

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT4644834

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
RICHARD CO	10/17/2017
TIMOTHY FRANCIS MCCOURT	10/16/2017
THOMAS PATRICK RAFFERTY	10/17/2017
JOHN BALAAM ALEXANDER KERPEL	10/16/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	CHICAGO MERCANTILE EXCHANGE INC.
<b>Street Address:</b>	20 SOUTH WACKER DRIVE
<b>City:</b>	CHICAGO
<b>State/Country:</b>	ILLINOIS
<b>Postal Code:</b>	60606
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15786260
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(312)463-5001
<i>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.</i>	
<b>Phone:</b>	312-463-5000
<b>Email:</b>	PTO-30756@bannerwitcoff.com, ksimoni@bannerwitcoff.com, michelle.marsh@cmegroup.com
<b>Correspondent Name:</b>	BANNER & WITCOFF, LTD., ATTORNEYS FOR CL
<b>Address Line 1:</b>	10 SOUTH WACKER DRIVE
<b>Address Line 2:</b>	SUITE 3000
<b>Address Line 4:</b>	CHICAGO, ILLINOIS 60606
<b>ATTORNEY DOCKET NUMBER:</b>	006119.00551
<b>NAME OF SUBMITTER:</b>	CHARLES L. MILLER
<b>SIGNATURE:</b>	/Charles L. Miller/
<b>DATE SIGNED:</b>	10/17/2017
<b>Total Attachments: 8</b>	
source=ASSIGNMENT#page1.tif	

source=ASSIGNMENT#page2.tif  
source=ASSIGNMENT#page3.tif  
source=ASSIGNMENT#page4.tif  
source=ASSIGNMENT#page5.tif  
source=ASSIGNMENT#page6.tif  
source=ASSIGNMENT#page7.tif  
source=ASSIGNMENT#page8.tif

## ASSIGNMENT

WHEREAS, we, Richard Co, Timothy Francis McCourt, Thomas Patrick Rafferty and John Balaam Alexander Kerpel (ASSIGNOR) are the inventors of certain inventions and improvements described in a U.S. patent application having the title **System for Processing Withholding Payments**, which application was filed on 10/17/17 and assigned Application No. 15/786,260;

WHEREAS, Chicago Mercantile Exchange Inc., 20 South Wacker Drive, Chicago, Illinois 60606 (ASSIGNEE), desires to acquire the entire right, title and interest in and to said application, inventions and improvements and any patents that may be granted on or as a result thereof in the United States of America (U.S.) and in any and all foreign countries;

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged,

We hereby assign, to the above named ASSIGNEE, its successors, assigns and legal representatives (NOMINEES), the entire right, title and interest in and to said application (including the right to claim priority thereto), inventions and improvements throughout the world, and any and all patents, petty patents and utility model patents which may be granted therefor, and all continuations, continuations-in-part, divisions, reissues, extensions, renewals, and any non-provisional based on a provisional thereof (LETTERS PATENT).

And we covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement or do anything in conflict herewith;

And we further covenant and agree that we will without undue delay execute without further consideration all such papers as may be necessary to perfect the title to said application, inventions and improvements, and LETTERS PATENT in the ASSIGNEE or its NOMINEES, and I agree to communicate to said ASSIGNEE or its NOMINEES all known facts respecting said application, inventions, improvements, and LETTERS PATENT, to testify in any legal proceedings, to sign all lawful papers, and generally to do all things necessary to aid ASSIGNEE or its NOMINEES to obtain and enforce for their own benefit patent protection for said application, inventions and improvements in any and all countries, all at the expense, however, of the ASSIGNEE or its NOMINEES;

And we authorize the ASSIGNEE or its NOMINEES to file in my name or their own, as appropriate, application for LETTERS PATENT in any and all countries of the world, and I authorize and request the Commissioner of Patents and Trademarks of the United States, and any proper official of any country, to issue to said ASSIGNEE or its

NOMINEES any and all LETTERS PATENT for said application, inventions and improvements, for their sole use, to the full end of the term for which such LETTERS PATENT may be granted;

And, we hereby grant the attorneys at the law firm of Banner & Witcoff the power to insert into this document information sufficient to identify the patent application to which this assignment pertains.

IN TESTIMONY WHEREOF, the Assignors have executed this Agreement.

