

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT7103274

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	NOTICE OF GRANT OF SECURITY INTEREST IN PATENTS	
CONVEYING PARTY DATA		
Name		Execution Date
HOLLINGSWORTH & VOSE COMPANY		12/30/2021
RECEIVING PARTY DATA		
Name:	BANK OF AMERICA, N.A., AS COLLATERAL AGENT	
Street Address:	900 W. TRADE ST.	
Internal Address:	NC1-026-06-09 (MACLEGAL)	
City:	CHARLOTTE	
State/Country:	NORTH CAROLINA	
Postal Code:	28255	
PROPERTY NUMBERS Total: 142		
Property Type	Number	
Patent Number:	11167232	
Patent Number:	11123668	
Patent Number:	11090590	
Patent Number:	11077394	
Patent Number:	11014030	
Patent Number:	10898838	
Patent Number:	10874962	
Patent Number:	10828587	
Patent Number:	10814261	
Patent Number:	10758858	
Patent Number:	10682595	
Patent Number:	10653986	
Patent Number:	10644289	
Patent Number:	10625196	
Patent Number:	10561972	
Patent Number:	10543441	
Patent Number:	10535853	
Patent Number:	10478758	
Patent Number:	10449474	

PATENT

Property Type	Number
Patent Number:	10441909
Patent Number:	10431796
Patent Number:	10399024
Patent Number:	10384156
Patent Number:	10343095
Patent Number:	10322562
Patent Number:	10322380
Patent Number:	10279291
Patent Number:	10270074
Patent Number:	10252200
Patent Number:	10195542
Patent Number:	10177360
Patent Number:	10155187
Patent Number:	10155186
Patent Number:	10137392
Patent Number:	10135051
Patent Number:	10080985
Patent Number:	10022657
Patent Number:	10014501
Patent Number:	9950284
Patent Number:	9786885
Patent Number:	9718020
Patent Number:	9687771
Patent Number:	9627668
Patent Number:	9511330
Patent Number:	9293748
Patent Number:	9283501
Patent Number:	9192942
Patent Number:	9149749
Patent Number:	9149748
Patent Number:	9062415
Patent Number:	9027765
Patent Number:	8986432
Patent Number:	8956504
Patent Number:	8956437
Patent Number:	8951420
Patent Number:	8950587
Patent Number:	8882876

Property Type	Number
Patent Number:	8882875
Patent Number:	8877011
Patent Number:	8790492
Patent Number:	8778047
Patent Number:	8778046
Patent Number:	8758559
Patent Number:	8753483
Patent Number:	8709120
Patent Number:	8679218
Patent Number:	8663358
Patent Number:	8608817
Patent Number:	8592329
Patent Number:	8545590
Patent Number:	8545587
Patent Number:	8357220
Patent Number:	8257459
Patent Number:	8236082
Patent Number:	8202340
Patent Number:	8197569
Patent Number:	8114197
Patent Number:	8083828
Patent Number:	8012629
Patent Number:	7939166
Patent Number:	7883562
Patent Number:	7160824
Patent Number:	7144633
Patent Number:	6929858
Patent Number:	6933252
Application Number:	17534186
Application Number:	17530397
Application Number:	17517708
Application Number:	17479023
Application Number:	17475458
Application Number:	17404349
Application Number:	17394983
Application Number:	17375127
Application Number:	17363609
Application Number:	17320635

Property Type	Number
Application Number:	17236084
Application Number:	17232060
Application Number:	17166526
Application Number:	17165853
Application Number:	17127830
Application Number:	17127822
Application Number:	17101707
Application Number:	16936826
Application Number:	16899884
Application Number:	16888523
Application Number:	16884113
Application Number:	16842178
Application Number:	17137959
Application Number:	16786941
Application Number:	17142710
Application Number:	16721788
Application Number:	17079394
Application Number:	17095292
Application Number:	17076231
Application Number:	17039527
Application Number:	16851530
Application Number:	16421817
Application Number:	16929358
Application Number:	16866201
Application Number:	16382901
Application Number:	16687526
Application Number:	16852678
Application Number:	16729648
Application Number:	16206566
Application Number:	16181242
Application Number:	16442723
Application Number:	16516465
Application Number:	16435233
Application Number:	16398776
Application Number:	15839810
Application Number:	16009978
Application Number:	16193341
Application Number:	16161380

