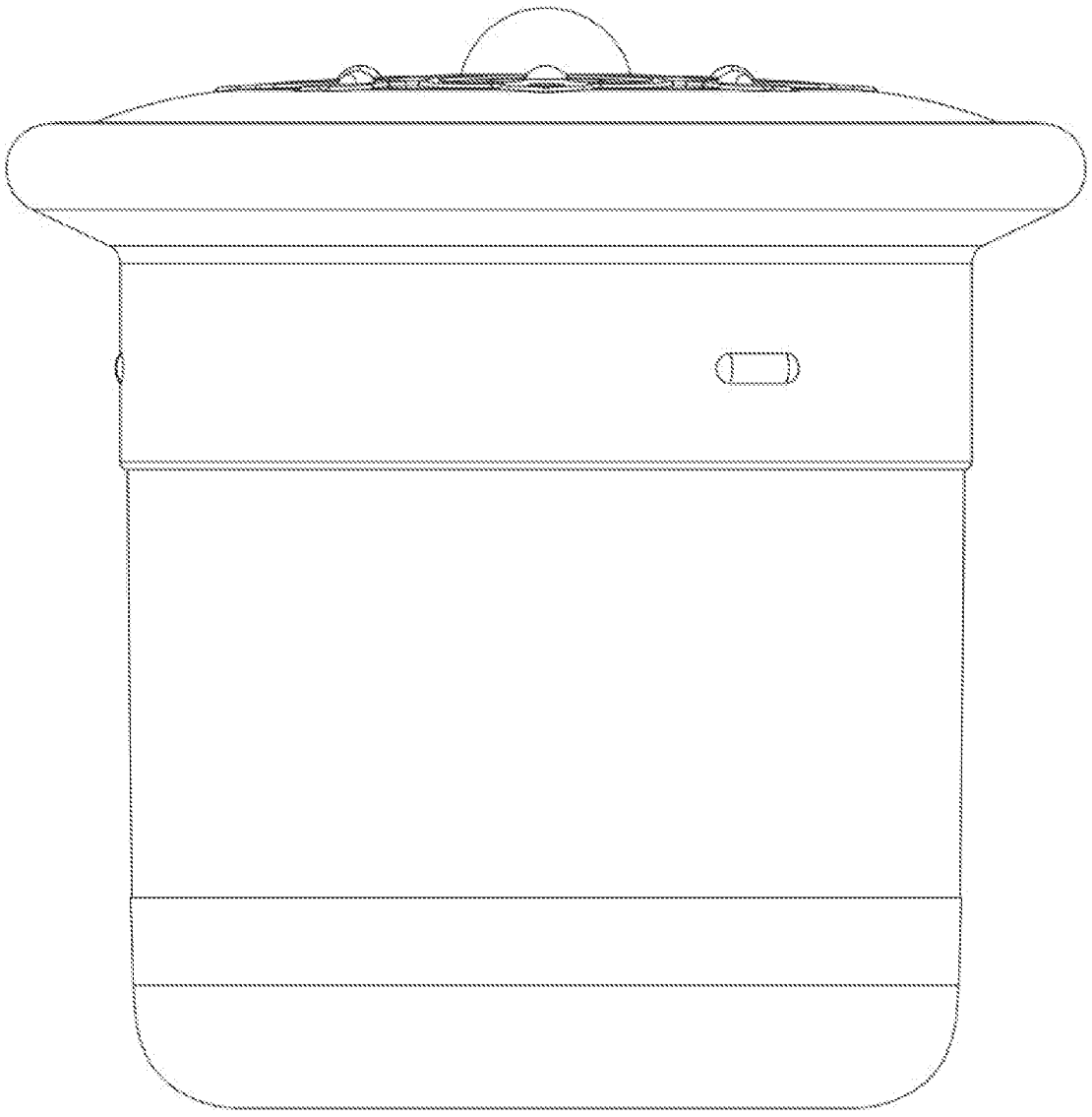
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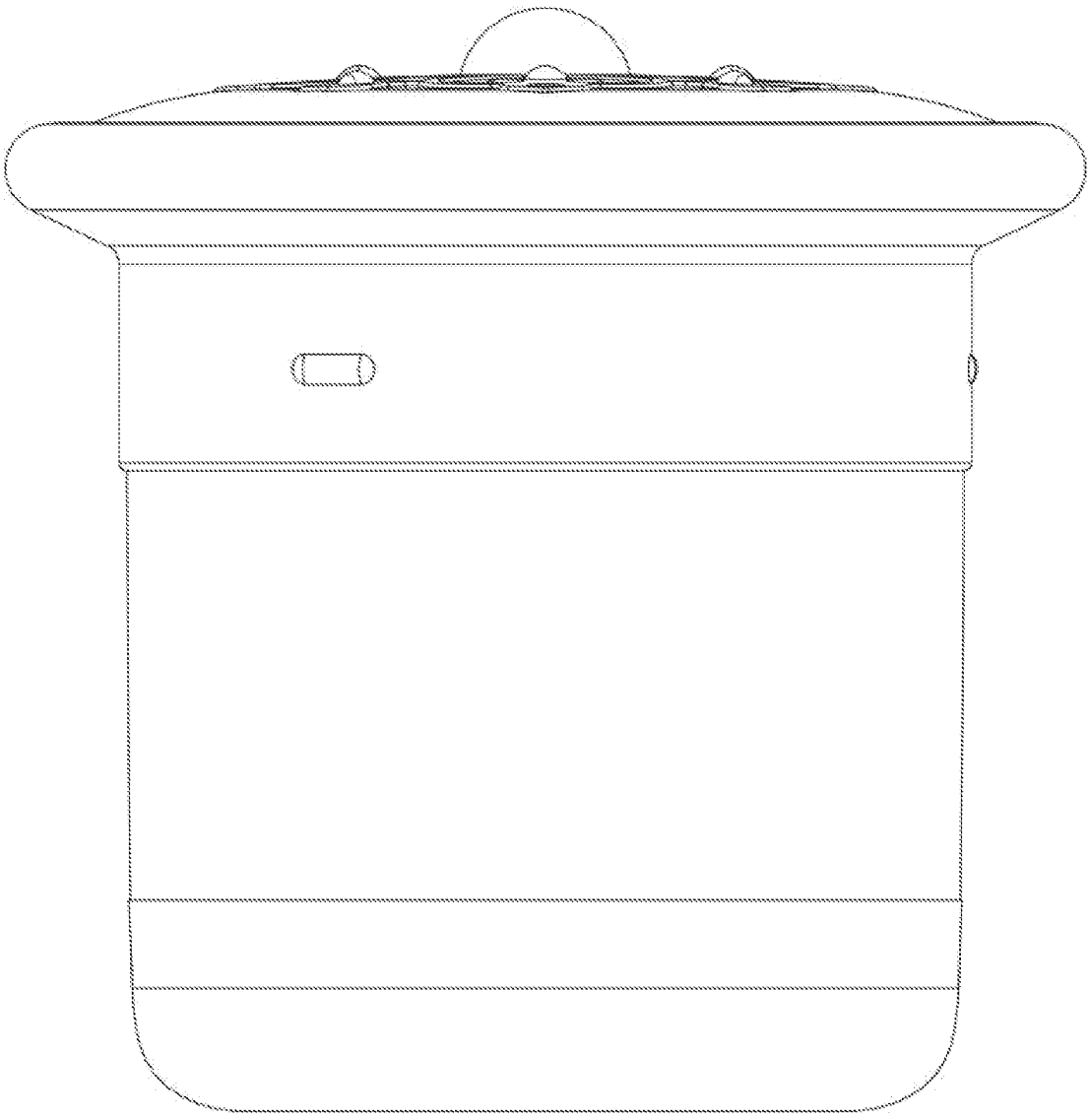
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Representation (views of design)

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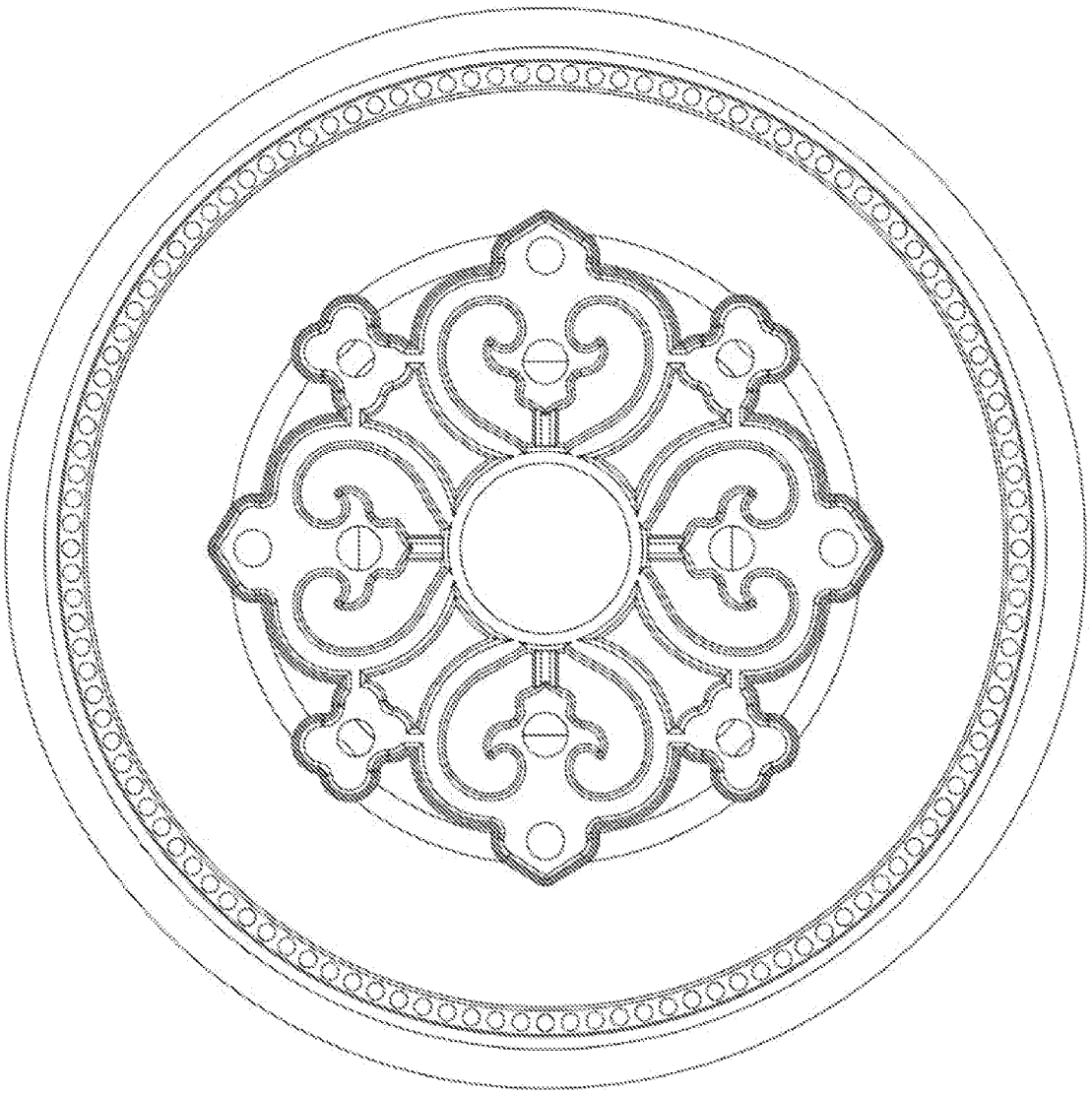
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Representation (views of design)

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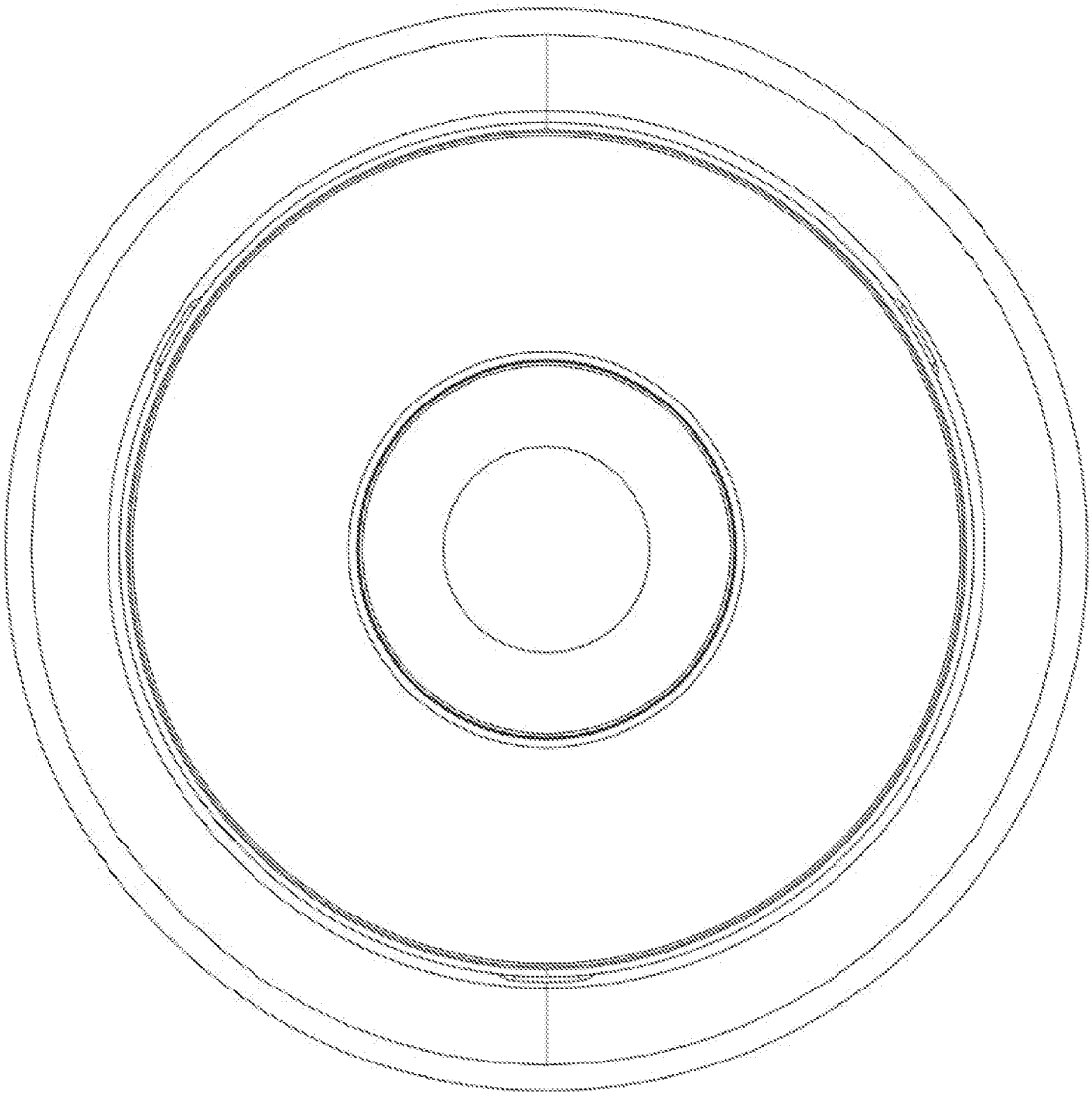
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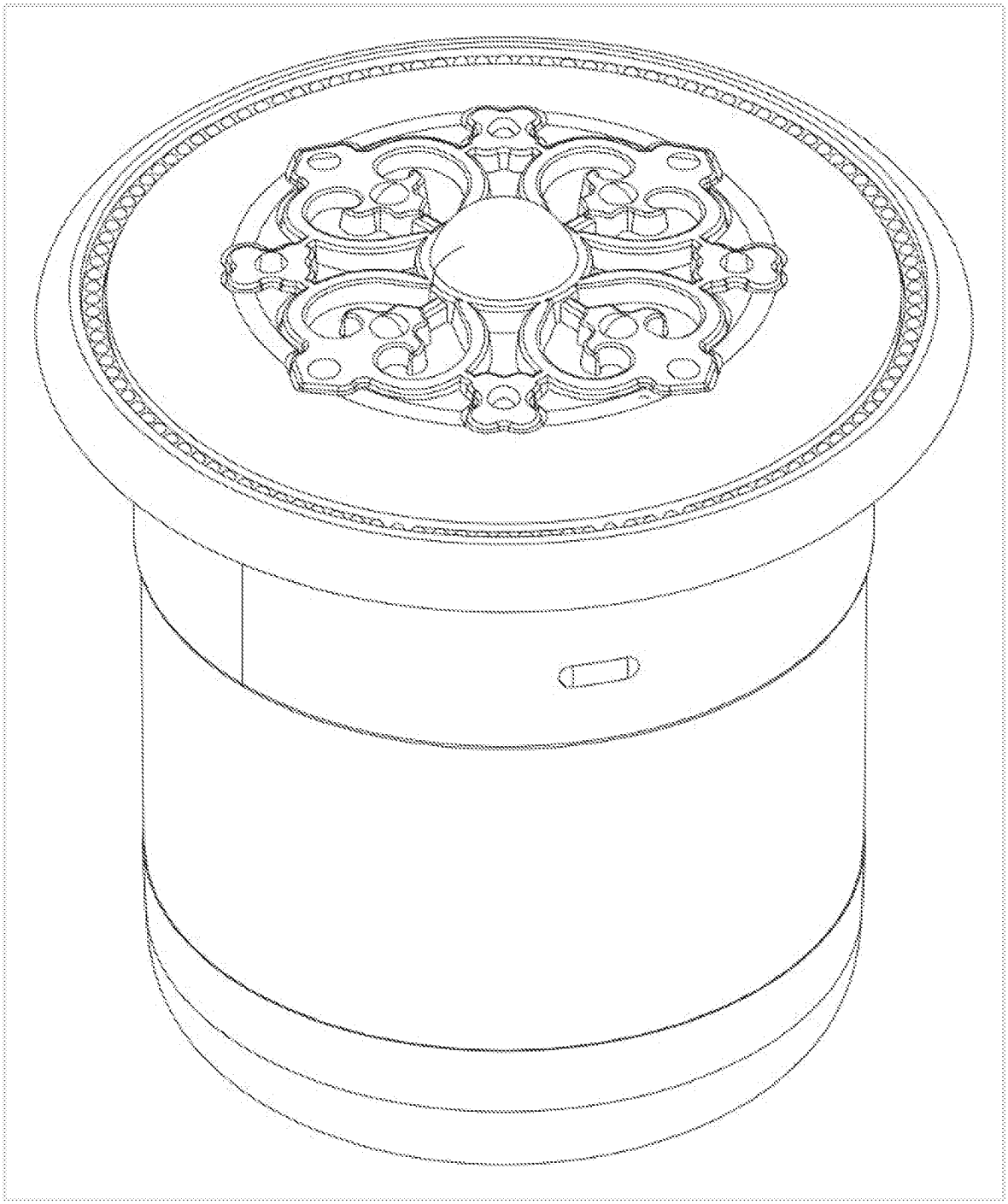
Design number: 202030368016.4



Representation (views of design)

DESIGNview

Design number: 202030368016.4



UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
18/487,916	**04/11/2024 07:22:56 PM Z ET**	**EDGE.005C11**

Title of Invention

DEVICES AND METHODS FOR TREATING SKIN

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	3841	FILED BY	Will Nguyen
PATENT CENTER #	65062566	FILING DATE	10/16/2023
CUSTOMER #	20995	FIRST NAMED INVENTOR	Roger Ignon
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Theodore Papagiannis

Documents

TOTAL DOCUMENTS: 25

DOCUMENT		PAGES	DESCRIPTION	SIZE (KB)
EDGE-005C11_IDS.pdf		4	-	61 KB
EDGE-005C11_IDS-TRAN.LET.pdf	(1-1)	1	Transmittal Letter	16 KB
EDGE-005C11_IDS-IDS.pdf	(2-4)	3	Information Disclosure Statement (IDS) Form (SB08)	43 KB
FOR_KR_301238287.pdf		4	Foreign Reference	234 KB
FOR_CN_3292006.pdf		3	Foreign Reference	157 KB
FOR_TW_D176752_wAbs.pdf		11	Foreign Reference	372 KB

FOR_CN_308188687.pdf	5	Foreign Reference	238 KB
FOR_TW_D155201_wMT.pdf	14	Foreign Reference	1667 KB
FOR_CN_305941358.pdf	16	Foreign Reference	817 KB
FOR_WO_1999-023951A1.pdf	17	Foreign Reference	2003 KB
FOR_EU_015024621-0002.pdf	4	Foreign Reference	182 KB
FOR_GB_6228947.pdf	5	Foreign Reference	190 KB
FOR_CN_306109314.pdf	6	Foreign Reference	1071 KB
FOR_GB_6228949.pdf	5	Foreign Reference	191 KB
FOR_KR_301238288.pdf	12	Foreign Reference	1938 KB
FOR_WO_2012-131623.pdf	35	Foreign Reference	4152 KB
FOR_JP_D1675782_wAbs.pdf	14	Foreign Reference	5075 KB
NPL_InStyle_Why-the-HydraFacial.pdf	1	Non Patent Literature	146 KB
NPL_Healthline-What-is-a-HydraFacial.pdf	1	Non Patent Literature	128 KB
NPL_Microderm-Glo-Mini.pdf	1	Non Patent Literature	127 KB
NPL_HydraFacial-MD-Karma-Spa-Lounge_2024.pdf	5	Non Patent Literature	514 KB
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NPL_BeautyBio_GLOfacial-Hydro-Infusion-deep-pore-cleansing.pdf	1	Non Patent Literature	115 KB
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NPL_Amazon_Osaki_LED-Therapy-Dome_2024.pdf	7	Non Patent Literature	582 KB
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Digest

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NPL_Elipsa-LightSlim_2024.pdf	C1B892ED0EB80CE5A24D36DDF6D57ED378C95F66FF7B384D

04E91B6A7E8B1CEA3A06ACA9485430E313B3416B7DDD7BED
3FC5CF6A1C1AF84CE09833FDC36087DB

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

INFORMATION DISCLOSURE STATEMENT

First Inventor: Roger Ignon	**Conf. No.:** 3841
Appl. No.: 18/487916	**Filed:** October 16, 2023
Examiner: Unassigned	**Art Unit:** Unassigned
Title: DEVICES AND METHODS FOR TREATING SKIN	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

References and Listing

Pursuant to 37 CFR 1.56, an Information Disclosure Statement listing references is provided herewith. Copies of any listed foreign and non-patent literature references are being submitted. Identification herein is not an admission that any of the references are prior art to the above captioned application.

No Disclaimers or Admissions

To the extent that anything in the Information Disclosure Statement or the listed references could be construed as a disclaimer of any subject matter supported by the present application, Applicant hereby rescinds and retracts such disclaimer.

Citation of a reference within this disclosure is not, and should not be construed as, an admission that the cited reference comes from an area that is analogous or directly applicable to the claimed invention.

Timing of Disclosure

This Information Disclosure Statement is being filed before the receipt of a First Office Action on the merits, and presumably no fee is required.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: April 11, 2024

By: /Theodore G. Papagiannis/
Theodore G. Papagiannis
Registration No. 61,546
Registered Practitioner
(949) 760-0404

59382617

PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487,916
	Filing Date	October 16, 2023
	First Named Inventor	Roger Ignon
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
SHEET 1 OF 3	Attorney Docket No.	EDGE.005C11

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	1	11,452,883	09-27-2022	Marchese et al.	
	2	11,806,495	11-07-2023	Ignon et al.	
	3	11,865,287	01-09-2024	Ignon et al.	
	4	11,883,621	01-30-2024	Ignon et al.	
	5	11,903,615	02-20-2024	Ignon et al.	
	6	11,925,780	03-12-2024	Ignon et al.	
	7	D425,241	05-16-2000	Nishizawa et al.	
	8	D548,341	08-07-2007	Ohta et al.	
	9	D548,843	08-14-2007	Kertz	
	10	D568,473	05-06-2008	Ashiwa et al.	
	11	D699,367	02-11-2014	Lee et al.	
	12	D829,333	09-25-2018	Shin et al.	
	13	D829,921	10-02-2018	Xiong	
	14	D868,981	12-03-2019	Salamon et al.	
	15	D903,889	12-01-2020	Luo et al.	
	16	D964,581	09-20-2022	Guo	
	17	D979,782	02-28-2023	Sung et al.	
	18	D994,134	08-01-2023	Lim	
	19	D1,011,541	01-16-2024	Yu	
	20	D1,016,615	03-05-2024	Rozporka et al.	
	21	2001/0037118	11-01-2001	Shadduck	
	22	2002/0151908	10-17-2002	Mallett Sr. et al.	
	23	2003/0167032	09-04-2003	Ignon et al.	
	24	2004/0051368	03-18-2004	Caputo et al.	
	25	2007/0027411	02-01-2007	Ella et al.	
	26	2009/0177171	07-09-2009	Ignon et al.	
	27	2009/0192442	07-30-2009	Ignon et al.	
	28	2010/0036298	02-11-2010	Fuster	
	29	2011/0082415	04-07-2011	Ignon et al.	

Examiner Signature	Date Considered
***Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

T[1] - Place a check mark in this area when an English language Translation is attached.

PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487,916
	Filing Date	October 16, 2023
	First Named Inventor	Roger Ignon
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
SHEET 2 OF 3	Attorney Docket No.	EDGE.005C11

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	30	2012/0022435	01-26-2012	Ignon et al.	
	31	2013/0296807	11-07-2013	Lintern et al.	
	32	2014/0343481	11-20-2014	Ignon	
	33	2015/0231379	08-20-2015	Ignon et al.	
	34	2019/0133642	05-09-2019	Ignon et al.	
	35	2020/0093945	03-26-2020	Jeong	
	36	2021/0154455	05-27-2021	Ignon et al.	
	37	2021/0170150	06-10-2021	Hong et al.	
	38	2023/0000523	01-05-2023	Nicolas et al.	
	39	2023/0055346	02-23-2023	Fortkort et al.	
	40	2024/0017046	01-18-2024	Nebrigic et al.	
	41	2024/0075263	03-07-2024	Ignon et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	**T[1]**
	42	CN 3292006	04-30-2003	Zhang Haiqiang		
	43	CN 305941358	07-24-2020	Shi Enliang		
	44	CN 306109314	10-16-2020	Shantou Baili Plastic Products Co., Ltd.		
	45	CN 308188687	08-22-2023	Shenzhen Kemengya Intelligent Technology Co Ltd.		
	46	EU Des. 015024621-0002	06-19-2023	Jean-Daniel Mondin		
	47	GB 6228947	09-02-2022	HydraFacial LLC		
	48	GB 6228949	03-04-2022	HydraFacial LLC		
	49	JP D1675782	01-04-2021	Hasluck Co., Ltd.		Abs
	50	KR 301238287.0000	11-13-2023	HydraFacial LLC		
	51	KR 301238288.0000	11-13-2023	HydraFacial LLC		
	52	TW D155201	08-01-2013	Heqin Industrial Co., Ltd.		X

Examiner Signature	Date Considered
***Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

T[1] - Place a check mark in this area when an English language Translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487,916
	Filing Date	October 16, 2023
	First Named Inventor	Roger Ignon
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
SHEET 3 OF 3	Attorney Docket No.	EDGE.005C11

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[1]
	53	TW D176752	06-21-2016	Zhang Tingxuan		Abs
	54	WO 1999/23951	05-20-1999	Ronald Allan Greenberg		
	55	WO 2012/131623	10-04-2012	L'Oreal		

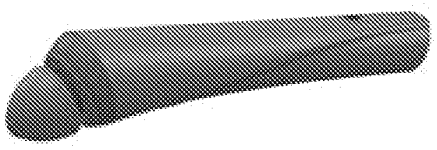
NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[1]
	56	Amazon.com: IeBilif Facial Skin Care Machine, posted 12/14/2023 (retrieved online 3/29/2024) from https://www.amazon.com/IeBillif-Equipment-Esthetician-Essential-supplies/d (2023).	
	57	Amazon.com: Osaki LED Therapy Dome, posted date unavailable (retrieved online 03/29/2024), from https://www.amazon.com/Osake-LED-Therapy-Dome/dp/BO8NN3BS7L (2024).	
	58	"BeautyBio: GLOfacial Hydro-Infusion deep pore cleansing + Blue LED clarifying tool", found online at amazon.com 09/26/2023, ref. dated 11/15/2022, retrieved https://www.amazon.com/GLOfacial-Hyrdo-Infusion-Deep-Cleansing-Clarifying/dp/B0BGJLMSZP/.	
	59	Celluma LITE Compact LED Light Therapy Device fr Travel, posted date unavailable, (retrieved online 03/29/2024), from https://www.celluma.com/products/celluma-lite (2024).	
	60	Elipsa-LightSlim, posted date unavailable, (retrieved online 03/29/2024), from https://www.lightslim.com/products/lightslim-elipsa (2024).	
	61	"Healthline: What is a HydraFacial and how does it work", found online at healthline.com 09/26/2023, Ref. dated 12/09/2020, https://www.healthline.com/health/what-is-hydrafacial.	
	62	HydraFacial MD Karma Spa Lounge & Beauty Bar, posted date unavailable (retrieved online 03/29/2024), from https://www.karmabeautybar.com/hydrafacial-md (2024).	
	63	"InStyle: Why the HydraFacial is one of the most popular in-office treatments", found online at instyle.com on 09/26/2023, ref. dated 06-12-2023, https://www.instyle.com/beauty/skin/hydrafacial-treatment-facts	
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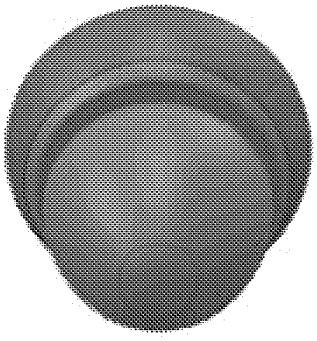
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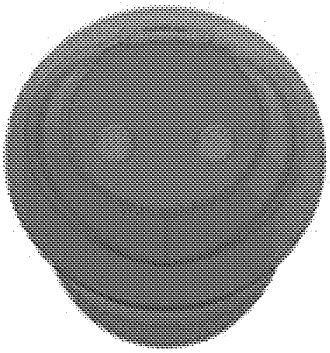
Examiner Signature	Date Considered
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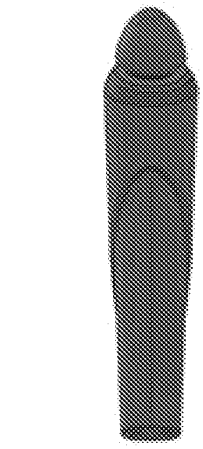
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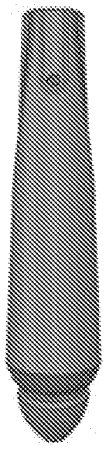
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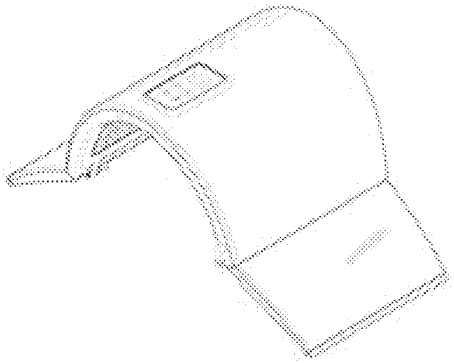


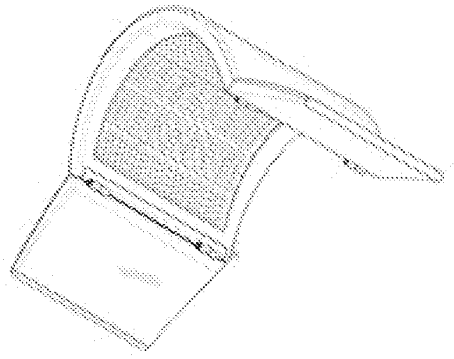


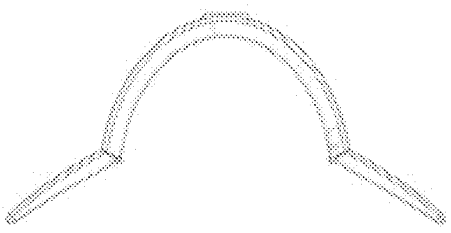
Serial number of registration
015024621-0002
Country code
EU
Designation in English
Facial massagers
Designation in French
Appareils de massage pour le visage
Original title
Geräte für die Gesichtsmassage
Kasvojen hierontalaitteet
Anordningar för ansiktsmassage
Massajadores faciais
Масажори за лице
Συσκευές μαλάξεων (μασάζ) για το πρόσωπο
Massaġġeri tal-wiċċ
Veido masažuokliai
Masažeri za lice
Sejas masieri
Massaggiatori facciali
Arcmasszírozók
Masajeadores faciales
Näomassaažiseadmed
Zařízení na masáž obličeje
Zariadenia na masáž tváre
Masažni aparati za obraz
Urządzenia do masażu twarzy
Apparater til ansigtsmassage
Aparate de masaj **facial**
Gezichtsmassagerollers
Locarno class
28-03
Name and address of owner
Jean-Daniel MONDIN, 234 avenue de la Lanterne, 06200 NICE, (FR)
Owner name
Jean-Daniel MONDIN
Owner address
234 avenue de la Lanterne, 06200 NICE
Agent name and address
NOVAGRAAF FRANCE, Bâtiment O2 - 2, rue Sarah Bernhardt CS 90017, 92665 Asnières-sur -Seine, (FR)
Agent name
10696

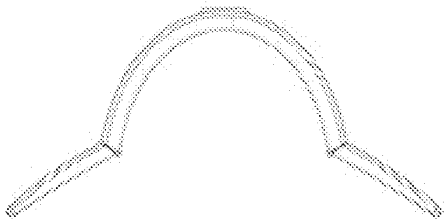
Agent town
NOVAGRAAF FRANCE
Application number
015024621
App. date
2023-06-13
Date of the registration
2023-06-13
Publication date
2023-06-19
Language of filing
FR; EN
Expiration date of renewal
2028-06-13
Legal status
2023-06-19 - Registered and fully published (A1)
Bulletin no 2023/112

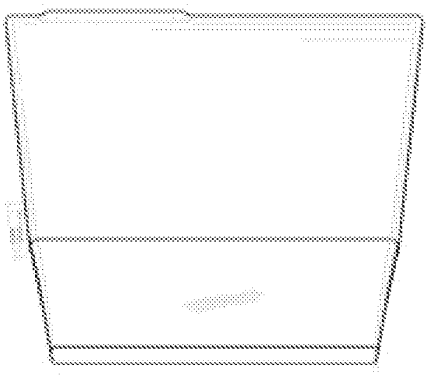
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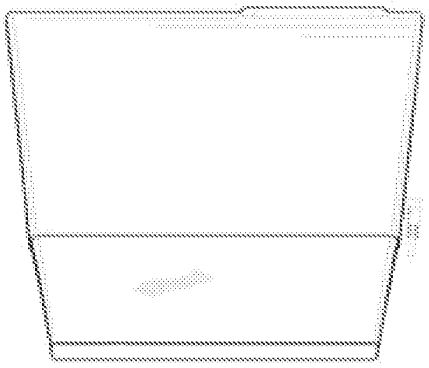


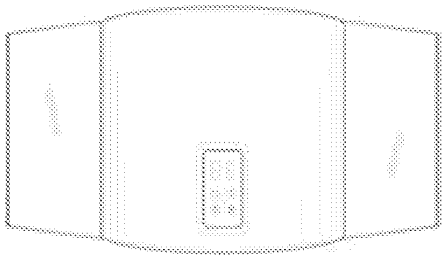


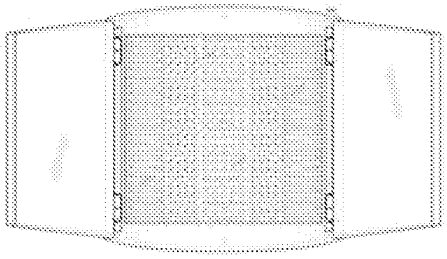












Title
Light therapy device for skin care
Country code
KR
Serial number of registration
301238287.0000
Date of the registration
2023-11-07
Application number
3020230014164
App. date
2023-04-13
Number of industrial designs
1
Priority data
US, 2022-03-04, 29/829,476
Priority number
US, 2022-03-04, 29/829,476
Priority date
2022-03-04
Priority country
US
Publication date
2023-11-13
Locarno class
24-01
Designation in English
Light therapy device for skin care
Original title

피부 관리를 위한 광선 치료 장치

Description

1. In this design, the part expressed in solid lines is a partial design and is the part for which design registration is sought, and the part marked with a dotted line is not the part for which design registration is sought..

2. The object of this design is a light therapy device for skin care (LIGHT THERAPY DEVICE FOR SKIN CARE).

3. 1. 1 and 1. 2 expresses the overall shape of this design, and Figure 1. 3 to 1. 8 are the front, rear, right, left, top and bottom views of this design, respectively..

4. The broken fine lines expressed on the drawing are shaded lines and are not lines that express or constitute the shape of the design..

The overall shape of the "light therapy device for skin care" is the main point of the design creation content..

Original description

1. 본 디자인에서 실선으로 표현된 부분이 부분디자인으로서 디자인 등록을 받고자 하는 부분이며, 점선으로 표시된 부분은 디자인 등록을 받고자 하는 부분이 아니다.

2. 본 디자인의 대상이 되는 물품은 피부 관리를 위한 광선 치료 장치(LIGHT THERAPY DEVICE FOR SKIN CARE)이다.

3. 도면 1.1 및 도면 1.2는 본 디자인의 전체적인 형상을 표현한 것이며, 도면 1.3 내지 1.8은 각각 본 디자인의 정면도, 배면도, 우측면도, 좌측면도, 평면도, 저면도이다.

4. 도면상에 표현된 끊어진 세선은 음영선으로서 디자인의 모양을 표현 또는 구성하는 선이 아니다.

"피부 관리를 위한 광선 치료 장치"의 전체 형상을 디자인 창작내용의 요점으로 한다.

Creator

Chasen James Marchese, (US)
Daniel Harden, (US)
Yale show, (US)
Daniel Cheong, (US)

Creator (Original)

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예일 쇼, 미국 90806 캘리포니아, 롱 비치, 2165 이. 스프링 스트리트
다니엘 청, 미국 90806 캘리포니아, 롱 비치, 2165 이. 스프링 스트리트

Creator address

Chasen James Marchese;Daniel Harden;Yale show;Daniel Cheong

Name and address of owner

Hydrafacial LLC, (US)

Name and address of owner (Original)

, 미국 캘리포니아, 롱 비치, 2165 이. 스프링 스트리트 (우편번호 90806)

Agent name and address

AIP PATENT & LAW FIRM

Agent name and address (Original)

특허법인에이아이피

Agent country

특허법인에이아이피

Examiners

Chung Hye-young

Machine Translated by Google

Registered design 30-1238288

(19) Korea Intellectual Property Office

(KR) (12) Registered Design Gazette (S)

(45) Announcement date: November 13,

2023 (11) Registration number

30-1238288 (24) Registration date: November 7, 2023

(51) International Classification

24-01 (21) Application No. 30-2023-0014166 (divided)

Basic design 30-1238286-0000

(22) Application date April 13, 2023

Partial design (M001)

(62) Original application design 30-2022-0035940

Original filing date: September 2, 2022

(30) Priority claim

29/829,476 March 4, 2022 United States

(73) Design rights

holder Hydrafacial LLC, Long

Beach, California, USA, 2165 Lee. Spring Street (Zip Code 90806) (72) Creator

Chasen James Marchese

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Beach,

California, USA 90806. Spring Street Yale Show 2165 Long Beach, CA 90806

USA.

Spring Street Daniel Cheong 2165 Long Beach, CA 90806 USA. spring street

(74) Agent

Patent Firm AP

Examiner in charge: Jeong

Hye-young (54) Name Light therapy device for skin care

Machine Translated by Google

Design drawing count

24

Items that are the subject of design

Light therapy device for skin care

Description of the design

1. The part expressed in solid lines in this design is the part for which design registration is sought as a partial design, and is indicated in dotted lines.
The part shown is not the part for which design registration is sought.

2. The product subject to this design is a light therapy device for skin care (LIGHT THERAPY DEVICE FOR SKIN CARE)
all.

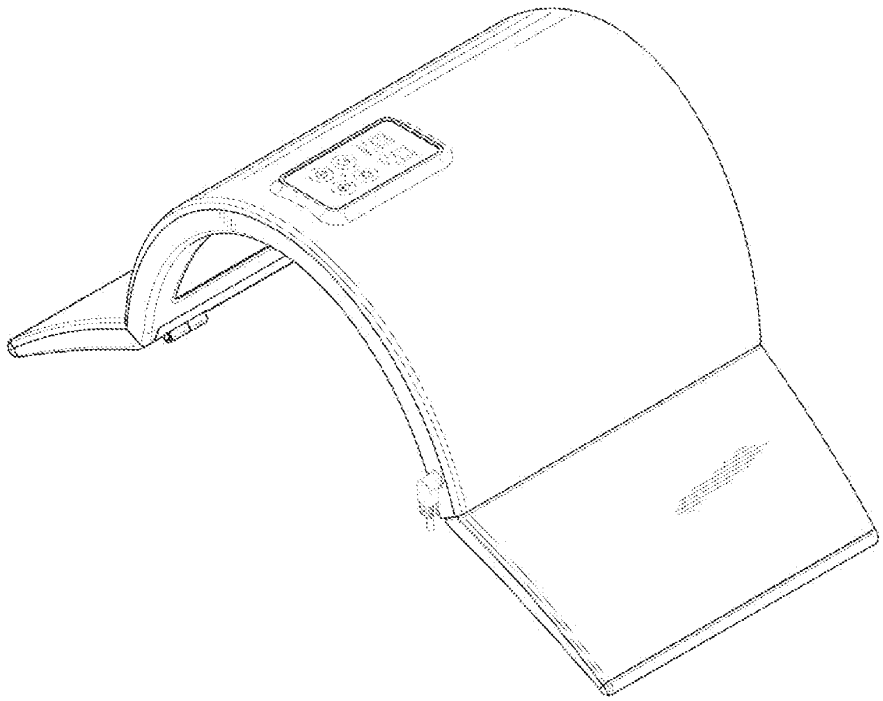
3. Drawings 1.1 and 1.2 express the overall shape of this design, and drawings 1.3 to 1.8 respectively represent this design.
Front view, back view, right side view, left side view, top view, and bottom view.

4. The broken fine lines expressed on the drawing are shaded lines and are not lines that express or compose the shape of the design.

of design creation of noteworthy

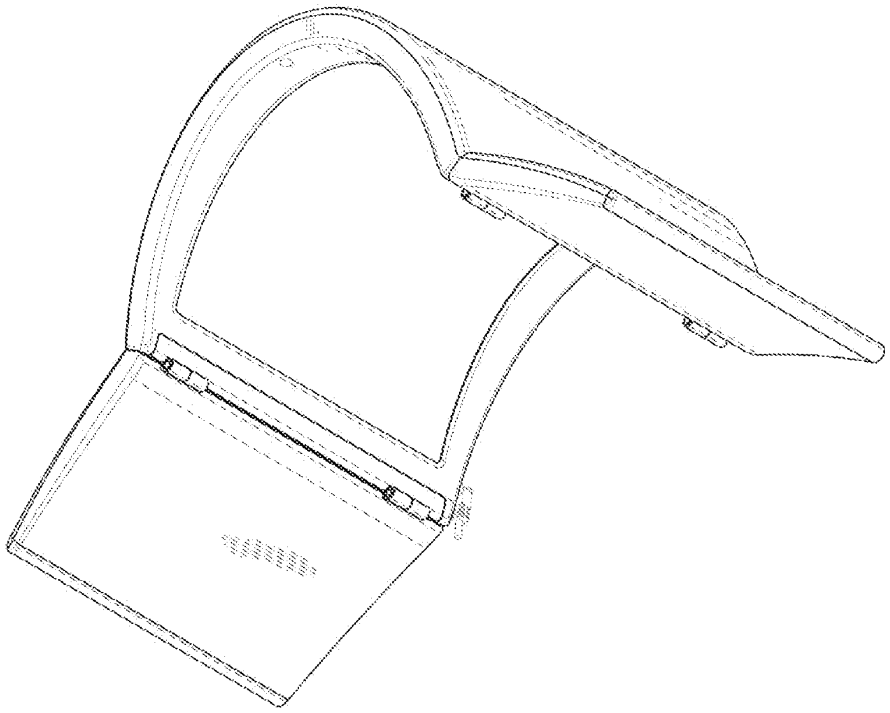
The overall shape of the "light therapy device for skin care" is the main point of the design creation content.

Drawing 1.1

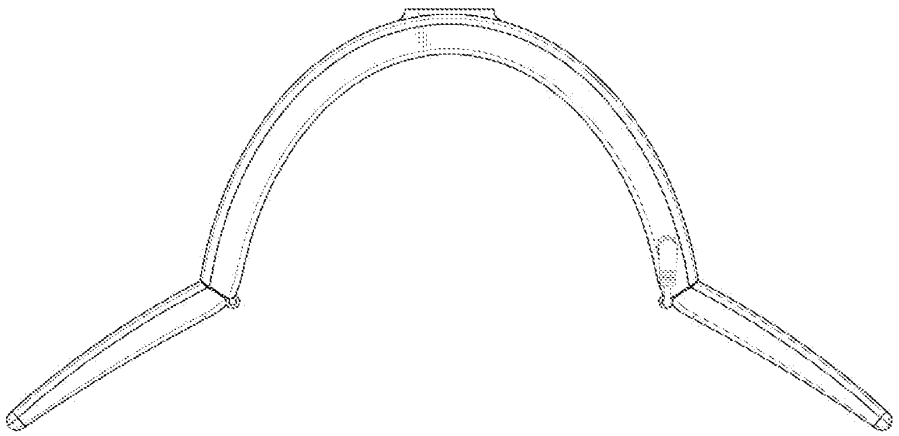


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Drawing 1.2

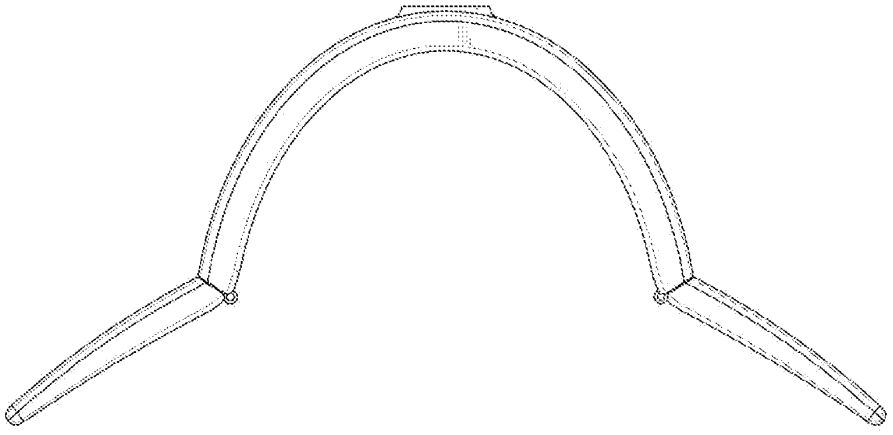


Drawing 1.3

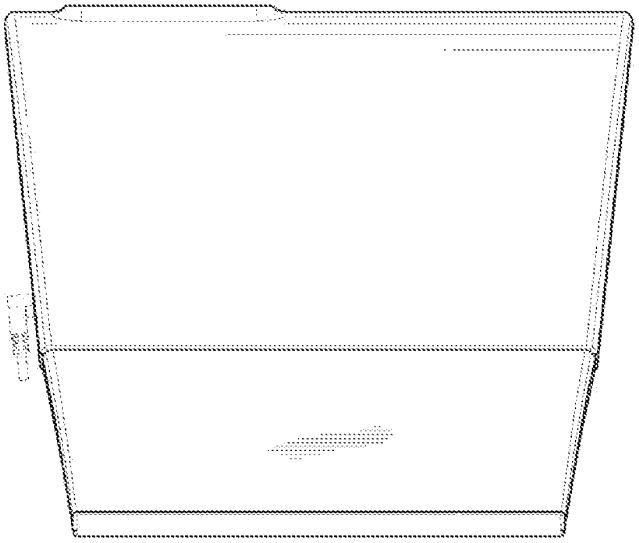


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Drawing 1.4

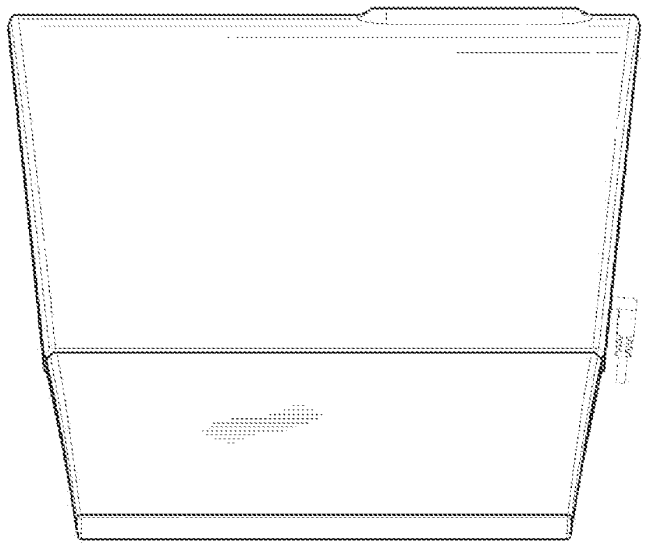


Drawing 1.5

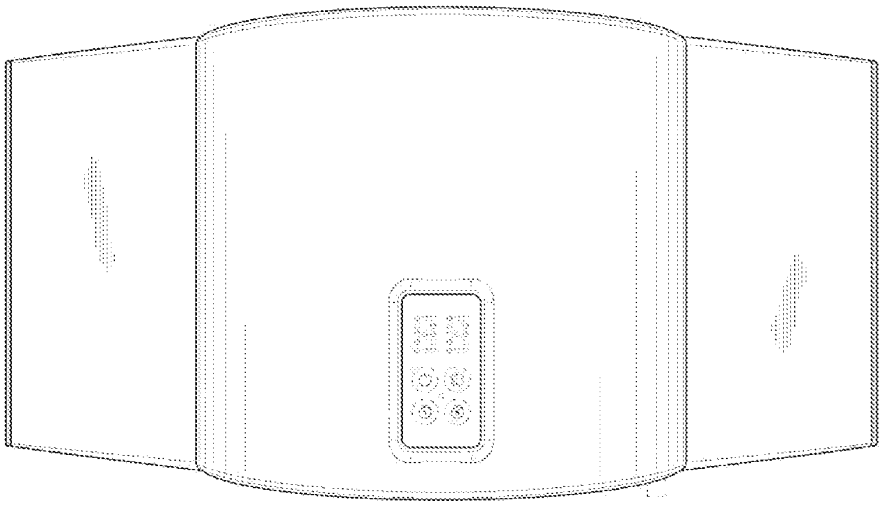


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Drawing 1.6

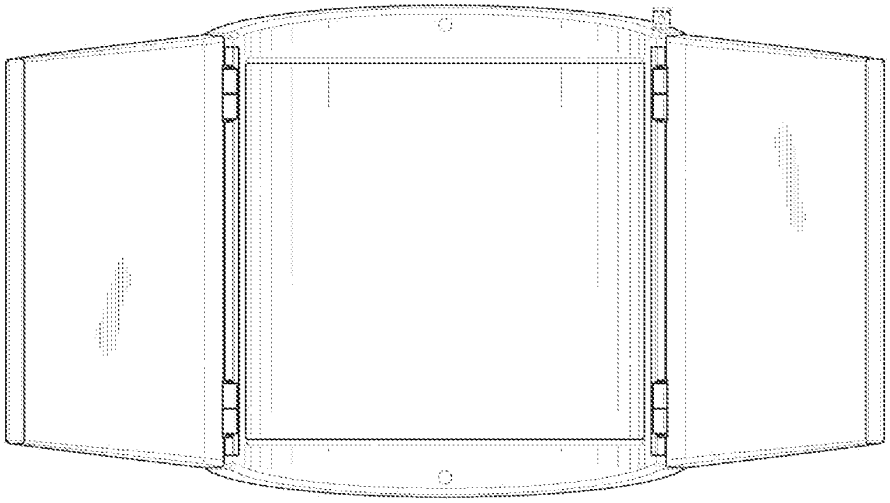


Drawing 1.7



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Drawing 1.8



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담당심사관 : 정혜영

(54) 명칭 **피부 관리를 위한 광선 치료 장치**

디자인도면

물품류

24

디자인의 대상이 되는 물품

피부 관리를 위한 광선 치료 장치

디자인의 설명

1. 본 디자인에서 실선으로 표현된 부분이 부분디자인으로서 디자인 등록을 받고자 하는 부분이며, 점선으로 표시된 부분은 디자인 등록을 받고자 하는 부분이 아니다.

2. 본 디자인의 대상이 되는 물품은 피부 관리를 위한 광선 치료 장치(LIGHT THERAPY DEVICE FOR SKIN CARE)이다.

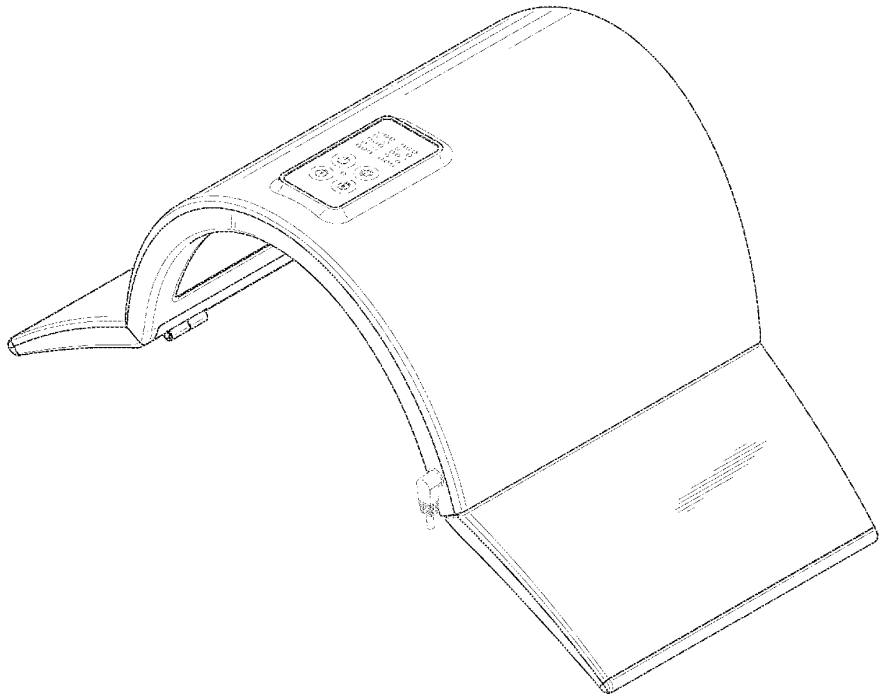
3. 도면 1.1 및 도면 1.2는 본 디자인의 전체적인 형상을 표현한 것이며, 도면 1.3 내지 1.8은 각각 본 디자인의 정면도, 배면도, 우측면도, 좌측면도, 평면도, 저면도이다.

4. 도면상에 표현된 끊어진 세선은 음영선으로서 디자인의 모양을 표현 또는 구성하는 선이 아니다.

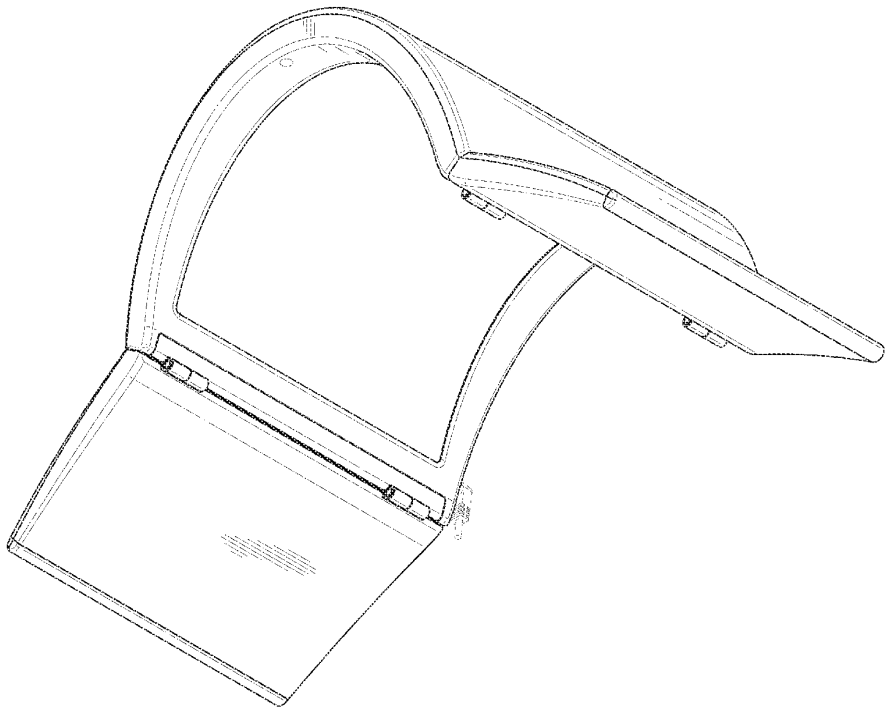
디자인 창작 내용의 요점

"피부 관리를 위한 광선 치료 장치"의 전체 형상을 디자인 창작내용의 요점으로 한다.

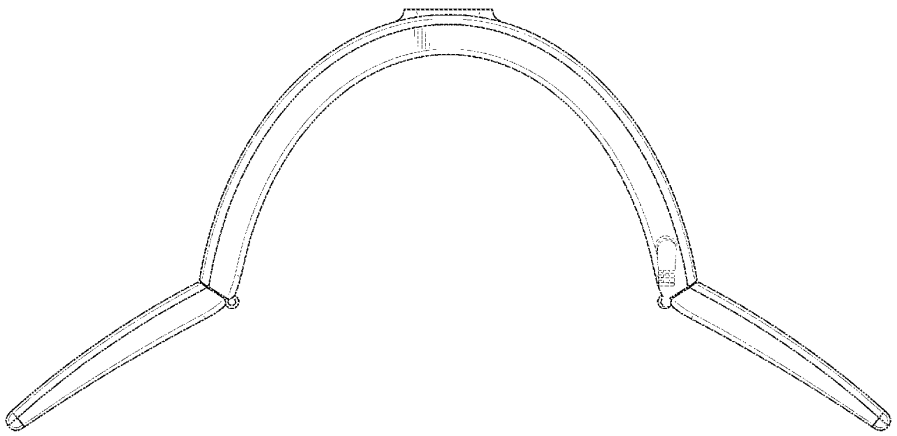
도면 1.1



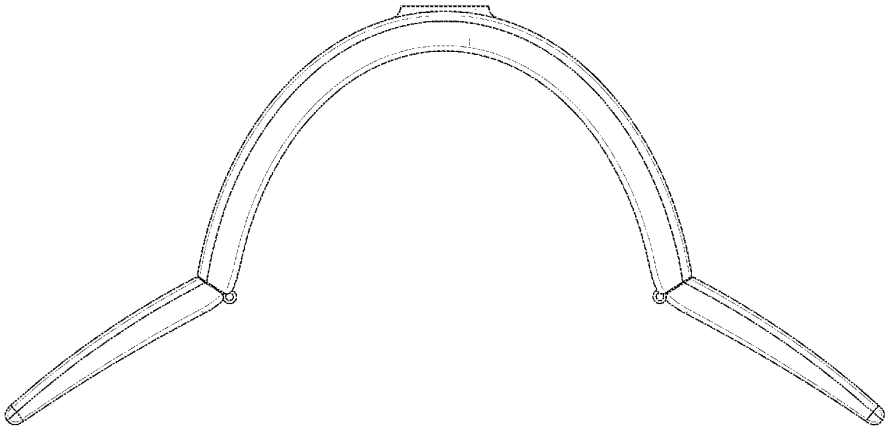
도면 1.2



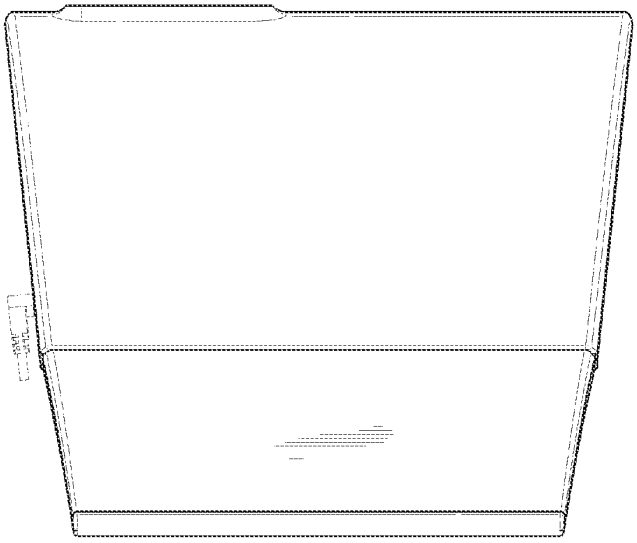
도면 1.3



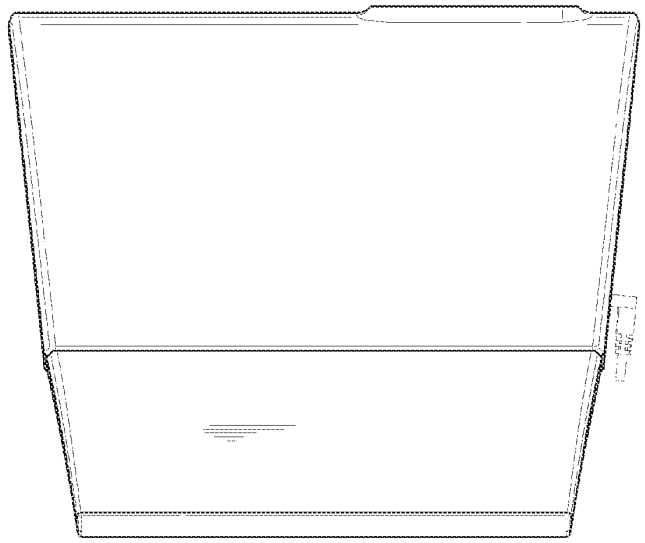
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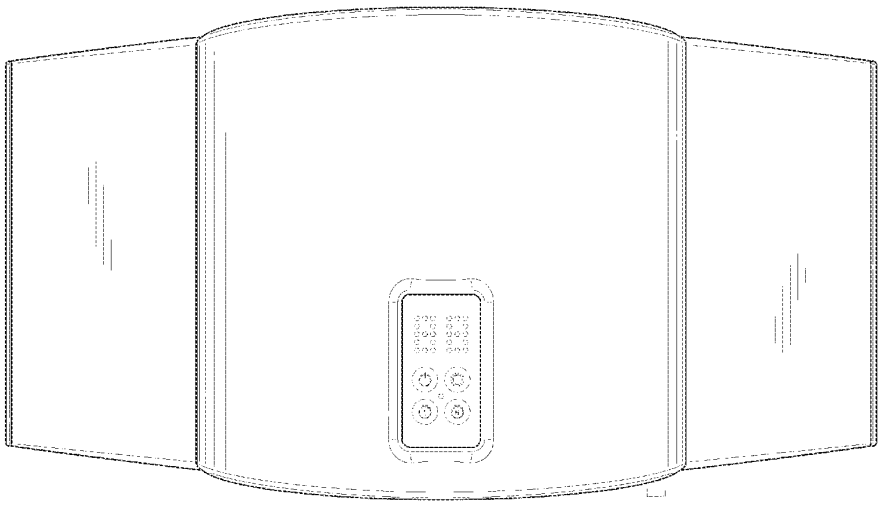
도면 1.5



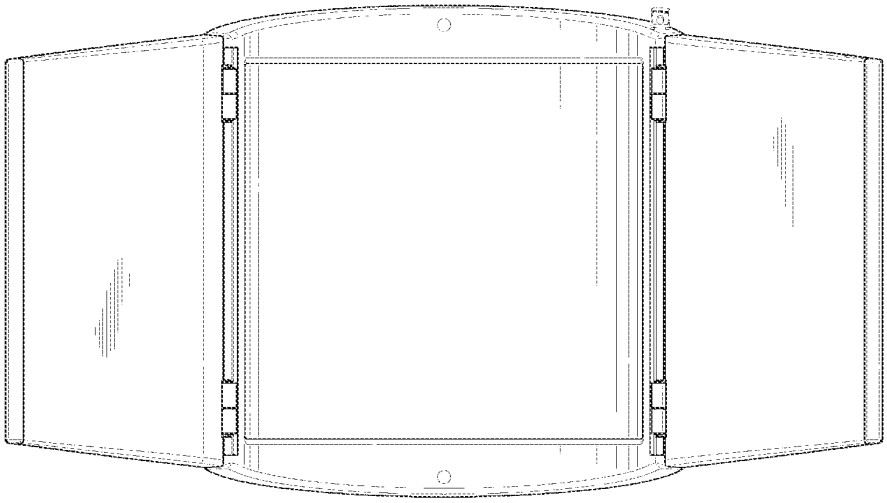
도면 1.6



도면 1.7



도면 1.8



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(54) Title: FRACTIONAL COSMETIC TREATMENT PROCESS USING A LASER OR MICRONEEDLES

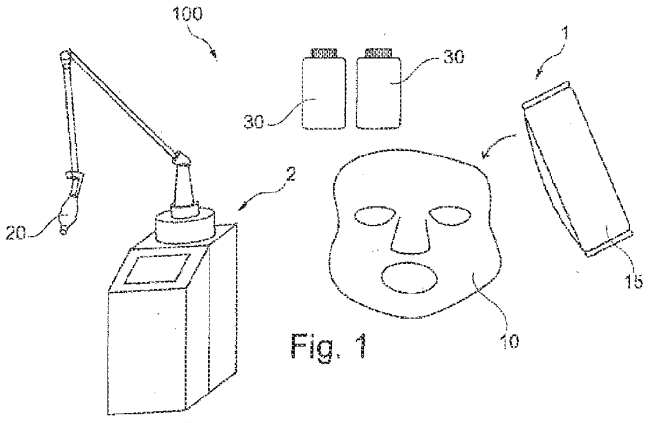


Fig. 1

(57) Abstract: The present invention relates to a cosmetic skin treatment process, for nontherapeutic purposes, comprising the following steps: -performing a fractional treatment of the skin so as to reduce the barrier function of the skin, -applying to the area to be treated or that has been treated, before, during or after the fractional treatment, an aqueous material comprising a hydrogel and/or biocellulose

WO 2012/131623 A2

Fractional cosmetic treatment process using a laser or microneedles

The present invention relates to systems and processes for treating human skin and more particularly, but not exclusively, to those for cosmetic purposes.

