UNITED STATES PATENT APPLICATION FOR:

ALTERNATIVE FUEL FILLING STATION

INVENTOR:

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ATTORNEY DOCKET NUMBER: BOYR/0011USP01

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ALTERNATIVE FUEL FILLING STATION

BACKGROUND OF THE INVENTION

Field of the Invention

[0001] U.S. natural gas production is increasing and the price of natural gas is currently lower than the price of gasoline or diesel fuel, leading to increasing interest in natural gas-based fuels for vehicles. The most common type of natural gas vehicle operates on compressed natural gas (CNG), but there is also an interest in liquefied natural gas (LNG) as a vehicle fuel, especially for commercial trucks because LNG, which is natural gas super-cooled to its liquid form, has a much higher energy density than CNG. Hydrogen is also emerging as an alternative fuel for vehicles and can be stored and provided in liquefied or gaseous form. In the case of compressed hydrogen (CH) the gas is kept under pressures to increase its storage density. For hydrogen to be in a fully liquid/ cryogenic state (LH) without boiling at atmospheric pressure, it is cooled to −423°F.

Description of the Related Art

[0002] At CNG refueling stations, the natural gas is typically taken from the local gas utility's line at low pressure, compressed to around 3,600 pounds per square inch gauge ("psig"), and then stored in a vehicle's storage tanks at high pressure. For example, at a "fast-fill" CNG station, the combination of a relatively large compressor coupled with a high-pressure storage tank system fills the vehicle's storage tanks in about the same amount of time it takes to fuel a comparable petroleum vehicle. A typical fast-fill CNG station is shown in Figure 1. Some of the major components of the fast-fill CNG station include an inlet gas line 10 (from a utility company); a dryer 15 to reduce the moisture content of the natural gas; and a natural gas compressor 20. One example of a natural gas compressor 20 is an Ingersoll Rand compressor package, which includes a compressor, an electric motor, a motor starter, a cooler, and controls. The compressor package will increase the pressure of the natural gas in the inlet gas line 10 from about 5 pounds per square inch gauge ("psig") up to

about 5,000 psig. At least one storage vessel 25 is capable of holding natural gas at about 5,000 psig and supplying the natural gas to a gas dispenser 30 for dispensing to a vehicle's storage tanks. In the case of HG, the hydrogen is compressed from X bar to X bar and can then be pumped or delivered to a tank at the refueling station.

[0003] LNG (or LH) stations are structurally similar to gasoline/diesel stations, because they both deliver a liquid fuel. Figure 2 illustrates some typical components of an LNG station, including a storage tank 50, a pump 55 for transmitting the liquid fuel from the storage tank 50, some type of a card reader 60 for charging a customer for the liquid fuel, and a dispenser 65 to carry the liquid fuel to a vehicle 70. In the mobile fueling arrangement shown in Figure 2, LNG is delivered by a tanker truck that contains metering and dispensing equipment onboard to fill the storage tank 50. In the case of LH, the cooled gas is likewise delivered to a storage tank at the refueling station.

[0004] In addition to expenses related to construction ($1 to $4 million, according to the Energy Information Administration), a fueling site like the ones shown in Figures 1 and 2 require at least one storage tank as well as pumps/compressors. For this reason, there is interest in converting gasoline/diesel stations to those that can supply CNG/LNG. Current attempts to retro-fit existing stations have envisioned setting aside surface area for the tanks, compressors, pumps, and related equipment or even excavating the gasoline/ diesel tanks and replacing them with tanks suitable for natural gas. These solutions are expensive and create a substantial change of the footprint of the filling station.

[0005] There is a need, therefore, for a simple and efficient arrangement to convert or retro-fit a gasoline/ diesel station into one that can also provide CNG and/or LNG, hydrogen or any other alternative fuel that would typically require a retro-fit.

SUMMARY OF THE INVENTION

[0006] Embodiments of the invention generally relate to a natural gas filling station, comprising a dispenser; a structure covering the dispenser and having a canopy top; at least one tank disposed on the canopy top, the tank having at least one gas therein comprising CNG, LNG, CH, or LH; and at least one line between the tank and the dispenser to communicate the gas between the tank and the dispenser.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] So that the manner in which the above recited features of the invention can be understood in detail, a more particular description of the invention, briefly summarized above, may be had by reference to embodiments, some of which are illustrated in the appended drawings. It is to be noted, however, that the appended drawings illustrate only typical embodiments of this invention and are therefore not to be considered limiting of its scope, for the invention may admit to other equally effective embodiments.

