(shown in FIG. 35) by rotating shaft 58 clockwise as shown in FIGS. 4 and 8 so that throttle plate 56 is disposed substantially parallel to the direction of flow of air through the venturi. *Id.* at col. 9, lns. 4-10. Carburetor 50 is also preferably provided with an accelerator pump and shut-off device 104 having a piston 106 carrying an O-ring 107, valve 108, spring 110, O-ring valve seat 112 and inlet passage 114 (FIG. 8), and an associated outlet passage 116 (FIG. 2), back check valve assembly 118 therein and downstream passage 120. *Id.* at col. 10, lns. 5-11. As the throttle shaft 58 is rotated to move throttle plate 56 from the normal idle position shown in FIGS. 1, 8 and 34 to the wide open throttle position shown in FIG. 35, a cam 122 on the throttle shaft advances the piston 106 and associated valve 108 so that the tip of valve 108 bears on O-ring seat 112, 114 to thereby shut-off flow of fuel from metering chamber 66. *Id.* at col. 10, lns. 17-22. When valve 108 is open, fuel normally flows from chamber 66 via inlet passage 114 through O-ring 112 into the chamber 126 defined between O-ring 112 and piston 106, and thence from chamber 126 through outlet passage 116, back check valve 118 and passage 120 to the idle well under the manually adjustable flow control of the idle adjustment needle valve assembly 102. *Id.* at col. 10, lns. 22-29.

However, there is no teaching in Swanson of a liquid fuel cut-off having a rotating shaft extending with a fuel seal around the shaft to seal an aperture in the carburetor and/or, a blocking member coupled to the shaft in the carburetor that rotates between a blocking and a non-blocking position to selectively block a liquid fuel path to the engine.

First, the "fuel seal (112, 114)" identified by the Examiner as being positioned around the "rotating shaft (58)" is a distortion of what is disclosed in Swanson, as instead the O-ring valve seat 112 and inlet passage 114 are part of shut-off device 104 and are not positioned around the throttle shaft 58, as is clearly seen in FIG. 8 of Swanson. *See Swanson*, FIG. 8. Accordingly, there is no teaching in Swanson of any fuel seal positioned around a rotating shaft extending through an aperture in the carburetor, so as to seal the aperture.

Second, the "blocking member (56)" identified by the Examiner as being coupled to the rotating shaft 58 in the carburetor and that "rotates between a blocking and a non-

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blocking position to selectively block a liquid fuel path to the engine" is a distortion of what is disclosed in Swanson, as the throttle valve plate 56 does **not** selectively block a liquid fuel path to the engine, as called for in claim 14. Instead, the throttle valve plate 56 is movable to control *a flow of air* through the venturi passage 54, as Swanson discloses that "[t]he throttle valve is movable from its closed, normal (low) idle position as shown in FIGS. 1 and 8 to a wide open throttle position (shown in FIG. 35) by rotating shaft 58 clockwise as shown in FIGS. 4 and 8 so that throttle plate 56 is disposed substantially parallel to the direction of flow of air through the venturi (arrow A in FIGS. 8 and 10)." *Swanson*, col. 9, lns. 4-10. The throttle valve plate thus does not block a liquid fuel path, as asserted by the Examiner.

In light of at least the above, Appellant believes claim 14 be patentably distinct from that which is disclosed in the cited references. As such, Appellant respectfully requests reversal of the rejection of claim 14.

Claims 15 and 55

The Examiner rejected claims 15 and 55 under 35 U.S.C. §103 as being unpatentable over Poehlman and Tsuda et al., and further in view of Swanson.

Claim 15 calls for a lever coupled to the shaft outside the carburetor, a spring coupled to the lever to hold the blocking member in either the blocking or non-blocking position, and a cable coupled to the lever to pull against the spring and rotate the blocking member to the other of the blocking or non-blocking positions, while claim 55 similarly calls for coupling a lever to the shaft, attaching a control spring to the lever to actuate the shaft to one of the first position and second position, and attaching a cable to the lever to actuate the shaft to the other of the first position and second position.

In rejecting claims 15 and 55, the Examiner admitted that Poehlman and Tsuda are silent to the elements called for in claims 15 and 55, but asserted that Swanson discloses "a lever (395) coupled to the shaft (58) outside the carburetor," "a spring (397) coupled to the lever to hold the blocking member in either the blocking or non-blocking position," and "a cable (400) coupled to the lever to pull against the spring and rotate the blocking member to the other of the blocking or non-blocking positions." *Final Office Action*, supra at 10. Appellant respectfully disagrees with the rejection. Specifically,

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Appellant believes that the Examiner has mischaracterized that which is disclosed in Swanson in rejecting claims 15 and 55.

Swanson discloses, in relevant part, a small engine carburetor with manually controlled choke and throttle valves and associated idle ports and main metering nozzle supplied with fuel from a common metering chamber. *Swanson*, Abstract. The carburetor 50 includes a body 52 and a control box housing 150. *Id.* at col. 9, ln. 1 and col. 11, lns. 22-23. The body 52 includes a straight through central venturi passage 54 in which a throttle valve plate 56 (FIGS. 1 and 8) is operably disposed and mounted on a throttle shaft 58. *Id.* at col. 9, lns. 1-4. A choke valve plate 60 mounted on a choke shaft 62 (FIGS. 8 and 10) is also disposed in the venturi passage upstream of the throttle valve. *Id.* at col. 9, lns. 10-12. Choke shaft 62 receives thereon a choke lever 400 (FIGS. 1, 4 and 33-35), which has a flatted oval mounting opening 402 which keys it non-rotatably on choke shaft 62 for rotation therewith, and has an opening 404 for connection thereto of the conventional manual throttle control linkage (not shown). *Id.* at col. 17, ln. 64 and col. 18, lns. 1-4. The control box housing 150 includes a shelf wall 394 that provides a platform on which an electrical switch mechanism 395 is removably mounted (FIGS. 1, 3 and 10). *Id.* at col. 16, lns. 26-28. The exteriorly protruding right-hand end of throttle shaft 58 is provided with associated conventional throttle stop and spring structure (FIGS. 1 and 8) adapted to cooperate in a conventional manner with a body stop boss 391 and throttle stop low idle adjustment screw 393, as well as a switch actuating cam 396. *Id.* at col. 16, lns. 28-33. A spring lever 397 on switch mechanism 395 is actuated by cam 396 at an appropriate point in throttle shaft rotation to thereby enable and disable appropriate downstream operational stages of the electronic circuitry of the automatic A/F control system incorporated in housing 150. *Id.* at col. 16, lns. 33-38.