It is known practice to combine several skin treatments. For example, patent application US 2000/0 192 438 describes a method for rejuvenating the skin via a treatment with ultrasound and iontophoresis or electrotherapy, combined with the administration of a chromophore for cosmetic or therapeutic treatment. It is especially known practice to envisage a pretreatment step before the application to the skin of a stimulus or a composition. Patent application EP 1 281 394 describes a cosmetic skin treatment comprising the application of an exfoliant mask before a treatment with polarized light or a surface treatment using several infrared laser diodes illuminating simultaneously. Patent application EP 2 181 732 describes a method for promoting the penetration of NGF into the skin, for example with a tattoo needle or pretreatment with an exfoliant composition.

A skin pre- or post-treatment may in particular be performed before or after a laser treatment. Patent application EP 1 364 624 thus discloses a gel to be applied to the skin before a PTL (photothermolysis laser) treatment and patent application FR 2 937 548 describes the cosmetic use of a lysate of at least one microorganism of the genus *Bifidobacterium* for preparing the skin of an individual before the application of a skin surface treatment. International patent application WO 2004/103 432 relates to a face mask for treating wounds caused by a laser treatment, patent application FR 2 913 602 describes a composition, for example in gel form, for treating the skin after a cosmetic or therapeutic laser treatment, and patent application US 2008/0 183 250 concerns a device

and a method for reconstructing the skin barrier after a medical or cosmetic treatment, for example by using a hydrogel comprising cellulose-based thickeners.

Fractional skin treatments have been proposed, in order to reduce the skin barrier function and to facilitate the action of cosmetic or therapeutic active agents.

The term "fractional treatment" should be understood as meaning a painless, noninvasive discreet treatment that consists in targeting spaced-apart points so as to preserve intact areas of skin between the treated points, which will serve as a cicatrization reserve for rapid step-by-step repair starting from the areas of intact skin.

Several types of fractional treatment exist.

It is known practice to use microneedles arranged in the form of a network, which perforate the upper layers of the skin to create microholes that facilitate the penetration of active agents. For example, patent application US 2008/0 268 007 discloses a patch comprising such a biodegradable matrix of microprobes.

Another known technique is based on the use of a laser and an optical system which, for example, separates the ray emitted by a laser into a multitude of relatively fine rays that constitute a plurality of treatment points at the points of impact with the skin, said skin undergoing at each point of impact a photothermolysis that excavates a microwell, facilitating the penetration of active agents. Patent applications US 2008/0 208 179 A1 and WO 2008/053 198 describe a fractional laser treatment for reducing the skin barrier function while at the same time preserving the skin's capacity for protecting the body against infection by virtue of the numerous areas of skin left intact between the areas of impact of the laser.

Although a fractional treatment is less aggressive than a treatment on a continuous area of skin, certain devices may nevertheless cause discomfort during their application. In particular, since the fractional treatment aids the action of cosmetic or therapeutic agents across the various layers of the skin in treatment wells where the skin barrier function is reduced, these points become temporarily more sensitive to any inflammatory effects caused by the deep application of certain active agents. The application of certain compounds, for example in an acidic form, which might otherwise be beneficial, is possible only at a reduced depth with the existing fractional treatments, or even is impossible since it is too irritant.

There is consequently a need to make a fractional treatment more comfortable and/or to broaden the field of active agents that may be applied after a fractional treatment without causing excessive discomfort to the person undergoing the treatment.

The treating properties of by bio-cellulose for repairing and soothing the skin are described, for example, on pages 145-151 of the block by W. Czaja et al. *Microbial cellulose - the natural power to heal wounds*, published by Biomaterials, Elsevier Science Publishers BV, Barking, BG, vol. 27, No. 2, January 1, XP025096958, and also in patent applications EP 2 011 470 and WO 2007/091 801, but these documents do not describe the use of biocellulose combined with a fractional skin treatment, in particular a fractional laser treatment.

The invention satisfies the needs of the prior art and makes it possible both to reduce the discomfort, or even the skin irritation, caused by a fractional treatment, and to extend the list of active agents that may be applied in combination with a fractional treatment by means of a process for treating human skin, in which an aqueous material, especially a hydrogel or biocellulose, is applied to the skin before and/or after the fractional treatment.

According to one of its aspects, an object of the invention is also a cosmetic skin treatment process, not for therapeutic purposes, comprising the following steps:

- performing a fractional treatment of the skin so as to reduce its barrier function,
- applying to the area to be treated, before or during or after the fractional treatment, an aqueous material comprising or constituted by a hydrogel and/or biocellulose.

The fractional treatment may treat the epidermis, or the epidermis and the dermis.

Preferably, the material comprises or is constituted by biocellulose.

The fractional treatment may be performed using microneedles or, preferably, a laser, as is detailed hereinbelow.

An object of the invention is also an assembly comprising the material, in a hydrated form or a form to be hydrated extemporaneously, and at least one composition comprising an active agent to be applied after removing the material from the skin or serving to moisturize the material.

An object of the invention is also a material in sheet form for treating the skin, comprising a hydrogel and/or biocellulose and at least one active agent for exerting an action after a fractional skin treatment.

An object of the invention is also an assembly comprising the means for performing the fractional treatment, especially fractional laser, and at least one composition comprising an active agent to be applied to the treated skin and/or a material to be applied to the skin comprising a hydrogel and/or biocellulose.

Where appropriate, the material to be applied to the skin contains the active agent.

Material to be applied to the skin

For the purposes of the present invention, the term "aqueous material" means a cosmetically or physiologically acceptable gelled material, with a content of greater than 50% by mass of water, at least at the moment when the material is in contact with the skin.

The material may comprise between 10% and 99%, or even between 50% and 99%, or even between 51% and 99%, or even between 70% and 95% by mass of water, at least at the moment when the material is in contact with the skin.

By virtue of the substantial presence of water, the material affords an immediate soothing freshness effect, which may even be extended over time given its physicochemical characteristics, which reduces the discomfort caused by the fractional treatment, the presence of the material having a beneficial effect both on the localized heat and discomfort and/or on any redness and/or stinging produced by the fractional treatment.

Furthermore, the use of the material, especially when it comprises biocellulose, may facilitate the action of one or more active agents applied to the skin, and increase their deep-down biological effects, especially by diffusion into the epidermal or dermal microwells transiently generated by the treatment.

By means of the invention, certain active agents may be applied to the skin in concentrations which, in the absence of application of the material, would have caused greater discomfort for the person undergoing the treatment.

The invention thus enables without any surgical intervention a deep-down remodelling and regenerative action, which is, paradoxically, very well tolerated.

Very surprisingly, the invention also makes it possible to use active agents which, for example on account of their acidity, would, in the absence of application of the

material, also have caused the patient greater discomfort. By virtue of an anti-heat and anti-pain effect, the presence of the aqueous material makes it possible to diffuse these active agents in the epidermal pores temporarily generated by the laser treatment and thus to improve their deep-down beneficial biological effects.

Preferably, the material to be applied to the skin is preformed before application to the skin, i.e. it has mechanical cohesion that is sufficient to enable it to be manipulated as a single piece before being applied to the skin. This makes it possible to avoid having to manually spread a composition onto the skin at a moment when said skin may have increased sensitivity on account of the fractional treatment.

The material to be applied to the skin may be conditioned in hydrated form or may be hydrated extemporaneously. The water or the composition serving to hydrate the material may be supplied to the user with the material in dehydrated form, for example in the same conditioning.

The use of a material comprising biocellulose makes it possible to benefit from particularly advantageous effects, especially for reducing the amount of redness and stinging caused by the fractional laser treatment.

Biocellulose

Biocellulose is a material obtained by a nutrient aqueous medium, of bacteria of the genus *Acetobacter* (also known as *Gluconacetobacter*) (Z. Gromet-Elhanan, S. Hestrin, Synthesis of cellulose by Acetobacter Xylinum, J. Bacteriol. 85, 284-292, 1963; US 5 962 277).

The main species used is *Acetobacter xylinum*, although others may also produce biocellulose, for example *Acetobacter pasteurianus*.

The conditions for culturing this bacterium to produce biocellulose are known, especially from the publication Factors affecting the yield and properties of bacterial cellulose, A. Krystynowicz et al., J. Indus. Microbiol. Biotech. 29, 189-195, 2002.

JP 70393886 discloses a process for manufacturing biocellulose.

Biocellulose is in particular known for its cicatrizing properties. Thus, patent application US 2005/0 019 380 describes a dressing, especially for aesthetic purposes, comprising biocellulose.

Patent application FR 2 936 714 describes the use of a biocellulose patch comprising an energy source, in particular in LED form. Neither the use of fractional laser nor the use of microneedles is described in said document.

Biocellulose may be used in pure form or in a form combined with other types of fibre, for example fibres of natural origin, for example fibres derived from corn, hemp, flax, cotton, jute, kenaf, raffia, ramie, Panama-hat palm, sisal, rush, esparto grass, phormium, coconut, wool, silk, soya, abaca, kumazasa, persimmon, kapok, burdock, cereal or bamboo fibres.

The biocellulose fibres may be loose or bound together and/or bound to other fibres.

Biocellulose may be used in sheet form, obtained, for example, by compacting a culture of biocellulose fibres, after rinsing them.

The biocompatibility of biocellulose with the skin is ensured by a sterile manufacturing process. Preferably, the sterile biocellulose does not comprise any preserving agents. Thus, it is advantageously conditioned in sterile form, especially in a hermetically sealed case.

Hydrogel

The hydrogel may comprise a superabsorbent material. The term "superabsorbent material" means a material with a very high capacity for absorbing a liquid, and especially water. In particular, it may have the capacity of absorbing at least 15 times or even 20 or 50 times its own weight of water, for example from about 25 to 30 times.

Patent application FR 2 876 587 describes a method for determining the absorption capacity of a superabsorbent material.

The superabsorbent material may be chosen from cellulose derivatives, alginates and derivatives thereof, especially derivatives such as propylene glycol alginate, or salts thereof such as sodium alginate or calcium alginate, polyacrylic or polymethacrylic acid derivatives, polyacrylamide derivatives, polyvinylpyrrolidone derivatives and polyvinyl ether derivatives, and mixtures thereof, inter alia.

The superabsorbent material may be chosen especially from chemically modified cellulose derivatives. It may be chosen especially from carboxymethylcellulose, sodium carboxymethylcellulose, carboxymethylhydroxyethylcellulose,

carboxyethylcellulose, hydroxyethylcellulose, hydroxyethylethylcellulose, hydroxypropylcellulose, hydroxypropylmethylcellulose, methylcellulose, sodium methylcellulose, microcrystalline cellulose and sodium cellulose sulfate, and mixtures thereof.

It may also be chosen from alkyl celluloses. These polymers are obtained by grafting an alkyl residue onto one or more hydroxyl groups of the cellulose polymer to form the hydroxyalkyl derivative. These alkyl residues may be chosen from stearyl, isostearyl, lauryl, myristyl, cetyl, isocetyl, cocoyl, palmityl, oleyl, linoleyl, ricinoleyl and behenyl groups, and mixtures thereof. These hydroxyalkyl cellulose derivatives may also undergo a chemical modification with, for example, a carboxylic residue.

It may also be chosen from natural polymer derivatives, for instance gelatin and glucomannan and galactomannans polysaccharides extracted from seeds, plant fibres, fruit, marine algae, starch or plant resins, or alternatively of microbial origin. It may be chosen, for example, from agarose gum, guar gum, gum tragacanth, carrageenan gum, konjac gum, locust bean gum, gellan gum and xanthan gum, and mixtures thereof.

In one implementation example of the invention, the superabsorbent material is a chemically modified cellulose derivative, especially carboxymethylcellulose.

In one implementation example, the superabsorbent material comprises fibres. These fibres may be woven or bound together other than by weaving, for example via a bonding process used for the manufacture of nonwovens.

The fibres made of superabsorbent material may constitute at least 80% by weight, or even more, of the sheet material before impregnation with the liquid. For example, they may constitute at least 90%, or even at least 99% by weight, of the sheet material before impregnation with the liquid. The sheet material be constituted essentially of such fibres. A high proportion of fibres may facilitate the production of a visually attractive effect at the time of use, the sheet material passing from an opaque state to a translucent or transparent state.

In one variant, the hydrogel may comprise polyglutamic acid (Bio PGA solution from Ichimaru Pharcos).

Presentation

The material to be applied to the skin is preferably in sheet material form at the time of use, especially a patch or mask.

The thickness of the sheet in the hydrated state is, for example, between 0.1 mm and 5 mm. When it is desired to prolong the cutaneous heat-absorbing effect, its thickness may be increased.

The sheet, in mask or patch form, may be refrigerated before being applied to the skin.

The mask or patch may be constituted exclusively by the hydrogel or biocellulose.

In one variant, the sheet material comprises a support, for example a textile wrap or a foam made of thermoplastic material, containing the aqueous material or consolidating it.

The sheet material preferably comprises interlaced microfibrils, preferably biocellulose, the weight of which is between 1% and 10% by weight relative to the total weight of the ready-to-use hydrated sheet material.

The sheet material may be preformed or precut, for example delivered to the user in the form of a face with openings for the eyes, the nose and/or the mouth.

The sheet material may be supplied to the user in wet form, optionally impregnated with a composition containing an active agent, it merely remaining for the user to apply it to the region to be treated.

As a variant, the sheet material may have to be impregnated at the time of the use by pouring water or a composition onto it, or by placing the composition onto a region of skin and then applying the sheet material to this region of skin.

The sheet material may be conditioned in a sterile manner, individually or several together. The sheet material may especially be conditioned in individual sachets.

The sheet material to be applied to the skin may be sold to the user with the means for achieving the fractional treatment, especially with the fractional laser.

Application of the material

Preferably, the application of the material takes place at least after the fractional treatment, especially by fractional laser, and preferably intervenes within a time period after the end of the fractional treatment of less than or equal to 30 minutes, or even less than or equal to 15 minutes.

The term "end of the fractional treatment" should be understood as meaning the end of a treatment session, given that there are several sessions and that these sessions

may be repeated at time intervals of several days, for example one or two weeks, or even two weeks to one month.

The material is preferably left in place for at least 5 minutes, or even at least 10 minutes, on the skin after it has been applied. According to one implementation example of the invention, the material is left in place for between 10 and 20 minutes after a fractional treatment session. According to another example, it is left in place for between 10 and 45 minutes after a fractional treatment session.

Where appropriate, the material may also be applied before fractional treatment, and as a variant before and after fractional treatment.

In the case of an application before fractional treatment, the material is applied, for example, less than 30 minutes before, especially just before, the start of the fractional treatment, or between 5 minutes and 1 hour before, the material being left in place, for example, for between 5 and 45 minutes, or even between 10 and 20 minutes.

The zone that has undergone the fractional treatment preferably receives at least one active agent, which may benefit from a reduction of the skin barrier function in order to penetrate therein more easily. The application of the material may or may not take place in combination with the application of an active agent.

In the case where the material is applied before and after treatment, the material may contain different active agents. For example, before fractional treatment, a first material contains an active agent intended to exert a peeling action, chosen, for example, from dioic acid, vitamin C and retinol, and combinations thereof, and after fractional treatment, a second material containing a regenerative active agent, chosen, for example, from vitamin C, vitamin E and ferulic acid, and combinations thereof.

Active agents

In certain embodiments of the process according to the invention, the effect of the fractional laser treatment or other means for performing the fractional treatment may be potentiated by the application, to the treated skin, of a cosmetic composition with remodelling and/or regenerative action on the dermis and/or the epidermis and/or anti-ageing action and/or depigmenting action and/or antimicrobial action and/or antiacne action and/or calmative action.

Such a cosmetic composition comprises an active agent or a combination of active agents, the active agent(s) possibly being chosen from anti-ageing active agents,

photoprotective active agents, active agents with moisturizing or immunomodulatory properties (including hydrating or humidifying active agents), active agents for improving the natural liquid barrier, free-radical-scavenging or antioxidant active agents, active agents for stimulating the synthesis of dermal and/or epidermal macromolecules and/or for preventing their degradation, pain-attenuating active agents, regenerative active agents, surface-exfoliant active agents, anti-wrinkle active agents, tautening active agents, calmative active agents, anti-inflammatory active agents, sequestrant active agents and pH-regulating agents (acids or bases).

Among the anti-ageing active agents, mention may be made especially of food antioxidants, active agents with free-radical-scavenging properties and cofactors of antioxidant endogenous enzymes: vitamin A, carotenoids, xanthophylls, isoflavones, certain minerals such as zinc, copper, magnesium or selenium, lipoic acid, coenzyme Q10, superoxide dismutase (SOD) or taurine. Among the anti-ageing active agents, mention may be made especially of the unsaponifiable fractions extracted from lipids of plant origin, Aloe vera, native or hydrolysed marine collagen, and plant or marine oils rich in omega-3 and omega-6 fatty acids (including gamma-linolenic acid).

Among the photoprotective active agents, mention may be made especially of antioxidants and free-radical scavengers: vitamin A, carotenoids, xanthophylls, certain minerals such as zinc, copper, magnesium and selenium, coenzyme Q10, superoxide dismutase (SOD) and probiotics.

Among the active agents with hydrating or immunomodulatory properties, mention may be made of probiotics, an extract of *Polypodium leucotomos*, and plant or marine oils rich in ω-3 and ω-6 fatty acids, including gamma-linolenic acid. Humectants or moisturizers that may especially be mentioned include urea and derivatives thereof, especially 2-hydroxyethyl urea sold under the name Hydrovance® by National Starch, monosaccharides such as mannose, hyaluronic acid, AHAs, BHAs, acrylic acid homopolymers such as poly-2-(methacryloyloxyethyl)phosphorylcholine sold under the name Lipidure-HM® by the company NOF Corporation, β-glucan and in particular sodium carboxymethyl β-glucan from Mibelle-AG-Biochemistry; a polyoxybutylene polyoxyethylene polyoxypropylene glycerol, for instance PEG/PPG/polybutylene glycol-8/5/3 glycerol distributed under the name Wilbride S-753L® from NOF Corporation, a musk rose oil sold by Nestlé; collagen and chondroitin sulfate spheres of marine origin

(Atelocollagen) sold by the company Engelhard Lyon under the name Sphères de Comblement Marines; hyaluronic acid spheres such as those sold by the company Engelhard Lyon. A polyol or glycerol may also be used as moisturizing active agent.

Among the active agents for improving the natural liquid barrier, mention may be made of ceramides, ceramide derivatives, cholesteryl sulfates and/or fatty acids, and mixtures thereof. The compounds of ceramide type include natural or synthetic ceramides and/or glycoceramides and/or pseudoceramides and/or neoceramides, and derivatives thereof. Compounds of ceramide type are described, for example, in patent applications DE 4424530, DE 4424533, DE 4402929, DE 4420736, WO 95/23807, WO 94/07844, EP 0 646 572, WO 95/16665, FR 2 673179, EP 0 227 994, WO 94/07844, WO 94/24097 and WO 94/1013. Compounds of ceramide type especially include the ceramide is and/or glycoceramides whose structure is described by Downing in the Journal of Lipid Research Vol. 35, 2060-2068, 1994, or those described in French patent application FR-2 673 179. Use may also be made of specific mixtures, for instance mixtures of ceramide(s) 2 and of ceramide(s) 5 according to the Downing classification. Use may also be made of the compounds of formula (I) described in patent applications EP-A-0227994, EP-A-0 647 617, EP-A-0 736 522 and WO 94/07844. Such compounds are, for example, Questamide H (bis(N-hydroxyethyl-N-cetyl)malonamide) sold by the company Quest, and cetylic acid N-(2-hydroxyethyl)-N-(3-cetyloxy-2-hydroxypropyl)amide. Use may also be made of N-docosanoyl-N-methyl-D-glucamine described in patent application WO 94/24097. Use may also be made of the compound of general formula (II) described in patent applications EP A-500 437 and EP A-547 617. The compounds of ceramide type include N-oleoyldihydrosphingosine or N-2-hydroxypalmitoyldihydrosphingosine, and preferably N-2-hydroxypalmitoyldihydrosphingosine.

Preferred antioxidants that may be mentioned more particularly include tocopherol and esters thereof, in particular tocopheryl acetate; EDTA, ascorbic acid and derivatives thereof, in particular magnesium ascorbyl phosphate and ascorbyl glucoside; chelating agents, such as BHT, BHA and N,N'-bis(3,4,5-trimethoxybenzyl)ethylenediamine and salts thereof, and mixtures thereof. Among the free-radical scavenging or antioxidant active agents, mention may be made of polyphenols and in particular flavonoids, flavonols, anthocyanidins and flavanols. Among the

polyphenols of interest, mention may be made of chlorogenic acid, procyanidins B1 and B2, epicatechin, phloretin, phloridzin (glycosyl derivative of phloretin), hesperidin, neohesperidin, hespercetin and p-coumaric acid. An antioxidant complex comprising vitamins C and E, and at least one carotenoid, especially a carotenoid chosen from β-carotene, lycopene, astaxanthin, zeaxanthin and lutein, flavonoids such as catechins, hesperidin, proanthocyanidins and anthocyanins, lipoic acid and coenzyme Q10 may be used in particular.

As active agents for stimulating the synthesis of dermal and/or epidermal macromolecules and/or for preventing their degradation, mention may be made of: peptides extracted from plants, such as the soybean hydrolysates sold by the company BASF Beauty Care Solutions under the trade name Phytokine® the malt extract as sold under the trade name Collalift® by the company Engelhard Lyon; rice peptides such as Nutripeptide® from Silab, or alternatively a rice peptide extract such as Colhibin® Pentapharm DSM, methylsilanol mannuronate such as Algisium C® sold by Exsymol; an extract of *Vaccinium myrtillus* such as the products described in patent application FR-A-2 814 950; the lupin extract sold by the company Silab under the trade name Structurine®, and mixtures thereof.

As pain-attenuating active agents, use may be made of an extract of Iris, a spring water (including la Roche Posay spring water), lidocaine, prilocaine and a mixture of lidocaine and prilocaine.

As regenerative active agents, use may be made of vitamin C, retinol or a retinol derivative.

As surface exfoliants, use may be made of salicylic acid, lactic acid, dioic acid or octadecenedioic acid, glycolic acid, mandelic acid, capryloylsalicylic acid, jasmonic acid, urea or 5-n-octanoylsalicylic acid.

As anti-wrinkle active agents, use may be made of desquamating agents; antiglycation agents; NO-synthase inhibitors; agents for stimulating the synthesis of dermal or epidermal macromolecules and/or for preventing their degradation; agents for stimulating fibroblast and/or keratinocyte proliferation; agents for stimulating or reducing keratinocyte differentiation; muscle relaxants and/or dermo-decontracting agents; free-radical scavengers; and mixtures thereof.

Examples of such compounds are: adenosine, retinol and derivatives thereof such as retinol palmitate, ascorbic acid and derivatives thereof, such as magnesium ascorbyl phosphate and ascorbyl glucoside; tocopherol and derivatives thereof, such as tocopheryl acetate; nicotinic acid and precursors thereof, such as nicotinamide; ubiquinone; glutathione and precursors thereof, such as L-2-oxothiazolidine-4-carboxylic acid; C-beta-D-xylopyranoside-2-hydroxypropane as described especially in patent application EP-1 345 919; plant extracts and especially extracts of sea fennel and of olive leaf, and also plant proteins and hydrolysates thereof, such as rice or soybean protein hydrolysates; algal extracts and in particular laminaria extracts; bacterial extracts; sapogenins, such as diosgenin and extracts of Dioscorea plants, in particular of wild yam, containing the same; α-hydroxy acids; β-hydroxy acids such as salicylic acid and 5-n-octanoylsalicylic acid; oligopeptides and pseudodipeptides and acyl derivatives thereof, in particular {2-[acetyl-(3-trifluoromethylphenyl)amino]-3-methylbutyrylamino}acetic acid, hyaluronic acid fragments, sphingosines such as salicyloylphytosphingosine; and mixtures thereof.

The term "tautening agent" that may be used in a cosmetic composition according to the invention means compounds liable to have a tautening effect, i.e. being able to make the skin taut. Such compounds are described, for example, in patent EP 2 026 882.

Examples of additional anti-wrinkle active agents that may be used according to the invention are: ascorbic acid and derivatives thereof, such as magnesium ascorbyl phosphate and ascorbyl glucoside; tocopherol and derivatives thereof, such as tocopheryl acetate; nicotinic acid and precursors thereof, such as nicotinamide; ubiquinone; glutathione and precursors thereof, such as L-2-oxothiazolidine-4-carboxylic acid; C-glycoside compounds and derivatives thereof, as especially described below; plant extracts and especially extracts of sea fennel and of olive leaf, and also plant proteins and hydrolysates thereof, such as rice or soybean protein hydrolysates; algal extracts and in particular laminaria extracts; bacterial extracts; sapogenins, such as diosgenin and extracts of Dioscorea plants, in particular of wild yam, containing the same; α-hydroxy acids; β-hydroxy acids such as salicylic acid and 5-n-octanoylsalicylic acid; oligopeptides and pseudodipeptides and acyl derivatives thereof, in particular {2-[acetyl-(3-trifluoromethylphenyl)amino]-3-methylbutyrylamino}acetic acid and the lipopeptides sold

by the company Sederma under the trade names Matrixyl 500 and Matrixyl 3000; lycopene; manganese and magnesium salts, in particular the gluconates; and mixtures thereof.

As calmatives that may be used in the composition used according to the invention, mention may be made of pentacyclic triterpenes and plant extracts (e.g.: Glycyrrhiza glabra) containing the same, for instance β-glycyrrhetinic acid and salts and/or derivatives thereof (glycyrrhetinic acid monoglucuronide, stearyl glycyrrhetinate, 3-stearoyloxyglycyrrhetic acid), ursolic acid and salts thereof, oleanolic acid and salts thereof, betulinic acid and salts thereof, an extract of Paeonia suffruticosa and/or lactiflora, salicylic acid salts and in particular zinc salicylate, phycosaccharides from the company Codif, an extract of Laminaria saccharina, canola oil, bisabolol and extracts of camomile, allantoin, Sepivital EPC (phosphoric diester of vitamins E and C) from SEPPIC, omega-3 unsaturated oils such as musk rose oil, blackcurrant oil, ecchium oil, fish oil, plankton extracts, capryloylglycine, Seppicalm VG (sodium palmitoylproline and Nymphea alba) from SEPPIC, an extract of Pygeum, an extract of Boswellia serrata, an extract of Centipeda cunninghami, an extract of Helianthus annuus, an extract of Linum usitatissimum, tocotrienols, extracts of Cola nitida, piperonal, an extract of clove, an extract of Epilobium angustifolium, Aloe vera, an extract of Bacopa moniera, phytosterols, cortisone, hydrocortisone, indomethacin and betamethasone.

As anti-inflammatory active agents, use may be made of glycyrrhetic acid, KPV tripeptide or a derivative of KPV tripeptide, a phycosaccharide, an extract of rose, vitamin B3, procysteine or L-2-oxothiazolidine-4-carboxylic acid.

As sequestrant active agents, use may be made of polyaspartic acid or a salt thereof, a cellulose derivative (e.g. carboxymethylcellulose), copolymers containing hydroxysuccinic acid monomer units and maleic acid monomer units, or salts thereof.

As acid pH-regulating agent, use may be made of citric acid, lactic acid, malic acid, glycolic acid, mandelic acid or salicylic acid.

As base pH-regulating agent, use may be made of disodium phosphate or sodium hydroxide.

As active agents that are conventionally used in a cosmetic composition of the invention, mention may be made of vitamins B3, B5, B6, B8, C, D, E and PP, niacin, carotenoids, polyphenols, minerals and trace elements, phytoestrogens, proteins and amino

acids, mono- and polysaccharides, amino sugars, phytosterols and triterpenic alcohols of plant origin.

The minerals and trace elements that may be included in a cosmetic composition used according to the invention include the products zinc, calcium, magnesium, copper, iron, iodine, manganese, selenium and chromium (III).

Among the polyphenols, polyphenols from grape, from tea, from olive, from cocoa, from coffee, from apple, from blueberry, from elderberry, from strawberry, from cranberry and from onion are also selected in particular. Preferably, among the plant oestrogens, isoflavones in free or glycosylated form, such as genistein, daidzein or glycitein, or lignans, in particular those from flax and from Schizandra chinensis, are selected.

A cosmetic composition according to the invention may also comprise amino acids or peptides and proteins containing them, such as taurine, threonine, cysteine, tryptophan and methionine.

A cosmetic composition according to the invention may also comprise a lipid or a mixture of lipids. The lipids preferably belong to the group of oils containing monounsaturated and polyunsaturated fatty acids, such as oleic acid, linoleic acid, alpha-linolenic acid, gamma-linolenic acid, stearidonic acid, long-chain fish omega-3 fatty acids such as EPA and DHA, and conjugated fatty acids derived from plants or animals such as CLA (conjugated linoleic acid).

A cosmetic composition according to the invention may also comprise one or more active agents chosen from a prebiotic or a mixture of prebiotics. More particularly, these prebiotics may be chosen from oligosaccharides, produced from glucose, galactose, xylose, maltose, sucrose, lactose, starch, xylan, hemicellulose, inulin, gums of acacia type, for example, or a mixture thereof.

More particularly, the oligosaccharide comprises at least one fructo-oligosaccharide. More particularly, this prebiotic may comprise a mixture of fructo-oligosaccharide and of inulin.

In the topical galenical forms, it is more particularly possible to use as hydrophilic active agents proteins or protein hydrolysates, amino acids, polyols, especially of C_2 to C_{10}, for instance glycerol, sorbitol, butylene glycol or polyethylene glycol, urea,

allantoin, sugars and sugar derivatives, water-soluble vitamins, starch, and bacterial or plant extracts, for instance those from Aloe vera.

As regards the lipophilic active agents, retinol (vitamin A) and derivatives thereof, tocopherol (vitamin E) and derivatives thereof, ceramides, essential oils and unsaponifiable materials (tocotrienol, sesamine, gamma-oryzanol, phytosterols, squalenes, waxes and terpenes) may be used.

It is also advantageously possible to combine the product with active agents that are capable of acting:

- either directly on desquamation by promoting exfoliation, such as β-hydroxy acids, in particular salicylic acid and derivatives thereof (including 5-n-octanoylsalicylic acid); α-hydroxy acids, such as glycolic acid, citric acid, lactic acid, tartaric acid, malic acid or mandelic acid; urea and certain derivatives thereof; gentisic acid; oligofucoses; cinnamic acid; dioic acid, extract of *Saphora japonica*; resveratrol, detergents and certain jasmonic acid derivatives;
- and/or on the activities of enzymes involved in the degradation of corneodesmosomes, such as stratum corneum chymotryptic enzyme (SCCE), or even other proteases (trypsin-like, chymotryptic-like, cathepsin D) and also other categories of hydrolases (e.g.: glycosidases, ceramidases). Mention may be made of mineral salt chelating agents such as EDTA; N-acyl-N,N',N'-ethylenediaminetriacetic acid; aminosulfonic compounds and in particular (N-2-hydroxyethylpiperazine-N-2-ethane)sulfonic acid (HEPES); 2-oxothiazolidine-4-carboxylic acid (procysteine) derivatives; derivatives of alpha-amino acids of glycine type (as described in EP 0 852 949, and also sodium methyl glycine diacetate sold by BASF under the trade name Trilon M®); honey; sugar derivatives such as O-octanoyl-6-D-maltose and N-acetylglucosamine; urea certain derivatives thereof, for example Hydrovance; C-glycoside derivatives.

A cosmetic composition that is useful for performing the process according to the invention may, in certain embodiments, comprise one or more proteins and/or one or more peptides that are capable of preventing and/or treating the signs of ageing of the skin, such as plakoglobin or peptides derived from this protein, the protein HSP 27 (heat shock protein 27, also known as HSPB1 in man) or peptides derived from this protein, the protein lacritin or peptides derived from this protein, the protein CLSP (calmodulin-like

skin protein) or peptides derived from this protein, and the protein desmoglein I (or DGI) or peptides derived from this protein.

A cosmetic composition that is useful for performing the process according to the invention may, in certain embodiments, comprise one or more probiotic microorganisms, such as microorganisms of the genus *Bifidobacterium* or *Lactobacillus*, or a lysate or a fraction derived from the said microorganisms. By way of illustration, the microorganisms of the genus *Bifidobacterium* may be chosen from the following species: *Bifidobacterium longum*, *Bifidobacterium bifidum*, *Bifidobacterium breve*, *Bifidobacterium animalis*, *Bifidobacterium lactis*, *Bifidobacterium infantis*, *Bifidobacterium adolescentis*, *Bifidobacterium pseudocatenulatum* and mixtures thereof. By way of illustration, the microorganisms of the genus *Lactobacillus* may be chosen from the following species: *Lactobacillus johnsonii*, *Lactobacillus paracasei*, *Lactobacillus reuteri*, *Lactobacillus rhamnosus* and mixtures thereof.

Other microorganisms or extracts of microorganisms, especially of *Vitreoscilla filiformis*, may be used for their properties for stimulating antimicrobial defences and/or stimulating the endogenous antioxidant defences, for instance SOD2.

The cosmetic compositions according to the invention may be in any galenical form normally available for the selected mode of administration.

The cosmetic compositions according to the invention, which are intended for topical application, may be aqueous, aqueous-alcoholic or oily solutions, dispersions of the solution type or dispersions of the lotion or serum type, emulsions of liquid or semi-liquid consistency of the milk type, obtained by dispersing a fatty phase in an aqueous phase (O/W), or vice versa (W/O), or suspensions or emulsions of soft, semi-solid or solid consistency of the cream type, emulsified or clear, aqueous-alcoholic nonaqueous-alcoholic aqueous or anhydrous gels, microemulsions, microcapsules, microparticles and nanoparticles, or vesicular dispersions of ionic and/or nonionic type.

These compositions are prepared according to the usual methods.

When the composition of the invention is an emulsion, the proportion of the fatty phase may range from 5% to 80% by weight and preferably from 5% to 50% by weight relative to the total weight of the composition. The oils, emulsifiers and coemulsifiers used in the composition in emulsion form are chosen from those conventionally used in cosmetics and/or dermatology. The emulsifier and the coemulsifier

may be present in the composition in a proportion ranging from 0.3% to 30% by weight and preferably from 0.5% to 20% by weight relative to the total weight of the composition.

When the composition of the invention is an oily solution or gel, the fatty phase may represent more than 90% of the total weight of the composition.

In a known manner, galenical forms intended for topical administration may also contain adjuvants that are common in the cosmetic, pharmaceutical and/or dermatological field, such as hydrophilic or lipophilic gelling agents, hydrophilic or lipophilic active agents, preserving agents, antioxidants, solvents, fragrances, fillers, screening agents, bactericides, odor absorbers and dyestuffs. The amounts of these various adjuvants are those conventionally used in the field under consideration, for example from 0.01% to 20% of the total weight of the composition. Depending on their nature, these adjuvants may be introduced into the fatty phase and/or into the aqueous phase.

As fatty substances that may be used in the invention, mention may be made of mineral oils, for instance hydrogenated polyisobutene and liquid petroleum jelly, plant oils, for instance a liquid fraction of shea butter, sunflower oil and apricot kernel oil, animal oils, for instance perhydrosqualene, synthetic oils, especially purcellin oil, isopropyl myristate and ethylhexyl palmitate, unsaturated fatty acids and fluoro oils, for instance perfluoropolyethers. It is also possible to use fatty alcohols, fatty acids, for instance stearic acid, and, for example, waxes, especially paraffin wax, carnauba wax and beeswax. It is also possible to use silicone compounds, for instance silicone oils and for example cyclomethicone and dimethicone, and silicone waxes, resins and gums.

As emulsifiers that may be used in the invention, mention may be made, for example, of glyceryl stearate, polysorbate 60, the mixture of cetylstearyl alcohol/cetylstearyl alcohol oxyethylenated with 33 mol of ethylene oxide sold under the name Sinnowax AO® by the company Henkel, the mixture of PEG-6/PEG-32/glycol stearate sold under the name Tefose® 63 by the company Gattefosse, PPG-3 myristyl ether, silicone emulsifiers such as cetyl dimethicone copolyol, and sorbitan monostearate or tristearate, PEG-40 stearate and oxyethylenated (20 EO) sorbitan monostearate.

As solvents that may be used in the invention, mention may be made of lower alcohols, for instance ethanol, isopropanol and propylene glycol.

A composition of the invention may also advantageously contain a spring and/or mineral water, chosen especially from Vittel water, waters from the Vichy basin and la Roche Posay water.

Hydrophilic gelling agents that may be mentioned include carboxylic polymers such as carbomer, acrylic copolymers such as acrylate/alkyl acrylate copolymers, polyacrylamides and especially the mixture of polyacrylamide, C13-14 isoparaffin and laureth-7 sold under the name Sepigel 305® by the company SEPPIC, polysaccharides, for instance cellulose derivatives such as hydroxyalkyl celluloses and in particular hydroxypropyl cellulose and hydroxyethyl cellulose, natural gums such as guar gum, locust bean gum and xanthan gum, and clays.

Lipophilic gelling agents that may be mentioned include modified clays, for instance bentones, metal salts of fatty acids, for instance aluminium stearates and hydrophobic silica, or else ethyl cellulose and polyethylene.

In a known manner, a cosmetic composition may also contain adjuvants that are common in the cosmetics field, such as hydrophilic or lipophilic gelling agents, hydrophilic or lipophilic additives, preserving agents, antioxidants, solvents, fragrances, fillers, screening agents, odour absorbers and dyestuffs, surfactants, polymers, oils, emollients, thickeners or complexing agents, this list not being limiting.

The amounts of the various constituents of the compositions according to the invention are those conventionally used in the fields under consideration.

In certain advantageous embodiments, a cosmetic composition suitable for implementation of the process according to the invention comprises at least one active agent chosen from Pro-Xylane® (C-beta-D-xylopyranoside-2-hydroxypropane), jasmonic acid, hydroxyjasmonic acid, Prolastyl® ({2-acetyl-3-trifluoromethylphenyl)amino)-3-methylbutyrylamino}acetic acid), resveratrol, resveratrol glucoside, ferulic acid, phloretin, a ceramide, acetyl trifluoromethylphenyl valyl glycine, vitamin C, ethylvitamin C, vitamin E, hesperidin and neohesperidin.

In certain embodiments, the said cosmetic composition comprises a combination of vitamin C, vitamin E and ferulic acid. In these embodiments, the said cosmetic composition is preferentially in the form of a solution. A cosmetic composition of this type may comprise at least 10% by weight of vitamin C, at least 0.5% by weight of vitamin E and at least 0.1% by weight of ferulic acid, relative to the total weight of the

composition.

According to one implementation example of the invention, the application of the aqueous material after fractional treatment takes place at the same time as the application of the cosmetic or dermatological active agent, for example by means of a sheet material containing both the hydrogel and/or biocellulose and the active agent being applied to the zone that has undergone the fractional treatment.

For example, a biocellulose mask is applied to the skin after fractional treatment, this biocellulose mask containing at least one cosmetic or dermatological active agent, for example a cosmetic composition comprising a combination of vitamin C, vitamin E and ferulic acid.

According to a preferred implementation example of the invention, the fractional treatment, especially by fractional laser, is performed, and the aqueous material is then applied and, after removing the material, the active agent is applied.

In one alternative or additional variant of the topical application of an active agent, the process according to the invention comprises the oral intake of a food additive and/or a probiotic intended to have a cosmetic action, for example skin-regenerative and/or anti-ageing and/or calmative action, this list not being limiting.

The microorganisms that are suitable for use in the invention are microorganisms that may be administered without risk to man or animals. Among the non-probiotic microorganisms mention is made of the *Vitreoscilla filiformis* bacteria especially as described in patent applications FR 2 879 452 and FR 2 914 189. In particular, use may be made in the present invention of at least one microorganism of "probiotic" type, i.e. a live microorganism which, when consumed in adequate amount, has a positive effect on the health of its host (*Joint FAO/WHO Expert Consultation on Evaluation of Health and Nutritional Properties of Probiotic in Food Including Powder Milk with Live Lactic Acid Bacteria, October 6, 2001*), and which may in particular improve the intestinal microbial equilibrium.

Specific examples of probiotic microorganisms are *Bifidobacterium bifidum, Bifidobacterium infantis, Bifidobacterium longum, Lactobacillus acidophilus, Lactobacillus alimentarius, Lactobacillus casei subsp. Casei, Lactobacillus casei Shirota, Lactobacillus paracasei, Lactobacillus curvatus, Lactobacillus delbruckii subsp. Lactis, Lactobacillus gasseri, Lactobacillus johnsonii, Lactobacillus reuteri, Lactobacillus*

rhamnosus (Lactobacillus GG), Lactobacillus sake, Lactococcus lactis, Streptococcus thermophilus, Staphylococccus carnosus, and *Staphylococcus xylosus*, and mixtures thereof.

The microorganisms may be formulated in the form of powders, i.e. in a dry form, or in the form of suspensions or solutions.

If necessary, these microorganisms may be formulated within the compositions according to the invention in an encapsulated form so as to significantly improve their survival time. In such a case, the presence of a capsule may in particular retard or prevent the degradation of the microorganism in the gastrointestinal tract.

The species that are most particularly suitable for use are *Lactobacillus johnsonii, Lactobacillus paracasei, Bifidobacterium adolescentis* and *Bifidobacterium longum*, which were deposited, respectively, according to the treaty of Budapest, at the Institut Pasteur (28, rue du Docteur Roux, F-75024 Paris cedex 15) on 06/30/92, 01/12/99, 04/15/99 and 04/15/1999 under the following designations CNCM I-1225, CNCM I-2116, CNCM I-2168 and CNCM I-2170, and the species *Bifidobacterium lactis* (Bb 12) (ATCC27536) or *Bifidobacterium longum* (BB536). The strain of *Bifidobacterium lactis* (ATCC27536) may be obtained from Hansen (Chr. Hansen A/S, 10-12 Boege Alle, P.O. Box 407, DK-2970 Hoersholm, Denmark).

The composition may comprise at least two microorganisms, especially probiotic microorganisms, and/or various metabolites and/or fractions.

In the particular case of compositions that are to be administered orally, the concentration of microorganism(s), especially probiotic microorganisms, may be adjusted so as to correspond to doses (expressed as microorganism equivalents) ranging from 5×10^5 to 10^{13} cfu/day and in particular from 10^7 to 10^{11} cfu/day.

The microorganism(s) may be included in the composition according to the invention in a live, semi-active or inactivated, dead form.

For ingestion, numerous embodiments of oral compositions and especially of food supplements are possible. They are formulated via the usual processes for producing coated tablets, gel capsules, gels, emulsions, tablets, capsules or solutions. In particular, the active agent(s) according to the invention may be incorporated into any other form of food supplements or enriched foods, for example food bars, or compacted or non-

compacted powders. The powders may be diluted with water, in soda, dairy products or soybean derivatives, or may be incorporated into food bars.

The active agents according to the invention may be formulated with the usual excipients and components for such oral compositions or food supplements, i.e. especially fatty and/or aqueous components, humectants, thickeners, preserving agents, texture agents, taste agents and/or coating agents, antioxidants, preserving agents and dyes that are common in the food sector.

According to another of its aspects, a subject of the invention is also a cosmetic skin treatment process, not for therapeutic purposes, following a fractional skin treatment, comprising the following steps:

- applying to the area to be treated, after the fractional treatment, especially by fractional laser, a material comprising a hydrogel and/or biocellulose,
- applying to the area to be treated, optionally in combination with the application of the material, an active agent preferably having epidermal and/or dermal regenerative action, depigmenting action, antiacne action, action intended to make the hair grow, hair-removing action, antidandruff action when it is on the scalp, exfoliants action, calmative action, stimulating the action on epidermal and/or dermal moisturization, especially hyaluronane synthase, inhibitory action on hyaluronidases and dermal regenerative or protective action especially by activating collagen and elastin syntheses and/or collagenase and elastase inhibitors and/or activating tissue and endogenous inhibitors of these proteases, or slimming action, the active agent being chosen especially from those described above.

Fractional treatment

Microneedles

The fractional treatment may be performed using microneedles. The microneedles may be solid (hollow or not hollow), for the purpose of microperforation, or soluble, enabling the ends to break off after perforation and formation of microimplants with gradual dissolution over time.

The microneedles may thus comprise an orifice for administering a composition containing an active agent as described above, or may be devoid of an orifice, the active agent then being deposited onto the surface of the microneedles as described in

WO 2007/061 964. The microneedles may also be used as skin microperforators, facilitating the subsequent application of one or more active agents.

Soluble microneedles are described in the publications WO 2004/000 389, US 6 945 952, WO 2004/024 224, JP 2005/154321, WO 2007/023 167, US 2005/0 065 463 and WO 03/092 785. The constituent material of the microneedles which is claimed in JP 2005/154 321 is a mixture of maltose with a dextran or trehalose. WO 2007/023 167 describes microneedles based on a copolymer of lactic and glycolic acids. In this case, the constituent material acts solely as the inert excipient, intended to promote the release of the active agent. US 2005/0 065 463 especially teaches that the active agent is dispersed in the sugar matrix, preferentially homogeneously. WO 03/092 785 describes a combination of calcium phosphate with certain sugars to form microneedles in order to incorporate into the calcium phosphate pores biologically active molecules.

Laser

Very preferentially, the laser is preferred for performing the fractional treatment.

A fractional laser affects the surface of the stratum corneum so as to create by local photothermolysis a plurality of spaced-apart pores in the upper layers of the skin.

Preferably, the fractional laser is non-ablative, this type of laser also been known as a remodelling fractional laser.

After the fractional treatment, the skin conserves its capacity to fight off infection. The increase in the permeability of the skin associated with the formation of the microwells by laser is reversible. The permeability may, for example, be increased for at least 1 hour, or even 2 hours, 6 hours, 12 hours, 1 day, 2 days or 5 days.

To fractionate the impacts and space them out over the skin, preferably evenly spaced, the laser may comprise a motorised scanner that comprises one or more rotary mirrors whose rotation speed causes scanning of the laser spot.

Depending on the fractional laser used, the scanning may take place along different paths: circular, rectangular or square scanning, or random scanning.

The fractional laser treatment may comprise several successive passes of the laser over a given area so as to obtain better homogeneity of the treatment. On each pass, new points of impact are created, spaced from the previous points of impact.

An example of a non-ablative fractional laser is the machine sold by the company Solta under the brand name Fraxel re:store® Dual (1927 nm).

Examples of fractional lasers are described in patent application US 2008/0 208 179 A1, especially in paragraphs [0104] to [0116]. The values indicated in these passages are applicable to the present invention.

The wavelength of the fractional laser is preferably in the IR range and may especially be between 1100 nm and 2500 nm. In implementation examples of the invention, the wavelength is equal to 1410 nm, 1435 nm, 1550 nm or 1927 nm.

The treatment depth may be between 200 µm and 1.4 mm, better still 700 µm and 1.4 mm. The treatment depth is, for example, about 555 µm, 794 µm or 1120 µm.

A greater treatment depth and wider wells are obtained when the light power is stronger. The size of a microwell ranges, for example, from 0.5 µm in diameter to 500 µm in diameter. Preferably, the size ranges from 50 to 350 µm.

The density of the microwells (also known as pores) created by the fractional treatment is, for example, between 100 and 10 000 microwells per cm^2 and better still between 100 and 2000.

The irradiance, which measures the power density received by the skin to be treated, is preferably between 25 kW/cm^2 and 4 MW/cm^2.

The fluence of the laser treatment, which measures the energy density received on the area of skin to be treated, is preferably between 4 kJ/cm^2 and 160 kJ/cm^2.

The energy of a laser pulse to create a microwell ranges, for example, from 0.1 mJ to 50 mJ.

In one preferred example, the laser is a Fraxel re:store® Dual laser user with a wavelength of 1927 nm and a power per pulse of 10 mJ.

According to one aspect of the invention, the fractional treatment, when it is performed using a fractional laser, may comprise the step consisting in emitting the laser radiation through a thickness of the aqueous material, especially biocellulose.

The choice of the thickness of the material through which the laser radiation passes may be made, for example, as a function of the power of the laser radiation and of the desired treatment depth.

Thus, for thin skin, the thickness of the material may be, for equivalent laser power, increased so as to reduce the penetration of the laser radiation into the skin.

Several sheet materials of different thicknesses may be proposed to the user in order to enable him to choose the thickness that is suitable for the treatment to be performed.

Treated areas

The invention makes it possible to treat the face, especially the area around the eyes, the cheeks, the lips or any other part of the body, especially the neckline or the hands, and also thinned areas of the scalp, or the armpits.

Treatment system

An object of the invention is also a treatment system for performing a process according to the invention, comprising a treatment assembly comprising the material to be applied to the skin, either in hydrated form or in a form to be hydrated extemporaneously, and a means for performing the fractional treatment, for example microneedles or a fractional laser. For example, the fractional laser is proposed to the user with the hydrogel and/or the active agent within the same conditioning.

Additional light treatment

The area of skin that has undergone the fractional treatment may be exposed to a light treatment that does not generate any significant increase in the temperature of the skin.

This light treatment may also be performed before the fractional treatment.

Preferably, the light is monochromatic at ± 10 nm, preferably with a wavelength of 592 nm ± 10 nm.

The fluence of the additional light treatment is, for example, less than or equal to 5 J/cm^2 and better still 0.5 J/cm^2.

The light power received, excluding the fractional treatment, on the area of treating skin is, for example, between 1 mW/cm^2 and 50 mW/cm^2. The light may be emitted in pulsed manner, the duration of each light pulse being between 100 and 250 milliseconds.

The pulsed light may comprise, for example, 100 pulses of 250 ms of light, with 100 ms of extinction between each pulse, over a treatment phase of at least 30 seconds, for example 35 seconds.

This additional treatment may be performed by placing in front of the area to be treated one or more light sources which emit at the desired wavelength, for example

several LEDs arranged on a panel placed in front of the area to be treated, without coming into contact with it.

The treatment may also be performed with a device brought very close to the area to be treated, for example forming a mask or patch to be placed in contact with the area to be treated and comprising an artificial source of electromagnetic energy, so as to submit the skin to such a light radiation, in particular one or more electroluminescent components such as pulsed or non-pulsed LED or OLED diodes. The use of OLED may make it possible to produce a flexible support that is capable of conforming to the relief of the area to be treated.

The emission of light may take place through the sheet material comprising or constituted by the hydrogel.

Independently of or in combination with the foregoing, a subject of the invention is thus also, according to another of its aspects, a device to be applied to the skin (including the lips), comprising:

- a source of light energy integrated into the device,
- a sheet material comprising biocellulose, in particular constituted by biocellulose, to be brought into contact with the skin.

The source of light energy may comprise at least one electroluminescent component of LED or OLED type, as mentioned above.

The invention may be better understood from reading the following detailed description of non-limiting implementation examples thereof, and with reference to the attached drawing, in which:

- Figure 1 shows an example of a treatment system according to the invention,
- Figure 2 shows various cross sections of sheet materials,
- Figure 3 shows a face undergoing fractional laser treatment,
- Figure 4 shows the detail IV of Figure 3, and
- Figure 5 shows, in partial diagrammatic cross section, in example of sheet material intended to be applied against the area of skin to be treated.

The treatment system 100 shown in Figure 1 is a system of professional type comprising a laser 2 comprising a treatment head 20, and a treatment kit 1 comprising an aqueous material, for example a hydrogel, in the form of a sheet material 10 preferably

constituted by biocellulose and at least one composition in at least one container 30, comprising at least one active agent to be applied before and/or after the fractional laser treatment.

The treatment head 20 is connected to a fixed post, for example via an articulated arm or a gooseneck enabling it to be oriented easily toward the area to be treated. The fixed post may comprise a selector for choosing between several types of treatment, which differ, for example, by the intensity, the wavelength or the duration.

The laser 2 is, for example, a Fraxel ® re:store® Dual laser from the company Solta.

In the example of Figure 1, the sheet material 10 is a mask precut in the shape of a face, which is contained beforehand in a sterile sachet 15 in hydrated form.

Figure 2 shows other examples of sheet materials 10 corresponding to the treatment of a hand or a neckline.

The composition(s) contained in the container(s) 30 are intended to be used either before the fractional treatment to prepare the skin, or immediately after the fractional treatment and the application of the sheet material, or alternatively to hydrate the sheet material 10.

In one variant, not shown, the laser 2 is adapted for domestic use.

The laser treatment head 20 optionally comprises a positioning means for holding the optical system at a constant nonzero distance from the skin.

For the treatment, the laser head performs, on each pass over an area, a sweep of the laser beam over the skin, the user performing one or more passes over each area.

The passage over an area may leave on the skin regular red points, materializing the points of laser impact.

Figure 3 shows a face undergoing fractional laser treatment. Only part of the areas has already been treated. In the illustrated example, the treatment takes place in each area by means of a scan delimited by a rectangle.

Figure 4 shows that the microwells p of each area are separated after a passage by a nonzero spacing l.

Figure 5 shows in partial cross section a sheet material variant comprising an electroluminescent component 50 of OLED type and a substrate 11 comprising or constituted by biocellulose or a hydrogel.

The component 50 preferably emits at 592 nm ± 10 nm, in a pulsed manner, as described above.

The emitted light reaches the skin through the substrate 11, due to its transparency.

EXAMPLES

Example 1

According to this example, the routine below comprising the following successive steps is performed several times, for example between 4 and 6 times:

a) treatment for 3 to 30 minutes of the face, especially of pigmentation marks, wrinkles or acne, using a Fraxel Clear + Brilliant 1435 nm, 3W, 4-9 mJ laser,

b) application of a hydrated biocellulose mask, for example an XCell patch from Xylos, for 15 minutes. The mask it is applied for less than 30 minutes, preferably immediately after the end of the laser treatment.

In one variant, the mask has a water content of greater than 90% and is made from a sheet of biocellulose obtained by static fermentation in aerobic medium of a strain of *Acetobacter Xylinum* (strain ATCC23767). The biocellulose plaque obtained after fermentation is rinsed with distilled water, washed with a dilute solution and then neutralized with an acetic acid solution. After rinsing with distilled water, the biocellulose plaque is in the form of a sheet about 2 mm thick. The biocellulose then undergoes sterilization with humid heat in an autoclave at 121°C for 20 minutes. After removing the mask, application of an antioxidant solution I containing 10% to 20% (by mass) of vitamin C combined with 0.5% to 2% of vitamin E and 0.1% to 1% of ferulic acid.

The treatment a) to c) above may be completed by the daily or twice-daily application in the morning of a cleanser based on nonaggressive surfactant sold by the company SkinCeuticals under the name Gentle Cleanser, followed by application of solution I above, and application of a daily photo protective product, for example with a protection factor SPF50 based on titanium dioxide.

Example 2

The following steps are performed:

a) Preparation one week to a few hours before the laser treatment of the surface of the skin using gentle peeling by means of a biocellulose mask impregnated with dioic acid, vitamin C and retinol.

b) Treatment of the area to be treated using the fractional laser.

c) Application from a few minutes up to three days after step b), and for 10 to 20 minutes, of a regenerative biocellulose mask impregnated with composition I above.

d) Application from a few hours up to 15 days after step b) of a biocellulose mask left in place for 10 to 20 minutes.

e) Application of a new biocellulose mask targeting and re-educating the epidermal homeostasis, impregnated with a composition comprising thermal plankton extracted from *Vitreoscilla filiformis* to a final concentration of 0.1% and retinyl palmitate at a concentration of 0.05%.

This biocellulose mask is left in place for 10 to 20 minutes. It is ideally applied once or twice a day, for 1 to 2 weeks after the application of the regenerative biocellulose mask.

The application of such a mask enables renewal of the skin matrix and protects the skin between each laser treatment.

Example 3

Rather than composition I of step c) of Example 2, a solution containing in replacement or in addition one of the active agents from chosen from Pro-xylane, hydroxyjasmonic acid, Prolastyl and resveratrol mucoside, is applied.

For example, composition IV is applied (the proportions are given on a mass basis):

A -	Water	63.96%
	Glycerol	3%
	Potassium cetyl phosphate	0.5%
	Preserving agents	0.5%
	Sodium hydroxide	0.04%
B -	PEG-20 Stearate	0.4%
	Glyceryl stearate, PEG-100 stearate	2%
	Cetyl alcohol	1%
	Stearic acid	3%
	Hydrogenated polyisobutene	5%
	Dimethicone	9%

C - Polyacrylamide (and) C13-14 Isoparaffin (and) Laureth-7 ..... 1.6%

D - Pro-Xylane 10%

Procedure

Phase A is heated with stirring to 80°C until fully homogenized.

Phase B is heated with stirring at 80°C until a homogeneous phase is obtained, and is then added to phase A with stirring.

The gelling agent (phase C) is then added and the mixture is cooled to room temperature.

Phase D is then added to complete the formulation.

Example 4

After a fractional treatment, and application of a biocellulose mask, as in steps a) and b) of Example 1, the mask is subjected during its application to pulsed orange light of wavelength 592 nm, for one or more phases of 35 seconds, the duration of the light pulses being 250 ms, separated by extinction times of 100 ms, with 100 light pulses over 35 seconds, the power being 4 mW/cm^2 approximately. This very short treatment, all the more so if it is performed through a mask, does not cause any significant increase in the temperature of the skin.

Example 5

After fractional treatment as in Example 1 and application of the biocellulose mask, a food supplement is taken orally, which is intended to reinforce the dermal firmness and regeneration, for example the nutritional supplement Ineov Fermeté sold by the Laboratoires Inneov.

The invention is not limited to the examples that have just been given. The process may be performed, for example, in a beauty salon. In one variant, the process may be performed directly by the user.

In particular, the examples may be reproduced with a hydrogel instead of biocellulose. Active agents other than those mentioned in the examples may be used.

The treatment according to the invention may be implemented in vivo, but also on samples ex vivo and vitro.

The expression "comprising a" should be understood as being synonymous with "comprising at least one".

CLAIMS

1. A cosmetic skin treatment process, for nontherapeutic purposes, comprising the following steps:

- performing a fractional treatment of the skin so as to reduce the barrier function of the skin,
- applying to the area to be treated or that has been treated, before, during or after the fractional treatment, an aqueous material comprising a hydrogel and/or biocellulose.

2. The process as claimed in the preceding claim, the material comprising or being constituted by biocellulose.

3. The process as claimed in claim 1 or 2, the fractional treatment being performed using a laser, especially a laser of Fraxel® type.

4. The process as claimed in the preceding claim, several passes of the laser being performed over the same area during the treatment.

5. The process as claimed in claim 1 or 2, the fractional treatment being performed using microneedles.

6. The process as claimed in any one of the preceding claims, comprising the application of a cosmetic active agent, optionally in combination with the application of the aqueous material, the active agent preferably being chosen from regenerative active agents, anti-inflammatory agents, pain attenuators, depigmenting agents, antiacne agents, calmative agents, agents for stimulating epidermal and/or dermal moisturization, especially hyaluronane synthases, hyaluronidase inhibitors and dermal regenerative or protective agents especially by activating collagen and elastin syntheses, collagenase and elastase inhibitors and/or activators of tissue and endogenous inhibitors of these proteases, a slimming agents, an exfoliant agent, a nutritional supplement, an antidandruff agent or an agent for promoting hair growth when the scalp is involved, or a hair-removing agent.

7. The process as claimed in claim 6, the active agent being chosen from: Pro-Xylane, hydroxyjasmonic acid, resveratrol, ferulic acid, phloretin, ceramides, acetyl trifluoromethylphenyl valylglycine, ethylvitamin C, hesperidin or neohesperidin.

8. The process as claimed in any one of the preceding claims, also comprising a treatment of the treated area or of the area to be treated by exposure to light

with a fluence of less than or equal to 5 J/cm^2, better still 0.5 J/cm^2, preferably at a wavelength equal to 592 nm ± 10 nm, and more preferably pulsed light.

9. The process as claimed in the preceding claim, the light treatment being performed while the aqueous material is in contact with the area to be treated or the treated area, the light radiation passing through the aqueous material.

10. The process as claimed in any one of claims 1 to 9, except claim 5, the fractional treatment being performed using a fractional laser through the aqueous material.

11. A skin treatment assembly, comprising:

- an aqueous material comprising a hydrogel and/or biocellulose to be applied to the area to be treated, and
- a means (2) for performing a fractional treatment, especially a device with microneedles or a laser.

12. The assembly as claimed in the preceding claim, also comprising at least one composition comprising at least one active agent chosen from regenerative active agents, anti-inflammatory agents, pain attenuators, depigmenting agents, antiacne agents, calmative agents, agents for stimulating epidermal and/or dermal moisturization, especially hyaluronane synthases, hyaluronidase inhibitors and dermal regenerative or protective agents especially by activating collagen and elastin syntheses, collagenase and elastase inhibitors and/or activators of tissue and endogenous inhibitors of these proteases, a slimming agents, an exfoliant agent, a nutritional supplement, an antidandruff agent or an agent for promoting hair growth when the scalp is involved, or a hair-removing agent.

13. The assembly as claimed in any one of claims 11 or 12, the aqueous material comprising or being constituted by biocellulose.

14. The assembly as claimed in any one of claims 11 to 13, comprising a light source for exposing the skin to light with a fluence of less than or equal to 5 J/cm^2 and better still 0.5 J/cm^2, preferably pulsed light, more preferably with a wavelength of 592 nm ± 10 nm.

15. The assembly as claimed in the preceding claim, the light source (50) and the aqueous material (11) being integrally attached to each other.