[0008] Figure 1 is a drawing of a prior art CNG filling station.

[0009] Figure 2 is a drawing of a prior art LNG filling station.

[0010] Figure 3 is a perspective view of a filling station that is constructed or retro-fit to provide CNG/LNG in addition to gasoline and diesel fuel, according to one aspect of the invention.

DETAILED DESCRIPTION

[0011] Figure 3 is a perspective view of a filling station 100 that is constructed or retro-fit to provide CNG and/or LNG in addition to conventional fuels, such as gasoline and diesel fuel. While the Figure illustrates aspects of the invention involving CNG and LNG, it will be understood that the arrangement is equally effective for other liquefied or compressed gases, like CH, or LH. Like a typical filling station, the retro-fit filling station 100 includes one or more islands 101 having one or

more dispensers 102, 105 provided thereon. In the embodiment shown, the dispensers 102 are constructed and arranged to provide CNG and/or LNG, while the other dispensers 105 provide conventional fuels, such as gasoline and diesel. Also, like conventional filling stations, the filling station 100 in Figure 3 includes a canopy 120 (or other similar type of support structure) to cover the dispensers 102, 105 and the vehicles being re-fueled using the dispensers 102, 105.

[0012] In the embodiment shown, the upper surface of the canopy 120 (e.g., the top of the canopy 120) is used to hold one or more tanks 125 containing CNG and/or LNG, and to hold one or more lines 127 that are available to and from the tanks 125 for receiving fuel (e.g., CNG and/or LNG) and for dispensing the fuel to the dispensers 102 and thus to vehicles underneath. In each retro-fit case, the canopy 120 can be reinforced as needed to safely bear the weight of the tanks 125 and their contents. In the case of CNG or CH, the load added to the canopy 120 is essentially limited to the weight of the tanks 125 themselves as a cubic meter of natural gas weighs only 0.714 kilograms. In the case of either CH or LH, relatively low energy content by volume necessitates relatively large tanks. For example, LH storage vessels are nominally 1,500-, 4,500-, 9,000-, and 20,000-gallon tanks.

[0013] At an end of the canopy 120 is a superstructure 130 housing one or more compressors 135 related to CNG as described above in relation to Figure 1. In addition to the compressors 135, the upper surface of the canopy 120 and the superstructure 130 can hold a variety of equipment related to natural gas fuel including supply tanks and/or accumulators upstream of the compressors, as well as pumps, filters, dryers, etc. In one embodiment, one or more pumps 137 are disposed on the upper surface of the canopy 120 and constructed and arranged to pump LNG into one or more of the tanks 125 via one or more lines 139. In this manner, no additional “real estate” is necessary for a conversion of a conventional gas/diesel filling station to one configured to supply natural gas.

[0014] In the case of CNG, a line 126 runs from a utility line for supplying natural gas at a low pressure to the compressors 135 in the superstructure 130, which

compress the natural gas to a higher pressure, and another line 127 runs from the compressors 135 to one or more of the tanks 125 for storing and holding the compressed natural gas. In the case of LNG (or LH), the liquid fuel is typically delivered by truck and pumped into the tanks 125 provided for that fuel, via the pumps 137 and lines 139 for example. One or more flow control devices, such as valves, chokes, etc., as known in the art can be coupled to the lines 126, 137, 139 to control the flow of the gas, CNG, and/or LNG to and from the compressors 135, the pumps 137, the tanks 125, and/or the dispensers 102 as needed.

[0015] There are a number of advantages to designs like the one shown in Figure 3. First, inherent problems associated with placing the tanks 125 on or below ground are avoided. For example, CNG or CH tanks, because they are filled with a gas, have necessarily been mounted at ground level because high floatation of the tanks requires substantial anchoring to prevent flotation when the tanks are buried in the ground. LNG or LH tanks can be more easily buried but in any case the ground must be excavated to hold the tanks that are necessarily well insulated and made from a material which can withstand the extreme cold (−260 °F for LNG and −423°F for LH) of the liquefied natural gas they are holding. The placement of equipment on the top or upper surface of the canopy 120 is also an improvement from a safety standpoint as it removes the tanks from the already crowded area and confined space around a typical filling station, such as filling station 100. Additionally, where the natural gas is lighter than air, putting the tanks 125 on the upper surface of the canopy 120 improves safety in the event of a leak occurring. Specifically, the natural gas will leak into the atmosphere at a location high above and away from individuals and vehicles at the filling station 100, whereas if the tanks 125 were on or below ground, then individuals and vehicles are at risk of being directly exposed to the natural gas leak. The arrangement also increases efficiency as it permits the compressors 135 and tanks 125 to be closer to the dispensers 102 and the fueling point, thereby facilitating a quick-fill application.