Property Type	Number
Application Number:	15484497
Application Number:	15466809
Application Number:	15983299
Application Number:	15901132
Application Number:	15349310
Application Number:	15217718
Application Number:	14097493
Application Number:	14498662
Application Number:	14299633

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	017625.005309
NAME OF SUBMITTER:	JOHN SLAUGHTER
SIGNATURE:	/john slaughter/
DATE SIGNED:	01/04/2022

Total Attachments: 8

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NOTICE
OF
GRANT OF SECURITY INTEREST
IN
PATENTS

United States Patent and Trademark Office

Ladies and Gentlemen:

Please be advised that pursuant to the Security Agreement dated as of December 30, 2021 (as the same may be amended, modified, extended or restated from time to time, the "Agreement") by and among the Debtors party thereto (each a "Debtor" and collectively, the "Debtors") and Bank of America, N.A., as collateral agent (the "Collateral Agent") for the holders of the Obligations referenced therein, the undersigned Debtor has granted a continuing security interest in and a right to set off against the patents and patent applications shown below to the Collateral Agent for the ratable benefit of the holders of the Obligations:

PATENTS

Description of
Patent Item

Patent No.

Date of Patent

See Schedule 1 attached hereto

PATENT APPLICATIONS

Description of
Patent Applied for

Patent Applications No.

Date of
Patent Applications

See Schedule 1 attached hereto

The undersigned Debtor and the Collateral Agent, on behalf of the holders of the Obligations, hereby acknowledge and agree that the security interest in the foregoing patents and patent applications (i) may only be terminated in accordance with the terms of the Agreement and (ii) is not to be construed as an assignment of any patent or patent application.

Very truly yours,

HOLLINGSWORTH & VOSE COMPANY

By: 

Name: Ali Hasain

Title: Chief Financial Officer

HOLLINGSWORTH & VOSE COMPANY
IF NOTICE - PATENTS

Acknowledged and Accepted:

BANK OF AMERICA, N.A., as Collateral Agent

By: Ronaldo Naval

Name: Ronaldo Naval

Title: Vice President

Schedule 1**Hollingsworth & Vose Company
(Massachusetts Corporation)****U.S. Patents****Issued Patents**

Title	Patent No.	Issue Date
FILTER MEDIA COMPRISING A PRE-FILTER LAYER	11167232	11/09/2021
FILTER MEDIA INCLUDING A FILTRATION LAYER COMPRISING SYNTHETIC FIBERS	11123668	09/21/2021
PRE-COALESING MULTI-LAYERED FILTER MEDIA	11090590	08/17/2021
ELECTRET-CONTAINING FILTER MEDIA	11077394	08/03/2021
FILTER MEDIA INCLUDING FLAME RETARDANT FIBERS	11014030	05/25/2021
FILTER MEDIA INCLUDING ADHESIVES	10898838	01/26/2021
FINE FIBER FILTER MEDIA AND PROCESSES	10874962	12/29/2020
STABLE FILTER MEDIA INCLUDING NANOFIBERS	10828587	11/10/2020
ELECTRET-CONTAINING FILTER MEDIA	10814261	10/27/2020
WAVED FILTER MEDIA AND ELEMENTS	10758858	09/01/2020
FILTER MEDIA SUITABLE FOR HYDRAULIC APPLICATIONS	10682595	06/16/2020
FINE FIBER FILTER MEDIA AND PROCESSES	10653986	05/19/2020
BATTERY SEPARATORS COMPRISING INORGANIC PARTICLES	10644289	05/05/2020
COALESING FILTER MEDIA	10625196	04/21/2020
FILTER MEDIA INCLUDING A WAVED FILTRATION LAYER	10561972	02/18/2020
FILTER MEDIA INCLUDING ADHESIVES AND/OR OLEOPHOBIC PROPERTIES	10543441	01/28/2020
GLASS COMPOSITIONS WITH LEACHABLE METAL OXIDES AND IONS	10535853	01/14/2020
FILTER MEDIA WITH FIBRILLATED FIBERS	10478758	11/19/2019
FILTER MEDIA INCLUDING A WAVED FILTRATION LAYER	10449474	10/22/2019
FILTER MEDIA INCLUDING ORIENTED FIBERS	10441909	10/15/2019
MULTI-REGION BATTERY SEPARATORS	10431796	10/01/2019
SURFACE MODIFIED FILTER MEDIA	10399024	09/03/2019
FILTER MEDIA COMPRISING FIBERS INCLUDING CHARGED PARTICLES	10384156	08/20/2019
FILTER MEDIA COMPRISING A PRE-FILTER LAYER	10343095	07/09/2019
MEDICAL PROTECTIVE CLOTHING MATERIALS	10322562	06/18/2019
FIBRILLATED FIBERS FOR LIQUID FILTRATION MEDIA	10322380	06/18/2019
PRE-COALESING MULTI-LAYERED FILTER MEDIA	10279291	05/07/2019
BATTERY SEPARATORS COMPRISING CHEMICAL ADDITIVES AND/OR OTHER COMPONENTS	10270074	04/23/2019