10/17/2017

\_\_\_\_\_  
Date

DocuSigned by:  
*Richard Co*  
-----00B5497135BB456...Q

\_\_\_\_\_  
Date

\_\_\_\_\_  
Timothy Francis McCourt

\_\_\_\_\_  
Date

\_\_\_\_\_  
Thomas Patrick Rafferty

\_\_\_\_\_  
Date

\_\_\_\_\_  
John Balaam Alexander Kerpel

## ASSIGNMENT

WHEREAS, we, Richard Co, Timothy Francis McCourt, Thomas Patrick Rafferty and John Balaam Alexander Kerpel (ASSIGNOR) are the inventors of certain inventions and improvements described in a U.S. patent application having the title **System for Processing Withholding Payments**, which application was filed on 10/17/17 and assigned Application No. 15/786,260;

WHEREAS, Chicago Mercantile Exchange Inc., 20 South Wacker Drive, Chicago, Illinois 60606 (ASSIGNEE), desires to acquire the entire right, title and interest in and to said application, inventions and improvements and any patents that may be granted on or as a result thereof in the United States of America (U.S.) and in any and all foreign countries;

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged,

We hereby assign, to the above named ASSIGNEE, its successors, assigns and legal representatives (NOMINEES), the entire right, title and interest in and to said application (including the right to claim priority thereto), inventions and improvements throughout the world, and any and all patents, petty patents and utility model patents which may be granted therefor, and all continuations, continuations-in-part, divisions, reissues, extensions, renewals, and any non-provisional based on a provisional thereof (LETTERS PATENT).

And we covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement or do anything in conflict herewith;

And we further covenant and agree that we will without undue delay execute without further consideration all such papers as may be necessary to perfect the title to said application, inventions and improvements, and LETTERS PATENT in the ASSIGNEE or its NOMINEES, and I agree to communicate to said ASSIGNEE or its NOMINEES all known facts respecting said application, inventions, improvements, and LETTERS PATENT, to testify in any legal proceedings, to sign all lawful papers, and generally to do all things necessary to aid ASSIGNEE or its NOMINEES to obtain and enforce for their own benefit patent protection for said application, inventions and improvements in any and all countries, all at the expense, however, of the ASSIGNEE or its NOMINEES;

And we authorize the ASSIGNEE or its NOMINEES to file in my name or their own, as appropriate, application for LETTERS PATENT in any and all countries of the world, and I authorize and request the Commissioner of Patents and Trademarks of the United States, and any proper official of any country, to issue to said ASSIGNEE or its

NOMINEES any and all LETTERS PATENT for said application, inventions and improvements, for their sole use, to the full end of the term for which such LETTERS PATENT may be granted;

And, we hereby grant the attorneys at the law firm of Banner & Witcoff the power to insert into this document information sufficient to identify the patent application to which this assignment pertains.

IN TESTIMONY WHEREOF, the Assignors have executed this Agreement.

\_\_\_\_\_  
Date

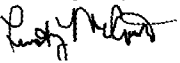
10/16/2017

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

\_\_\_\_\_  
Richard Co

DocuSigned by:  
  
\_\_\_\_\_  
Francis McCourt  
EB03711BC9B04E7

\_\_\_\_\_  
Thomas Patrick Rafferty

\_\_\_\_\_  
John Balaam Alexander Kerpel

## ASSIGNMENT

WHEREAS, we, Richard Co, Timothy Francis McCourt, Thomas Patrick Rafferty and John Balaam Alexander Kerpel (ASSIGNOR) are the inventors of certain inventions and improvements described in a U.S. patent application having the title **System for Processing Withholding Payments**, which application was filed on 10/17/17 and assigned Application No. 15/786,260;

WHEREAS, Chicago Mercantile Exchange Inc., 20 South Wacker Drive, Chicago, Illinois 60606 (ASSIGNEE), desires to acquire the entire right, title and interest in and to said application, inventions and improvements and any patents that may be granted on or as a result thereof in the United States of America (U.S.) and in any and all foreign countries;

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged,

We hereby assign, to the above named ASSIGNEE, its successors, assigns and legal representatives (NOMINEES), the entire right, title and interest in and to said application (including the right to claim priority thereto), inventions and improvements throughout the world, and any and all patents, petty patents and utility model patents which may be granted therefor, and all continuations, continuations-in-part, divisions, reissues, extensions, renewals, and any non-provisional based on a provisional thereof (LETTERS PATENT).

