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UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
60/886,269	01/23/2007		125	HYDR-1-1001		

CONFIRMATION NO. 9972

UPDATED FILING RECEIPT

25315
BLACK LOWE & GRAHAM, PLLC
701 FIFTH AVENUE
SUITE 4800
SEATTLE, WA 98104

Date Mailed: 04/03/2007

Receipt is acknowledged of this provisional Patent Application. It will not be examined for patentability and will become abandoned not later than twelve months after its filing date. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

Applicant(s)

Andrew Stanton Moren, Gig Harbor, WA;
Robert John Moren, Gig Harbor, WA;

Power of Attorney:

Mark Byrne--50125

If Required, Foreign Filing License Granted: 02/09/2007

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is
US60/886,269

Projected Publication Date: None, application is not eligible for pre-grant publication

Non-Publication Request: No

Early Publication Request: No

** SMALL ENTITY **

Title

Global Registry of Fire Hydrants and Closed System Fire Hydrant Water Flow Test

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application

generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).



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APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
60/886,269	01/23/2007	Andrew Stanton Moren	HYDR-1-1001

25315
 BLACK LOWE & GRAHAM, PLLC
 701 FIFTH AVENUE
 SUITE 4800
 SEATTLE, WA 98104

RECEIVED

FEB 14 2007

Black Lowe & Graham PLLC

CONFIRMATION NO. 9972

FORMALITIES
LETTER

Date Mailed: 02/12/2007

NOTICE TO FILE MISSING PARTS OF PROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(c)

Filing Date Granted

An application number and filing date have been accorded to this provisional application. The items indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The statutory basic filing fee is missing.
Applicant must submit \$ 100 to complete the basic filing fee for a small entity.
- The provisional application cover sheet under 37 CFR 1.51(c)(1), which may be an application data sheet (37 CFR 1.76), is required identifying:
 - either city and state or city and foreign country of the residence of each inventor.

The applicant needs to satisfy supplemental fees problems indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- To avoid abandonment, a surcharge (for late submission of filing fee or cover sheet) as set forth in 37 CFR 1.16(g) of \$25 for a small entity in compliance with 37 CFR 1.27, must be submitted with the missing items identified in this letter.

SUMMARY OF FEES DUE:

Total additional fee(s) required for this application is **\$125** for a small entity

- **\$100** Statutory basic filing fee.
- **\$25** Surcharge.

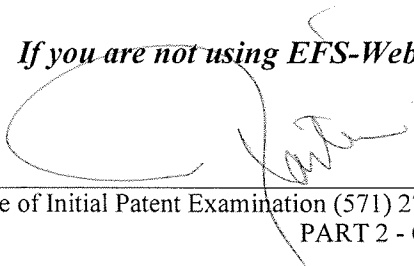
Replies should be mailed to: Mail Stop Missing Parts
 Commissioner for Patents

P.O. Box 1450
Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.
<https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html>

For more information about EFS-Web please call the USPTO Electronic Business Center at **1-866-217-9197** or visit our website at <http://www.uspto.gov/ebc>.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

A handwritten signature in dark ink, appearing to be "J. [unclear]", is written over a horizontal line.

Office of Initial Patent Examination (571) 272-4000, or 1-800-PTO-9199, or 1-800-972-6382
PART 2 - COPY TO BE RETURNED WITH RESPONSE

RECEIVED
JAN 14 2009
USPTO

ENCLOSURE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PROVISIONAL APPLICATION FOR PATENT COVER SHEET – Page 1 of 2

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c).

Express Mail Label No. N/A

INVENTOR(S)		
Given Name (first and middle (if any))	Family Name or Surname	Residence (City and either State or Foreign Country)
Andrew Stanton	Moren	Gig Harbor, Washington
Robert John	Moren	Gig Harbor, Washington

Additional inventors are being named on the _____ separately numbered sheets attached hereto

TITLE OF THE INVENTION (500 characters max):

GLOBAL REGISTRY OF FIRE HYDRANTS AND CLOSED SYSTEM FIRE HYDRANT WATER FLOW TEST

Direct all correspondence to: **CORRESPONDENCE ADDRESS**

☒ The address corresponding to Customer Number: 25315

OR

☐ Firm or Individual Name _____

Address _____

City _____	State _____	Zip _____
Country _____	Telephone _____	Email _____

ENCLOSED APPLICATION PARTS (check all that apply)

☐ Application Data Sheet. See 37 CFR 1.76 ☐ CD(s), Number of CDs _____

☐ Drawing(s) Number of Sheets _____ ☐ Other (specify) _____

☒ Specification (e.g. description of the invention) Number of Pages 18

Fees Due: Filing Fee of \$200 (\$100 for small entity). If the specification and drawings exceed 100 sheets of paper, an application size fee is also due, which is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

METHOD OF PAYMENT OF THE FILING FEE AND APPLICATION SIZE FEE FOR THIS PROVISIONAL APPLICATION FOR PATENT

☒ Applicant claims small entity status. See 37 CFR 1.27. 100

☐ A check or money order is enclosed to cover the filing fee and application size fee (if applicable).

☐ Payment by credit card. Form PTO-2038 is attached **TOTAL FEE AMOUNT (\$)**

☐ The Director is hereby authorized to charge the filing fee and application size fee (if applicable) or credit any overpayment to Deposit Account Number: _____ A duplicative copy of this form is enclosed for fee processing.