[0016] In addition to space savings and the avoidance of buried tanks, the infrastructure expense is greatly reduced on conversions of existing stations by not running the high pressure piping underground from the compressors 135 to the dispensers 102. In the embodiment described and shown in Figure 3, the piping (e.g., the lines 127) runs along the upper surface of the canopy 120 and down an existing upright. Finally, as stated above, because natural gas is lighter than air, having it above the fueling zone results in a safer design.

[0017] In one embodiment, LH is delivered to a refueling station and pumped to an elevated tank as shown in the figures. Thereafter, the LH is converted to a gaseous state at around 5000psi, possibly through the use of a vaporizer, and then delivered to a vehicle as CH. A typical installation normally consists of a tank, a vaporizer, and controls. While steam and electric vaporizers are occasionally used, the most widely employed vaporizers obtain heat from the surrounding air. These "ambient air" vaporizers are provided in arrays of many-finned tubes to provide vaporization. In some instances, vehicles are equipped with their own means for converting LH to CH, and in those instances, liquid hydrogen is pumped directly into the vehicle's tank.

[0018] While the foregoing is directed to embodiments of the invention, other and further embodiments of the invention may be devised without departing from the basic scope thereof, and the scope thereof is determined by the claims that follow. For example, the embodiment shown and described presumes a retro-fit arrangement that provides alternative fuels, e.g., CH and/or LH, as well as conventional fuel. However, the design can be just as easily utilized in a new station, and the invention is not limited to one where different fuel types are available. Additionally, the essence of the invention is elevating equipment related to fuel at a filling station, and the principles of the invention are usable in any number of ways and are not strictly limited to the elevation of equipment by utilizing a canopy top.

Claims:

1. An alternative fuel filling station, comprising:

a dispenser;

a structure covering the dispenser and having a canopy top;

at least one tank disposed on the canopy top, the tank having at least one gas therein comprising an alternative fuel; and

at least one line between the tank and the dispenser to communicate the alternative fuel between the tank and the dispenser.

2. The station of claim 1, wherein the alternative fuel is at least one of CH or LH.

3. The station of claim 1, further comprising means to convert LH to CH.

4. The station of claim 3, wherein the means is located on the canopy top.

5. The station of claim 4, wherein the means is a vaporizer.

6. A method of providing natural gas at a filling station, comprising:

pumping and storing CH or LH into a tank disposed on an upper surface of a structure covering a dispenser;

supplying CH or LH from the tank to the dispenser; and

dispensing the CH or LH from the dispenser to a vehicle.

7. The method of claim 6, further comprising pumping CH or LH into the tank using a compressor or a pump.

ABSTRACT OF THE DISCLOSURE

A method and apparatus for a natural gas filling station comprising a dispenser; a structure covering the dispenser and having a canopy top; at least one tank disposed on the canopy top, the tank having at least one gas therein comprising CNG or LNG; and at least one line between the tank and the dispenser for communicating the gas between the tank and the dispenser.

