PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
STEPHEN REDINGTON	01/27/2016
GREGORY BURKE	01/25/2016
CHRISTOPHER MACRAE	01/27/2016
JOHN HIRLINGER	01/25/2016

RECEIVING PARTY DATA

Name:	U.S. GOVERNMENT AS REPRESENTED BY THE SECRETARY OF THE ARMY
Street Address:	RDAR-GCL/BLDG. 3
Internal Address:	U.S. ARMY RDECOM-ARDEC
City:	PICATINNY ARSENAL, DOVER
State/Country:	NEW JERSEY
Postal Code:	07806-5000

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15007575

CORRESPONDENCE DATA

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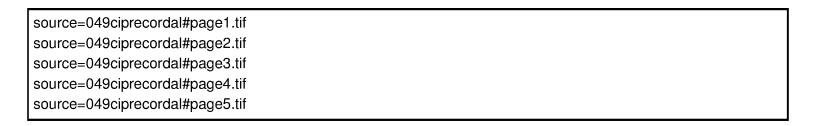
Address Line 4: PICATINNY ARSENAL, NEW JERSEY 07806-5000

ATTORNEY DOCKET NUMBER:	2012-049CIP
NAME OF SUBMITTER:	JOHN P. DISCALA
SIGNATURE:	/John P. DiScala/
DATE SIGNED:	01/27/2016

Total Attachments: 5

PATENT REEL: 037597 FRAME: 0158

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PATENT REEL: 037597 FRAME: 0159

RECORDATION FORM COVER SHEET PATENTS ONLY			
To the Director of the U.S. Patent and Trademark Office: Pleas	e record the attached documents or the new address(es) below.		
1. Name of conveying party(ies)	Name and address of receiving party(ies) Name: U.S. Government as Represented by the Secretary of the Army		
Stephen Redington; Gregory Burke; Christopher Macrae; John Historger	Internal Address: U.S. Army RDECOM-ARDEC		
Additional name(s) of conveying party(les) attached? Yes No. 3. Nature of conveyance/Execution Date(s): Execution Date(s) 1/27/16; 1/25/16; 1/27/16; 1/25/16	Street Address: RDAR-GCL/Bldg. 3		
Assignment Merger Security Agreement Change of Name	City: Picatinny Arsenal, Dover		
Joint Research Agreement	State: NJ		
Government Interest Assignment Executive Order 9424, Confirmatory License	Country: USZip: 07806-5000		
Other	Additional name(s) & address(es) attached? Yes No		
A. Patent Application No.(s) 15/007,575 Filing Date: 1/27/2016	document serves as an Oath/Declaration (37 CFR 1.63). B. Patent No.(s)		
Additional numbers at			
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 1		
Name: Lori Hanko			
	17. Total fee (37 CFR 1 21(h) & 3 41) \$		
Internal Address: U.S. Army RDECOM-ARDEC	7. Total fee (37 CFR 1.21(h) & 3.41) \$		
	7. Total fee (37 CFR 1.21(h) & 3.41) \$ Authorized to be charged to deposit account		
Internal Address: U.S. Army RDECOM-ARDEC Street Address: RDAR-GCL/Bldg. 3	Authorized to be charged to deposit account Enclosed		
Street Address: RDAR-GCL/Bldg. 3	Authorized to be charged to deposit account Enclosed None required (government interest not affecting title)		
Street Address: RDAR-GCL/Bldg. 3 City: Picatinny Arsenal, Dover	Authorized to be charged to deposit account Enclosed		
Street Address: RDAR-GCL/Bldg. 3 City: Picatinny Arsenal, Dover State: NJ Zip: 07806-5000	Authorized to be charged to deposit account Enclosed None required (government interest not affecting title)		
Street Address: RDAR-GCL/Bldg. 3 City: Picatinny Arsenal, Dover State: NJ Zip: 07806-5000 Phone Number: 973-724-3449	Authorized to be charged to deposit account Enclosed None required (government interest not affecting title)		
Street Address: RDAR-GCL/Bldg. 3 City: Picatinny Arsenal, Dover State: NJ Zip: 07806-5000 Phone Number: 973-724-3449 Docket Number: 2012-049CIP	Authorized to be charged to deposit account Enclosed None required (government interest not affecting title) 8. Payment Information		
Street Address: RDAR-GCL/Bldg. 3 City: Picatinny Arsenal, Dover State: NJ Zip: 07806-5000 Phone Number: 973-724-3449 Docket Number: 2012-049CIP Email Address: lori.hanko.civ@mail.mil	Authorized to be charged to deposit account Enclosed None required (government interest not affecting title) 8. Payment Information Deposit Account Number Authorized User Name		
Street Address: RDAR-GCL/Bldg. 3 City: Picatinny Arsenal, Dover State: NJ Zip: 07806-5000 Phone Number: 973-724-3449 Docket Number: 2012-049CIP Email Address: lori.hanko.civ@mail.mil 9. Signature: /John P. DiScala/	Authorized to be charged to deposit account Enclosed None required (government interest not affecting title) 8. Payment Information Deposit Account Number		
Street Address: RDAR-GCL/Bldg. 3 City: Picatinny Arsenal, Dover State: NJ Zip: 07806-5000 Phone Number: 973-724-3449 Docket Number: 2012-049CIP Email Address: lori.hanko.civ@mail.mil	Authorized to be charged to deposit account Enclosed None required (government interest not affecting title) 8. Payment Information Deposit Account Number Authorized User Name		