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

This collection of information is required by 37 CFR 1.51. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 8 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Electronic Patent Application Fee Transmittal

Application Number:	60886269			
Filing Date:	23-Jan-2007			
Title of Invention:	Global Registry of Fire Hydrants and Closed System Fire Hydrant Water Flow Test			
First Named Inventor/Applicant Name:	Andrew Stanton Moren			
Filer:	Richard Thomas Black/Tricia Walker			
Attorney Docket Number:	HYDR-1-1001			
Filed as Small Entity				
Provisional Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Provisional Application filing fee	2005	1	100	100
Pages:				
Claims:				
Miscellaneous-Filing:				
Late provisional filing fee/cover sheet	2052	1	25	25
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				125

Electronic Acknowledgement Receipt

EFS ID:	1647059
Application Number:	60886269
International Application Number:	
Confirmation Number:	9972
Title of Invention:	Global Registry of Fire Hydrants and Closed System Fire Hydrant Water Flow Test
First Named Inventor/Applicant Name:	Andrew Stanton Moren
Customer Number:	25315
Filer:	Richard Thomas Black/Tricia Walker
Filer Authorized By:	Richard Thomas Black
Attorney Docket Number:	HYDR-1-1001
Receipt Date:	02-APR-2007
Filing Date:	23-JAN-2007
Time Stamp:	18:09:49
Application Type:	Provisional

Payment information:

Submitted with Payment	yes
Payment was successfully received in RAM	\$ 125
RAM confirmation Number	989
Deposit Account	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)	Multi Part /.zip	Pages (if appl.)
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1	Miscellaneous Incoming Letter	HYDR-1-1001TL02.pdf	31642	no	1
Warnings:					
Information:					
2	Applicant Response to Pre-Exam Formalities Notice	HYDR-1-1001NFMP.pdf	88072	no	2
Warnings:					
Information:					
3	Miscellaneous Incoming Letter	HYDR-1-1001TL01revsigned.pdf	67317	no	1
Warnings:					
Information:					
4	Fee Worksheet (PTO-06)	fee-info.pdf	8337	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			195368		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Andrew Stanton Moren et al. Attorney Docket No. HYDR-1-1001
Serial No.: 60/886,269 Group Art Unit: —
Filing Date: January 23, 2007 Examiner: —
Title: GLOBAL REGISTRY OF FIRE HYDRANTS AND CLOSED SYSTEM FIRE
HYDRANT WATER FLOW TEST

TRANSMITTAL LETTER FOR MISSING PARTS

TO THE COMMISSIONER OF PATENTS:

Enclosed with this transmittal letter are the following papers:

1. Copy of Notice to File Missing Parts of Nonprovisional Application.
2. Revised provisional application cover sheet.

Respectfully submitted,

BLACK LOWE & GRAHAM^{PLLC}



Mark D. Byrne

Registration No. 50,125

Direct Dial: 206.957.2481

25315

CUSTOMER NUMBER

- 1 -

HYDR-1-1001TL02.doc

BLACK LOWE & GRAHAM^{PLLC}



701 Fifth Avenue, Suite 4800
Seattle, Washington 98101
206.381.3300 • F: 206.381.3301

IBRYCER Exhibit 1009

Page 11 of 41



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60/886,269	01/23/2007		0.00	HYDR-1-1001			

CONFIRMATION NO. 9972

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Date Mailed: 02/12/2007

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Applicant(s)

Andrew Stanton Moren, Residence Not Provided;
Robert John Moren, Residence Not Provided;

Power of Attorney:

Mark Byrne--50125

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US60/886,269

Projected Publication Date: None, application is not eligible for pre-grant publication

Non-Publication Request: No

Early Publication Request: No

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PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

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Title 37, Code of Federal Regulations, 5.11 & 5.15

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The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

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60/886,269	01/23/2007	Andrew Stanton Moren	HYDR-1-1001

CONFIRMATION NO. 9972

FORMALITIES
 LETTER

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 701 FIFTH AVENUE
 SUITE 4800
 SEATTLE, WA 98104

Date Mailed: 02/12/2007

NOTICE TO FILE MISSING PARTS OF PROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(c)

Filing Date Granted

An application number and filing date have been accorded to this provisional application. The items indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The statutory basic filing fee is missing.
Applicant must submit \$ 100 to complete the basic filing fee for a small entity.
- The provisional application cover sheet under 37 CFR 1.51(c)(1), which may be an application data sheet (37 CFR 1.76), is required identifying:
 - either city and state or city and foreign country of the residence of each inventor.

The applicant needs to satisfy supplemental fees problems indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- To avoid abandonment, a surcharge (for late submission of filing fee or cover sheet) as set forth in 37 CFR 1.16(g) of \$25 for a small entity in compliance with 37 CFR 1.27, must be submitted with the missing items identified in this letter.

SUMMARY OF FEES DUE:

Total additional fee(s) required for this application is **\$125** for a small entity

- **\$100** Statutory basic filing fee.
- **\$25** Surcharge.

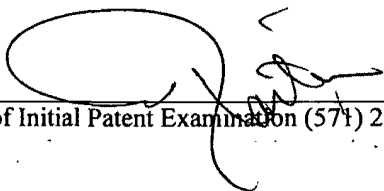
Replies should be mailed to: Mail Stop Missing Parts
 Commissioner for Patents

P.O. Box 1450
Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.
<https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html>

For more information about EFS-Web please call the USPTO Electronic Business Center at **1-866-217-9197** or
visit our website at <http://www.uspto.gov/ebc>.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

A handwritten signature in black ink, appearing to be a stylized 'J' or 'K' followed by a flourish.

