PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3713002

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
JACOB LOVELESS	01/19/2016

RECEIVING PARTY DATA

Name:	CFPH, LLC	
Street Address:	reet Address: 110 EAST 59TH STREET	
City:	NEW YORK	
State/Country:	State/Country: NEW YORK	
Postal Code: 10022		

PROPERTY NUMBERS Total: 22

Property Type	Number
Application Number:	62145787
Application Number:	62019366
Application Number:	14753899
Application Number:	14348932
Application Number:	61901438
Application Number:	14348919
Application Number:	14459267
Application Number:	14074126
Application Number:	61865557
Application Number:	13760631
Application Number:	61737553
Application Number:	13832472
Application Number:	61612958
Application Number:	61614245
Application Number:	13844779
PCT Number:	US2015038324
PCT Number:	US2014032433
PCT Number:	US2014050970
PCT Number:	US2014064467
PCT Number:	US2014014909

PATENT REEL: 037595 FRAME: 0670

503666368

Property Type	Number	
PCT Number:	US2013075080	
PCT Number:	US2014032434	

CORRESPONDENCE DATA

Fax Number: (212)308-7537

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: 212-829-4841

Email: patentdocketing@cantor.com

Correspondent Name: LISA KOROVICH - INNOVATIONS DIVISION

Address Line 1: CANTOR FITZGERALD, LP

Address Line 2: 110 EAST 59TH STREET, 6TH FLOOR

Address Line 4: NEW YORK, NEW YORK 10022

ATTORNEY DOCKET NUMBER:	15-2437 ETC
NAME OF SUBMITTER: LISA KOROVICH	
SIGNATURE:	/Lisa Korovich/
DATE SIGNED:	01/27/2016

Total Attachments: 5

source=15-2437P_160119_Executed_Assignment#page1.tif source=15-2437P_160119_Executed_Assignment#page2.tif source=15-2437P_160119_Executed_Assignment#page3.tif source=15-2437P_160119_Executed_Assignment#page4.tif source=15-2437P_160119_Executed_Assignment#page5.tif

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ASSIGNMENT

This ASSIGNMENT (the "Assignment") is made and entered into by and among: **Jacob Loveless** (referred to hereinafter as "<u>Assignor</u>") and CFPH, LLC (hereinafter referred to as "<u>Assignee</u>"), a Delaware limited liability company, with an address of 110 East 59th Street, New York, NY 10022 (the Assignor and Assignee collectively referred to as the "<u>Parties</u>").

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, Assignor agrees as follows:

- 1. <u>Invention Defined.</u> As used in this Assignment, "<u>Invention</u>" shall mean the patent applications listed in **Schedule A** and all inventions or discoveries disclosed or claimed therein and any improvements thereto, any non-provisional, continuation, divisional, renewal, extension, substitute, reexamination, reissue or continuation-in-part thereof, all treaty and convention rights and all rights of priority arising from the aforesaid applications, all applications claiming priority therefrom for the United States, or any other country, or any regional or international patent convention, all patents, utility models, invention registrations or any other form of legal protection issuing from any of the aforesaid, all rights to sue for past, present, or future infringement under any of the aforesaid, and the right to collect and receive any damages, royalties, or settlement for such infringements and any and all causes of action relating to any of the inventions or discoveries disclosed in any of the aforesaid.
- 2. <u>Assignment</u>. Assignor hereby confirms having assigned to Assignee, by virtue of the Assignee being entitled thereto (a) as employer of the Assignor, or (b) pursuant to an agreement between (i) Assignee and the undersigned Assignor or (ii) Assignee and the undersigned Assignor's employer, as of the earliest filing date or priority date of any patent application or applications drawn to the Invention, all right, title, and interest in and to the Invention, and hereby assigns and transfers to Assignee Assignor's entire right, title, and interest in and to the Invention.
- 3. Further Assurances. Assignor hereby covenants that Assignor shall communicate any improvements to the Invention as such arise, and shall, at the cost and expense of Assignee, take all actions and execute all documents necessary or desirable to establish inventorship, to perfect the interest of Assignee and/or its successors or assigns in and to the Invention, or to substantively prosecute or enforce the Invention, including but not limited to working with Assignee's representative(s) to prepare, review, execute, assign, and prosecute any and all patent applications, assignments, declarations, affidavits, or other lawful papers relating to the Invention and all related documentation, and do all lawful acts requisite for enforcing rights thereunder. Assignor covenants that Assignor shall not enter into any agreement, execute any assignment, or take any other action in conflict with this Assignment. Assignor hereby covenants (a) to communicate to Assignee any information known by Assignor that concerns the Invention and the history thereof, including all information material to patentability, promptly upon learning such information, (b) to testify in any legal proceeding relating to the Invention or this Assignment, and (c) generally to do all further acts that may be necessary or desirable to obtain or enforce proper patent protection for the Invention. Assignor shall promptly notify Assignee in the event Assignor receives actual notice of any claim that arises out of or is related to use of the Invention, and to cooperate with Assignee by making himself available at reasonable times and reasonable places to representatives of Assignee and its legal counsel.