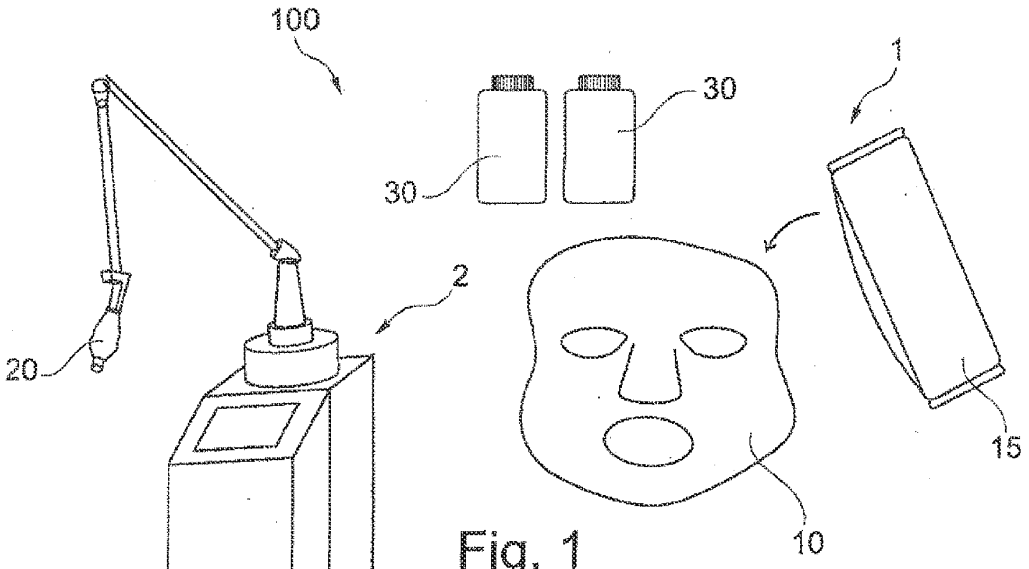


Fig. 1

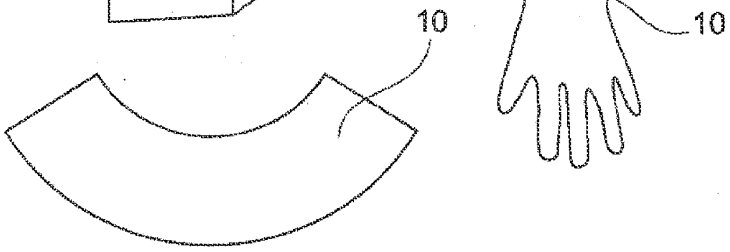


Fig. 2

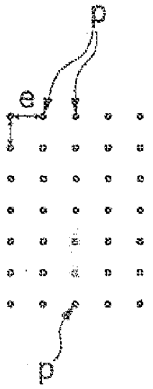


Fig. 4

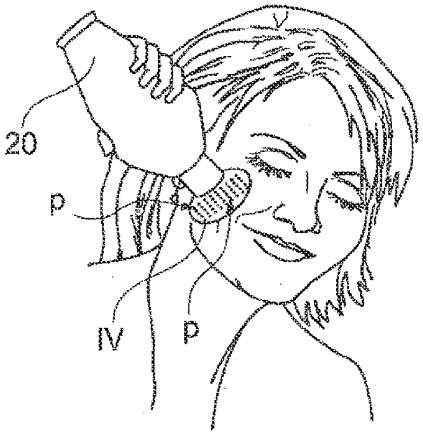


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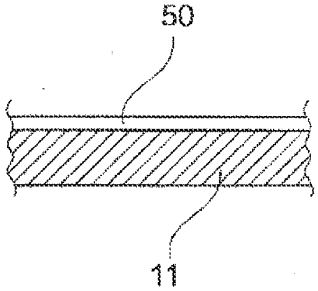
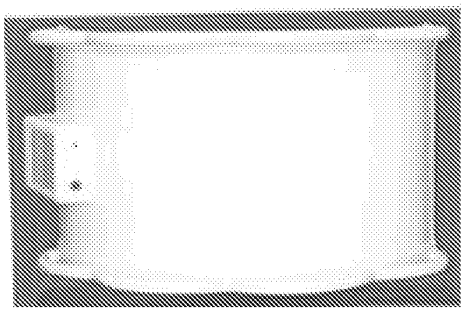
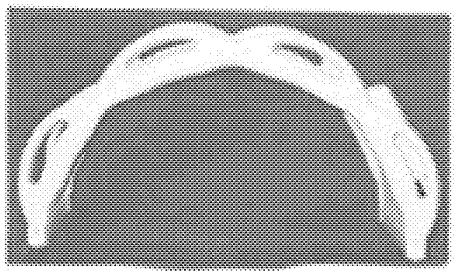
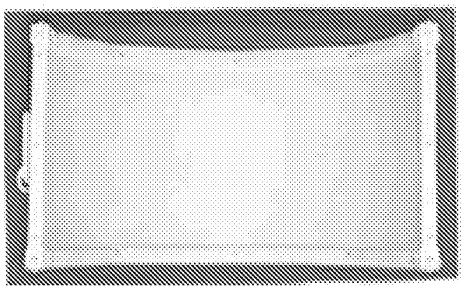


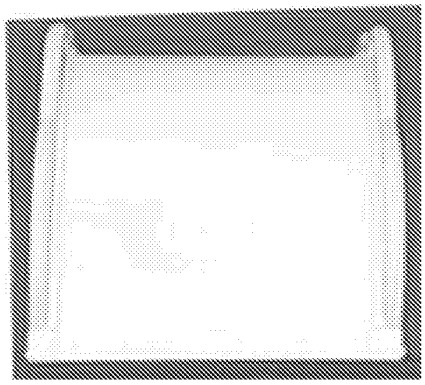
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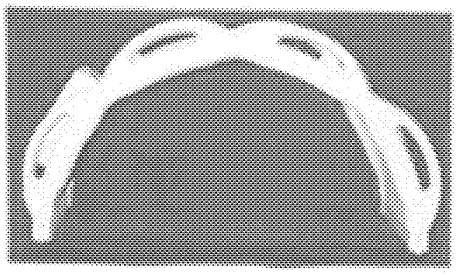
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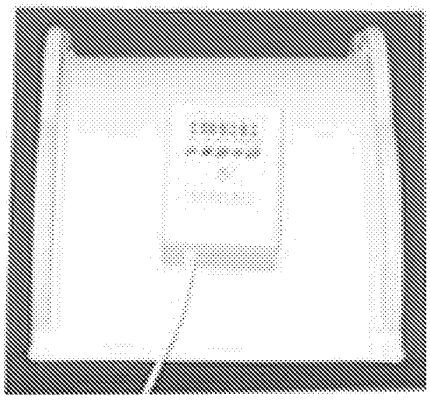












Title
Far infrared light wave appearance of low frequency
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Serial number of registration
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Application number
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App. date
2002-09-24
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Locarno class
24-02
Designation in English
Far infrared light wave appearance of low frequency
Original title
低频远红外光波仪
Description
Ask to protect color.
Original description
请求保护色彩。
Creator
Zhang Haiqiang
Creator address
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Name and address of owner
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Owner name
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Status: ACT
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Massage instrument (BL-A029)

(71)

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(72)

Name and address of creator of designs

蔡金

(73)

Name and address of the holder(s)

汕头市裕利塑胶制品有限公司

(57)

Description of the characteristic features of the design(s), or matter for which protection is not sought

1. The name of this design product: Massager (BL-A029).

2. The purpose of this design product: massage device for beauty.

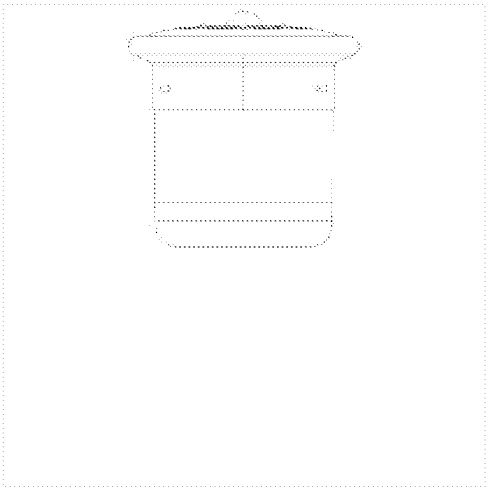
3. The design key point of this design product is its shape.

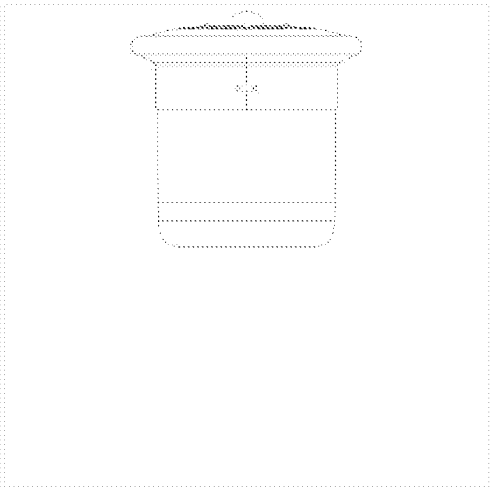
4. Pictures or photos that best illustrate the key points of the design: three-dimensional drawings.

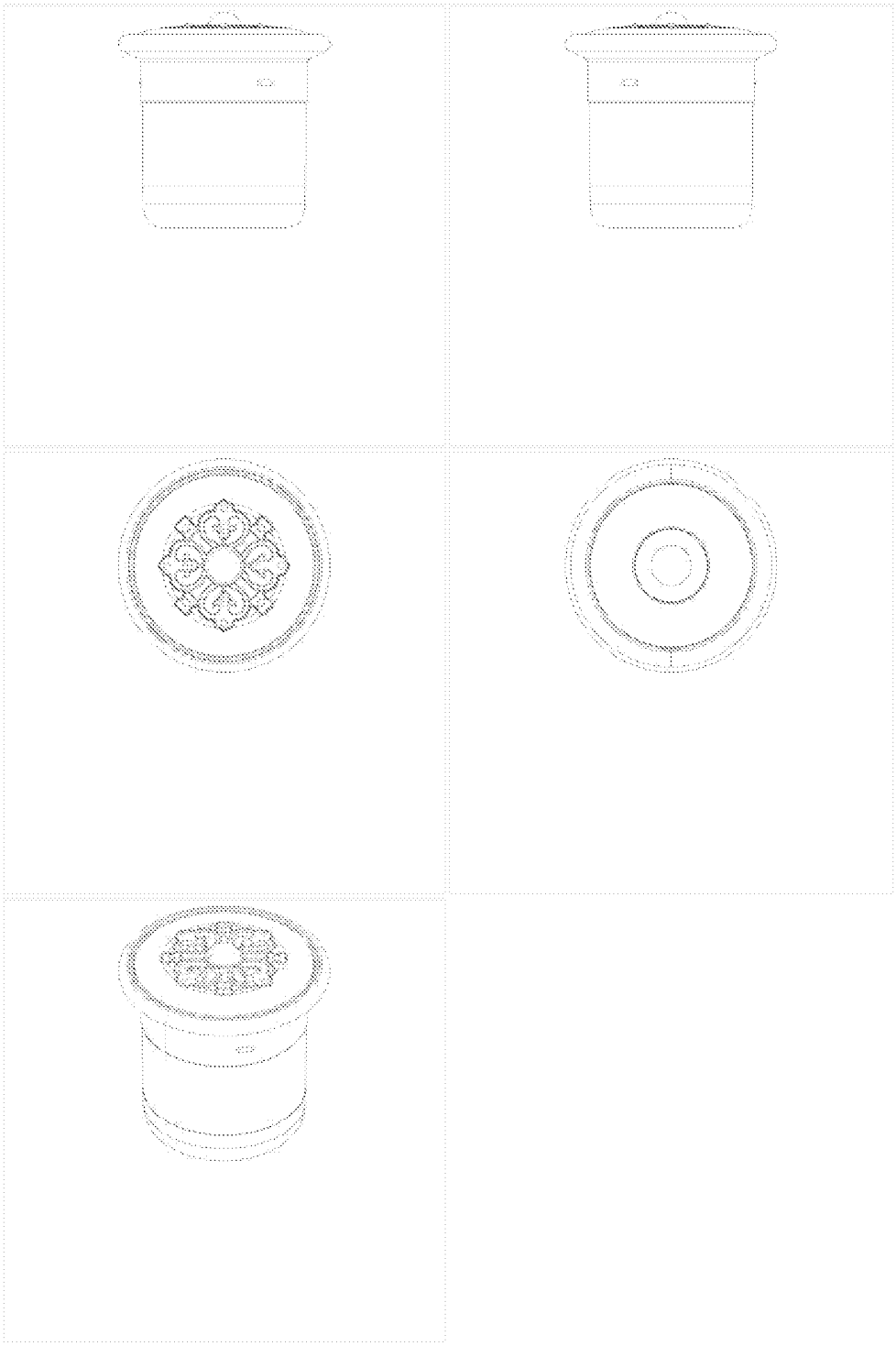
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Description of images

Front view, rear view, left view, right view, top view, bottom view, perspective view







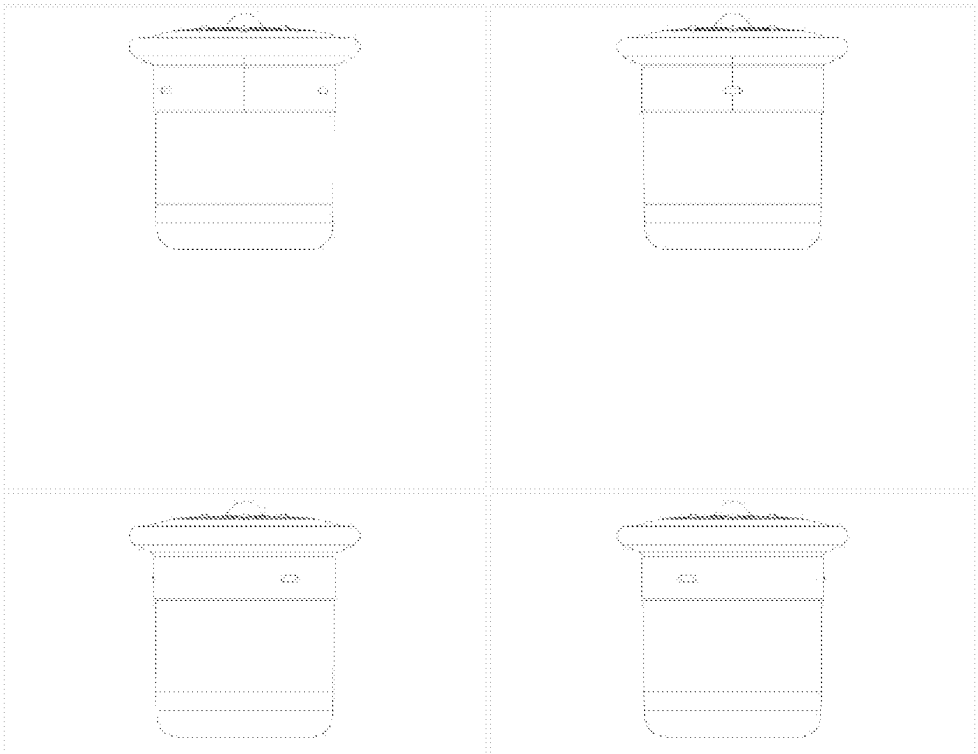
IP Portal
WIPO
Help English IP Portal login
Home > Global Design Database > Search

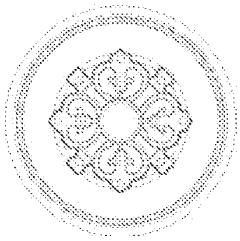
A world-wide collection of designs data; including WIPO Hague registrations and information from participating offices.

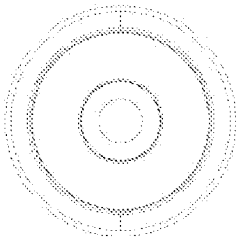
Chinese Designs
202030368016.4 - 按摩仪（BL-A029）

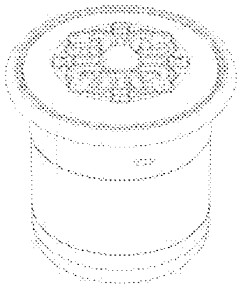
Status: ACT
(19)
Identification, using the two-letter code according to WIPO Standard ST.3, of the authority publishing or registering the industrial design
CN
(11)
National Registration Number
306109314
(15)
Date of the national registration
2020-10-16
(21)
Application number
202030368016.4
(22)
Filing date
2020-07-09
(45)
Date of publication of the registered industrial design by printing or similar process, or making it available to the public by any other means
2020-10-16
(51)
Class and subclass of the Locarno Classification
28-03
(54)

Indication of products
按摩仪（BL-A029）
(71)
Name(s) and address(es) of the applicant(s)
汕头市裕利塑胶制品有限公司
金平区, 汕头市, 广东省, 515000, CN
515000 广东省汕头市金平区大学路西港外贸（原省外厂）
(72)
Name and address of creator of designs
翁全
(73)
Name and address of the holder(s)
汕头市裕利塑胶制品有限公司
(57)
Description of the characteristic features of the design(s), or matter for which protection is not sought
1.本外观设计产品的名称：按摩仪（BL-A029）。
2.本外观设计产品的用途：用于美容的按摩仪。
3.本外观设计产品的设计要点：在于形状。
4.最能表明设计要点的图片或照片：立体图。
(55)
Description of images
主视图, 后视图, 左视图, 右视图, 俯视图, 仰视图, 立体图









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Literature display

1 / 1 display

Design registration 1675782

Progress information URL

Display format of document display screen :

text display PDF display

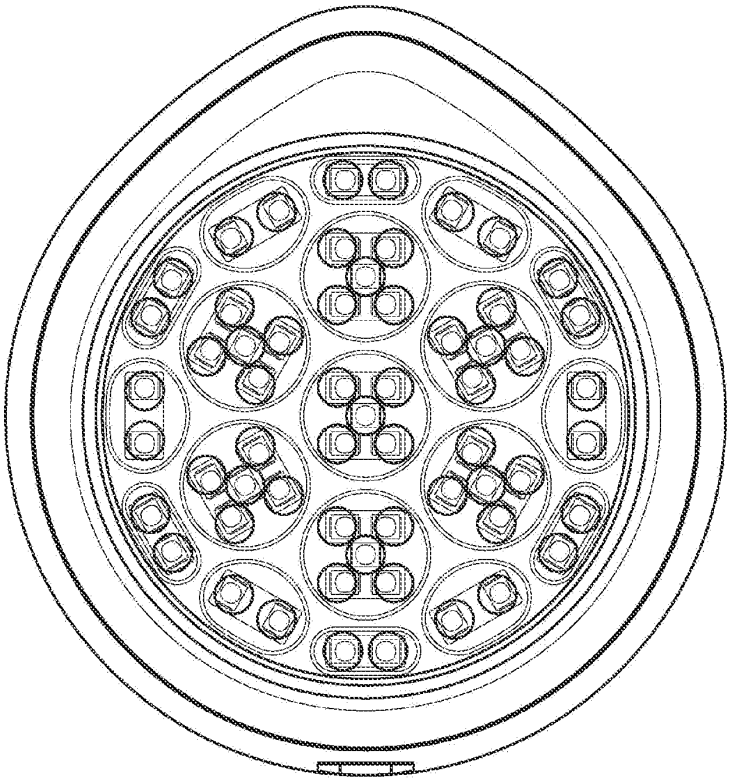
Design gazette

(19) [Issuing country/region]Japan Patent Office (JP)
(45) [Date of issue]January 4, 2021 (2021.1.4)
(12) [Publication type]Design gazette (S)
(11) [Registration number]Design Registration No. 1675782 (D1675782)
(24) [Registration date]December 9, 2020 (2020.12.9)
(54) [Articles related to the design]Facial massager
(52) [Design classification]C4-000
(51) [International Design Classification]Loc(12)Cl. 28-03
(21) [Application number]Application 2020-7856 (D2020-7856)
(22) [Application date]April 16, 2020 (2020.4.16)
(72) [Creator]
【full name】Masashi Yamaguchi
(73) [Design right holder]
【Identification number】598113586
[Name or name]Hasluck Co., Ltd.
(74) [Agent]
【Identification number】100076406
【patent attorney】
[Name or name]Katsunori Sugimoto
[Examiner]Ai Tsuruta

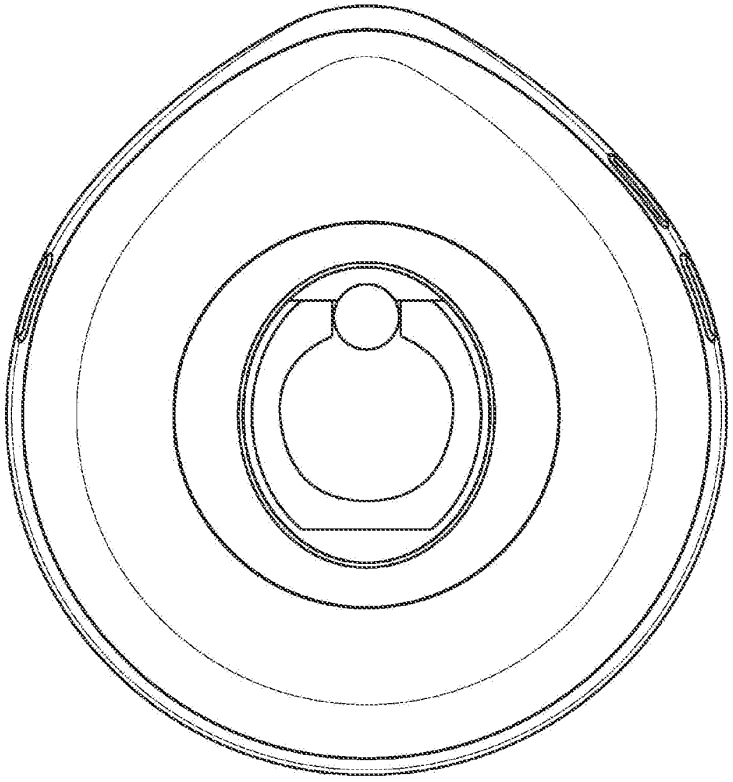
(55) [Description of article to which the design relates]This article is supported by a frame made of an opaque material on top of the LED shown in the reference front view, and has a transparent base part colored in dark ink in the reference front view showing the transparent part, and an upper part on this transparent base part. It is a facial beauty device that has a diffuser part that is provided in a protruding manner and is made up of a plurality of lens parts whose upper surface side has a semi-convex spherical shape. In this facial beauty device, a cover is provided on a diffusion part, the transparent cover is placed along the skin, and light emitted by an LED is applied to the skin via the transparent diffusion part and the transparent cover. In addition, as shown in the reference right side view of the product in use and the reference plan view of the product in use, the finger ring that is provided in a manner that can be raised and folded is raised, the rear view side is aligned with the palm of the hand, and the finger ring is placed inside the finger ring. By inserting your middle or index finger into the handle, you can hold it in a stable position.

【drawing】

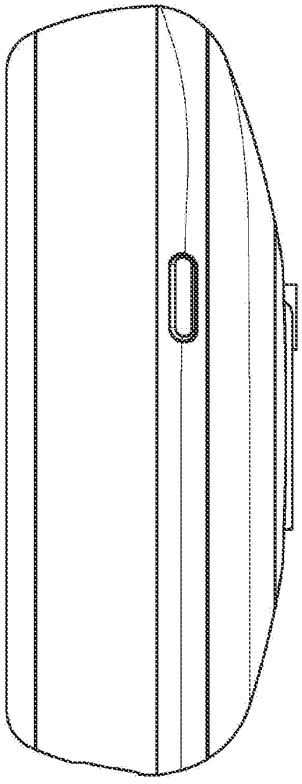
【Front view】



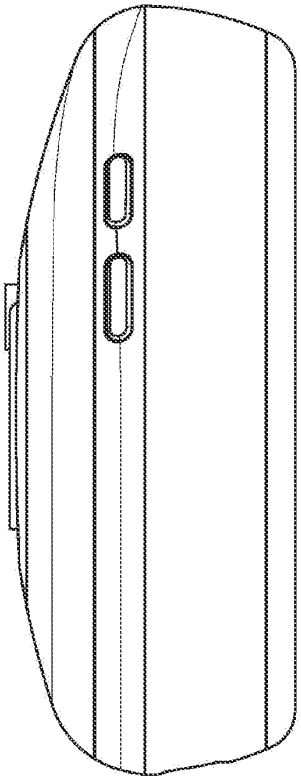
【Rear view】



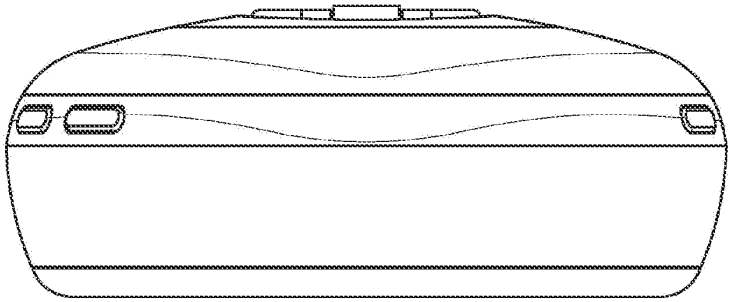
[Right side view]



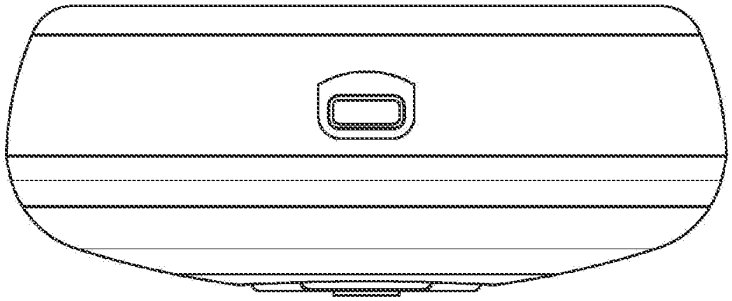
[Left side view]



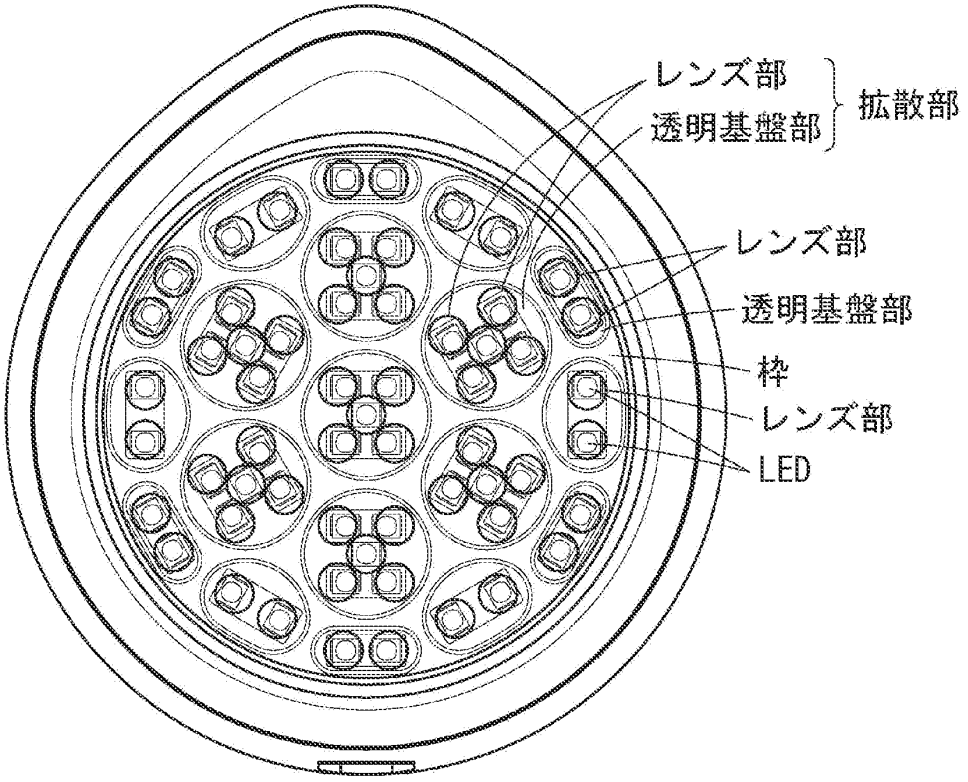
【Plan view】



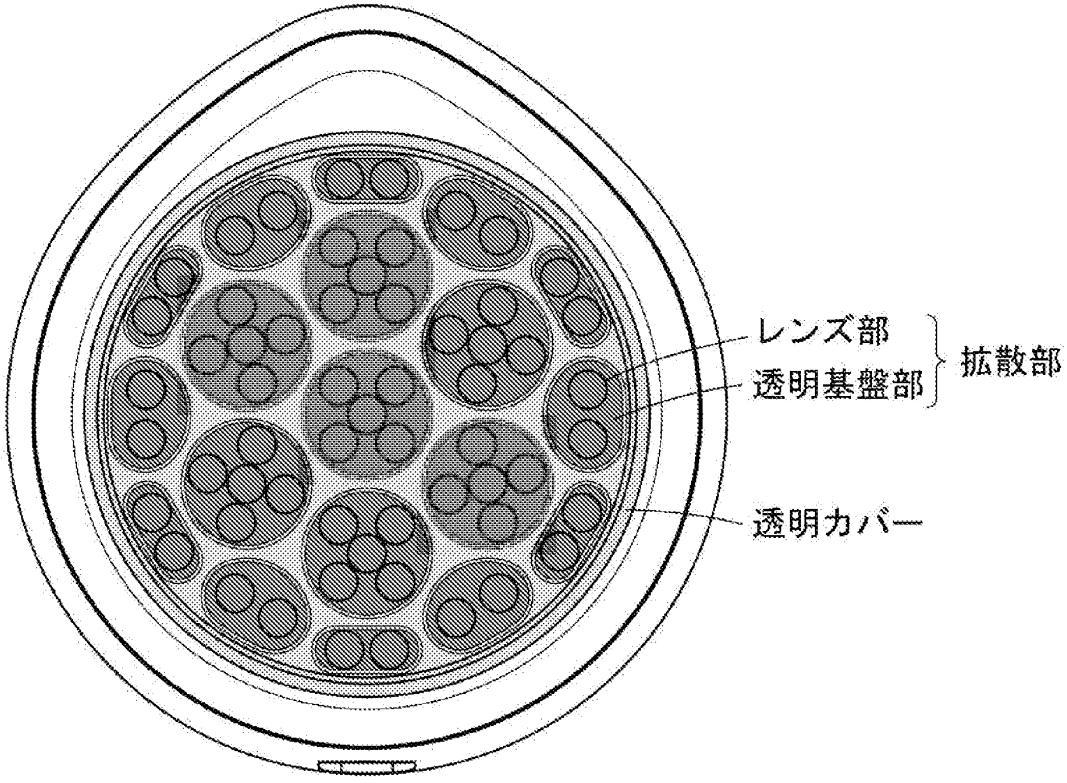
[Bottom view]



[Reference front view]



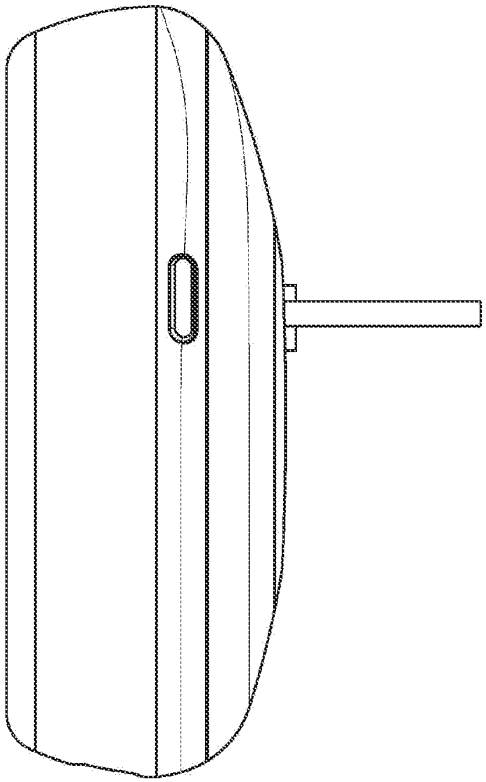
[Reference front view showing transparent part]



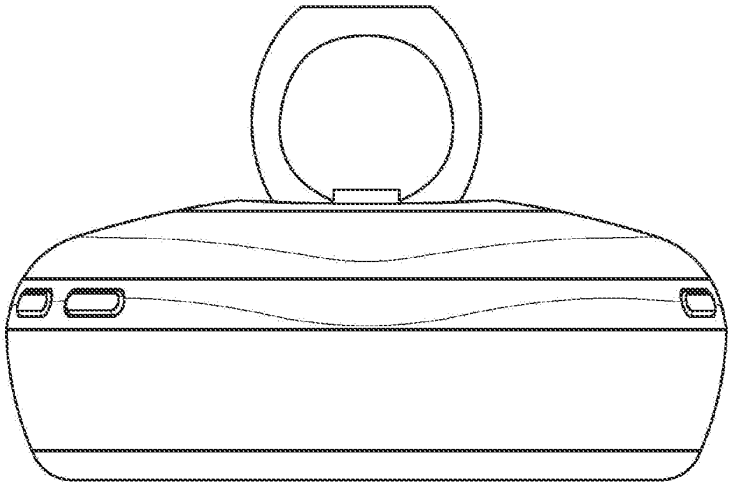
[Reference perspective view]



[Reference right side view of usage condition]



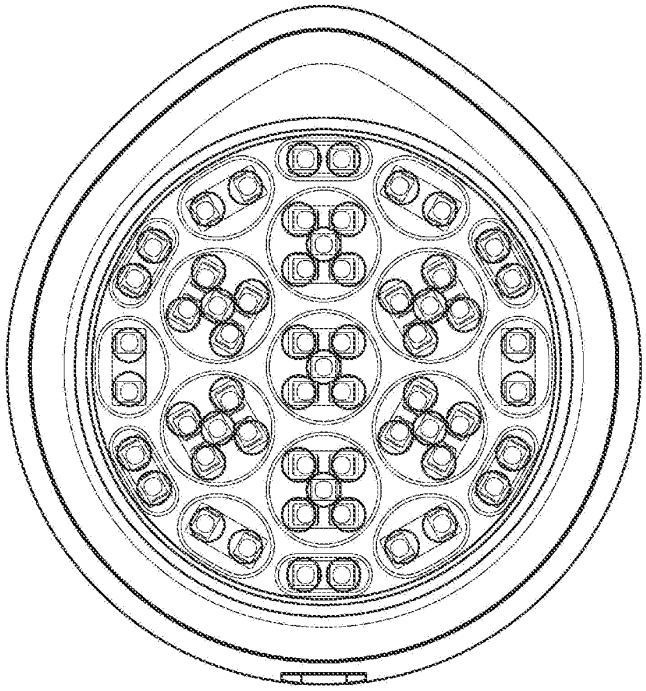
[Reference floor plan of usage condition]



drawing close

【Front view】 | 【Rear view】 | [Right side view] | [Left side view] | 【Plan view】 | [Bottom view] | [Reference front view] | [Reference front view showing transparent part] | [Reference perspective view] | [Reference right side view of usage condition] | …

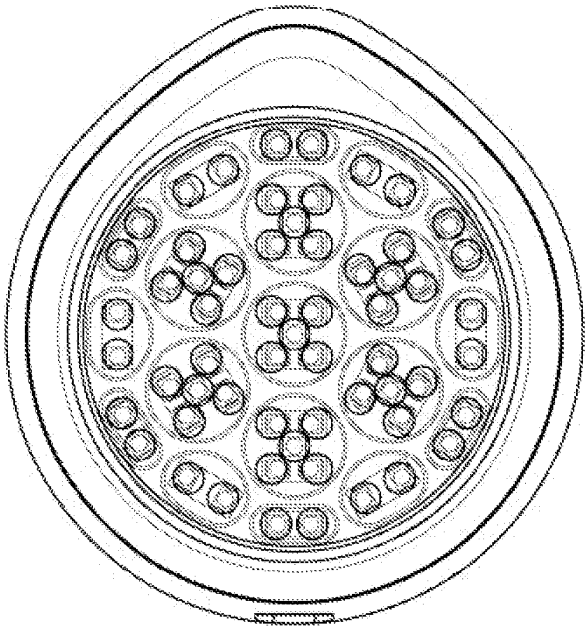
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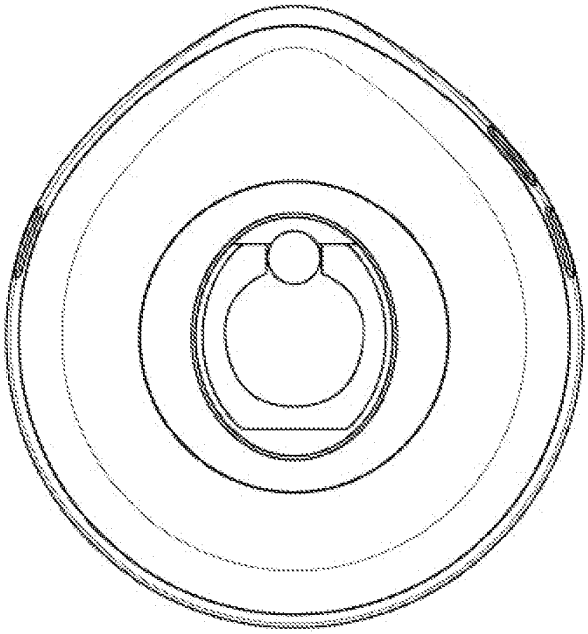
【Front view】

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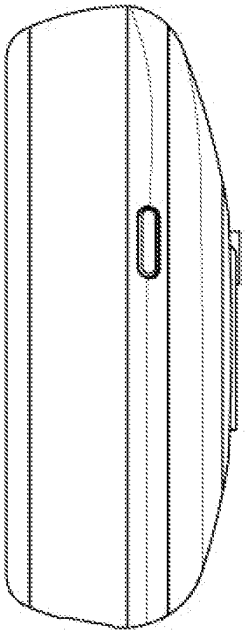
（１９）【発行国・地域】日本国特許庁（ＪＰ）
（４５）【発行日】令和３年１月４日（２０２１．１．４）
（１２）【公報種別】意匠公報（Ｓ）
（１１）【登録番号】意匠登録第１６７５７８２号（Ｄ１６７５７８２）
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（２１）【出願番号】意願２０２０－７８５６（Ｄ２０２０－７８５６）
（２２）【出願日】令和２年４月１６日（２０２０．４．１６）
（７２）【創作者】
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（７４）【代理人】
【識別番号】１００７６４０６
【弁理士】
【氏名又は名称】杉本　勝徳
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【図面】
【正面図】



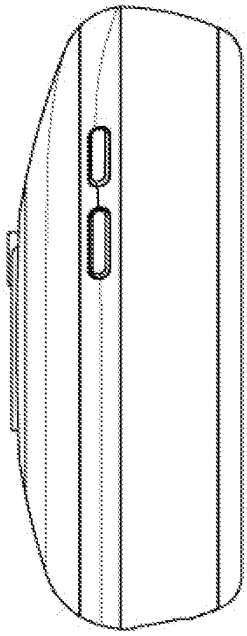
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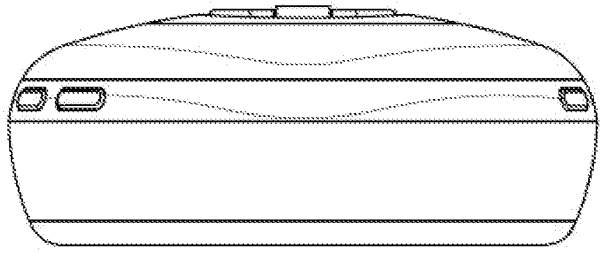
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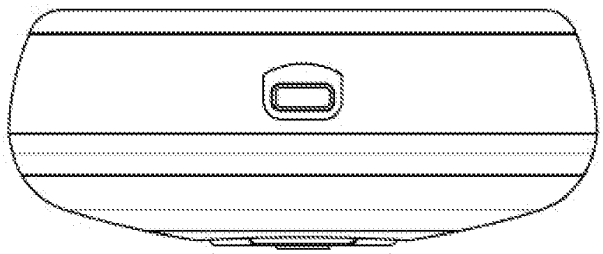
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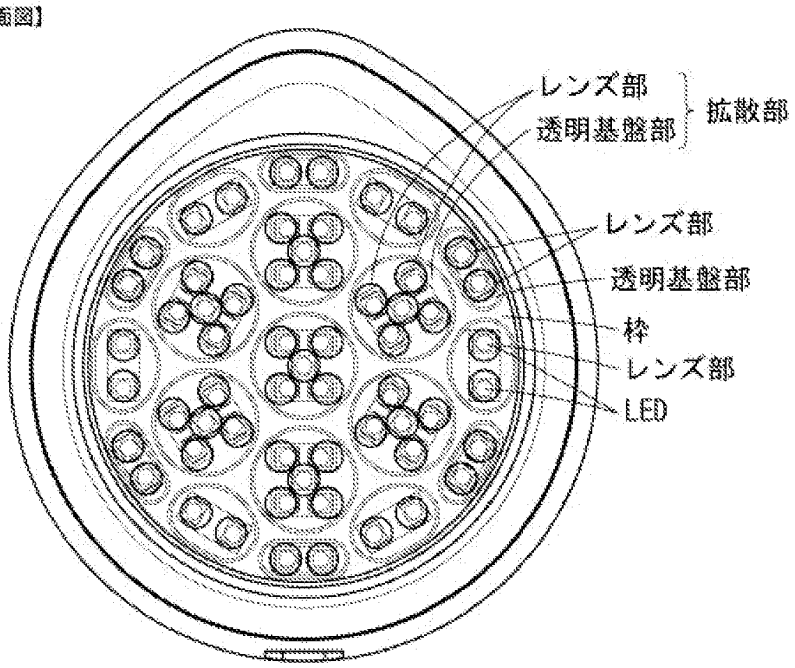
【平面図】



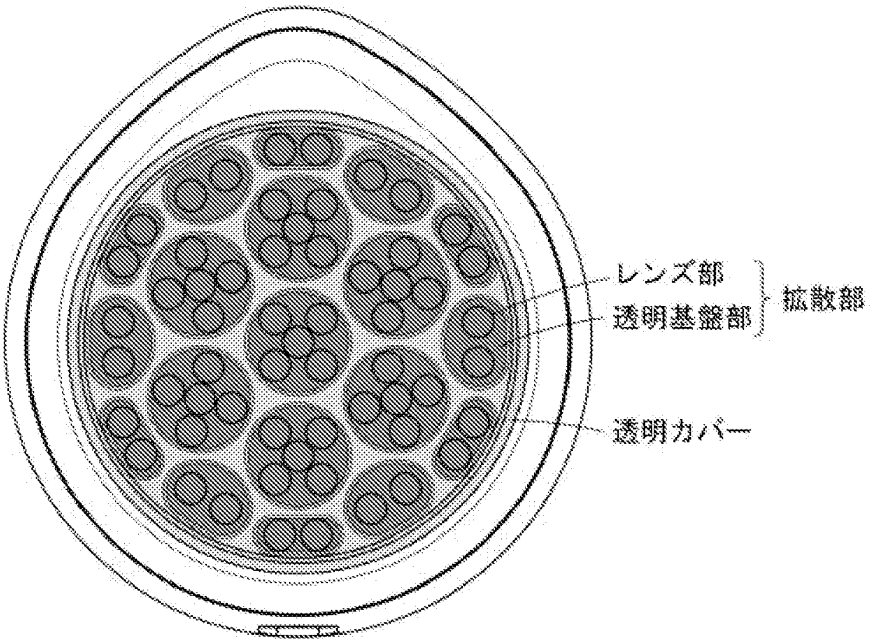
【底面図】



【参考正面図】



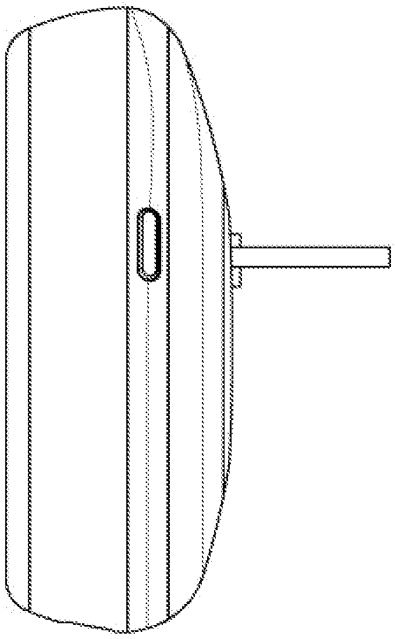
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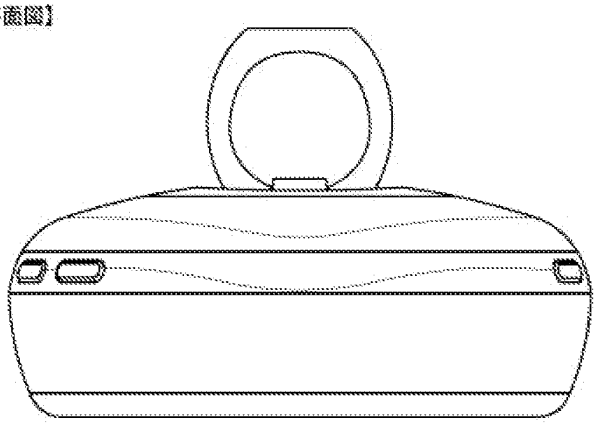
【参考斜視図】



【使用状態の参考右側面図】



【使用状態の参考平面図】



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(30) Priority Data:
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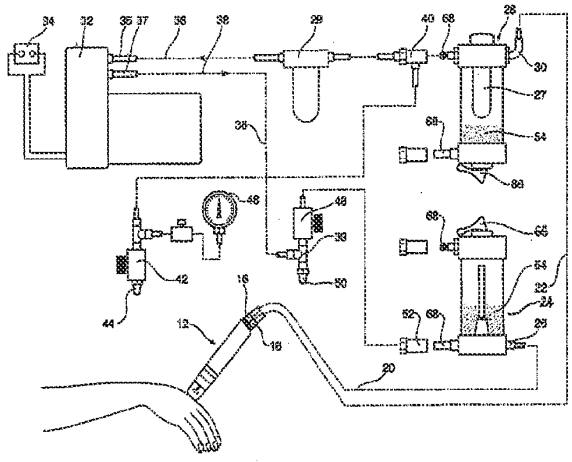
(71)(72) Applicant and Inventor: GREENBERG, Ronald, Allan [AU/AU]; 41 Kintyre Road, Woodforde, S.A. 5072 (AU).

(74) Agent: COLLISON & CO.; 117 King William Street, Adelaide, S.A. 5000 (AU).

(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published
With international search report.

(54) Title: IMPROVED APPARATUS AND METHOD FOR MICRO--ABRASIONS OF HUMAN TISSUE AND/OR HIDES



(57) Abstract

The invention relates to an apparatus for making micro--abrasions including a handle (12) having an inlet passage (16) and an outlet passage (18) communicating with an aperture (14) in said handle (12). The aperture (14) in use is adapted to be positioned on a surface to be treated, such as the skin, and a pneumatic means provides a variable supply of abrasive particles to the aperture (14) of the handle. The pneumatic means includes a vacuum source (32) having a suction outlet (35) that is operatively connected to the outlet passage (18) of the handle (12) and an exhaust outlet (37) that is operatively connected to the inlet passage (16) of the handle (12), to thereby cause the abrasive particles from the supply container (24) to flow through said handle (12). By providing both a suction and a pressurised effect the particles are caused to flow much more freely and assist in making micro--abrasions on a skin surface that is being treated.

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EE	Estonia	LR	Liberia	SG	Singapore		

IMPROVED APPARATUS AND METHOD FOR MICRO-ABRASIONS OF HUMAN TISSUE AND/OR HIDES

This invention is for an apparatus and method for making micro-abrasions, particularly on human tissue or on hides.

FIELD OF THE INVENTION

The present invention relates in general to an apparatus and method for making micro-abrasions, particularly for cosmetic treatment of human tissue such as the removal of scars and other skin blemishes but may also be used for therapeutic treatment. In addition, the invention can be used to treat hide or other similar type of materials which require fine abrasion to remove particular attributes.

Apparatus and methods for making micro-abrasions are known but which rely exclusively on a vacuum source to provide a pneumatic carrier ability for abrasive particles. It has been found that this method and apparatus provides insufficient abrasive properties to properly treat human tissues or skin working simply on the basis of a vacuum source.

SUMMARY OF THE INVENTION

Therefore, according to one form of the invention there is proposed an apparatus for making micro-abrasion including:

a handle having an inlet passage and an outlet passage communicating with an aperture in said handle, said aperture adapted to be positioned on the surface to be treated;

a pneumatic means for the variable supply of abrasive particles in a pneumatic carrier to the aperture of the handle whereby the supply means includes a vacuum source whose suction outlet is connected to the outlet passage of the handle and whose exhaust outlet is connected to the inlet passage of the handle, to thereby cause the abrasive particles from the supply container to flow through said handle.

In preference, the amount of suction may be regulated by a regulator connected to the atmosphere.

In preference, the positive air pressure entering said inlet handle is regulated by the use of a regulator connected to the supply container.

Preferably, said supply container is heated so as to heat the abrasive particles.

BRIEF DESCRIPTION OF THE DRAWINGS

To further assist in understanding the invention reference is now made to the following figures in which:

FIG 1 is a perspective view of the apparatus;

FIG 2 is a schematic of the invention;

FIG 3 is a perspective view of a first embodiment of the handle;

FIG 4 is a cross-sectional view of the handle of Figure 3;

FIG 5 is a cross-sectional view of the supply container;

FIG 6 is a cross-sectional view of a handle according to a second embodiment; and

FIG 7 is a close up view of the handle of FIG 6 in use.

BEST MODE OF THE INVENTION

Turning now to the figures in detail there is shown in FIG 1 an apparatus 10 for making abrasions including a handle 12 having an aperture 14 an inlet passage 16 and an outlet passage 18, said inlet passage 16 being connected by an inlet tube 20 to a supply container 24 via supply connector 26. Outlet tube 22 is connected to recovery container 28 via recovery connector 30.

An electric vacuum pump 32 operable by switch 34 has a suction outlet 35 which provides suction through tube 36 that passes through filter 29 and a three-way suction connector 40, one end of which is fed into the recovery container 28 and a second end of which is connected to a suction regulator 42 and vacuum gauge 46. The suction regulator 42 has a suction aperture 44 in connection with the atmosphere. The filter 29 ensures that any particulates within the tube 36 do not enter the vacuum pump 32 and potentially damage it.

The electric vacuum pump 32 includes an exhaust outlet 37 which is connected via pressurised tube 38 to a three-way pressure connector 39 one outlet of which is an aperture 50 in connection with the atmosphere whilst the other is fed into a flow regulator 48 itself connected to pressure connector 52.

In use, after the electric vacuum pump 32 has been activated, it provides suction through suction outlet 35, suction tube 36, filter 29, three way suction container 40 to the recovery container 28 and then through the recovery connector 30 the outlet tube 22, through the outlet passage 18 and through the handle 12. When the aperture 14 is applied against a surface to be

treated, the suction causes air to be then sucked through the inlet passage 16 inlet tube 20 supply connector 26 to the supply container 24 and therefore causes the reducing substances 54 to be sucked or flow back through that arrangement and be collected in the recovery container 28. To ensure that the particles remain in the recovery container 28 the container has a filter 27 with apertures that are smaller than the particulates thus ensuring that they remain within the recovery container. In the case where some of the particles may be sucked though the tube 36, the filter 29 ensures that potentially none reach into the vacuum pump. This double-filtering action therefore protects the vacuum pump from potential damage.

The suction may be regulated by the suction regulator 42 which allows the introduction of atmospheric air through suction aperture 44, the vacuum being indicated by the vacuum gauge 46. For maximum suction, the suction regulator 42 is closed so that no outside air enters the system through suction aperture 44. To reduce the amount of suction and thus the amount of reducing substances 54 being sucked from the supply container 24 and thus flowing through the handle the suction regulator may be slightly opened to allow outside air to enter the system.

At the same time the exhaust outlet 37 from the vacuum pump pressurises tube 38 and is fed into the supply container 24 through a three-way pressure connector 39 and flow regulator 48. By closing the flow regulator 48 all of the pressurised air from the exhaust outlet exits to the atmosphere through aperture 50. When the flow regulator 48 is opened, the pressure causes air to flow into supply container 24 through pressure corrector 52 to enable the reducing substances to flow to the handle 12. As shown in more detail in Figure 5, the pressurised air flows into the supply container through distributor 56 which is made from a fine mesh material whose size is of the same order or smaller than the particle sizes. The flow of air 58 out through the distributor 56 causes the particulates to be aired and which then enter collection tube 60 through aperture 62. The collection tube is chosen to be of a sufficient height to ensure that the particulates do not directly enter into the tube but rather through the aperture 56. After passing through the aperture 62 the particulates flow through passageway 64 , through supply connector 26 and into the inlet tube 20.

Accordingly, as a result of the pressurised supply container and the vacuum, the reducing substances 54 held in supply container 24 are pneumatically transported to the handle 12 and the aperture 14 by the assistance of both a vacuum source and a pressure source and thus pass over the region of the

surface to be treated defined by the aperture 14 and thereby causing micro-abrasions. The reducing substances, together with any particles and detritus removed from the surface being treated are then sucked through the outlet passage 18 outlet tube 22 and into recovery container 28 to be thereafter disposed of.

Both the recovery and supply containers are fitted with quick release seals 66 that allow access to the bottom of the recovery container enabling it to be emptied of particulate and to the top of supply container 24 enabling particulates to be added. In addition, both the supply and recovery containers are mounted on the side of the apparatus via quick release connectors 68 allowing them to be removed for cleaning, storage, replacement or transportation purposes.

Obviously the degree of micro-abrasion caused on the surface is adjustable by operating both the suction regulator 42 and the flow regulator 48 associated with the electric vacuum pump 32. however it has been shown that the system is virtually ineffective if there is no pressurisation within the system and a degree of this always has to be present for the apparatus to effectively work.

Figures 3 and 4 exhibit in further detail a first embodiment of the handle 12. The handle 12 as discussed above includes aperture 14 and is connected to inlet and outlet tubes 20 and 22 by connectors 16 and 18 respectively. Disposed within the handle 12 are two passageways, passageway 70 operatively connected with inlet tube 20 and passageway 72 operatively connected to outlet tube 22. Removably attached over the end of the handle 12 adjacent the ends of passageways 70 and 72 is cap 74 within which is disposed aperture 14. The axis of the aperture 14 is substantially coaxially aligned with the longitudinal axis of the end of supply passageway 70 with the plane of the aperture being substantially perpendicular to the coaxial axis of the end of passageway 70. Also disposed within the end of passageway 70 is a hollowed length adjustable rod 76 that allows particulates to flow therethrough and allows for the adjustment of the distance between the effective end of passageway 70 and the aperture 14. By adjusting the distance one can adjust the amount of dispersal of the particulates by the time they reach the aperture. In this particular embodiment the length adjustability is accomplished by the rod being screwable into the end of passageway 70 allowing the distance to be adjusted by the use of a screwdriver which engages slit 78 at the end of rod 76. In addition the dimension of the hollow of the rod can also be chosen to

be less than that of the passageway and thereby adjust the flow of particulates therethrough. To ensure that there is a good seal between the cap 74 and the rest of the handle there may be an 'O' ring 80.

Figures 6 and 7 show a second embodiment of the handle including an inlet passage 16 and an outlet passage 18. Positioned at the end of inlet passage 16 is plug 82 which is so shaped so as to reduce the diameter of the inlet passage 16 and thereby affect the number of reducing substances or particles 54 passing through the inlet tube 16 and through handle 12. To adjust the position of the plug 82 in relation to the aperture 14 the inlet tube 16 can be affixed relative to the handle by the use of a nut 84 which engages both the handle 12 and the inlet tube 16. Similarly the outlet passage 18 is fixed in place by a similar type of nut 60.

As indicated in Figure 7 reducing substances 54 are caused to impact the surface to be treated 86 with the reducing substances causing micro-abrasions of the surface and the residual of both the reducing substances 54 and particles of skin 88 is sucked up through outlet passage 18 and into the recovery container.

Thus one can see that due to the use of the exhaust outlet 37 of the vacuum pump 32 particles will be caused to flow through the system even when external air enters the system through aperture 14 when the aperture is not placed abutting the surface of the treated thereby not being a closed system. By sealingly placing said aperture 14 against surface 86 the vacuum in the inlet tube 16 is increased to thereby cause an increase in the flow of particles which can be regulated by the use of the suction regulator 42 and the flow regulator 48.

The foregoing describes only one embodiment of the present invention and modifications, obvious to those skilled in the art, can be made thereto without departing from the scope of the present invention. For example, the inlet tube 20 passing through supply 26 may open into a manifold structure within the supply container to include multiple holes and shaking filters (not shown). The supply container may also include an electrical heating means to thereby heat the reducing substance and improve the micro-abrasion effect.

To assist in using the apparatus other instrumentation may be attached to the apparatus such a timer 90 to ensure that the length of the treatment does not exceed the necessary levels.

Thus one can see that the present apparatus provides for the flow of abrasive particles though not only suction but a positive pressure. By providing both a suction and a pressurised effect the particles are caused to flow much more freely and assist in making microabrasions on a skin surface that is being treated.

Furthermore, the vacuum pump could be replaced by equivalent means adapted to create a pneumatic system to cause the reducing substances to flow through the loop.

Throughout this specification the above description has been intended to illustrate the invention and not to limit it thus,. Other embodiments may equally well be applied by those skilled in the art without deviating form the scope of the invention.

CLAIMS

1. An apparatus for making micro-abrasions including:

a handle having an inlet passage and an outlet passage communicating with an aperture in said handle, said aperture adapted to be positioned on a surface to be treated;

a pneumatic means for the variable supply of abrasive particles in a pneumatic carrier to the aperture of the handle whereby the pneumatic means includes a vacuum source having a suction outlet that is operatively connected to the outlet passage of the handle and an exhaust outlet that is operatively connected to the inlet passage of the handle, to thereby cause the abrasive particles from the supply container to flow through said handle.

2. An apparatus for making microabrasions as in any one of the above claims including an outlet regulator in communication with the outlet passage and the atmosphere so as to control the amount of air entering the pneumatic means.

3. An apparatus for making microabrasions as in any one of the above claims including an inlet regulator in communication with the inlet passage and the atmosphere so as to control the amount of air exiting said pneumatic means.

4. An apparatus for making microabrasions as in any one of the above claims including a supply container of said abrasive particles, said supply container being in communication with the exhaust outlet.

5. An apparatus for making microabrasions as in any one of the above claims including a recovery container for recovering said particles, said recovery container being in communication with the suction outlet.

6. An apparatus for making microabrasions as in claim 5 wherein said recovery container includes a filter means so as to prevent said abrasive particles from flowing into said pneumatic means.

7. An apparatus for making microabrasions as in any one of the above claims wherein said pneumatic means is a vacuum pump.

8. An apparatus for making microabrasions as in claim 5 wherein fluidly located between the suction outlet and the recovery container is a filter so as to prevent particulates from being sucked into the pneumatic means.