Office of Initial Patent Examination (571) 272-4000, or 1-800-PTO-9199, or 1-800-972-6382
PART 3 - OFFICE COPY

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PROVISIONAL APPLICATION FOR PATENT COVER SHEET – Page 1 of 2

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c).

Express Mail Label No. N/A

INVENTOR(S)		
Given Name (first and middle [if any])	Family Name or Surname	Residence (City and either State or Foreign Country)
Andrew Stanton	Moren	
Robert John	Moren	

Additional inventors are being named on the _____ 0 _____ separately numbered sheets attached hereto

TITLE OF THE INVENTION (500 characters max):

GLOBAL REGISTRY OF FIRE HYDRANTS AND CLOSED SYSTEM FIRE HYDRANT WATER FLOW TEST

Direct all correspondence to: **CORRESPONDENCE ADDRESS**

☒ The address corresponding to Customer Number: 25315

OR

☐ Firm or Individual Name

Address

City	State	Zip
Country	Telephone	Email

ENCLOSED APPLICATION PARTS (check all that apply)

☐ Application Data Sheet. See 37 CFR 1.76 ☐ CD(s), Number of CDs _____

☐ Drawing(s) Number of Sheets _____ ☐ Other (specify) _____

☒ Specification (e.g. description of the invention) Number of Pages 19

Fees Due: Filing Fee of \$200 (\$100 for small entity). If the specification and drawings exceed 100 sheets of paper, an application size fee is also due, which is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

METHOD OF PAYMENT OF THE FILING FEE AND APPLICATION SIZE FEE FOR THIS PROVISIONAL APPLICATION FOR PATENT

☒ Applicant claims small entity status. See 37 CFR 1.27. 100

☐ A check or money order is enclosed to cover the filing fee and application size fee (if applicable).

☐ Payment by credit card. Form PTO-2038 is attached **TOTAL FEE AMOUNT (\$)**

☐ The Director is hereby authorized to charge the filing fee and application size fee (if applicable) or credit any overpayment to Deposit Account Number: _____ A duplicative copy of this form is enclosed for fee processing.

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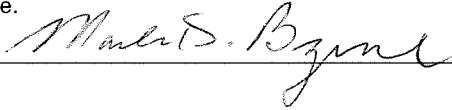


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Date January 23, 2007

TYPED or PRINTED NAME Mark D. Byrne

REGISTRATION NO. 50,125

(if appropriate)

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Docket Number: HYDR-1-1001

**GLOBAL REGISTRY OF FIRE HYDRANTS AND CLOSED SYSTEM FIRE
HYDRANT WATER FLOW TEST**

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FIELD OF THE INVENTION

The general field of the Global Registry of Fire Hydrants is record keeping. Specifically, it is the record keeping of hydrant inspection, testing, and maintenance. Other fields classifiable by this invention are fire safety, water quality, financial asset evaluation, infrastructure evaluation, and land survey equipment. The specific groups impacted by this

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tool will primarily be fire departments and hydrant maintenance crews. The registry will also provide essential tools and information (previously unavailable) to insurance companies and rating bureaus, engineers, planning and development agencies, developers, surveyors, hydrant manufacturers, government agency chief financial officers, businesses, private hydrant owners, and the general public. Additionally, a new and unique computer input device advantageously provides efficient data input into the registry. The computer input device incorporates a central processing unit (CPU), a phone with data transferring capabilities, a GPS unit, and a camera. Data is both manually and automatically inserted into the computer. Coordinates from the GPS unit can be manually or automatically downloaded into the computer. Pictures from the camera are automatically downloaded to the computer. The computer utilizes a customized data entry program to organize data collection. The communication connection between the computer, the GPS unit, and the camera may be hardwired or wireless (such as Bluetooth). The data entry program then utilizes the phone to upload (and download) data to the Global Registry of Fire Hydrants. The phone utilizes a data transferable phone network (such as Verizon's CDMA network or Sprint's EVDO network.)

The Global Registry of Fire Hydrants is a new **product** of collected information into a single database specifically for fire hydrants. The database can be bought, sold, and used for other products. For example, an infrastructure-testing program could buy/lease the database to test the reliability of a water system.

The Global Registry of Fire Hydrants is also a new **method** for maintaining records and scheduling inspections, tests, maintenance, and audits of fire hydrants. It also provides new **methods** for communication between fire marshals and maintenance crews, communication between fire departments and the general public or non-profit organizations such as "Adopt-A-Hydrant". It is a tool to evaluate hydrant trends, to grade hydrant manufacturer's products, to assist the planning of new hydrant locations and community

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development, to assist in land surveying, and to provide record keeping and reporting of water quality.

The Global Registry of Fire Hydrants is the **composition** of a new standard for collecting fire hydrant information. The registry defines a newer and more complete set of data entries field to help describe all aspects of a fire hydrant. By defining a complete and global standard for fire hydrants more third-party groups will find the database useful and will be able to make ‘apple to apple’ comparisons. Specific information collected includes, but is not limited to; hydrant ownership, make, model, year, color, condition, rating of needed maintenance (critical, important, light, or none), specific recommended maintenance, pressure, flow, GPS location, address, time of inspection, environment conditions during inspection, landscaping, digital picture of hydrant, nozzle size and orientation, physical description of hydrant, special markings, service record, water quality, and hydrant number. The registry will be used via a website. The website allows users to view specific hydrant information and it provides support for filtering, evaluating, and reporting selected data.