FILTER MEDIA INCLUDING A FILTRATION LAYER COMPRISING SYNTHETIC FIBERS	10252200	04/09/2019
SURFACE MODIFIED FILTER MEDIA	10195542	02/05/2019
BATTERY SEPARATORS WITH CONTROLLED PORE STRUCTURE	10177360	01/08/2019
FILTER MEDIA WITH A MULTI-LAYER STRUCTURE	10155187	12/18/2018
FINE FIBER FILTER MEDIA AND PROCESSES	10155186	12/18/2018
FIBER WEBS COATED WITH FIBER-CONTAINING RESINS	10137392	11/27/2018
BATTERY COMPONENTS COMPRISING FIBERS	10135051	11/20/2018
MULTI-LAYERED FILTER MEDIA	10080985	09/25/2018
FILTER MEDIA SUITABLE FOR HYDRAULIC APPLICATIONS	10022657	07/17/2018
BATTERY SEPARATORS HAVING A LOW APPARENT DENSITY	10014501	07/03/2018
FILTER MEDIA SUITABLE FOR HYDRAULIC APPLICATIONS	9950284	04/24/2018
BATTERY SEPARATORS COMPRISING INORGANIC PARTICLES	9786885	10/10/2017
WAVED FILTER MEDIA AND ELEMENTS	9718020	08/01/2017
WAVED FILTER MEDIA AND ELEMENTS	9687771	06/27/2017
MULTI-REGION BATTERY SEPARATORS	9627668	04/18/2017
FIBRILLATED FIBERS FOR LIQUID FILTRATION MEDIA	9511330	12/06/2016
MULTI-REGION BATTERY SEPARATORS	9293748	03/22/2016
FILTER MEDIA WITH A MULTI-LAYER STRUCTURE	9283501	03/15/2016
FILTER MEDIA WITH IMPROVED CONDUCTIVITY	9192942	11/24/2015
PRE-COALESCING MULTI-LAYERED FILTER MEDIA	9149749	10/06/2015
MULTI-LAYERED FILTER MEDIA	9149748	10/06/2015
SYSTEMS AND METHODS FOR MAKING FIBER WEBS	9062415	06/23/2015
FILTER MEDIA WITH FIBRILLATED FIBERS	9027765	05/12/2015
MELTBLOWN FILTER MEDIUM, RELATED APPLICATIONS AND USES	8986432	03/24/2015
SYSTEMS AND METHODS FOR MAKING FIBER WEBS	8956504	02/17/2015
FILTER MEDIA AND ARTICLES INCLUDING DENDRIMERS AND/OR OTHER COMPONENTS	8956437	02/17/2015
FILTER MEDIA SUITABLE FOR HYDRAULIC APPLICATIONS	8951420	02/10/2015
FILTER MEDIA SUITABLE FOR HYDRAULIC APPLICATIONS	8950587	02/10/2015
FIBER WEBS INCLUDING SYNTHETIC FIBERS	8882876	11/11/2014
WAVED FILTER MEDIA AND ELEMENTS	8882875	11/11/2014
SYSTEMS AND METHODS FOR MAKING FIBER WEBS	8877011	11/04/2014
FLUTABLE FIBER WEBS WITH HIGH DUST HOLDING CAPACITY	8790492	07/29/2014
FLUTABLE FIBER WEBS WITH HIGH DUST HOLDING CAPACITY	8778047	07/15/2014
FLUTABLE FIBER WEBS WITH HIGH DUST HOLDING CAPACITY	8778046	07/15/2014

