PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6725465

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MICHAEL ASFAW	04/03/2019
DUNXU HU	07/23/2020
PATRICK TIMOTHY MCSWEENEY SIMONS	07/27/2020
VICTORIA LULU WANG LIMKETKAI	07/23/2020

RECEIVING PARTY DATA

Name:	SNAP INC.
Street Address:	3000 31ST STREET
City:	SANTA MONICA
State/Country:	CALIFORNIA
Postal Code:	90405

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	16732899	

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Correspondent Name: SCHWEGMAN LUNDBERG & WOESSNER

Address Line 1: P.O. BOX 2938

Address Line 4: MINNEAPOLIS, MINNESOTA 55402

ATTORNEY DOCKET NUMBER:	4218.735US2
NAME OF SUBMITTER:	MICHELLE RED BEAR
SIGNATURE:	/Michelle Red Bear/
DATE SIGNED:	05/24/2021

Total Attachments: 9

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PATENT 506678649 REEL: 056330 FRAME: 0057

RECORDATION FORM COVER SHEET PATENTS ONLY

Atty Ref/Docket No.: 4218.735US2 Patent and Trademark Office To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof. Name and address of receiving party(ies): 1. Name of conveying party(ies): Name: Snap Inc. Michael Asfaw, Dunxu Hu, Patrick Timothy McSweeney Simons, Victoria Lulu Wang Limketkai Street Address: 3000 31st Street City: <u>Santa Monica</u> State: <u>CA</u> Country: <u>United States of America</u> Additional name(s) of conveying party(ies) attached? Zip: 90405 []Yes [X]No Additional name(s) & address(es) attached? []Yes [X]No 3. Nature of conveyance: [X] Assignment [] Merger [] Security Agreement[] Change of Name [] Other Execution Date: <u>April 3, 2019, July 23, 2020, July 27, 2020, July 23, 2020</u> 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s) B. Patent No.(s) Serial No. 16/732,899 Additional numbers attached? []Yes [X]No 6. Total number of applications and patents involved: 1 5. Name and address of party to whom correspondence 7. Total fee (37 CFR 3.41):\$ 0.00 concerning document should be mailed: Name: Linh-Han H. Nguyen [[Enclosed [Authorized to be charged to deposit account Address: 19-0743 Schwegman Lundberg & Woessner, P.A. P.O. Box 2938 8. Please charge any additional fees or credit any over Minneapolis, Minnesota 55402 payments to our Deposit Account No.: 19-0743 DO NOT USE THIS SPACE Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. 5/24/2021 Linh-Han H. Nguven/Reg. No. 71,874 Name of Person Signing Date Total number of pages including cover sheet: 9

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks Mail Stop Assignment Recordation Services

P.O. Box 1450

Alexandria, VA 22313-1450

ASSIGNMENT

WHEREAS, Michael Asfaw (hereinafter the "Undersigned") has made one or more inventions and other subject matter (hereinafter collectively referred to as the "Invention"); as described in the patent application filed on March 29, 2019, assigned US application serial number 16/370,190, and titled HEAD-WEARABLE APPARATUS TO GENERATE BINAURAL AUDIO.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency, and adequacy of which are hereby acknowledged by the Undersigned, the Undersigned do hereby irrevocably and unconditionally:

CONVEY, ASSIGN, AND TRANSFER to Snap Inc. (the "Assignee"), a corporation of the State of Delaware, having a place of business at 2772 Donald Douglas Loop North, Santa Monica, CA 90405, the Undersigned's entire right, title, and interest for the United States and all foreign countries and jurisdictions in and to:

the Invention which is disclosed in the above-identified application or applications;

such application or applications, and all divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other applications for a patent or patents which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries and jurisdictions based in whole or in part on any of such Invention (including any application for a utility model or an innovation patent application);

all original and reissued patents which have been or shall be issued in the United States and all foreign countries and jurisdictions based in whole or in part on any of such Invention;

including the right to claim priority to the above-identified patent application or applications in relation to subject matter based in whole or in part on the above-identified patent application or applications and any of the foregoing including the right to file foreign applications under the provisions of any convention or treaty;

and including the right to all causes of action, remedies, and other enforcement rights related to the above-identified application or applications, including without limitation the right to sue for past, present, or future infringement, misappropriation, or violation of any and all rights related to the above-identified patent application or applications and any of the foregoing, including the right to obtain and collect damages for past, present, or future infringement;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such Invention to the Assignee;

AUTHORIZE AND REQUEST that any attorney associated with U.S. Patent and Trademark Office (USPTO) Customer No. 144407 may (directly or through his/her designee) delete, insert, or alter any information related to the above-identified patent application or applications or any of the foregoing, after execution of this Assignment;

Assignment

Assignors: Michael Asfaw

Title: HEAD-WEARABLE APPARATUS TO GENERATE BINAURAL AUDIO

Page 2 of 3

Docket No: 4218.735US1 Client Ref. No. P01045-US1

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or shall be made to others by the Undersigned,

and that the full right to convey the same as herein expressed is possessed by the Undersigned;

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the Undersigned shall (1) execute all provisional, non-provisional, divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other patent applications for the Invention; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers for the Invention; (3) communicate to the Assignee all facts known to the Undersigned relating to the Invention and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for the Invention; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such Invention in the Assignee, or for securing, maintaining and enforcing proper patent protection for the Invention;

COVENANT, that should any provision of this agreement be held unenforceable by an authority of competent jurisdiction, such a ruling shall not affect the validity and enforceability of the remaining provisions.