- a. An inspection crew will use the registry to record all findings regarding a fire hydrant test and inspection. The registry will provide a consistent standard and a single database for data collection. Standardized testing and inspections will provide coherence among all public and private hydrant information and allow for better research and decision making. The hydrant inspection crew may be a fire department, a water department, a city maintenance crew, an owner, a hydrant maintenance company, or the general public.
- b. The fire department will use the registry when preparing for a fire by researching the hydrant condition, the GPS location, the GIS map, and the digital picture for a visual confirmation prior to arriving at the site. This preparation will allow fire fighters to attack a fire quicker and safer. A fire truck may be equipped with access to the online database or a copy of the local data so that a personal digital assistant (PDA), a handheld PC, a smartphone, a tablet PC, or any computer device will be able to view the hydrants in the vicinity of the emergency. The registry will also assist the fire department with directions and provide a GIS map for driving directly to the hydrants nearest to the fire. Additional software will use the registry to help the fire fighters determine which hydrants will provide the best rated flow capacity for a given address. Pre-determination of a hydrant’s location and condition will greatly improve the time to extinguish a fire and save money and lives.

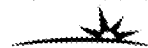
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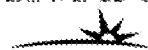


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- c. Fire hydrant maintenance crews will use this registry to schedule and prepare necessary maintenance at specific fire hydrants. The registry will be set up to automatically notify (by email for example) the maintenance crew when a fire hydrant is found to be defective or needing maintenance. In preparing for their work, they will be able to filter the registry's database into a set of hydrants for their area. They can further filter the data to show only hydrants needing critical, important, light, or no maintenance. This final filtered set will show the maintenance crew what hydrants need maintenance, by what priority, what specific maintenance needs to be done, what materials will be needed, GPS coordinates for each hydrant, and a GIS map showing where the hydrant is visually, among other things. They will then be able to update the registry to reflect the repairs. Another use of the registry will use the water flow information of each hydrant in an area to determine where a water main or a water source may be leaking or need improvements.
- d. The local fire marshals will use the registry to verify progress of the maintenance crews. The registry can automatically notify the local fire marshal when a fire hydrant is found to be defective or needing maintenance. And again notified when repaired. That information is critical to the local fire marshal when preparing a fire department for an attack on a fire. The registry will help determine which hydrants to avoid and which hydrants should be considered the primary source for fighting the fire. Additionally the local fire marshal will be able to determine which hydrants are publicly or privately owned. For example, he can determine the specific owner of a private fire hydrant and the hydrant's service record. If there is a comment or concern with a private hydrant then the fire marshal can automatically email his concerns to the private hydrant owner.
- e. Private hydrant owners will register their hydrants in the global registry which will notify the owner when inspection and testing is required. They will also be notified when repairs or maintenance is needed. Additionally, the owner can use the registry to find registered service and repair companies. The registry will also assist the owner in preparing bid requests from the registered service and repair companies. The owner will use the registry to show NFPA compliance as well as the service record to the fire marshal.
- f. State fire marshals will use the registry to review the status of fire hydrants in a specified area (statewide, citywide, or other). The registry will create a report for the state fire marshal to determine, for example, which areas are most and least compliant with NFPA and which areas have the highest and lowest percentage of required repairs. It will also assist him in creating policies and estimating budgets. For example, the state fire marshal may want a new policy requiring Stortz (quick) connections at every hydrant. Reviewing the database reveals exactly how many and where Stortz connections already exist. He can quickly and accurately predict the cost of his new policy. He can then implement his new policy by listing all the hydrants in his jurisdiction as needing 'critical' maintenance for adding a quick connection. The registry will also assist him in emailing all registered users of the new policy. If he chooses, the registry will notify him of any changes in specified areas. This will initiate communication between the state and local fire marshals



- regarding hydrant maintenance. Additionally the fire marshal will be able to determine areas statewide that have little or no hydrants.
- g. Insurance companies and rating bureaus will use the registry to assist them in accurately grading a state, city, district, business, neighborhood, or house based on the conditions and location of hydrants. This allows the insurance companies to give a less broad and therefore less expensive policy. Currently areas receive an ISO rating based on their fire protection 'readiness' and 'capabilities'. Some of the requirements of the ISO rating 'test' are the number of hydrants, the number of hydrants with quick connections, a test of hydrants to verify the condition, and quality of record keeping for hydrant maintenance. All of these things can now be accessed through the registry which will save the ISO representative time and money as well as improve the ISO score and rating. This will save the home and business owners millions of dollars from reduced fire insurance premiums.
 - h. City engineers and planning and development agencies will have multiple uses for the registry. They will use it to update true hydrant location on city water maps (GIS, paper, and other), to decide best places to add new hydrants, to register new hydrants, to review water flow availability at a specific site, to predict problems in a water main or source, to determine ownership of private hydrants, and to plan the development of buildings, parks, neighborhoods, and city main improvements.
 - i. Budgeting committees will use the registry to more accurately predict annual maintenance and repair costs. The registry will be able to report the number of hydrants and what type of maintenance is required for each one. Additionally, the registry can graph the history of an area's hydrants.
 - j. The Environmental Protection Agency (EPA) and the general public will use the registry to verify a state's or city's compliance with the Safe Water Drinking Act and general information about the water quality. They will use the registry to view charts of the history of water quality improvement or degradation in a selected area over a selected time. By noting the quality of water in a GIS map, you could determine where contamination is occurring. For example, the map may show that the hydrants along 23rd Street and 2 hydrants along 24th Street are contaminated. The level of contamination is higher on 24th Street and progressively less on 23rd Street. With further investigation one could determine that the water main on 24th Street (between the 2 hydrants) may be broken and allowing contaminants into the water stream.
 - k. Hydrant manufacturers would use the registry to determine the performance of their products and at the same time, relate it to competitor's products. They would also use the registry to view trends in hydrants. (For example, where wet type hydrants are more common, or if 4" quick connections (like Stortz) are becoming popular.) By using the registry as a guide they can be held accountable for their products. If a common problem exists with a specific make and model then the manufacturer could issue a recall and predict exactly where and how many units would need to be replaced. Manufacturers who use the registry to evaluate trends in hydrants could plan their manufacturing and sales better.
 - l. Consumers will use the registry to determine more reliable products based on a specific make and models past performance. The registry will create reports for consumers indicating which make and models require the least amount of