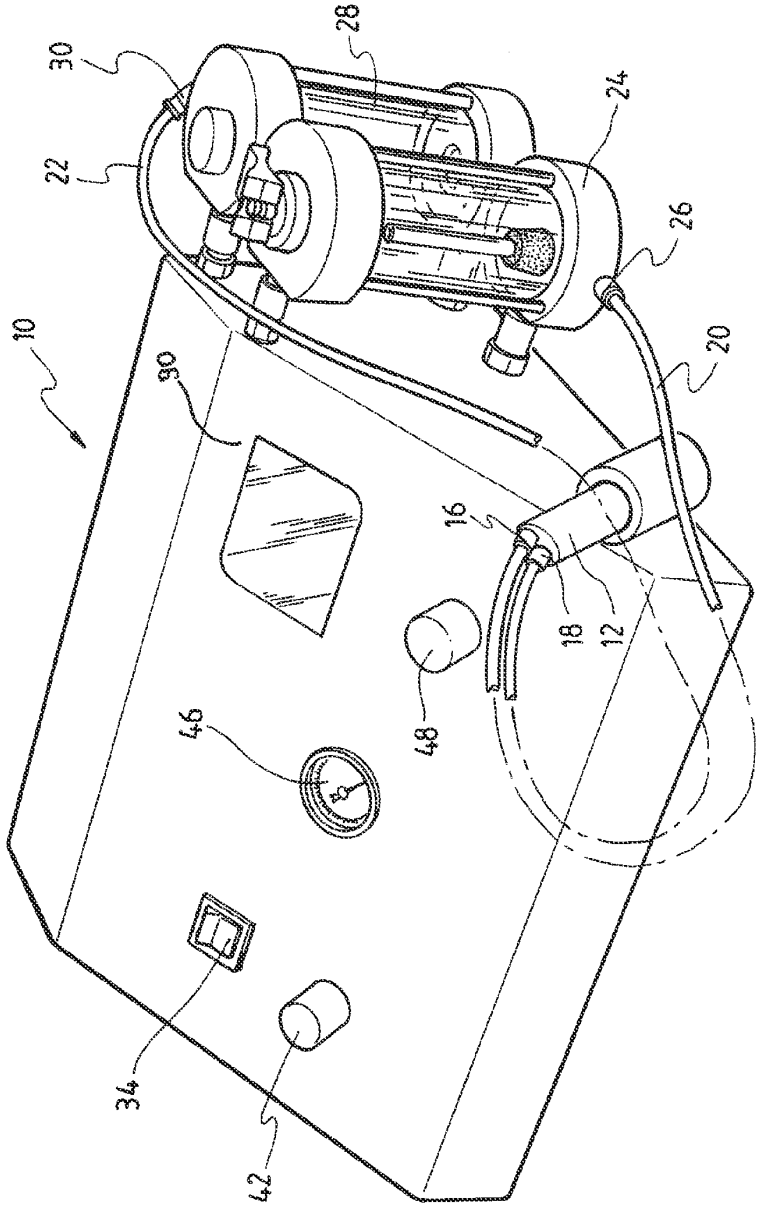


FIG 1

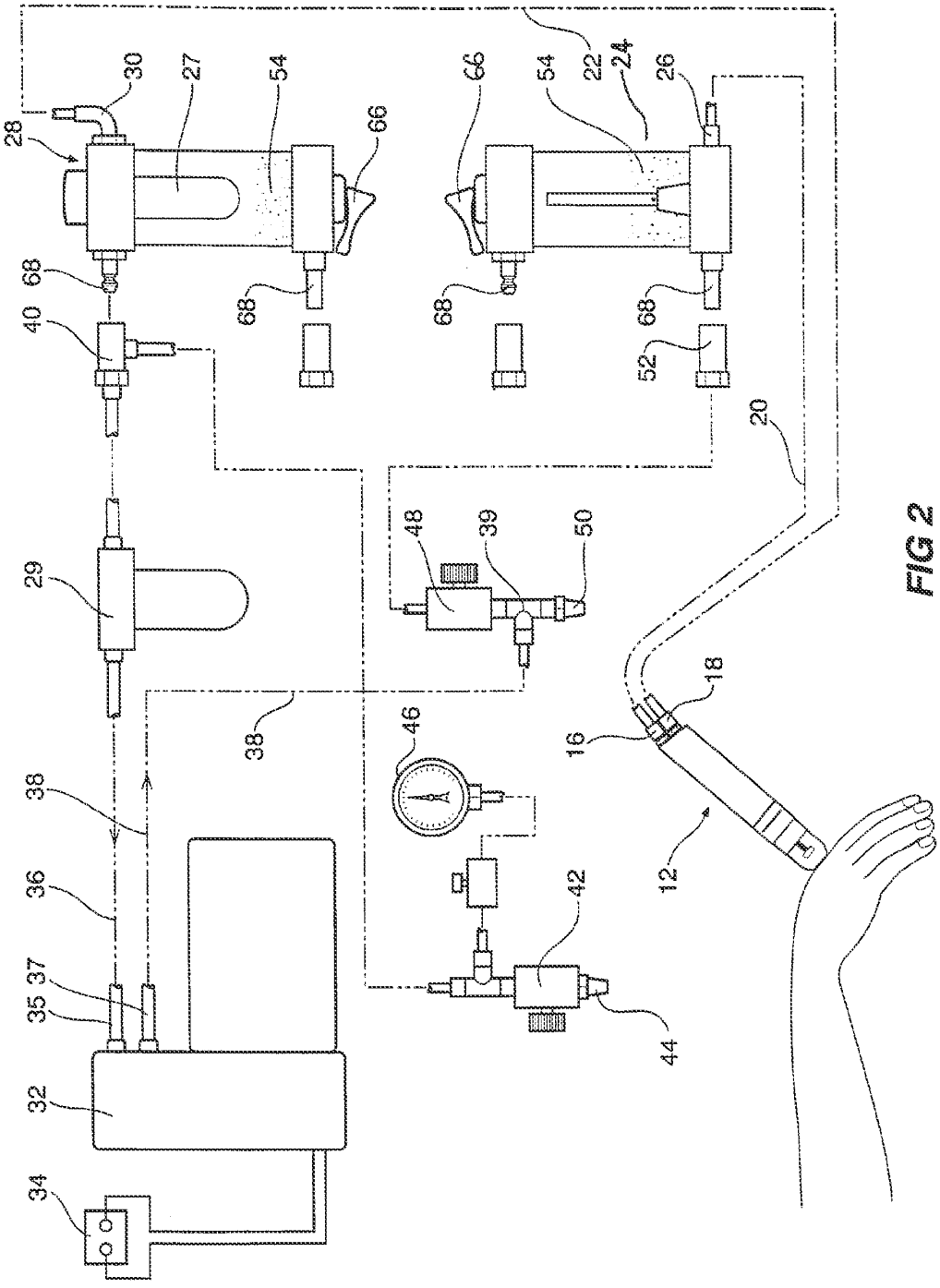

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FIG 2

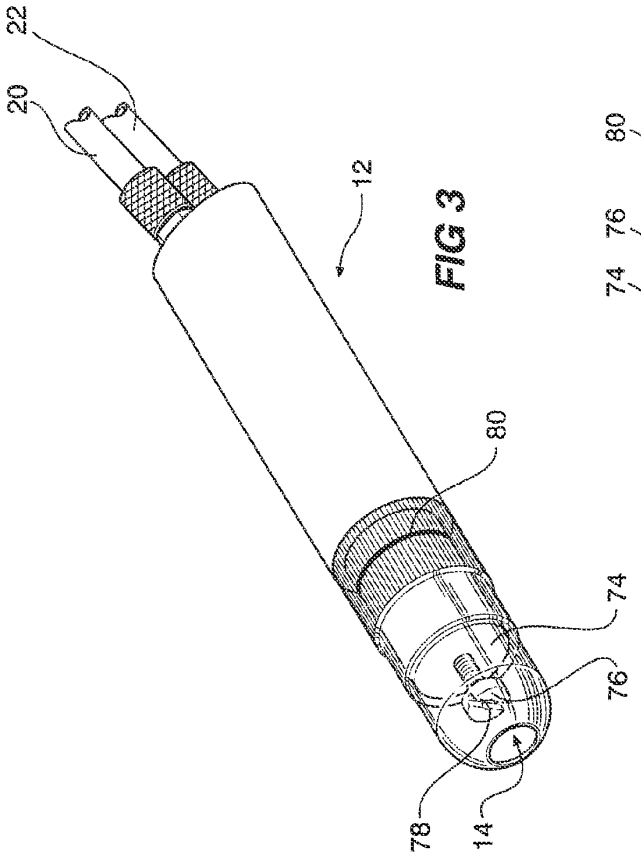


FIG 3

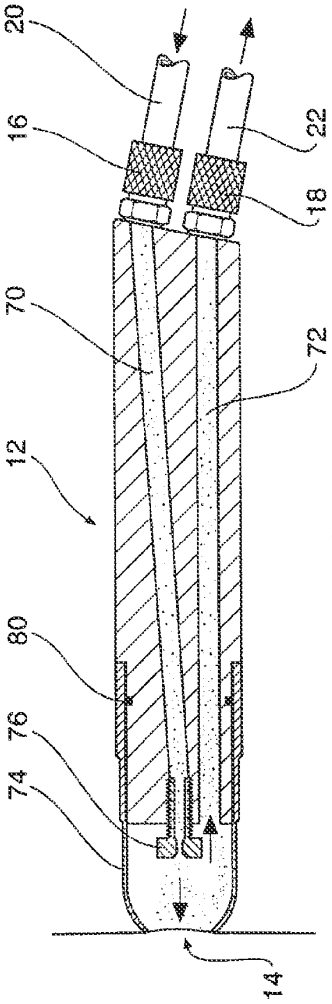


FIG 4

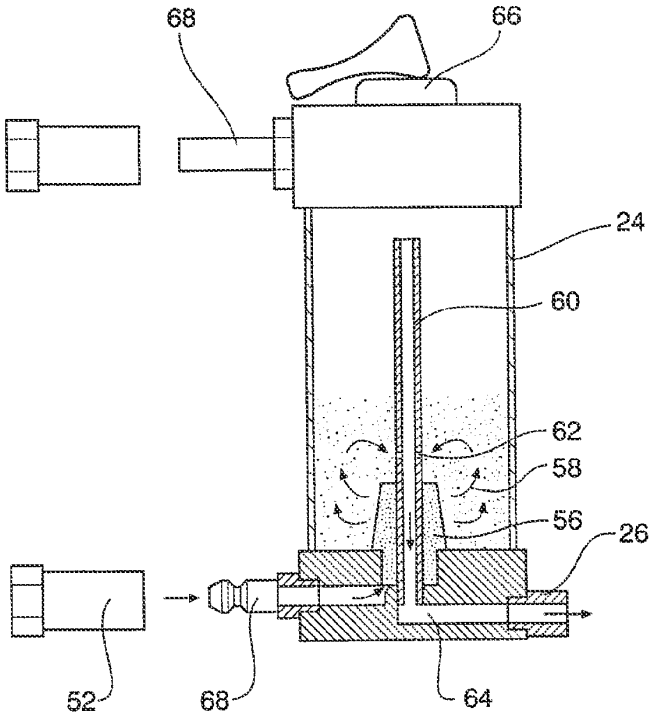


FIG 5

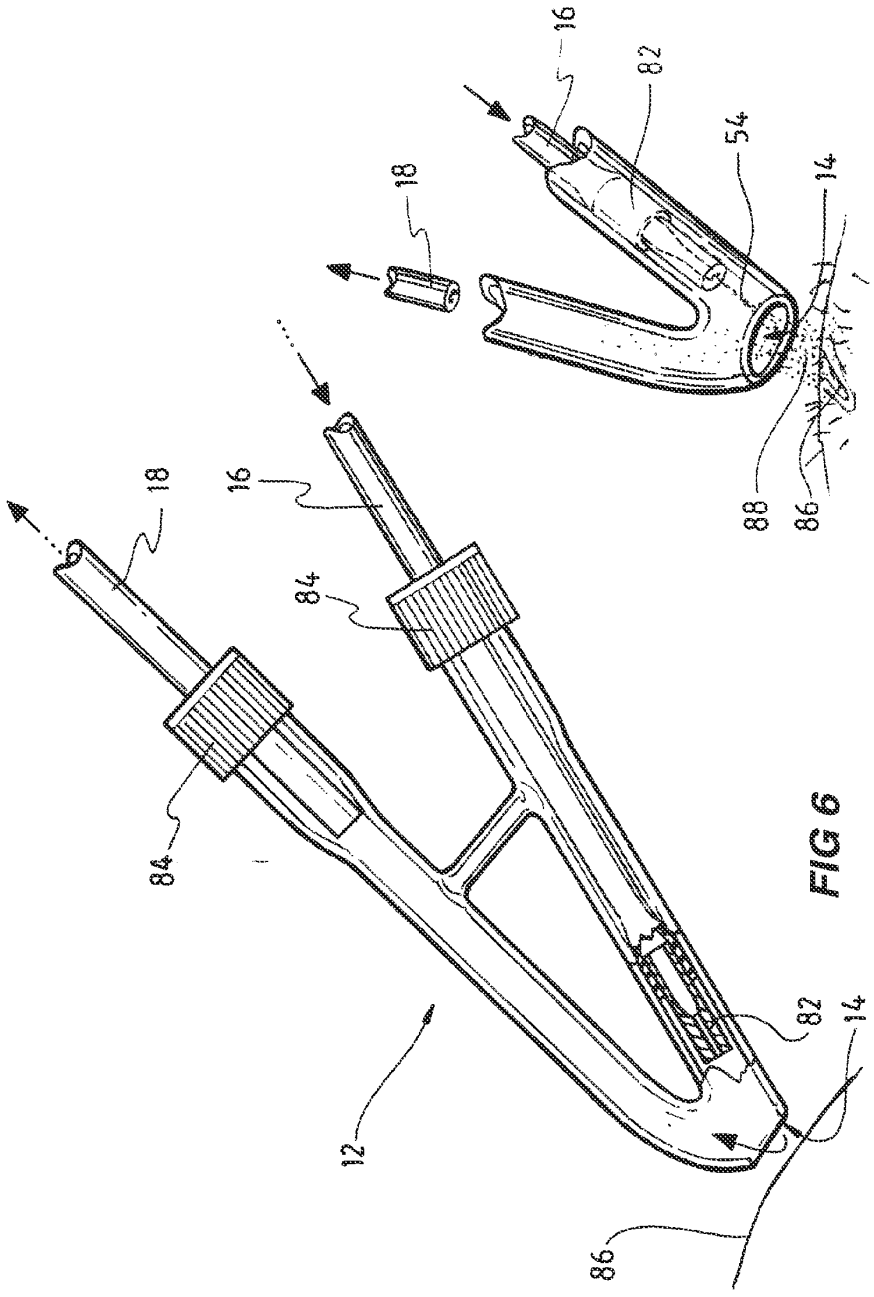


FIG 7

FIG 6

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU 98/00936

A. CLASSIFICATION OF SUBJECT MATTER

Int Cl[6]: A61B 17/00 C14B 1/46

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
A61B C14B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
DERWENT
JAPIO

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 564392 A (FRUCTUOSO MARTINEZ) 6 October 1993 column 3 lines 41-44	1-8, 10-12, 17
X	WO 97/11650 A (CAWLEY) 3 April 1997 page 10 line 1 - page 11 line 11	1-8, 10-17
X	EP 318042 A (MOLLNARI et al) 31 May 1989 column 2 lines 27-36	1, 4-8, 10, 12, 13, 15-17

[X] Further documents are listed in the continuation of Box C

[X] See patent family annex

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search
17 December 1998

Date of mailing of the international search report
05 January 1999

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INTERNATIONAL SEARCH REPORT

international application No.
PCT/AU 98/00936

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	EP 806184 A (MATTIOLI ENGINEERING S.R.L.) 12 November 1997 column 2 line 55 - column 3 line 20	1-8, 10-13, 15, 16
A	EP 324448 A (L.I.C.A. di ROSSO & C. S.N.C) 19 July 1989 abstract	1

Form PCT/ISA/210 (continuation of second sheet) (July 1998) cophin

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/AU 98/00936

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member					
EP	564392						
WO	97/11650	AU	70919/96	GB	2319480		
EP	318042	US	5037432				
EP	806184	IT	96300108	JP	10043188		
EP	324448	AU	29248/89	BR	8907135	HU	55211
		IT	1218945	US	5100412	US	5207234
		WO	89/06113				

END OF ANNEX

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Beauty device

Summary

[Purpose of the item]
This creation is about a beauty device that uses a variety of weak current modes and light modes to stimulate the skin through electrodes or use LED lights to care for the skin, activate skin surface cells, and promote skin metabolism.
[Creative Features]
The characteristic of this beauty device is that: there are four electrode bodies arranged at equal intervals on the end face of the head. Each electrode body is in a triangular shape. After it is energized, it contacts the skin for electrode stimulation. , the weak current can be gradually concentrated from the outside to the center, so that the skin can be stimulated and activated by contraction; the overall shape of the beauty device is short and fat, and the handle is designed to be micro-tapered from top to bottom to suit the use of the device. The stability, the ratio of the electric stimulation tip and the grip body are easy to operate, and it is conducive to contacting the tip with the body skin or facial skin for large-area current stimulation. In addition, the head end is transparent, and its inner surface is equipped with LED lights arranged in a cross. When the LED lights emit light, it can activate the metabolism of human skin. The switch function at the front end of the grip is set to an exposed design, which
is extremely The style and appearance are beautiful.
As for the overall appearance design of this creation, please refer to the attached picture.
Overall, this beauty device meets the requirements for a new model patent. I would like to apply for it in accordance with the law. I would be grateful if you could be granted a patent.

bibliographic information

Application date	20120910
Announcement day	20130801
Application Number	TW101305301
Announcement number	TWD 155201 S
Certificate No	D 155201
applicant	Heqin Industrial Co., Ltd. No. 52, Wuquan 7th Road, Wugu District, New Taipei City (Republic of China) (TW)
inventor	Zhang Minghe (Republic of China) (TW)
censorship committee	Wu Pozhao
Citing patents	TWD115262; TWD148607; JPD1323243; JPD1416069; USD582048
Number of times referenced	00009
LOC	28-03
Bulletin issue	40-22
category code	S

Detailed description

[Purpose of the item]

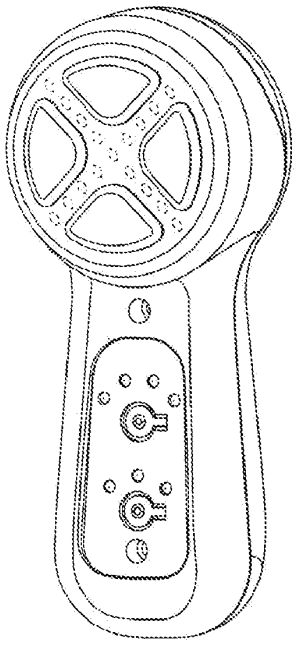
This creation is about a beauty device that uses a variety of weak current modes and light modes to stimulate the skin through electrodes or use LED lights to protect the skin, activate skin surface cells, and promote skin metabolism.

[Design description]

The characteristic of this facial beauty device is that: there are four electrode bodies arranged at equal intervals on the end face of the head. Each electrode body is triangular. After it is energized, it contacts the skin for electrode stimulation. , the weak current can be gradually concentrated from the outside to the center, so that the skin can be stimulated and activated by contraction; the overall shape of the beauty device is short and fat, and the handle is designed to be micro-tapered from top to bottom to suit the use of the device. The stability, the ratio of the electric stimulation tip and the grip body are easy to operate, and it is conducive to contacting the tip with the body skin or facial skin for large-area current stimulation. In addition, the head end is transparent, and its inner surface is equipped with LED lights arranged in a cross. When the LED lights emit light, it can activate the metabolism of human skin. The switch function at the front end of the grip is set to an exposed design, which is extremely coordinated and beautiful with the overall composition. The style and appearance are beautiful.

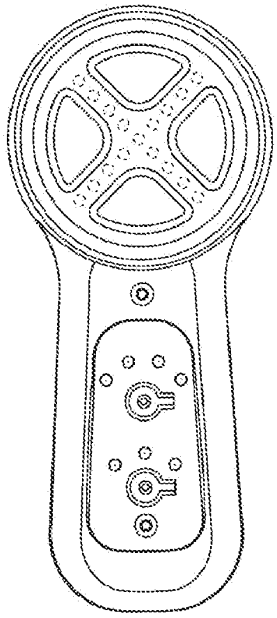
As for the overall appearance design of this creation, please refer to the attached picture.

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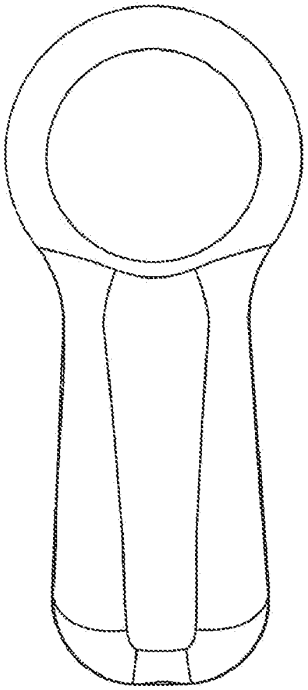


立體圖

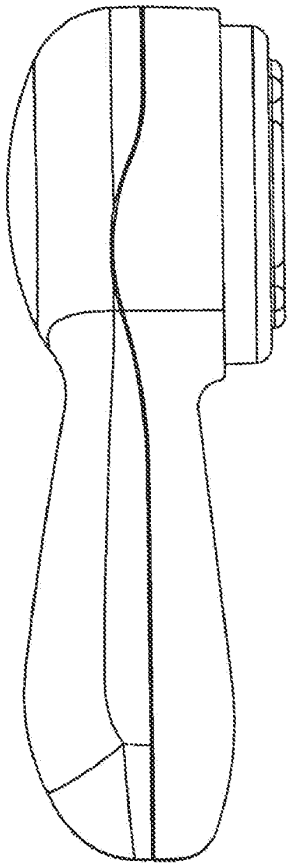
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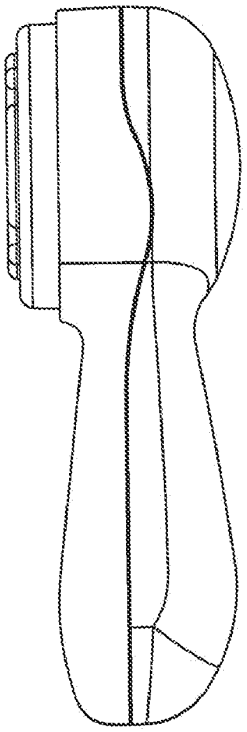
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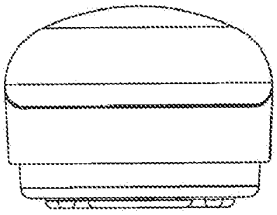
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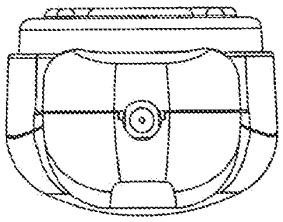
左側視圖



右側視圖



俯視圖



仰視圖

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【19】中華民國　　【12】專利公報　（S）

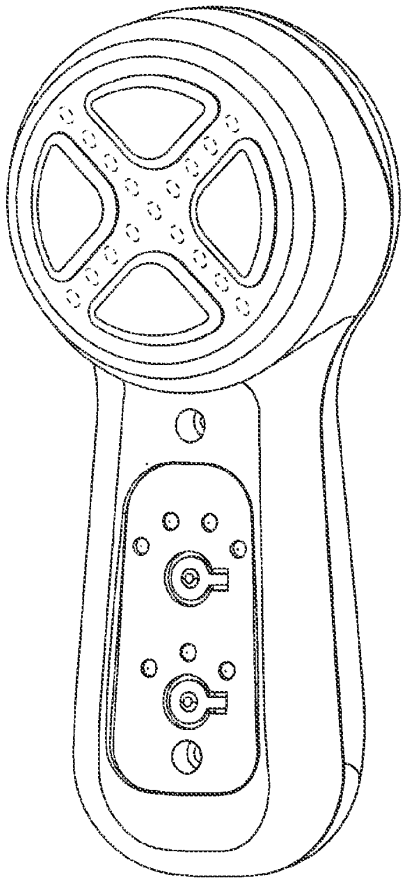
【11】證書號數：D155201
【45】公告日： 中華民國 102 (2013) 年 08 月 01 日
【51】LOC. (9) Cl. ：28-03

設計　　全7 頁

【54】名　　稱：美顏器
【21】申請案號：101305301　　【22】申請日： 中華民國 101 (2012) 年 09 月 10 日
【72】設 計 人： 張明和 (TW)
【71】申 請 人： 和勤實業有限公司
新北市五股區五權七路 52 號
【56】參考文獻：

TW	D115262	TW	D148607
JP	D1323243	JP	D1416069
US	D582048		

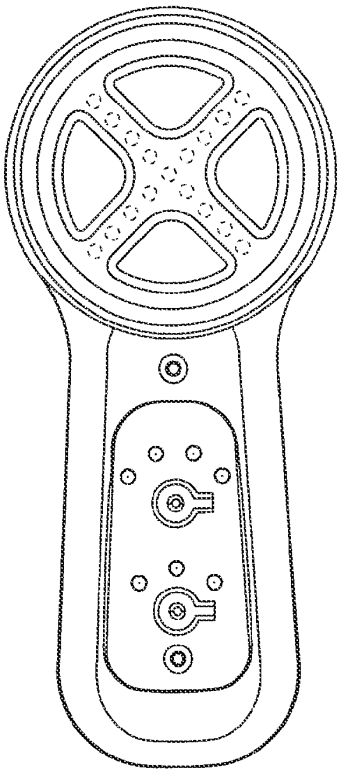
審查人員：吳珀昭



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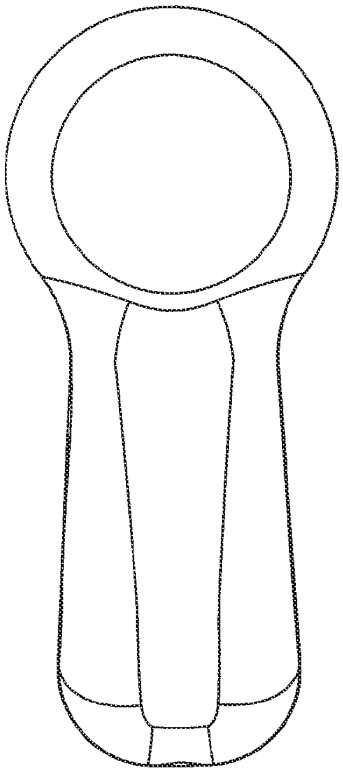
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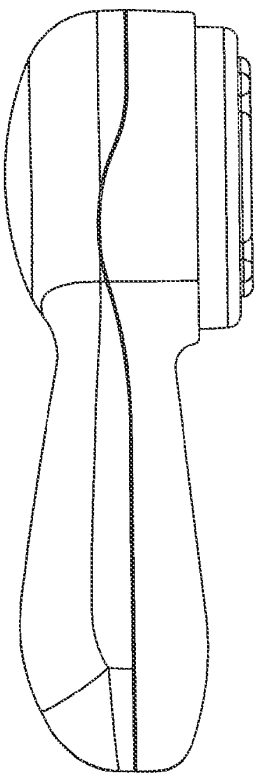
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(4)

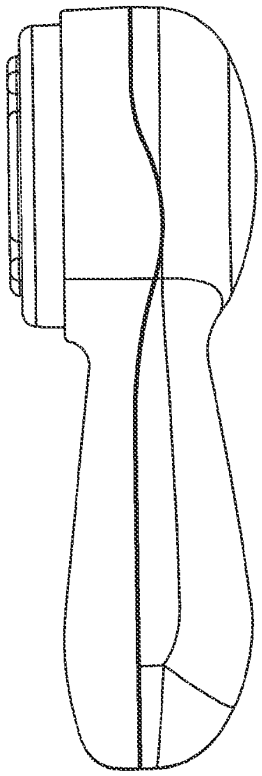


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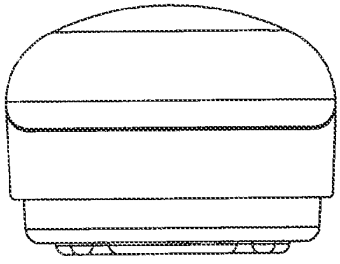
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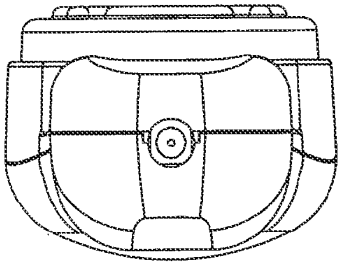
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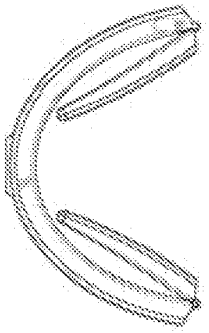


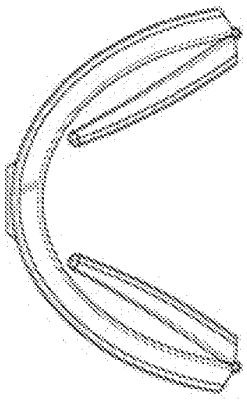
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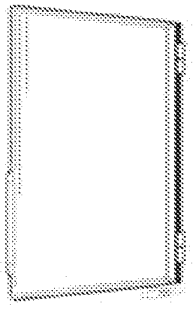


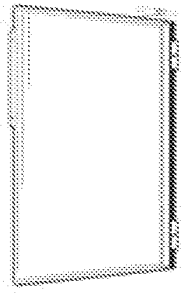
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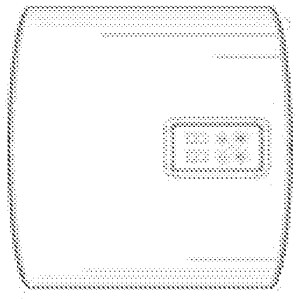
1/1-DESIGNS-©Questel

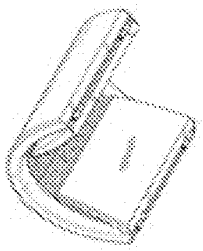


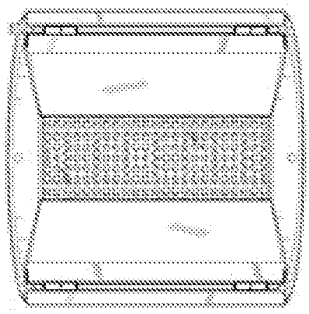


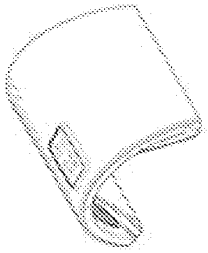












Title
Light Therapy Device for Skin Care
Country code
GB
Serial number of registration
6228947
Date of the registration
2022-09-02
Duration of protection
5
Expiration date of renewal
2027-09-02
Application number
6228947

App. date
2022-09-02
Priority data
US, 2022-03-04, 29/829,476
Priority number
US, 2022-03-04, 29/829,476
Priority date
2022-03-04
Priority country
US
Publication date
2022-09-29
Locarno class
24-01
Designation in English
Light Therapy Device for Skin Care
Name and address of owner
HydraFacial LLC, 2165 E. Spring Street, Long Beach, CA , 90806
Owner name
HydraFacial LLC
Owner address
2165 E. Spring Street, Long Beach, CA , 90806
Agent name and address
Zacco UK Limited, The Surrey Technology Centre, The Surrey Research Park, Guildford, GU2 7YG, (GB)
Legal status
2022-09-28 - Granted

Patent Translate
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Notice

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ABSTRACT TWD176752S

10 [Use of item]; A beauty device used for facial massage. ;[Design Description];This design is about the design of a beauty device, especially the overall smooth and unique artistic conception design as shown in the attached picture, so as to provide users with new visual enjoyment. ; Please refer to all the accompanying pictures. Overall, it presents a smooth curved design. The body part is slightly wider and tapers inward at both ends, forming an oval-like aesthetic to provide users with excellent comfort. It has a gripping feel, and has a slightly round massage part at one end, and a cross-shaped body on one side, and the four ends of the cross-shaped body have round bodies respectively, and there are also areas that are not covered by the cross-shaped body. The area has several circular bodies arranged in an oblique manner to form an X shape, and there is an approximately rhombus-shaped body at the body part. ; To sum up, this creation has a smooth curved design and produces a particularly novel visual experience. It is truly a rare creation and has never been seen in any publication or publicly used. It is fully in line with [novelty] and [design]), the design patent application for this case shall be submitted to the Jun Bureau in accordance with the provisions of the Patent Law. It is a real benefit to Shangjun Bureau and your review committee to be able to review the case favorably and grant the patent for the design of this case as soon as possible.

D176752

(19)中華民國智慧財產局

(12)設計說明書公告本 (11)證書號數：TW D176752 S

(45)公告日： 中華民國 105 (2016) 年 06 月 21 日

(21)申請案號：104307052 (22)申請日： 中華民國 104 (2015) 年 12 月 18 日

(51)LOC.(9)Cl.：28-03

(71)申請人：張庭瑄 (中華民國) (TW)

新北市永和區保生路 2 號 10 樓

(72)設計人：張庭瑄 (TW)

(74)代理人：蘇彥文

(56)參考文獻：

TW D115262 TW D170521

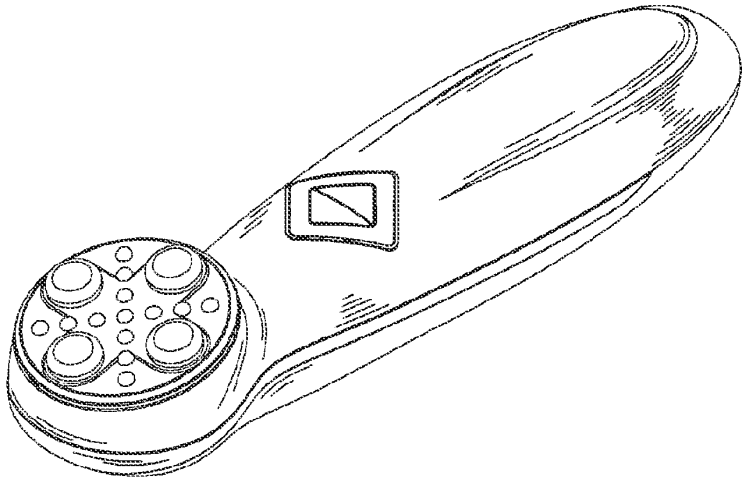
審查人員：吳珀昭

圖式數：7 共 8 頁

(54)名稱

美顏器

代表圖：



立體圖(代表圖)

D176752

公告本

設計專利說明書

（本說明書格式、順序，請勿任意更動，※記號部分請勿填寫）

※ 申請案號：104307052　　※LOC分類：28-03 M0074

※ 申請日：104. 12. 18

【設計名稱】（中文／英文）

美顏器

【設計用途】

一種用於臉部按摩之美顏器。

【設計說明】（圖式包括色彩者，如不主張色彩應於本欄敘明之）

本設計係有關於一種美顏器設計，尤指如附圖所示之整體線條流暢別緻之意境設計，俾供使用者於視覺上的新享受。

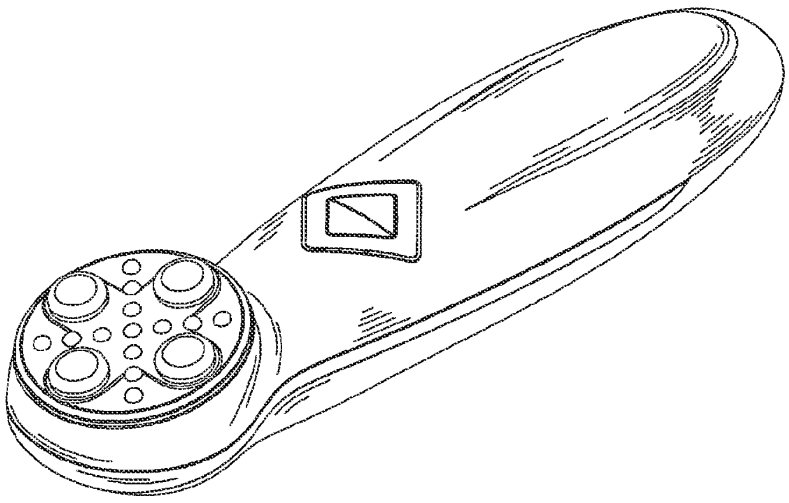
請參閱全部附圖所示，整體而言呈現一種滑順曲線之設計感，身體部位乃略微寬體並兩端向內漸縮，形成一類似橢圓形之美感，以提供使用者絕佳之握持感，而在其一端處具有一略呈圓形之按摩部，其一面處具有一十字形體，並十字形體的四個端處乃分別具有圓形體，更於非十字形體所覆蓋之區域具有數個以傾斜排列方式排列的圓形體，而形成一X態樣，另外於身體部位處具有一近似菱形體。

綜觀上述，本創作其具有滑順曲線之設計感，而產生尤爲新穎之視覺感受，誠屬難得之創作，且從未見於任何刊物或曾公開使用，完全符合〔新穎性〕及〔設計性〕之設計要件，爰依專利法之規定向鈞局提呈本案設計專利申請。倘　鈞局暨貴審查委員能惠予審理，並早日賜准本案設計之專利，實感得惠。

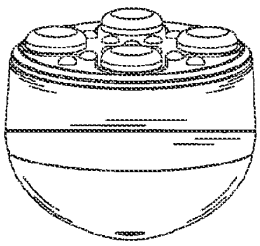
D176752

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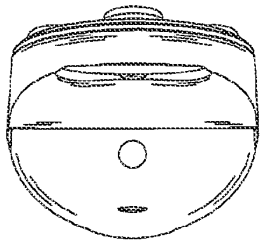
(指定之代表圖，請單獨置於圖式第1頁)



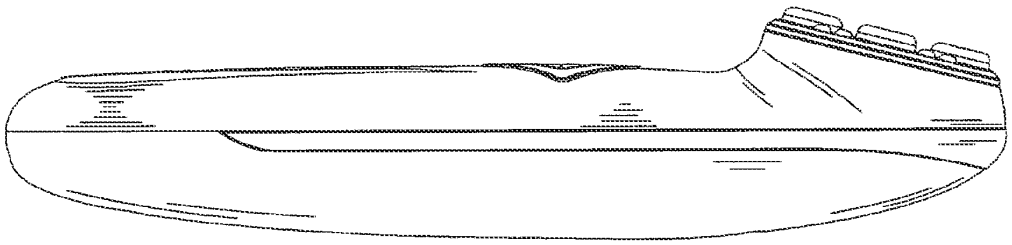
立體圖(代表圖)



前視圖

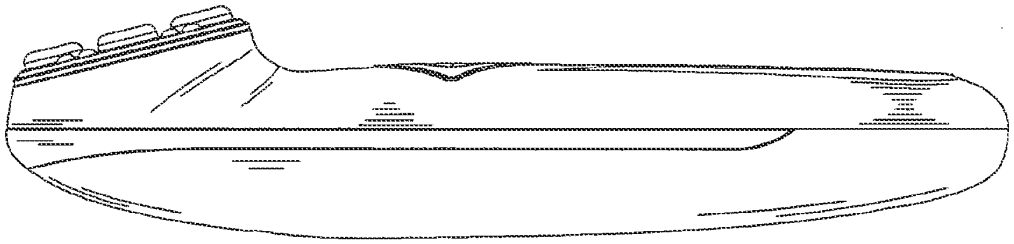


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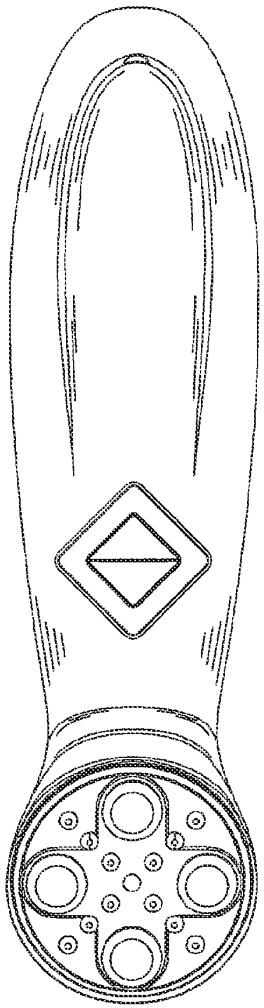


左側視圖

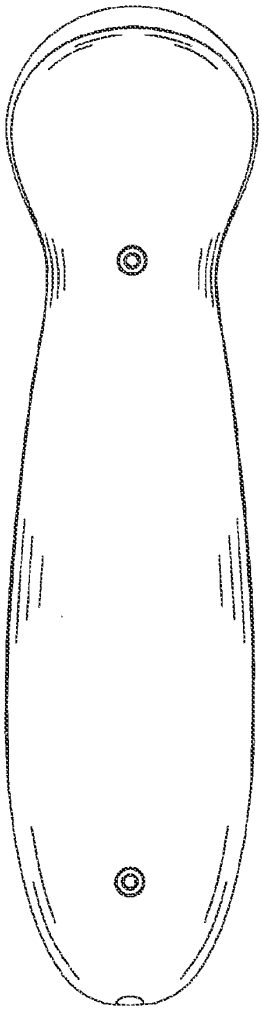
D176752



右側視圖



俯視圖



仰視圖

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
18/487,916	10/16/2023	Roger Ignon	EDGE.005C11	3841

20995 7590 04/02/2024

Knobbe, Martens, Olson & Bear, LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

EXAMINER
CENTRAL, DOCKET

ART UNIT	PAPER NUMBER
OPAP	

NOTIFICATION DATE	DELIVERY MODE
04/02/2024	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Atty.AdminCoordinator@knobbe.com
efiling@knobbe.com

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

In re Application of	:	
HydraFacial LLC	:	
Application No. 18/487,916	:	
Filed: 16 Oct 2023	:	DECISION ON PETITION
For: DEVICES AND METHODS FOR TREATING SKIN	:	

This is a decision on the petition under 37 CFR 1.78(e), filed March 12, 2024, to accept an unintentionally delayed claim under 35 U.S.C. 120 for the benefit of priority to the prior-filed nonprovisional applications listed in the concurrently filed application data sheet (ADS). In addition, this decision addresses the petition under 37 CFR 1.182, filed March 12, 2024, to expedite consideration of the aforementioned delayed benefit petition.[1]

The petition under 37 CFR 1.182 is **GRANTED**. The petition under 37 CFR 1.78 (e), filed March 12, 2024, is being taken up for consideration on an expedited basis.

The petition under 37 CFR 1.78(e) is **DISMISSED**.

A petition for acceptance of a claim for late priority under 37 CFR 1.78(e) is only applicable to those applications in which a proper benefit claim is filed after the expiration of the period specified in 37 CFR 1.78(d)(3). In addition, the petition under 37 CFR 1.78(e) must be accompanied by:

(1) the reference required by 35 U.S.C. 120 and 37 CFR 1.78(d)(2) of the prior-filed application, which must be filed in an ADS, unless previously submitted;
(2) the petition fee set forth in § 1.17(m); and
(3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(d)(3) and the date the claim was filed was unintentional. The Director may require additional where there is a question whether the delay was unintentional.

This petition does not meet requirement (1) above.

[1] The Office acknowledges receipt of the required $420 petition fee.

With respect to (1) above: The reference in the Domestic Priority Information section of the ADS filed March 12, 2024 is not acceptable for two reasons.

First, the first line of the Domestic Priority Information section of the March 12, 2024 ADS contains a typographical error. The Prior Appl. No. listed is 18/094,844. Application No. 18/094,844 is not related to the subject application. The correct Prior Appl No. is 18/094,8**8**4. The benefit chain falls apart at the first line.

Second, even if the correct Prior Appl. No (18/094,884) had been listed, the benefit information in this application cannot be corrected until the benefit information in Application No. 18/094,884 is corrected via a granted petition under 37 CFR 1.78(e).

If reconsideration of this decision is desired, please file a renewed petition under 37 CFR 1.78(e) (no additional petition fee due), and an ADS (complying with the provisions 37 CFR 1.76(b)(5)) presenting a proper benefit chain. Any renewed petition in this application may be filed once a renewed petition under 37 CFR 1.78(e), a draft certificate of correction correcting section (63) of the front page of the Letters Patent, and the $160 certificate of correction fee are filed in Application No. 18/094,884.

Further correspondence with respect to this matter should be delivered through one of the following mediums:

By mail:	Mail Stop PETITIONS Commissioner for Patents Post Office Box 1450 Alexandria, VA 22313-1450
By hand:	Customer Service Window Mail Stop Petitions Randolph Building 401 Dulany Street Alexandria, VA 22314
By fax:	(571) 273-8300 ATTN: Office of Petitions

Registered users may file via the Office's electronic filing system.

Any questions concerning this matter may be directed to the undersigned at (571) 272-3230.

/SHIRENE W BRANTLEY/
Attorney Advisor, OPET

Doc code: PET.OP.AGE
Description: Petition to make special based on age/health

PTO/SB/130 (01-19)
Approved for use through 05/31/2024. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

PETITION TO MAKE SPECIAL BASED ON AGE FOR ADVANCEMENT OF EXAMINATION UNDER 37 CFR 1.102(c)(1)

Application Information

Application Number	18/487916	Confirmation Number	3841	Filing Date	October 16, 2023
Attorney Docket Number (optional)	EDGE.005C11	Art Unit	Not Yet Assigned	Examiner	Not Yet Assigned
First Named Inventor	Ignon, Roger				
Title of Invention	DEVICES AND METHODS FOR TREATING SKIN				

Attention: Office of Petitions

An application may be made special for advancement of examination upon filing of a petition showing that the applicant is 65 years of age, or more. No fee is required with such a petition. See 37 CFR 1.102(c)(1) and MPEP 708.02 (II).

APPLICANT HEREBY PETITIONS TO MAKE SPECIAL FOR ADVANCEMENT OF EXAMINATION IN THIS APPLICATION UNDER 37 CFR 1.102(c)(1) and MPEP 708.02 (II) ON THE BASIS OF THE APPLICANT'S AGE.

A grantable petition requires one of the following items:

(1) Statement by one named inventor in the application that he/she is 65 years of age, or more; or

(2) Certification by a registered attorney/agent having evidence such as a birth certificate, passport, driver's license, etc. showing one named inventor in the application is 65 years of age, or more.

Name of inventor who is 65 years of age, or older

Given Name	Middle Name	Family Name	Suffix
Roger		Ignon	

A signature of the applicant or representative is required in accordance with 37 CFR 1.33 and 11.18. Please see 37 CFR 1.4(d) for the format of the signature.

Select (1) or (2):

☐ (1) I am an inventor in this application and I am 65 years of age, or more.

☒ (2) I am an attorney or agent registered to practice before the Patent and Trademark Office, and I certify that I am in possession of evidence, and will retain such in the application file record, showing that the inventor listed above is 65 years of age, or more.

Signature	/ Daniel M. Mittelstein /	Date (YYYY-MM-DD)	2024-03-27
Name	Daniel M. Mittelstein	Registration Number	79,750

A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with an information collection subject to the requirements of the Paperwork Reduction Act of 1995, unless the information collection has a currently valid OMB Control Number. The OMB Control Number for this information collection is 0651-0031. Public burden for this form is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden to the Chief Administrative Officer, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450 or email InformationCollection@uspto.gov. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.** If filing this completed form by mail, send to: **Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450**.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. The United States Patent and Trademark Office (USPTO) collects the information in this record under authority of 35 U.S.C. 2. The USPTO's system of records is used to manage all applicant and owner information including name, citizenship, residence, post office address, and other information with respect to inventors and their legal representatives pertaining to the applicant's/owner's activities in connection with the invention for which a patent is sought or has been granted. The applicable Privacy Act System of Records Notice for the information collected in this form is COMMERCE/PAT-TM-7 Patent Application Files, available in the Federal Register at 78 FR 19243 (March 29, 2013). https://www.govinfo.gov/content/pkg/FR-2013-03-29/pdf/2013-07341.pdf

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1) law enforcement, in the event that the system of records indicates a violation or potential violation of law;

2) a federal, state, local, or international agency, in response to its request;

3) a contractor of the USPTO having need for the information in order to perform a contract;

4) the Department of Justice for determination of whether the Freedom of Information Act (FOIA) requires disclosure of the record;

5) a Member of Congress submitting a request involving an individual to whom the record pertains, when the individual has requested the Member's assistance with respect to the subject matter of the record;

6) a court, magistrate, or administrative tribunal, in the course of presenting evidence, including disclosures to opposing counsel in the course of settlement negotiations;

7) the Administrator, General Services Administration (GSA), or their designee, during an inspection of records conducted by GSA under authority of 44 U.S.C. 2904 and 2906, in accordance with the GSA regulations and any other relevant (i.e., GSA or Commerce) directive, where such disclosure shall not be used to make determinations about individuals;

8) another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c));

9) the Office of Personnel Management (OPM) for personnel research purposes; and

10) the Office of Management and Budget (OMB) for legislative coordination and clearance.

If you do not furnish the information requested on this form, the USPTO may not be able to process and/or examine your submission, which may result in termination of proceedings, abandonment of the application, and/or expiration of the patent.

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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
18/487,916	**03/27/2024 03:09:00 PM Z ET**	**EDGE.005C11**

Title of Invention

DEVICES AND METHODS FOR TREATING SKIN

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	3841	FILED BY	Will Nguyen
PATENT CENTER #	64858491	FILING DATE	10/16/2023
CUSTOMER #	20995	FIRST NAMED INVENTOR	Roger Ignon
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Daniel Mittelstein

Documents

TOTAL DOCUMENTS: 1

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
EDGE-005C11_AGE.pdf	2	Petition to make special based on Age/Health	253 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
EDGE-005C11_AGE.pdf	2D4F00E19411B74E2894CB3BD1DA696A482DF093ED599E7A7199215D4A904F9972E7C910C8F2C24711B7413A936128FD1AC758DB6D7F8BDA5160D532A0E1375E

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

APPLICATION DATA SHEET

Application Information

Application Number:	18/487916
Filing Date:	October 16, 2023
Title:	DEVICES AND METHODS FOR TREATING SKIN
Attorney Docket Number:	EDGE.005C11

Domestic Priority Information

Application:	Continuity Type:	Prior Appl. No.:	Prior Appl. Filing Date:	Prior Appl. Patent No.:	Prior Appl. Issue Date:
	~~Continuation~~ Continuation	~~18/094844~~ 18/094844	~~2023-01-09~~ 2023-01-09	11865287	2024-01-09
18/094884	Continuation	17/165820	2021-02-02	11547840	2023-01-10
17/165820	Continuation	16/517268	2019-07-19	11446477	2022-09-20
~~16/517268~~	~~Continuation~~	~~15/660777~~	~~2017-07-26~~	~~10357642~~	~~2019-07-23~~
~~15/660777~~ 16/517268	~~Continuation~~ Continuation	~~15/660750~~ 15/660750	~~2017-07-26~~ 2017-07-26	~~10357641~~ 10357641	~~2019-07-23~~ 2019-07-23
15/660750	Continuation	14/700789	2015-04-30	9814868	2017-11-14
~~14/700789~~	~~Continuation~~	~~14/698713~~	~~2015-04-28~~	~~9662482~~	~~2017-05-30~~
~~14/698713~~	~~Continuation~~	~~14/698673~~	~~2015-04-28~~	~~9550052~~	~~2017-01-24~~
~~14/698673~~ 14/700789	~~Continuation~~ Continuation	~~13/267554~~ 13/267554	~~2011-10-06~~ 2011-10-06	~~9474886~~ 9474886	~~2016-10-25~~ 2016-10-25
13/267554	Continuation	11/392348	2006-03-29	8048089	2011-11-01
11/392348	Claims benefit of provisional	60/764668	2006-02-02		
11/392348	Claims benefit of provisional	60/755310	2005-12-30		

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Representative Customer Number: 20995

Dated: March 12, 2024

By: /Theodore G. Papagiannis/
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UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
18/487,916	**03/12/2024 10:53:52 PM Z ET**	**EDGE.005C11**

Title of Invention

DEVICES AND METHODS FOR TREATING SKIN

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	3841	FILED BY	Will Nguyen
PATENT CENTER #	64658547	FILING DATE	10/16/2023
CUSTOMER #	20995	FIRST NAMED INVENTOR	Roger Ignon
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Theodore Papagiannis

Documents

TOTAL DOCUMENTS: 7

DOCUMENT		PAGES	DESCRIPTION	SIZE (KB)
EDGE-005C11_PETITION.pdf		3	Petition for review by the Office of Petitions	27 KB
EDGE-005C11_EXPEDITE.pdf		1	Petition for review by the Office of Petitions	77 KB
EDGE-005C11_PRELIM.pdf		7	-	62 KB
EDGE-005C11_PRELIM-A.PE.pdf	(1-1)	1	Preliminary Amendment	18 KB
EDGE-005C11_PRELIM-SPEC.pdf	(2-2)	1	Specification	20 KB
EDGE-005C11_PRELIM-REM.pdf	(3-7)	5	Applicant Arguments/Remarks Made in an Amendment	53 KB
EDGE-		1	Request for Corrected Filing	18 KB

005C11_REQUESTCFR.pdf		Receipt	
EDGE005C11_CorrectedADS_Updated.pdf	2	Application Data Sheet	29 KB

Warning: This is not a USPTO supplied ADS fillable form. Data in the form cannot be automatically loaded to other USPTO systems.

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
EDGE-005C11_PETITION.pdf	43985BE7EE29E83590F71FE057F01B2683EADBAD9E418F4A9428EDFDDD60B0F69B817E7324D615C895638608F46265F3269073B65188FE313943D6A0B19085CB
EDGE-005C11_EXPEDITE.pdf	5ABA718BA6D1D5BC0774A06B5019F4183EEA3AFE47522ECEF96D769A13633C7CE500F4BC1933F618B47221008D2413DBDB45143A98D6BC4F558F4AC863873A00
EDGE-005C11_PRELIM.pdf	642C8370E3BD6F4A26DDD3D15E70FAF742E03CD82D86F7A1A17F205D607396F6A1EF7F3AF0B0CAC25FB6471492C5637437CB240D55AB3286AA2381C22D0604A2
EDGE-005C11_PRELIM-A.PE.pdf	E8EC1300BE3F713315FDB3C8E8524A10F42668C09A41FBA2FBD2F7EC2FA63AB426C48BB0E4E9CF3C1CCD6FC4DD95C9A462E73FA3D3767C4B31EA3FC5445FA3F3
EDGE-005C11_PRELIM-SPEC.pdf	A3FB36A91090CD415800CED3DD727D30E7A7BF8F28F18C7A5E88E90CE4C0458F60E0C5983F2389AD5C7AB37902DCFE14A63C91B8DA8874110898446448 81A771
EDGE-005C11_PRELIM-REM.pdf	66D00E32B634F112A864D0F9157ED6842F0074F1FE72F64B694E151E151B0D87DA05184526B104E8B49E6274A1FA2CF9F341DD62AF73F523F67F089FCA1F4B2A
EDGE-005C11_REQUESTCFR.pdf	35625BA7D177B88D8FAFF723E72A0673DE7917C7292AE6B10D382BE6113DED3FE111AB025B694723A258460CF509B36CBA8530DE2EF4DCDAA33A3144D4DFDAFB
EDGE005C11_CorrectedADS_Updated.pdf	2F972D479E6BF8D8B9BD8E06B24925933F2826C3316E84ED5251D880936AD6E3E7C727BE68727F49B5E3ABF7149756371308D911FB7F157B4C45B6EB4A971C91

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PRELIMINARY AMENDMENT

First Inventor: Roger Ignon	**Conf. No.:** 3841
Appl. No.: 18/487,916	**Filed:** October 16, 2023
Examiner: Unassigned	**Art Unit:** Unassigned
Title: DEVICES AND METHODS FOR TREATING SKIN	

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner:

Prior to examination of the above-referenced application, Applicant submits the following:

Amendments to the Specification begin on page 2 of this paper.

Remarks begin on page 3 of this paper.

AMENDMENTS TO THE SPECIFICATION

Please amend the Specification as indicated below. Please note that in the amendments deletions are indicated by strikethrough (e.g., ~~deletion~~) or double brackets (e.g., [[word]]) and additions are underlined (e.g., addition).

[0001] This is a continuation of U.S. Patent Application No. 18/094,884 filed January 9, 2023 and issued as U.S. Patent No. 11,865,287 on January 9, 2024, which is a continuation of U.S. Patent Application No. 17/165,820 filed February 2, 2021[[,]] and issued as U.S. Patent No. 11,547,840 on January 10, 2023, which is a continuation of U.S. Patent Application No. 16/517,268 filed July 19, 2019 and issued as U.S. Patent No. 11,446,477 on September 20, 2022, ~~which is a continuation of U.S. Patent Application No. 15/660,777 filed July 26, 2017 and issued as U.S. Patent No. 10,357,642 on July 23, 2019,~~ which is a continuation of U.S. Patent Application 15/660,750 filed July 26, 2017 and issued as U.S. Patent No. 10,357,641 on July 23, 2019, which is a continuation of U.S. Patent Application No. 14/700,789 filed April 30, 2015 and issued as U.S. Patent No. 9,814,868 on November 14, 2017, ~~which is a continuation of U.S. Patent Application No. 14/698,713 filed April 28, 2015 and issued as U.S. Patent No. 9,662,482 on May 30, 2017, which is a continuation of U.S. Patent Application No. 14/698,673 filed April 28, 2015 and issued as U.S. Patent No. 9,550,052 on January 24, 2017,~~ which is a continuation of U.S. Patent Application No. 13/267,554 filed October 6, 2011 and issued as U.S. Patent No. 9,474,886 on October 25, 2016, which is a continuation of U.S. Patent Application No. 11/392,348 filed March 29, 2006 and issued as U.S. Patent No. 8,048,089 on November 1, 2011, which claims the benefit of U.S. Provisional Application No. 60/755,310 filed December 30, 2005 and U.S. Provisional Application No. 60/764,668 filed February 2, 2006. The entireties of all of the aforementioned applications are hereby incorporated by reference herein.

REMARKS

Applicant submits this Preliminary Amendment prior to examination. This Preliminary Amendment is accompanied by a Petition for Acceptance of an Unintentionally Delayed Correction of a Benefit Claim under 37 C.F.R. §1.78(e) and a Request for a Corrected Filing Receipt. Applicant submits that no new matter is added by the foregoing amendments.

No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

Patents and Patent Applications of Assignee

Applicant wishes to draw the Examiner's attention to the following U.S. patents and patent applications of the present application's assignee.

Attorney Docket No.	Appl. No. (Pat. No., if appl.)	Filing Date	Title
EDGE.004A	09/648,025 (Pat. No. 6,641,591)	Aug. 25, 2000	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C1	10/699,747 (Pat. No. 7,789886)	Nov. 3, 2003	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C1DV1	11/739,615 (Pat. No. 8,337,513)	Apr. 24, 2007	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C2	11/417,709 (Pat. No. 8,066,716)	May. 3, 2006	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C3	11/417,396 (Pat. No. 7,678,120)	May. 3, 2006	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C4	13/620,164	Sep. 14, 2012	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C5	14/702,509 (Pat. No. 9,775,646)	May. 1, 2015	DEVICES AND SYSTEMS FOR TREATING THE SKIN USING VACUUM
EDGE.004C6	14/702,486 (Pat. No. 9,468,464)	May. 1, 2015	METHODS FOR TREATING THE SKIN USING VACUUM

Application No.: 18/487,916
Filing Date: October 16, 2023

Attorney Docket No.	Appl. No. (Pat. No., if appl.)	Filing Date	Title
EDGE.004C7	15/953,337	Apr. 13, 2018	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.005A	11/392,348 (Pat. No. 8,048,089)	Mar. 29, 2006	APPARATUS AND METHODS FOR TREATING THE SKIN
EDGE.005C1	13/267,554 (Pat. No. 9,474,886)	Oct. 6, 2011	REMOVABLE TIPS FOR SKIN TREATMENT SYSTEMS
EDGE.005C2	14/698,673 (Pat. No. 9,550,052)	Apr. 28, 2015	CONSOLE SYSTEM FOR THE TREATMENT OF SKIN
EDGE.005C3	14/698,713 (Pat. No. 9,662,482)	Apr. 28, 2015	METHODS AND SYSTEMS FOR EXTRACTION OF MATERIALS FROM SKIN
EDGE.005C4	14/700,789 (Pat. No. 9,814,868)	Apr. 30, 2015	TIP WITH EMBEDDED MATERIALS FOR SKIN TREATMENT
EDGE.005C5	15/660,750 (Pat. No. 10,357,641)	Jul. 26, 2017	TIPS FOR SKIN TREATMENT DEVICE
EDGE.005C6	15/660,777 (Pat. No. 10,357,642)	Jul. 26, 2017	REMOVABLE TIPS FOR USE WITH SKIN TREATMENT SYSTEMS
EDGE.005C7	16/517,268 (Pat. No. 11,446,477)	Jul. 19, 2019	DEVICES AND METHODS FOR TREATING SKIN
EDGE.005C8	17/165,820 (Pat. No. 11,547,840)	Feb. 2, 2021	DEVICES AND METHODS FOR TREATING SKIN
EDGE.005C9	17/165,807 (Pat. No. 11,612,726)	Feb. 2, 2021	DEVICES AND METHODS FOR TREATING SKIN
EDGE.005C10	18/094,884 (Pat. No. 11,865,287)	Jan. 9, 2023	DEVICES AND METHODS FOR TREATING SKIN
EDGE.005C11	**18/487,916** ***(present application)***	**Oct. 16, 2023**	**DEVICES AND METHODS FOR TREATING SKIN**
EDGE.005DP1	29/679,299	Feb. 4, 2019	SKIN TREATMENT DEVICE
EDGE.005DP2	29/679,306	Feb. 4, 2019	HANDPIECE ASSEMBLY TIP
EDGE.005DP3	29/679,302	Feb. 4, 2019	HANDPIECE ASSEMBLY TIP
EDGE.006A	09/294,254 (Pat. No. 6,162,232)	Apr. 19, 1999	INSTRUMENTS AND TECHNIQUES FOR HIGH-VELOCITY FLUID ABRASION OF EPIDERMAL LAYERS WITH SKIN COOLING
EDGE.007A	09/475,480 (Pat. No. 6,299,620)	Dec. 30, 1999	INSTRUMENTS AND TECHNIQUES FOR INDUCING NEOCOLLAGENESIS IN SKIN TREATMENTS
EDGE.008A	09/475,479 (Pat. No. 6,387,103)	Dec. 30, 1999	INSTRUMENTS AND TECHNIQUES FOR INDUCING NEOCOLLAGENESIS IN SKIN TREATMENTS
EDGE.022A	11/370,200	Mar. 7, 2006	MICRODERMABRASION METHOD AND APPARATUS
EDGE.044A	12/362,353 (Pat. No. 9,056,193)	Jan. 29, 2009	APPARATUS AND METHOD FOR TREATING THE SKIN
EDGE.044C1	14/734,995 (Pat. No. 11,020,577)	Jun. 9, 2015	DEVICES AND SYSTEMS FOR TREATING SKIN SURFACES
EDGE.044C2	17/332,897	May. 27, 2021	DEVICES, SYSTEMS, AND METHODS FOR TREATING THE SKIN
EDGE.044C3	17/952,569	Sep. 26, 2022	DEVICES, SYSTEMS AND METHODS FOR SKIN TREATMENT
EDGE.044C4	17/952,665	Sep. 26, 2022	DEVICES, SYSTEMS AND METHODS FOR SKIN TREATMENT
EDGE.044CP1	12/832,663 (Pat. No. 8,814,836)	Jul. 8, 2010	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN USING TIME-RELEASE SUBSTANCES

Attorney Docket No.	Appl. No. (Pat. No., if appl.)	Filing Date	Title
EDGE.044P1C1	14/455,762 (Pat. No. 9,642,997)	Aug. 8, 2014	DEVICES FOR TREATING SKIN USING TREATMENT MATERIALS LOCATED ALONG A TIP
EDGE.044P1C2	15/588,102 (Pat. No. 10,556,097)	May. 5, 2017	DEVICES FOR TREATING SKIN USING TREATMENT MATERIALS LOCATED ALONG A TIP
EDGE.044P1C3	16/784,850	Feb. 7, 2020	DEVICES AND METHODS FOR TREATING SKIN
EDGE.047A	12/346,582 (Pat. No. 8,343,116)	Dec. 30, 2008	APPARATUS AND METHOD FOR TREATING THE SKIN
EDGE.047C1	13/620,376 (Pat. No. 9,486,615)	Sep. 14, 2012	MICRODERMABRASION APPARATUS AND METHOD
EDGE.047C2	15/344,357 (Pat. No. 10,556,096)	Nov. 4, 2016	DEVICES AND METHODS FOR SKIN TREATMENT
EDGE.047C3	16/784,044	Feb. 6, 2020	DEVICES AND METHODS FOR SKIN TREATMENT
EDGE.047C4	18/393,501	Dec. 21, 2023	DEVICES AND METHODS FOR SKIN TREATMENT
EDGE.050A	09/540,945 (Pat. No. 6,592,595)	Mar. 31, 2000	MICRODERMABRASION AND SUCTION MASSAGE APPARATUS AND METHOD
EDGE.050C1	09/698,409 (Pat. No. 6,527,783)	Oct. 27, 2000	MICRODERMABRASION AND SUCTION MASSAGE APPARATUS AND METHOD
EDGE.050DV1	10/177,173 (Pat. No. 6,673,082)	Jun. 20, 2002	MICRODERMABRASION HANDPIECE WITH SUPPLY AND RETURN LUMENS
EDGE.051A	10/315,478 (Pat. No. 6,942,649)	Dec. 10, 2002	MICRODERMABRASION FLUID APPLICATION SYSTEM AND METHOD
EDGE.052A	09/699,220 (Pat. No. 6,629,983)	Oct. 27, 2000	APPARATUS AND METHOD FOR SKIN/SURFACE ABRASION
EDGE.065A	14/211,089 (Pat. No. 10,238,812)	Mar. 14, 2014	SKIN TREATMENT SYSTEMS AND METHODS USING NEEDLES
EDGE.065C1	16/363,310	Mar. 25, 2019	SKIN TREATMENT SYSTEMS AND METHODS USING NEEDLES
EDGE.077A	14/211,290 (Pat. No. 9,566,088)	Mar. 14, 2014	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077C1	15/430,209 (Pat. No. 10,251,675)	Feb. 10, 2017	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077C2	16/376,956 (Pat. No. 11,717,326)	Apr. 5, 2019	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077C3	17/952,721	Sep. 26, 2022	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077C4	17/952,676	Sep. 26, 2022	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NP	14/774,641 (Pat. No. 10,172,644)	Sep. 10, 2015	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC1	16/241,572 (Pat. No. 10,993,743)	Jan. 7, 2019	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC2	17/163,128	Jan. 29, 2021	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC3	17/163,199 (Pat. No. 11,517,350)	Jan. 29, 2021	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC4	17/163,237 (Pat. No. 11,202,657)	Jan. 29, 2021	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC5	17/163,240 (Pat. No. 11,213,321)	Jan. 29, 2021	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC6	18/414,791	Jan. 17, 2024	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN

Attorney Docket No.	Appl. No. (Pat. No., if appl.)	Filing Date	Title
EDGE.090A	14/998,375 (Pat. No. 9,498,610)	Dec. 23, 2015	DEVICES AND METHODS FOR TREATING THE SKIN USING A ROLLERBALL OR A WICKING MEMBER
EDGE.090C1	15/354,754 (Pat. No. 10,035,007)	Nov. 17, 2016	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.090C2	16/040,397	Jul. 19, 2018	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.090C3	17/164,580 (Pat. No. 11,744,999)	Feb. 1, 2021	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.090C4	18/460,003	Sep. 1, 2023	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.090P1	15/498,416 (Pat. No. 10,179,229)	Apr. 26, 2017	DEVICES AND METHODS FOR TREATING THE SKIN USING A POROUS MEMBER
EDGE.090P1C1	16/246,306 (Pat. No. 11,224,728)	Jan. 11, 2019	DEVICES AND METHODS FOR TREATING THE SKIN USING A POROUS MEMBER
EDGE.090P1C2	17/576,888 (Pat. No. 11,806,495)	Jan. 14, 2022	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.090P1C3	18/503,063	Nov. 6, 2023	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.091A	15/204,939 (Pat. No. 11,241,357)	Jul. 7, 2016	DEVICES, SYSTEMS AND METHODS FOR PROMOTING HAIR GROWTH
EDGE.091C1	17/592,432	Feb. 3, 2022	DEVICES, SYSTEMS AND METHODS FOR IMPROVING SCALP HEALTH
EDGE.131NP	18/035,723	May. 5, 2023	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.172DA	29/811,066	Oct. 11, 2021	SKIN TREATMENT SYSTEM
EDGE.173DA	29/807,430	Sep. 10, 2021	SKIN TREATMENT DEVICE
EDGE.174DA	29/807,428	Sep. 10, 2021	CONTAINER FOR A SKIN TREATMENT DEVICE
EDGE.179DA	29/829,476	Mar. 4, 2022	LIGHT THERAPY DEVICE FOR SKIN CARE
EDGE.180DA	29/811,070	Oct. 11, 2021	SKIN TREATMENT TIP
EDGE.205DA	29/826,153	Feb. 9, 2022	DUAL TREATMENT DEVICE FOR TREATING ACNE OR WRINKLES
EDGE.205DC1	29/854,067	Sep. 21, 2022	TREATMENT DEVICE FOR SKIN
EDGE.212DA	29/884,441	Feb. 10, 2023	SKIN TREATMENT TIP
EDGE.235DA	29/904,162	Sep. 29, 2023	SKIN TREATMENT TIP
EDGE.236DA	29/904,160	Sep. 29, 2023	SKIN TREATMENT TIP
EDGE.239A	16/992,823 (Pat. No. 11,291,474)	Aug. 13, 2020	SKIN TREATMENT TOOL APPLICATOR TIP
EDGE.239C1	17/685,005	Mar. 2, 2022	SKIN TREATMENT TOOL APPLICATOR TIP
EDGE.245A	14/975,718 (Pat. No. 10,010,708)	Dec. 19, 2015	MICRONEEDLE CARTRIDGE AND NOSECONE ASSEMBLY
EDGE.245P1	15/424,871 (Pat. No. 10,137,289)	Feb. 5, 2017	MICRONEEDLE CARTRIDGE AND NOSECONE ASSEMBLY
EDGE.246A	15/978,928 (Pat. No. 10,441,763)	May. 14, 2018	STERILE APPLICATOR ASSEMBLY
EDGE.246P1	16/379,525 (Pat. No. 10,434,294)	Apr. 9, 2019	STERILE APPLICATOR ASSEMBLY WITH MICRONEEDLE ARRAY

Attorney Docket No.	Appl. No. (Pat. No., if appl.)	Filing Date	Title
EDGE.247A	16/989,874 (Pat. No. 10,967,163)	Aug. 10, 2020	STERILE APPLICATOR ASSEMBLY WITH HOLLOW MICRONEEDLE ARRAY
EDGE.248A	16/438,180 (Pat. No. 11,213,665)	Jun. 11, 2019	ANGLED MICRONEEDLE CARTRIDGE

Copies of these patents and patent applications, including any pending claims, office actions, allowances and/or other communications, are available through PALM and/or PAIR. However, if the Examiner so requests, Applicant will be happy to provide the Examiner with copies of any applications, pending claims, office actions, allowances, communications or any other documents, at any time.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: March 12, 2024

By: /Theodore G. Papagiannis/
Theodore G. Papagiannis
Registration No. 61,546
Registered Practitioner
(949) 760-0404

59157658

PETITION FOR ACCEPTANCE OF AN UNINTENTIONALLY DELAYED CORRECTION OF A BENEFIT CLAIM UNDER 37 C.F.R. §1.78(e)

First Inventor: Roger Ignon	**Conf. No.:** 3841
Appl. No.: 18/487916	**Filed:** October 16, 2023
Examiner: Unassigned	**Art Unit:** Unassigned
Title: DEVICES AND METHODS FOR TREATING SKIN	

Mail Stop Petition
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner:

Summary of Request

HydraFacial LLC ("Applicant"), as Applicant and owner of U.S. Patent Application No. 18/487916 (the "Present Application"), hereby respectfully requests that the United States Patent and Trademark Office ("USPTO") grant the present Petition for Acceptance of an Unintentionally Delayed Correction of a Benefit Claim under 37 C.F.R. §1.78(e). The requested correction is set forth on the Corrected Application Data Sheet filed herewith. Applicant requests the USPTO to issue a Corrected Filing Receipt in accordance with this Petition.