And we covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement or do anything in conflict herewith;

And we further covenant and agree that we will without undue delay execute without further consideration all such papers as may be necessary to perfect the title to said application, inventions and improvements, and LETTERS PATENT in the ASSIGNEE or its NOMINEES, and I agree to communicate to said ASSIGNEE or its NOMINEES all known facts respecting said application, inventions, improvements, and LETTERS PATENT, to testify in any legal proceedings, to sign all lawful papers, and generally to do all things necessary to aid ASSIGNEE or its NOMINEES to obtain and enforce for their own benefit patent protection for said application, inventions and improvements in any and all countries, all at the expense, however, of the ASSIGNEE or its NOMINEES;

And we authorize the ASSIGNEE or its NOMINEES to file in my name or their own, as appropriate, application for LETTERS PATENT in any and all countries of the world, and I authorize and request the Commissioner of Patents and Trademarks of the United States, and any proper official of any country, to issue to said ASSIGNEE or its

NOMINEES any and all LETTERS PATENT for said application, inventions and improvements, for their sole use, to the full end of the term for which such LETTERS PATENT may be granted;

And, we hereby grant the attorneys at the law firm of Banner & Witcoff the power to insert into this document information sufficient to identify the patent application to which this assignment pertains.

IN TESTIMONY WHEREOF, the Assignors have executed this Agreement.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Richard Co

\_\_\_\_\_  
Date

\_\_\_\_\_  
Timothy Francis McCourt

10/17/2017

\_\_\_\_\_  
Date

DocuSigned by:  
*Tom Rafferty*  
\_\_\_\_\_  
-04767078DCEE4D8... ick Rafferty

\_\_\_\_\_  
Date

\_\_\_\_\_  
John Balaam Alexander Kerpel



## ASSIGNMENT

WHEREAS, we, Richard Co, Timothy Francis McCourt, Thomas Patrick Rafferty and John Balaam Alexander Kerpel (ASSIGNOR) are the inventors of certain inventions and improvements described in a U.S. patent application having the title **System for Processing Withholding Payments**, which application was filed on 10/17/17 and assigned Application No. 15/786,260;

WHEREAS, Chicago Mercantile Exchange Inc., 20 South Wacker Drive, Chicago, Illinois 60606 (ASSIGNEE), desires to acquire the entire right, title and interest in and to said application, inventions and improvements and any patents that may be granted on or as a result thereof in the United States of America (U.S.) and in any and all foreign countries;

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged,

We hereby assign, to the above named ASSIGNEE, its successors, assigns and legal representatives (NOMINEES), the entire right, title and interest in and to said application (including the right to claim priority thereto), inventions and improvements throughout the world, and any and all patents, petty patents and utility model patents which may be granted therefor, and all continuations, continuations-in-part, divisions, reissues, extensions, renewals, and any non-provisional based on a provisional thereof (LETTERS PATENT).

And we covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement or do anything in conflict herewith;

And we further covenant and agree that we will without undue delay execute without further consideration all such papers as may be necessary to perfect the title to said application, inventions and improvements, and LETTERS PATENT in the ASSIGNEE or its NOMINEES, and I agree to communicate to said ASSIGNEE or its NOMINEES all known facts respecting said application, inventions, improvements, and LETTERS PATENT, to testify in any legal proceedings, to sign all lawful papers, and generally to do all things necessary to aid ASSIGNEE or its NOMINEES to obtain and enforce for their own benefit patent protection for said application, inventions and improvements in any and all countries, all at the expense, however, of the ASSIGNEE or its NOMINEES;

And we authorize the ASSIGNEE or its NOMINEES to file in my name or their own, as appropriate, application for LETTERS PATENT in any and all countries of the world, and I authorize and request the Commissioner of Patents and Trademarks of the United States, and any proper official of any country, to issue to said ASSIGNEE or its

NOMINEES any and all LETTERS PATENT for said application, inventions and improvements, for their sole use, to the full end of the term for which such LETTERS PATENT may be granted;

And, we hereby grant the attorneys at the law firm of Banner & Witcoff the power to insert into this document information sufficient to identify the patent application to which this assignment pertains.

IN TESTIMONY WHEREOF, the Assignors have executed this Agreement.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Richard Co

\_\_\_\_\_  
Date

\_\_\_\_\_  
Timothy Francis McCourt

\_\_\_\_\_  
Date

\_\_\_\_\_  
Thomas Patrick Rafferty

10/16/2017  
\_\_\_\_\_  
Date

DocuSigned by:  
*John Kerpel*  
\_\_\_\_\_  
3DC8592F84574D2... n Alexander Kerpel