- maintenance. They will also show which hydrants are most common in a specified area. The registry will also have links to manufacturers and lists of registered suppliers, installers, and maintenance companies.
- m. Installation, testing, inspection, service, repair, and material supply companies will register with the global registry which will allow them to receive orders or bid requests for their service or material. The registry will provide data for the website to handle the correspondence between the parties and preparation of a service or installation contract and/or material order.
 - n. Civil Engineers and Surveyors would use the fire hydrant GIS maps and GPS locations in the registry as survey points during planning and development. The fire hydrants are a fixed survey marker. The GPS location at the top of the hydrant will provide an accurate latitude, longitude, and elevation for land development or boundary determinations.
 - o. Financial officers will use the registry to determine current infrastructure assets for accrual accounting practices in accordance with GASB-34. The registry will provide a total number of hydrants in a given area and an 'estimated life' left for each specific hydrant. This information will allow the financial officer to accurately report the true current value of infrastructure assets which will allow them to use more common accounting practices and improve their bond rating.
 - p. The general public will use the registry to verify the quality of public fire hydrants. They can confirm that their tax dollars are being spent on fixing hydrants. They can also confirm that the specific hydrants near their homes and businesses are working in case of a fire. If they are not, they can make specific requests through the registry to have them fixed. Additionally, they will be able to determine water quality and precise GPS locations. In cities that promote fire hydrant adoption or volunteer painting, the registry will show NFPA suggested colors for painting (based on available water flow) and suggestions for upkeep of the fire hydrant (such as cutting back bushes, surface cleaning, or general landscaping. This will be an easy way to increase public awareness of fire hydrant health and reduce the city's burden of fire hydrant maintenance.
 - q. In general, the model of the registry is applicable to any field. The principles of this invention involve defining a standard for data entry, recording the data in an online database, allowing data to be entered and viewed by any user, allowing a user to filter specific information in the database, allowing a user to set preferences regarding communication, and creating a program that can automatically communicate specific changes to the database. This model has many applications in fields of inventory, inspection and testing, and record keeping.

The basic purpose of the registry is to create a standard for inputting from many sources and output the information many ways to serve each different user. The registry accepts input from any source but typically data will come from an inspection or maintenance crew from a fire department, water department, or a private contractor.

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Ultimately, the registry will define the standard so that all the various sources will be able to communicate and share their data. Viewing the data globally will allow for more intelligent planning in various fields.

The global registry is intended to assist the government, private owners, insurance bureaus, businesses, and the general public in providing information regarding hydrant condition, location, and water quality. The most important purpose is to prepare the fire department for the hydrant and water conditions prior to arriving at a fire incident. This preparation will improve the attack on a fire by showing the best hydrant for the fire department to connect to and also give visual reference of that hydrant prior to arriving at the site. This improvement will allow a fire department to put more water on a fire quicker and save lives and property. Non-working or low performing hydrants will be identified prior to arriving at the site and avoided.

Another major purpose of the registry is to assist maintenance crews in locating and preparing work on hydrants in need of service. Equally important, these needed and/or finished repairs are communicated back to the fire marshal and fire department. This vital communication will inform the fire fighters of hydrant conditions.

The state fire marshals are now able to review the performance of local fire marshals and maintenance crews. They can also make educated statewide decisions regarding fire hydrants. If a specific make and model of fire hydrant is problematic, the state fire marshal can recommend a recall to the manufacturer. Likewise the manufacturer can do a review of the performance of their hydrants and determine the need for a recall. This awareness of fire hydrant quality will encourage manufacturers to build better hydrants.

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The improved method of record keeping hydrant information will improve a city's ISO (insurance) rating which will save money in fire insurance premiums for local businesses and homes. Insurance companies will be able to more accurately rate specific homes, neighborhoods, and cities based on their individual proximity to working hydrants.

A government agency can show their compliance with the Safe Water Drinking Act with the water quality data in the registry. The registry will help define an area that is not compliant and assist in pinpointing the contamination.

All of these benefits will save lives and billions of dollars over time.

Other previous approaches focus on collecting limited data of the fire hydrant and keep the information local to the fire department only. One typical fire hydrant management software program is FIREHOUSE. This program allows the user to input hydrant information, schedule maintenance, and create reminders for service. The local fire department can evaluate their inputted data to determine water flow information and general location. The program (and all others) does not record data such as water quality, GPS location, or condition. Also they do not record suggestions for maintenance or improvements. There are many software programs and none of them communicate with each other. In fact, none of them communicate with other users who use the same program. The registry offers them a common standard for the collected information and a place to share them. With some software changes to these programs they could work well with the global registry by sharing this local information for the benefits of all interested parties.