Petition under 37 C.F.R. §1.78(e)

Applicant hereby petitions for the acceptance of an unintentionally delayed correction to the benefit claim under 37 C.F.R. §1.78(e). In support of this request, Applicant provides the following:

(1) The reference required by 35 U.S.C. §120 and 37 C.F.R. §1.78(d)(2) to the prior-filed applications, through the Corrected ADS filed herewith, including all required markings;

(2) The petition fee as set forth in 37 C.F.R. §1.17(m); and

(3) The statement below that the entire delay between the date the benefit claim was due under 37 C.F.R. §1.78(d)(3) and the date the benefit claim was filed was unintentional.

STATEMENT OF UNINTENTIONAL DELAY:

The entire delay between the date the benefit claim was due under 37 CFR §1.78(d)(3) and the submission of the present Petition and accompanying Corrected Application Data Sheet was unintentional.

The original Application Data Sheet ("ADS") filed on October 16, 2023 included all proper predecessor applications in the priority chain; the original ADS, however, also included inadvertent reference to three additional non-provisional applications that were never intended to be and do not belong in the priority claim for the Present Application: U.S. Patent Application Nos. 15/660777, 14/698713, and 14/698673.

It was an unintentional clerical error in the original ADS to list U.S. Patent Application No. 16/517268 as a continuation of U.S. Patent Application No. 15/660777, and to list U.S. Patent Application No. 15/660777 as a continuation of U.S. Patent Application No. 15/660750. Rather, as reflected in the Corrected ADS submitted herewith, U.S. Patent Application No. 16/517268 is a continuation of U.S. Patent Application No. 15/660750.

Likewise, it was an unintentional clerical error in the original ADS to list U.S. Patent Application No. 14/700789 as a continuation of U.S. Patent Application No. 14/698713, and to list U.S. Patent Application No. 14/698713 as a continuation of U.S. Patent Application No. 14/698673. Rather, as reflected in the Corrected ADS submitted herewith, U.S. Patent Application No. 14/700789 is a continuation of U.S. Patent Application No. 13/267554.

The unintentional inclusion of priority claims to U.S. Patent Application No. 15/660777, 14/698713 and 14/698673 in the original ADS was only recently discovered and was the motivation for the prompt filing of this Petition and accompanying documents. Notably, the inadvertent and unintentional inclusion of the three non-provisional applications in the original ADS of the Present Application does not impact the earliest asserted provisional and non-provisional priority dates of the Present Application.

In view of the foregoing, Applicant submits that, based on the documents originally filed with the USPTO for the Present Application, it is clear that the requested correction of the inadvertent and unintentional priority benefit claim as requested is appropriate.

Based on the investigation conducted by the undersigned counsel for Applicant, the issue regarding the benefit claim on the original ADS and the Filing Receipt subsequently mailed by the USPTO for the Present Application went unnoticed, and was unintentionally claimed within, the

Present Application. Neither of these issues with the benefit claims were noticed by Applicant nor responsible counsel until shortly before the filing of this Petition.

For at least the reasons presented above, Applicant submits that correction of the benefit claim is proper and requests granting of the present Petition and the issuance of corresponding Corrected Filing Receipt.

Applicant is submitting the petition fee as set forth in §1.17(m) with this request. Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: March 12, 2024

By:/Theodore G. Papagiannis/
Theodore G. Papagiannis
Registration No. 61,546
Attorney of Record
Customer No. 20995
(949) 760-0404

59225966

PETITION TO EXPEDITE PURSUANT TO 37 C.F.R. §1.182

First Inventor: Roger Ignon	**Conf. No.:** 3841
Appl. No.: 18/487,916	**Filed:** October 16, 2023
Examiner: Unassigned	**Art Unit:** Unassigned
Title: DEVICES AND METHODS FOR TREATING SKIN	

Mail Stop Petition
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner:

Applicant hereby requests that the Office expedite consideration of the Petition for Acceptance of an Unintentionally Delayed Correction of a Benefit Claim under 37 C.F.R. §1.78(e) filed concurrently herewith.

The Commissioner is hereby authorized to charge the fee set forth in 37 C.F.R. §1.17(f), and any necessary additional fees, to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: March 12, 2024

By: /Theodore G. Papagiannis/
Theodore G. Papagiannis
Registration No. 61,546
Attorney of Record
Customer No. 20995
(949) 760-0404

59229200

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC PAYMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
18/487,916	**03/12/2024 10:53:52 PM Z ET**	**EDGE.005C11**

Title of Invention

DEVICES AND METHODS FOR TREATING SKIN

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	3841	FILED BY	Will Nguyen
PATENT CENTER #	64658547	AUTHORIZED BY	Theodore Papagiannis
CUSTOMER #	20995	FILING DATE	10/16/2023
CORRESPONDENCE ADDRESS	-	FIRST NAMED INVENTOR	Roger Ignon

Payment Information

PAYMENT METHOD	PAYMENT TRANSACTION ID	PAYMENT AUTHORIZED BY
CARD / 2549	**E20243BM54457646**	**Carolina Garcia**

PRE-AUTHORIZED ACCOUNT	PRE-AUTHORIZED CATEGORY
111410	**37 CFR 1.16 (National application filing, search, and examination fees); 37 CFR 1.17 (Patent application and reexamination processing fees)**

FEE CODE	DESCRIPTION	ITEM PRICE($)	QUANTITY	ITEM TOTAL($)
1462	PETITIONS REQUIRING THE PETITION FEE SET FORTH IN 37 CFR 1.17(F) (GROUP I)	420.00	1	420.00
1454	PETITION FOR THE DELAYED SUBMISSION OF A PRIORITY OR BENEFIT CLAIM, OR TO RESTORE THE RIGHT OF PRIORITY OR BENEFIT	2100.00	1	2100.00
			TOTAL AMOUNT:	**$2,520.00**

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized

by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

REQUEST FOR UPDATED OR CORRECTED FILING RECEIPT

First Inventor: Roger Ignon	**Conf. No.:** 3841
Appl. No.: 18/487,916	**Filed:** October 16, 2023
Examiner: Unassigned	**Art Unit:** Unassigned
Title: DEVICES AND METHODS FOR TREATING SKIN	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner:

Pursuant to the Petition for Acceptance of an Unintentionally Delayed Correction of a Benefit Claim under 37 CFR §1.78(e) filed herewith, Applicant hereby requests the Office issue an Updated Filing Receipt to correct the Domestic Priority Data of the above-captioned matter. This request includes:

(X) Corrected Application Data Sheet showing the correction to the priority data.

The Commissioner is authorized to charge any required fees or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: March 12, 2024

By: /Theodore G. Papagiannis/
Theodore G. Papagiannis
Registration No. 61,546
Registered Practitioner
(949) 760-0404

59226068

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 18/487,916	Filing Date 10/16/2023	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $100 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $480 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	03/12/2024	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 0	Minus	** 20	= 0		x $100 =	0
	Independent (37 CFR 1.16(h))	* 0	Minus	*** 3	= 0		x $480 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LDRC
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/ANDREW J JAMES JR/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
18/487,916	10/16/2023	Roger Ignon	EDGE.005C11

CONFIRMATION NO. 3841

20995
KNOBBE MARTENS OLSON & BEAR LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

PUBLICATION NOTICE



Date Mailed: 02/01/2024

Title:DEVICES AND METHODS FOR TREATING SKIN

Publication No.US-2024-0033491-A1
Publication Date:02/01/2024

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently https://portal.uspto.gov/pair/PublicPair. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Managment, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 18/487,916

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	320
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	700
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	800
TOTAL CLAIMS (37 CFR 1.16(i))	15 minus 20 =	* 0			OR	x =	0
INDEPENDENT CLAIMS (37 CFR 1.16(h))	2 minus 3 =	*				x =	0
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						0
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							0
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	1820

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE($)	ADDITIONAL FEE($)		RATE($)	ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
18/487,916	10/16/2023		1820	EDGE.005C11	15	2

CONFIRMATION NO. 3841

20995
KNOBBE MARTENS OLSON & BEAR LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

FILING RECEIPT

OC000000063802046

Date Mailed: 10/27/2023

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a corrected Filing Receipt, including a properly marked-up ADS showing the changes with strike-through for deletions and underlining for additions. If you received a "Notice to File Missing Parts" or other Notice requiring a response for this application, please submit any request for correction to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections provided that the request is grantable.

Inventor(s)

Roger Ignon, Redondo Beach, CA;
Scott Mallett, Coto De Caza, CA;
Abraham Solano, Corona, CA;
William Cohen, Los Alamitos, CA;

Applicant(s)

HydraFacial LLC, Long Beach, CA;

Power of Attorney: The patent practitioners associated with Customer Number 20995

Domestic Priority data as claimed by applicant

This application is a CON of 18/094,884 01/09/2023
which is a CON of 17/165,820 02/02/2021 PAT 11,547,840
which is a CON of 16/517,268 07/19/2019 PAT 11,446,477
which is a CON of 15/660,777 07/26/2017 PAT 10,357,642
which is a CON of 15/660,750 07/26/2017 PAT 10,357,641
which is a CON of 14/700,789 04/30/2015 PAT 9,814,868
which is a CON of 14/698,713 04/28/2015 PAT 9,662,482
which is a CON of 14/698,673 04/28/2015 PAT 9,550,052
which is a CON of 13/267,554 10/06/2011 PAT 9,474,886
which is a CON of 11/392,348 03/29/2006 PAT 8,048,089
which claims benefit of 60/764,668 02/02/2006
and claims benefit of 60/755,310 12/30/2005

Foreign Applications for which priority is claimed (You may be eligible to benefit from the Patent Prosecution Highway program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 10/26/2023
The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 18/487,916**
Projected Publication Date: 02/01/2024
Non-Publication Request: No
Early Publication Request: No
Title

DEVICES AND METHODS FOR TREATING SKIN

Preliminary Class

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign

patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

SelectUSA

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit http://www.SelectUSA.gov or call +1-202-482-6800.

United States Patent and Trademark Office

Under Secretary of Commerce for Intellectual Property and
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Kathi Vidal
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Director of the United States Patent and Trademark Office

Derrick Brent
Deputy Under Secretary of Commerce for Intellectual Property and
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PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487916
	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
SHEET 1 OF 45	Attorney Docket No.	EDGE.005C11

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	1	RE 37,796	07-23-2002	Henley	
	2	1,651,585	12-06-1927	Clair	
	3	2,608,032	08-26-1952	Garver	
	4	2,631,583	03-17-1953	Lavergne	
	5	2,701,559	02-05-1955	Cooper	
	6	2,712,823	07-12-1955	Kurtin	
	7	2,867,214	01-06-1959	Wilson	
	8	2,881,763	04-14-1959	Robbins	
	9	2,921,585	01-19-1960	Schumann	
	10	3,037,509	06-05-1962	Schutz	
	11	3,085,573	04-16-1963	Meyer et al.	
	12	3,214,869	11-02-1965	Stryker	
	13	3,468,079	09-23-1969	Kaufman	
	14	3,476,112	11-04-1969	Elstein	
	15	3,481,677	12-02-1969	Abrahamson	
	16	3,505,993	04-14-1970	Lewes et al.	
	17	3,574,239	04-13-1971	Sollerud	
	18	3,560,100	02-02-1971	Spatz	
	19	3,608,553	09-28-1971	Balamuth	
	20	3,715,838	02-13-1973	Young et al.	
	21	3,865,352	02-11-1975	Nelson et al.	
	22	3,866,264	02-18-1975	Engquist	
	23	3,930,598	01-06-1976	Slagle	
	24	3,948,265	04-06-1976	Al Ani	
	25	3,964,212	06-22-1976	Karden	
	26	3,968,789	07-13-1976	Simoncini	
	27	3,977,084	08-31-1976	Sloan	
	28	4,121,388	10-24-1978	Wilson	
	29	4,155,721	05-22-1979	Fletcher	

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SHEET 2 OF 45	Attorney Docket No.	EDGE.005C11

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	30	4,170,821	10-16-1979	Booth	
	31	4,182,329	01-08-1980	Smit et al.	
	32	4,203,431	05-20-1980	Abura et al.	
	33	4,216,233	08-05-1980	Stein	
	34	4,225,254	09-30-1980	Holberg et al.	
	35	4,289,158	09-15-1981	Nehring	
	36	4,299,219	11-10-1981	Norris, Jr.	
	37	4,342,522	08-03-1982	Mackles	
	38	4,378,804	04-05-1983	Cortese	
	39	4,500,222	02-19-1985	Clading-Boel	
	40	4,560,373	12-24-1985	Sugino et al.	
	41	4,646,480	03-03-1987	Williams	
	42	4,646,482	03-03-1987	Chitjian	
	43	4,655,743	04-07-1987	Hyde	
	44	4,671,412	06-09-1987	Gatten	
	45	4,676,749	06-30-1987	Mabille	
	46	4,706,676	11-17-1987	Peck	
	47	4,718,467	01-12-1988	Di Gianfilippo et al.	
	48	4,754,756	07-05-1988	Shelanski	
	49	4,757,814	07-19-1988	Wang et al.	
	50	4,764,362	08-16-1988	Barchas	
	51	4,795,421	01-03-1989	Blasius, Jr. et al.	
	52	4,811,734	03-14-1989	McGurk-Burleson et al	
	53	4,836,192	06-06-1989	Abbate	
	54	4,866,202	09-12-1989	Weil	
	55	4,875,287	10-24-1989	Creasy et al.	
	56	4,886,078	12-12-1989	Shiffman	
	57	4,887,994	12-12-1989	Bedford	
	58	4,900,316	02-13-1990	Yamamoto	

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SHEET 3 OF 45	Attorney Docket No.	EDGE.005C11

U.S. PATENT DOCUMENTS					
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	59	4,917,086	04-17-1990	Feltovich et al.	
	60	4,925,450	05-15-1990	Imonti et al.	
	61	4,940,350	07-10-1990	Kim	
	62	4,957,747	09-18-1990	Stiefel	
	63	4,990,841	02-05-1991	Elder	
	64	5,006,004	04-09-1991	Dirksing et al.	
	65	5,006,339	04-09-1991	Bargery et al.	
	66	5,012,797	05-07-1991	Clarke	
	67	5,035,089	07-30-1991	Tillman et al.	
	68	5,037,431	08-06-1991	Summers et al.	
	69	5,037,432	08-06-1991	Molinari	
	70	5,054,339	10-08-1991	Yacowitz	
	71	5,100,412	03-31-1992	Rosso	
	72	5,100,424	03-31-1992	Jang	
	73	5,119,839	06-09-1992	Rudolph	
	74	5,122,153	06-16-1992	Harrel	
	75	5,171,215	12-15-1992	Flanagan	
	76	5,192,269	03-09-1993	Poli et al.	
	77	5,207,234	05-04-1993	Rosso	
	78	5,217,455	06-08-1993	Tan	
	79	5,222,956	06-29-1993	Waldron	
	80	5,242,433	09-07-1993	Smith et al.	
	81	5,254,109	10-19-1993	Smith et al.	
	82	5,290,273	03-01-1994	Tan	
	83	5,368,581	11-29-1994	Smith et al.	
	84	5,387,215	02-07-1995	Fisher	
	85	5,391,151	02-21-1995	Wilmot	
	86	5,417,674	05-23-1995	Smith et al.	
	87	5,419,772	05-30-1995	Teitz et al.	

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	Art Unit	Unassigned
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SHEET 4 OF 45	Attorney Docket No.	EDGE.005C11

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	88	5,423,803	06-13-1995	Tankovich et al.	
	89	5,437,372	08-01-1995	Per-Lee	
	90	5,441,490	08-15-1995	Svedman	
	91	5,460,620	10-24-1995	Smith et al.	
	92	5,470,323	11-28-1995	Smith et al.	
	93	5,484,427	01-16-1996	Gibbons	
	94	5,490,736	02-13-1996	Haber et al.	
	95	5,512,044	04-30-1996	Duer	
	96	5,562,642	10-08-1996	Smith et al.	
	97	5,562,643	10-08-1996	Johnson	
	98	5,611,687	03-18-1997	Wagner	
	99	5,612,797	03-18-1997	Clarke	
	100	5,618,275	04-08-1997	Bock	
	101	5,626,631	05-06-1997	Eckhouse	
	102	5,658,323	08-19-1997	Miller	
	103	5,658,583	08-19-1997	Zhang et al.	
	104	5,674,235	10-07-1997	Parisi	
	105	5,676,643	10-14-1997	Cann et al.	
	106	5,676,648	10-14-1997	Henley	
	107	5,683,971	11-04-1997	Rose et al.	
	108	5,697,920	12-16-1997	Gibbons	
	109	5,707,383	01-13-1998	Bays	
	110	5,713,785	02-03-1998	Nishio	
	111	5,735,833	04-07-1998	Olson	
	112	5,755,751	05-26-1998	Eckhouse	
	113	5,759,185	06-02-1998	Grinberg	
	114	5,762,640	06-09-1998	Kajiwara et al.	
	115	5,779,519	07-14-1998	Oliver	
	116	5,800,446	09-01-1998	Banuchi	

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	Art Unit	Unassigned
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SHEET 5 OF 45	Attorney Docket No.	EDGE.005C11

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	117	5,807,353	09-15-1998	Schmitz	
	118	5,810,842	09-22-1998	Di Fiore at al.	
	119	5,813,416	09-29-1998	Rudolph	
	120	5,817,050	10-06-1998	Klein	
	121	5,817,089	10-06-1998	Tankovich et al.	
	122	5,834,510	11-10-1998	Yu et al.	
	123	5,846,215	12-08-1998	Zygmont	
	124	5,848,998	12-15-1998	Marasco, Jr.	
	125	5,857,995	01-12-1999	Thomas et al.	
	126	5,861,142	01-19-1999	Schick	
	127	5,873,881	02-23-1999	McEwen et al.	
	128	5,879,323	03-09-1999	Henley	
	129	5,879,376	03-09-1999	Miller	
	130	5,882,201	03-16-1999	Salem	
	131	5,885,260	03-23-1999	Mehl, Sr. et al.	
	132	5,908,401	06-01-1999	Henley	
	133	5,911,223	06-15-1999	Weaver et al.	
	134	5,919,152	07-06-1999	Zygmont	
	135	5,919,479	07-06-1999	Zhang et al.	
	136	5,954,730	09-21-1999	Bernabei	
	137	5,971,999	10-26-1999	Naldoni	
	138	5,980,555	11-09-1999	Barbut et al.	
	139	6,019,749	02-01-2000	Fields et al.	
	140	6,023,639	02-08-2000	Hakky et al.	
	141	6,024,733	02-15-2000	Eggers et al.	
	142	6,027,402	02-22-2000	Oliver	
	143	6,027,495	02-22-2000	Miller	
	144	6,032,071	02-29-2000	Binder	
	145	6,036,684	03-14-2000	Tankovich et al.	

Examiner Signature	Date Considered
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	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
SHEET 6 OF 45	Attorney Docket No.	EDGE.005C11

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	146	6,039,745	03-21-2000	Di Fiore et al.	
	147	6,042,552	03-28-2000	Cornier	
	148	6,074,382	06-13-2000	Asah et al.	
	149	6,080,165	06-27-2000	DeJacma	
	150	6,080,166	06-27-2000	McEwen et al.	
	151	6,090,085	07-18-2000	Mehl, Sr. Et al.	
	152	6,093,021	07-25-2000	Rainey	
	153	6,113,559	09-05-2000	Klopotek	
	154	6,120,512	09-19-2000	Bernabei	
	155	6,129,701	10-10-2000	Cimino	
	156	6,136,008	10-24-2000	Becker et al.	
	157	6,139,553	10-31-2000	Dotan	
	158	6,139,554	10-31-2000	Karkar et al.	
	159	6,142,155	11-07-2000	Rudolph	
	160	6,149,634	11-21-2000	Bernabei	
	161	6,149,644	11-21-2000	Xie	
	162	6,159,226	12-12-2000	Kim	
	163	6,162,218	12-19-2000	Elbrecht et al.	
	164	6,162,232	12-19-2000	Shadduck	
	165	6,165,059	12-26-2000	Parkin et al.	
	166	6,174,325	01-16-2001	Eckhouse	
	167	6,176,198	01-23-2001	Kao et al.	
	168	6,183,451	02-06-2001	Mehl, Sr. et al.	
	169	6,183,483	02-06-2001	Chang	
	170	6,190,376	02-20-2001	Asah et al.	
	171	6,193,589	02-27-2001	Khalaj	
	172	6,196,982	03-06-2001	Ball	
	173	6,231,593	05-15-2001	Meserol	
	174	6,235,039	05-22-2001	Parkin et al.	

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SHEET 7 OF 45	Attorney Docket No.	EDGE.005C11

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	175	6,238,275	05-29-2001	Metcalf et al.	
	176	6,241,739	06-05-2001	Waldron	
	177	6,245,347	06-12-2001	Zhang et al.	
	178	6,264,666	07-24-2001	Coleman et al.	
	179	6,269,271	07-31-2001	Bernabei	
	180	6,277,116	08-21-2001	Utely et al.	
	181	6,277,128	08-21-2001	Muldner	
	182	6,280,438	08-28-2001	Eckhouse et al.	
	183	6,283,978	09-04-2001	Cheski et al.	
	184	6,284,266	09-04-2001	Zhang et al.	
	185	6,299,620	10-09-2001	Shadduck	
	186	6,306,119	10-23-2001	Weber et al.	
	187	6,306,147	10-23-2001	Bernabei et al.	
	188	6,322,548	11-27-2001	Payne et al.	
	189	6,322,568	11-27-2001	Bernabei et al.	
	190	6,325,381	12-04-2001	von Engelbrechten	
	191	6,325,769	12-04-2001	Klopotek	
	192	6,332,886	12-25-2001	Green et al.	
	193	6,334,074	12-25-2001	Spertell	
	194	6,355,054	03-12-2002	Neuberger	
	195	6,368,333	04-09-2002	Bernabei et al.	
	196	6,383,177	05-07-2002	Balle-Petersen et al.	
	197	6,387,089	05-14-2002	Kreindel et al.	
	198	6,387,103	05-14-2002	Shadduck	
	199	6,401,289	06-11-2002	Herbert	
	200	6,409,736	06-25-2002	Bernabei	
	201	6,410,599	06-25-2002	Johnson	
	202	6,414,032	07-02-2002	Johnson	
	203	6,420,431	07-16-2002	Johnson	

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SHEET 8 OF 45	Attorney Docket No.	EDGE.005C11

U.S. PATENT DOCUMENTS					
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	204	6,423,078	07-23-2002	Bays et al.	
	205	6,423,750	07-23-2002	Johnson	
	206	6,432,113	08-13-2002	Parkin et al.	
	207	6,432,114	08-13-2002	Rosso	
	208	6,458,109	10-01-2002	Henley et al.	
	209	6,471,712	10-29-2002	Burres	
	210	6,477,410	11-05-2002	Henley et al.	
	211	6,482,212	11-19-2002	Bernabei et al.	
	212	6,488,646	12-03-2002	Zygmont	
	213	6,494,856	12-17-2002	Zygmont	
	214	6,500,183	12-31-2002	Waldron	
	215	6,503,256	01-07-2003	Parkin et al.	
	216	6,508,813	01-21-2003	Altshuler	
	217	6,511,486	01-28-2003	Mercier et al.	
	218	6,514,243	02-04-2003	Eckhouse et al.	
	219	6,514,262	02-04-2003	Di Fiore et al.	
	220	6,514,278	02-04-2003	Hibst et al.	
	221	6,518,538	02-11-2003	Bernabei	
	222	6,520,931	02-18-2003	Suh	
	223	6,527,716	03-04-2003	Eppstein	
	224	6,527,783	03-04-2003	Ignon	
	225	6,533,776	03-18-2003	Asah et al.	
	226	6,535,761	03-18-2003	Bernabei	
	227	6,537,242	03-25-2003	Palmer	
	228	6,540,757	04-01-2003	Hruska et al.	
	229	6,546,281	04-08-2003	Zhang et al.	
	230	6,562,013	05-13-2003	Marasco, Jr.	
	231	6,562,050	05-13-2003	Owen	
	232	6,564,093	05-13-2003	Ostrow et al.	

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Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	233	6,565,535	05-20-2003	Zaias et al.	
	234	6,569,157	05-27-2003	Shain et al.	
	235	6,582,442	06-24-2003	Simon et al.	
	236	6,587,730	07-01-2003	Bernabei	
	237	6,589,218	07-08-2003	Garcia	
	238	6,592,595	07-15-2003	Mallett et al.	
	239	6,595,934	07-22-2003	Hissong et al.	
	240	6,611,706	08-26-2003	Avrahami et al.	
	241	6,626,445	09-30-2003	Murphy et al.	
	242	6,629,927	10-07-2003	Mesaros et al.	
	243	6,629,971	10-07-2003	McDaniel	
	244	6,629,974	10-07-2003	Penny et al.	
	245	6,629,983	10-07-2003	Ignon	
	246	6,635,035	10-21-2003	Marasco et al.	
	247	6,641,591	11-04-2003	Shadduck	
	248	6,645,184	11-11-2003	Zelickson et al.	
	249	6,652,888	11-25-2003	Rhoades	
	250	6,666,874	12-23-2003	Heitzmann et al.	
	251	6,673,081	01-06-2004	Tavger et al.	
	252	6,673,082	01-06-2004	Mallett et al.	
	253	6,685,853	02-03-2004	Angelopoulous et al.	
	254	6,687,537	02-03-2004	Bernabei	
	255	6,689,380	02-10-2004	Marchitto et al.	
	256	6,695,853	02-24-2004	Karasiuk	
	257	6,699,237	03-02-2004	Weber et al.	
	258	6,712,805	03-30-2004	Weimann	
	259	6,726,673	04-27-2004	Zhang et al.	
	260	6,735,470	05-11-2004	Henley et al.	
	261	6,743,211	06-01-2004	Prausnitz et al.	

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	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	262	6,743,215	06-01-2004	Bernabei	
	263	6,764,493	07-20-2004	Weber et al.	
	264	6,780,426	08-24-2004	Zhang et al.	
	265	6,800,083	10-05-2004	Hiblar et al.	
	266	6,800,849	10-05-2004	Staats	
	267	6,869,611	03-22-2005	Kligman et al.	
	268	6,878,144	04-12-2005	Altshuler et al.	
	269	6,887,260	05-03-2005	McDaniel	
	270	6,905,487	06-14-2005	Zimmerman	
	271	6,911,031	06-28-2005	Muldner	
	272	6,926,681	08-09-2005	Ramey et al.	
	273	6,938,805	09-06-2005	Brincat	
	274	6,942,649	09-13-2005	Ignon et al.	
	275	6,960,206	11-01-2005	Keane	
	276	6,980,448	12-27-2005	Foss et al.	
	277	7,001,355	02-21-2006	Nunomura et al.	
	278	7,004,933	02-28-2006	McDaniel	
	279	7,031,805	04-18-2006	Lee et al.	
	280	7,044,938	05-16-2006	La Bianco et al.	
	281	7,051,907	05-30-2006	Brincat	
	282	7,052,503	05-30-2006	Bernabei	
	283	7,062,317	06-13-2006	Avrahami et al.	
	284	7,069,073	06-27-2006	Henley et al.	
	285	7,070,488	07-04-2006	Suissa et al.	
	286	7,083,580	08-01-2006	Bernabei	
	287	7,087,036	08-08-2006	Busby et al.	
	288	7,087,063	08-08-2006	Carson et al.	
	289	7,094,252	08-22-2006	Koop	
	290	7,108,689	09-19-2006	Eckhouse et al.	

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	291	7,115,275	10-03-2006	Clarot et al.	
	292	7,118,563	10-10-2006	Weckwerth et al.	
	293	7,122,029	10-17-2006	Koop et al.	
	294	7,135,011	11-14-2006	Powers et al.	
	295	7,153,311	12-26-2006	Chung	
	296	7,166,086	01-23-2007	Haider et al.	
	297	7,172,572	02-06-2007	Diamond et al.	
	298	7,189,230	03-13-2007	Knowlton	
	299	7,197,359	03-27-2007	Tokudome et al.	
	300	7,198,623	04-03-2007	Fischer et al.	
	301	7,201,765	04-10-2007	McDaniel	
	302	7,232,431	06-19-2007	Weimann	
	303	7,232,444	06-19-2007	Chang	
	304	7,241,208	07-10-2007	Suissa et al.	
	305	7,250,045	07-31-2007	Island et al.	
	306	7,276,051	10-02-2007	Henley et al.	
	307	7,293,930	11-13-2007	Chuang	
	308	7,314,326	01-01-2008	Rosenberg	
	309	7,316,657	01-08-2008	Kleinhenz et al.	
	310	7,316,671	01-08-2008	Lastovich et al.	
	311	7,318,828	01-15-2008	Revivo	
	312	7,320,691	01-22-2008	Pilcher et al.	
	313	7,320,801	01-22-2008	Kelly	
	314	7,326,199	02-05-2008	MacFarland et al.	
	315	7,329,252	02-12-2008	Yamazaki et al.	
	316	7,354,423	04-08-2008	Zelickson et al.	
	317	7,364,565	04-29-2008	Freeman	
	318	7,367,981	05-06-2008	Bernaz	
	319	7,384,405	06-10-2008	Rhoades	

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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	320	7,422,567	09-09-2008	Lastovich et al.	
	321	7,427,273	09-23-2008	Mitsui	
	322	7,440,798	10-21-2008	Redding, Jr.	
	323	7,458,944	12-02-2008	Liste et al.	
	324	7,476,205	01-13-2009	Erdmann	
	325	7,477,938	01-13-2009	Sun et al.	
	326	7,482,314	01-27-2009	Grimes et al.	
	327	7,485,125	02-03-2009	Sjostrom	
	328	7,489,989	02-10-2009	Sukhanov et al.	
	329	7,494,503	02-24-2009	McDaniel	
	330	7,507,228	03-24-2009	Sun et al.	
	331	7,582,067	09-01-2009	Van Acker	
	332	7,572,238	08-11-2009	Rhoades	
	333	7,597,900	10-06-2009	Zimmer et al.	
	334	7,597,901	10-06-2009	Clarot et al.	
	335	7,607,972	10-27-2009	Groman	
	336	7,658,742	02-09-2010	Karasiuk	
	337	7,678,120	03-16-2010	Shadduck	
	338	7,730,979	06-08-2010	Kahrig	
	339	7,731,570	06-08-2010	Groman	
	340	7,740,651	06-22-2010	Barak et al.	
	341	7,744,582	06-29-2010	Sadowski et al.	
	342	7,749,260	07-06-2010	Da Silva et al.	
	343	7,758,537	07-20-2010	Brunell et al.	
	344	7,771,374	08-10-2010	Slatkine	
	345	7,780,652	08-24-2010	MacFarland et al.	
	346	7,789,886	09-07-2010	Shadduck	
	347	7,814,915	10-19-2010	Davenport et al.	
	348	7,837,695	11-23-2010	Hart et al.	

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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	349	7,857,806	12-28-2010	Karpowicz et al.	
	350	7,862,564	01-04-2011	Goble	
	351	7,901,373	03-08-2011	Tavger	
	352	7,927,188	04-19-2011	Groman	
	353	7,951,156	05-31-2011	Karasiuk	
	354	7,981,111	07-19-2011	Grove et al.	
	355	7,981,112	07-19-2011	Neev	
	356	7,993,333	08-09-2011	Oral et al.	
	357	8,025,669	09-27-2011	David et al.	
	358	8,048,064	11-01-2011	Hwang et al.	
	359	8,048,089	11-01-2011	Ignon et al.	
	360	RE42,960	11-22-2011	Waldron	
	361	8,066,716	11-29-2011	Shadduck	
	362	8,088,085	01-03-2012	Thiebaut et al.	
	363	8,105,295	01-31-2012	Blott et al.	
	364	8,128,638	03-06-2012	Karasiuk et al.	
	365	8,135,475	03-13-2012	Kreindel et al.	
	366	8,182,473	05-22-2012	Altshuler et al.	
	367	8,221,437	07-17-2012	Waldron et al.	
	368	8,226,663	07-24-2012	Remsburg et al.	
	369	8,231,292	07-31-2012	Rabe et al.	
	370	8,236,008	08-07-2012	Boone, III et al.	
	371	8,236,036	08-07-2012	Frost	
	372	8,241,094	08-14-2012	Groman	
	373	8,273,080	09-25-2012	Mehta	
	374	8,276,592	10-02-2012	Davenport et al.	
	375	8,277,287	10-02-2012	Hart	
	376	8,282,630	10-09-2012	Neev	
	377	8,313,480	11-20-2012	Neev	

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Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	378	8,317,781	11-27-2012	Owens et al.	
	379	8,323,253	12-04-2012	Hantash et al.	
	380	8,337,513	12-25-2012	Shadduck	
	381	8,343,116	01-01-2013	Ignon et al.	
	382	8,360,826	01-29-2013	Groman	
	383	8,398,621	03-19-2013	Beerwerth et al.	
	384	8,430,104	04-30-2013	Hennings et al.	
	385	8,435,234	05-07-2013	Chan et al.	
	386	8,475,507	07-02-2013	Dewey et al.	
	387	8,478,396	07-02-2013	Tsao et al.	
	388	8,480,721	07-09-2013	Owens et al.	
	389	8,496,654	07-30-2013	Adanny et al.	
	390	8,496,695	07-30-2013	Kang et al.	
	391	8,535,299	09-17-2013	Giovannoli	
	392	8,545,419	10-01-2013	Kim	
	393	8,545,489	10-01-2013	Giovannoli	
	394	8,551,104	10-08-2013	Weckwerth et al.	
	395	8,562,626	10-22-2013	Sabir et al.	
	396	8,573,874	11-05-2013	Neuner	
	397	8,579,916	11-12-2013	Cheney	
	398	8,597,284	12-03-2013	Castro	
	399	8,632,378	01-21-2014	Groman	
	400	8,656,931	02-25-2014	Davenport et al.	
	401	8,668,552	03-11-2014	Groman	
	402	8,679,039	03-25-2014	Tieu et al.	
	403	8,700,176	04-15-2014	Azar et al.	
	404	8,702,691	04-22-2014	Weber et al.	
	405	8,702,771	04-22-2014	Frost	
	406	8,721,662	05-13-2014	Karasiuk	

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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	407	8,728,064	05-20-2014	Schomacker et al.	
	408	8,740,917	06-03-2014	Pilcher et al.	
	409	8,814,836	08-26-2014	Ignon et al.	
	410	8,818,500	08-26-2014	Duquet et al.	
	411	8,821,940	09-02-2014	Harris et al.	
	412	8,834,933	09-16-2014	Harris et al.	
	413	8,858,570	10-14-2014	Chang	
	414	8,939,669	01-27-2015	Le et al.	
	415	8,945,104	02-03-2015	Boone, III et al.	
	416	8,945,109	02-03-2015	Mehta	
	417	8,974,442	03-10-2015	Boss, Jr.	
	418	9,017,391	04-28-2015	McDaniel	
	419	9,017,392	04-28-2015	Owens et al.	
	420	9,044,582	06-02-2015	Chang et al.	
	421	9,050,133	06-09-2015	Boone, III et al.	
	422	9,050,156	06-09-2015	Groman	
	423	9,056,193	06-16-2015	Ignon et al.	
	424	9,072,521	07-07-2015	Levi et al.	
	425	9,072,533	07-07-2015	Liu et al.	
	426	9,072,892	07-07-2015	Owens et al.	
	427	9,084,587	07-21-2015	Eckhouse et al.	
	428	9,149,322	10-06-2015	Knowlton	
	429	9,186,490	11-17-2015	Chang et al.	
	430	9,227,044	01-05-2016	Bansal et al.	
	431	9,227,082	01-05-2016	McDaniel	
	432	9,233,207	01-12-2016	Polyakov et al.	
	433	9,271,755	03-01-2016	Luzon et al.	
	434	9,278,230	03-08-2016	Levin et al.	
	435	9,283,037	03-15-2016	Bragagna et al.	

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	436	9,314,302	04-19-2016	Dougal	
	437	9,351,792	05-31-2016	Manstein et al.	
	438	9,351,794	05-31-2016	Suckewer et al.	
	439	9,375,281	06-28-2016	Moench et al.	
	440	9,421,260	08-23-2016	Harris et al.	
	441	9,421,261	08-23-2016	Harris et al.	
	442	9,439,964	09-13-2016	Harris et al.	
	443	9,440,093	09-13-2016	Homer	
	444	9,452,013	09-27-2016	Manstein	
	445	9,468,464	10-18-2016	Shadduck	
	446	9,474,886	10-25-2016	Ignon et al.	
	447	9,480,836	11-01-2016	Na	
	448	9,486,615	11-08-2016	Ignon et al.	
	449	9,498,610	11-22-2016	Ignon et al.	
	450	9,517,085	12-13-2016	Karasiuk	
	451	9,522,287	12-20-2016	Owens et al.	
	452	9,550,052	01-24-2017	Ignon et al.	
	453	9,566,088	02-14-2017	Ignon et al.	
	454	9,566,454	02-14-2017	Barthe et al.	
	455	9,572,880	02-21-2017	Harris et al.	
	456	9,597,527	03-21-2017	Buchholz et al.	
	457	9,636,521	05-02-2017	Isserow et al.	
	458	9,636,522	05-02-2017	Oversluizen et al.	
	459	9,642,997	05-09-2017	Ignon et al.	
	460	9,662,482	05-30-2017	Ignon et al.	
	461	9,669,233	06-06-2017	Quisenberry et al.	
	462	9,675,817	06-13-2017	Isserow et al.	
	463	9,694,199	07-04-2017	Duquet et al.	
	464	9,700,684	07-11-2017	Vlodaver et al.	

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Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	465	9,731,053	08-15-2017	Alai	
	466	9,744,315	08-29-2017	Levi	
	467	9,775,645	10-03-2017	Boone, III	
	468	9,775,646	10-03-2017	Shadduck	
	469	9,775,976	10-03-2017	Grez	
	470	9,814,485	11-14-2017	Pratt et al.	
	471	9,814,647	11-14-2017	Ajiki	
	472	9,814,868	11-14-2017	Ignon et al.	
	473	9,814,906	11-14-2017	McDaniel	
	474	9,833,261	12-05-2017	Boone, III et al.	
	475	9,861,442	01-09-2018	Tankovich et al.	
	476	9,918,727	03-20-2018	Boone, III et al.	
	477	9,949,552	04-24-2018	Rabe et al.	
	478	9,950,147	04-24-2018	Mehta	
	479	9,955,769	05-01-2018	Rabe et al.	
	480	9,962,220	05-08-2018	Domankevitz	
	481	9,968,800	05-15-2018	Anderson et al.	
	482	10,004,919	06-26-2018	Lemmens et al.	
	483	10,010,445	07-03-2018	Isserow et al.	
	484	10,022,289	07-17-2018	Ajiki et al.	
	485	10,035,007	07-31-2018	Ignon et al.	
	486	10,052,467	08-21-2018	Bansal et al.	
	487	10,076,354	09-18-2018	Knowlton	
	488	10,076,646	09-18-2018	Casasanta, III et al.	
	489	10,080,581	09-25-2018	Knowlton	
	490	10,092,478	10-09-2018	Amit	
	491	10,105,191	10-23-2018	Blanco et al.	
	492	10,130,390	11-20-2018	Hart et al.	
	493	10,130,827	11-20-2018	Buchholz et al.	

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	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	494	10,149,969	12-11-2018	Grez et al.	
	495	10,149,984	12-11-2018	Modi et al.	
	496	10,172,644	01-08-2019	Ignon et al.	
	497	10,179,229	01-15-2019	Ignon et al.	
	498	10,183,183	01-22-2019	Burdette	
	499	10,188,193	01-29-2019	Rabe et al.	
	500	10,206,743	02-19-2019	Tankovich et al.	
	501	10,207,034	02-19-2019	Collins	
	502	10,220,122	03-05-2019	Clark, III et al.	
	503	10,238,812	03-26-2019	Ignon	
	504	10,238,849	03-26-2019	Britva et al.	
	505	10,251,675	04-09-2019	Ignon et al.	
	506	10,252,044	04-09-2019	Bock	
	507	10,271,900	04-30-2019	Marchitto et al.	
	508	10,272,258	04-30-2019	Quisenberry et al.	
	509	10,307,330	06-04-2019	Sedic	
	510	10,308,378	06-04-2019	Goodwin et al.	
	511	10,314,378	06-11-2019	Rabe et al.	
	512	10,321,948	06-18-2019	Knowlton	
	513	10,328,277	06-25-2019	Modi et al.	
	514	10,334,933	08-06-2019	Rosario et al.	
	515	10,335,191	07-02-2019	Knowlton	
	516	10,357,641	07-23-2019	Ignon et al.	
	517	10,357,642	07-23-2019	Ignon et al.	
	518	10,369,073	08-06-2019	Rosario et al.	
	519	10,413,359	09-17-2019	Felsenstein et al.	
	520	10,456,197	10-29-2019	Felsenstein et al.	
	521	10,456,321	10-29-2019	Shadduck	
	522	10,456,567	10-29-2019	Streeter	

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U.S. PATENT DOCUMENTS					
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	523	10,463,429	11-05-2019	Deem et al.	
	524	10,471,274	11-12-2019	Liu et al.	
	525	10,485,983	11-26-2019	Boone, III et al.	
	526	10,524,835	01-07-2020	Shadduck et al.	
	527	10,537,304	01-21-2020	Barthe et al.	
	528	10,537,640	01-21-2020	Harris et al.	
	529	10,556,096	02-11-2020	Ignon et al.	
	530	10,556,097	02-11-2020	Ignon et al.	
	531	10,583,037	03-10-2020	Isserow et al.	
	532	10,667,985	06-02-2020	Decaux et al.	
	533	10,675,481	06-09-2020	Tankovich	
	534	10,688,290	06-23-2020	Yuval	
	535	10,702,328	07-07-2020	Slatkine et al.	
	536	10,716,924	07-21-2020	Knowlton	
	537	10,736,653	08-11-2020	Knowlton	
	538	10,737,080	08-11-2020	Patterson	
	539	10,758,261	09-01-2020	Richardson	
	540	10,772,658	09-15-2020	Knowlton	
	541	10,792,382	10-06-2020	Rafko	
	542	10,799,285	10-13-2020	Mulholland	
	543	10,799,430	10-13-2020	Danto	
	544	10,813,694	10-27-2020	Johnson et al.	
	545	10,835,287	11-17-2020	Shadduck et al.	
	546	10,835,726	11-17-2020	Redding, Jr.	
	547	10,850,095	12-01-2020	Ebbers et al.	
	548	10,856,900	12-08-2020	Knowlton	
	549	10,860,026	12-08-2020	Nguyen et al.	
	550	10,874,579	12-29-2020	Rembert	
	551	10,893,907	01-19-2021	Kim	

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U.S. PATENT DOCUMENTS					
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	552	10,912,428	02-09-2021	Daffer	
	553	10,918,190	02-16-2021	Laudati	
	554	10,946,191	03-16-2021	Cazares Delgadillo	
	555	10,952,811	03-23-2021	Blanco et al.	
	556	10,952,907	03-23-2021	Carver	
	557	10,980,592	04-20-2021	Horton et al.	
	558	10,993,743	05-04-2021	Ignon et al.	
	559	11,020,577	06-01-2021	Ignon et al.	
	560	11,045,661	06-29-2021	Oversluizen et al.	
	561	11,083,515	08-10-2021	Slatkine et al.	
	562	11,123,039	09-21-2021	Barthe et al.	
	563	11,141,761	10-12-2021	Connelly et al.	
	564	11,154,723	10-26-2021	Lee	
	565	11,172,978	11-16-2021	Wootten et al.	
	566	11,202,657	12-21-2021	Ignon et al.	
	567	11,213,321	01-04-2022	Ignon et al.	
	568	11,224,728	01-18-2022	Ignon et al.	
	569	11,241,357	02-08-2022	Ignon et al.	
	570	11,247,039	02-15-2022	Schwarz	
	571	11,278,101	03-22-2022	Jeannin et al.	
	572	11,291,474	04-05-2022	Nicolas et al.	
	573	11,291,498	04-05-2022	Slatkine et al.	
	574	11,311,721	04-26-2022	Ebbers et al.	
	575	11,337,745	05-24-2022	Kim	
	576	11,337,755	05-24-2022	Hancock et al.	
	577	11,351,063	06-07-2022	Locke et al.	
	578	11,419,678	08-23-2022	Deem et al.	
	579	11,446,477	09-20-2022	Ignon et al.	
	580	11,452,852	09-27-2022	Quan et al.	

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U.S. PATENT DOCUMENTS					
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	581	11,497,553	11-15-2022	Reinhard et al.	
	582	11,504,148	11-22-2022	Friend	
	583	11,517,350	12-06-2022	Ignon et al.	
	584	11,540,882	01-03-2023	Masotti et al.	
	585	11,547,840	01-10-2023	Ignon et al.	
	586	11,590,345	02-28-2023	Danitz et al.	
	587	11,602,629	03-14-2023	Schwarz et al.	
	588	11,612,726	03-28-2023	Ignon et al.	
	589	11,717,326	08-08-2023	Ignon et al.	
	590	11,744,999	09-05-2023	Ignon et al.	
	591	D117,295	10-24-1939	Smith	
	592	D151,807	11-23-1948	Berkowitz	
	593	D237,776	11-25-1975	Arassa et al.	
	594	D237,863	12-02-1975	Peters et al.	
	595	D255,325	06-10-1980	Hoyt	
	596	D258,348	02-24-1981	Hoyt	
	597	D259,921	07-21-1981	Hartmann	
	598	D260,176	08-11-1981	Boschetti et al.	
	599	D288,293	02-17-1987	Arvans	
	600	D290,999	07-21-1987	Novak	
	601	D308,480	06-12-1990	Hoyt	
	602	D317,719	06-25-1991	Hestehave et al.	
	603	D428,142	07-11-2000	Stromblad	
	604	D472,136	03-25-2003	Hermann	
	605	D486,915	02-17-2004	Warschewske et al.	
	606	D490,561	05-25-2004	Angeletta	
	607	D496,101	09-14-2004	Davison	
	608	D499,207	11-30-2004	Angeletta	
	609	D499,841	12-14-2004	Angeletta	

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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	610	D502,288	02-22-2005	Longoria	
	611	D502,289	02-22-2005	Longoria	
	612	D502,569	03-01-2005	Longoria	
	613	D517,699	03-21-2006	Lansohn	
	614	D522,360	06-06-2006	Caserta et al.	
	615	D533,962	12-19-2006	Angeletta	
	616	D536,481	02-06-2007	Angeletta	
	617	D545,207	06-26-2007	De Baschmakoff	
	618	D553,005	10-16-2007	Py et al.	
	619	D557,611	12-18-2007	Ingemarsson	
	620	D584,151	01-06-2009	Murphy	
	621	D625,198	10-12-2010	Hall	
	622	D639,164	06-07-2011	Walsh	
	623	D664,254	07-24-2012	Yokoyama et al.	
	624	D676,764	02-26-2013	Moore et al.	
	625	D678,783	03-26-2013	Wilcox et al.	
	626	D680,437	04-23-2013	Bartolo et al.	
	627	D697,404	01-14-2014	Johnson et al.	
	628	D709,617	07-22-2014	Iliesco de Grimaldi et al.	
	629	D722,172	02-03-2015	Amemiya et al.	
	630	D734,154	07-14-2015	Johnson et al.	
	631	D743,269	11-17-2015	Pape	
	632	D743,558	11-17-2015	Kim et al.	
	633	D765,512	09-06-2016	Joulia	
	634	D772,481	11-22-2016	Paquet	
	635	D782,881	04-04-2017	Seiders et al.	
	636	D787,054	05-16-2017	Rini et al.	
	637	D811,225	02-27-2018	Newson	
	638	D811,381	02-27-2018	Morohoshi et al.	

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	639	D822,845	07-10-2018	Shimobayashi et al.	
	640	D825,763	08-14-2018	Lim et al.	
	641	D833,283	11-13-2018	Rock	
	642	D836,781	12-25-2018	Meurer et al.	
	643	D851,759	06-18-2019	Jones et al.	
	644	D852,962	07-02-2019	Chang	
	645	D861,913	10-01-2019	Stamm et al.	
	646	D868,981	12-03-2019	Salamon et al.	
	647	D867,587	11-19-2019	Holtz	
	648	D873,430	01-21-2020	Accolla	
	649	D873,481	01-21-2020	Larkin	
	650	D886,370	06-02-2020	Soutelo Gomes	
	651	D886,372	06-02-2020	Weinrich	
	652	D887,571	06-16-2020	Liu	
	653	D893,024	08-11-2020	Whiteside	
	654	D908,282	01-19-2021	Kim	
	655	D917,290	04-27-2021	Bravman et al.	
	656	D927,008	08-03-2021	Rappaport	
	657	D928,977	08-24-2021	Dijkstra	
	658	2001/0023351	09-20-2001	Eilers	
	659	2001/0049511	12-06-2001	Coleman et al.	
	660	2002/0016601	02-07-2002	Shadduck	
	661	2002/0040199	04-04-2002	Klopotek	
	662	2002/0041891	04-11-2002	Cheski	
	663	2002/0058952	05-16-2002	Weber et al.	
	664	2002/0099356	07-25-2002	Unger et al.	
	665	2002/0107527	08-08-2002	Burres	
	666	2002/0128663	09-12-2002	Mercier et al.	
	667	2002/0133110	09-19-2002	Citow	

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U.S. PATENT DOCUMENTS					
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	668	2002/0133176	09-19-2002	Parkin et al.	
	669	2002/0151826	10-17-2002	Ramey et al	
	670	2002/0162863	11-07-2002	Brincat	
	671	2002/0188261	12-12-2002	Hruska	
	672	2002/0198488	12-26-2002	Yao	
	673	2003/0012415	01-16-2003	Cossel	
	674	2003/0018252	01-23-2003	Duchon et al.	
	675	2003/0060834	03-27-2003	Muldner	
	676	2003/0093040	05-15-2003	Mikszta et al.	
	677	2003/0093089	05-15-2003	Greenberg	
	678	2003/0097139	05-22-2003	Karasiuk	
	679	2003/135388	07-17-2003	Martucci et al.	
	680	2003/0187462	10-14-2003	Chang	
	681	2003/0208159	11-06-2003	Ignon et al.	
	682	2003/0212127	11-13-2003	Glassman et al.	
	683	2003/0212415	11-13-2003	Karasiuk	
	684	2004/0005349	01-08-2004	Neev	
	685	2004/0010222	01-15-2004	Nunomura et al.	
	686	2004/0010269	01-15-2004	Grimes et al.	
	687	2004/0015139	01-22-2004	La Bianco	
	688	2004/0087972	05-06-2004	Mulholland et al.	
	689	2004/0092895	05-13-2004	Harmon	
	690	2004/0092959	05-13-2004	Bernaz	
	691	2004/0097967	05-20-2004	Ignon	
	692	2004/0122447	06-24-2004	Harmon et al.	
	693	2004/0127914	07-01-2004	Chung	
	694	2004/0138680	07-15-2004	Twitchell et al.	
	695	2004/0162565	08-19-2004	Carson et al.	
	696	2004/0166172	08-26-2004	Rosati et al.	

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U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	697	2004/0176823	09-09-2004	Island et al.	
	698	2004/0210280	10-21-2004	Liedtke	
	699	2004/0219179	11-04-2004	McDaniel	
	700	2004/0229295	11-18-2004	Marchitto et al.	
	701	2004/0236291	11-25-2004	Zelickson et al.	
	702	2004/0236375	11-25-2004	Redding, Jr.	
	703	2004/0243149	12-02-2004	Lee, John B. JR.	
	704	2004/0254587	12-16-2004	Park	
	705	2004/0267285	12-30-2004	Chang	
	706	2005/0015077	01-20-2005	Kuklin et al.	
	707	2005/0037034	02-17-2005	Rhoades	
	708	2005/0038377	02-17-2005	Redding, Jr.	
	709	2005/0038448	02-17-2005	Chung	
	710	2005/0059940	03-17-2005	Weber et al.	
	711	2005/0065461	03-24-2005	Redding, Jr.	
	712	2005/0070977	03-31-2005	Molina	
	713	2005/0075599	04-07-2005	Redding, Jr.	
	714	2005/0080465	04-14-2005	Zelickson et al.	
	715	2005/0084509	04-21-2005	Bernstein	
	716	2005/0148958	07-07-2005	Rucinski	
	717	2005/0154333	07-14-2005	Mulholland et al.	
	718	2005/0203111	09-15-2005	David	
	719	2005/0203593	09-15-2005	Shanks et al.	
	720	2005/0209611	09-22-2005	Greenberg	
	721	2005/0245180	11-03-2005	Suissa et al.	
	722	2005/0283176	12-22-2005	Law	
	723	2006/0002960	01-05-2006	Zoeteweij et al.	
	724	2006/0015059	01-19-2006	Redding, Jr.	
	725	2006/0058714	03-16-2006	Rhoades	

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	726	2006/0100567	05-11-2006	Marchitto et al.	
	727	2006/0116674	06-01-2006	Goble et al.	
	728	2006/0161178	07-20-2006	Lee	
	729	2006/0184071	08-17-2006	Klopotek	
	730	2006/0189964	08-24-2006	Anderson	
	731	2006/0191562	08-31-2006	Numomura	
	732	2006/0200099	09-07-2006	La Bianco et al.	
	733	2006/0200213	09-07-2006	McDaniel	
	734	2006/0212025	09-21-2006	McDaniel	
	735	2006/0212029	09-21-2006	Villacampa et al.	
	736	2006/0222445	10-05-2006	Chuang	
	737	2006/0235371	10-19-2006	Wakamatsu et al.	
	738	2006/0253078	11-09-2006	Wu et al.	
	739	2006/0253079	11-09-2006	McDonough et al.	
	740	2006/0253125	11-09-2006	Ignon	
	741	2006/0264893	11-23-2006	Sage, Jr. et al.	
	742	2006/0264926	11-23-2006	Kochamba	
	743	2006/0269580	11-30-2006	Cole et al.	
	744	2006/0278661	12-14-2006	Cooper et al.	
	745	2007/0005078	01-04-2007	Hart et al.	
	746	2007/0020321	01-25-2007	Redding et al.	
	747	2007/0043382	02-22-2007	Cheney	
	748	2007/0049901	03-01-2007	Wu et al.	
	749	2007/0065515	03-22-2007	Key	
	750	2007/0073327	03-29-2007	Giovannoli	
	751	2007/0078290	04-05-2007	Esenaliev	
	752	2007/0088245	04-19-2007	Babaev et al.	
	753	2007/0088371	04-19-2007	Karasiuk	
	754	2007/0093694	04-26-2007	Fassuliotis et al.	

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	First Named Inventor	Ignon, Roger
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Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	755	2007/0123808	05-31-2007	Rhoades	
	756	2007/0139630	06-21-2007	Kleman et al.	
	757	2007/0149991	06-28-2007	Mulholland	
	758	2007/0154502	07-05-2007	Hattendorf et al.	
	759	2007/0156124	07-05-2007	Ignon et al.	
	760	2007/0178121	08-02-2007	First et al.	
	761	2007/0198031	08-23-2007	Kellogg	
	762	2007/0232987	10-04-2007	Diaz et al.	
	763	2007/0239079	10-11-2007	Manstein et al.	
	764	2007/0239173	10-11-2007	Khalaj	
	765	2007/0255355	11-01-2007	Altshuler et al.	
	766	2007/0264625	11-15-2007	DeBenedictis et al.	
	767	2007/0270738	11-22-2007	Wu et al.	
	768	2008/0009802	01-10-2008	Lambino et al.	
	769	2008/0015555	01-17-2008	Manstein et al.	
	770	2008/0027328	01-31-2008	Klopotek et al.	
	771	2008/0027518	01-31-2008	Island et al.	
	772	2008/0091126	04-17-2008	Greenburg	
	773	2008/0091179	04-17-2008	Durkin et al.	
	774	2008/0103563	05-01-2008	Powell	
	775	2008/0119781	05-22-2008	King	
	776	2008/0132914	06-05-2008	Bossard et al.	
	777	2008/0139974	06-12-2008	Da Silva	
	778	2008/0146970	06-19-2008	Litman et al.	
	779	2008/0154161	06-26-2008	Abbott	
	780	2008/0154183	06-26-2008	Baker et al.	
	781	2008/0161799	07-03-2008	Stangenes et al.	
	782	2008/0188840	08-07-2008	Johnson et al.	
	783	2008/0193493	08-14-2008	Rhoades	

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U.S. PATENT DOCUMENTS					
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	784	2008/0200861	08-21-2008	Shalev et al.	
	785	2008/0200863	08-21-2008	Chomas et al.	
	786	2008/0208146	08-28-2008	Brandwein et al.	
	787	2008/0208179	08-28-2008	Chan et al.	
	788	2008/0214987	09-04-2008	Xu	
	789	2008/0215068	09-04-2008	Hart et al.	
	790	2008/0221548	09-11-2008	Danenberg et al.	
	791	2008/0234626	09-25-2008	Chelak	
	792	2008/0243039	10-02-2008	Rhoades	
	793	2008/0287864	11-20-2008	Rosenberg	
	794	2008/0300529	12-04-2008	Reinstein	
	795	2008/0300552	12-04-2008	Cichocki et al.	
	796	2009/0048557	02-19-2009	Yeshurun et al.	
	797	2009/0053390	02-26-2009	Sakou et al.	
	798	2009/0062815	03-05-2009	Karasiuk et al.	
	799	2009/0099091	04-16-2009	Hantash	
	800	2009/0099093	04-16-2009	Hantash	
	801	2009/0118684	05-07-2009	Da Silva et al.	
	802	2009/0124985	05-14-2009	Hasenoehrl et al.	
	803	2009/0132012	05-21-2009	Shanks	
	804	2009/0138026	05-28-2009	Wu	
	805	2009/0171191	07-02-2009	Patrick et al.	
	806	2009/0171194	07-02-2009	Patrick et al.	
	807	2009/0222023	09-03-2009	Boone, III et al.	
	808	2009/0254014	10-08-2009	Son	
	809	2009/0299237	12-03-2009	Rhoades	
	810	2010/0023003	01-28-2010	Mulholland	
	811	2010/0045427	02-25-2010	Boone, III et al.	
	812	2010/0048980	02-25-2010	De Jong et al.	

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U.S. PATENT DOCUMENTS					
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	813	2010/0049177	02-25-2010	Boone, III et al.	
	814	2010/0049210	02-25-2010	Boone, III et al.	
	815	2010/0056847	03-04-2010	De Jong et al.	
	816	2010/0063565	03-11-2010	Beerwerth et al.	
	817	2010/0217357	08-26-2010	Da Silva	
	818	2010/0305495	12-02-2010	Anderson et al.	
	819	2011/0054490	03-03-2011	Hart	
	820	2011/0060270	03-10-2011	Eppstein	
	821	2011/0066162	03-17-2011	Cohen	
	822	2011/0067761	06-09-2011	King	
	823	2011/0190726	08-04-2011	Hantash et al.	
	824	2011/0251523	10-13-2011	Kim	
	825	2011/0264028	10-27-2011	Ramdas et al.	
	826	2011/0270137	11-03-2011	Goren et al.	
	827	2011/0270364	11-03-2011	Kreindel et la.	
	828	2011/0295273	12-01-2011	Waldron et al.	
	829	2012/0041338	02-16-2012	Chickering III et al.	
	830	2012/0041523	02-16-2012	Solomon et al.	
	831	2012/0109041	05-03-2012	Munz	
	832	2012/0109043	05-03-2012	Zhou et al.	
	833	2012/0136374	05-31-2012	Karasiuk	
	834	2012/0171636	07-05-2012	Groman	
	835	2012/0259252	10-11-2012	Thorn-Leeson et al.	
	836	2012/0289885	11-15-2012	Cottrell et la.	
	837	2012/0302929	11-29-2012	Tkachenko	
	838	2013/0004230	01-03-2013	Kirk, III et al.	
	839	2013/0018317	01-17-2013	Bobroff et al.	
	840	2013/0066336	03-14-2013	Boone, III et al.	
	841	2013/0085421	04-04-2013	Gillespie et al.	

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Examiner Initials	Cite No.	Document Number *Number - Kind Code (if known)* Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	842	2013/0096546	04-18-2013	Mirkov et al.	
	843	2013/0096577	04-18-2013	Shadduck	
	844	2013/0144207	06-06-2013	Gonon	
	845	2013/0144280	06-06-2013	Eckhouse et al.	
	846	2013/0158547	06-20-2013	David	
	847	2013/0204238	08-08-2013	Lederman et al.	
	848	2013/0226075	08-29-2013	Hennings et al.	
	849	2013/0226269	08-29-2013	Eckhouse et al.	
	850	2013/0261534	10-03-2013	Niezgoda et al.	
	851	2013/0268032	10-10-2013	Neev	
	852	2013/0310906	11-21-2013	Neev	
	853	2013/0317314	11-28-2013	Lampson	
	854	2013/0345616	12-26-2013	Chang	
	855	2014/0031801	01-30-2014	Giovannoli	
	856	2014/0079686	03-20-2014	Barman et al.	
	857	2014/0081251	03-20-2014	Giovannoli	
	858	2014/0094718	04-03-2014	Feldman	
	859	2014/0114234	04-24-2014	Redding, Jr.	
	860	2014/0135798	05-15-2014	David	
	861	2014/0234004	08-21-2014	Thorpe et al.	
	862	2014/0243589	08-28-2014	Rowan	
	863	2014/0316492	10-23-2014	Min et al.	
	864	2014/0378887	12-25-2014	Chang et al.	
	865	2015/0039060	02-05-2015	Paulussen et al.	
	866	2015/0141877	05-21-2015	Feldman	
	867	2015/0157496	06-11-2015	Horton et al.	
	868	2015/0202007	07-23-2015	Mainstein et al.	
	869	2015/0272623	10-01-2015	Ignon et al.	
	870	2015/0313993	11-05-2015	Bock	

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	871	2015/0351868	12-10-2015	Groman	
	872	2016/0015962	01-21-2016	Maragheh et al.	
	873	2016/0018100	01-21-2016	Batt et al.	
	874	2016/0175609	06-23-2016	Dye et al.	
	875	2016/0220849	08-04-2016	Knowlton	
	876	2016/0235257	08-18-2016	Daffer	
	877	2016/0250415	09-01-2016	Yagi et al.	
	878	2016/0270850	09-22-2016	Manstein et al.	
	879	2016/0270851	09-22-2016	Moench et al.	
	880	2016/0287333	10-06-2016	Morrison	
	881	2016/0324578	11-10-2016	Manstein et al.	
	882	2017/0043150	02-16-2017	Kim	
	883	2017/0065829	03-09-2017	Ku	
	884	2017/0106206	04-20-2017	Seckel	
	885	2017/0128319	05-11-2017	Decaux et al.	
	886	2017/0157419	06-08-2017	Jeong	
	887	2017/0196759	07-13-2017	Palomaki et al.	
	888	2017/0209894	07-27-2017	Sporrer	
	889	2017/0252105	09-07-2017	Deem et al.	
	890	2017/0291007	10-12-2017	Dubey et al.	
	891	2017/0340356	11-30-2017	Presser et al.	
	892	2017/0343308	11-30-2017	Wojciechowski, III et al.	
	893	2018/0008500	01-11-2018	Anderson et al.	
	894	2018/0140329	05-24-2018	Beijens et al.	
	895	2018/0185675	07-05-2018	Kern et al.	
	896	2018/0310979	11-01-2018	Peled et al.	
	897	2018/0318568	11-08-2018	Ignon et al.	
	898	2018/0326191	11-15-2018	Bansal et al.	
	899	2019/0009110	01-10-2019	Gross et al.	