However, there is no teaching in Swanson of a cable coupled to the lever to pull against the spring and rotate the blocking member to the other of the blocking or non-blocking positions (claim 15) and/or of attaching a cable to the lever to actuate the shaft to the other of the first position and second position (to allow fuel flow into a fuel passage within the carburetor and to block fuel flow into the fuel passage) (claim 55). That is, the "cable (400)" identified by the Examiner as being coupled to the "lever

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(395)" to pull against the "spring (397)" to "rotate the blocking member (56)" is a distortion of what is disclosed in Swanson, as element 400 is a choke lever 400 that in no way is *coupled to switch mechanism 395 to pull against spring lever 397* to rotate throttle valve plate 56. *See Swanson*, col. 17, ln. 67; FIG. 35. The operation/actuation of choke lever 400 in no way pulls against spring lever 397, as asserted by the Examiner, and thus Swanson does not teach that which is called for in claim 15. Similarly, the interaction/arrangement of choke lever 400, switch mechanism 395, and spring lever 397 described in Swanson in no way teaches a step of attaching choke lever 400 (allegedly the claimed "cable") to the switch mechanism 395 (allegedly the claimed "lever") to actuate the throttle shaft 58 to a first position or second position, and thus Swanson does not teach that which is called for in claim 55.

In light of at least the above, Appellant believes claims 15 and 55 to be patentably distinct from that which is disclosed in the cited references. As such, Appellant respectfully requests reversal of the rejection of claims 15 and 55.

Claims 50-54 and 58-59

The Examiner rejected claims 50-54 and 58-59 under 35 U.S.C. §103 as being unpatentable over Poehlman and Tsuda et al., and further in view of Swanson et al. (USP 5,611,312). However, in rejecting claims 50-54 and 58-59, the Examiner did not address the limitations of the claims. That is, while the Examiner collectively addressed the rejection of claims 15, 44, 50-55, and 58-59 in the Final Office Action, *see Final Office Action*, supra at 10, the only elements discussed in the rejection correspond to claims 15 and 55 – and the Examiner made no reference to any of the elements of claims 50-54 and 58-59. Specifically, the Examiner provided no indication where any of Poehlman, Tsuda, and/or Swanson are thought to teach:

- wherein attaching the liquid fuel cut-off to the carburetor comprises: providing a shaft having a valve tip located at an end of the shaft; installing a compression spring on the shaft; installing a plug on the shaft so that the compression spring is positioned between the plug and the valve tip; and

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anchoring the plug in an aperture in the carburetor so that the compression spring holds the valve tip to an inlet of the fuel passage (claim 50);

- wherein providing the shaft having a valve tip located at an end of the shaft comprises pressing the valve tip onto the shaft (claim 51);
- positioning at least one fuel seal on the shaft to seal between the shaft and plug (claim 52);
- wherein the shaft rotates the valve tip between a first position allowing fuel flow into the fuel passage and a second position blocking fuel flow into the fuel passage (claim 53);
- wherein the valve tip comprises an oval or stadium shape with a cutout in the oval or stadium shape that aligns with the fuel passage when the valve tip is rotated to the first position such that fuel can pass through the cutout into the fuel passage (claim 54);
- wherein the carburetor cutoff solenoid is open to provide liquid fuel to the engine when the carburetor cutoff solenoid is powered (claim 58); and
- wherein a pull-starter drives the engine operating the charge winding to power and open the carburetor cutoff solenoid while starting the engine on liquid fuel (claim 59).

As the Examiner has not provided any indication of what portion of Poehlman, Tsuda, and/or Swanson thought to teach each claimed element or address those elements, the present rejection of claims 50-54 and 58-59 is, on its face, deficient according to MPEP §706, and should be reversed. ("The goal of examination is to clearly articulate any rejection early in the prosecution process so that the Appellant has the opportunity to provide evidence of patentability and otherwise reply completely at the earliest opportunity." *MPEP §706*). Accordingly, Appellant respectfully requests reversal of the rejection of claims 50-54 and 58-59.

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Rejection under 35 U.S.C. §103 over Sugimoto, Poehlman, Tsuda and Andersson

Claims 16 and 27

The Examiner rejected claim 16 under 35 U.S.C. §103 as being unpatentable over Poehlman and Tsuda et al., and further in view of Andersson et al. (US Pub. 2010/0258099) and rejected claim 27 under 35 U.S.C. §103 as being unpatentable over Sugimoto, Poehlman, and Tsuda et al., and further in view of Andersson.

Each of claims 16 and 27 calls for the liquid fuel cut-off being magnetically actuated to selectively interrupt liquid fuel.

In rejecting claims 16 and 27, the Examiner admitted that Poehlman and Tsuda are silent to the element of the liquid fuel cut-off being magnetically actuated to selectively interrupt liquid fuel, as called for in claim 16, but asserted that "Andersson teaches the liquid fuel cut-off is magnetically (via 77 and 72, paragraph 0111) actuated to selectively interrupt liquid fuel for the purpose of energizing the valve to open and close." *Final Office Action*, supra at 11. Appellant respectfully disagrees with the rejection. Specifically, Appellant believes that the Examiner has mischaracterized that which is disclosed in Andersson in rejecting claims 16 and 27.

Andersson discloses, in relevant part, an engine 10 that includes a carburetor 12 and a power generation unit (PGU) 14. *Andersson*, ¶ [0067]. The carburetor has an air bleed valve 18, an engine load sensor 20, a body 48 having an air and fuel mixing passage 49 extending therethrough, and a throttle valve 50 disposed in the mixing passage and carried by a valve rotating device such as a shaft 51 extending through the body and a lever 52 connected to the shaft. *Id. at* ¶¶ [0067] and [0107]. The carburetor also may include a float bowl 53 sealingly carried on the body by a fastener 54 (FIG. 4), a fuel inlet and passage 55, an inlet needle 56 in communication with the inlet passage, and a float 57 to urge the inlet needle closed. *Id. at* ¶ [0108]. The body may include a fuel nozzle 58 extending into the float bowl and including a nozzle passage 59 and a fuel restriction jet 60 to the limit mass flow rate of fuel into the nozzle at a pressure differential across the jet. *Id. at* ¶ [0108]. The carburetor body may include a pocket 61 to receive the solenoid valve 18. *Id. at* ¶ [0109]. An O-ring 71 may be disposed between the pocket and the body to seal the valve to the body. *Id. at* ¶ [0111]. The valve may

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also include a stationary armature 72 that may be bobbin shaped and may have an outboard end 73 or disc, a rod 74, and an inboard end 76 or disc adjacent the valve plate. *Id. at* ¶ [0111]. The solenoid valve may additionally have a copper wire coil winding 77 disposed around the rod and winding leads 78 extending through the outboard disc. *Id. at* ¶ [0111]. The coil may be provided around the metallic armature bobbin 72 to induce magnetic flux in the housing to attract the valve plate to complete the established flux path upon coil energization. *Id. at* ¶ [0111]. Finally, a coiled compression spring 79 may circumscribe the rod and winding and may be disposed between the outboard disc and the valve plate to urge the valve plate to a normally closed position against the bottom of the pocket. *Id. at* ¶ [0112].