Commonly, because of high software costs and the lack of organization, departments do not use a formal hydrant management software program and instead rely on pencil, paper,

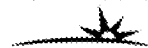
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calendars, and file cabinets. One of the most common deductions in an ISO score is hydrant record keeping.

No global registry currently exists and therefore no global knowledge is available when making widespread decisions regarding fire hydrants or a water system. The disadvantage of using fire hydrant management software is the limitation of communication within the department and interdepartmentally. Commonly the person who inputs the data is not the one who uses the data. The software is limited to a specific computer. The system of inputting and using data relies on the location and type of the specific computer. For example, the fire department personnel may inspect the fire hydrant and document required maintenance. But the hydrant maintenance crew (commonly water department personnel) does not have easy access to the software and cannot review or update required maintenance. Also, the maintenance crew does not have an easy way to communicate the status of a damaged hydrant to the fire marshal. No software program gives a department the ability to share their information with other departments either using the same software or using other software. In the same sense, there is no standard format for collecting fire hydrant information. If there were a way to share a local database globally, the information would not likely integrate well. Even if there were a way to integrate the different data types, third party groups like state fire marshals, insurance groups, and the general public would not have access to the data without the correct software. Therefore, the state fire marshal continues to be ignorant of the state's fire hydrant conditions, insurance groups have to give higher premiums because of their uncertainties, and the general public has less care for the water system and the crews that maintains it. The general public also has no communication with the fire department when trying to assess how they can volunteer their services in programs such as 'Adopt a hydrant' or 'Paint a hydrant'.

The software programs also fail to record all the available data upon an inspection. For instance, no currently available software allows input of results from a water quality test,

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a digital picture, GPS location, suggested maintenance, owner, or owner's address (as examples).

All other approaches fail to generate reports summarizing an area's data such as manufacturer's reliability, flow availability, or departmental maintenance performance.

Additionally, software programs are generally expensive and require their own maintenance. Adding licenses of the software to other computers can also be expensive.

Many of the prior approaches fail to keep good fundamental records which affect the departments I.S.O. score and affects the local businesses and residence's fire insurance premiums.

Additionally, all previous approaches are tailored for input by a government agency such as a fire department or maintenance crew. This generally discourages the department from seeking independent (and unbiased) private companies to inspect and maintain fire hydrants. Allowing an accessible format to independent contractors would allow cheaper maintenance costs and saves the department and taxpayer's money.

Create a complete list of data entry fields that can be collected at a fire hydrant. Research the typical and non-typical groups that are impacted by fire hydrants and city infrastructure. For example, including things such as GPS location will be beneficial to non-typical parties such as land surveying, also collecting information on water quality will be beneficial to the Environmental Protection Agency, and hydrant number and quality will be beneficial to a departments financial officer.

After creating an all-inclusive standard for hydrant (and related) data, create an online database to store and share all collected information. Having an online database on the World Wide Web offers a common standard that everyone with Internet can access.

Create a filtering process for the database so that users of the registry can view data sets based on specified criteria. Also allow them to organize the results in any order and by

any specific data field. For example, allow a user to search all the hydrants in the city of Gig Harbor, Washington that have a flow greater than 1500 gpm and require maintenance.

The results will be shown in a table form. The user can then manage this data set or again filter the results into a more specific data set. The table form will have an option to see a thumbnail view of the digital picture of the hydrant. Any specific hydrant can be selected in table form to open the entire data on that hydrant. Also in table form, the user can 'Select All' (or 'Unselect All') or specifically select (or unselect) hydrants from the data set. Selected hydrants can be printed or emailed. This filtering/search tool will be useful in managing the data to meet users needs.

Create a program to serve the registry that can summarize specific fields of a subset of the database. For example, a search for all the hydrants in Gig Harbor, Washington that require critical and important maintenance reveals 32 hydrants. A summary list of the total material needed and labor required can be reviewed and printed. Through the use of a bidding program that also serves the registry, bids can be requested, received, and organized from private registered companies to supply and repair work. The hydrant owner can then contact the winning bidder.

Create an online hydrant information form as well as a physical paper document form to distribute to fire departments, the state fire marshals, city permit desks, and other government agencies with a letter encouraging them to use this new standard format for collecting information on fire hydrants and the benefits of using this new format. All newly permitted fire hydrants will record as much data as possible and most importantly, the owner, the owner's contact information, the location of the hydrant, and any required service agreement.

Contact hydrant inspection and maintenance companies to register with the global registry and to start using the standard form. Create a list of registered hydrant maintenance companies online for hydrant owners to call if needed.



Also, encourage government agencies to participate in using the global registry as their standard. Additionally, contact hydrant management software companies to program compatibility with the global registry.