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	900	2019/0009111	01-10-2019	Myhr et al.	
	901	2019/0070069	03-07-2019	Gertner et al.	
	902	2019/0076193	03-14-2019	Clementi et al.	
	903	2019/0083161	03-21-2019	Harle et al.	
	904	2019/0143089	05-16-2019	Ignon et al.	
	905	2019/0151637	05-23-2019	Groop et al.	
	906	2019/0168016	06-06-2019	Anderson et al.	
	907	2019/0183562	06-20-2019	Widgerow	
	908	2019/0209859	07-11-2019	Quisenberry et al.	
	909	2019/0224501	07-25-2019	Burdette	
	910	2019/0239939	08-08-2019	Boll et al.	
	911	2019/0240110	08-08-2019	Sedic	
	912	2019/0240502	08-08-2019	Anderson et al.	
	913	2019/0257320	08-22-2019	Petit et al.	
	914	2019/0274759	09-12-2019	Royon et al.	
	915	2019/0275320	09-12-2019	Kim et al.	
	916	2019/0366067	12-05-2019	Ginggen et al.	
	917	2020/0009007	01-09-2020	Shadduck	
	918	2020/0016342	01-16-2020	Ignon	
	919	2020/0030627	01-30-2020	Eltorai et al.	
	920	2020/0101312	04-02-2020	Pai et al.	
	921	2020/0114116	04-16-2020	Dubey et al.	
	922	2020/0121354	04-23-2020	Ginggen et a l.	
	923	2020/0171288	06-04-2020	Ignon et al.	
	924	2020/0171289	06-04-2020	Ignon et al.	
	925	2020/0179220	06-11-2020	Jablow	
	926	2020/0206072	07-02-2020	Capelli et al.	
	927	2020/0254273	08-13-2020	Jafari et al.	
	928	2020/0275945	09-03-2020	Knowlton	

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	929	2020/0288843	09-17-2020	Verheem	
	930	2020/0289161	09-17-2020	Scooros	
	931	2020/0306555	10-01-2020	Ebbesson	
	932	2020/0316270	10-08-2020	Dijkstra et al.	
	933	2020/0330754	10-22-2020	Kim et al.	
	934	2020/0338586	10-29-2020	Park	
	935	2020/0367961	11-26-2020	Podmore et al.	
	936	2020/0390468	12-17-2020	Alexander	
	937	2021/0001148	01-07-2021	Verheem	
	938	2021/0052292	02-25-2021	Karni	
	939	2021/0085367	03-25-2021	Shadduck et al.	
	940	2021/0128416	05-06-2021	Danto	
	941	2021/0145479	05-20-2021	Ignon et al.	
	942	2021/0154093	05-27-2021	Boone, III et al.	
	943	2021/0220631	07-22-2021	Ok et al.	
	944	2021/0236342	08-05-2021	Long et al.	
	945	2021/0236347	08-05-2021	Carver	
	946	2021/0236836	08-05-2021	Schwarz et al.	
	947	2021/0242657	08-05-2021	Yi et al.	
	948	2021/0259914	08-26-2021	Holbert	
	949	2021/0267625	09-02-2021	Carver	
	950	2021/0268304	09-02-2021	Lee	
	951	2021/0275406	09-09-2021	Danto	
	952	2021/0282855	09-16-2021	Boinagrov et al.	
	953	2021/0283421	09-16-2021	Kang et al.	
	954	2021/0290430	09-23-2021	Kim	
	955	2021/0330356	10-28-2021	Del Rosario et al.	
	956	2021/0353922	11-18-2021	Ignon et al.	
	957	2021/0361525	11-25-2021	Park et al.	

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	958	2021/0370049	12-02-2021	Moss et al.	
	959	2021/0370089	12-02-2021	Anash	
	960	2021/0393478	12-23-2021	Bhatti	
	961	2021/0393974	12-23-2021	Kim et al.	
	962	2021/0393975	12-23-2021	Eltorai et al.	
	963	2021/0395071	12-23-2021	Zubrum et al.	
	964	2021/0402208	12-30-2021	Edgar	
	965	2022/0001198	01-06-2022	Lee	
	966	2022/0001199	01-06-2022	Beerwerth et al.	
	967	2022/0008122	01-13-2022	Johnston et al.	
	968	2022/0032082	02-03-2022	Shenfarber et al.	
	969	2022/0054189	02-24-2022	Wootten	
	970	2022/0071491	03-10-2022	Bae et al.	
	971	2022/0072332	03-10-2022	Park et al.	
	972	2022/0087891	03-24-2022	Goodman et al.	
	973	2022/0111198	04-14-2022	Jung	
	974	2022/0117632	04-21-2022	Walker et al.	
	975	2022/0125706	04-28-2022	Horinek et al.	
	976	2022/0126014	04-28-2022	Cederna et al.	
	977	2022/0133407	05-05-2022	Anderson et al.	
	978	2022/0175443	06-09-2022	Slatkine et al.	
	979	2022/0176092	06-09-2022	Quan et al.	
	980	2022/0203112	06-30-2022	Iger et al.	
	981	2022/0211424	07-07-2022	Wootten et al.	
	982	2022/0211988	07-07-2022	Ignon et al.	
	983	2022/0218562	07-14-2022	Capelli et al.	
	984	2022/0226668	07-21-2022	Lee et al.	
	985	2022/0233400	07-28-2022	Oh et al.	
	986	2022/0241107	08-04-2022	Kim et al.	

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	987	2022/0241146	08-04-2022	Jeong	
	988	2022/0268536	08-25-2022	Stephenson et al.	
	989	2022/0287910	09-15-2022	Boone, III et al.	
	990	2022/0312940	10-06-2022	Hong et al.	
	991	2022/0362529	11-17-2022	Castro	
	992	2022/0401714	12-22-2022	Quan et al.	
	993	2022/0409276	12-29-2022	Choi	
	994	2023/0012684	01-19-2023	Ignon et al.	
	995	2023/0014299	01-19-2023	Lee, Jr. et al.	
	996	2023/0018295	01-19-2023	Ignon et al.	
	997	2023/0019979	01-19-2023	Deem et al.	
	998	2023/0033217	02-02-2023	Ignon et al.	
	999	2023/0033761	02-02-2023	Ignon et al.	
	1000	2023/0042047	02-09-2023	Kim et al.	
	1001	2023/0062185	03-02-2023	Nazarian et al.	
	1002	2023/0104221	04-06-2023	Aharon	
	1003	2023/0123145	04-20-2023	Ko	
	1004	2023/0158282	05-25-2023	Ignon et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	**T[1]**
	1005	AT 400305	12-27-1995	Devida Ges MBH		
	1006	AU 1014299	05-31-1999	Greenberg		
	1007	CA 2340154	09-09-2002	Hoffman et al.		
	1008	CA 2784209	08-04-2011	KCI Licensing Inc		
	1009	CN 1708261	12-14-2005	Palomar Medical Technologies, Inc.		X
	1010	CN 107920948	04-17-2018	Edge Systems LLC		

Examiner Signature	Date Considered

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PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487916
	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
SHEET 36 OF 45	Attorney Docket No.	EDGE.005C11

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[1]
	1011	CN 306995346	12-10-2021	Zhu Li		Abs
	1012	DE 234608	04-09-1986	Rath		
	1013	DE 599521	07-04-1934	Strickler et al.		
	1014	DE 2415633	10-16-1975	Nubert Geb KG		Abs
	1015	DE 3338057	08-09-1984	Krueger-Beuster		Abs
	1016	DE 3421390	12-12-1985	Schubert		
	1017	DE 3503343	08-14-1986	Frenkel		Abs
	1018	DE 8330191	06-04-1987	Krueger-Beuster		
	1019	DE 3740902	12-22-1988	Schlicksupp		Abs
	1020	DE 4237940	05-19-1993	Berens et al.		Abs
	1021	DE 29808395	08-27-1998	Ionto-Comed GmbH		
	1022	DE 10-2004-015815	11-03-2005	Bundersrepublik Deutschland		
	1023	EP 0258901	09-03-1987	Tonokura Ika Kogyo Co. LTD		
	1024	EP 0479121	04-08-1992	Fidia SpA		
	1025	EP 0564392	03-03-1993	Fructuoso Martinez		
	1026	EP 0784997	07-23-1997	Koblinger Gerald Ing		Abs
	1027	EP 1238643	04-07-2000	S.O.R Internacional		
	1028	EP 1453558	09-08-2004	Envy Medical, Inc.		
	1029	EP 2106780	03-09-2016	Pomar		
	1030	EP 2865867	05-04-2016	Delavan Inc.		
	1031	EP 2206483	07-14-2010	Andrea Uterstaedt		Abs
	1032	EP 2240099	02-21-2018	Edge Systems LLC.		
	1033	EP 2451367	01-22-2020	Edge Systems LLC.		
	1034	EP 2544563	09-16-2015	LRC Products Limited		
	1035	EP 2618797	04-08-2020	Sharon Hilditch		
	1036	EP 2967633	04-25-2018	Edge Systems LLC		
	1037	EP 3217899	05-19-2016	CYTRELLIS BIOSYSTEMS INC		

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	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
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FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[1]
	1038	EP 3237055	08-12-2020	Edge Systems LLC		
	1039	EP 3302319	04-11-2018	Koninklijke Philips N.V.		
	1040	EP 3319573	05-16-2018	Edge Systems LLC		
	1041	EP 3340908	07-04-2018	Koninklijke Philips N.V.		
	1042	EP 3388006	03-04-2020	Edge Systems LLC		
	1043	EP 3437575	04-21-2021	Edge Systems LLC.		
	1044	EP 3795204	03-24-2021	Edge Systems LLC.		
	1045	ES 1037776	04-01-1998	Concustell Gonfaus		Abs
	1046	EU Des. 8794184-0001	12-13-2021	Stallvärme Sverige AB		
	1047	EU Des. 8880371-0001	05-20-2022	Edge Systems LLC		
	1048	FR 2712172	05-19-1995	Rabier		Abs
	1049	FR 2773461	07-16-1999	Favie Alain		Abs
	1050	GB 1372609	10-30-1974	Forenade Fabrik-Sverken		
	1051	GB 2306351	05-07-1997	Inahara		
	1052	GB 2585500	01-13-2021	Tube Tech International Limited		
	1053	IT 553076	12-01-1956	Facconi		
	1054	IT 1184922	03-22-1985	Porqueddu		
	1055	JP H05-042060	02-23-1993	Hara		X
	1056	JP (53-118927) S55-034863	08-29-1963			
	1057	JP1993-088552	12-03-1993	Sumitomo Bakelite Co., Ltd.		
	1058	JP 1997-294747	11-18-1997	Fukutaro, Yamazaki		
	1059	JP 2003-339713	12-02-2003	Twinbird Corp		
	1060	JP 2003-534881	11-25-2003	Becton, Dickinson and Company		Abs
	1061	JP 2004-275721	10-07-2004	Matsushita Electric Works		
	1062	JP 2006-503627 (English abstract of WO 2004/037098)	02-02-2006	Bionoface		

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	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
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FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[1]
	1063	JP 2006-204767	10-08-2006	Matsushita Electric Works		
	1064	JP 2012-527967	11-12-2012	General Hospital Corp		
	1065	JP 2013-215621	10-24-2013	Corium International Inc.		X
	1066	JP D1581877	07-24-2017	Lexington International LLC		X
	1067	JP D1609357	06-22-2018	Pocket Sky OG		X
	1068	JP 2018-527052	09-20-2018	Edge Systems LLC		
	1069	KR 10-1836310	03-02-2018	Edge Systems LLC		
	1070	KR 20-0280320 (with English machine translation obtained from Korean Intellectual Property Office website, http://eng.kipris.or.kr/enghome/main.jsp)	07-02-2002	Lee		X
	1071	KR 10-20070070173	07-03-2007	Dermanew Inc.		Abs
	1072	KR 10-2018-0030607	03-23-2018	Edge Systems LLC		
	1073	TW D214226	09-21-2021	Baoliwang Health Technology Co., Ltd.		X
	1074	WO 1994/024980	11-10-1994	D+P Cosmetics AG		
	1075	WO 1997/000707	01-09-1997	Chattanooga Group, Inc.		
	1076	WO 1997/011650	03-04-1997	Cawley		
	1077	WO 2000/015300	03-23-2000	Ultra Cure Ltd		
	1078	WO 2000/79540	12-28-2000	DAUGHTON JAMES M; NONVOLATILE ELECTRONICS INC; POHM ARTHUR V		
	1079	WO 2001/93931	12-13-2001	Becton, Dickinson and Company		
	1080	WO 2003/073917	09-12-2003	Edge Systems		
	1081	WO 2004/037098	05-06-2004	Bionoface		

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	Art Unit	Unassigned
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FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[1]
	1082	WO 2004/108091	12-16-2001	Board of Regents, The Universioty of Texas System		
	1083	WO 2004/037287	05-06-2004	Palomar Medical Technologies, Inc.		
	1084	WO 2005/061042	07-07-2005	CMS Co., Ltd.		X
	1085	WO 2005/070313	08-04-2005	Crystal Clear International Limited		
	1086	WO 2006/018731	02-23-2006	Mc Anton Holding SA		
	1087	WO 2006/031413	03-23-2006	Dermanew Inc.		
	1088	WO 2007/114904	10-11-2007	Amcol International Corporation		
	1089	WO 2008/012324	01-31-2008	Maurizio Busoni		
	1090	WO 2009/086182	07-09-2009	Carticept Medical, Inc.		
	1091	WO 2009/088884	07-16-2009	Edge Systems Corporation	JP 5508285 WO 2009/088884	
	1092	WO 2009/097451	08-06-2009	Edge Systems Corporation		
	1093	WO 2010/022396	02-25-2010	Envy Medical, Inc.		
	1094	WO 2010/068960	06-24-2010	Silverbrook Research Pty Ltd		
	1095	WO 2010/151704	12-29-2010	Carticept Medical, Inc.		
	1096	WO 2011/006009	01-13-2011	Edge Systems Corporation		
	1097	WO 2011/110840	09-15-2011	LRC Products Limited		
	1098	WO 2012/145667	10-26-2012	Sun-Less, Inc.		
	1099	WO 2013/030117	03-07-2013	Medic Activ Vertriebs GMBH		
	1100	WO 2014/091035	06-19-2014	Decaux		
	1101	WO 2014/151104	09-25-2014	Edge Systems LLC		
	1102	WO 2016/052818	04-07-2016	LG Electronics Inc.		
	1103	WO 2016/106396	06-30-2016	Edge Systems LLC		

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	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
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FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[1]
	1104	WO 2017/007939	01-12-2017	Edge Systems LLC		
	1105	AT 400305	12-27-1995	Devida Ges MBH		
	1106	AU 1014299	05-31-1999	Greenberg		
	1107	CA 2340154	09-09-2002	Hoffman et al.		
	1108	CA 2784209	08-04-2011	KCI Licensing Inc		
	1109	CN 1708261	12-14-2005	Palomar Medical Technologies, Inc.		X
	1110	CN 107920948	04-17-2018	Edge Systems LLC		
	1111	CN 306995346	12-10-2021	Zhu Li		Abs
	1112	DE 234608	04-09-1986	Rath		
	1113	DE 599521	07-04-1934	Strickler et al.		
	1114	DE 2415633	10-16-1975	Nubert Geb KG		Abs
	1115	DE 3338057	08-09-1984	Krueger-Beuster		Abs
	1116	DE 3421390	12-12-1985	Schubert		
	1117	DE 3503343	08-14-1986	Frenkel		Abs
	1118	DE 8330191	06-04-1987	Krueger-Beuster		
	1119	DE 3740902	12-22-1988	Schlicksupp		Abs
	1120	DE 4237940	05-19-1993	Berens et al.		Abs
	1121	DE 29808395	08-27-1998	Ionto-Comed GmbH		
	1122	DE 10-2004-015815	11-03-2005	Bundersrepublik Deutschland		
	1123	EP 0258901	09-03-1987	Tonokura Ika Kogyo Co. LTD		
	1124	EP 0479121	04-08-1992	Fidia SpA		
	1125	EP 0564392	03-03-1993	Fructuoso Martinez		
	1126	EP 0784997	07-23-1997	Koblinger Gerald Ing		Abs
	1127	EP 1238643	04-07-2000	S.O.R Internacional		
	1128	EP 1453558	09-08-2004	Envy Medical, Inc.		
	1129	EP 2106780	03-09-2016	Pomar		
	1130	EP 2865867	05-04-2016	Delavan Inc.		

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	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
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FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[1]
	1131	EP 2206483	07-14-2010	Andrea Uterstaedt		Abs
	1132	EP 2240099	02-21-2018	Edge Systems LLC.		
	1133	EP 2451367	01-22-2020	Edge Systems LLC.		
	1134	EP 2544563	09-16-2015	LRC Products Limited		
	1135	EP 2618797	04-08-2020	Sharon Hilditch		
	1136	EP 2967633	04-25-2018	Edge Systems LLC		
	1137	EP 3217899	05-19-2016	CYTRELLIS BIOSYSTEMS INC		
	1138	EP 3237055	08-12-2020	Edge Systems LLC		
	1139	EP 3302319	04-11-2018	Koninklijke Philips N.V.		
	1140	EP 3319573	05-16-2018	Edge Systems LLC		
	1141	EP 3340908	07-04-2018	Koninklijke Philips N.V.		
	1142	EP 3388006	03-04-2020	Edge Systems LLC		
	1143	EP 3437575	04-21-2021	Edge Systems LLC.		
	1144	EP 3795204	03-24-2021	Edge Systems LLC.		
	1145	ES 1037776	04-01-1998	Concustell Gonfaus		Abs
	1146	EU Des. 8794184-0001	12-13-2021	Stallvärme Sverige AB		
	1147	EU Des. 8880371-0001	05-20-2022	Edge Systems LLC		
	1148	FR 2712172	05-19-1995	Rabier		Abs
	1149	FR 2773461	07-16-1999	Favie Alain		Abs
	1150	GB 1372609	10-30-1974	Forenade Fabrik-Sverken		
	1151	GB 2306351	05-07-1997	Inahara		
	1152	GB 2585500	01-13-2021	Tube Tech International Limited		
	1153	IT 553076	12-01-1956	Facconi		
	1154	IT 1184922	03-22-1985	Porqueddu		
	1155	JP H05-042060	02-23-1993	Hara		X
	1156	JP (53-118927) S55-034863	08-29-1963			

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	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
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FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[1]
	1157	JP1993-088552	12-03-1993	Sumitomo Bakelite Co., Ltd.		
	1158	JP 1997-294747	11-18-1997	Fukutaro, Yamazaki		
	1159	JP 2003-339713	12-02-2003	Twinbird Corp		
	1160	JP 2003-534881	11-25-2003	Becton, Dickinson and Company		Abs
	1161	JP 2004-275721	10-07-2004	Matsushita Electric Works		
	1162	JP 2006-503627 (English abstract of WO 2004/037098)	02-02-2006	Bionoface		
	1163	JP 2006-204767	10-08-2006	Matsushita Electric Works		
	1164	JP 2012-527967	11-12-2012	General Hospital Corp		
	1165	JP 2013-215621	10-24-2013	Corium International Inc.		X
	1166	JP D1581877	07-24-2017	Lexington International LLC		X
	1167	JP D1609357	06-22-2018	Pocket Sky OG		X
	1168	JP 2018-527052	09-20-2018	Edge Systems LLC		
	1169	KR 10-1836310	03-02-2018	Edge Systems LLC		
	1170	KR 20-0280320 (with English machine translation obtained from Korean Intellectual Property Office website, http://eng.kipris.or.kr/enghome/main.jsp)	07-02-2002	Lee		X
	1171	KR 10-20070070173	07-03-2007	Dermanew Inc.		Abs
	1172	KR 10-2018-0030607	03-23-2018	Edge Systems LLC		
	1173	TW D214226	09-21-2021	Baoliwang Health Technology Co., Ltd.		X
	1174	WO 1994/024980	11-10-1994	D+P Cosmetics AG		
	1175	WO 1997/000707	01-09-1997	Chattanooga Group, Inc.		
	1176	WO 1997/011650	03-04-1997	Cawley		
	1177	WO 2000/015300	03-23-2000	Ultra Cure Ltd		

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	First Named Inventor	Ignon, Roger
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FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document *Country Code-Number-Kind Code* Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[1]
	1178	WO 2000/79540	12-28-2000	DAUGHTON JAMES M; NONVOLATILE ELECTRONICS INC; POHM ARTHUR V		
	1179	WO 2001/93931	12-13-2001	Becton, Dickinson and Company		
	1180	WO 2003/073917	09-12-2003	Edge Systems		
	1181	WO 2004/037098	05-06-2004	Bionoface		
	1182	WO 2004/108091	12-16-2001	Board of Regents, The Universioty of Texas System		
	1183	WO 2004/037287	05-06-2004	Palomar Medical Technologies, Inc.		
	1184	WO 2005/061042	07-07-2005	CMS Co., Ltd.		X
	1185	WO 2005/070313	08-04-2005	Crystal Clear International Limited		
	1186	WO 2006/018731	02-23-2006	Mc Anton Holding SA		
	1187	WO 2006/031413	03-23-2006	Dermanew Inc.		
	1188	WO 2007/114904	10-11-2007	Amcol International Corporation		
	1189	WO 2008/012324	01-31-2008	Maurizio Busoni		
	1190	WO 2009/086182	07-09-2009	Carticept Medical, Inc.		
	1191	WO 2009/088884	07-16-2009	Edge Systems Corporation	JP 5508285 WO 2009/088884	
	1192	WO 2009/097451	08-06-2009	Edge Systems Corporation		
	1193	WO 2010/022396	02-25-2010	Envy Medical, Inc.		
	1194	WO 2010/068960	06-24-2010	Silverbrook Research Pty Ltd		
	1195	WO 2010/151704	12-29-2010	Carticept Medical, Inc.		
	1196	WO 2011/006009	01-13-2011	Edge Systems Corporation		
	1197	WO 2011/110840	09-15-2011	LRC Products Limited		
	1198	WO 2012/145667	10-26-2012	Sun-Less, Inc.		

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FOREIGN PATENT DOCUMENTS						
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	1199	WO 2013/030117	03-07-2013	Medic Activ Vertriebs GMBH		
	1200	WO 2014/091035	06-19-2014	Decaux		
	1201	WO 2014/151104	09-25-2014	Edge Systems LLC		
	1202	WO 2016/052818	04-07-2016	LG Electronics Inc.		
	1203	WO 2016/106396	06-30-2016	Edge Systems LLC		
	1204	WO 2017/007939	01-12-2017	Edge Systems LLC		
	1205	WO 2017/111481	06-29-2017	Amore Pacific Co., Ltd.		X
	1206	WO 2021/018765	02-04-2021	L'Oreal		
	1207	WO 2021/113343	06-10-2021	Sorrento Therapeutics, Inc.		
	1208	WO 2022/099318	05-12-2022	Edge Systems LLC		
	1209	WO 2023/039524	03-16-2023	Hydrafacial LLC		
	1210	WO 2023/064718	04-20-2023	Hydrafacial LLC		
	1211	WO 2023/164572	08-31-2023	Hydrafacial LLC		

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[1]
	1212	Amazon, FAZJEUNE 7 Color LED Light, LED Face Mask Skin Rejevenation PDT Photon Facial Skin Care Mask Skin Tightening Lamp SPA Face Device Beauty Salon Equipment Anti-aging Remove Wrinkle, Customer reviewed on 9/2020, retrieved from internet at https://www.amazon.com/FAZJEUNE-Rejuvenation-Tightening-Equipment-Anti-aging/dp/B08B4M8RQQ/ref=psdc_11061121_t3_B08ZSPZSF4	
	1213	Beautimate adjustable Hydra Needle Microneedling Serium Applicator, https://www.beautimate.com/products/adjustable-hydra-needle, first accessed August 12, 2023.	
	1214	File History of Reissue Application No. 11/027,590, filed December 29, 2004 (Reissue of U.S. Patent No. 6,500,183, issued December 31, 2002).	
	1215	File History of Reexamination No. 90/007,683 (Reexamination of U.S. Patent No. 6,241,739, issued June 5, 2001).	
	1216	File History of Reexamination No. 90/013,284 filed July 2, 2014 (Reexamination of US Patent No. 6,241,739, issued June 5, 2001).	
	1217	COX III et al., Decreased Splatter in Dermabrasion, Arch Facial Plastic Surgery, Jan-Mar 2000, Vol. 2, pp. 23-26	

Examiner Signature	Date Considered
***Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

T[1] - Place a check mark in this area when an English language Translation is attached.

PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application No.	18/487916
	Filing Date	October 16, 2023
	First Named Inventor	Ignon, Roger
	Art Unit	Unassigned
(Multiple sheets used when necessary)	Examiner	Unassigned
SHEET 45 OF 45	Attorney Docket No.	EDGE.005C11

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[1]
	1218	DITRE et al., Effect of α-hydroxy acids on photoaged skin: A pilot clinical, histologic, and ultrastructural study, Journal of American Academy of Dermatology, February 1996, Vol. 34, No. 2, Part 1, pp.187-195.	
	1219	HARRIS et al., Combining Manual Dermasanding with Low Strength Trichloroacetic Acid to Improve Antinically Injured Skin, The Journal of Dermatologic Surgery and Oncology, July 1994, Vol. 20, No. 7, pp. 436-442.	
	1220	HYDRAFACIAL® TOWER - User guide. Edge Systems. Revised june 23, 2016. Page no. 16.	
	1221	Hydrafacial Hydropeel Vortex Fusion Tips, https://mergesouq.com/products/hydrafacial-hydropeel-vortex-fusion-tips, first accessed August 12, 2023.	
	1222	Microdermabrader Pepita Instruction Manual, Mattioli Engineering S.R.L., PEP_USA2.doc Rev 1.1, 09-29-1997	

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Examiner Signature	Date Considered
***Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

T[1] - Place a check mark in this area when an English language Translation is attached.

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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
18/487,916	**10/17/2023 01:41:18 PM ET**	**EDGE.005C11**

Title of Invention

DEVICES AND METHODS FOR TREATING SKIN

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	3841	FILED BY	Alisa Hocking
PATENT CENTER #	63013072	FILING DATE	-
CUSTOMER #	20995	FIRST NAMED INVENTOR	Roger Ignon
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Daniel Mittelstein

Documents

TOTAL DOCUMENTS: 2

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
IDS.pdf	1	Transmittal Letter	77 KB
SB08.pdf	45	Information Disclosure Statement (IDS) Form (SB08)	356 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
IDS.pdf	065E8CB5E36C1985D58C713567D3DFA7A79BF207363B902CA AC0207C6AF6FABF78B3913C796CB0809280DEBE4D609769C0 0F311B709D4617A440B48E2FAE69F4

SB08.pdf B68CB7F898D98224F5D76B2399EF4D0BCA50B68DB10162E26
991A57A35363F147466FCCD7F9F0BF3A8E42C365D3EF0FA4D
14EB2A7EB9314FC998978FF2AC2EDC

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

INFORMATION DISCLOSURE STATEMENT

First Inventor: Ignon, Roger	**Conf. No.:** 3841
App. No.: 18/487916	**Filed:** October 16, 2023
Examiner: Unassigned	**Art Unit:** Unassigned
Title: DEVICES AND METHODS FOR TREATING SKIN	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

References and Listing

Pursuant to 37 CFR 1.56, an Information Disclosure Statement listing references is provided herewith. Listed references are of record in U.S. patent application No. 18/094,884, filed January 9, 2023, which is relied upon for an earlier filing date under 35 USC 120. Copies of the references are not submitted pursuant to 37 CFR 1.98(d).

No Disclaimers

To the extent that anything in the Information Disclosure Statement or the listed references could be construed as a disclaimer of any subject matter supported by the present application, Applicant hereby rescinds and retracts such disclaimer.

Timing of Disclosure

This Information Disclosure Statement is being filed within three months of the filing date, and no fee is believed to be required.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: October 17, 2023

By: /Daniel Mittelstein/
Daniel M. Mittelstein
Registration No. 79,750
Registered Practitioner
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PRELIMINARY AMENDMENT

First Inventor: Ignon, Roger	**Conf. No.:** 3841
App. No.: 18/487,916	**Filed:** October 16, 2023
Examiner: Unknown	**Art Unit:** Unknown
Title: METHODS OF TREATING SKIN USING SPIRAL TIPS	

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner:

Prior to the substantive examination of the above-referenced application, please consider the following:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks begin on page 5 of this paper.

AMENDMENTS TO THE CLAIMS

Please find below amendments to the claims. Additions are underlined (e.g., addition) and removals are bracketed or struck through (e.g., [[removal]] or ~~removed text~~).

1. (Cancelled)

2. (New) A system for treating skin, the system comprising:

a console configured to receive a first container and at least one additional container;

a handpiece configured to contact skin tissue of a subject;

a block in the console, wherein the block is:

configured to selectively receive fluid from the first container when the first container is connected to the console;

configured to selectively receive fluid from the at least one additional container when the at least one additional container is connected to the console; and,

configured to selectively be in fluid communication with the handpiece through a first conduit when the handpiece is connected to the console;

a vacuum source; and

wherein the handpiece is configured to be in fluid communication with the vacuum source through a second conduit when the handpiece is connected to the console.

3. (New) The system of Claim 2,

wherein the system is configured to combine in the block a first treatment fluid contained in the first container and an additional treatment fluid contained in the at least one additional container to create a mixture of treatment fluid.

4. (New) The system of Claim 3,

wherein the console comprises the vacuum source;

wherein the handpiece is in fluid communication with the vacuum source and a waste container through the second conduit; and

wherein the system is configured to deliver the mixture of treatment fluid to the handpiece sequentially.

5. (New) The system of Claim 2, wherein the at least one additional container comprises a second container and a third container such that the console is configured to receive at least three containers.
6. (New) The system of Claim 2, further comprising a computing device configured to control at least one function of the system.
7. (New) The system of Claim 6, further comprising a user input device to select a flow of fluids from the first container and the at least one additional container to the handpiece.
8. (New) The system of Claim 7, wherein the user input device comprises a touch screen.
9. (New) The system of Claim 8, further comprising a display.
10. (New) The system of Claim 2, wherein the block is configured to control a flow of a first treatment fluid contained in the first container and an additional treatment fluid contained in the at least one additional container into the block with a valve when the first container and the at least one additional container are connected to the console.
11. (New) The system of Claim 2, wherein the system is configured to control a flow of a first treatment fluid contained in the first container to the handpiece through the block when each of the first container and the handpiece is connected to the console.
12. (New) A system for treating skin, the system comprising:

a console configured to receive a first container and at least one additional container;

a collection lumen configured to be in fluid communication with the first container and the at least one additional container when the first container and the at least one additional container are connected to the console; and

a handpiece having a working end, the working end of the handpiece being configured to contact skin tissue of a subject during use;

wherein the working end of the handpiece is configured to be placed in fluid communication with a vacuum source to create a suction force along a distal end of the handpiece when the vacuum source is activated and the handpiece is connected to the console and wherein the working end of the handpiece is configured to be placed in fluid communication with the first container or the at least one additional container through the collection lumen.

13. (New) The system of Claim 12,

wherein the console comprises the vacuum source;

wherein the handpiece is in fluid communication with the vacuum source and a waste container through a waste conduit when the handpiece is connected to the console; and

wherein the system is configured to deliver a first treatment fluid contained in the first container and an additional treatment fluid contained in the at least one additional container to the handpiece sequentially or simultaneously.

14. (New) The system of Claim 12, further comprising a supply conduit that places the collection lumen in fluid communication with the working end of the handpiece.

15. (New) The system of Claim 12, further comprising a computing device configured to control at least one function of the system.

16. (New) The system of Claim 15, further comprising a user input device to facilitate control of a flow of fluids from the first container and at least one additional container to the handpiece.

REMARKS

Claim 1 has been cancelled without prejudice and new Claims 2-17 have been added. No new subject matter is believed to have been added to the present application by way of the amendments or new claims. Support for the amendments can be found throughout the application as originally filed. Applicant notes that the new claims presented herein were pending in the parent application of the present application, Appl. No. 18/094884. In order to expedite the allowance of Appl. No. 18/094884, certain claim amendments were submitted in an Office Action response filed on the same day as this Preliminary Amendment, i.e., October 16, 2023. Applicant reserves the right to pursue the previously pending claims and/or subject matter of the previously pending claims in this or another application. Accordingly, Claims 2-17 are presented for consideration. Identification herein is not an admission that any of the references are prior art to the above captioned application.

No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

Patents and Patent Applications of Assignee

Applicant wishes to draw the Examiner's attention to the following U.S. patents and patent applications of the present application's assignee.

Attorney Docket No.	App. No. (Pat. No., if appl.)	Filing Date	Title
EDGE.004A	09/648,025 (Pat. No. 6,641,591)	Aug. 25, 2000	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C1	10/699,747 (Pat. No. 7,789,886)	Nov. 3, 2003	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS

Attorney Docket No.	App. No. (Pat. No., if appl.)	Filing Date	Title
EDGE.004C1DV1	11/739,615 (Pat. No. 8,337,513)	Apr. 24, 2007	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C2	11/417,709 (Pat. No. 8,066,716)	May 3, 2006	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C3	11/417,396 (Pat. No. 7,678,120)	May 3, 2006	INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF EPIDERMAL LAYERS
EDGE.004C5	14/702,509 (Pat. No. 9,775,646)	May 1, 2015	DEVICES AND SYSTEMS FOR TREATING THE SKIN USING VACUUM
EDGE.004C6	14/702,486 (Pat. No. 9,468,464)	May 1, 2015	METHODS FOR TREATING THE SKIN USING VACUUM
EDGE.005A	11/392,348 (Pat. No. 8,048,089)	Mar. 29, 2006	APPARATUS AND METHODS FOR TREATING THE SKIN
EDGE.005C1	13/267,554 (Pat. No. 9,474,886)	Oct. 6, 2011	REMOVABLE TIPS FOR SKIN TREATMENT SYSTEMS
EDGE.005C2	14/698,673 (Pat No. 9,550,052)	Apr. 28, 2015	CONSOLE SYSTEM FOR THE TREATMENT OF SKIN
EDGE.005C3	14/698,713 (Pat. No. 9,662,482)	Apr. 28, 2015	METHODS AND SYSTEMS FOR EXTRACTION OF MATERIALS FROM SKIN
EDGE.005C4	14/700,789 (Pat. No. 9,814,868)	Apr. 30, 2015	TIP WITH EMBEDDED MATERIALS FOR SKIN TREATMENT
EDGE.005C5	15/660,750 (Pat. No. 10/357,641)	Jul. 26, 2017	TIPS FOR SKIN TREATMENT DEVICE
EDGE.005C6	15/660,777 (Pat. No. 10/357,642)	Jul. 26, 2017	REMOVABLE TIPS FOR USE WITH SKIN TREATMENT SYSTEMS
EDGE.005C7	16/517,268 (Pat. No. 11,446,477)	July 19, 2019	DEVICES AND METHODS FOR TREATING SKIN
EDGE.005C8	17/165,820 (Pat. No. 11,547,840)	Feb. 2, 2021	DEVICES AND METHODS FOR TREATING SKIN
EDGE.005C9	17/165,807 (Pat. No. 11,612,726)	Feb. 2, 2021	DEVICES AND METHODS FOR TREATING SKIN
EDGE.005C10	18/094,884	Jan. 9, 2023	DEVICES AND METHODS FOR TREATING SKIN
EDGE.005C11	**18/487,916** ***(present application)***	**Oct. 16, 2023**	**DEVICES AND METHODS FOR TREATING SKIN**
EDGE.006A	09/294,254 (Pat. No. 6,162,232)	Apr. 19, 1999	INSTRUMENTS AND TECHNIQUES FOR HIGH-VELOCITY FLUID ABRASION OF EPIDERMAL LAYERS WITH SKIN COOLING
EDGE.007A	09/475,480 (Pat. No. 6,299,620)	Dec. 30, 1999	INSTRUMENTS AND TECHNIQUES FOR INDUCING NEOCOLLAGENESIS IN SKIN TREATMENTS
EDGE.008A	09/475,479 (Pat. No. 6,387,103)	Dec. 30, 1999	INSTRUMENTS AND TECHNIQUES FOR INDUCING NEOCOLLAGENESIS IN SKIN TREATMENTS
EDGE.044A	12/362,353 (Pat. No. 9,056,193)	Jan. 29, 2009	APPARATUS AND METHOD FOR TREATING THE SKIN
EDGE.044C1	14/734,995 (Pat. No. 11,020,577)	Jun. 9, 2015	DEVICES AND SYSTEMS FOR TREATING SKIN SURFACES
EDGE.044C2	17/332,897	May 27, 2021	DEVICES, SYSTEMS, AND METHODS FOR TREATING THE SKIN
EDGE.044C3	17/952,569	Sep. 26, 2022	DEVICES, SYSTEMS, AND METHODS FOR TREATING THE SKIN
EDGE.044C4	17/952,665	Sep. 26, 2022	DEVICES, SYSTEMS, AND METHODS FOR TREATING THE SKIN

Attorney Docket No.	App. No. (Pat. No., if appl.)	Filing Date	Title
EDGE.044CP1	12/832,663 (Pat. No. 8,814,836)	Jul 8, 2010	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN USING TIME-RELEASE SUBSTANCES
EDGE.044P1C1	14/455,762 (Pat. No. 9,642,997)	Aug. 8, 2014	DEVICES FOR TREATING SKIN USING TREATMENT MATERIALS LOCATED ALONG A TIP
EDGE.044P1C2	15/588,102 (Pat. No. 10,556,097)	May 5, 2017	DEVICES FOR TREATING SKIN USING TREATMENT MATERIALS LOCATED ALONG A TIP
EDGE.044P1C3	16/784,850	Feb. 7, 2020	DEVICES AND METHODS FOR TREATING SKIN
EDGE.047A	12/346,582 (Pat. No. 8,343,116)	Dec. 30, 2008	APPARATUS AND METHOD FOR TREATING THE SKIN
EDGE.047C1	13/620,376 (Pat. No. 9,486,615)	Sep. 14, 2012	MICRODERMABRASION APPARATUS AND METHOD
EDGE.047C2	15/344,357 (Pat. No. 10,556,096)	Nov. 4, 2016	DEVICES AND METHODS FOR SKIN TREATMENT
EDGE.047C3	16/784,044	Feb. 6, 2020	DEVICES AND METHODS FOR SKIN TREATMENT
EDGE.050A	09/540,945 (Pat. No. 6,592,595)	Mar. 31, 2000	MICRODERMABRASION AND SUCTION MASSAGE APPARATUS AND METHOD
EDGE.050C1	09/698,409 (Pat. No. 6,527,783)	Oct. 27, 2000	MICRODERMABRASION AND SUCTION MASSAGE APPARATUS AND METHOD
EDGE.050DV1	10/177,173 (Pat. No. 6,673,082)	Jun. 20, 2002	MICRODERMABRASION HANDPIECE WITH SUPPLY AND RETURN LUMENS
EDGE.051A	10/315,478 (Pat. No. 6,942,649)	Dec. 10, 2002	MICRODERMABRASION FLUID APPLICATION SYSTEM AND METHOD
EDGE.052A	09/699,220 (Pat. No. 6,629,983)	Oct. 27, 2000	APPARATUS AND METHOD FOR SKIN/SURFACE ABRASION
EDGE.065A	14/211,089 (Pat. No. 10,238,812)	Mar. 14, 2014	SKIN TREATMENT SYSTEMS AND METHODS USING NEEDLES
EDGE.065C1	16/363,310	Mar. 25, 2019	SKIN TREATMENT SYSTEMS AND METHODS USING NEEDLES
EDGE.077A	14/211,290 (Pat. No. 9,566,088)	Mar. 14, 2014	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077C1	15/430,209 (Pat. No. 10,251,675)	Feb. 10, 2017	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077C2	16/376,956 (Pat. No. 11,717,326)	Apr. 5, 2019	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077C3	17/952,721	Sep. 26, 2022	DEVICES, SYSTEMS, AND METHODS FOR TREATING THE SKIN
EDGE.077C4	17/952,676	Sep. 26, 2022	DEVICES, SYSTEMS, AND METHODS FOR TREATING THE SKIN
EDGE.077NP	14/774,641 (Pat. No. 10,172,644)	Sep. 10, 2015	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC1	16/241,572 (Pat. No. 10,993,743)	Jan. 7, 2019	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC2	17/163,128	Jan. 29, 2021	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC3	17/163,199 (Pat. No. 11,517,350)	Jan. 29, 2021	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC4	17/163,237 (Pat. No. 11,202,657)	Jan. 29, 2021	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.077NPC5	17/163,240 (Pat. No. 11,213,321)	Jan. 29, 2021	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN

Attorney Docket No.	App. No. (Pat. No., if appl.)	Filing Date	Title
EDGE.090A	14/998,375 (Pat. No. 9,498,610)	Dec. 23, 2015	DEVICES AND METHODS FOR TREATING THE SKIN USING A ROLLERBALL OR A WICKING MEMBER
EDGE.090C1	15/354,754 (Pat. No. 10,035,007)	Nov. 17, 2016	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.090C2	16/040,397	July 19, 2018	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.090C3	17/164,580 (Pat. 11,744,999)	Feb. 1, 2021	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.090C4	18/460,003	Sep. 1, 2023	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.090P1	15/498,416 (Pat. No. 10,179,229)	Apr. 26, 2017	DEVICES AND METHODS FOR TREATING THE SKIN USING A POROUS MEMBER
EDGE.090P1C1	16/246,306 (Pat. No. 11,224,728)	Jan. 11, 2019	DEVICES AND METHODS FOR TREATING THE SKIN USING A POROUS MEMBER
EDGE.090P1C2	17/576,888	Jan. 14, 2022	DEVICES AND METHODS FOR TREATING THE SKIN
EDGE.091A	15/204,939 (Pat. No. 11,241,357)	Jul. 7, 2016	DEVICES, SYSTEMS AND METHODS FOR PROMOTING HAIR GROWTH
EDGE.091C1	17/592,432	Feb. 3, 2022	DEVICES, SYSTEMS AND METHODS FOR IMPROVING SCALP HEALTH
EDGE.131NP	18/035,723	May 5, 2023	DEVICES, SYSTEMS AND METHODS FOR TREATING THE SKIN
EDGE.172DA	29/811,066	Oct. 11, 2021	SKIN TREATMENT SYSTEM
EDGE.173DA	29/807,430	Sep. 10, 2021	SKIN TREATMENT DEVICE
EDGE.174DA	29/807,428	Sep. 10, 2021	CONTAINER FOR A SKIN TREATMENT DEVICE
EDGE.179DA	29/829,476	Mar. 4, 2022	LIGHT THERAPY DEVICE FOR SKIN CARE
EDGE.180DA	29/811,070	Oct. 11, 2021	SKIN TREATMENT TIP
EDGE.205DC1	29/854,067	Sep. 21, 2022	TREATMENT DEVICE FOR SKIN
EDGE.212DA	29/884,441	Feb. 10, 2023	SKIN TREATMENT TIP
EDGE.235DA	29/904,162	Sep. 29, 2023	SKIN TREATMENT TIP
EDGE.236DA	29/904,160	Sep. 29, 2023	SKIN TREATMENT TIP

Copies of these patents and patent applications, including any pending claims, office actions, allowances and/or other communications, are available through PALM and/or PAIR. However, if the Examiner so requests, Applicant will be happy to provide the Examiner with copies of any applications, pending claims, office actions, allowances, communications or any other documents, at any time.

Further, Applicant notes for the record that the claims of the present application are different and may be broader in scope than the claims in any related patent or application. To the

extent that any statements made in a related case (such as amendments or characterizations regarding the scope of a claim or prior art) could be construed as a disclaimer of any subject matter supported by the present disclosure, Applicant rescinds and retracts such disclaimer. Accordingly, any listed or referenced prior art may need to be re-visited. Further, any objections or rejections made by the Examiner in the issued and allowed cases identified above may need to be re-visited.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: October 16, 2023

By: / Daniel Mittelstein /
Daniel M. Mittelstein
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UNITED STATES
PATENT AND TRADEMARK OFFICE

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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
18/487,916	**10/16/2023 08:44:52 PM ET**	**EDGE.005C11**

Title of Invention

DEVICES AND METHODS FOR TREATING SKIN

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	3841	FILED BY	Will Nguyen
PATENT CENTER #	63008388	FILING DATE	-
CUSTOMER #	20995	FIRST NAMED INVENTOR	Roger Ignon
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Daniel Mittelstein

Documents

TOTAL DOCUMENTS: 3

DOCUMENT		PAGES	DESCRIPTION	SIZE (KB)
EDGE-005C11_PRELIM.pdf		9	-	65 KB
EDGE-005C11_PRELIM-A.PE.pdf	(1-1)	1	Preliminary Amendment	18 KB
EDGE-005C11_PRELIM-CLM.pdf	(2-4)	3	Claims	26 KB
EDGE-005C11_PRELIM-REM.pdf	(5-9)	5	Applicant Arguments/Remarks Made in an Amendment	50 KB

Digest

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
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ELECTRONIC PAYMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
18/487,916	**10/16/2023 07:41:23 PM ET**	**EDGE.005C11**

Title of Invention

DEVICES AND METHODS FOR TREATING SKIN

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	3841	FILED BY	Wendy Castorena
PATENT CENTER #	63006950	AUTHORIZED BY	Daniel Mittelstein
CUSTOMER #	20995	FILING DATE	-
CORRESPONDENCE ADDRESS	-	FIRST NAMED INVENTOR	Roger Ignon

Payment Information

PAYMENT METHOD	PAYMENT TRANSACTION ID	PAYMENT AUTHORIZED BY
CARD / 2598	**E20230FJ42566504**	**Wendy Castorena**

FEE CODE	DESCRIPTION	ITEM PRICE($)	QUANTITY	ITEM TOTAL($)
1111	UTILITY PATENT APPL. SEARCH FEE	700.00	1	700.00
1011	BASIC FILING FEE - UTILITY (PAPER FILING ALSO REQUIRES NON-ELECTRONIC FILING FEE UNDER 1.16(T))	320.00	1	320.00
1311	PATENT APPL. EXAMINATION FEE	800.00	1	800.00
			TOTAL AMOUNT:	**$1,820.00**

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DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	TIP WITH EMBEDDED MATERIALS FOR SKIN TREATMENT

As the below named inventor, I hereby declare that:

This declaration is directed to:

☐ The attached application, or

☒ United States application or PCT international application number 14/700,789

filed on April 30, 2015.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: Roger Ignon Date (Optional): 10/11/16

Signature: _____

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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LEGAL NAME OF INVENTOR

Inventor: Scott Mallett Date (Optional): 9.23.16

Signature: Scott Mallett

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

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LEGAL NAME OF INVENTOR

Inventor: Abraham Solano Date (Optional): _____

Signature: _____

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

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I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

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LEGAL NAME OF INVENTOR

Inventor: William Cohen Date (Optional): 10.7.16

Signature: William Cohen

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

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The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