However, there is no teaching in Andersson of a liquid fuel cut-off being magnetically actuated to selectively interrupt liquid fuel. That is, the identification of elements 72 and 77 by the Examiner as magnetically actuating a liquid fuel cut-off is a distortion of what is disclosed in Andersson, as elements 72 and 77 are a stationary armature 72 and copper wire coil winding 77 that are part of an air bleed solenoid valve 18 that operates to control air flow through an air bleed path in the carburetor 12. *See Andersson*, ¶ [0111]. The controlling of a position of air bleed solenoid valve 18 by stationary armature 72 and copper wire coil winding 77 (by inducing magnetic flux) does **not** teach or suggest a liquid fuel cut-off being magnetically actuated to selectively interrupt liquid fuel, as called for in claims 16 and 27.

In light of at least the above, Appellant believes claims 16 and 27 to be patentably distinct from that which is disclosed in the cited references. As such, Appellant respectfully requests reversal of the rejection of claims 16 and 27.

Claims 17 and 28

The Examiner rejected claim 17 under 35 U.S.C. §103 as being unpatentable over Poehlman and Tsuda et al., and further in view of Andersson and rejected claim 28 under 35 U.S.C. §103 as being unpatentable over Sugimoto, Poehlman, and Tsuda et al., and further in view of Andersson.

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Claims 17 and 28 call for a spring pushing the liquid fuel cut-off to interrupt liquid fuel and an actuating magnet coupled to the carburetor to selectively pull the liquid fuel cut-off against the spring away from a position interrupting liquid fuel.

In rejecting claims 17 and 28, the Examiner admitted that Poehlman and Tsuda are silent to the element of the spring and the actuating magnet, as called for in claim 17, but asserted that "Andersson teaches a spring (79) pushing the liquid fuel cut-off (18)" and "an actuating magnet (77 and 72) coupled to the carburetor (12) to selectively pull the liquid fuel cut-off against the spring." *Final Office Action*, supra at 11. Appellant respectfully disagrees with the rejection. Specifically, Appellant believes that the Examiner has mischaracterized that which is disclosed in Andersson in rejecting claims 17 and 28.

As set forth above with regard to claim 16, the elements 72 and 77 identified by the Examiner are a stationary armature 72 and copper wire coil winding 77 that are part of an air bleed solenoid valve 18 that operates to control air flow through an air bleed path in the carburetor 12. *See Andersson*, ¶ [0111]. The stationary armature 72 and copper wire coil winding 77 (along with spring 79) function to control the position of air bleed solenoid valve 18 s to control air flow through an air bleed path in the carburetor 12 – they do not "push[ ] the liquid fuel cut-off *to interrupt liquid fuel*" and/or "selectively pull the liquid fuel cut-off against the spring away from a position *interrupting liquid fuel*," as called for in claims 17 and 28.

In light of at least the above, Appellant believes claims 17 and 28 to be patentably distinct from that which is disclosed in the cited references. As such, Appellant respectfully requests reversal of the rejection of claims 17 and 28.

Claims 18 and 29

The Examiner rejected claim 18 under 35 U.S.C. §103 as being unpatentable over Poehlman and Tsuda et al., and further in view of Andersson and rejected claim 29 under 35 U.S.C. §103 as being unpatentable over Sugimoto, Poehlman, and Tsuda et al., and further in view of Andersson.

Claims 18 and 29 call for a housing at least partially enclosing the liquid fuel cutoff, the housing including a first section enclosing a plunger of the liquid fuel cut-off

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to the carburetor and holding the spring against the plunger and a second section coupled to the first section and enclosing the actuating magnet.

In rejecting claims 18 and 29, the Examiner admitted that Poehlman and Tsuda are silent to the specific elements called for in claim 18, but asserted that Andersson teaches "a housing (66) at least partially enclosing the liquid fuel cutoff, the housing including a first section (64) enclosing a plunger (65) of the liquid fuel cut-off to the carburetor and holding the spring against the plunger and a second section (74) coupled to the first section and enclosing the actuating magnet." *Final Office Action*, supra at 12. Appellant respectfully disagrees with the rejection. Specifically, Appellant believes that the Examiner has mischaracterized that which is disclosed in Andersson in rejecting claims 18 and 29.

First, the "first section (64)" identified by the Examiner as forming a part/section of a "housing (66) at least partially enclosing the liquid fuel cutoff" distorts what is disclosed in Andersson. The "first section (64)" in Andersson is in fact a valve seat 64 that forms part of a pocket 61 of the carburetor body 48, *see Andersson*, ¶ [0109], it is not part of the housing 66 that at least partially encloses the air bleed solenoid valve 18 (allegedly the claimed "liquid fuel cut-off"). Accordingly, the Examiner has not shown that Andersson discloses a housing that includes a first section enclosing a plunger of the liquid fuel cut-off to the carburetor and holding the spring against the plunger, as called for in claims 18 and 29.

Second, the "second section (74)" identified by the Examiner as forming another part/section of a "housing (66) at least partially enclosing the liquid fuel cutoff" distorts what is disclosed in Andersson. The "second section (74)" in Andersson is in fact a rod 74 that forms part of a stationary armature 72 of the air bleed solenoid valve 18, *see Andersson*, ¶ [0111], it is <u>not</u> part of the housing 66 that at least partially encloses the air bleed solenoid valve 18 (allegedly the claimed "liquid fuel cut-off") and with a second section "enclosing the actuating magnet" (i.e., stationary armature 72 and coil winding 77). Accordingly, the Examiner has not shown that Andersson discloses a housing that includes a second section coupled to the first section and <u>*enclosing*</u> the actuating magnet, as called for in claims 18 and 29.

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In light of at least the above, Appellant believes claims 18 and 29 to be patentably distinct from that which is disclosed in the cited references. As such, Appellant respectfully requests reversal of the rejection of claims 18 and 29.

5. CONCLUSION

For at least the reasons set forth above, that which is called for in claims 1-3 and 5-65 is not taught or suggested in the art of record or a combination thereof. As such, Appellant believes that claims 1-3 and 5-65 are patentably distinct over the art of record.

Appellant appreciates the Board's consideration of these Remarks and respectfully requests timely issuance of a Notice of Allowance.

Respectfully submitted,

/Kevin R. Rosin/

Kevin R. Rosin
Registration No. 55,584
Phone 262-268-8100 ext. 16
krr@zpspatents.com

Respectfully submitted,

/Timothy J. Ziolkowski/

Timothy J. Ziolkowski
Registration No. 38,368
Phone 262-268-8100 ext. 11
tjz@zpspatents.com

Dated: January 22, 2019
Attorney Docket No.: CET1090.042

P.O. ADDRESS:
Ziolkowski Patent Solutions Group, SC
136 South Wisconsin Street
Port Washington, WI 53074
262-268-8100

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CLAIMS APPENDIX

1. (Previously Presented) A dual fuel engine comprising:

an engine operable on a gaseous fuel and a liquid fuel;

a switch to change operation of the engine between gaseous fuel and liquid fuel;

a carburetor attached to an intake of the engine to mix air and fuel and connect to a gaseous fuel source and a liquid fuel source;

a liquid fuel valve positioned along a liquid fuel line coupling the liquid fuel source to the carburetor;

a gaseous fuel valve positioned along a gaseous fuel line coupling the gaseous fuel source to the carburetor; and

a liquid fuel cut-off incorporated into the carburetor to interrupt liquid fuel upon actuation of the switch from liquid fuel to gaseous fuel.