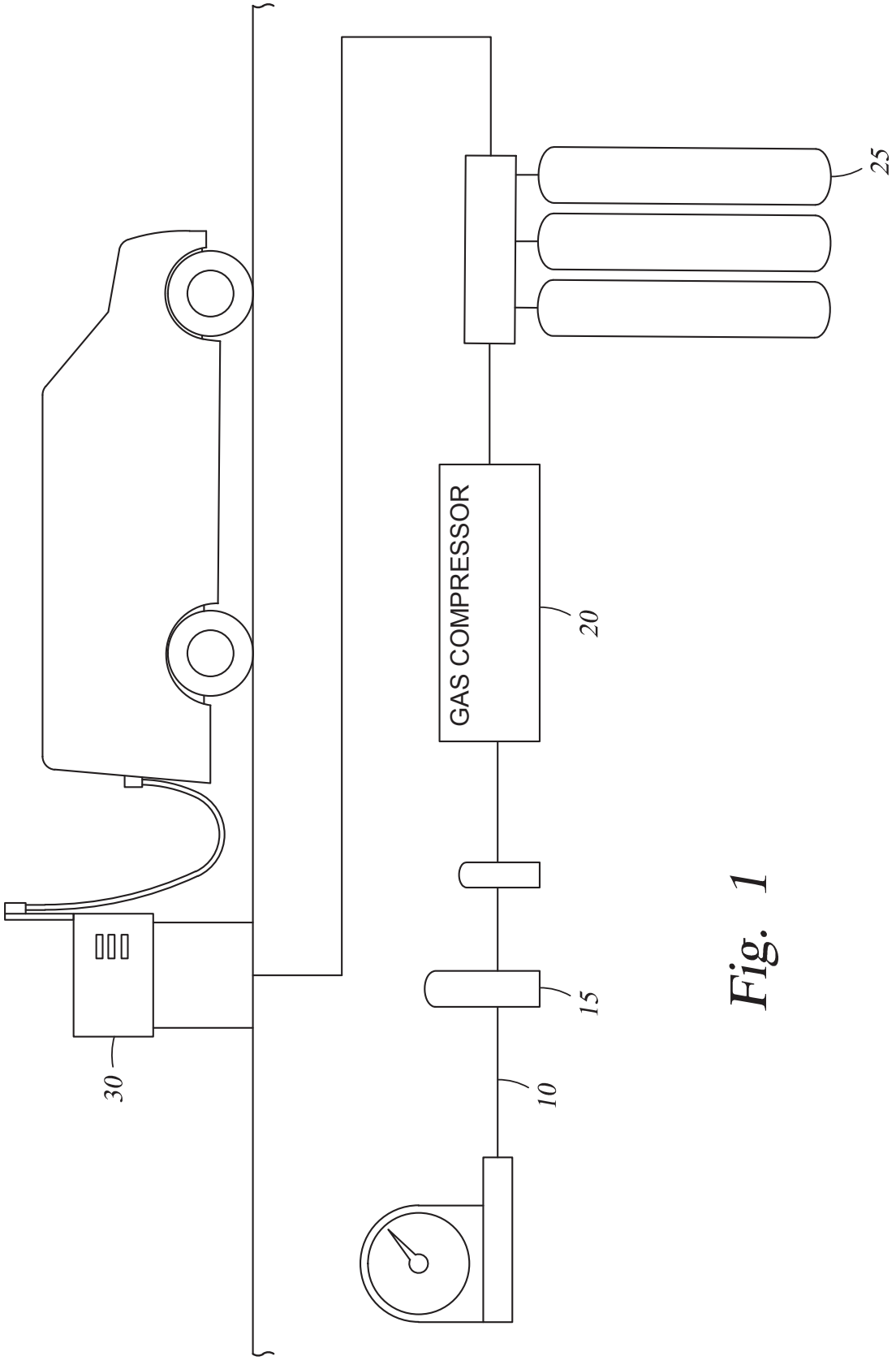

Fig. 1

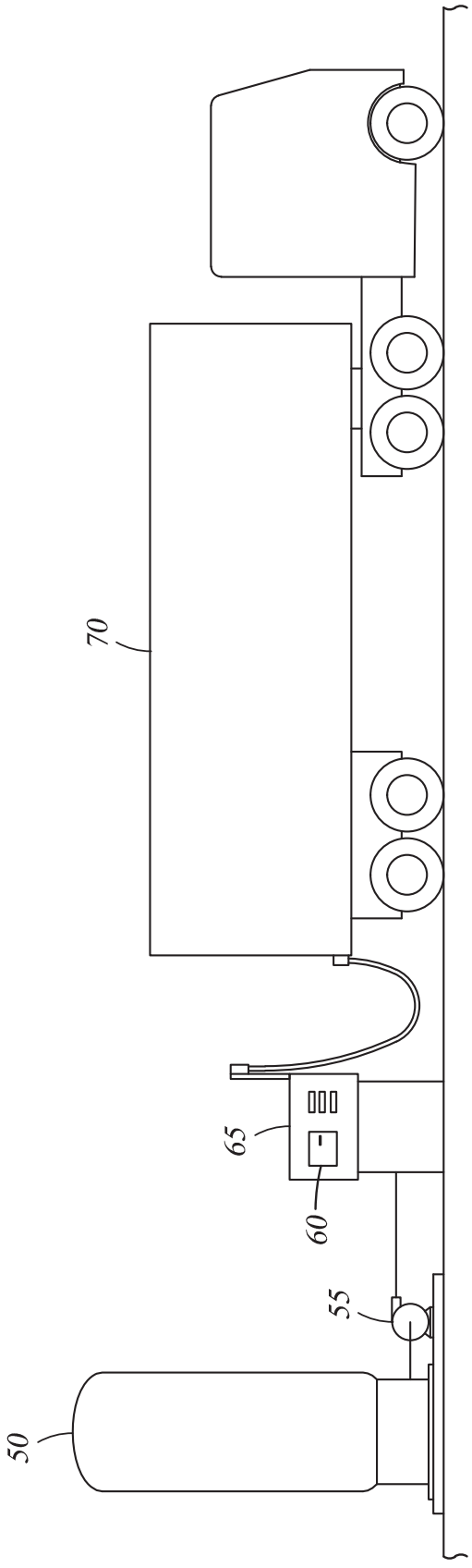

Fig. 2

