

## PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT5239123

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
JIE ZHANG	10/10/2018
CHEN ZHANG	10/10/2018
LE HE	10/10/2018
YINGJIE SHI	10/10/2018
YAN HUANG	10/10/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	ALIBABA GROUP HOLDING LIMITED
<b>Street Address:</b>	FOURTH FLOOR, ONE CAPITAL PLACE, P.O. BOX 847
<b>City:</b>	GEORGETOWN GRAND CAYMAN
<b>State/Country:</b>	CAYMAN ISLANDS
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16085510
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(408)938-9069
<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>	4089389060
<b>Email:</b>	sjohnson@mhbpatents.com
<b>Correspondent Name:</b>	MURABITO HAO & BARNES LLP
<b>Address Line 1:</b>	TWO NORTH MARKET STREET
<b>Address Line 4:</b>	SAN JOSE, CALIFORNIA 95113
<b>ATTORNEY DOCKET NUMBER:</b>	BABA-PCT7728US
<b>NAME OF SUBMITTER:</b>	JAMES P. HAO
<b>SIGNATURE:</b>	/James P. Hao/
<b>DATE SIGNED:</b>	11/15/2018
<b>Total Attachments: 1</b>	
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### Assignment to Alibaba Group Holding Limited

In consideration of good and valuable consideration, receipt of which is hereby acknowledged, I/we

Jie ZHANG, Chen ZHANG, Le HE, Yingjie SHI, Yan HUANG

do hereby sell, assign, and transfer unto Alibaba Group Holding Limited a Corporation having its principle place of business at Fourth Floor, One Capital Place, P.O. Box 847, Georgetown Grand Cayman, Cayman Islands and its successors and assigns, the entire right, title, and interest for the United States and all foreign countries, in and to any and all improvements, including the right of priority in, to, and under, the application for the United States patent entitled:

#### GARBAGE COLLECTION METHOD AND DEVICE

filed herewith and the inventions set forth and described therein, and any and all Letters Patent of the

United States and of countries foreign thereto which may be granted thereon or therefor; or

Serial No.: 16/085,510 filed on 9/14/2018 and the inventions set forth


and described therein, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor;

And for the above consideration, I/we agree promptly upon request of Alibaba Group Holding Limited its successors or assigns, to execute and deliver without further compensation any power of attorney, assignment, application, whether original, continuation, divisional or reissue, or other papers which may be necessary or desirable fully to secure to Alibaba Group Holding Limited, its successors and assigns, the inventions described in said application and all patent rights therein, in the United States and in any country foreign thereto, and to cooperate and assist in the prosecution of interference proceedings involving said inventions and in the adjudication or reexamination of said Letters Patent provided the expenses which may be incurred by me/us in lending such cooperation and assistance are paid by Alibaba Group Holding Limited.


I/we further covenant with Alibaba Group Holding Limited its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned;

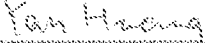
In witness whereof, I/we hereunto set my/our hand(s) and seal:

Inventor's Signature: Jie ZHANG  Date: 10/10/18

Inventor's Signature: Chen ZHANG  Date: 10.10.18

Inventor's Signature: Le HE  Date: 10.10.18

Inventor's Signature: Yingjie SHI  Date: 10.10.18

Inventor's Signature: Yan HUANG  Date: 10/10/2018