2. (Original) The dual fuel engine of claim 1, wherein the engine is a pull start, batteryless engine.

3. (Original) The dual fuel engine of claim 1, wherein the gaseous fuel is LPG and the liquid fuel is gasoline.

4. (Canceled)

5. (Original) The dual fuel engine of claim 1, wherein the engine is a pull-start engine having an electrical power generator to supply electrical power.

6. (Original) The dual fuel engine of claim 5, wherein the switch is an electro-mechanical switch connecting one fuel source to the carburetor and connected to the electrical power generator; and

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wherein the liquid fuel cut-off is a solenoid connected to open and close a fuel path to the pull-start engine in response to reception of electrical power from the switch.

7. (Previously Presented) The dual fuel engine of claim 5, wherein the liquid fuel cut-off is a solenoid valve that operates within the carburetor to control liquid fuel flow to the engine and is powered by the electrical power generator.

8. (Original) The dual fuel engine of claim 7, wherein the switch selectively powers the solenoid valve by controlling electrical connection between the solenoid valve and the electrical power generator.

9. (Original) The dual fuel engine of claim 7, wherein the solenoid valve is normally open to provide liquid fuel to the engine when the solenoid valve is unpowered.

10. (Original) The dual fuel engine of claim 9, wherein a pull-starter drives the electrical power generator to power and close the solenoid valve while starting the engine on gaseous fuel.

11. (Original) The dual fuel engine of claim 7, wherein the electrical power generator comprises a magneto or an alternator coupled to a voltage regulator to provide a regulated voltage to the solenoid valve.

12. (Original) The dual fuel engine of claim 1, wherein the liquid fuel cut-off is manually actuated to interrupt liquid fuel.

13. (Original) The dual fuel engine of claim 1, wherein the liquid fuel cut-off actuates to interrupt liquid fuel free from linear motion.

14. (Original) The dual fuel engine of claim 1, wherein the liquid fuel cut-off comprises:

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a rotating shaft extending through an aperture in the carburetor;

a fuel seal around the shaft to seal the aperture; and

a blocking member coupled to the shaft in the carburetor that rotates between a blocking and a non-blocking position to selectively block a liquid fuel path to the engine.

15. (Original) The dual fuel engine of claim 14 further comprising:

a lever coupled to the shaft outside the carburetor;

a spring coupled to the lever to hold the blocking member in either the blocking or non-blocking position; and

a cable coupled to the lever to pull against the spring and rotate the blocking member to the other of the blocking or non-blocking positions.

16. (Original) The dual fuel engine of claim 1, wherein the liquid fuel cut-off is magnetically actuated to selectively interrupt liquid fuel.

17. (Original) The dual fuel engine of claim 1 further comprising:

a spring pushing the liquid fuel cut-off to interrupt liquid fuel; and

an actuating magnet coupled to the carburetor to selectively pull the liquid fuel cut-off against the spring away from a position interrupting liquid fuel.

18. (Original) The dual fuel engine of claim 17 further comprising a housing at least partially enclosing the liquid fuel cutoff, the housing including:

a first section enclosing a plunger of the liquid fuel cut-off to the carburetor and holding the spring against the plunger; and

a second section coupled to the first section and enclosing the actuating magnet.

19. (Previously Presented) A batteryless dual fuel generator comprising:

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a housing containing a pull start engine coupled to drive an alternator, the engine operable on a gaseous fuel and a liquid fuel;

a carburetor attached to an intake of the engine comprising:

a throat to mix fuel with air,

a float bowl, and

a fuel passage extending from the float bowl to the throat to provide liquid fuel; and

a fuel shutoff attached to the carburetor to close the fuel passage upon selection of engine operation to gaseous fuel.

20. (Original) The batteryless dual fuel generator of claim 19, wherein the fuel shutoff actuates to close the fuel passage free from linear motion.

21. (Original) The batteryless dual fuel generator of claim 19, wherein the fuel shutoff comprises:

a rotating shaft extending through an opening in the carburetor; and

a valve member coupled to the shaft in the carburetor that rotates to control fuel flow into the fuel passage.

22. (Original) The batteryless dual fuel generator of claim 21, wherein the valve member is positioned in the float bowl and the shaft extends substantially horizontal through the opening.

23. (Original) The batteryless dual fuel generator of claim 21, wherein the valve member has a flow passage that aligns with the fuel passage to control fuel flow into the fuel passage.

24. (Original) The batteryless dual fuel generator of claim 21 further comprising:

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a compression spring on the shaft in the carburetor pushing the valve member to close the fuel passage; and

a plug in the opening surrounding the shaft to hold the compression spring against the valve member.

25. (Original) The batteryless dual fuel generator of claim 24 further comprising:

a lever coupled to the shaft outside the carburetor; and

a cable coupled to the lever to actuate the valve member to open and close the fuel passage.

26. (Original) The batteryless dual fuel generator of claim 24 further comprising one or more fuel seals within the plug to seal around the shaft.

27. (Original) The batteryless dual fuel generator of claim 19, wherein the fuel shutoff is magnetically actuated to selectively close the fuel passage, controlled by a manually actuated magnet coupled to the carburetor.

28. (Original) The batteryless dual fuel generator of claim 19 further comprising:

a spring pushing the fuel shutoff to close the fuel passage; and

an actuating magnet coupled to the carburetor to selectively pull the fuel shutoff against the spring to open the fuel passage.

29. (Original) The batteryless dual fuel generator of claim 28 further comprising a housing at least partially enclosing the fuel shutoff, the housing including:

a first section enclosing a plunger of the fuel shutoff to the carburetor and holding the spring against the plunger; and

a second section coupled to the first section and enclosing the actuating magnet.

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30. (Original) The batteryless dual fuel generator of claim 19, wherein the fuel shutoff is a carburetor cutoff solenoid; and

wherein the generator further comprises:

a charge winding to generate electrical power to operate the carburetor cutoff solenoid, and

a switch to selectively power the carburetor cutoff solenoid by controlling electrical connection between the carburetor cutoff solenoid and the charge winding.

31. (Original) The batteryless dual fuel generator of claim 30, wherein the carburetor cutoff solenoid is normally open to provide liquid fuel to the engine when the carburetor cutoff solenoid is unpowered.