Protect the database by securing accessibility through registered users with username and password. Registered users will have access and will set accessibility based on a rank they are given by the managers of the registry. Higher-level access will be Global, Federal, State, and Local. Lower level access will be Third Party, Registered General Public, and non-registered general public. Private hydrant owners will be given a Private rank and have access and set accessibility of their hydrants. Higher level rank users will have access to all information regardless of settings and will be able to set accessibility for lower rank users. For example, a state fire marshal will always have access to every hydrant in the registry but may choose to limit accessibility to specified hydrants or even specific information of the hydrant. A local fire marshal would be registered with a 'Local' rank. He could choose to specifically limit access of the hydrant's maintenance records in his district. A state fire marshal (ranked 'State') would not be limited by the local fire marshal and, in fact, could choose to override the local fire marshals settings and allow full access to the general public or whoever. This hierarchy of accessibility management allows authorities to protect important information regarding their water system infrastructure. Private owners of fire hydrants will always have full access to their hydrants in the database but is still subject to Local, State, and Federal settings. For example, a Private fire hydrant owner may limit accessibility to his fire hydrant information entirely, but is overridden by the Local Fire Marshal's setting that requires all hydrants report the size and number of outlets and flow. The 'Global' ranking is generally reserved for the managers of the global registry who has access to all information. They use the information to create overall reports such as the number of hydrants in a state, the quality of manufacturers, etc. The reports do not offer specific information about the hydrants and are available to all users (registered and non-

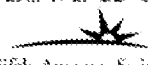
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registered). They also monitor activity and settings by registered users and determine if it's in the registry's best interest to keep those settings or override them.

Create a program to search the database for incorrect and erroneous data. This will improve the quality of the data that will give users more accurate reports for their varying needs.

Create a program that allows different registered parties (such as a State FM or a Local FM) to communicate concerns regarding hydrant data. The program will allow a registered party to choose to be automatically updated on specific changes for a specific area. Encourage use to third parties such as the I.S.O., the E.P.A., planning and development agencies, land surveying agencies, city financial officers, private hydrant owners, and the general public.

This invention also covers the model of collecting data with a computer (laptop, tablet, p.d.a. or other) using a customized software program for inputting specific data (GPS, picture, typed, selected, scanned, or received wirelessly). Employee information is also inputted (name, work hours, etc.). The data is transmitted and received via wired or wireless network to a database. Information regarding worker's name, hours worked, etc is sent to accounting software for automatic billing and payroll. Information regarding the specific data collected in the field is sent to a 'global' database. Using custom software the 'global' database is viewable, searchable, and manageable directly from a computer or on a website. This 'turnkey' model can be used by anyone who needs to collect and manage data.

Examples include telephone poles, street lights, traffic lights, streets, trees, bridges, mailboxes, animal tracking, automobiles, warehouse inventory, fire department connections, post indicator valves, signs, fire sprinkler systems, and other utilities.

One specific feature of the global registry that is new and non-obvious is the standard for hydrant information collection. No other standard considers the use of GPS in locating hydrants, a digital picture for visual reference, water quality results, hydrant conditions,

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hydrant environment conditions, suggested maintenance, ownership and contact information, hydrant make, or hydrant model.

Another specific feature of the global registry is its online accessibility. The registry is accessible on the World Wide Web at www.hydrantregistry.org and also www.nrfh.org . Other accessible domain names are www.hydrantregistry.com , www.grfh.org, and ???.

The general field of the Closed System Fire Hydrant Water Flow Test is environmental protection. Specifically, it is the protection of the environment from water damage caused by flowing fire hydrants. Other fields classifiable by this invention include water conservation, landscape protection, water main flushing, water quality testing, and hydrant maintenance and testing. The specific groups that will benefit from this invention are private hydrant owners, general public, fire departments, water departments, water companies, hydrant testing and maintenance companies, and the Environmental Protection Agency (EPA). Another unique invention that is being created for use in this system is a fire hydrant in-line electromagnetic flow meter. This in-line flow meter is one of the devices in the closed system.

The 'Closed System' is a new method of testing and maintaining fire hydrants that protects the environment from water damage. It is also a method of controlling drainage during and after a fire hydrant flow test or flushing.

The 'Closed System' is also a device consisting of a water passage device such as hose or pipe connected to a water control valve and an in-line flow meter connected to a tank for collecting the water. The tank is further connected to a water control drain valve which may be connected to hose or pipe. It is a 'closed system' because it does not allow the water to flow uncontrolled into the 'open environment'.

The 'Closed System' is the product of these devices connected together for the purpose of controlling water flow from fire hydrants.

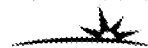
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Hydrant inspection and testing companies can improve the quality of their testing and obtain more consistent results. Companies and jurisdictions responsible for testing hydrants will be able to provide a safer test for the environment and immediate landscaping. This product will decrease the amount of flow time on a hydrant allowing the testing party to test more hydrants per day. (This also conserves water). A closed system test will allow testing parties to safely and quickly test hydrants located in high traffic areas such as downtown or on highways. (This was previously impractical to do because the danger of expelling thousands of gallons of water over roads with high traffic). Some hydrants are located in areas with protected landscaping or environmentally protected areas. Testing parties will now be able to test these hydrants with no impact to the environment. They will also be able to control drainage of water collected by these tests into areas that are capable of supporting the necessary water flow. Other applications include testing fire pumps, water pumps, water tanks, or any other water source. In addition, the product could be used to test other liquids.

Other applications for the Closed System Fire Hydrant Water Flow Test is advantageously applied when water reservoirs are low, such as during drought seasons; and the system may be further adapted for performing water quality testing, obtaining GPS surveying information, and conveying the GPS surveying information to data storage mediums, for example a personal computer database or PDA device, in the form of text, pictures, and GPS data.

Application of testing and flushing fire hydrants to a tank will allow testing/flushing companies to preserve water, landscaping, and environment while servicing. Additional commercial applications include the rental or sale of such systems that would allow owners, private contractors, government agencies, etc to test fire hydrants. The system would include pipe or hose connected to a flow meter device connected by pipe or hose to a control valve connected by pipe or hose to a tank (such as a water tank truck, or tank trailer). The tank

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would be connected by pipe or hose to a drain valve, and to discharge to a safe area. The method of testing a hydrant to a closed system would be protected by such a system.

