PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5943734

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JEETENDRA HUKMICHAND JAIN	02/03/2020
ZERAY MISGINA MEASHO	01/09/2020
FREDERICK JOHN CHARLES VENUK	01/09/2020
MARIANNE SCHAUFELE CRAIG	01/09/2020
JAMES HAROLD LONEY	01/09/2020

RECEIVING PARTY DATA

Name:	BANK OF AMERICA CORPORATION
Street Address:	214 NORTH TRYON STREET
Internal Address:	MAILCODE: NC1-027-20-05
City:	CHARLOTTE
State/Country:	NORTH CAROLINA
Postal Code:	28255

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16780557

CORRESPONDENCE DATA

Fax Number: (704)331-1159

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.

Phone: 704-331-2359

bacdocket@mvalaw.com, boauspto@mvalaw.com, Email:

cindigraser@mvalaw.com, IPlaw@mvalaw.com

Correspondent Name: MOORE AND VAN ALLEN PLLC FOR BOFA Address Line 1: 100 NORTH TRYON STREET, SUITE 4700 Address Line 4: CHARLOTTE, NORTH CAROLINA 28202

ATTORNEY DOCKET NUMBER:	9567US1.014033.3647
NAME OF SUBMITTER:	ANUP SHRINIVASAN IYER
SIGNATURE:	/Anup Shrinivasan Iyer/
DATE SIGNED:	02/03/2020
	This document serves as an Oath/Declaration (37 CFR 1.63).

PATENT REEL: 051704 FRAME: 0497 505897033

Total Attachments: 15 source=014033-3647-decs-assign#page1.tif source=014033-3647-decs-assign#page2.tif source=014033-3647-decs-assign#page3.tif source=014033-3647-decs-assign#page4.tif source=014033-3647-decs-assign#page5.tif source=014033-3647-decs-assign#page6.tif source=014033-3647-decs-assign#page7.tif source=014033-3647-decs-assign#page8.tif source=014033-3647-decs-assign#page9.tif source=014033-3647-decs-assign#page10.tif source=014033-3647-decs-assign#page11.tif source=014033-3647-decs-assign#page12.tif source=014033-3647-decs-assign#page13.tif source=014033-3647-decs-assign#page14.tif source=014033-3647-decs-assign#page15.tif

PATENT REEL: 051704 FRAME: 0498

Title of Invention	RESOURCE TRANSFER AUTHORIZATION DECISION ENGINE	
As the below	named inventor, I hereby declare that:	
This declarati	(A) THE BUILDING ADDITION, OF	
	United States application or PCT international application number	
The above-ide	entified 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.	
	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or t of not more than five (5) years, or both.	
	ASSIGNMENT	
WHEREAS, I, Jeetendra Hukmichand Jain ("Assignor"), a citizen of India (Country), residing in Charlotte, North Carolina (City, State/Province) have invented the invention(s) described in the below listed application(s). If the following lines are blank, the above application was filed on even date herewith, otherwise, to comply with 37 C.F.R. §3.21 for recordal of this assignment, I, an assignor below, hereby authorize the attorneys for Bank of America to insert the filing date and application number below after they become known and prior to filing the recordation.		
	U.S. Application No. 16/780557 filed February 3, 2020	
Delaware, and title and inter	NK OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of dhaving its offices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, est in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the of America, and in any and all countries foreign thereto:	
NOW, THEREFORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or payment for the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I said Assignor, by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal representatives, the full and exclusive right, title and interest for the territory of the United States of America and all countries foreign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), in and to said inventions and in and to all applications and Letters Patent granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, reviews, continuations, continuation-in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, confidential information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby authorize and request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said inventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and interest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment. I agree that I will without further consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I will execute all non-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal proceedings, sign all lawful papers, make all rightful oaths, and gene		

WARNING:

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purposes	are not retained in the application me and t	nererore are mor publicly available.	
LEGAL NA	ME OF INVENTOR		
Inventor:	Jeetendra Hukmichand Jain	Date: <u>02/03/2020</u>	
Signature	: White		-

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 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
- 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.
- 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.

Title of Invention	RESOURCE TRANSFER AUTHORIZATION DECISION ENGINE
As the below	named inventor, I hereby declare that:
This declaration is directed to:	[MI] THE ALLBERT APPRICATION, OF
	United States application or PCT international application number
The above-ide	entified 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.
	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or or not not more than five (5) years, or both.
	ASSIGNMENT
Texas (City, St are blank, the this assignme	Zeray Misgina Measho ("Assignor"), a citizen of the United States of America (Country), residing in Dallas, ate/Province) have invented the invention(s) described in the below listed application(s). If the following lines above application was filed on even date herewith, otherwise, to comply with 37 C.F.R. §3.21 for recordal of int, I, an assignor below, hereby authorize the attorneys for Bank of America to insert the filing date and imber below after they become known and prior to filing the recordation.
	U.S. Application No. 16/780557 , filed February 3, 2020
Delaware, and title and inter	NK OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of a having its offices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, est in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the of America, and in any and all countries foreign thereto:
NOW, THEREFORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or payment for the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I said Assignor, by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal representatives, the full and exclusive right, title and interest for the territory of the United States of America and all countries foreign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), in and to said inventions and in and to all applications and Letters Patent granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, reviews, continuations, continuation-in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, confidential information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby authorize and request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said inventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and interest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment. I agree that I will without further consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I will execute all non-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal proceedings, sign all lawful papers, make all rightful oaths, and gene	