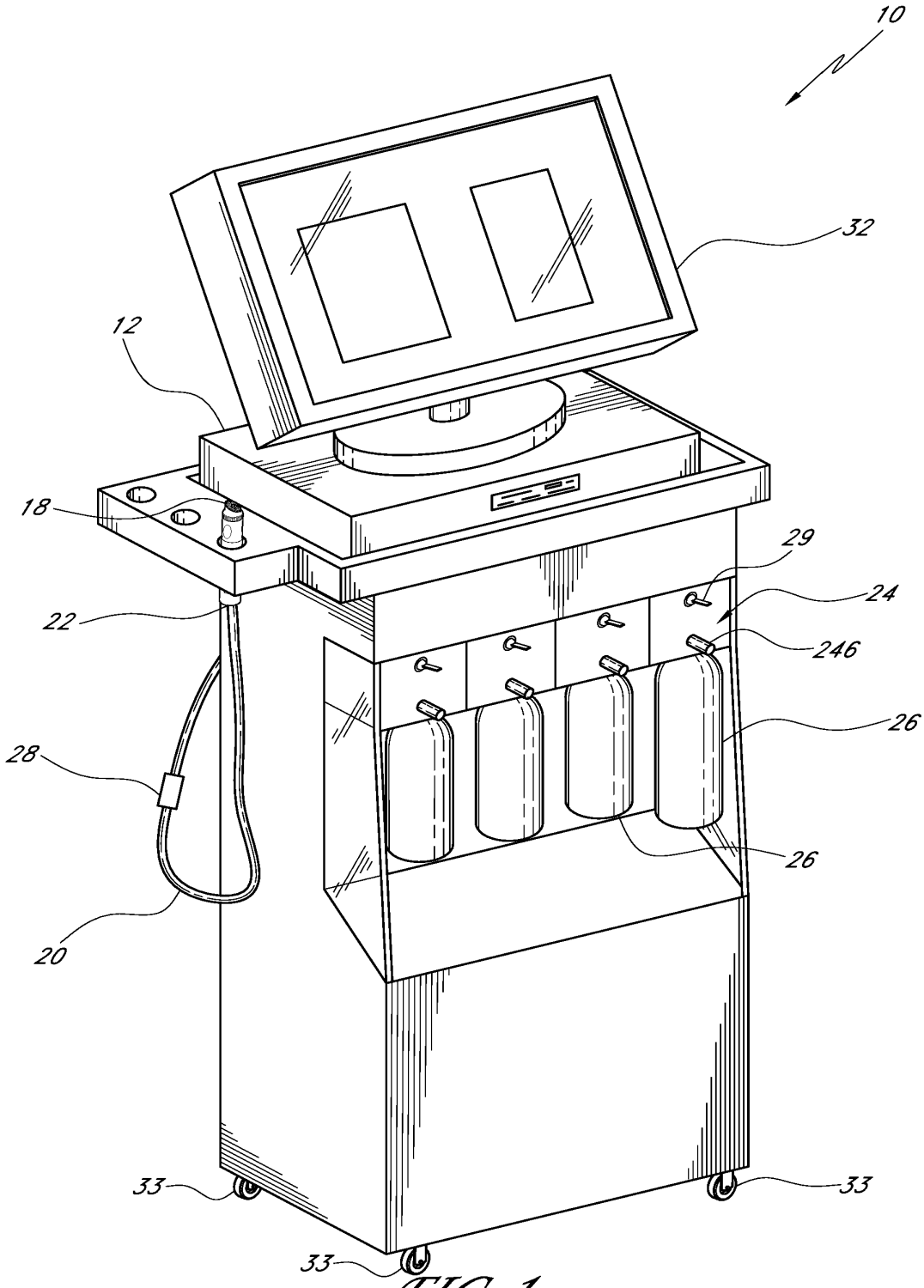


FIG. 1

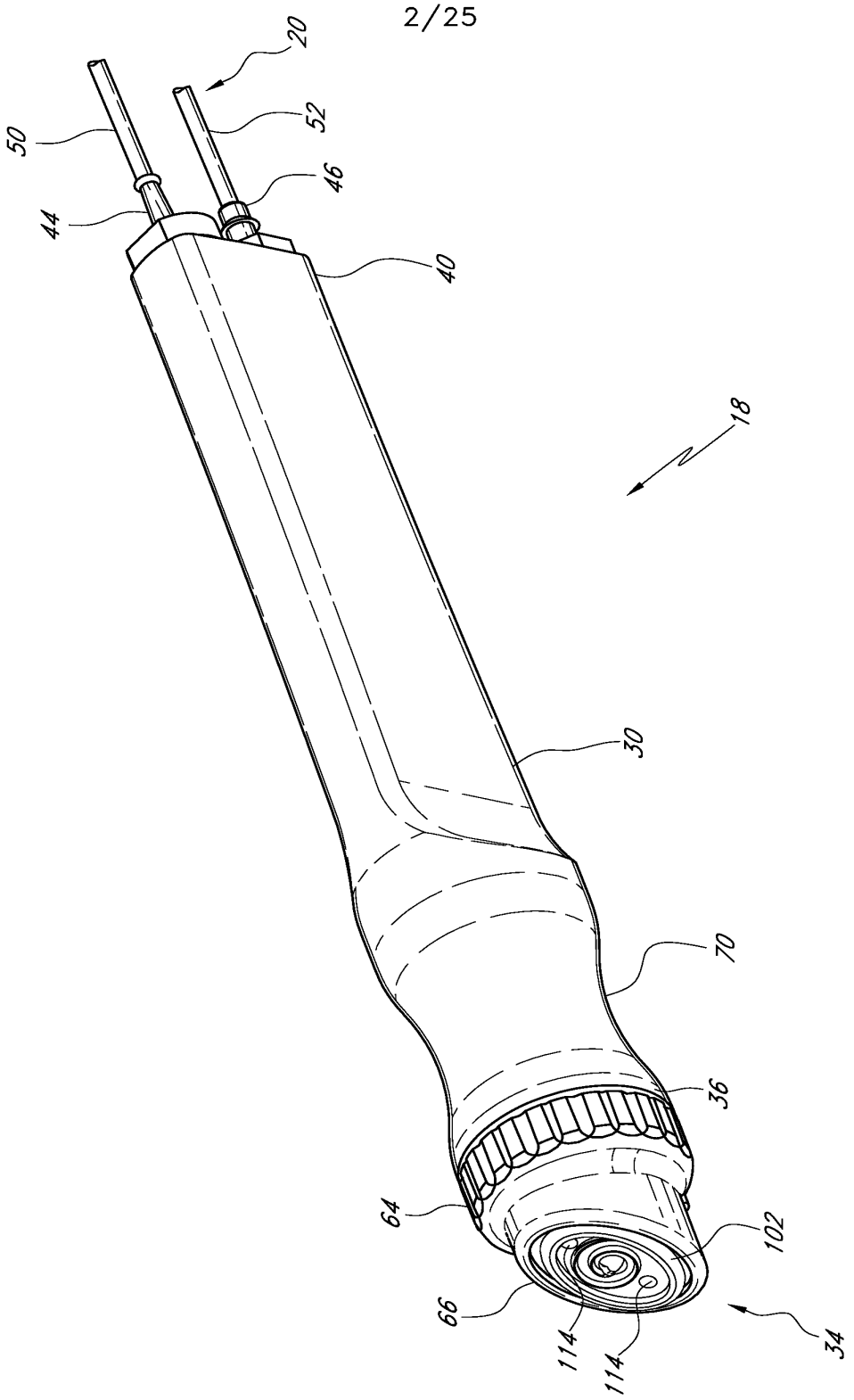


FIG. 2A

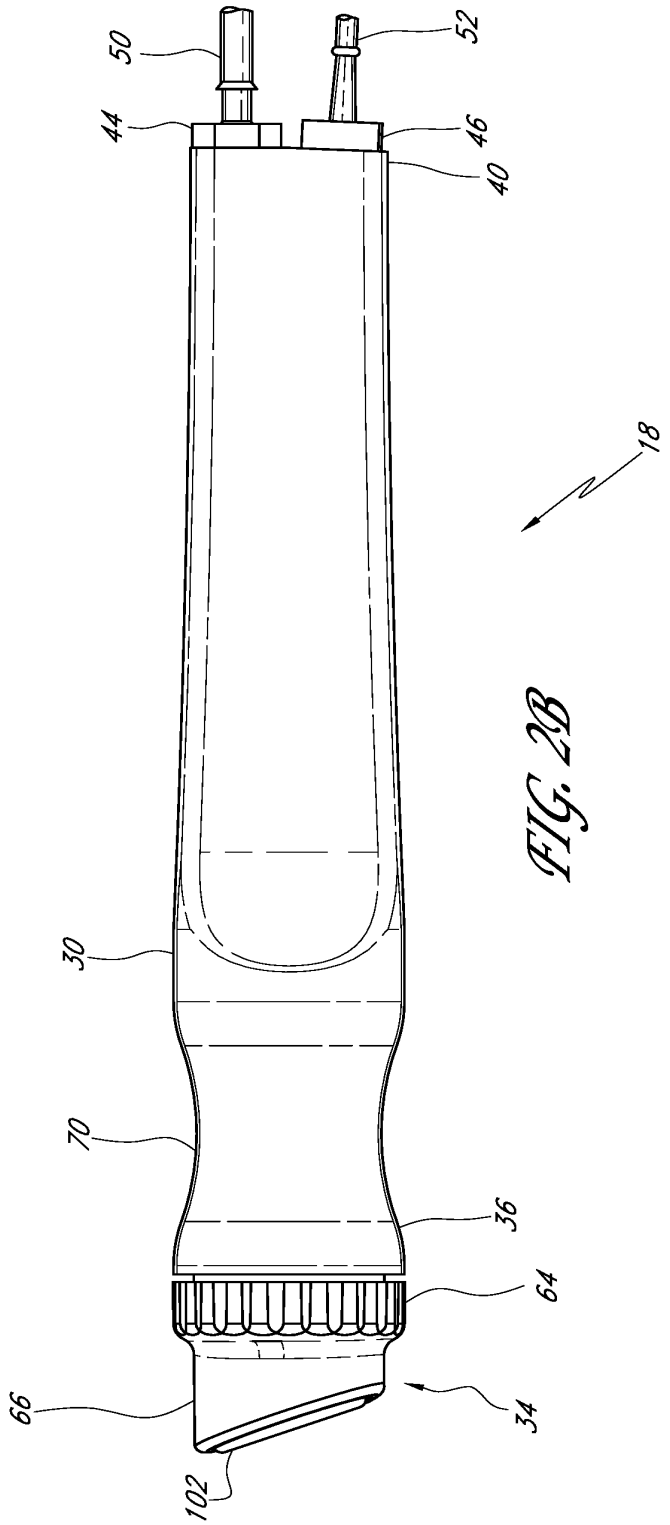


FIG. 2B

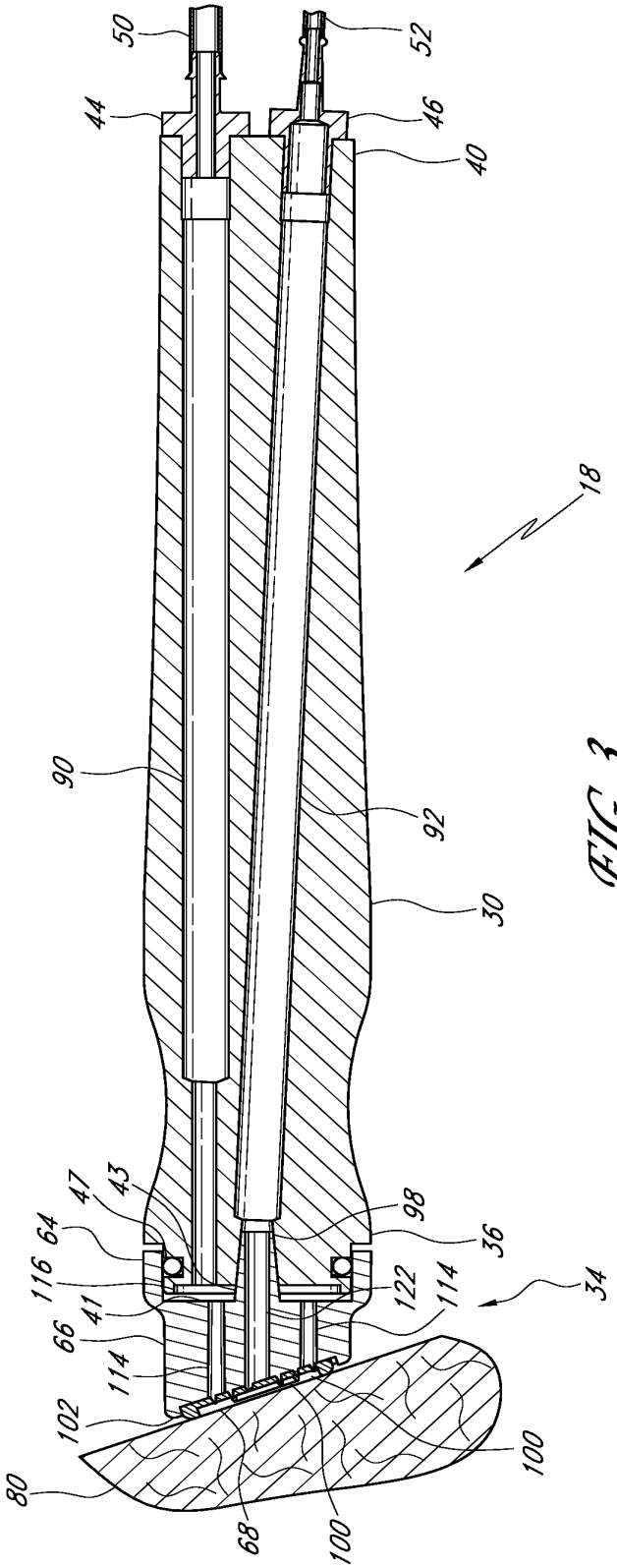

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FIG. 3

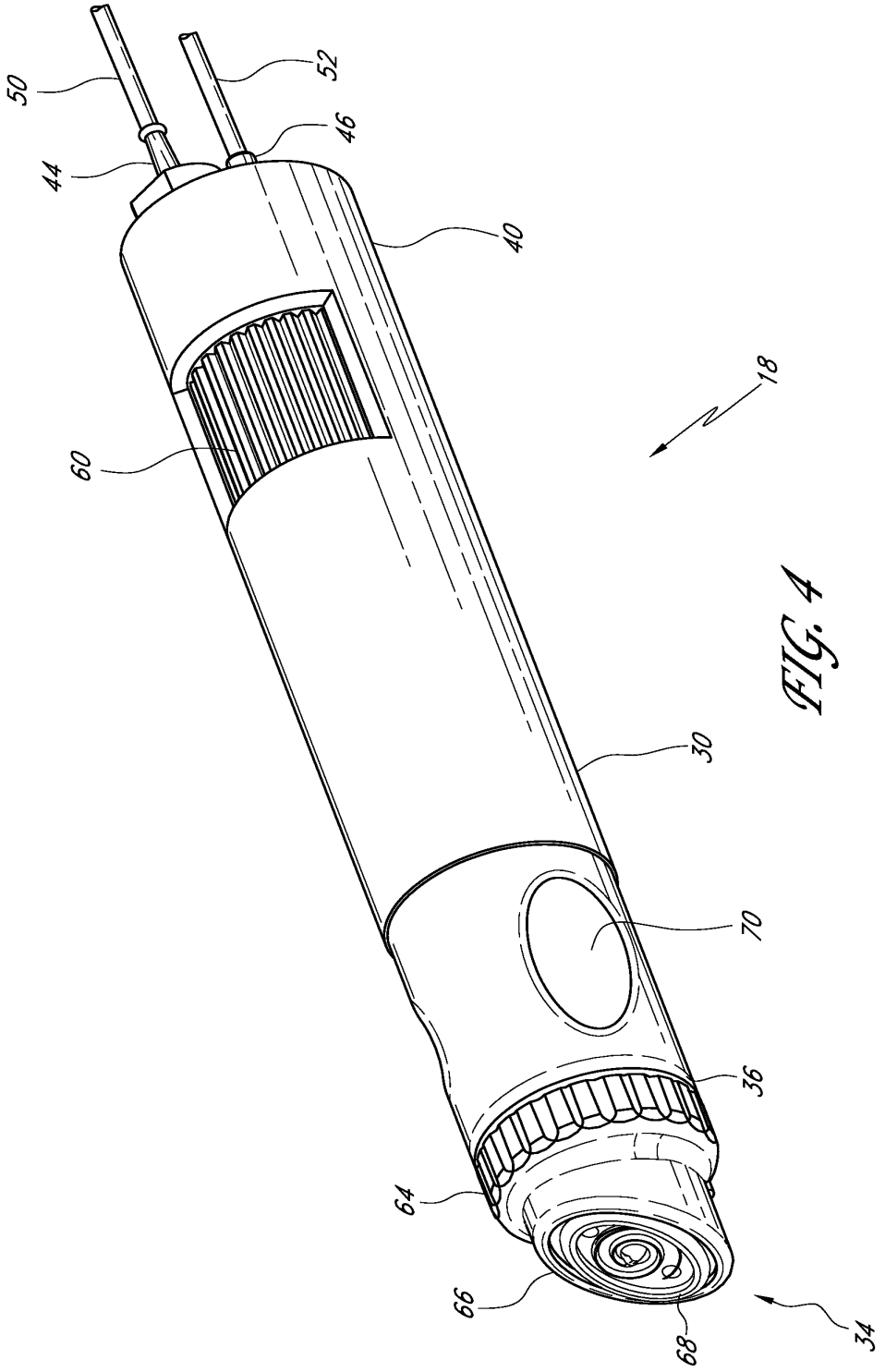


FIG. 4

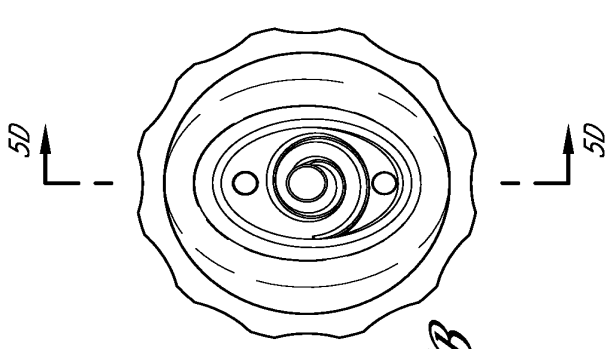


FIG. 5B

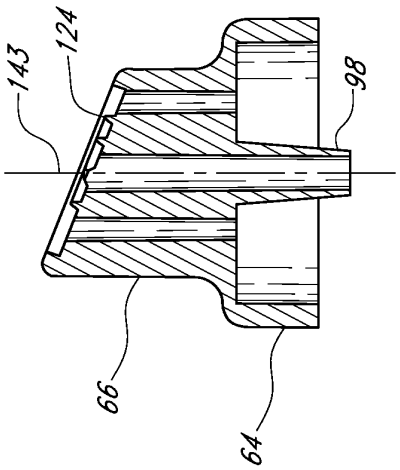


FIG. 5D

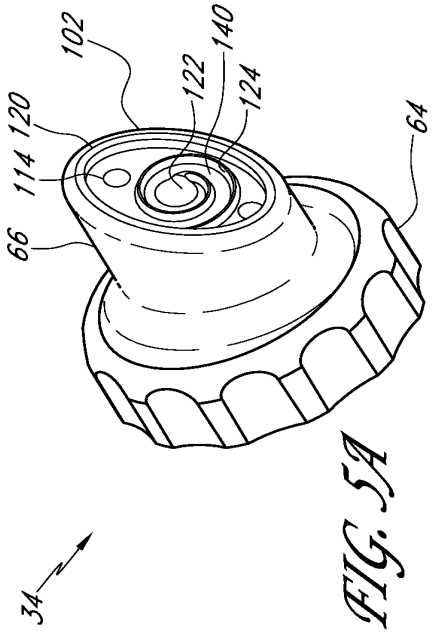


FIG. 5A

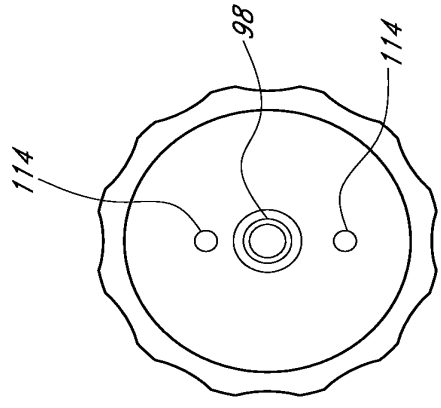


FIG. 5C

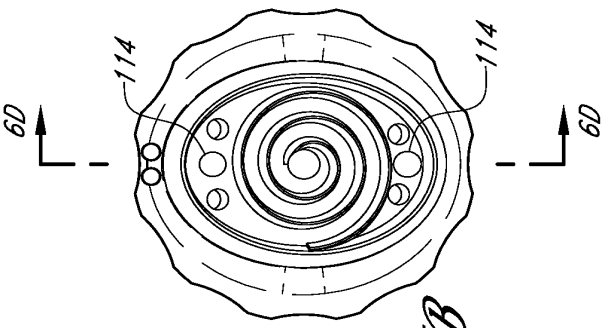


FIG. 6B

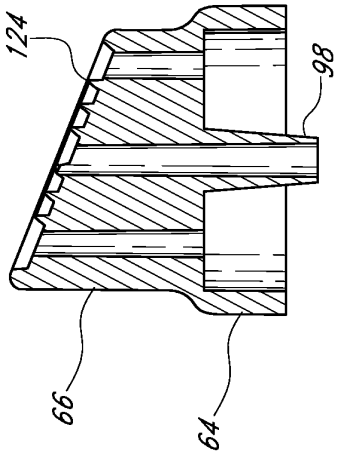


FIG. 6D

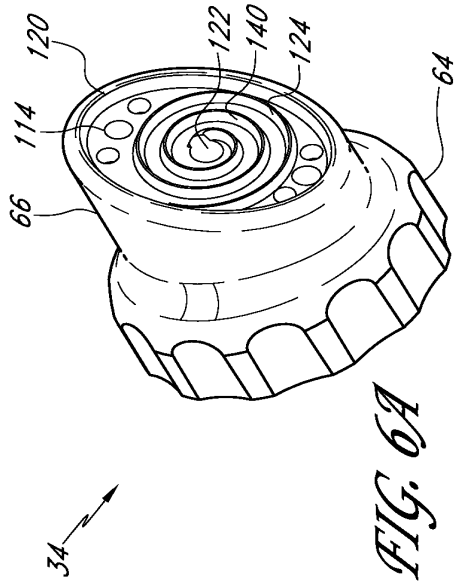


FIG. 6A

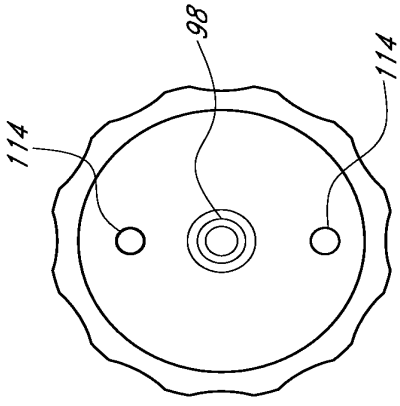


FIG. 6C

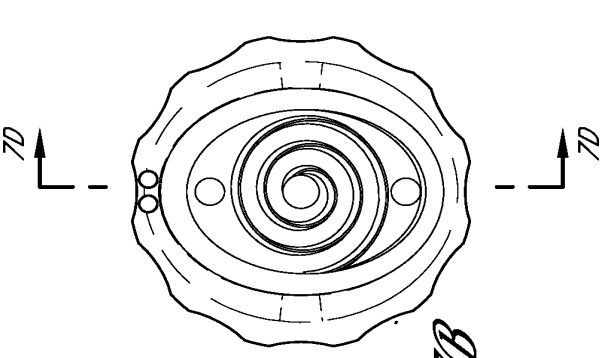


FIG. 7B

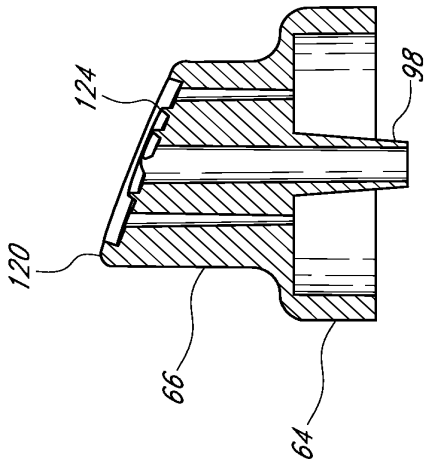


FIG. 7D

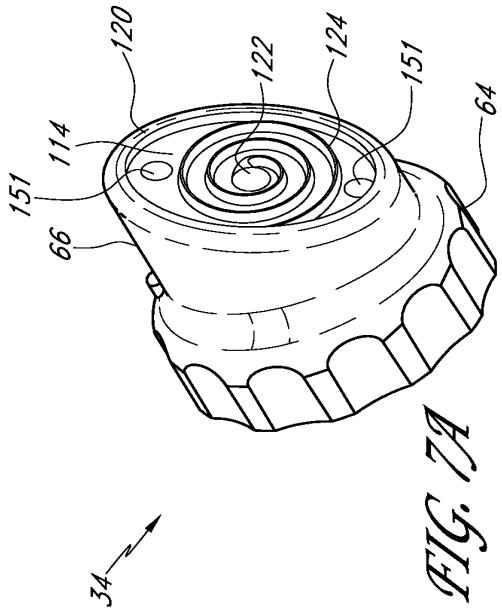


FIG. 7A

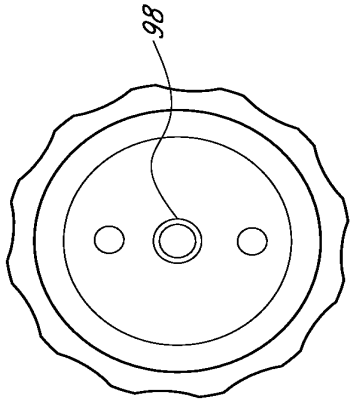


FIG. 7C

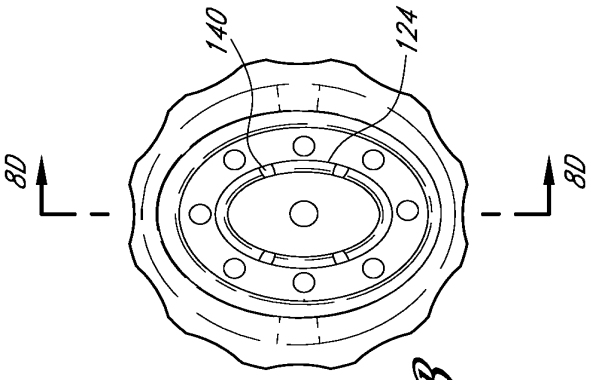


FIG. 8B

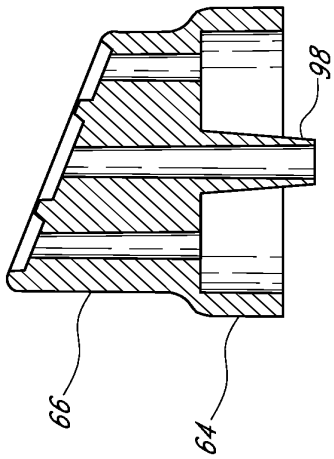


FIG. 8D

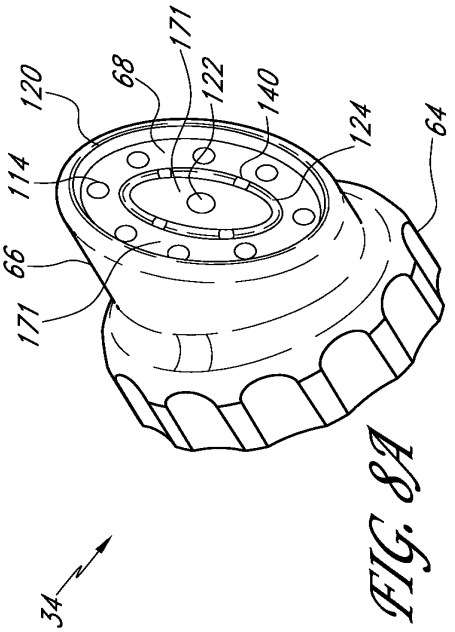


FIG. 8A

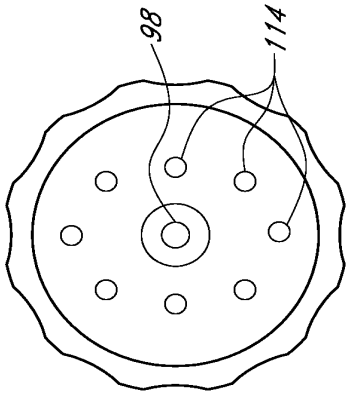


FIG. 8C

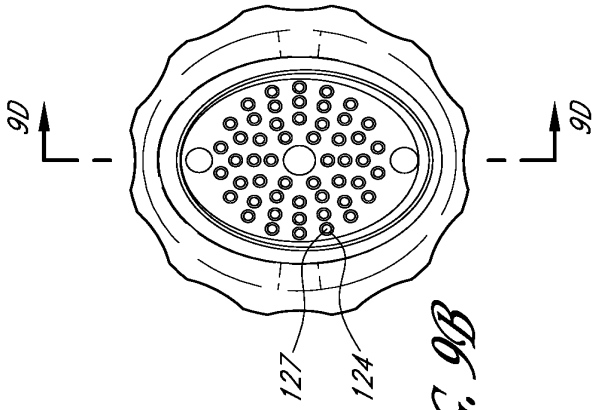


FIG. 9B

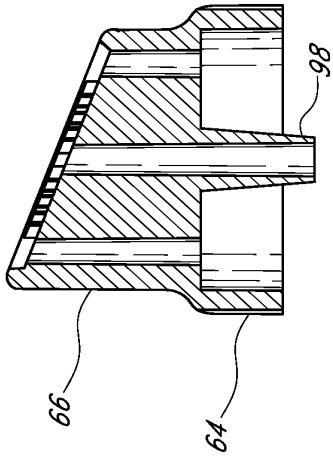


FIG. 9D

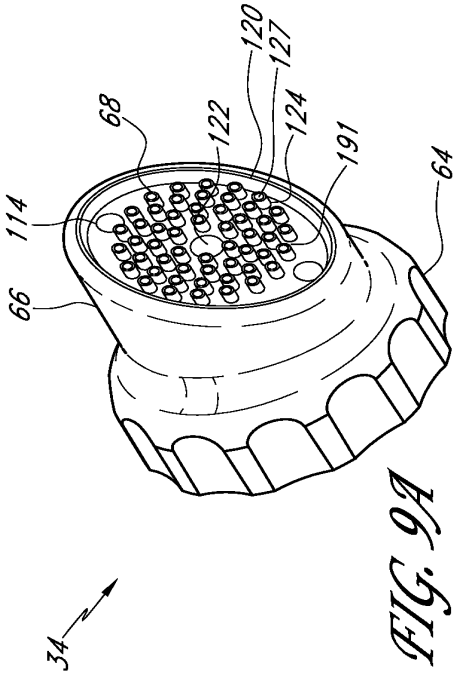


FIG. 9A

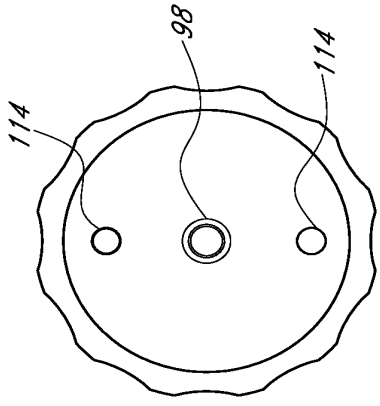


FIG. 9C

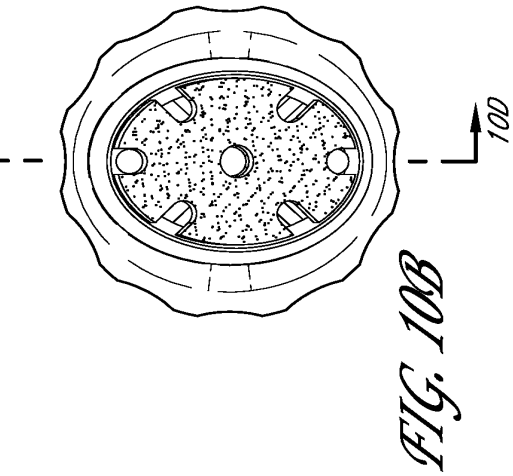


FIG. 10B

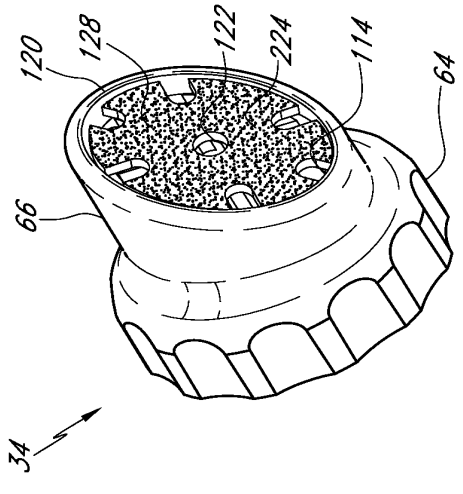


FIG. 10A

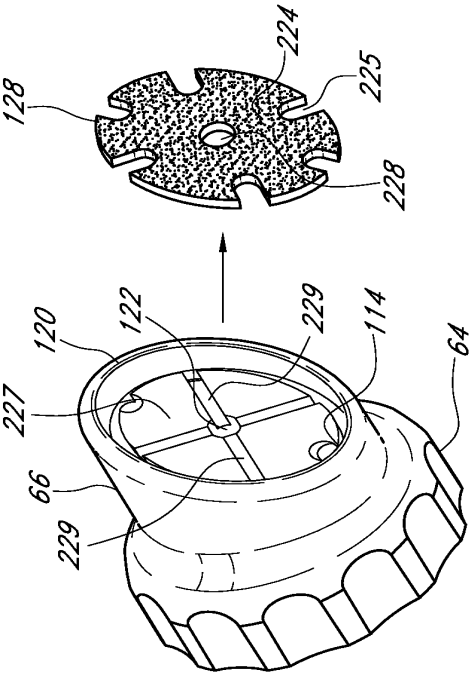


FIG. 10E

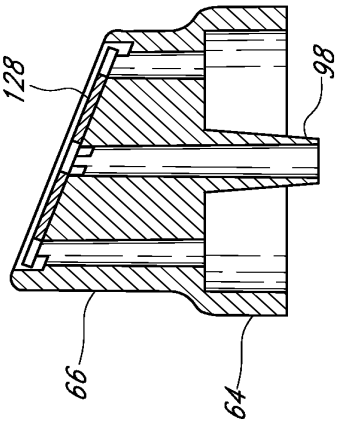


FIG. 10D

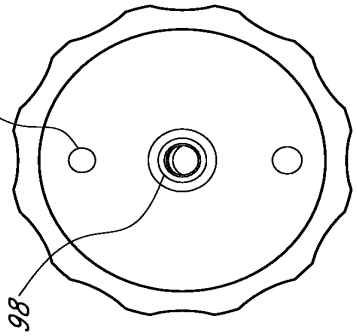


FIG. 10C

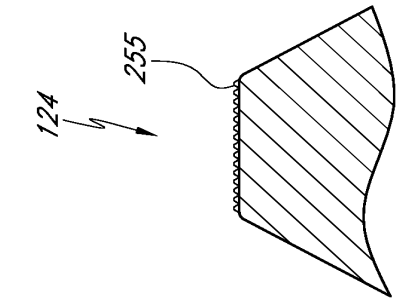


FIG. 11C

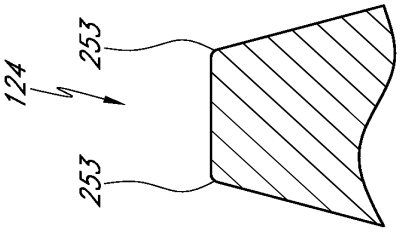


FIG. 11B

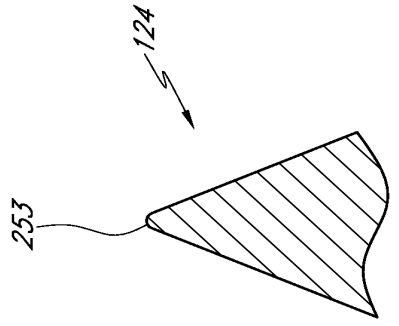


FIG. 11A

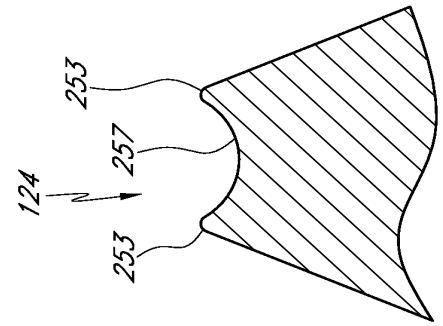


FIG. 11E

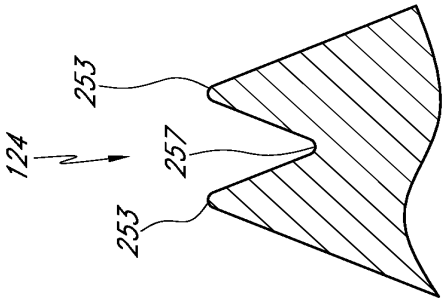


FIG. 11D

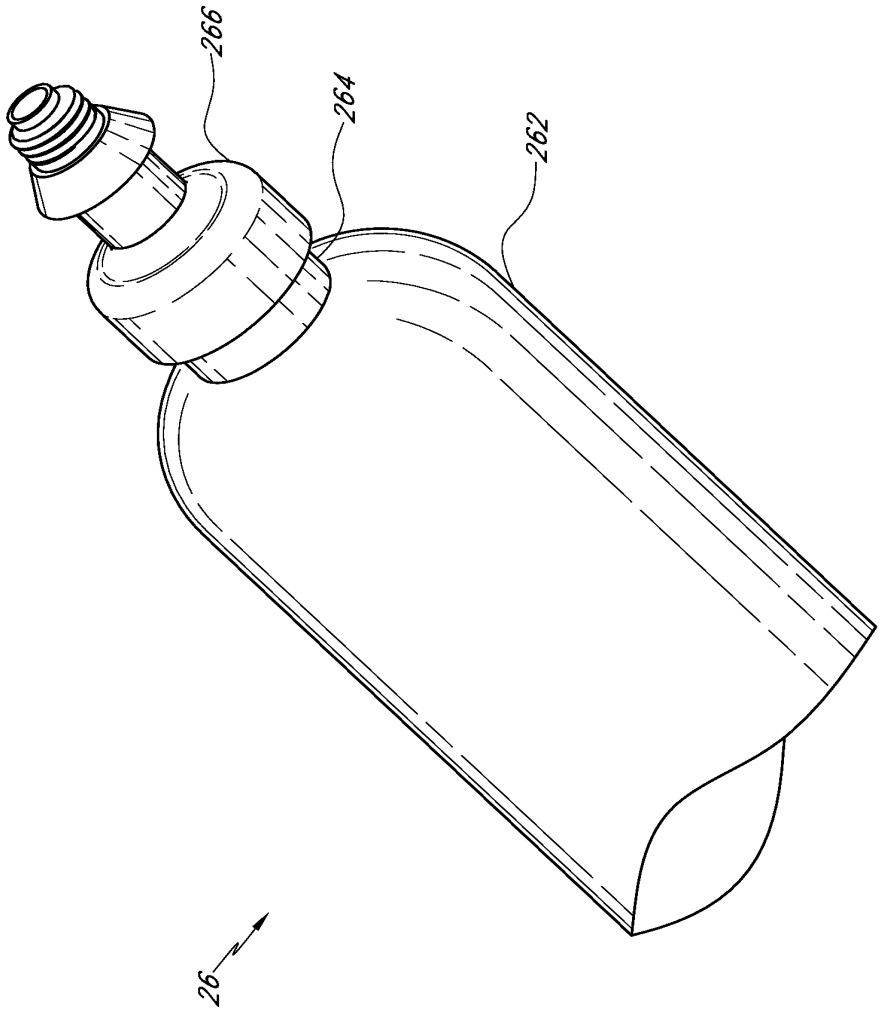


FIG. 12

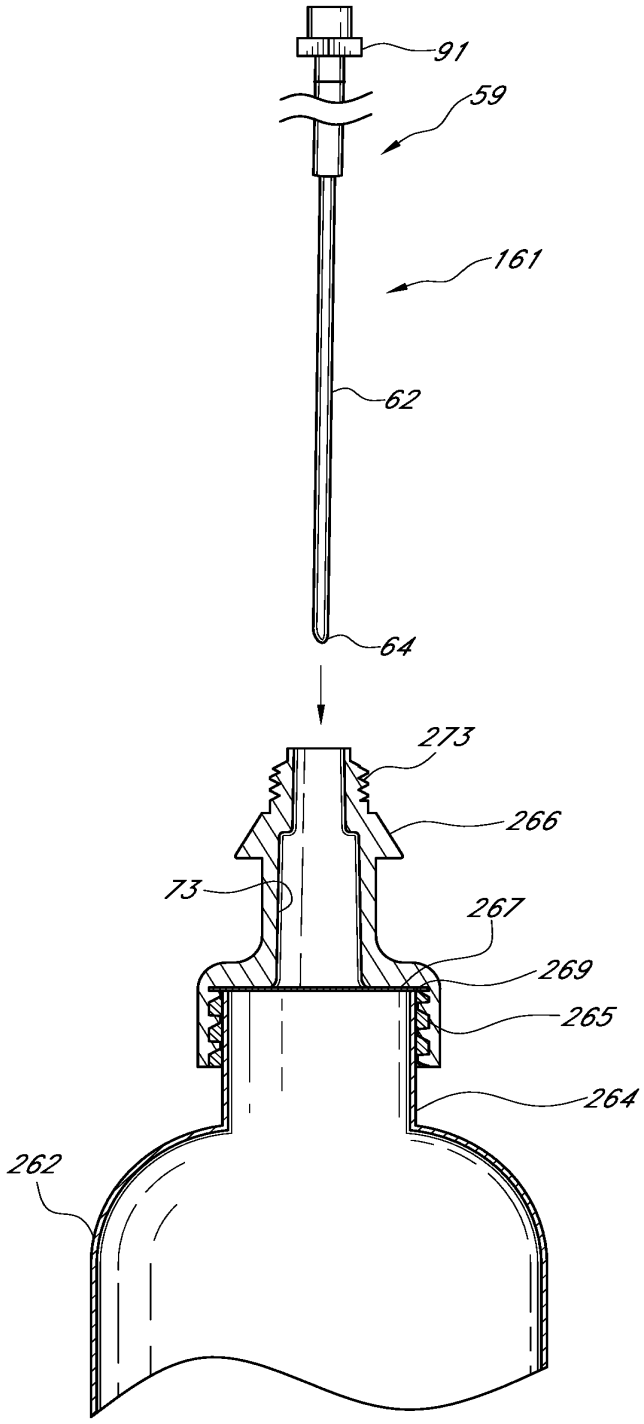


FIG. 13A

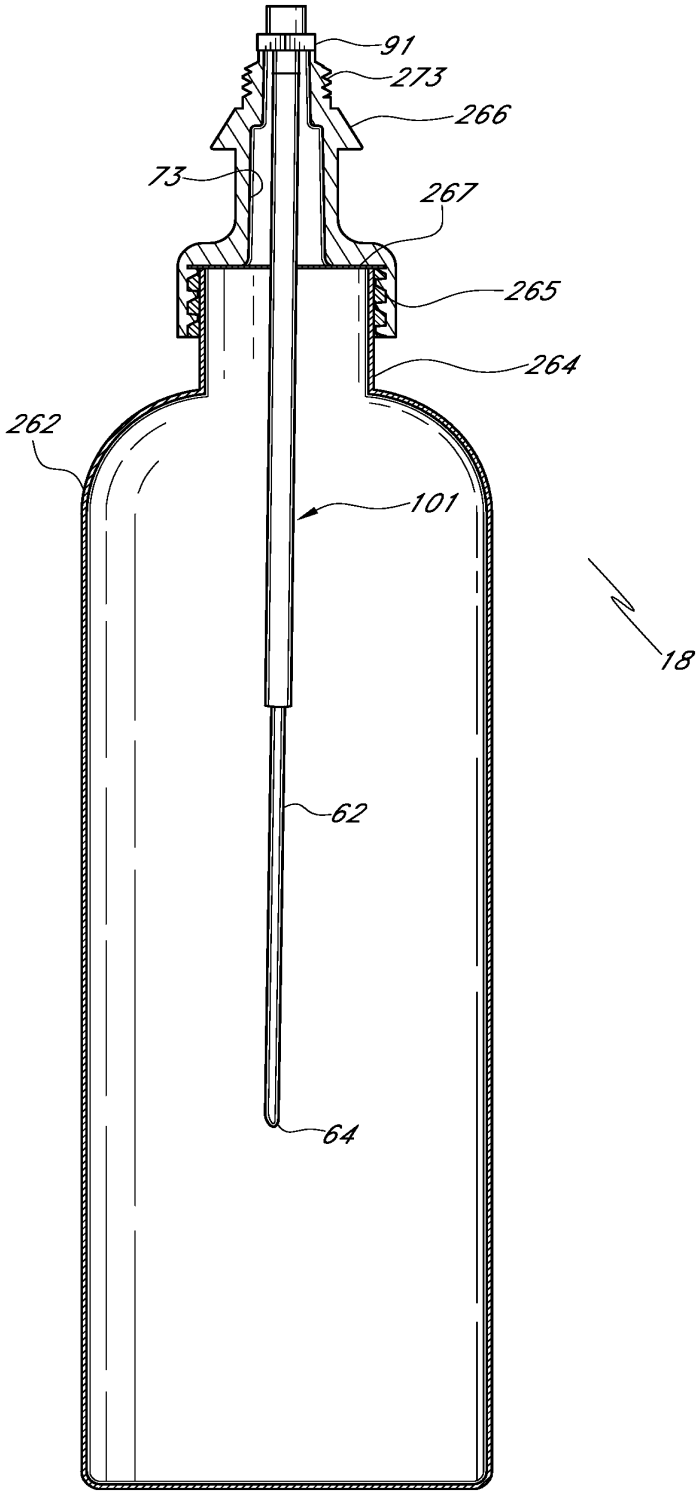


FIG. 13B

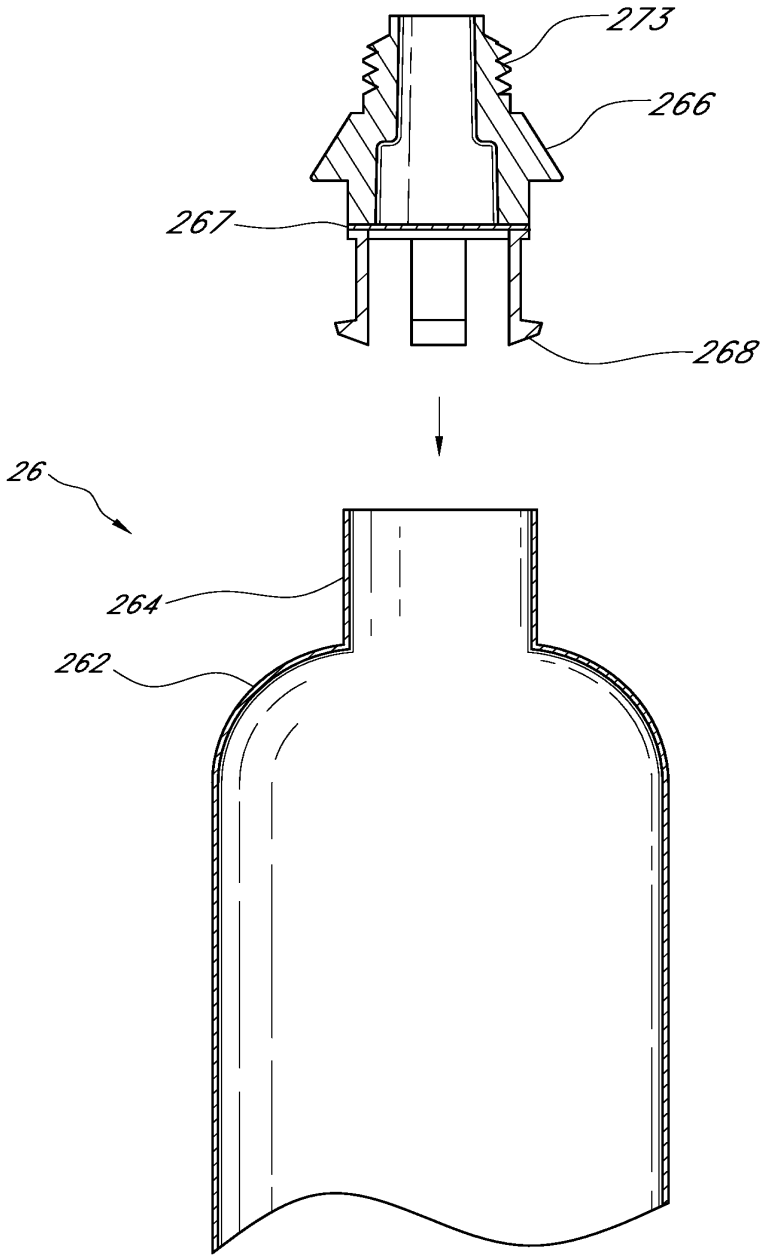


FIG. 14A

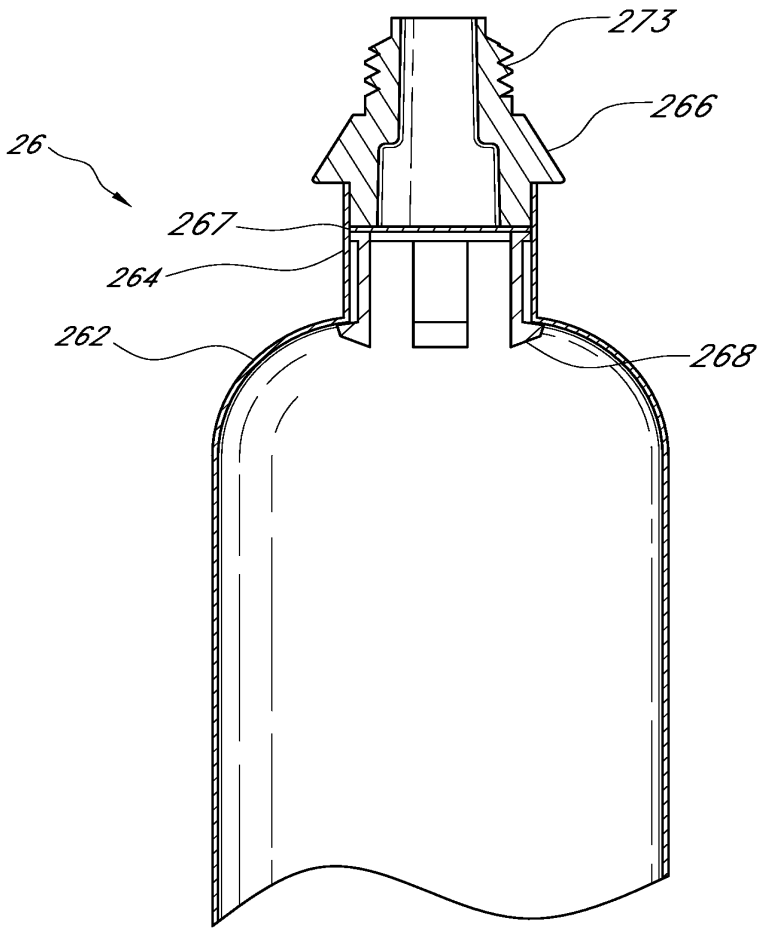


FIG. 14B

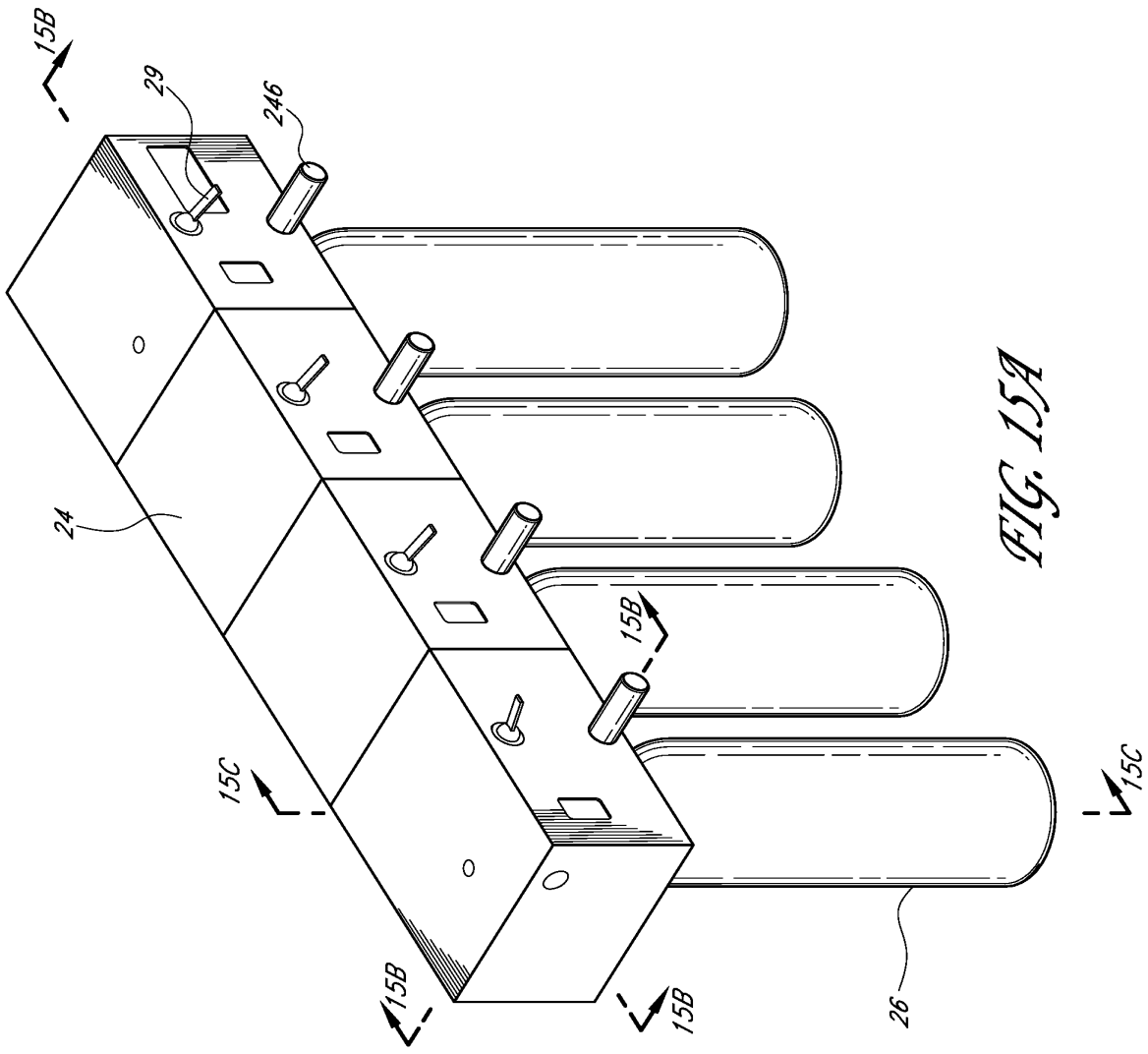


FIG. 15A

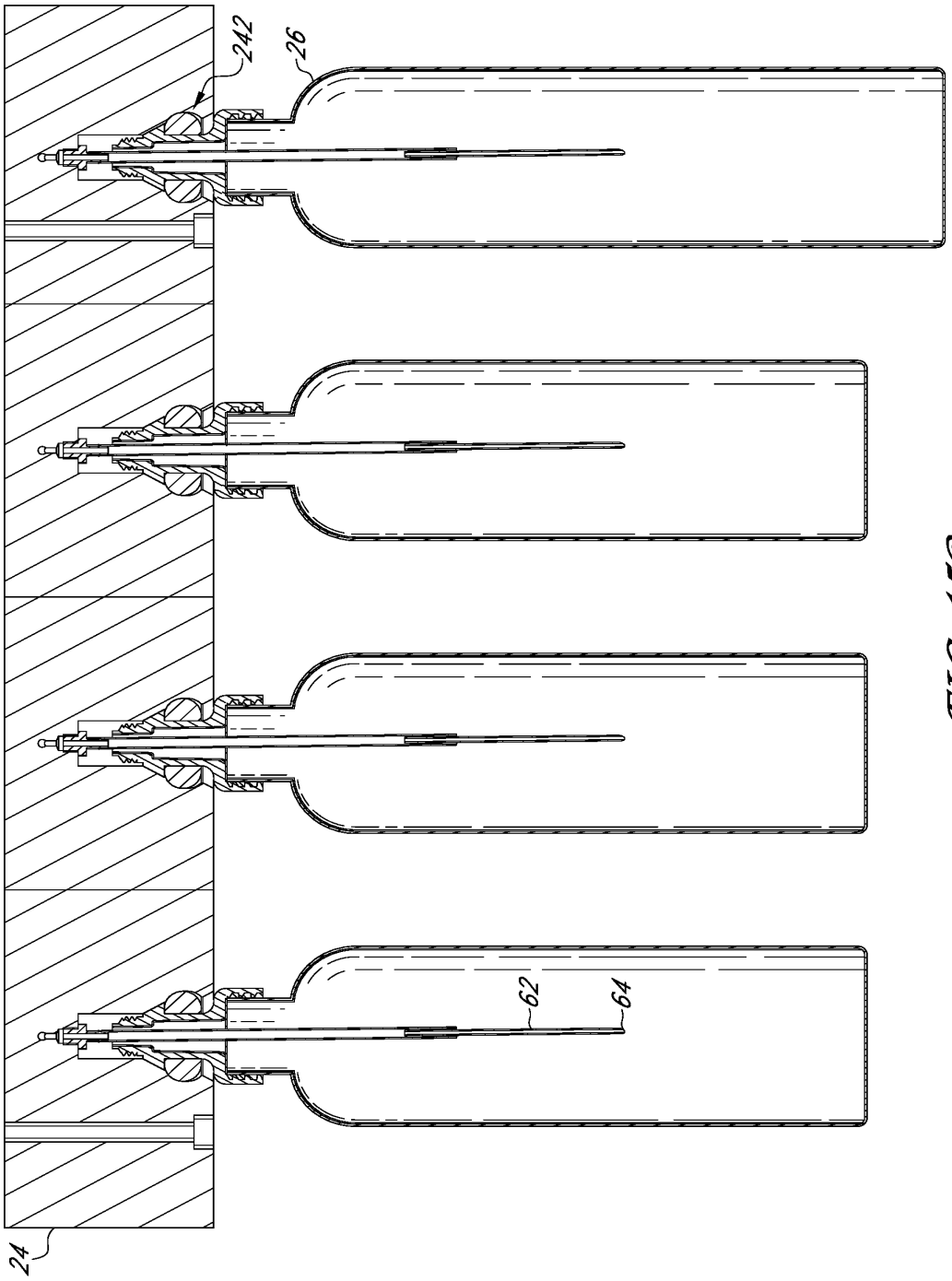


FIG. 15B

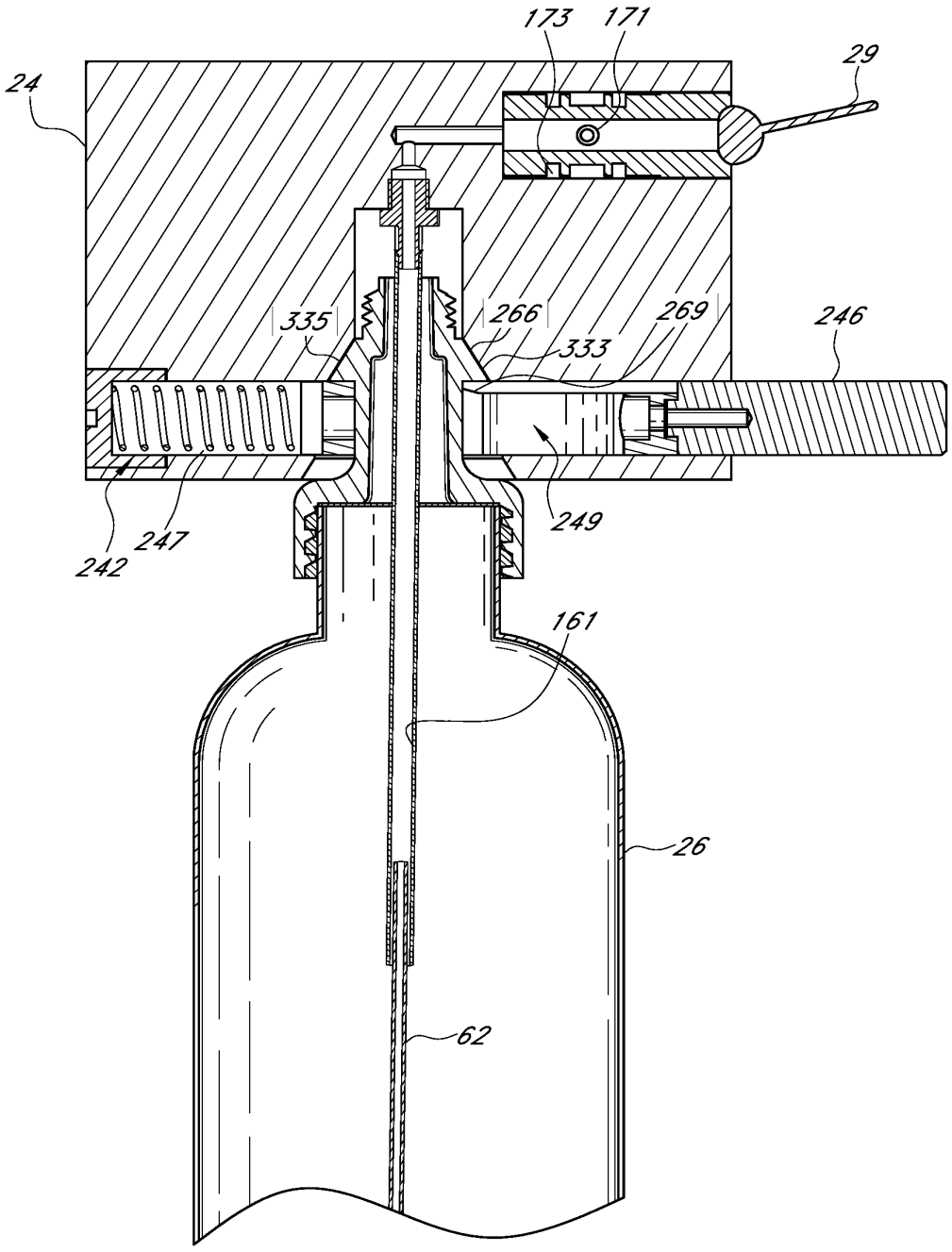


FIG. 15C

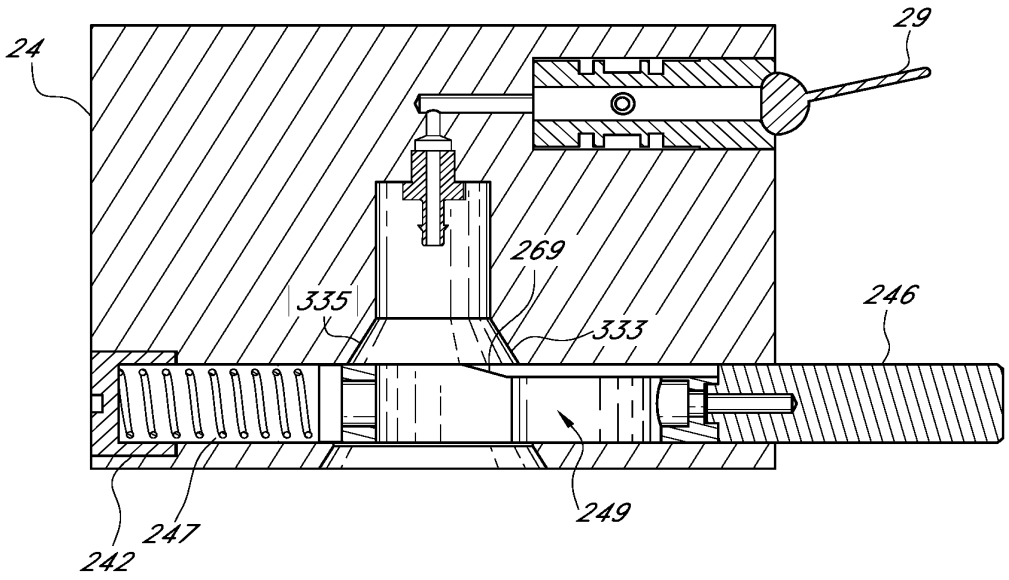


FIG. 15D

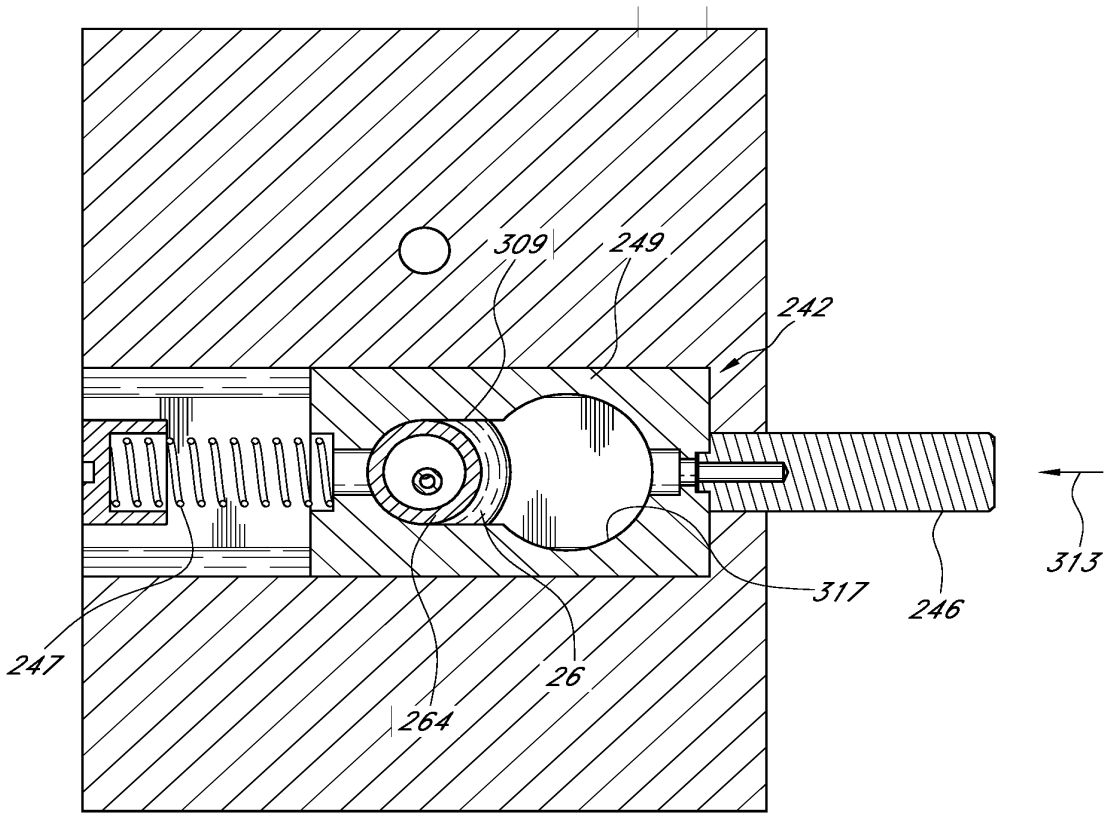


FIG. 15E

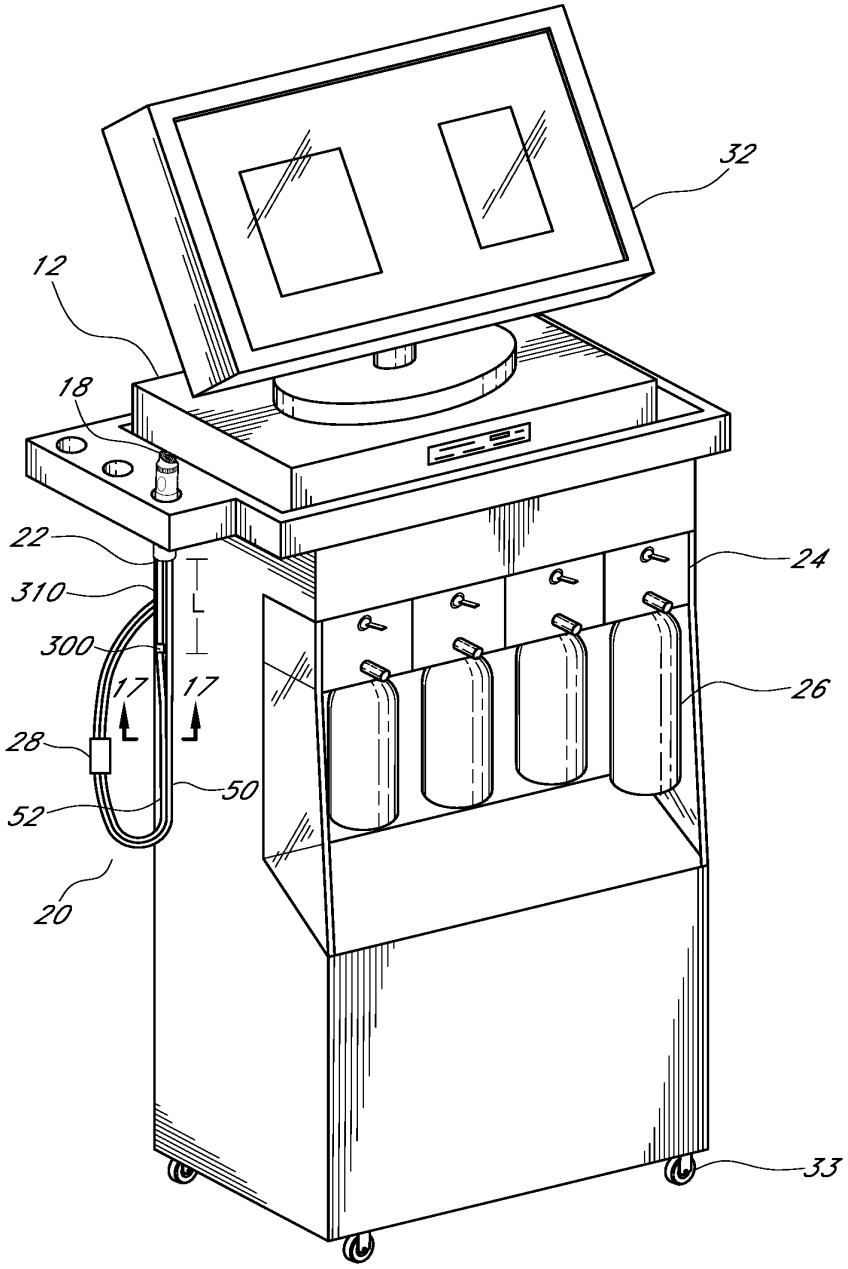


FIG. 16

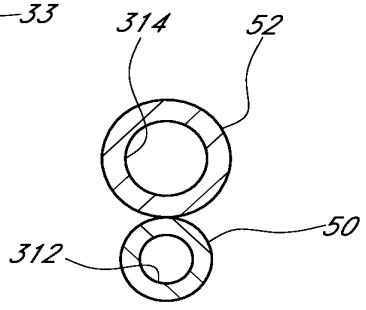


FIG. 17

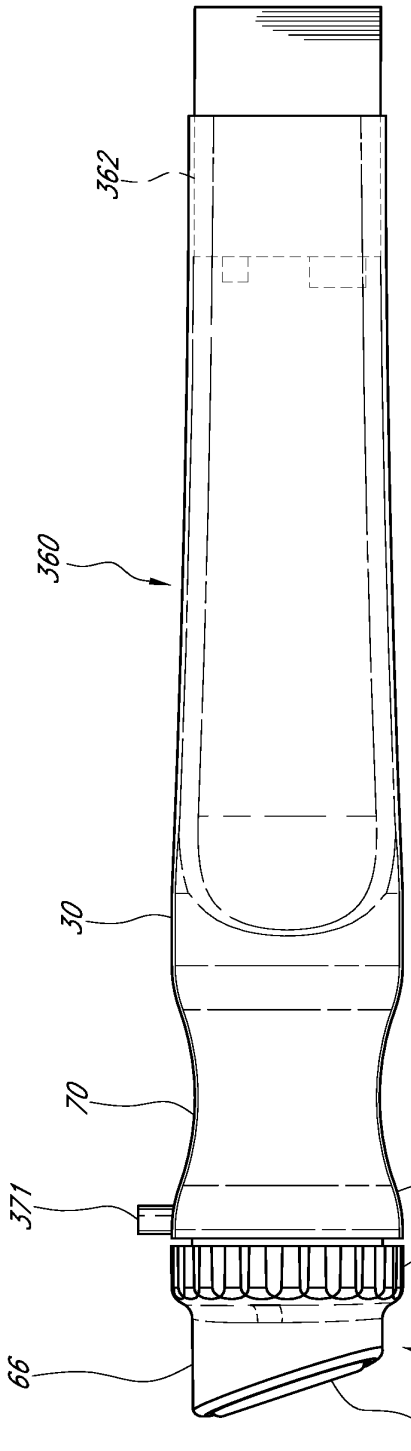


FIG. 18

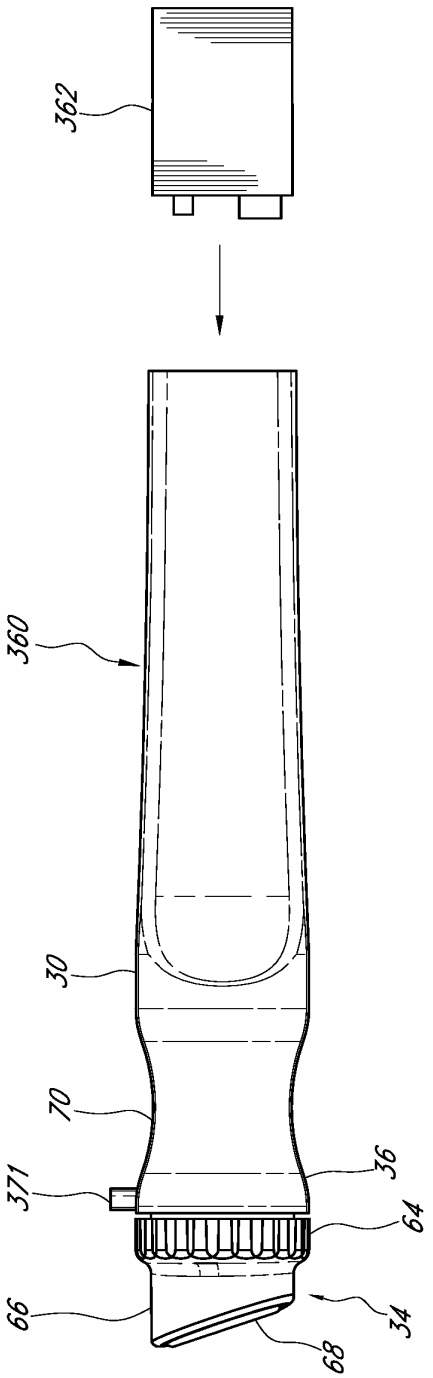


FIG. 19

Doc Code: PA..
Document Description: Power of Attorney

PTO/AIA/82A (07-13)
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Application Number	Unknown
Filing Date	Herewith
First Named Inventor	Roger Ignon
Title	DEVICES AND METHODS FOR TREATING SKIN
Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	EDGE.005C11

SIGNATURE of Applicant or Patent Practitioner

Signature	/ Daniel M Mittelstein /	Date (Optional)	10/16/2023
Name	Daniel M. Mittelstein	Registration Number	79,750
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)			

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

☑ *Total of 1 forms are submitted.

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Document Description: Power of Attorney

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POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

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OR

☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

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☐ Firm or Individual Name					
Address					
City		State		Zip	
Country					
Telephone		Email			

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

HydraFacial LLC

☐ Inventor or Joint Inventor (title not required below)

☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)

☑ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)

☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature	/Paul Bokota/	Date (Optional)	10/06/2021
Name	Paul Bokota		
Title	Vice President & General Counsel		

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

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DEVICES AND METHODS FOR TREATING SKIN

Reference to Related Applications

[0001] This is a continuation of U.S. Patent Application No. 18/094,884 filed January 9, 2023, which is a continuation of U.S. Patent Application No. 17/165,820 filed February 2, 2021, and issued as U.S. Patent No. 11,547,840 on January 10, 2023, which is a continuation of U.S. Patent Application No. 16/517,268 filed July 19, 2019 and issued as U.S. Patent No. 11,446,477 on September 20, 2022, which is a continuation of U.S. Patent Application No. 15/660,777 filed July 26, 2017 and issued as U.S. Patent No. 10,357,642 on July 23, 2019, which is a continuation of U.S. Patent Application 15/660,750 filed July 26, 2017 and issued as U.S. Patent No. 10,357,641 on July 23, 2019, which is a continuation of U.S. Patent Application No. 14/700,789 filed April 30, 2015 and issued as U.S. Patent No. 9,814,868 on November 14, 2017, which is a continuation of U.S. Patent Application No. 14/698,713 filed April 28, 2015 and issued as U.S. Patent No. 9,662,482 on May 30, 2017, which is a continuation of U.S. Patent Application No. 14/698,673 filed April 28, 2015 and issued as U.S. Patent No. 9,550,052 on January 24, 2017, which is a continuation of U.S. Patent Application No. 13/267,554 filed October 6, 2011 and issued as U.S. Patent No. 9,474,886 on October 25, 2016, which is a continuation of U.S. Patent Application No. 11/392,348 filed March 29, 2006 and issued as U.S. Patent No. 8,048,089 on November 1, 2011, which claims the benefit of U.S. Provisional Application No. 60/755,310 filed December 30, 2005 and U.S. Provisional Application No. 60/764,668 filed February 2, 2006. The entireties of all of the aforementioned applications are hereby incorporated by reference herein.

Background

Field

[0002] The invention relates in general to the field of skin treatment, and more specifically to apparatuses and methods for treating a person's skin.

Description of the Related Art

[0003] Abrasion of the outer layer or epidermis of the skin is desirable to smooth or blend scars, blemishes, or other skin conditions that may be caused by, for example, acne, sun exposure, and aging. Standard techniques used to abrade the skin have generally been separated into two fields referred to as dermabrasion and microdermabrasion. Both techniques remove portions of the epidermis called the stratum corneum, which the body interprets as a mild injury. The body then replaces the lost skin cells, resulting in a new outer layer of skin. Additionally, despite the mild edema and erythema associated with the procedures, the skin looks and feels smoother because of the new outer layer of skin.

[0004] Dermabrasion refers to a procedure in which the surface of the skin is removed due to mechanical rubbing by a handpiece with an abrasive element that is often in the form of a burr, wheel, or disc. This process tends to be painful and messy. In fact, the procedure is sometimes painful enough to require a local anesthetic. Dermabrasion leaves the skin red and raw-looking. The removed skin can take several months to regrow and heal. Recent efforts have led to the use of lasers instead of abrasive elements, which have resulted in less bleeding, but the pain and mess remains.

[0005] Efforts have been made to decrease the mess caused by the process waste, such as removed skin and blood, by adding a suction element. As the process waste is drawn into the suction opening, skin that has not been removed is also pulled against the grit surrounding the suction opening, so the procedure remains fairly messy due to the abrasion that takes place outside of the handpiece by the grit.

[0006] Microdermabrasion refers generally to a procedure in which the surface of the skin is removed due to mechanical rubbing by a handpiece emitting a stream of sand or grit. For example, a handpiece can be used to direct an air flow containing tiny crystals of aluminum oxide, sodium chloride, or sodium bicarbonate. The momentum of the grit tends to wear away two to three cell layers of the skin with each pass of the handpiece. Alternatively, new "crystal-free" microdermabrasion techniques utilize a diamond-tipped handpiece without a stream of grit.

[0007] Efforts to add a suction element have been more successful in microdermabrasion than in dermabrasion because the handpiece applying the stream of grit is more controllable to a localized area. That is, as the removed skin is drawn into the

suction opening, skin that has not been removed is also pulled towards the handpiece where it is treated with the grit stream, allowing for simultaneous local treatment and suction.

[0008] Microdermabrasion removes moisture from the skin, so the procedure is always followed by the application of moisturizing creams. However, similar to topical application of moisturizing creams prior to microdermabrasion, the moisturizing elements only work as deep as the active ingredients can passively migrate through the remaining epidermis.

Summary

[0009] In some embodiments, an apparatus for treating skin has a console with a user input device and a handpiece assembly. The handpiece assembly is configured to treat skin. A fluid line provides fluid communication between the console and the handpiece assembly. A manifold system is coupled to the console and controlled by the user input device, such as a computer, touchscreen, keyboard, and the like. The manifold system is configured to hold releasably a plurality of fluid sources and deliver fluid from at least one of the plurality of fluid sources to the handpiece assembly.

[0010] In some embodiments, a tip comprising a skirt portion is configured to couple to a handpiece for treating a target area on a patient's skin. A central body portion is coupled to the skirt portion. A first passage extends through the central body portion and is configured to receive a fluid from the handpiece. At least one second passageway extending through the central body portion and is configured to convey the fluid back into the handpiece. An inner member extends in a generally spiral fashion across at least a portion of a distal face of the central body portion. The inner member defines a channel between the first passage and the at least one second passage. When the tip is place against the skin, a chamber can be formed by the channel and the person's skin.

[0011] In some embodiments, a method of treating a target region on a patient's skin comprises providing a tip including a first aperture and at least one second aperture. At least one inner member on the surface of the tip defines at least one channel between the first aperture and the at least one second aperture. An outer member is disposed on the surface of the tip. The outer member engages the target with the tip. A treatment fluid flows distally

through the first aperture region and through the at least one channel. The treatment fluid flows proximally through the at least one second aperture.

[0012] In some embodiments, a tip comprises a skirt portion configured to couple to a handpiece for treating a target on a patient's skin. A central body portion is coupled to the skirt portion and includes a mounting region substantially opposite the skirt portion. The mounting region configured to receive a pad for treating the skin. A first aperture extends through the skirt portion and the central body portion and configured to receive a fluid from the handpiece. At least one second aperture extending through the skirt portion and the central body portion and configured to convey the fluid back into the handpiece.

[0013] In some embodiments, a method of treating a target region of a patient comprises providing a tip including a first aperture, at least one second aperture, and a distal end configured to receive a pad. In some variations, the first pad is attached to the distal end. The tip is engaged with the target region.

