505845900 01/03/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

EPAS ID: PAT5892836

CONVEYING PARTY DATA

Name	Execution Date
AMANDA J. ADAMS	11/30/2016
JOSEPH N. JOHANSEN	11/30/2016
MICHAEL OGRINZ	11/30/2016
HEATHER DOLAN	11/30/2016
WILLIAM P. JACOBSON	11/29/2016
MANU J. KURIAN	11/30/2016

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	16733551	

CORRESPONDENCE DATA

Fax Number: (214)661-4688

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: 2149536759

Email: ptomail1@bakerbotts.com

Correspondent Name: BAKER BOTTS LLP/BANK OF AMERICA CORPORAT

Address Line 1: 2001 ROSS AVENUE

Address Line 2: SUITE 900

Address Line 4: DALLAS, TEXAS 75201

ATTORNEY DOCKET NUMBER: 015444.1559

NAME OF SUBMITTER: LATOYA JENKINS

SIGNATURE: /Latoya Jenkins/
DATE SIGNED: 01/03/2020

505845900 PATENT REEL: 051409 FRAME: 0307

Total Attachments: 12 source=015444.1559 Assignments#page1.tif source=015444.1559 Assignments#page3.tif source=015444.1559 Assignments#page3.tif source=015444.1559 Assignments#page4.tif source=015444.1559 Assignments#page5.tif source=015444.1559 Assignments#page6.tif source=015444.1559 Assignments#page7.tif source=015444.1559 Assignments#page8.tif source=015444.1559 Assignments#page9.tif source=015444.1559 Assignments#page10.tif source=015444.1559 Assignments#page11.tif source=015444.1559 Assignments#page11.tif

PATENT REEL: 051409 FRAME: 0308

Title of Invention	AUGMENTED REALITY DYNAMIC A	UTHENTICATION
As the below name	ed inventor, I hereby declare that:	
This declaration is		
directed to:		on, or
		tion or PCT international application number
The above-identifie	ed application was made or author	ized to be made by me.
I believe that I am t	the original inventor or an original	joint inventor of a claimed invention in the application.
· ·	dge that any willful false statement orisonment of not more than five (5	made in this declaration is punishable under 18 U.S.C. 5) years, or both.
	ASS	IGNMENT
FLINT, FLINTSH blank, the above recordal of this a	IIRE (City, State/Province) have in application was filed on even date assignment, I an assignor below, he	citizen of the UNITED KINGDOM (Country), residing in vented the above invention. If the following lines are herewith, otherwise, to comply with 37 C.F.R. §3.21 for ereby authorize the attorneys for Bank of America to after they become known and prior to filing the
U.S. Application N	16/733,551 No	, filed
the State of Delaw acquiring the entir	vare, and having its offices and place re right, title and interest in and to t	Assignee"), a Corporation duly organized under the laws of ce of business at Charlotte, North Carolina, is desirous of the aforesaid inventions and in and to all applications and of America, and in any and all countries foreign thereto:
including salary or which is hereby a Assignee, its succeive the territory of the in space, {including salary or sal	r payment for the making of invention acknowledged, I said Assignor, by the cessors, assigns and legal represence by United States of America and all	, be it known that, for good and valuable consideration, ons, or employee benefits, the receipt and sufficiency of hese presents do sell, assign and transfer unto said tatives, the full and exclusive right, title and interest for countries foreign thereto, and throughout the world and ent in foreign countries in its own name and to claim any such applications are

Active 30466170.1

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 PT0-2038 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 PT0-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: AMANDA J. ADAMS