The purpose of the invention is to assist parties in testing hydrants quicker and safer, to protect the areas around the hydrant, and to provide a method for a consistent test. The NFPA requires that hydrants be tested annually. By our current methods, few to no cities are able to meet this requirement. The more hydrants that are tested annually will lead to more hydrants working when they are needed in an emergency. Example: the city of Seattle has 18,000+ hydrants. 25% of these hydrants are tested annually. That means 75% of the hydrants are not tested per code and may not work when needed costing the fire department seconds or minutes, risking lives, property, and money. Speeding up testing will reduce the cost and allow departments to adhere to testing code. This method of testing will also conserve the amount of water needed for an accurate and consistent test by cutting water consumption approximately 90%. In addition, testing every hydrant annually will improve water quality.

Fire departments, water departments, maintenance crews currently test straight to the environment and landscaping. Some products ("Hydrant Monster") use hoses to direct flow through hoses to an immediate area. Flushing is done over an extended amount of time at certain selected hydrants (not each hydrant). Water quality testing is done sparsely or as needed. Tests are done with a pitot gauge held in the stream of high flow water and documented for calculations at a later time. Testing in most cities is not done at all hydrants on an annual basis. Major Washington State cities are tested every 2, 4, or even 10 years (Everett) according to local TV news reports. No care is taken in drainage of water. Thousands of gallons of water simply travel to the lowest point from the hydrant whether the area or drain is capable of handling the capacity or not. Damage frequently occurs at these locations as well.

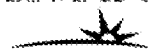
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The disadvantages of the prior approaches are the damages they cause to the environment, the waste of water, the poor water quality, inconsistent testing producing inconsistent results, and damage to the hydrant itself. Hydrants are placed per code which does not take into account the areas ability to withstand high velocity water flows or ability to drain thousands of gallons of water. Current methods take little to no consideration of the damage to the environment. Hydrants in areas with high traffic (downtown metropolis or highways) are often not tested because of the danger of introducing huge volumes of water to traffic. The “Hydrant Monster” directs water using a hose with a two-way outlet but only as far as the hose can reach. In the middle of a downtown metropolis this will not help. Current methods require over 2000 gallons of water per hydrant. The 18,000 hydrants in Seattle require over 36,000,000 gallons to test (compared to approximately 3,600,000 gallons with our method). That translates to over 32 million gallons of water wasted. Hydrants often are damaged by the testing due to improper shut down after a flow test. This is called ‘water hammer’ and is caused by the high velocity water hitting the shut-off valve. (Our test utilizes a separate shut-off valve within the closed system, therefore no hydrant is in danger of ‘water hammer’.) The current method of testing with a pitot tube is very inconsistent. Holding a gauge in a water stream flowing 2000 gallons per minute will produce inconsistent results. The tester is responsible for holding and reading a gauge that is normally ‘bouncing’ between two numbers and while thousands of gallons are spilling and collecting all around him (extreme conditions).

Assemble a closed system consisting of a hose, a shut-off valve, a ‘through’ flow meter (such as an electromagnetic flow meter), and a tank (such as a water truck). Allow the tank to gauge and manage the amount of water so as to assure proper flow test results (such as a tank level alarm, and/or an overflow outlet, and a drain valve. Connect the closed system to a water source such as fire hydrant. Close the shut-off valve within the closed system. Open the fire hydrant gate valve allowing water to enter the closed system up to the

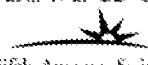
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closed shut-off valve. Quickly open the shut-off valve in the closed system. Take a reading from the electromagnetic flow meter. Close the shut-off valve in the closed system. Then close the fire hydrant shut-off valve. Remove the connection to the closed system.

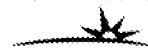
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We claim:

1. A fire hydrant registry system comprising:

A computer having a central processing unit configured to receive microprocessor readable instructions;

And a plurality of microprocessor readable instructions configured to provide historical and active surveillance information of fire hydrants

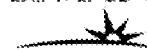
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Electronic Patent Application Fee Transmittal				
Application Number:				
Filing Date:				
Title of Invention:		Global Registry of Fire Hydrants and Closed System Fire Hydrant Water Flow Test		
First Named Inventor/Applicant Name:		Andrew Stanton Moren		
Filer:		Richard Thomas Black/Tricia Walker		
Attorney Docket Number:				
Filed as Small Entity				
Provisional Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Provisional Application filing fee	2005	1	100	100
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Total in USD (\$)				100

Electronic Acknowledgement Receipt

EFS ID:	1460297
Application Number:	60886269
International Application Number:	
Confirmation Number:	9972
Title of Invention:	Global Registry of Fire Hydrants and Closed System Fire Hydrant Water Flow Test
First Named Inventor/Applicant Name:	Andrew Stanton Moren
Customer Number:	25315
Filer:	Richard Thomas Black/Tricia Walker
Filer Authorized By:	Richard Thomas Black
Attorney Docket Number:	
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Time Stamp:	19:48:25
Application Type:	Provisional

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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	HYDR-1-1001TL01signed.pdf	115248	no	2

Warnings:

Information:					
2		HYDR-1-1001Ap.pdf	137537	yes	19
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Specification		1	18	
	Claims		19	19	
Warnings:					
Information:					
3	Fee Worksheet (PTO-06)	fee-info.pdf	8142	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			260927		
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