32. (Original) The batteryless dual fuel generator of claim 31, wherein a pull-starter drives the engine operating the charge winding to power and close the carburetor cutoff solenoid while starting the engine on gaseous fuel.

33. (Original) The batteryless dual fuel generator of claim 30, wherein the switch is an electro-mechanical switch connected to the charge winding and connecting at least one fuel source to the carburetor to selectively control fuel flow from the at least one fuel source to the carburetor.

34. (Original) The batteryless dual fuel generator of claim 30, wherein the charge winding is coupled to a voltage regulator to provide a regulated voltage to the carburetor cutoff solenoid.

35. (Previously Presented) A carburetor having a fuel shutoff comprising:

a carburetor comprising:

a float bowl,

a throat, and

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a fuel passage extending from the float bowl to the throat; and

a fuel shutoff coupled to the carburetor having a first end in the carburetor that actuates to close the fuel passage and a second end external to the carburetor to actuate the first end; and

wherein the fuel shutoff actuates free from linear motion.

36. (Original) The carburetor having a fuel shutoff of claim 35, wherein the fuel shutoff is a manually actuated fuel shutoff.

37. (Original) The carburetor having a fuel shutoff of claim 35, wherein the fuel shutoff comprises a shaft extending into the carburetor through an aperture in the float bowl and coupled to a valve tip in the float bowl that rotates to open and close the fuel passage.

38. (Original) The carburetor having a fuel shutoff of claim 37, wherein the valve tip rotates parallel to an inlet of the fuel passage between a first position permitting fuel flow into the inlet and a second position blocking fuel flow into the inlet.

39. (Original) The carburetor having a fuel shutoff of claim 37, wherein the fuel passage has an inlet with a substantially flat perimeter edge and the valve tip maintains planar contact with the perimeter edge while rotating to open and close the fuel passage.

40. (Original) The carburetor having a fuel shutoff of claim 39, wherein the shaft is substantially horizontal and the inlet of the fuel passage faces substantially horizontal.

41. (Original) The carburetor having a fuel shutoff of claim 39 further comprising:

a plug in the aperture around the shaft; and

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Harbor Freight Tools USA, Inc. et al v. Champion Power Equip., Inc.
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a compression spring around the shaft in the float bowl pushing against the plug to hold the valve tip against the perimeter edge of the inlet.

42. (Original) The carburetor having a fuel shutoff of claim 41 further comprising a first fuel seal between the shaft and plug, the first fuel seal comprising a primary o-ring in an o-ring groove in the shaft.

43. (Original) The carburetor having a fuel shutoff of claim 42 further comprising:

a second fuel seal between the shaft and plug, the second fuel seal comprising a secondary o-ring in a counterbore in the plug; and

a support member mounted over the counterbore around the shaft to hold the secondary o-ring in the counterbore.

44. (Original) The carburetor having a fuel shutoff of claim 37 further comprising:

a lever coupled to the shaft outside of the carburetor;

a spring coupled to the lever to hold the fuel shutoff opening the fuel passage; and

a cable coupled to the lever to move the lever against the spring and rotate the fuel shutoff to close the fuel passage.

45. (Original) The carburetor having a fuel shutoff of claim 37, wherein the valve tip comprises thermoplastic.

46. (Original) The carburetor having a fuel shutoff of claim 37, wherein the valve tip comprises one of an oval and stadium shape.

47. (Original) The carburetor having a fuel shutoff of claim 37, wherein the valve tip has a cutout that aligns with the fuel passage to open the fuel passage.

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48. (Previously Presented) A method of assembling a dual fuel engine comprising:

providing an engine operable on a gaseous fuel and a liquid fuel;

attaching a carburetor to an intake of the engine, the carburetor comprising:

a throat to mix gaseous fuel with air and liquid fuel with air,

a float bowl, and

a fuel passage extending from the float bowl to the throat to provide liquid fuel;

coupling a switch to the engine to change operation of the engine between gaseous fuel and liquid fuel; and

attaching a liquid fuel cut-off to the carburetor to close the fuel passage upon actuation of the switch from liquid fuel to gaseous fuel.

49. (Original) The method of claim 48 further comprising coupling a manually operated control operatively to the liquid fuel cut-off.

50. (Original) The method of claim 48, wherein attaching the liquid fuel cut-off to the carburetor comprises:

providing a shaft having a valve tip located at an end of the shaft;

installing a compression spring on the shaft;

installing a plug on the shaft so that the compression spring is positioned between the plug and the valve tip; and

anchoring the plug in an aperture in the carburetor so that the compression spring holds the valve tip to an inlet of the fuel passage.

51. (Original) The method of claim 50, wherein providing the shaft having a valve tip located at an end of the shaft comprises pressing the valve tip onto the shaft.

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Harbor Freight Tools USA, Inc. et al v. Champion Power Equip., Inc.
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52. (Original) The method of claim 50 further comprising positioning at least one fuel seal on the shaft to seal between the shaft and plug.

53. (Original) The method of claim 50, wherein the shaft rotates the valve tip between a first position allowing fuel flow into the fuel passage and a second position blocking fuel flow into the fuel passage.

54. (Original) The method of claim 53, wherein the valve tip comprises an oval or stadium shape with a cutout in the oval or stadium shape that aligns with the fuel passage when the valve tip is rotated to the first position such that fuel can pass through the cutout into the fuel passage.

55. (Original) The method of claim 53 further comprising:

coupling a lever to the shaft;

attaching a control spring to the lever to actuate the shaft to one of the first position and second position; and

attaching a cable to the lever to actuate the shaft to the other of the first position and second position.

56. (Original) The dual fuel engine of claim 7, wherein the solenoid valve is open to provide liquid fuel to the engine when the solenoid valve is powered.

57. (Original) The dual fuel engine of claim 56, wherein a pull-starter drives the electrical power generator to power and open the solenoid valve while starting the engine on liquid fuel.

58. (Original) The batteryless dual fuel generator of claim 30, wherein the carburetor cutoff solenoid is open to provide liquid fuel to the engine when the carburetor cutoff solenoid is powered.

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59. (Original) The batteryless dual fuel generator of claim 58, wherein a pull-starter drives the engine operating the charge winding to power and open the carburetor cutoff solenoid while starting the engine on liquid fuel.

60. (Original) The dual fuel engine of claim 7 further comprising a microcontroller to close the solenoid valve when the engine operates on gaseous fuel and open the solenoid valve to operate the engine on liquid fuel.

61. (Original) The dual fuel engine of claim 60, wherein the microcontroller closes the solenoid valve during engine shutdown from operation on liquid fuel.

62. (Original) The batteryless dual fuel generator of claim 30, wherein the switch is a microcontroller configured to close the carburetor cutoff solenoid when the engine operates on gaseous fuel and to open the carburetor cutoff solenoid to operate the engine on liquid fuel.

63. (Original) The batteryless dual fuel generator of claim 62, wherein the microcontroller closes the carburetor cutoff solenoid during engine shutdown from operation on liquid fuel.