Date: 30 - Nov - 2016

Signature: Which

Active 30466170.1

Title of Invention	AUGMENTED REALITY DYNAMIC AUTHENTICATION
As the below name	ed inventor, I hereby declare that:
This declaration is	
directed to:	☐ The attached application, or
	☐ United States application or PCT international application numberfiled on
The above-identifie	ed application was made or authorized to be made by me.
I believe that I am t	the original inventor or an original joint inventor of a claimed invention in the application.
	dge that any willful false statement made in this declaration is punishable under 18 U.S.C. prisonment of not more than five (5) years, or both.
	ASSIGNMENT
in ROCK HILL, S following lines are 37 C.F.R. §3.21 fo	OSEPH N. JOHANSEN ("Assignor"), a citizen of the UNITED STATES (Country), residing COUTH CAROLINA (City, State/Province) have invented the above invention. If the e blank, the above application was filed on even date herewith, otherwise, to comply with or recordal of this assignment, I an assignor below, hereby authorize the attorneys for to insert the filing date and application number below after they become known and prior dation.
U.S. Application N	No, filed, filed
the State of Delaw acquiring the entir	KOF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of vare, and having its offices and place of business at Charlotte, North Carolina, is desirous of re right, title and interest in and to the aforesaid inventions and in and to all applications and erefor granted in the United States of America, and in any and all countries foreign thereto:
including salary or which is hereby a Assignee, its succ the territory of the in space, {including	RE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, repayment for the making of inventions, or employee benefits, the receipt and sufficiency of acknowledged, I said Assignor, by these presents do sell, assign and transfer unto said cessors, assigns and legal representatives, the full and exclusive right, title and interest for a United States of America and all countries foreign thereto, and throughout the world and any the right to apply for Letters Patent in foreign countries in its own name and to claim any such foreign applications to which such applications are

Active 30466131.1

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 PT0-2038 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 PT0-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: JOSEPH N. JOHANSEN

Date: 11/30/16

Signature:

Active 30466131.1

		i	
Title of Invention	AUGMENTED REALITY DYNAMIC AUTHENT	ICATION	
As the below name	ed inventor, I hereby declare that:		
This declaration is			
directed to:	oxtimes The attached application,	or	
	☐ United States application filed on		ation number
The above-identific	ed application was made or authorized	to be made by me.	
I believe that I am	the original inventor or an original join	inventor of a claimed inv	ention in the application.
_	dge that any willful false statement ma prisonment of not more than five (5) ye		unishable under 18 U.S.C.
	ASSIGN	MENT	
EASTON, CONN are blank, the ab for recordal of thi	ICHAEL OGRINZ ("Assignor"), a citized IECTICUT (City, State/Province) have ove application was filed on even dated is assignment, I an assignor below, he hate and application number below afted	invented the above inver herewith, otherwise, to co reby authorize the attorne	ntion. If the following lines omply with 37 C.F.R. §3.21 eys for Bank of America to
U.S. Application N	No. 16/733,551	, filed01/03/202	20
the State of Delav	KOF AMERICA CORPORATION ("Ass vare, and having its offices and place of re right, title and interest in and to the erefor granted in the United States of A	f business at Charlotte, N aforesaid inventions and i	orth Carolina, is desirous of n and to all applications and
including salary or which is hereby a Assignee, its succ the territory of the in space, {including	RE, TO WHOM IT MAY CONCERN, be repayment for the making of inventions acknowledged, I said Assignor, by these cessors, assigns and legal representative. United States of America and all coung the right to apply for Letters Patent such foreign applications to which such	, or employee benefits, the e presents do sell, assign es, the full and exclusive intries foreign thereto, and in foreign countries in its	e receipt and sufficiency of and transfer unto said right, title and interest for throughout the world and

Active 30466178.1

PATENT REEL: 051409 FRAME: 0313

(P7448-US-ORG1)

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, 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 generally do everything reasonable for said Assignee, its successors, assigns, and nominees, to obtain and enforce proper patent protection for said inventions in all countries.

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 PT0-2038 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 PT0-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF I	NVENTOR	
Inventor: MICHAEL OGRIDZ Signature:	Date:	11/30/16