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LEGAL NAME OF INVENTOR	
Inventor: Zeray Misgina Measho	Date: 01/09/2020
Signature:	

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As the below	named inventor, I hereby declare that:
This declarati	[A] THE attached application, or
	United States application or PCT international application number
The above-ide	entified application was made or authorized to be made by me.
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	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or t of not more than five (5) years, or both.
	ASSIGNMENT
Highland Villa the following §3.21 for reco	Frederick John Charles Venuk ("Assignor"), a citizen of the United States of America (Country), residing in ge, Texas (City, State/Province) have invented the invention(s) described in the below listed application(s). If lines are blank, the above application was filed on even date herewith, otherwise, to comply with 37 C.F.R. ordal of this assignment, I, an assignor below, hereby authorize the attorneys for Bank of America to insert the dapplication number below after they become known and prior to filling the recordation.
	U.S. Application No. <u>16/780557</u> filed <u>February 3, 2020</u>
Delaware, and title and inter	NK OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of displaying the displaying the entire right, rest in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the of America, and in any and all countries foreign thereto:
payment for t said Assignor, representative countries for a countries in it entitled undee Letters Paten continuation- secrets, confi- authorize and Patent on sai- right, title and agree that I we successors, as will execute a testify in any	FORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal es, the full and exclusive right, title and interest for the territory of the United States of America and all eign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign is own name and to claim any priority rights for such foreign applications to which such applications are international conventions, treaties, or otherwise), in and to said inventions and in and to all applications and togranted therefor, and all non-provisionals, divisionals, reissues, reexaminations, reviews, continuations, in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade dential information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby the request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters do inventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire dointerest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment. I will without further consideration, but at the expense of Assignee, communicate to said Assignee, or its science, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I all non-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, legal proceedings, sign all lawful papers, make all rightful oaths, and generally do everything reasonable for , its successors, assigns, and nominees, to obtain and enforce proper patent protection for said inventions in all

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LEGAL NAME OF INVENTOR	
Inventor: Frederick John Charles Venuk	Date: January 9, 2020
Signature: ZwJdoCharl, Vand:	

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As the below	named inventor, I hereby declare that:
This declaration is directed to:	j/ i nie attacheu apphiation, oi
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	ASSIGNMENT
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LEGAL NA	ME OF INVENTOR	
Inventor:	MARIANNE SCHAUFELE CRAIG	Date:January 9, 2020
Signature:	marienna Schulete Coing	

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.

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 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.
- 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).
- 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.
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Title of Invention	RESOURCE TRANSFER AUTHORIZATION DECISION ENGINE			
As the below	named inventor, I hereby deciare that:	~~~		
This declaration is directed to:	M: The attached application, or			
	United States application or PCT international application number			
The above-ide	entified 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.			
	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or t of not more than five (5) years, or both.			
	ASSIGNMENT	2000		
WHEREAS, I, James Harold Loney ("Assignor"), a citizen of the United States of America (Country), residing in Charlotte, North Carolina (City, State/Province) have invented the invention(s) described in the below listed application(s). If the following lines are blank, the above application was filed on even date herewith, otherwise, to comply with 37 C.F.R. §3.21 for recordal of this assignment, I, an assignor below, hereby authorize the attorneys for Bank of America to insert the filing date and application number below after they become known and prior to filing the recordation.				
	U.S. Application No. 16/780557 filed February 3, 2020			
Delaware, and title and inter	ANK OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of d having its offices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, rest in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the of America, and in any and all countries foreign thereto:			
payment for t said Assignor, representativ countries fore countries in it entitled unde Letters Patent continuation- secrets, confi- authorize and Patent on said right, title and agree that I w successors, as will execute a testify in any	FORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, to by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal res, the full and exclusive right, title and interest for the territory of the United States of America and all leigh thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign its own name and to claim any priority rights for such foreign applications to which such applications are international conventions, treaties, or otherwise), in and to said inventions of and in and to all applications and it granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, reviews, continuations, in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade dential information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby direquest the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters of inventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire different interest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment. I will without further consideration, but at the expense of Assignee, communicate to said Assignee, or its signs, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I all non-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, legal proceedings, sign all lawful papers, make all rightful oaths, and generally do everything reasonable for this successors, assigns, and nominees, to obtain and enforce proper patent protection for said inventions in a			

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 nurroses are not retained in the application file and therefore are not publicly available.

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LEGAL NAME OF INVENTOR	
Inventor: James Harold Loney	Date: January 9, 2020
Signature: JAL	

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RECORDED: 02/03/2020