SYSTEMS AND METHODS FOR MAKING FIBER WEBS	8758559	06/24/2014
SYSTEMS AND METHODS FOR MAKING FIBER WEBS	8753483	06/17/2014
FILTER MEDIA INCLUDING GLASS FIBERS	8709120	04/29/2014
FILTER MEDIA WITH A MULTI-LAYER STRUCTURE	8679218	03/25/2014
FILTER MEDIA WITH IMPROVED CONDUCTIVITY	8663358	03/04/2014
MELTBLOWN FILTER MEDIUM	8608817	12/17/2013
VIBRATIONALLY COMPRESSED GLASS FIBER AND/OR OTHER MATERIAL FIBER MATS AND METHODS FOR MAKING THE SAME	8592329	11/26/2013
FLUTABLE FIBER WEBS WITH HIGH DUST HOLDING CAPACITY	8545590	10/01/2013
MULTI-PHASE FILTER MEDIUM	8545587	10/01/2013
MULTI-PHASE FILTER MEDIUM	8357220	01/22/2013
WAVED FILTER MEDIA AND ELEMENTS	8257459	09/04/2012
FLUTABLE FIBER WEBS WITH HIGH DUST HOLDING CAPACITY	8236082	08/07/2012
WAVED FILTER MEDIA AND ELEMENTS	8202340	06/19/2012
WAVED FILTER MEDIA AND ELEMENTS	8197569	06/12/2012
FILTER MEDIA AND ARTICLES INCLUDING DENDRIMERS AND/OR OTHER COMPONENTS	8114197	02/14/2012
FIBER WEB HAVING A HIGH STIFFNESS	8083828	12/27/2011
BATTERIES CONTAINING BISMUTH GLASS COMPOSITIONS	8012629	09/06/2011
GLASS COMPOSITIONS	7939166	05/10/2011
WAVED FILTER MEDIA AND ELEMENTS	7883562	02/08/2011
GLASS COMPOSITIONS	7160824	01/09/2007
GLASS COMPOSITIONS	7144633	12/05/2006
GLASS FIBERS	6929858	08/16/2005
LOW BORON CONTAINING MICROFIBERGLASS FILTRATION MEDIA	6933252	08/23/2005

Patent Applications

Title	Appl. No.	Filing Date
FILTER MEDIA COMPRISING FLUORINATED AND NON-FLUORINATED WATER REPELLENT ADDITIVES	17534186	11/23/2021
FILTER MEDIA INCLUDING FIBERS COMPRISING A MATRIX POLYMER AND IMPACT MODIFIER, AND RELATED METHODS	17530397	11/18/2021
ELECTRET-CONTAINING FILTER MEDIA	17517708	11/03/2021
FILTER MEDIA INCLUDING A FILTRATION LAYER COMPRISING SYNTHETIC FIBERS	17479023	09/20/2021
FILTER MEDIA COMPRISING A PRE-FILTER LAYER	17475458	09/15/2021
ELECTRET-CONTAINING FILTER MEDIA	17404349	08/17/2021
ARTICLES COMPRISING BINDERS, CROSS-LINKING AGENTS AND/OR OTHER COMPONENTS, AND RELATED METHODS	17394983	08/05/2021
PRE-COALESCING MULTI-LAYERED FILTER MEDIA	17375127	07/14/2021
ELECTRET-CONTAINING FILTER MEDIA	17363609	06/30/2021

