

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4589145

|                                                                                                                                                                                                 |                                      |
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| <b>SUBMISSION TYPE:</b>                                                                                                                                                                         | NEW ASSIGNMENT                       |
| <b>NATURE OF CONVEYANCE:</b>                                                                                                                                                                    | ASSIGNMENT                           |
| <b>CONVEYING PARTY DATA</b>                                                                                                                                                                     |                                      |
| <b>Name</b>                                                                                                                                                                                     | <b>Execution Date</b>                |
| BIN ZHANG                                                                                                                                                                                       | 09/11/2017                           |
| CRAIG LEE SHABER                                                                                                                                                                                | 09/11/2017                           |
| MIKE ANDERSON                                                                                                                                                                                   | 09/11/2017                           |
| <b>RECEIVING PARTY DATA</b>                                                                                                                                                                     |                                      |
| <b>Name:</b>                                                                                                                                                                                    | WAGSTAFF, INC.                       |
| <b>Street Address:</b>                                                                                                                                                                          | 3910 N. FLORA RD.                    |
| <b>City:</b>                                                                                                                                                                                    | SPOKANE VALLEY                       |
| <b>State/Country:</b>                                                                                                                                                                           | WASHINGTON                           |
| <b>Postal Code:</b>                                                                                                                                                                             | 99216                                |
| <b>PROPERTY NUMBERS Total: 1</b>                                                                                                                                                                |                                      |
| <b>Property Type</b>                                                                                                                                                                            | <b>Number</b>                        |
| <b>Application Number:</b>                                                                                                                                                                      | 15701536                             |
| <b>CORRESPONDENCE DATA</b>                                                                                                                                                                      |                                      |
| <b>Fax Number:</b>                                                                                                                                                                              | (704)444-1111                        |
| <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>                                                                                                                                                                                   | 704-444-1000                         |
| <b>Email:</b>                                                                                                                                                                                   | usptomail@alston.com                 |
| <b>Correspondent Name:</b>                                                                                                                                                                      | ALSTON & BIRD LLP                    |
| <b>Address Line 1:</b>                                                                                                                                                                          | BANK OF AMERICA PLAZA                |
| <b>Address Line 2:</b>                                                                                                                                                                          | 101 SOUTH TRYON STREET, SUITE 4000   |
| <b>Address Line 4:</b>                                                                                                                                                                          | CHARLOTTE, NORTH CAROLINA 28280-4000 |
| <b>ATTORNEY DOCKET NUMBER:</b>                                                                                                                                                                  | 065893/495539                        |
| <b>NAME OF SUBMITTER:</b>                                                                                                                                                                       | JONATHAN A. THOMAS                   |
| <b>SIGNATURE:</b>                                                                                                                                                                               | /Jonathan A. Thomas/                 |
| <b>DATE SIGNED:</b>                                                                                                                                                                             | 09/12/2017                           |
| This document serves as an Oath/Declaration (37 CFR 1.63).                                                                                                                                      |                                      |
| <b>Total Attachments: 5</b>                                                                                                                                                                     |                                      |
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**PATENT**

**REEL: 043552 FRAME: 0434**

**DECLARATION AND ASSIGNMENT  
FOR PATENT AND DESIGN APPLICATIONS**

|                               |                                                                                      |
|-------------------------------|--------------------------------------------------------------------------------------|
| <b>Title of<br/>Invention</b> | DYNAMICALLY POSITIONED DIFFUSER FOR METAL<br>DISTRIBUTION DURING A CASTING OPERATION |
|-------------------------------|--------------------------------------------------------------------------------------|

I. DECLARATION

As the below named inventor, I, hereinafter referred to as the undersigned, hereby declare that:

This declaration is directed to:

- ☒ the attached application, or  
☐ United States Application or PCT International Application No. \_\_\_\_\_ filed on \_\_\_\_\_;  
☐ Application claims priority from \_\_\_\_\_ Application No. \_\_\_\_\_, filed \_\_\_\_\_, all  
applications listed above being hereinafter referred to as the "application(s)";

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

II. ASSIGNMENT

Whereas, I have invented certain new and useful improvements in the application identified above; and

Whereas,

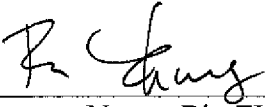
**Wagstaff, Inc.**  
3910 N. Flora Rd.  
Spokane Valley, WA 99216

hereinafter referred to as Assignee, is desirous of acquiring the entire right, title, and interest in and to said invention as described in the application identified above, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

Now, therefore, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned has sold and assigned, and by these presents hereby sells and assigns, unto said assignee its successors and assigns, the entire right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries, in and to the invention identified above, including said application for United States Letters Patent, all divisional, renewal, substitute, continuation, nonprovisionals, continuation-in-parts, and Convention applications based in whole or in part upon said inventions or upon said applications, and any and all Letters Patent and reissues, reexaminations, and extensions of Letters Patent granted for said inventions or upon said applications and every priority right that is or may be predicated upon or arise from said inventions, said applications, and said Letters Patent; said Assignee being hereby authorized to file patent applications in any or all countries on any or all said inventions in the name of the undersigned or in the name of said Assignee or otherwise as said Assignee may deem advisable, under the International Convention or otherwise; the Commissioner of Patents and Trademarks of the United States of America being hereby authorized to issue or transfer all said Letters Patent to said Assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right theretofore given, and that the undersigned will do all acts reasonably serving to ensure that the said inventions, patent applications and Letters Patent shall be held and enjoyed by said Assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly to execute and deliver to said Assignee all lawful documents including petitions, specifications, oaths, assignments, invention disclaimers, declarations, and lawful affidavits in form and substance which may be requested by said Assignee, to furnish said Assignee with all facts relating to said inventions or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may embody said inventions, and to testify in any proceedings relating to said inventions, patent applications, and/or Letters Patent.

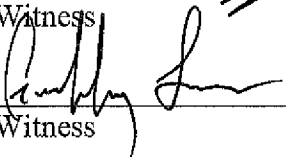
This Assignment is deemed to be effective at least as early as the earliest priority date.

LEGAL NAME OF INVENTOR

 (Signature)  
Inventor Name: Bin ZHANG

Date: 9/11/2017

  
Witness

  
Witness

This Assignment is deemed to be effective at least as early as the earliest priority date.

LEGAL NAME OF INVENTOR

Craig Lee Shaber (Signature)  
Inventor Name: Craig Lee SHABER

Date: 9/11/17

Matthew Shaber  
Witness  
Gary L.  
Witness

This Assignment is deemed to be effective at least as early as the earliest priority date.

LEGAL NAME OF INVENTOR

Mike Anderson (Signature)  
Inventor Name: Mike ANDERSON

Date: 9/11/17

[Signature]  
Witness

[Signature]  
Witness