Active 30466178.1

Title of Invention	AUGMENTED REALITY DYNAMIC AUTH	ENTICATION
As the below name	ed inventor, I hereby declare that:	
This declaration is		
directed to:	oxtimes The attached applicati	on, or
		ion or PCT international application number
The above-identifie	ed application was made or author	ized to be made by me.
I believe that I am t	the original inventor or an original	oint inventor of a claimed invention in the application.
-	dge that any willful false statement orisonment of not more than five (5	made in this declaration is punishable under 18 U.S.C. i) years, or both.
	ASS	IGNMENT
SARASOTA, FLO blank, the above recordal of this a	ORIDA (City, State/Province) have application was filed on even date assignment, I an assignor below, he	tizen of the UNITED STATES (Country), residing in invented the above invention. If the following lines are herewith, otherwise, to comply with 37 C.F.R. §3.21 for ereby authorize the attorneys for Bank of America to after they become known and prior to filing the
U.S. Application N	No16/733,551	, filed 01/03/2020
WHEREAS, BANK OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of Delaware, and having its offices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, title and interest in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the United States of America, and in any and all countries foreign thereto:		
including salary or which is hereby a Assignee, its succ the territory of the in space, {includir	r payment for the making of inventing cknowledged, I said Assignor, by to cessors, assigns and legal represence United States of America and all	be it known that, for good and valuable consideration, ons, or employee benefits, the receipt and sufficiency of hese presents do sell, assign and transfer unto said tatives, the full and exclusive right, title and interest for countries foreign thereto, and throughout the world and ent in foreign countries in its own name and to claim any such applications are

Active 30466197.1

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 PT0-2038 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 PT0-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR			
Inventor: HEATHER DOLAN	Date:11/30/16		
Signature:			

Title of AUGMENTED REALITY DYNAMIC AUTHENTICATION				
Invention				
As the below name	ed inventor, I hereby declare that:			
This declaration is				
directed to:	☑ The attached application, or			
	United States application or PCT international application numberfiled on			
The above-identific	ed 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.			
	dge that any willful false statement made in this declaration is punishable under 18 U.S.C. prisonment of not more than five (5) years, or both.			
	ASSIGNMENT			
in MATTHEWS, following lines ar 37 C.F.R. §3.21f	ILLIAM P. JACOBSON ("Assignor"), a citizen of the UNITED STATES (Country), residing NORTH CAROLINA (City, State/Province) have invented the above invention. If the le blank, the above application was filed on even date herewith, otherwise, to comply with for recordal of this assignment, I an assignor below, hereby authorize the attorneys for to insert the filing date and application number below after they become known and prior dation.			
U.S. Application I	No. 16/733,551 , filed 01/03/2020			
WHEREAS, BANK OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of Delaware, and having its offices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, title and interest in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the United States 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				

Active 30466212.1

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 PT0-2038 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 PT0-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL	NAME OF INVENTOR
Inventor: WILLIAM P. JACOBSON	Date: 11/29/16
Signature: William Jacobson	

Title of Invention	AUGMENTED REALITY DYNAMIO	CAUTHENTICATION
As the below name	ed inventor, I hereby declare tha	at:
This declaration is		
directed to:	☐ The attached applic	cation, or
		cation or PCT international application number
The above-identifie	ed application was made or autl	norized to be made by me.
I believe that I am t	the original inventor or an origin	al joint inventor of a claimed invention in the application.
	dge that any willful false statemorisonment of not more than five	ent made in this declaration is punishable under 18 U.S.C. (5) years, or both.
	A	SSIGNMENT
the above application of this assignment	s (City, State/Province) have inv ation was filed on even date here nt, I an assignor below, hereby a	citizen of the UNITED STATES (Country), residing in ented the above invention. If the following lines are blank, ewith, otherwise, to comply with 37 C.F.R. §3.21 for recordal authorize the attorneys for Bank of America to insert the ey become known and prior to filing the recordation.
U.S. Application N	lo. 16/733,551	, filed01/03/2020
the State of Delawa	are, and having its offices and p e right, title and interest in and to	("Assignee"), a Corporation duly organized under the laws of lace of business at Charlotte, North Carolina, is desirous of the aforesaid inventions and in and to all applications and as of America, and in any and all countries foreign thereto:
including salary or which is hereby ac Assignee, its succe the territory of the	payment for the making of inver cknowledged, I said Assignor, b essors, assigns and legal represe United States of America and a	N, be it known that, for good and valuable consideration, nations, or employee benefits, the receipt and sufficiency of y these presents do sell, assign and transfer unto said entatives, the full and exclusive right, title and interest for all countries foreign thereto, and throughout the world and attent in foreign countries in its own name and to claim any

PATENT

WARNING

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LEGAL NAME OF INVENTOR

Inventor: MANU J. KURIAN

Date: 11/20/24/6

Signature: M.J.Kwrin

Active 30466218,1

PATENT REEL: 051409 FRAME: 0320

RECORDED: 01/03/2020