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Docket Nos.: 15-2437, 14-2425, 14-2412, 13-2399, 13-2399CIP, 13-2398, 13-2393, 13-2379, 12-2378, 12-2351, 11-2323

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- 4. <u>Acknowledgement</u>. Assignor hereby authorizes Assignee to make application for and to receive Letters Patent for the Invention in any country throughout the world in Assignor's or Assignee's name, at Assignee's election. Assignor hereby authorizes and requests that the competent authorities record this Assignment, and grant and issue any and all patents included in the Invention to the Assignee as the assignee of all right, title and interest therein.
- 5. Representations and Warranties. Assignor represents and warrants that (a) Assignor has full power and authority to enter into this Assignment, (b) this Assignment has been duly authorized, executed and delivered by Assignor and constitutes the legal, valid and binding obligation of Assignor, enforceable against it in accordance with the terms hereof, (c) Assignor has not previously assigned any right or interest in the Invention to any third party, (d) Assignor is under no obligation to assign any right or interest in the Invention to any third party, and (e) entry into this Assignment does not breach any agreement between Assignor and any third party.
- 6. <u>Successors</u>. This Assignment shall be binding upon and inure to the benefit of the Parties hereto and to their respective successors and assigns.
- 7. Severability. If, for any reason, a court of competent jurisdiction finds any provision of this Assignment, or any portion hereof, to be unenforceable, such decision shall not affect the validity of the remaining portion, which remaining portion shall continue in full force and effect as if this Assignment had been executed with the invalid portion thereof eliminated therefrom. In the event that a portion of this Assignment shall be declared to be invalid, Assignor shall enter into good faith negotiations with Assignee to replace such invalid provision with a valid provision as similar as possible to that which had been held to be invalid. In the event that the law of any jurisdiction limits the interest in the Invention that may be assigned, this Assignment shall be construed to transfer the greatest ownership interest, right to control prosecution, maintenance, and enforcement, and share of royalties and damages permitted by the law of such jurisdiction.

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PATENT ASSIGNMENT

	Assignor has caused this Assignment to be executed
as of the date written below.	
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Dated: 1/19/16	
	Jacob Loveless
Residence:	
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On this 19th day of January, 2016, before me came Jacob Loveless, to me known and known to me to be the individual described in, and who executed the foregoing instrument, and he has acknowledged to me that he has executed the same.

Signature
1/19/2016
Signature
499 Park Ave, New York Gly, Ny

Schedule A

Country	Title of Invention	Application No.	Filing Date	Docket No.
US	Resource Tracking	62/145,787	April 10, 2015	15-2437P
US	Financial Network	62/019,366	June 30, 2014	14-2425P
US	Financial Network	14/753,899	June 29, 2015	14-2425
WO	Financial Network	PCT/US2015/038324	June 30, 2014	14-2425WO
US	Resource Allocation	14/348,932	April 1, 2014	14-2412WOUS
WO	Resource Allocation	PCT/US2014/032434	March 31, 2014	14-2412WO
US	Trading Foreign Exchange	61/901,438	November 7, 2013	13-2399P
US	Foreign Exchange Trading	14/348,919	April 1, 2014	13-2399WOUS
WO	Foreign Exchange Trading	PCT/US2014/032433	March 31, 2014	13-2399WO
US	Trading Based on Fill Rate	14/459,267	August 13, 2014	13-2399CIP
WO	Trading Based on Fill Rate	PCT/US2014/050970	August 13, 2014	13-2399CIPWO
US	Methods, Apparatus, Systems for First Look Matching of Orders on an Exchange	14/074,126	May 7 ,2015	13-2398
wo	Methods, Apparatus and Systems for First Look Matching of Orders	PCT/US2014/064467	November 7, 2014	13-2398WO
US	Matching System and Method	61/865,557	August 13, 2013	13-2393P
US	Aggregate Gaming Funds	13/760,631	February 6, 2013	13-2379
wo	Aggregate Gaming Funds	PCT/US2014/014909	February 5, 2014	13-2379WO
AU	Aggregate Gaming Funds	2014215002	August 7, 2015	13-2379WOAU
CA	Aggregate Gaming Funds	2,900,346	February 5, 2014	13-2379WOCA
JP	Aggregate Gaming Funds	2015-557031	August 5, 2015	13-2379WOJP
US	Distributed Matching Engine	61/737,553	December 14, 2012	12-2378P
US	Distributed Matching Engine	13/832,472	March 15, 2013	12-2378
WO	Distributed Matching Engine	PCT/US2013/075080	December 13, 2013	12-2378WO
AU	Distributed Matching Engine	2013359005	June 12, 2015	12-2378WOAU
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Docket Nos.: 15-2437, 14-2425, 14-2412, 13-2399, 13-2399CIP, 13-2398, 13-2393, 13-2379, 12-2378, 12-2351, 11-2323

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Country	Title of Invention	Application No.	Filing Date	Docket No.
CA	Distributed Matching Engine	2,895,119	December 13, 2013	12-2378WOCA
EP	Distributed Matching Engine	13863547.9	July 14, 2015	12-2378WOEP
JP	Distributed Matching Engine	2015-548000	June 12, 2015	12-2378WOJP
SG	Distributed Matching Engine	11201504655T	June 12, 2015	12-2378WOSG
US	Order Pricing Based on Market Impact	61/612,958	March 19, 2012	12-2351P
US	Order Pricing Based on Market Impact	61/614,245	March 22, 2012	12-2351P2
US	Systems and Methods for Pricing One or More Securities	13/844,779	March 15, 2013	11-2323

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Docket Nos.: 15-2437, 14-2425, 14-2412, 13-2399, 13-2399CIP, 13-2398, 13-2393, 13-2379, 12-2378, 12-2351, 11-2323

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