64. (Previously Presented) The dual fuel engine of claim 1, wherein the liquid fuel cut-off is physically attached to an outer surface of the carburetor.

65. (Previously Presented) The carburetor having a fuel shutoff of claim 35, wherein the fuel shutoff extends through an opening into the float bowl such that the first end actuates in the float bowl to close the fuel passage.

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EVIDENCE APPENDIX:

-- None --

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Harbor Freight Tools USA, Inc. et al v. Champion Power Equip., Inc.
IPR2025-01271

RELATED PROCEEDINGS APPENDIX:

-- None --

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Harbor Freight Tools USA, Inc. et al v. Champion Power Equip., Inc.
IPR2025-01271

PTO/AIA/22 (03-13)
Approved for use through 7/31/2016. OMB 0651-0031
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PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)	Docket Number (Optional) CET1090.042
Application Number **14/925,441**	Filed **10/28/2015**
For **BATTERYLESS DUAL FUEL ENGINE WITH LIQUID FUEL CUT-OFF**	
Art Unit **3747**	Examiner **Long T. Tran**

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above identified application.

The requested extension and fee are as follows (check time period desired and enter the appropriate fee below):

	Fee	Small Entity Fee	Micro Entity Fee	
[X] One month (37 CFR 1.17(a)(1))	$ 200	$ 100	$ 50	$ 100
[ ] Two months (37 CFR 1.17(a)(2))	$ 600	$ 300	$ 150	$
[ ] Three months (37 CFR 1.17(a)(3))	$ 1400	$ 700	$ 350	$
[ ] Four months (37 CFR 1.17(a)(4))	$ 2200	$ 1100	$ 550	$
[ ] Five months (37 CFR 1.17(a)(5))	$ 3000	$ 1500	$ 750	$

[X] Applicant asserts small entity status. See 37 CFR 1.27.

[ ] Applicant certifies micro entity status. See 37 CFR 1.29.
Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.

[ ] A check in the amount of the fee is enclosed.

[ ] Payment by credit card. Form PTO-2038 is attached.

[ ] The Director has already been authorized to charge fees in this application to a Deposit Account.

[ ] The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number __.

[X] Payment made via EFS-Web.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

I am the

[ ] applicant.

[X] attorney or agent of record. Registration Number 55584.

[ ] attorney or agent acting under 37 CFR 1.34. Registration number _____.

/Kevin R. Rosin/ — January 22, 2020
Signature — Date

Kevin R. Rosin — (262) 268-8100
Typed or printed name — Telephone Number

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below.*

[X] *Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.136(a). 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 6 minutes 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:	14925441
Filing Date:	28-Oct-2015
Title of Invention:	BATTERYLESS DUAL FUEL ENGINE WITH LIQUID FUEL CUT-OFF
First Named Inventor/Applicant Name:	Kendall J. Collie
Filer:	Kevin Roger Rosin./Robyn Templin
Attorney Docket Number:	CET1090.042

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
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($)
Extension - 1 month with $0 paid	2251	1	100	100
Miscellaneous:				
			Total in USD ($)	**100**

Electronic Acknowledgement Receipt

EFS ID:	38364023
Application Number:	14925441
International Application Number:	
Confirmation Number:	1059
Title of Invention:	BATTERYLESS DUAL FUEL ENGINE WITH LIQUID FUEL CUT-OFF
First Named Inventor/Applicant Name:	Kendall J. Collie
Customer Number:	26629
Filer:	Kevin Roger Rosin./Robyn Templin
Filer Authorized By:	Kevin Roger Rosin.
Attorney Docket Number:	CET1090.042
Receipt Date:	22-JAN-2020
Filing Date:	28-OCT-2015
Time Stamp:	12:46:02
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$100
RAM confirmation Number	E20201LC46223004
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Appeal Brief Filed	AppealBrief.pdf	660403 98e661251c7b8d3b83d062bac57ff8bad3bb8c28	no	47
Warnings:					
Information:					
2	Extension of Time	PetForExt.pdf	479482 b7cd63a93720b0418d486a382cc1ea05b2c7e2d31	no	1
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	30806 557b2796b60bbffb78e439a67c39c24a3baa8a57	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	1170691		

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New Applications Under 35 U.S.C. 111

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.

PTO/AIA/31 (03-14)
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NOTICE OF APPEAL FROM THE EXAMINER TO THE PATENT TRIAL AND APPEAL BOARD

Docket Number (Optional)
CET1090.042

I hereby certify that this correspondence is being facsimile transmitted to the USPTO, EFS-Web transmitted to the USPTO, or deposited with the United States Postal Service with sufficient postage in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

On October 22, 2019

Signature /Robyn L. Templin/

Typed or printed name Robyn L. Templin

In re Application of
Collie et al.

Application Number	Filed
14/925,441	10/28/2015

For BATTERYLESS DUAL FUEL ENGINE WITH LIQUID FUEL CUT-OFF

Art Unit	Examiner
3747	Long T. Tran

Applicant hereby **appeals** to the Patent Trial and Appeal Board from the last decision of the examiner.

The fee for this Notice of Appeal is (37 CFR 41.20(b)(1)) $ 800.00

[X] Applicant asserts small entity status. See 37 CFR 1.27. Therefore, the fee shown above is reduced by 50%, and the resulting fee is: $ 400.00

[ ] Applicant certifies micro entity status. See 37 CFR 1.29. Therefore, the fee shown above is reduced by 75%, and the resulting fee is: $
Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.

[ ] A check in the amount of the fee is enclosed.

[ ] Payment by credit card. Form PTO-2038 is attached.

[ ] The Director is hereby authorized to charge any fees which may be required, or credit any overpayment To Deposit Account No. _____.

[X] Payment made via EFS-Web.

[ ] A petition for an extension of time under 37 CFR 1.136(a) (PTO/AIA/22 or equivalent) is enclosed.
For extensions of time in reexamination proceedings, see 37 CFR 1.550.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

I am the

[ ] applicant

[X] attorney or agent of record
Registration number 55584

[ ] attorney or agent acting under 37 CFR 1.34
Registration number _____.

Signature /Kevin R. Rosin/

Typed or printed name Kevin R. Rosin

Telephone number (262) 268-8100

Date October 22, 2019

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.

[X] * Total of 1 forms are submitted.