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives, and successors of the Undersigned, and is to extend to the benefit of the successors, assigns, and nominees of the Assignee.

AGREED as of the date of my signature below:

Docket No: 4218.735USI Assignment Assignors: Michael Asfaw
Title: HEAD-WEARABLE APPARATUS TO GENERATE BINAURAL AUDIO Client Ref. No. P01045-US1

Page 3 of 3

Assignor:

Michael Asfaw (Signature):

Name: Michael Asfaw

City/State or Country: Playa Del Rey, CA

4/3/2019 Date:

ASSIGNMENT

WHEREAS, Dunxu Hu, Patrick Timothy McSweeney Simons and Victoria Lulu Wang Limketkai (hereinafter the "Undersigned") have made one or more inventions and other subject matter (hereinafter collectively referred to as the "Invention"); as described in the patent application filed on March 12, 2020, assigned PCT application serial number PCT/US2020/022311, and titled HEAD-WEARABLE APPARATUS TO GENERATE BINAURAL AUDIO and as described in a patent application filed on March 29, 2019 assigned United States application serial number 16/370,190, and titled HEAD-WEARABLE APPARATUS TO GENERATE BINAURAL AUDIO.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency, and adequacy of which are hereby acknowledged by the Undersigned, the Undersigned do hereby irrevocably and unconditionally:

CONVEY, ASSIGN, AND TRANSFER to Snap Inc. (the "Assignee"), a corporation of the State of Delaware, having a place of business at 2772 Donald Douglas Loop North, Santa Monica, CA 90405, the Undersigned's entire right, title, and interest for the United States and all foreign countries and jurisdictions in and to:

the Invention which is disclosed in the above-identified application or applications;

such application or applications, and all divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other applications for a patent or patents which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries and jurisdictions based in whole or in part on any of such Invention (including any application for a utility model or an innovation patent application);

all original and reissued patents which have been or shall be issued in the United States and all foreign countries and jurisdictions based in whole or in part on any of such Invention;

including the right to claim priority to the above-identified patent application or applications in relation to subject matter based in whole or in part on the above-identified patent application or applications and any of the foregoing including the right to file foreign applications under the provisions of any convention or treaty;

and including the right to all causes of action, remedies, and other enforcement rights related to the above-identified application or applications, including without limitation the right to sue for past, present, or future infringement, misappropriation, or violation of any and all rights related to the above-identified patent application or applications and any of the foregoing, including the right to obtain and collect damages for past, present, or future infringement;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such Invention to the Assignee;

AUTHORIZE AND REQUEST that any attorney associated with U.S. Patent and Trademark Office (USPTO) Customer No. 144407 may (directly or through his/her designee) delete, insert, or alter any

Docket No: 4218,735US1 and 4218,735WO1 Client Ref. No. P01045-US1 and P01045-WO1

Assignment
Assignors: Dunxu Hu et al.

Title: HEAD-WEARABLE APPARATUS TO GENERATE BINAURAL AUDIO

Page 2 of 5

information related to the above-identified patent application or applications or any of the foregoing, after execution of this Assignment;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or shall be made to others by the Undersigned, and that the full right to convey the same as herein expressed is possessed by the Undersigned;

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the Undersigned shall (1) execute all provisional, non-provisional, divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other patent applications for the Invention; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers for the Invention; (3) communicate to the Assignee all facts known to the Undersigned relating to the Invention and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for the Invention; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such Invention in the Assignee, or for securing, maintaining and enforcing proper patent protection for the Invention;

COVENANT, that should any provision of this agreement be held unenforceable by an authority of competent jurisdiction, such a ruling shall not affect the validity and enforceability of the remaining provisions.

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives, and successors of the Undersigned, and is to extend to the benefit of the successors, assigns, and nominees of the Assignee.

AGREED as of the date of my signature below:

Assignment

Page 3 of 5

Assignors: Dunxu Hu et al.
Title: HEAD-WEARABLE APPARATUS TO GENERATE BINAURAL AUDIO

Docket No: 4218.735US1 and 4218.735WO1 Client Ref. No. P01045-US1 and P01045-WO1

Assignor:			
(Signature):	/	Dunxu Hu	/
	_	Dunxu Hu e or Country: Venice, CA	***************************************
Date:	Jul 23, 2	2020	

Assignment

Assignment
Assignors: Dunxu Hu et al.
Title: HEAD-WEARABLE APPARATUS TO GENERATE BINAURAL AUDIO
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Docket No: 4218.735US1 and 4218.735WO1 Client Ref. No. P01045-US1 and P01045-WO1

Assignor:			
(Signature):	/	Tim Simons	/
	-	Patrick Timothy McSweeney Simons te or Country: Downey, CA	
Date:	Jul 27, 1	2020	

Assignment
Assignors: Dunxu Hu et al.

Title: HEAD-WEARABLE APPARATUS TO GENERATE BINAURAL AUDIO

Docket No: 4218.735US1 and 4218.735WO1 Client Ref. No. P01045-US1 and P01045-WO1

Title: HEAD-WEAKABLE APPARATUS TO GENERATE BINAURAL AUI Page 5 of 5

Assignor:

(Signature): / WWW

Name: Victoria Lulu Wang Limketkai
City/State or Country: Santa Monica, CA

Date: Jul 23, 2020

PATENT REEL: 056330 FRAME: 0067

RECORDED: 05/24/2021