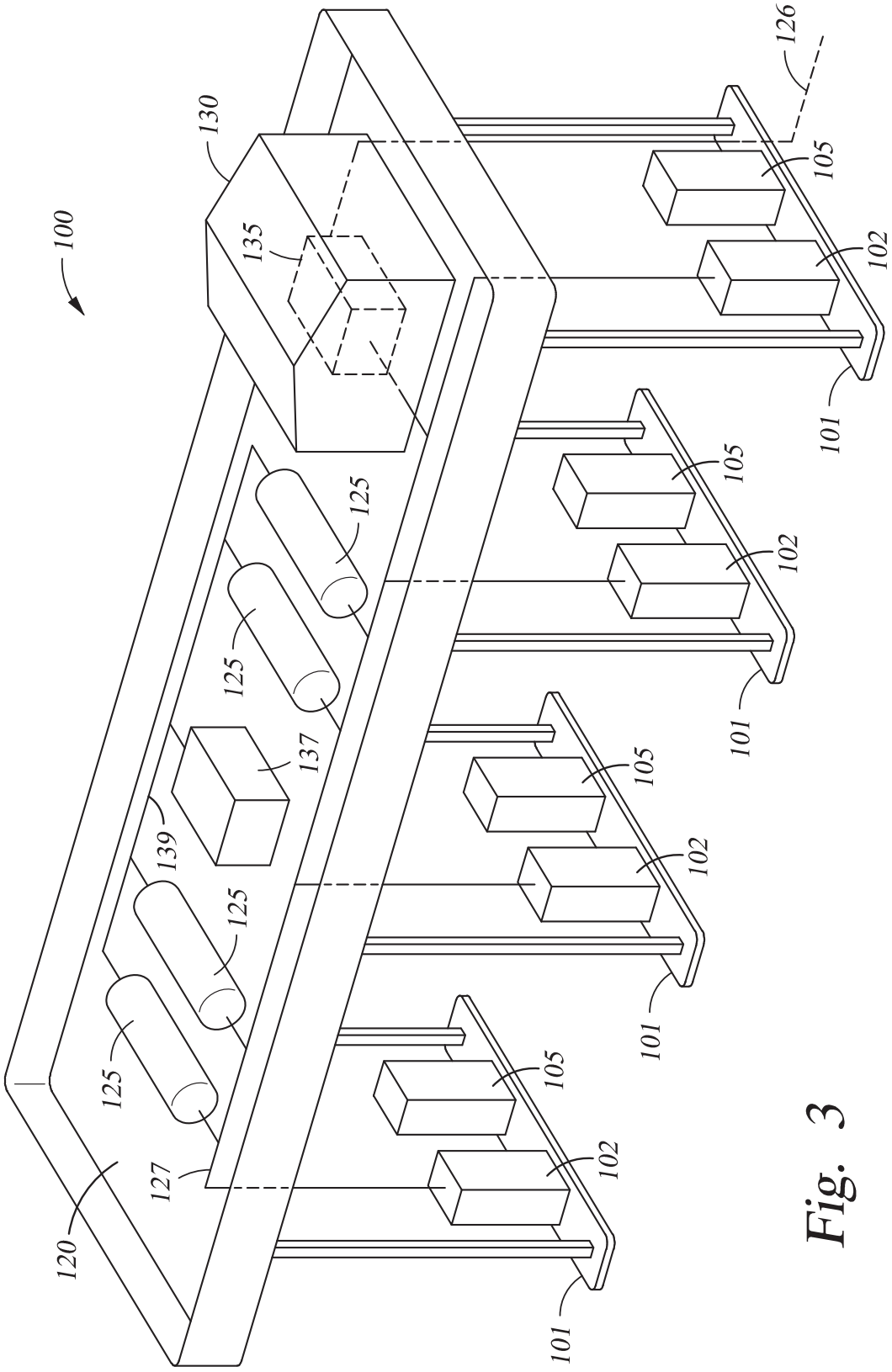
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Fig. 3