This collection of information is required by 37 CFR 41.20(b)(1) and 41.31. 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, 1.14 and 41.6. This collection is estimated to take 12 minutes 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 `450, 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:	14925441
Filing Date:	28-Oct-2015
Title of Invention:	BATTERYLESS DUAL FUEL ENGINE WITH LIQUID FUEL CUT-OFF
First Named Inventor/Applicant Name:	Kendall J. Collie
Filer:	Kevin Roger Rosin./Robyn Templin
Attorney Docket Number:	CET1090.042

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
NOTICE OF APPEAL	2401	1	400	400
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**400**

Electronic Acknowledgement Receipt

EFS ID:	37527472
Application Number:	14925441
International Application Number:	
Confirmation Number:	1059
Title of Invention:	BATTERYLESS DUAL FUEL ENGINE WITH LIQUID FUEL CUT-OFF
First Named Inventor/Applicant Name:	Kendall J. Collie
Customer Number:	26629
Filer:	Kevin Roger Rosin./Robyn Templin
Filer Authorized By:	Kevin Roger Rosin.
Attorney Docket Number:	CET1090.042
Receipt Date:	22-OCT-2019
Filing Date:	28-OCT-2015
Time Stamp:	15:24:12
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$400
RAM confirmation Number	E20190LF24411393
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Notice of Appeal Filed	NoticeOfAppeal.pdf	114532 f12ee3bd4e860f594154a45bcff72b883359ab91	no	1
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30549 cd6a08570a1f24f9412f6df1b5ebbad8db4c859b	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	145081		

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New Applications Under 35 U.S.C. 111

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.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/925,441	10/28/2015	Kendall J. Collie	CET1090.042	1059

26629 7590 07/22/2019
ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ZPS)
136 S WISCONSIN ST
PORT WASHINGTON, WI 53074

EXAMINER	
TRAN, LONG T	

ART UNIT	PAPER NUMBER
3747	

NOTIFICATION DATE	DELIVERY MODE
07/22/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

info@zpspatents.com
sml@zpspatents.com

Office Action Summary	Application No. 14/925,441	Applicant(s) Collie et al.	
	Examiner LONG T TRAN	Art Unit 3747	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 28 May 2019.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☑ This action is **FINAL.** 2b)☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5)☑ Claim(s) 1-3 and 5-65 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☑ Claim(s) 1-3 and 5-65 is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☑ Notice of References Cited (PTO-892)

2)☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4)☐ Other: _____.

Champion - EX2082, Page 82 of 575
Harbor Freight Tools USA, Inc. et al v. Champion Power Equip., Inc.
IPR2025-01271

DETAILED ACTION

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

2. The Amendment filed May 28, 2019 has been entered. No new matter has been added.

3. Claims 1 – 3, 5 – 65 remain pending in the application and have been fully considered.

Claim Rejections - 35 USC § 103

4. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

5. The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims the examiner presumes that the subject matter of the various claims was commonly owned as of the effective filing date of the claimed invention(s) absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to

point out the inventor and effective filing dates of each claim that was not commonly owned as of the effective filing date of the later invention in order for the examiner to consider the applicability of 35 U.S.C. 102(b)(2)(C) for any potential 35 U.S.C. 102(a)(2) prior art against the later invention.

7. Claims 1, 3, 12 – 13, 35 – 36, 64 – 65 are rejected under 35 U.S.C. 103 as being unpatentable over Poehlman (US 4,489,699) and in view of Tsuda et al. (US 5,809,979).

Regarding Claim 1:

Poelhman teaches a dual fuel engine comprising: an engine (13) operable on a gaseous fuel and a liquid fuel (Col 3 lines 25 – 36 describes gasoline and natural gas); a switch (51) to change operation of the engine between gaseous fuel and liquid fuel; a carburetor (15) attached to an intake (105) of the engine to mix air and fuel and connect to a gaseous fuel source (27) and a liquid fuel source (21); and a liquid fuel cut-off (41); a liquid fuel valve (43) positioned along a liquid fuel line (19) coupling the liquid fuel source to the carburetor; a gaseous fuel valve (45) positioned along a gaseous fuel line (25) coupling the gaseous fuel source to the carburetor.

Poelhman is silent to the liquid fuel cut-off is incorporated into the carburetor to interrupt liquid fuel upon actuation of the switch from liquid fuel to gaseous fuel.

However, Tsuda et al. teaches to the liquid fuel cut-off (14) is incorporated into the carburetor (1, valve 14 inserted into body 2 shown in Fig 1) to interrupt liquid fuel upon actuation of the switch from liquid fuel to gaseous fuel.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the valve into the carburetor as taught by Tsuda et al., since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse,* 86 USPQ 70. The modification of Poelman would also further reduce the size of the engine for optimized maintenance and fuel efficiency.

Regarding Claim 3:

Poelhman teaches the gaseous fuel is LPG and the liquid fuel is gasoline (Col 3 lines 25 – 36).

Regarding Claim 4:

Poelhman teaches a liquid fuel valve (43) along a liquid fuel line (19) coupling the liquid fuel source to the carburetor; and a gaseous fuel valve (45) along a gaseous fuel line (25) coupling the gaseous fuel source to the carburetor.

Regarding Claim 12:

Poelhman teaches the liquid fuel cut-off is manually actuated to interrupt liquid fuel (via switch 51).

Regarding Claim 13:

Poelhman teaches the liquid fuel cut-off actuates to interrupt liquid fuel free from linear motion (via switch 51).

Regarding Claims 35 - 36:

Peolhman teaches a carburetor (15) having a fuel shutoff (via 51) comprising: a carburetor comprising: a float bowl (17), a throat (where throttle 107 resides), a fuel passage (19) to provide fuel from the float bowl to the throat;

and a fuel shutoff (43) coupled to the carburetor having a first end in the carburetor that actuates to close the fuel passage and a second end external to the carburetor to actuate the first end (Fig 1 shows valve 43 connected to two ends of the fuel passage); and wherein the fuel shutoff actuates free from linear motion (it rotates).

Regarding Claim 64:

Poelhman teaches the liquid fuel cut-off is physically attached to an outer surface of the carburetor (Fig 1 shows the cut off 21 attached via tube 19 to the carburetor).

Regarding Claim 65:

Poehlman teaches the fuel shutoff extends through an opening into the float bowl such that the first end actuates in the float bowl to close the fuel passage (via tube 19).

8. Claims 2, 5 – 10, 48 - 49, 56 - 57, 60 – 61 are rejected under 35 U.S.C. 103 as being unpatentable over Poelhman (US 4,489,699) and Tsuda et al. (US 5,809,979), and further in view of Sugimoto et al. (US 2007/0137591).

Regarding Claim 2:

Modified Poelhman teaches all of the claimed limitation except for the engine is a pull start, batteryless engine.

However, Sugimoto et al. teach a similar dual fuel engine (paragraph 0086) comprising a pull start, batteryless engine (via 46) for the purpose of starting the engine.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the pull start function of Sugimoto et al. in order to start the engine for a portable generator system.

Regarding Claim 5:

Modified Poelhman teaches all of the claimed limitations except for the engine is a pull-start engine having an electrical power generator to supply electrical power.

However, Sugimoto et al. teaches the engine is a pull-start engine (via 46) having an electrical power generator (40) to supply electrical power for the purpose of starting the engine.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the pull start function of Sugimoto et al. in order to start the engine for a portable generator system.