ASSIGNMENT OF INVENTION

Patent Application Title: DISPOSABLE, MINIAUTURE INTERNAL OPTICAL IGNITION SOURCE FOR AMMUNITION **APPLICATION** Inventor(s): Stephen Redington, Gregory Burke, Christopher Macrae, John Hirlinger Provisional Application Serial No. 15 007, 575 Filing Date: 137 16 Date Oath executed: 137 16; 135 16; 137 16; 135 16; Provisional Application Serial No. Docket No.: 2015-046/2015-050 Patent Number: I (We), the undersigned inventor(s), in consideration of the rights of the Government of the United States acquired by virtue of the circumstances under which the above-entitled invention was made, hereby: Assign to the Government of the United States, as represented by the Secretary of the Army. the entire right, title and interest throughout the United States, its Territories, Possessions and Puerto Rico, in and to the above-identified invention(s), provisional application(s), application(s) for patent, and Patent Cooperation Treaty application(s), and all Letters Patent issuing thereon, and any continuation, continuation-in-part or division of said application(s) and any reissue or extension of said Letters Patent. 2. Agree to assign to the Government upon its request, all right, title and interest in the invention in those foreign countries in which the Government, within eight months of the filling of the United States application for patent, determines to cause an application to be filed or files a Patent Cooperation Treaty application; provided that if the Government determines not to cause an application to be filed in any particular foreign country or fails to make such a determination, or fails to file a Patent Cooperation Treaty application, within the said eight months, all right, title and interest in the invention in such foreign country shall remain in me (us), subject to a nonexclusive, irrevocable, royalty-free license to the Government in any patent which may issue on the invention in such foreign country, including the power to issue sublicenses for use in behalf of the Government and/or furtherance of the foreign policies of the Government. Agree to provide any further information within my (our) knowledge and to execute any further documents necessary to the prosecution of patent applications on the invention(s), the prosecution and settlement of interferences and recording of title to patent applications and patents issuing thereon. Signature of Inventor Steph W Roberto Date: 1/27/2016 Typed Name of Inventor: Stephen Redington Address: 32 Kitchell Avenue, Wharton, NJ 07885 Date: Signature of Inventor

1

Typed Name of Inventor: Gregory Burke

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REEL: 037597 FRAME: 0161

ASSIGNMENT OF INVENTION

Patent Application Title: DISPOSABLE, MINIAUTURE INTERNAL OPTICAL IGNITION SOURCE FOR AMMUNITION APPLICATION Inventor(s): Stephen Redington, Gregory Burke, Christopher Macrae, John Hirlinger Provisional Application Serial No. Patent Application Serial No. 15 007,575 Filing Date: 137/16 Date Oath executed: 1/37/16 1/35/16 1/37/16 1/35/16 Docket No.: 2015-046/2015-050 I (We), the undersigned inventor(s), in consideration of the rights of the Government of the United States acquired by virtue of the circumstances under which the above-entitled invention was made, 1. Assign to the Government of the United States, as represented by the Secretary of the Army, the entire right, title and interest throughout the United States, its Territories, Possessions and Puerto Rico, in and to the above-identified invention(s), provisional application(s), application(s) for patent, and Patent Cooperation Treaty application(s), and all Letters Patent issuing thereon, and any continuation, continuation-in-part or division of said application(s) and any reissue or extension of said Letters Patent. 2. Agree to assign to the Government upon its request, all right, title and interest in the invention in those foreign countries in which the Government, within eight months of the filing of the United States application for patent, determines to cause an application to be filed or files a Patent Cooperation Treaty application; provided that if the Government determines not to cause an application to be filed in any particular foreign country or fails to make such a determination, or fails to file a Patent Cooperation Treaty application, within the said eight months, all right, title and interest in the invention in such foreign country shall remain in me (us), subject to a nonexclusive, irrevocable, royalty-free license to the Government in any patent which may issue on the invention in such foreign country, including the power to issue sublicenses for use in behalf of the Government and/or furtherance of the foreign policies of the Government. 3. Agree to provide any further information within my (our) knowledge and to execute any further documents necessary to the prosecution of patent applications on the invention(s), the prosecution and settlement of interferences and recording of title to patent applications and patents issuing thereon. Signature of Inventor Typed Name of Inventor: Stephen Readington

Typed Name of Inventor: Gregory Burke

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