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	BOYR/0011USP01
	Application Number	
Title of Invention	ALTERNATIVE FUEL FILLING STATION	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2:

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor 1 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Mark	L.	BOYER	

Residence Information (Select One) ◉ US Residency ○ Non US Residency ○ Active US Military Service

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Address 2			
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Postal Code	77064	Country	US

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

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Customer Number	26290		
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Application Information:

Title of the Invention	ALTERNATIVE FUEL FILLING STATION		
Attorney Docket Number	BOYR/0011USP01	Small Entity Status Claimed	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	3	Suggested Figure for Publication (if any)	

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Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	◉ Customer Number	○ US Patent Practitioner	○ Limited Recognition (37 CFR 11.9)
Customer Number	26290		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.
When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending		Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
	Continuation in part of	14/328480	2014-07-10

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Prior Application Status	Expired		Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
14/328480	Claims benefit of provisional	61/845212	2013-07-11
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button.			

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)[i] the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

			Remove
Application Number	Country[i]	Filing Date (YYYY-MM-DD)	Access Code[i] (if applicable)
Additional Foreign Priority Data may be generated within this form by selecting the **Add** button.			

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

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Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

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☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	BOYR/0011USP01
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Title of Invention	ALTERNATIVE FUEL FILLING STATION	

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

Clear

◉ Assignee	○ Legal Representative under 35 U.S.C. 117	○ Joint Inventor
○ Person to whom the inventor is obligated to assign.	○ Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor:

If the Applicant is an Organization check here. ☒

Organization Name	BOYER, INC.

Mailing Address Information For Applicant:

Address 1	8904 Fairbanks North Houston		
Address 2			
City	Houston	**State/Province**	TX
Country	US	Postal Code	77064
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button.

Assignee Information including Non-Applicant Assignee Information:

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Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

If the Assignee or Non-Applicant Assignee is an Organization check here. ☐

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix

Mailing Address Information For Assignee including Non-Applicant Assignee:

Address 1			
Address 2			
City		**State/Province**	
Country i		Postal Code	
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Email Address			

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Signature:

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This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/William B. Patterson/			Date (YYYY-MM-DD)	2017-01-23
First Name	William	Last Name	Patterson	Registration Number	34,102

Additional Signature may be generated within this form by selecting the Add button.

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This collection of information is required by 37 CFR 1.76. 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 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet 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.**

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

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EFS ID:	28132711
Application Number:	15412267
International Application Number:	
Confirmation Number:	1059
Title of Invention:	ALTERNATIVE FUEL FILLING STATION
First Named Inventor/Applicant Name:	Mark L. Boyer
Customer Number:	26290
Filer:	William Bruce Patterson/Teresa Fish
Filer Authorized By:	William Bruce Patterson
Attorney Docket Number:	BOYR/0011USP01
Receipt Date:	23-JAN-2017
Filing Date:	
Time Stamp:	12:44:49
Application Type:	Utility under 35 USC 111(a)

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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		BOYR0011USP01_Patent_Application.pdf	90273 d2460ec68e7a427be7a4390488738539e209ebd6	yes	9

	Multipart Description/PDF files in .zip description			
	Document Description	**Start**	**End**	
	Specification	1	7	
	Claims	8	8	
	Abstract	9	9	

Warnings:					
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2	Drawings-only black and white line drawings	_BOYR0011USP01_Drawings.pdf	93144 235d67c1babe9599761ae8633a474017d7490078	no	3
Warnings:					
Information:					
3	Application Data Sheet	BOYR0011USP01_ADS.pdf	1822494 24af895537dd56166837dc628ff6277065b532e5	no	8
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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.

National Stage of an International Application under 35 U.S.C. 371

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.

New International Application Filed with the USPTO as a Receiving Office

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.