[0014] In some embodiments, a manifold system comprises a body portion configured to receive releasably at least two bottles. The manifold is configured so that it can be coupled to a console. The console includes a handpiece for treating skin. At least one elongate member is in communication with a pump and configured to extract a fluid from one of the at least two bottles. At least one switch is configured to permit or inhibit a flow of the fluid from one of the at least two bottles through the pump. In some variations, the elongate member is dimensioned to fit within one of at least two bottles to draw fluid out of the bottle.

[0015] In some embodiments, a method of treating a target region on a patient's skin comprises engaging a tip with the patient's skin such that an effective amount of skin is removed by the tip. In some variations, the tip is a dry tip. After removing an effective amount of skin, another tip (e.g., a wet tip) engages the patient's skin such that an effective amount of skin is removed by the tip. In some variations, acid is delivered out of the wet tip to facilitate skin removal. In some variations, the wet tip includes a first aperture, at least one second aperture, at least one inner member on the surface of the tip defining at least one channel between the first aperture and the at least one second aperture, and an outer member on the surface of the tip. In some variations, treatment fluid flows outwardly along the

channel. In some variations, treatment fluid flows inwardly along the channel. In some variations, the wet tip comprises an abrasive pad.

[0016] In some embodiments, a method of treating a target region on a patient's skin comprises engaging a first skin treatment tip with the patient's skin. A first material is delivered out of the first skin treatment tip to a target region. A second skin treatment tip engages the target region while the first material effectively facilitates exfoliation with the second skin treatment tip. In some variations, the first material comprises an acid, hydrator, and combination thereof. In some variations, the first skin treatment tip is configured to remove skin at a different rate than the second skin treatment tip. In some variations, the first skin treatment tip is configured to exfoliate at a higher rate than the second skin treatment tip. In some variations, material is delivered out of the second treatment tip to the target region of the patient's skin.

[0017] The apparatus for treating skin can dispense treatment material that is held in containers, such as bottles, bags, pouches, or other suitable structures for holding and storing material. These containers can be non-refillable or refillable. The treatment material can be delivered by gravity feed, pumps, or suction devices. The manifold system can be used to control fluid flow from a plurality of containers to one or more handpieces.

Brief Description of the Drawings

[0018] Having thus summarized the general nature of the invention, certain preferred embodiments and modifications thereof will become apparent to those skilled in the art from the detailed description herein having reference to the figures that follow.

[0019] Figure 1 is a perspective view of one embodiment of a skin treatment system.

[0020] Figure 2A is a perspective view of one embodiment of a handpiece assembly for use with the skin treatment system of Figure 1.

[0021] Figure 2B is a side elevational view of the handpiece assembly of Figure 2A.

[0022] Figure 3 is a longitudinal cross-sectional view of the handpiece assembly of Figure 2B. The handpiece assembly is engaging a person's skin.

[0023] Figure 4 is a perspective view of another embodiment of a handpiece assembly.

[0024] Figure 5A is a perspective view of one embodiment of a tip that can be coupled to a main body of a handpiece assembly to treat a person's skin.

[0025] Figure 5B is a top elevational view of the tip of Figure 5A.

[0026] Figure 5C illustrates a bottom elevational view of the tip of Figure 5A.

[0027] Figure 5D is a cross-sectional view of the tip of Figure 5B taken along the line 5D-5D.

[0028] Figure 6A is a perspective view of a tip in accordance with another embodiment.

[0029] Figure 6B is a top elevational view of the tip of Figure 6A.

[0030] Figure 6C is a bottom elevational view of the tip of Figure 6A.

[0031] Figure 6D is a cross-sectional view of the tip of Figure 6B taken along the line 6D-6D.

[0032] Figure 7A is a perspective view of a tip in accordance with another embodiment.

[0033] Figure 7B is a top elevational view of the tip of Figure 7A.

[0034] Figure 7C is a bottom elevational view of the tip of Figure 7A.

[0035] Figure 7D is a cross-sectional view of the tip of Figure 7B taken along the line 7D-7D.

[0036] Figure 8A is a perspective view of yet another embodiment of a tip for treating a person's skin.

[0037] Figure 8B is a top elevational view of the tip of Figure 8A.

[0038] Figure 8C is a bottom elevational view of the tip of Figure 8A.

[0039] Figure 8D is a cross-sectional view of the tip of Figure 8B taken along the line 8D-8D.

[0040] Figure 9A is a perspective view of still another embodiment of a tip that can be coupled to a main body of a handpiece assembly.

[0041] Figure 9B is a top elevational view of the tip of Figure 9A.

[0042] Figure 9C is a bottom elevational view of the tip of Figure 9A.

[0043] Figure 9D is a cross-sectional view of the tip of Figure 9B taken along the line 9D-9D.

[0044] Figure 10A is a perspective view of another embodiment of a tip for treating a person's skin.

[0045] Figure 10B is top elevational view of the tip of Figure 10A.

[0046] Figure 10C is bottom elevational view of the tip of Figure 10A.

[0047] Figure 10D is a cross-sectional view of the tip of Figure 10B taken along the line 10D-10D.

[0048] Figure 10E is a perspective exploded view of the tip of Figure 10A, wherein a pad is spaced from a tip main body.

[0049] Figures 11A-11E are cross-sectional views of inner members that can be used to exfoliate skin.

[0050] Figure 12 is a perspective view of a bottle for use with the skin treatment system of Figure 1.

[0051] Figure 13A is a cross-sectional view of one embodiment of a bottle spaced from an insertion tip assembly.

[0052] Figure 13B is a cross-sectional view of the bottle of Figure 12A coupled with the insertion tip assembly.

[0053] Figure 14A is a cross-sectional view of a closure and a bottle.

[0054] Figure 14B is a cross-sectional view of the closure and bottle of Figure 14A when assembled.

[0055] Figure 15A is a perspective view of one embodiment of a manifold system holding a plurality of bottles.

[0056] Figure 15B is a cross-sectional view of the manifold system of Figure 15A taken along the line 15B-15B of Figure 15A.

[0057] Figure 15C is a cross-sectional view of the manifold system of Figure 15A taken along the line 15C-15C of Figure 15A.

[0058] Figure 15D is a cross-sectional view of the manifold system of Figure 15C wherein the bottle has been removed.

[0059] Figure 15E is a cross-sectional elevational view of the manifold system.

[0060] Figure 16 is a perspective view of another embodiment of a skin treatment system.

[0061] Figure 17 is a cross-sectional view of a fluid line of the skin treatment system of Figure 16 taken along the line 17-17.

[0062] Figure 18 is a side elevational view of a handpiece assembly with a removable cartridge.

[0063] Figure 19 is a side elevational view of the handpiece assembly and removable cartridge of Figure 18, the cartridge is shown removed from the handpiece assembly.

Detailed Description

[0064] Figure 1 illustrates a skin treatment system 10 that can be used to perform one or more treatments on a person's skin. The illustrated skin treatment system 10 includes a console 12 and a handpiece assembly 18 connected to the console 12 via a line 20. A manifold system 24 can control the flow of treatment material from containers 26 into and through the line 20. The treatment material can be discharged out of the handpiece assembly 18 to treat a person's skin. The skin treatment system 10 can be used at a hospital, health care physicality, residences, or any other suitable location.

[0065] As explained in more detail below, the handpiece assembly 18 is applied to the target area of the patient to perform skin treatment(s). As used herein, the term "skin treatment" is a broad term and includes, but is not limited to, skin removal, skin abrasion (e.g., dermabrasion, microdermabrasion, etc.), ablating or slicing skin (preferably a thin layer of skin), stimulation (including thermal, mechanical, electrical, and/or chemical stimulation), mesotherapy, isophoresis, light therapy, vacuum therapy, and the like. Preferably, the handpiece assembly 18 administers a treatment material from at least one of the containers 26 through the line 20 to the target area of the skin while the handpiece assembly 18 engages the skin.

[0066] As used herein, the term "treatment material" is a broad term and includes, but is not limited to, medicament, a substance tending to flow or conform to the outline of its container such as fluid, gas, liquid (e.g., serums, water, saline, etc.), gel, fluidized material, additives, and/or a plurality of fine solids. The general term "fluid" is

used throughout synonymously with the term "treatment material" and is to be given the same broad definition. The handpiece assembly 18 can preferably massage, abrade, ablate, or otherwise treat the target skin area while also applying a treatment material to the patient. In certain embodiments, the treatment material and tip of the handpiece 18 can work in combination for an effective and rapid skin treatment. Additionally, any number of "dry" and "wet" tips can be used alone or in combination for treatment flexibility.

[0067] With continued reference to Figure 1 the line 20 is configured to provide fluid communication between the containers 26 and the handpiece assembly 18. The line 20 can comprise one or more conduits extending between the console 12 and the handpiece assembly 18. In certain embodiments, the line 20 includes a supply line and a waste line for delivering and returning material, respectively, as detailed below.

[0068] The distal end 22 of the line 20 is connected to the handpiece assembly 18. Preferably, the line 20 includes a filter 28 that removes contaminants or impurities from the treatment material passing through the line 20. In other embodiments, the filter 28 is located in the console 12 or the manifold system 24. The console 12 can be connected to a power source such as an AC outlet. The power source can power the handpiece assembly 18 and/or other components of the skin treatment system 10, such as, for example, pumps, valves, and the like.

[0069] In the illustrated embodiment, the console 12 comprises four casters 33 to allow for easy movement, for example, from one treatment room to another treatment room. In such an embodiment, the console 12 can be conveniently rolled on a support surface. Other means of transportation can also be employed or the console 12 can be stationary. In some embodiments, the console 12 is portable for convenient transport.

[0070] The illustrated containers 26 of Figure 1 are preferably releasably coupled to the manifold system 24. The manifold system 24 can deliver treatment material from the containers 26 to the line 20 as mentioned above. In certain embodiments, the console 12 has a user input device 32 for selecting a treatment material to be passed through the line 20 to the handpiece assembly 18. During some skin treatment procedures, treatment materials from multiple containers 26 are sequentially or simultaneously applied to the patient's skin during a "wet" mode of operation. Alternatively, the skin treatment system 10 can be used to

deliver a single treatment material to the patient's skin. In some embodiments, the console 12 can be used for a "dry" mode of operation. That is, the console 12 can be used to exfoliate skin, for example, without delivering little or substantially no treatment fluid. The skin treatment system 10 can thus provide flexibility in selecting a treatment plan.

[0071] Multiple handpieces assemblies 18 and/or tips 34 can be used during a single skin treatment procedure in a wet and/or dry mode of operation. For example, a first handpiece assembly 18 may be employed to treat a patient's face and neck while a second handpiece assembly 18 may be employed to treat other larger areas of the patient's body. Thus, different handpieces 18 can be used to treat different regions of a person's body. The configurations of the handpieces 18 and tips can be selected based on the treatment material to be applied, desired interaction with the patient's skin, size of treatment area, skin condition, and the like.

[0072] With reference to Figures 2A and 2B, the handpiece assembly 18 includes a main body 30 and a tip 34. The handpiece assembly 18 can be conveniently held within the hand of a user so that the user can place the tip 34 in operative engagement with a person's skin. The user is typically an aesthetician (e.g., an aesthetician allowed to perform microdermabrasion), doctor, and other medical personnel, such as a physician assistant and nurse practitioner. In some cases, the user is the person whose skin is being treated.

[0073] The main body 30 has contoured portions 70 at its distal end 36 so that the user can comfortably grip the handpiece assembly 18 during use. The main body 30 can have other designs to provide a comfortable grip. Figure 2A illustrates an embodiment in which the main body 30 is substantially flat on two opposing sides. Figure 4 illustrates an embodiment in which the main body 30 is generally cylindrical.

[0074] As noted above, the tip 34 can be pressed against a patient's skin to perform a skin treatment. The distal end 102 of the tip 34 may be angled with respect to the handpiece assembly 18 to increase the contact area with the patient's skin without enlarging the handpiece assembly 18 for an ergonomic and comfortable design. The angled tip 34 can lay flat on the skin while the main body 30 is angled to the skin. The angle between the face of the distal end 102 and the longitudinal axis of the handpiece assembly 18 can be selected based on the desired size of the face of the distal end 102. In alternative embodiments, the

face of the distal end 102 is generally perpendicular to the longitudinal axis of the main body 30.

[0075] The tip 34 can be permanently or temporarily coupled to the distal end 36 of the main body 30. In some embodiments, the tip 34 is disposable. As used herein, the term "disposable," when applied to a system or component (or combination of components), such as a tip, container, or pad, is a broad term and means, without limitation, that the component in question is used a finite number of times and then discarded. Some disposable components are used only once and then discarded. Other disposable components are used more than once and then discarded. In some embodiments, the tip 34 is removably coupled to the main body 30 such that the tip may be removed from the main body 30 and thrown away to avoid cross-contamination. In other embodiments, the tip 34 is a reusable tip that can be cleaned, for example by autoclaving, after each use. The tip 34 can thus be used for any number of procedures as desired.

[0076] With reference to Figures 2A and 2B, the proximal end 40 of the main body 30 is operatively connected to the line 20. In the embodiment illustrated, the line 20 includes an output line 50 for removing waste from the handpiece assembly 18 and an input line 52 for delivering treatment material to the handpiece assembly 18. The proximal end 40 of the main body 30 includes a plurality of connectors 44, 46, each connected to one of the conduits 50, 52. The illustrated input line 52 is connected to the connector 46, and the output line 50 is connected to the connector 44.

[0077] The input line 52 delivers treatment material from at least one of the containers 26 to the connector 46. The fluid then flows through the main body 30 and ultimately to the tip 34. As shown in Figure 3, the main body 30 comprises a plurality of lumens 90, 92 in a fluid communication with the tip 34. Fluid from the input line 52 can flow through the input lumen 92 to the tip 34. The fluid then flows out of the tip 34 to a target skin area. The fluid is then trapped in the space 100 between the skin 80 and the tip 34. To remove the fluid, the fluid flows proximally through the lumen 90 to the output line 50. The fluid passes through the output line 50 and into the console 12. As such, fluid can continuously or intermittently flow through the handpiece assembly 18.

[0078] To treat the person's skin 80, the handpiece assembly 18 can also be moved relative to the skin 80 such that the tip 34 maintains engagement with the skin 80. The illustrated tip 34 is configured to massage the skin 80 while also providing fluid communication with the skin 80. As detailed below in connection with Figures 5A through 10, the tip can include sharp planing blades, blades (e.g., razor blades), raised sharp areas, molded posts, grits, or other structures for treating skin, as detailed below.

[0079] When the tip 34 and treatment material are used in combination, the handpiece assembly 18 preferably exfoliates dead skin cells and extracts impurities by applying a vacuum while simultaneously bathing the healthy underlying skin with active treatment material. The active treatment material can facilitate cleansing, exfoliating, hydrating, and/or provide residual antioxidant protection. The treatment material and tip 34, alone or in combination, can effectively and rapidly treat the target skin area. The waste material, including the used treatment material, removed skin, and/or grit, can then be drawn back through the tip 34, the main body 30 via lumen 90, and into the connector 44. The waste then flows into the output line 50 for subsequent disposal, as detailed below in connection with Figure 4.

[0080] In some embodiments, including the illustrated embodiment of Figure 3, the tip 34 has a tip connector 98 (see Figures 5C and 5D) that mates with the lumen 92. The tip 34 can provide fluid communication from the tip connector 98 to the space 100 via a through-hole 122. One or more through-holes 114 define fluid passageways through the tip 34 between the space 100 and the intermediate chamber 116.

[0081] The intermediate chamber 116 can be interposed between the through-holes 114 and the lumen 90. The intermediate chamber 116 is preferably defined by the distal face 43 of the main body 30 and the proximal face 41 of the tip 34. The intermediate chamber 116 can provide equalization of fluid between the tip 34 and the body 30. As such, a generally equal vacuum is applied to both through-holes 114. The fluid can flow through the through-holes 114, into the intermediate chamber 116, and then into the lumen 90. In some embodiments, however, the fluid flows directly from the through-holes 114 to the lumen 90 without passing through an intermediate chamber 116.

[0082] The tip 34 can have one or more sealing members to form a fluidic seal between the tip 34 and the main body 30. The illustrated main body 30 includes a sealing member 47 that engages the inner surface of the skirt 64 of the tip 34. The sealing member 47 can be a compliant member comprising rubber, polymer, plastic, or other suitable material for forming seals. In some embodiments, the sealing member 47 is an O-ring made of rubber.

[0083] With continued reference to Figure 3, during use, treatment material can flow distally through the lumen 92 into the through-hole 122. The treatment material then proceeds through and out of the through-hole 122 into the space 180. Preferably, the treatment material spreads radially outward to the peripheral through-holes 114. The material can then flow through the through-holes 114 into the lumen 90 for subsequent removal.

[0084] In alternative embodiments, the fluid flows in the opposite direction. That is, the line 50 delivers fluid through the lumen 90 into the tip 34. The fluid flows through the intermediate chamber 116 and the through-holes 114. The fluid then flows to the chamber 100 and inwardly through the tip connector 98 to the lumen 92. The fluid proceeds proximally along the lumen 92 and ultimately into the line 52.

[0085] In yet another embodiment, the handpiece assembly 18 comprises two or more input lumens 90. Such a design allows mixing of two or more treatment materials within the handpiece assembly 18 or space 100, which would be useful for treatments with fluids that react or are unstable or degrade when stored or mixed.

[0086] As depicted in Figure 4, the handpiece assembly 18 can optionally include a controller 60 that is configured to control the fluid flow out of the tip 34. The illustrated controller 60 can be operated to increase or decrease the flow rate of treatment fluid out of the tip 34. Alternatively or additionally, the controller 60 may control the flow rate of waste fluid flowing through the handpiece assembly 18 to the output line 50. When control of the waste treatment fluid and waste fluid is independent, the detention time of the fluid in the tip 34 may be adjusted as desired.

[0087] The illustrated controller 60 is a generally cylindrical body that is pivotally connected to the main body 30. Figure 4 illustrates an embodiment in which the

controller 60 is recessed into and partially hidden by the main body 30, although in other embodiments the controller 60 may encircle the main body 30. The controller 60 may include textured grooves to provide for easier manipulation. In some embodiments, the controller 60 is located near the distal end 36 of the handpiece assembly 18 proximal or distal of the contoured portion 70. The type and configuration of the controller 60 can be selected based on the design of the handpiece assembly 18. The controller 60 can also be a rotatable knob or handle, digital controller, and the like.

[0088] The handpiece assembly 18 can also include one or more flow rate controllers within the main body 30 that cooperate with the controller 60 to adjust the fluid flow out of the tip 34. For example, the controller 60 may comprise a flow control valve such as a globe valve, butterfly valve, needle valve, or variable orifice. Other types of flow rate controllers can also be used, such as an electrically controlled solenoid valve. In embodiments where the fluid flow is electronically controlled, the valve system may alternatively be located in the console 12 or manifold system 24. Separate devices can also be used to control the flow of treatment material. For example, clamps, pinch valves, or other suitable devices can be used to control fluid flow through the lines 50, 52.

[0089] Various types of tips 34 can be used with the handpiece assemblies 18 illustrated in Figures 1 to 4. Figures 5A through 10E illustrate embodiments, for example, of tips 34 that can be used with these handpiece assemblies 18. These tips 34 can be interchangeable to provide maximum treatment flexibility.

[0090] As shown in Figures 5A through 10E, the tip 34 comprises the skirt 64 and a tip main body 66 extending outwardly therefrom. The skirt 64 is preferably configured to provide a gripping surface suitable for applying leverage or force sufficient to remove the tip 34 from the main body 30. In some embodiments, the skirt 64 includes internal threads such that it can be mechanically coupled to external threads on the distal end 36 of the main body 30. In some embodiments, the tip 34 can be press fit onto the main body 30. Frictional forces can retain the tip 34 to the main body 30.

[0091] With respect to Figures 5A through 7, the tip 34 comprises an outer member 120 and an inner member 124. The outer member 120 preferably defines the periphery of the distal end 102 of the tip 34. When the tip 34 is placed against skin, the outer

member 120 can inhibit fluid flow between the tip 34 and the skin and define the outer portion of the space 100.

[0092] The inner member 124 is preferably spaced from the outer member 120 to define one or more channels. The illustrated outer member 120 defines a continuous channel 140 that extends outwardly from the central through-hole 122 towards at least one of the outer through-holes 114. The inner member 120 can form the sidewalls of the channel 140. Any suitable configuration of channels 140 can be used to provide fluid flow along a flow path. The illustrated channels 140 have a somewhat U-shaped axial cross-sectional profile, as depicted in Fig. 8A. The channel 140 can have a V-shaped, curved, or any other suitable cross sectional profile. A flow path between the through-holes in the tip 34 can be defined at least in part by the channels.

[0093] The spiral-like pattern of the inner members 124 in Figures 5 through 7 varies. For example, the inner member 124 in Figure 5 extends about a longitudinal axis 143 of the tip 34 approximately one and a half times, the inner member 124 in Figure 6 extends about the tip 34 approximately two and a half times, and the inner member 124 in Figure 7 rotates about the tip 34 approximately one and three quarters times. In some embodiments, the inner member 124 subtends an angle of about 70°, 135°, 180°, 210°, 225°, 270°, 315°, 360°, and angles encompassing such ranges. In yet other embodiments, the inner member 124 subtends an angle of about 405°, 450°, or 495°. The tightness of the spiral in combination with the location and number of through-holes 114 affects the detention time of the fluid in the channel 140. Generally, a tighter spiral results in a longer the pathway (i.e., the length of the channel 140) from delivery through-hole 122 to the return through-holes 114. Fluid traveling down the longer pathway is in contact with the person's skin 80 for a longer period of time. Thus, tighter spirals lead to increased contact time between the fluid and the skin 80. These longer contact times can increase the effectiveness of the fluid because the skin can absorb an adequate amount of active ingredients of the treatment material. Fluid retention time on the patient's skin can be increased to increase hydration, serum retention, and the like. Shorter pathways can be used to reduce contact time between the fluid and the patient's skin. In some embodiments, for example, the tip 34 of Figures 5A

to 5D has a relatively short pathway to limit absorption of fluids, achieve relatively high flow rates, and the like.

[0094] Additionally, the inner members 124 can be configured to remove tissue. The inner member 124 can be an abrasive member designed to remove tissue when the inner member 124 slides along a person's skin. The user may select a tip 34 based on the appropriate detention time and abrasiveness for the treatment being applied. For example, the tip 34 illustrated in Figure 7 will provide less abrasion than the tip illustrated in Figure 6, but the tip 34 illustrated in Figure 7 will provide a longer detention time than the tip 34 illustrated in Figure 5.

[0095] The illustrated tip 34 includes a generally continuous inner member 124 that extends from near the through-hole 122 towards at least one of the through-holes 114. In other embodiments, the tip 34 can have a plurality of inner members 124. For example, the inner members 124 can be linear, curved, and may be continuous or discontinuous.

[0096] The handpiece assembly 18 can be moved while the spiral-like inner member 124 engages the patient's skin. The movement of the handpiece assembly 18 can increase the effectiveness of the treatment material expelled out of the tip 34. In some embodiments, for example, the tip 34 can be used with a lifting treatment material that facilitates extractions of, for example, sebum, blackheads, skin, or other substances (e.g., oils, dead skin, etc.). The lifting treatment extraction producer can unclog pores to improve the treated skin's overall appearance. To facilitate extractions, the handpiece assembly 18 can be twisted or rotated while the tip 34 is pressed against the patient's skin. The twisting action and the lifting treatment material can work in combination for effective extractions. In alternative embodiments, a handpiece assembly 18 can also be used without a lifting treatment material for extractions by employing the twisting motion.

[0097] In certain embodiments, the spiral-like tip 34 massages the skin 80. In other embodiments, the spiral-like tip 34 ablates the skin 80. For example, the inner members 124 may act as blades to cut thin layers from the skin 80 when the user twists the handpiece assembly 18. Twisting the handpiece assembly 18 causes the tip 34 to rotate about the twisting axis, rotating the sharp inner members 124 against the skin 80, which causes ablation. Thin layers of skin can thus be removed by the handpiece assembly 18.

Additionally or alternatively, the spiral-like tip 34 may plane along skin when a fluid is applied to the skin. The planing tip 34 can remove a thin layer of the skin (e.g., the stratum corneum, preferably hydrated stratum corneum). Accordingly, the user can use the handpiece assembly 18 to remove a particular amount of skin.

[0098] A vacuum can be applied by the handpiece assembly 18. For example, the console 12 can have a pump that applies a vacuum via the output line 52. The negative pressure draws waste material into the through-holes 114 and out of the handpiece assembly 18. When the tip 34 engages the patient's skin, the vacuum can draw the skin against the tip 34 to enhance the effectiveness of the inner members 124. The vacuum can be increased or decreased to increase or decrease, respectively, for example, frictional forces, depth of cutting, amount of abrasion, and the like. To rapidly remove skin, a strong vacuum can be applied to the person's skin so that the skin is pulled against the inner member 124. The vacuum can also facilitated removal of the waste fluid captured between the tip 34 and the patient's skin. A vacuum can also be used in combination with the tips illustrated in Figures 1-10E. The vacuum can also be varied based on the thickness, compliance, and other properties of the skin surface

[0099] The tip 34 can have any suitable number of through-holes 114, 122 to achieve the desired fluid flow between the skin 80 and the tip 34. For example, Figure 5A to 5D illustrate an embodiment with two through-holes 114. The number of through-holes 114, 122 can be chosen based on the cross-sectional areas of the through-holes 114, 122 and the expected flow rate of the fluid through the channel 100. Preferably, one end of through-holes 114 is positioned between the inner member 124 and the outer member 120. In some embodiments, including the embodiments illustrated in Figures 5A through 7, the through-holes 114 are positioned generally midway between the outer member 120 and inner member 124.

[0100] The tips can also have one or more energy sources for delivering energy to the skin. Radiant energy, heat, and the like can be delivered to the skin by the tips. The tip 34 illustrated in Figures 6A to 6D has a pair of energy sources 151 in the form of LEDs. When the tip 34 is proximate the patient's skin, the LEDs 151 can deliver a desired amount

of energy to the skin. The illustrated tip 34 has four LEDs; however, any number of LEDs can be employed.

[0101] In alternative embodiments, the tips can carry deployable material. The structure 151 can be in the form of a cavity or pocket that contain and carry material that is released when it engages the treatment fluid. The material in the cavities 151 can be made of any of the treatment materials disclosed herein, and can be in a solid form. For example, the cavities can hold lubricant or soap that is released when the tip is applied to skin.

[0102] Figures 8A through 8D illustrate another embodiment of a tip 34 when the inner member 124 includes a ring with perforations 140 that provide fluid communication between the through-hole 122 and through-holes 114. A space 100 can be defined between the inner member 124, perforations 140, and outer member 120 when the tip 34 is in operative engagement with the skin 80. Figure 8C illustrates an embodiment with eight through-holes 114. In the embodiment illustrated in Figures 8A through 8D, the inner member 124 forms recessed regions 171, allowing for a larger area of fluid contact with the skin 80 then the tips 34 illustrated in Figures 5 through 7.

[0103] Figures 9A through 9D illustrate another embodiment of a tip 34 comprising an outer member 120 and an array of protruding inner members 124. A recessed region 191 is defined between the inner members 124 and the outer member 120. The inner members 124 of Figures 9A to 9D can be posts that are similar to the inner members described above. The post 124, for example, can have relatively sharp edges. These edges can be used to remove skin. In some embodiments, the inner members 124 can have relatively sharp planing blades. The tip 34 illustrated in Figures 9A through 9D allows for more freedom of movement of the treatment fluid. The protruding inner members 124 preferably abrade the skin differently than the tips 34 illustrated in Figures 5A through 8. Rather than being able to ablate large sections of the skin 80 like a blade, as the tips 34 in Figures 5A-8 can do in certain embodiments, the plurality of protruding inner members 124 can ablate or roughen a plurality of smaller sections of the skin 80.

[0104] The protruding member 124 can optionally contain treatment material. For example, the protruding members 124 can be generally cylindrical members having a

passageway or chamber 127 that holds treatment material. Thus, fluid can be used in combination with treatment material coupled to the tip 34.

[0105] With reference to Figures 5A through 9, the inner member 124 preferably has a height from the distal surface that is generally less than the height of the outer member 120. In some non-limiting embodiments, the height of the inner member 124 is less than 90%, 70%, 60%, 50%, and ranges encompassing such percentages of the height of the outer member 120. However, in other embodiments, the inner member 124 has a height that is generally greater than the height of the outer member 120. For example, the inner member 124 can have a height that is 10%, 20%, 30%, 40%, 50% greater than the height of the outer member 120. The inner member 124 can thus protrude from the tip 34. A skilled artisan can select a desired height of the inner member 124 and/or the outer member 120 to achieve the desired interaction with the person's skin 80.

[0106] Figures 10A through 10E illustrate another embodiment of a tip 34 comprising an outer member 120 and a pad 128. Figure 10E depicts the pad 128 removed from the tip 34. The tip 34 preferably has a mounting surface 227 that is surrounded by the outer member 120. The pad 128 can be permanently or temporarily coupled to the mounting surface 227.

[0107] The pad 128 preferably has a distal surface 224 configured to treat a person's skin. In some embodiments, the pad 128 is a disposable pad that comprises treatment material attached thereto. For example, the pad 128 may comprise vitamins, moisturizers, antioxidants, and the like. Preferably, the pad 128 comprises an adhesive proximal side and a distal side 224 including an abrasive surface. The abrasive surface can have grit, a plurality of members (e.g., members similar to the inner members 124 described above), or the like. The pad 128 can be permanently coupled to the mating surface 227 so that the tip 34 can be used for an extended length of time, or for multiple treatments. In alternative embodiments, the tip 34 is removable for maximum flexibility in selecting pad abrasiveness, and also allows the user to make changes to the tip 34 without changing the tip 34 in its entirety. The grit rating of abrasive surface of the distal surface 224 can be selected based on the desired rate of skin removal.

[0108] The illustrated pad 128 is generally elliptical and planar. In alternative embodiments, the pad 128 can be polygonal, circular, or have any other shape as desired. The pad 128 can have cutouts 225 that can match the through-holes 114, 122. The cutouts 225 can be aligned with the through-holes 114, 122 when the pad 128 is coupled to the mounting surface 227 of the tip 34, as shown in Figures 10A to 10D. The illustrated mounting surface 227 defines a plurality of tip flow channels 229 extending between the through-holes 114, 122. When the tip 34 is assembled, fluid can flow along the channels 229 between the main body 66 and the pad 128.

[0109] Various types of adhesives can be used to temporarily or permanently couple the pad 128 to the mounting surface 227. As used herein, the term "adhesive" is a broad term and includes, but is not limited to, coupling agents, glues, bonding materials, or the like. In some embodiments, for example, waterproof pressure sensitive adhesives are used for releasably coupling the pad 128 to the mounting surface 227. In some embodiments, the pad 128 can be permanently coupled to the mounting surface 227. For example, the pad 128 can be bonded or fused to the main body 66. Additionally or alternatively, snap fittings, fasteners, or other coupling structures can be used to mount the pad 128.

[0110] The tip 34 described above can be used for wet or dry modes of operation. As such, the tip 34 can be used for wet exfoliation or dry exfoliation. In some embodiments, the tip 34 is used in a dry mode to remove a desired amount of skin. After removing a desired amount of skin, the tip 34 can be used in a wet mode on the same or different area of the patient's kin. During wet mode, fluid can be passed out of the tip 34 onto the patient's skin. The wet tip 34 can exfoliate, hydrate, and/or perform other types of treatments. Alternatively, the tip 34 can be used in a wet mode and than a dry mode. The sequence of wet and dry modes of operation can be selected based on the type of tip, treatment material, skin condition, and the like.

[0111] Although the handpiece assemblies are primarily discussed with respect to use with treatment material, the handpiece assemblies can be used without treatment material, i.e., the handpieces can be used in a dry procedure. Dry procedures can be used for non-hydration procedures and may require less post-procedure clean up.

[0112] Various fabrication techniques can be employed to make the tips 34 as mentioned above in connection with Figures 11A-11E. In some embodiments, the tips 34 are formed through a molding process, such as an injection or compression molding process. The tips 34 of Figures 5A to 5D, for example, can be monolithically formed through an injection molding process. Alternatively, the tip 34 of can have a multi-piece construction, if desired. The tips 34 can be made of polymers, rubbers, metals, or other suitable materials.

[0113] The tips 34 can also be fabricated in a multi-step process. For example, the main body 66 and skirt 64 can be formed in a single process. A textured surface (e.g., pad, inner members 124, etc.) can be applied to the main body 66 in a subsequent process. The textured surface can be formed by cutting, embossing, adding material (e.g., a pad, adhesive grit, etc.), a roughening implement, stamping process, or other suitable texturing means.

[0114] The tips can have associated treatment materials, including, for example, a medicament. As used herein, the term "medicament" is a broad term and includes, without limitation, growth agents, growth factors or hormones, growth inhibitors, serums, treatment material, cleaners, vitamins, exfoliators, lubricants, or other substances that can be used to treat a patient's skin. The medicament can be associated with the tip 34 by imbedding, overlaying, coating, impregnation, co-mixing, absorption, or other suitable means for associating the medicament with the tip 34. The medicament can be hardened so that it can further enhance massaging and/or abrasion. In some embodiments, the medicament forms hardened grit that can be imbedded on the surface of the tip 34. The grit can work in combination with the inner members 124 to treat a person's skin. If a fluid is used, the fluid can facilitate the release of the medicament from the tip 34. In some embodiments, the medicament comprises or more bioactive substances, such as antibiotics, substances for accelerating the healing of the wound, cell proliferation agents, and the like. Such bioactive substances may be desirable because they contribute to the healing of damaged or removed skin, as well as reducing the likelihood of infection.

[0115] Figures 11A to 11E illustrate different cross-sections of inner members that can be used with the tips illustrated in Figures 1-10E. The inner member 124 of Figure 11A has generally sharp tip 253 for removing tissue. The tip 253 can have any suitable

configuration for removing tissue from a patient. Figure 11B illustrates an inner member 124 that has a pair of cutting edges 253 and a generally trapezoidal shape. Figure 11C illustrates an inner member 124 that has a surface treatment 255 for treating a person's skin. The surface treatment 255 can be serrations, grooves, grit, roughed surface, protrusions, and the like. The type of surface treatment 255 can be selected based on the procedure to be performed. Figure 11D illustrates another inner member 124 having a pair of cutting edges 253. The cutting edges 253 are spaced from each other and protrude outwardly. The central portion 257 is generally V-shaped; however, the central portion 257 can have other configurations. For example, Figure 11E illustrates a central portion 257 that has a curved, semi-circular profile. In alternative embodiments, the inner member 124 can have more than two cutting edges.

[0116] The inner members 124 of Figures 11A to 11E can be formed by a molding process, such as an injection molding process. Additionally or alternatively, the inner members 124 can be formed by a machining process. For example, at least a portion of the inner member 124 of Figures 11D to 11E can be formed through a machining process. In some embodiments, the central portion 257 can be formed by cutting material out of the inner member 124. The fabrication process (e.g., molding, injection molding, compression molding, machining, milling, etc.) can be selected based on the design of the inner members.

[0117] Referring again to Figure 1, the console 12 includes a manifold system 24 that holds containers 26 containing treatment fluids and/or antimicrobial agents. In a preferred embodiment, the console 12 holds four containers 26, three containing different treatment fluids and one containing an antimicrobial agent. In the illustrated embodiment, the largest container 26 holds antimicrobial agent for cleaning and sanitizing the fluid lines of the console 12. The containers 26 can also hold other suitable substances, such as surfactants, disinfectants, sanitizers, and the like, for cleaning and/or sanitizing the skin treatment system 10.

[0118] As shown in Figures 12 and 12A, the container 26 can be a fluid source such as a bottle comprising a body 262, a neck 264, and a closure assembly 266. The neck 264 includes a threaded neck finish and the closure 266 includes a threaded interior surface, allowing it to screw onto the neck 264. The closure 266 can be permanently or temporarily

coupled to the neck 264. The illustrated bottle 26 is a non-refillable, disposable bottle. As used herein, the term "non-refillable" is a broad term that includes, but is not limited to, components that cannot be easily refilled with a treatment material. For example, the illustrated non-refillable bottle 26 cannot be refilled without substantial difficulty.

[0119] Bodies 262 of the containers 26 may be formed by stretch blow molding a preform into the desired shape. In other embodiments, the body 262 and a neck 264 can be formed by extrusion blow molding. For example, the bottle of Figure 13A can be formed by extrusion blow molding. The containers 26 can be made of polymers, thermosets, thermoplastic materials such as polyesters (e.g., polyethylene terephthalate (PET)), polyolefins, including polypropylene and polyethylene, polycarbonate, polyamides including nylons, epoxies, and/or acrylics. The material can be virgin or post-consumer/recycled. However, other suitable materials known in the art can also be used.

[0120] In some embodiments, including the illustrated embodiment of Figures 12 and 12B, the closure 266 is welded (e.g., induction welded) to an upper edge 269 of the neck 264. A sealing member 267 can be interposed between the upper edge of the neck 269 and the closure 266. In some embodiments, the sealing member 267 is made out of a conductive metal, such as aluminum, that preferably does not react with the fluid in the bottle 26. In other embodiments, the seal 267 comprises plastic, such as cellophane, polypropylene, or other suitable material, preferably suitable for coupling to the closure 266 and upper edge 269. In some embodiments, the sealing member 267 comprises metal that is at least partially coated with a polymer, such as polypropylene. Induction welding can be used to couple the polypropylene to the closure 266 and neck 264, both of which can also comprise polypropylene.

[0121] Figure 14A illustrates another embodiment of a bottle 26. The closure 266 includes locking members 268 that engage the neck 264, but do not allow removal of the closure 266 from the bottle 26 when assembled, as shown in Figure 13B. The locking closure 266 may include a sealing member 267, for example as described above.

[0122] In either of the embodiments illustrated in Figures 12 through 14B, the closure 266 may then be sealed with a second closure (not shown), creating multi-piece closures. For example, a screw cap can be threaded onto the external threads 273 at the top

end of the closure 266. In these embodiments, the treatment fluid inside the bottle 26 may be accessed by puncturing or otherwise breaking the seal 267, for example with an insertion tip assembly 59 (see Figure 13A).

[0123] The insertion tip assembly 59 has an elongate member 161 that comprises a fluid pick up conduit 62 and lancing tip 64 extending from the distal end of the conduit 62. In the illustrated embodiment, the lancing tip 64 is a tubular member having a somewhat sharp distal end. To access treatment fluid in the bottle 26, the lancing tip 64 can be inserted into the closure passageway 73 of the closure 266. The lancing tip 64 can be advanced through the passageway 73 until it breaks the sealing member 267. The elongate member 161 can be sufficiently rigid such that it can break the sealing member 267 without buckling. The elongate member 161 can comprise metal, polymers, plastics, or any suitable material.

[0124] The fluid pick up conduit 62 and lancing tip 64 can be slid through the passageway 73 until the stop 91 is spaced from the upper edge of the closure 266. In alternative embodiments, the insertion tip assembly 59 can be slid through the passageway 73 until the stop 91 contacts the upper edge of the closure 266, as shown in Figure 12B. After the insertion tip assembly 59 and bottle 26 are assembled, as shown in Figure 12B, the treatment material can be draw upwardly through the lancing tip 64 and the fluid pick up conduit 62. The treatment material can flow through a passageway of the insertion tip assembly 59 and to the manifold assembly 24.

[0125] In certain embodiments, the treatment fluid applied from the containers 26 may be selected from the console 12 for a particular treatment or skin type. In one embodiment, the treatment fluid may comprise a skin rejuvenation serum. Skin rejuvenation serum cleans the skin 80 deeply while softening sebum and impurities to aid in extractions. Skin rejuvenation serum also assists in dislodging dead cells for extraction and exfoliation by the tip 34 as well as providing residual hydration that aids in firming and smoothing fine lines, resulting in clean, refined, and ultra-moisturized skin 80. Preferably, a skin rejuvenation treatment serum is active-4™, available from Edge Systems Corp., 2277 Redondo Ave., Signal Hill, CA, 90755, (800) 603-4996. In another embodiment, the treatment fluid may comprise a salicylic acid serum. A salicylic acid serum cleans oily skin deeply while softening sebum and impurities to aid in extraction and exfoliation by the tip

34. Hydration additives in the salicylic acid serum create an ultra-moisturized skin surface, and is blended to remain on the face for the best possible benefit. Preferably, a salicylic acid treatment fluid is beta-hd™, also available from Edge Systems Corp. In yet another embodiment, the treatment fluid may comprise antioxidants. The antioxidant serum is a hybrid that combats free radicals and environmental damage to the cells. The antioxidant serum is formulated with a blend of the most effective antioxidant ingredients. The antioxidant serum is an absorbable, leave-on service that improves the appearance of age signs as well as texture and clarity. Preferably, an antioxidant treatment fluid is antiox-6™, also available from Edge Systems Corp. The treatment fluids may comprise agents known to be beneficial to skin healing and/or hydration including but not limited to glucosamine, laminaria digitata extract, yeast extract, carbamide, lactic acid, sodium lactate, honey extract, pentylene glycol, spirea ulmaria extract, camellia sinensis leaf (white tea) extract, horse chestnut extract, stabilized vitamins A, B1, B6, B12, C, and E, tocopherol, inositol, calcium panthothenate, linoleic acid, rosemarinus officinalis extract, biotin, and aloins such as anthraquinone gycosides, polysaccharides, sterols, gelonins, and chromones.

[0126] A single treatment may comprise the serial use of several treatment fluids from the containers 26. For example, the treatment of acne prone skin may comprise salicylic treatment followed by antioxidant treatment, the treatment of aging skin may comprise skin rejuvenator treatment followed by salicylic treatment followed by antioxidant treatment, the treatment of congestion (e.g., blackheads) may comprise skin rejuvenator treatment followed by salicylic treatment followed by antioxidant treatment, the treatment of damaged skin (e.g., due to medication or smoking) may comprise skin rejuvenator treatment followed by antioxidant treatment, the treatment of skin may comprise skin rejuvenator treatment followed by salicylic treatment followed by antioxidant treatment, the treatment of hyperpigmentation may comprise skin rejuvenator treatment followed by salicylic treatment followed by antioxidant treatment, the treatment of melasma may comprise skin rejuvenator treatment followed by salicylic treatment followed by antioxidant treatment, the treatment of sensitive skin may comprise skin rejuvenator treatment followed by antioxidant treatment, and the treatment of thin skin may comprise salicylic treatment followed by antioxidant treatment. Alternatively, a single treatment may comprise the parallel use of a combination

of treatment fluids from the containers 26, for example using a handpiece with a plurality of input lumens 90 as described above. Treatment time with each treatment fluid is preferably about 2 to 20 minutes, but may be longer or shorter depending on the patient, the tip 34 used, and the treatment itself.

[0127] The treatment materials can be used for acne (e.g., by removing oils, bacteria, etc.), melasma, damaged skin (e.g., sun damaged skin, burns, free radical damage, etc.), extractions, skin lightening and/or brightening, skin lines (e.g., fine lines, wrinkles, creases, etc.), dry skin, and the like. The treatment materials can improve skin elasticity and overall health of the skin. For example, if the skin is damaged, antioxidants can be applied to damaged area. Accordingly, the skin treatment system 10 can be used to improve the health, appearance, and/or function of a person's skin.

[0128] Additionally, the line 20 may be periodically flushed with a fluid (e.g., a antimicrobial fluid, water, etc.) contained in one of the containers 26. Antimicrobial fluids can contain any disinfecting agent compatible with skin including, but not limited to, butylene glycol, phenoxyethanol, and methyl isothiazolinone. Preferably, an antimicrobial fluid is rinseaway™, available from Edge Systems Corp. The line 20 should be flushed with antimicrobial fluid at least at the end of each service day. Flushing with antimicrobial fluid is more important when the system is not used for consecutive days.

[0129] As illustrated in Figure 1, the console 12 comprises the manifold system 24 designed to draw treatment fluid from at least one of the containers 26 based on user selection. The manifold system 24 may include switches 29, each corresponding to one of the bottles. The switches 29 can be used to control fluid flow from the containers 26. The illustrated switches 29 can be used to turn Off/On to permit or prevent fluid flow from the bottles 26. The illustrated manifold system 24 has a switch corresponding to each bottle 26. As such, the switches can be used to independently control fluid flow from each of the bottles 26. In other embodiments, a single switch can be used to control the flow of treatment fluid from more than one of the bottles 26.

[0130] With continued reference to Figure 1, the button 246 can be operated to release a corresponding bottle 26 from the manifold system 24. Figure 15A is front perspective view an embodiment in which the manifold system 24 contains quick-release

locks connected to the button 246, wherein the quick-release locks capture the containers 26. As illustrated in Figures 14B and 14C, the quick-release locks 242 engage the closure 266 when the bottle 26 is inserted into the manifold system 24. When the quick-release lock 242 is manually engaged by a user, for example by pulling the button 246, a slide structure 249 surrounding the closure 266 releases, thereby releasing the bottle 26 from the manifold system 24.

[0131] Figure 15E illustrates the slide structure 249 holding the neck 264 of the bottle 26 in an elongated slot 309. The button 246 can be pushed inwardly (indicated by the arrow 313) so that the neck 264 is positioned within the enlarged aperture 317. The bottle 26 can then slide downwardly out of the manifold system 24. The bottle 26 can be replaced with another bottle 26.

[0132] To couple the bottle 26 to the manifold system 24, the closure 266 can be inserted through the aperture 317 of the slide structure 249 when the button 246 is pushed in. Once the closure 266 engages the stop surface 333 (Figure 15C), the spring 247 can push the slide structure 249 until the flange 335 of the bottle 26 rests on the slide structure 249, as shown in Figure 15C. In such a position, the manifold system 24 securely holds the bottle 26. The illustrated slide structure 249 has a sloped portion 269 that can cam along the flange 335 as the button 246 moves outwardly. Accordingly, the slide member 249 can push the closure 266 upwardly until the closure 266 is locked with the manifold 24, as shown in Figure 15C. The quick-release lock 242 is loaded with spring 247 such that the slide structure 249 is biased towards the button 246.

[0133] The manifold system 24 can have a modular design so that it can be removed from the console 12. In some embodiments, the manifold system 24 and associated containers 26 can be removed and transported away from the console 12. Accordingly, the modular manifold systems can be interchanged to provide treatment flexibility. Alternatively, the manifold system 24 can be permanently mounted to the console 12.

[0134] Figures 15B and 15C illustrate cross-sectional views of the manifold system 24 taken along lines 15B-15B and lines 15C-15C, respectively. Both Figures 15B and 15C show the fluid pick up conduit 62 in operative engagement with the bottle 26 through the seal 267. Suction device(s) is preferably in fluid communication with the fluid

pick up conduit 62, and draws fluid out of the bottle 26 through the fluid pick up conduit 62. The fluid can flow through a passageway 161 (see Figure 15C) extending through the pick up conduit 62. The fluid can flow to and through the lumen 171 towards the line 20. If the switch 29 is off, the fluid from one or more of the upstream bottles can flow along the passage 173. The manifold system 24 then directs the fluid into the line 20.

[0135] In certain embodiments, including the embodiment of Figure 1, the console 12 comprises a computer with display 32. In one embodiment, the display 32 is a user input device comprising a touch screen that controls the computer. In other embodiments, the computer may be controlled by input devices such as a keyboard, keypad, mouse, pointing device, or other input device. The computer controls a variety of functions in the console 12. For example, the computer may control the manifold system 24, and thereby the flow of treatment fluids from the containers 26. In one embodiment, the fluid flowing through the line 20 can be changed by pressing a single button on the touch screen display 32. In another embodiment, the computer contains teaching tutorials that are exhibited on the display 32. In yet another embodiment, the user may change program chips within the computer according to treatment and/or patient. In still another embodiment, the computer records patient and treatment data, for example data gathered during treatment.

[0136] The console 12 can also comprise a mechanical system for controlling fluid flow from the containers to the handpiece. One or more pumps, valves, fluid lines, and the like can cooperate to deliver fluid from the containers to the handpiece. The console 12 can be powered pneumatically, electrically, or by any other suitable powering means. The mechanically drive console 12 can have manual controls for controlling fluid flow to the handpiece.

[0137] The console 12 can also comprise additional handpieces suitable for other types of skin treatment. These additional handpieces can be used for pre-treatment or post-treatment in combination with other modalities. For example, the console 12 may include a handpiece for diamond tip abrasion, or "crystal-free" microdermabrasion, as described above. Such a handpiece may be useful for more aggressive treatments, in addition to treatment with the handpiece assembly 18. The diamond tips can range from fine to extra coarse.

[0138] In some embodiments, the console 12 comprises a handpiece including at least one light emitting diode (LED). Light therapy has been shown to improve skin. For example, red light between about 600 and about 700 nanometers and infrared LED light between about 700 and about 1,000 nanometers reduces the appearance of fine lines and superficial hyperpigmentation. For another example, blue LED light at about 430 nanometers improves the appearance of oily and acne-prone skin. Other benefits of light therapy include promotion of collagen production, increased circulation and moisture retention, smoothing of skin texture, and improvement of skin firmness and resilience.

[0139] The console 12 can comprise handpieces for vacuum therapy such as lymphatic drainage and cellulite massage. Vacuum therapy enhances the effects of treatment with the handpiece assembly 18 and LED light therapy. Preferably, the vacuum therapy handpieces are sized appropriately for facial massage and body massage. An example of a multi-modality protocol using a plurality of handpieces comprises diamond tip abrasion, treatment with handpiece assembly 18 and at least one treatment fluid from containers 26, vacuum therapy, red light therapy, and application of sunscreen, for example at a minimum skin protection factor (SPF) of 15. The various modalities may be included and ordered by the user depending on the desired outcome of the overall treatment.

[0140] The console 12 optionally includes any of a plurality of additional features. For example, a digital camera may be used to take pictures of the patient before and after treatment, and the pictures may be stored on the computer. The computer may hold client medical and treatment records. The computer may be connected to a network. The console 12 may store disks. The console 12 may include an ultrasound unit. The console 12 may include a stimulator, such as an electrical stimulator. The console 12 may include an iontophoresis handpiece. The number of additional features is limitless when considering the range of features that a user may wish to incorporate with the treatment provided by the handpiece assembly 18.

[0141] Figure 16 depicts another embodiment of the skin treatment system 10, which may be generally similar to the embodiment illustrated in Figure 1, except as further detailed below. Where possible, similar elements are identified with identical reference numerals in the depiction of the embodiment of Figure 1.

[0142] The line 20 includes an output line 50 for removing waste from the handpiece assembly 18 and an input line 52 for delivering treatment material to the handpiece assembly 18. A valve 300 can be disposed along the input line 52 to inhibit backflow of treatment material. The console 12 can pump treatment material through the input line 52 to the handpiece assembly 18 when the handpiece assembly 18 is applied to the person's skin, as detailed above. The fluid flow through the input line 52 can be reduced or stopped so that the handpiece assembly 18 can be removed from the patient's skin. The valve 300 can inhibit the flow of fluid through the input line 52 towards the console 12. A desired amount of treatment material can therefore be contained in the handpiece assembly 18 and the section 310 of the input tubing 52 extending between the valve 300 and the handpiece assembly 18. When the handpiece assembly 18 is applied to a patient's skin, a vacuum can be applied to the output line 50. The vacuum can draw the treatment material out of the handpiece assembly 18 without a substantial or noticeable delay.

[0143] In some embodiments, the valve 300 can be a one-way valve, such as a duckbill valve, check valve, or other type of valve for inhibiting fluid flow. In alternative embodiments, the valve 300 can comprises a plurality of valves (e.g., one-way valves, flow regulators, adjustable valves, etc.).

[0144] Figure 17 is a cross-sectional view of the line 20. The input and output lines 50, 52 can have different or similar cross sectional flow areas. The illustrated output line 50 has a passageway 312 with a diameter that that is less than the diameter of a passageway 314 of the input line 52. Accordingly, a relatively large slug of treatment material can be stored in the section 310 extending distally from the valve 300 to the handpiece assembly 18. The slug can be quickly delivered out of the handpiece assembly 18 once the handpiece assembly is applied to a patient's skin as detailed above.

[0145] In some embodiments, the section 310 of the output line 50 has a length L greater than 6 inches, 12 inches, 18 inches, 24 inches, and ranges encompassing such lengths. In some embodiments, the section 310 of the output line 50 has a length L greater than 24 inches, 30 inches, 36 inches, and ranges encompassing such lengths. The passageway 312 can have a cross-sectional area that is at least 10%, 30%, 50%, 75%, or 100% greater than the cross-sectional area of the passageway 314. The length L and the diameters of the

passageways 312, 314 can be selected based on the desired amount of treatment material to be stored in the line 20, delivery and removal rates.

[0146] Figures 18 and 19 illustrate a modular handpiece assembly 360 having a cartridge 362 containing treatment material. The illustrated handpiece assembly 360 can be used to deliver treatment material from the cartridge 362. The main body 30 can have a pump for pressuring the treatment material. In one embodiment, the fluid control device includes a power supply, such as a battery, which provides power to electrical components (e.g., pumps or valves) of the handpiece assembly 360. The power supply can be a battery that is preferably disposed within the main body 30 of the handpiece assembly 360. In one arrangement, the battery is a rechargeable battery that can be connected to and recharged by an AC power supply, such as a typical residential electrical outlet. Alternatively, the handpiece assembly 360 can be directly powered by an AC power supply. The power supply can provide power to several components of the handpiece assembly 360. For example, the power supply can provide power to a plurality of fluid control devices 330 and/or a flow control unit. A control switch 371 can be used to turn the handpiece assembly 360 Off/On and/or control the output of the handpiece assembly 360.

[0147] In operation, the cartridge 362 can be inserted into the main body 30. The handpiece assembly 360 can be applied to a patient's skin to deliver treatment material from the cartridge 362 to the patient's skin. After delivering a desired amount of treatment material, the cartridge 362 can be separated from the main body 30. The cartridge 362 can be a one-use or multi-use cartridge. For example, the cartridge can be a non-refillable disposable cartridge.

[0148] The tip 34 can also be used to remove hair or perform other skin treatments. For example, the tip 34 can include one or more razor blades and may be configured to apply a treatment material (e.g., antioxidents, vitamins, serums, growth agents, etc.) to the skin during the shaving process. In such embodiments, the main body 30 can be an elongated handle that is connected to a transversely extending elongate tip 34. In some embodiments, the handpiece assembly can be in the form of a disposable handheld razor. The treatment material can reduce or substantially eliminate problems associated with wet or dry

shaving systems. These treatment materials may be applied prior to, during, before, and/or after shaving.

[0149] The articles disclosed herein may be formed through any suitable means. The various methods and techniques described above provide a number of ways to carry out the invention. Of course, it is to be understood that not necessarily all objectives or advantages described may be achieved in accordance with any particular embodiment described herein. Thus, for example, those skilled in the art will recognize that the methods may be performed in a manner that achieves or optimizes one advantage or group of advantages as taught herein without necessarily achieving other objectives or advantages as may be taught or suggested herein.

[0150] Furthermore, the skilled artisan will recognize the interchangeability of various features from different embodiments disclosed herein. Similarly, the various features and steps discussed above, as well as other known equivalents for each such feature or step, can be mixed and matched by one of ordinary skill in this art to perform methods in accordance with principles described herein. Additionally, the methods which are described and illustrated herein are not limited to the exact sequence of acts described, nor are they necessarily limited to the practice of all of the acts set forth. Other sequences of events or acts, or less than all of the events, or simultaneous occurrence of the events, may be utilized in practicing the embodiments of the invention.

[0151] Although the invention has been disclosed in the context of certain embodiments and examples, it will be understood by those skilled in the art that the invention extends beyond the specifically disclosed embodiments to other alternative embodiments and/or uses and obvious modifications and equivalents thereof. Accordingly, it is not intended that the invention be limited, except as by the appended claims.

WHAT IS CLAIMED IS:

1. An apparatus for treating skin, the apparatus comprising:

a console having a user input device and a handpiece assembly, which is configured to treat skin;

a fluid line providing fluid communication between the console and the handpiece assembly; and

a manifold system coupled to the console and controlled by the user input device, the manifold system being configured to hold releasably a plurality of fluid sources and deliver fluid from at least one of the plurality of fluid sources to the handpiece assembly.

DEVICES AND METHODS FOR TREATING SKIN

Abstract

An apparatus for treating skin has a console with a user input device and a handpiece assembly. The handpiece assembly is configured to treat skin. A fluid line provides fluid communication between the console and the handpiece assembly. A manifold system is coupled to the console and controlled by the user input device. The manifold system is configured to hold releasably a plurality of fluid sources and deliver fluid from at least one of the plurality of fluid sources to the handpiece assembly.

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	Application Number	
Title of Invention	DEVICES AND METHODS FOR TREATING SKIN	

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	EDGE.005C11
	Application Number	
Title of Invention	DEVICES AND METHODS FOR TREATING SKIN	

City	Corona	State/Province	CA	Country of Residence	US

Mailing Address of Inventor:

Address 1	11 Summerwood Ct., #F		
Address 2			
City	Corona	State/Province	CA
Postal Code	92880	Country	US

Inventor 4 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	William		Cohen	

Residence Information (Select One) (•) US Residency ( ) Non US Residency ( ) Active US Military Service

City	Los Alamitos	State/Province	CA	Country of Residence	US

Mailing Address of Inventor:

Address 1	3922 Toland Circle		
Address 2			
City	Los Alamitos	State/Province	CA
Postal Code	90720	Country	US

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

☐ **An Address is being provided for the correspondence Information of this application.**

Customer Number	20995		
Email Address	efiling@knobbe.com	Add Email	Remove Email

Application Information:

Title of the Invention	DEVICES AND METHODS FOR TREATING SKIN		
Attorney Docket Number	EDGE.005C11	Small Entity Status Claimed	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	25	Suggested Figure for Publication (if any)	

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	EDGE.005C11
	Application Number	
Title of Invention	DEVICES AND METHODS FOR TREATING SKIN	

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	◉ Customer Number	○ US Patent Practitioner	○ Limited Recognition (37 CFR 11.9)
Customer Number	20995		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.
When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending		Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
	Continuation of	18/094884	2023-01-09

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	EDGE.005C11
	Application Number	
Title of Invention	DEVICES AND METHODS FOR TREATING SKIN	

Prior Application Status	Patented			Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
18/094884	Continuation of	17/165820	2021-02-02	11547840	2023-01-10
Prior Application Status	Patented			Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
17/165820	Continuation of	16/517268	2019-07-19	11446477	2022-09-20
Prior Application Status	Patented			Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
16/517268	Continuation of	15/660777	2017-07-26	10357642	2019-07-23
Prior Application Status	Patented			Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
15/660777	Continuation of	15/660750	2017-07-26	10357641	2019-07-23
Prior Application Status	Patented			Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
15/660750	Continuation of	14/700789	2015-04-30	9814868	2017-11-14
Prior Application Status	Patented			Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
14/700789	Continuation of	14/698713	2015-04-28	9662482	2017-05-30
Prior Application Status	Patented			Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
14/698713	Continuation of	14/698673	2015-04-28	9550052	2017-01-24
Prior Application Status	Patented			Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
14/698673	Continuation of	13/267554	2011-10-06	9474886	2016-10-25
Prior Application Status	Patented			Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
13/267554	Continuation of	11/392348	2006-03-29	8048089	2011-11-01
Prior Application Status	Expired			Remove	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)		
11/392348	Claims benefit of provisional	60/764668	2006-02-02		

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	EDGE.005C11
	Application Number	
Title of Invention	DEVICES AND METHODS FOR TREATING SKIN	

Prior Application Status	Expired		Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
11/392348	Claims benefit of provisional	60/755310	2005-12-30
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button.			Add

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)[i] the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

			Remove
Application Number	Country[i]	Filing Date (YYYY-MM-DD)	Access Code[i] (if applicable)
Additional Foreign Priority Data may be generated within this form by selecting the **Add** button.			Add

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	EDGE.005C11
	Application Number	
Title of Invention	DEVICES AND METHODS FOR TREATING SKIN	

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	EDGE.005C11
	Application Number	
Title of Invention	DEVICES AND METHODS FOR TREATING SKIN	

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1 Remove

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

Clear

◉ Assignee	○ Legal Representative under 35 U.S.C. 117	○ Joint Inventor
○ Person to whom the inventor is obligated to assign.	○ Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor:

If the Applicant is an Organization check here. ☒

Organization Name	HydraFacial LLC		
Mailing Address Information For Applicant:			
Address 1	2165 E. Spring Street		
Address 2			
City	Long Beach	**State/Province**	CA
Country	US	Postal Code	90806
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button. Add

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	EDGE.005C11
	Application Number	
Title of Invention	DEVICES AND METHODS FOR TREATING SKIN	

Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

Remove

If the Assignee or Non-Applicant Assignee is an Organization check here. ☐

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix

Mailing Address Information For Assignee including Non-Applicant Assignee:

Address 1			
Address 2			
City		**State/Province**	
Country i		Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button. Add

Signature:

Remove

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). **However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).**

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/ Daniel Mittelstein /			Date (YYYY-MM-DD)	2023-10-16
First Name	Daniel	Last Name	Mittelstein	Registration Number	79750

Additional Signature may be generated within this form by selecting the Add button. Add

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	EDGE.005C11
	Application Number	
Title of Invention	DEVICES AND METHODS FOR TREATING SKIN	

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1 The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3 A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent CooperationTreaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

RESCISSION OF ANY PRIOR DISCLAIMERS AND REQUEST TO REVISIT ART

First Inventor: Ignon, Roger	**Conf. No.:** Unknown
App. No.: Unknown	**Filed:** Herewith
Examiner: Unknown	**Art Unit:** Unknown
Title: DEVICES AND METHODS FOR TREATING SKIN	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner:

The claims of the present application are different and possibly broader in scope than the claims pursued in the parent application(s). To the extent any prior amendments or characterizations of the scope of any claim or referenced art could be construed as a disclaimer of any subject matter supported by the present disclosure, Applicant hereby rescinds and retracts such disclaimer. Accordingly, the references previously considered in the parent application(s) may need to be re-visited.

Respectfully submitted,

Knobbe, Martens, Olson & Bear, LLP

Dated: October 16, 2023

By: /Daniel Mittelstein/
Daniel M. Mittelstein
Registration No. 79,750
Registered Practitioner
(949) 760-0404

58420022

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
18/487,916	**10/16/2023 07:41:23 PM ET**	**EDGE.005C11**

Title of Invention

DEVICES AND METHODS FOR TREATING SKIN

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	3841	FILED BY	Wendy Castorena
PATENT CENTER #	63006950	FILING DATE	-
CUSTOMER #	20995	FIRST NAMED INVENTOR	Roger Ignon
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Daniel Mittelstein

Documents

TOTAL DOCUMENTS: 7

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
EDGE-005C11_ADS.pdf	10	Application Data Sheet	2175 KB
EDGE-005C11_DRAW.pdf	25	Drawings-other than black and white line drawings	605 KB
EDGE-005C11_POA.pdf	2	Power of Attorney	1046 KB
EDGE-005C11_DEC.pdf	5	Oath or Declaration filed	5396 KB
EDGE-005C11_SPEC-APP.TEXT.docx	34	Application body structured text document	62 KB

Warning: Bookmarks were found and have been removed.

EDGE-005C11_SPEC.pdf	33	Auxiliary PDF of Application	174 KB
EDGE-005C11_HAKIM.pdf	1	Miscellaneous Incoming Letter	17 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
EDGE-005C11_ADS.pdf	AB8AA18F89592E081F9B7160A8BBE78DB49461A5C7D19C75D66289C60A829BFA50019464DD871A5D5B159B2D34720A70C4A88FC69AB6E0CDCA485943F48C94B2
EDGE-005C11_DRAW.pdf	DFB461E4597B70A282739AE425B2EE443DC5F3E5F6E3C82BC072286910DFCE6A3F99449CDF3FB03CA624FDB204E97D23BC5E14D3C6FC55AAC3C24A6FAEB9E3A3
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EDGE-005C11_SPEC.pdf	40CFFE5024BE3B15CBCDA6C2EC9A54C0091C1CFCACBB25BCCC03C13209BA22C803E86D706406E07F8860A7BFA6AE9452A17A88BCDFC5F5288106F8D9F3FD8791
EDGE-005C11_HAKIM.pdf	69E257BCADFF5521443F729F614E195DE056E725038F853BDECF3BE7B46E2FB0611E091132E1DB1CBC5769B0DD1557D1D8105B9C471BBA012A58B002A8D30289

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as

described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

DocCode - SCORE

SCORE Placeholder Sheet for IFW Content

Application Number: 18487916 Document Date: 10/16/2023

The presence of this form in the IFW record indicates that the following document type was received in electronic format on the date identified above. This content is stored in the SCORE database.

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- Drawing

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Form Revision Date: March 1, 2019