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Zachary K. Wingard

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Name: The United States of America as represented by the

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4. Application or patent number(s):

This document serves as an Oath/Declaration (37 CFR 1.63).

A. Patent Application No.(s)

B. Patent No.(s)

14/873,522

Additional numbers attached? Yes No

5. Name and address to whom correspondence concerning document should be mailed:

Name: U.S. Army Research Laboratory

Internal Address: ATTN: RDRL-LOC-I/Alan I. Kalb

Street Address: 2800 Powder Mill Road

City: Adelphi

State: Maryland Zip: 20783

Phone Number: 301-394-1640

Docket Number: ARL 14-21

Email Address: nadine.l.loman.civ@mail.mil

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00

- Authorized to be charged to deposit account
 Enclosed
 None required (government interest not affecting title)

8. Payment Information

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Authorized User Name Alan I. Kalb

9. Signature:

Alan I. Kalb
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10/7/15
Date

Alan I. Kalb, Reg. No. 52,486

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2

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ASSIGNMENT AND AGREEMENT

Title of Invention: SOLID PROPELLANT GRAIN

Inventor(s): Andrew W. McBain, Zachary K. Wingard

Date Declaration Executed: 8/31/15; 9/1/15

*Application Serial No.: 14/873,522

*Filing Date: 10/2/15 Docket No.: ARL 14-21

(*I (We) herby authorize the application serial number and filing date of said application be added when known.)

I, the undersigned inventor, in consideration of the rights of the Government of the United States acquired by virtue of circumstances under which the above-identified invention was made, hereby:

1. Assign to the Government of the United States, as represented by the Secretary of the Army, my entire right, title, and interest throughout the United States, its Territories, Possessions, and Puerto Rico, in and to the above-entitled invention and application for patent and all Letters Patent issuing thereon, and any continuation or division of said application and any reissue or extension of said Letters Patent.

2. Agree to assign to the Government upon its request, 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; 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, within the said eight months, all right, title and interest in the invention in such foreign country shall remain in me, subject to a nonexclusive, irrevocable, royalty-free license to the Government in any patent in 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 knowledge and to execute any further documents necessary to the prosecution of patent applications on the invention, the prosecution and settlement of interferences and recording of title to patent applications and patents issuing thereon.

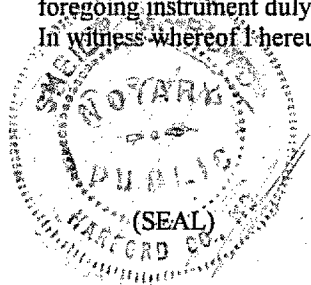
Signature of Inventor: Zachary K. Wingard
(First name) (Middle Initial) (Last Name)

Duty Address: _____
(Locality) (County) (State)

Date: 9/2/2015 Typed name of Inventor: Zachary K. Wingard
***** (notarizing preferred) *****

State of: MD) SS.
County of: Hartford) [place where acknowledgement is taken]

On the above date Zachary K. Wingard known to me to be the individual described in and who executed the foregoing instrument duly appeared before me and acknowledged to me that the same as his own free act and deed. In witness whereof I hereunto set my hand and official seal.



Sheika m. Boyd
(Printed or typewritten name of notary public)
Sheika M. Boyd
(Signature of notary public)

My Commission expires on 5/9/19