FILTER MEDIA AND ARTICLES INCLUDING BINDERS AND/OR OTHER COMPONENTS	17320635	05/14/2021
FILTER MEDIA INCLUDING FLAME RETARDANT FIBERS	17236084	04/21/2021
DUAL-LAYER SEPARATOR FOR BATTERIES	17232060	04/15/2021
FILTER MEDIA COMPRISING FIBRILLATED FIBERS AND GLASS FIBERS	17166526	02/03/2021
CALENDERED NON-WOVEN FIBER WEBS	17165853	02/02/2021
FILTER MEDIA COMPRISING FIBRILLATED FIBERS AND GLASS FIBERS	17127830	12/18/2020
MICROCREPED FILTER MEDIA	17127822	12/18/2020
FILTER MEDIA COMPRISING NON-FLUORINATED WATER REPELLENT ADDITIVES	17101707	11/23/2020
FILTER MEDIA COMPRISING A POLYETHERSULFONE-BASED FINE FIBER LAYER	16936826	07/23/2020
FILTER MEDIA COMPRISING FIBRILLATED FIBERS AND GLASS FIBERS	16899884 20210387120	06/12/2020
FILTER MEDIA COMPRISING ADSORPTIVE PARTICLES	16888523 20210370218	05/29/2020
FILTER MEDIA COMPRISING POLYAMIDE FIBERS	16884113 20210370208	05/27/2020
FILTER MEDIA INCLUDING OUT-OF-PLANE SOLID ELEMENTS, METHODS OF FORMING THEM, AND USES THEREOF	16842178 20210308609	04/07/2020
FILTER MEDIA INCLUDING ADHESIVES	17137959 20210291094	12/30/2020
EMBOSSSED SEPARATORS	16786941 20210249640	02/10/2020
FILTER MEDIA INCLUDING FLAME RETARDANT FIBERS	17236084 20210236970	04/21/2021
FILTER MEDIA INCLUDING ADHESIVES AND/OR OLEOPHOBIC PROPERTIES	17142710 20210229010	01/06/2021
FILTER MEDIA COMPRISING A NON-WETLAID BACKER	16721788 20210187421	12/19/2019
ELECTRET-CONTAINING FILTER MEDIA	17079394 20210178304	10/23/2020
FINE FIBER FILTER MEDIA AND PROCESSES	17095292 20210129061	11/11/2020
FILTER MEDIA HAVING AN OPTIMIZED GRADIENT	17076231 20210101100	10/21/2020
STABLE FILTER MEDIA INCLUDING NANOFIBERS	17039527 20210093989	09/30/2020
COALESCING FILTER MEDIA	16851530 20210001263	04/17/2020
FILTER MEDIA COMPRISING ELASTOMERIC FIBERS	16421817 20200368654	05/24/2019
FIBRILLATED FIBERS FOR LIQUID FILTRATION MEDIA	16929358 20200346172	07/15/2020
FILTER MEDIA WITH IRREGULAR STRUCTURE AND/OR REVERSIBLY STRETCHABLE LAYERS	16866201 20200330913	05/04/2020

SEPARATORS FOR LEAD-ACID BATTERIES	16382901 20200328390	04/12/2019
FILTER MEDIA WITH FIBRILLATED FIBERS	16687526 20200254367	11/18/2019
FIBRILLATED FIBERS FOR LIQUID FILTRATION MEDIA	16852678 20200238226	04/20/2020
FILTER MEDIA INCLUDING ADHESIVES AND/OR OLEOPHOBIC PROPERTIES	16729648 20200206666	12/30/2019
FILTER MEDIA HAVING A FINE PORE SIZE DISTRIBUTION	16206566 20200171418	11/30/2018
FILTER MEDIA WITH IRREGULAR STRUCTURE	16181242 20200139281	11/05/2018
MEDICAL PROTECTIVE CLOTHING MATERIALS	16442723 20200070472	06/17/2019
SURFACE MODIFIED FILTER MEDIA	16516465 20200009488	07/19/2019
PASTING PAPERS AND CAPACITANCE LAYERS FOR BATTERIES COMPRISING MULTIPLE FIBER TYPES AND/OR PARTICLES	16435233 20190393464	06/07/2019
FIBRILLATED FIBERS FOR LIQUID FILTRATION MEDIA	16398776 20190388847	04/30/2019
PASTING PAPER FOR BATTERIES COMPRISING MULTIPLE FIBER TYPES	15839810 20190181506	12/12/2017
PASTING PAPERS AND CAPACITANCE LAYERS FOR BATTERIES COMPRISING MULTIPLE FIBER TYPES AND/OR PARTICLES	16009978 20190181410	06/15/2018
BATTERY SEPARATORS WITH CONTROLLED PORE STRUCTURE	16193341 20190157646	11/16/2018
BATTERY COMPONENTS COMPRISING FIBERS	16161380 20190115579	10/16/2018
POLYETHERSULFONE FIBER WEBS	15484497 20180290087	04/11/2017
FILTER MEDIA INCLUDING A WAVED FILTRATION LAYER HAVING A GRADIENT	15466809 20180272258	03/22/2017
BATTERY SEPARATORS HAVING A LOW APPARENT DENSITY	15983299 20180269452	05/18/2018
ELECTRET-CONTAINING FILTER MEDIA	15901132 20180243674	02/21/2018
FILTER MEDIA HAVING A DENSITY VARIATION	15349310 20180133632	11/11/2016
MULTI-LAYERED ELECTRET-CONTAINING FILTRATION MEDIA	15217718 20180001247	07/22/2016
FINE GLASS FILTER MEDIA	14097493 20150157969	12/05/2013
FIBER WEBS INCLUDING SYNTHETIC FIBERS	14498662 20150107208	09/26/2014
FLUTABLE FIBER WEBS WITH HIGH DUST HOLDING CAPACITY	14299633 20150004385	06/09/2014