Regarding Claim 6:

Modified Poelhman teaches the switch is an electro-mechanical switch (51 and via 59) connecting one fuel source to the carburetor; and wherein the liquid fuel cut-off is a solenoid (81, 83) connected to open and close a fuel path.

Poelhman is silent to a pull-start engine having an electrical power generator to supply electrical power.

However, Sugimoto et al. teaches the engine is a pull-start engine (via 46) having an electrical power generator (40) to supply electrical power for the purpose of starting the engine.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the pull start function of Sugimoto et al. in order to start the engine for a portable generator system.

Regarding Claims 7 – 10, 56 – 57, 60 – 61:

Modified Poelhman teaches all of the claimed limitations except for a power generator.

However, Sugimoto et al. teaches the engine is a pull-start engine (via 46) having an electrical power generator (40) to supply electrical power for the purpose of starting the engine.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the pull start function of Sugimoto et al. in order to start the engine for a portable generator system.

9. Claims 19 – 20, 30 - 34, 48 - 49, 62 – 63 are rejected under 35 U.S.C. 103 as being unpatentable over Sugimoto et al. (US 2007/0137591) and further in view of Poelhman (US 4,489,699).

Regarding Claim 19 - 20, 30 - 34, 48 - 49, 62 - 63:

Sugimoto et al. teaches a batteryless dual fuel generator (paragraph 0086) comprising a housing (4) containing a pull start engine (46, 30) coupled to drive an alternator (40a), the engine operable on a gaseous fuel and a liquid fuel (paragraphs 0085 - 0086 describes a first fuel in liquid phase to gas, and a second gas fuel).

Sugimoto et al. is silent to a carburetor attached to an intake of the engine comprising: a throat to mix fuel with air, a float bowl, and a fuel passage to provide liquid fuel from the float bowl to the throat; and a fuel shutoff attached to the carburetor to close the fuel passage upon selection of engine operation to gaseous fuel.

However, Poelhman teaches a carburetor (15) attached to an intake (105) of the engine comprising: a throat (where throttle 107 resides) to mix fuel with air, a float bowl (17), a fuel passage (19) to provide liquid fuel from the float bowl to the throat; and a fuel shutoff (43) attached to the carburetor to close the fuel passage upon selection of engine operation to gaseous fuel.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the carburetor of Poelhman in the generator of Poelhman in order to effectively, efficiently, and manually switch between the two fuel based on the user's preference.

10. Claim 11 is rejected under 35 U.S.C. 103 as being unpatentable over Poelhman (US 4,489,699), Tsuda et al. (US 5,809,979), Sugimoto et al. (US 2007/0137591), and further in view of Satter (US 3,412,258).

Regarding Claim 11:

Modified Poelhman teaches all of the claimed limitations except for the electrical power generator comprises a magneto or an alternator coupled to a voltage regulator to provide a regulated voltage to the solenoid valve.

However, Satter teaches a similar generator comprising a magneto or an alternator (12) coupled to a voltage regulator (via phase A line) to provide a regulated voltage to the solenoid valve (44) for the purpose of supplying power to the valve.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the alternator of Satter in the engine of modified Poelhman in order to control the voltage while actuating the valve.

11. Claims 14, 15, 44, 50 - 55, 58 - 59 are rejected under 35 U.S.C. 103 as being unpatentable over Poelhman (US 4,489,699), Tsuda et al. (US 5,809,979), and further in view of Swanson et al. (US 5,611,312).

Regarding Claim 14:

Poelhman is silent to the liquid fuel cut-off comprises: a rotating shaft extending through an aperture in the carburetor; a fuel seal around the shaft to seal the aperture; and a blocking member coupled to the shaft in the carburetor that rotates between a blocking and a non-blocking position to selectively block a liquid fuel path to the engine.

However, Swanson et al. teaches a liquid fuel cut-off (118) comprising a rotating shaft (58) extending through an aperture in the carburetor (50); a fuel seal (112, 114) around the shaft to seal the aperture; and a blocking member (56) coupled to the shaft in the carburetor that rotates between a blocking and a non-blocking position to selectively block a liquid fuel path to the engine for the purposes of preventing backflow.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the fuel cut-off of Swanson et al. in the engine of Poelhman in order to prevent fuel backflow and to control the flow of fuel through the carburetor.

Regarding Claim 15, 44, 50 - 595, 58 - 59:

Poelhman is silent to a lever coupled to the shaft outside the carburetor; a spring coupled to the lever to hold the blocking member in either the blocking or non-blocking position; and a cable coupled to the lever to pull against the spring and rotate the blocking member to the other of the blocking or non-blocking positions.

However, Swanson et al. teaches a lever (395) coupled to the shaft outside the carburetor; a spring (397) coupled to the lever to hold the blocking member in either the blocking or non-blocking position; and a cable (400) coupled to the lever to pull against the spring and rotate the blocking member to the other of the blocking or non-blocking positions for the purpose of creating a safety feature.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the fuel cut-off of Swanson et al. in the engine of Poelhman in order to prevent fuel backflow and to control the flow of fuel through the carburetor.

12. Claims 16 – 18 are rejected under 35 U.S.C. 103 as being unpatentable over Poelhman (US 4,489,699) and Tsuda et al. (US 5,809,979), and further in view of Andersson et al. (US 2010/0258099).

Regarding Claim 16:

Modified Poelhman is silent to the liquid fuel cut-off is magnetically actuated to selectively interrupt liquid fuel.

However, Andersson et al. teaches the liquid fuel cut-off is magnetically (via 77 and 72, paragraph 0111) actuated to selectively interrupt liquid fuel for the purpose of energizing the valve to open and close.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the magnet of Andersson et al. in the solenoid valve of Poelhman in order to minimize delay with the valve closure.

Regarding Claim 17:

Modified Poelhman is silent to a spring pushing the liquid fuel cut-off to interrupt liquid fuel; and an actuating magnet coupled to the carburetor to selectively pull the liquid fuel cut-off against the spring away from a position interrupting liquid fuel.

However, Andersson et al. teaches a spring (79) pushing the liquid fuel cut-off (18) to interrupt liquid fuel; and an actuating magnet (77 and 72) coupled to the carburetor (12) to selectively pull the liquid fuel cut-off against the spring away from a position interrupting liquid fuel for the purpose of energizing the valve to open and close.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the magnet of Andersson et al. in the solenoid valve of Poelhman in order to minimize delay with the valve closure.

Regarding Claim 18:

Modified Poelhman is silent to a housing (66) at least partially enclosing the liquid fuel cutoff, the housing including: a first section (64) enclosing a plunger (65) of the liquid fuel cut-off to the carburetor and holding the spring against the plunger; and a second section (74) coupled to the first section and enclosing the actuating magnet for the purpose of energizing the valve to open and close.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the magnet of Andersson et al. in the solenoid valve of Poelhman in order to minimize delay with the valve closure.

13. Claims 21 - 26 , 37 - 43, 45 - 47 are rejected under 35 U.S.C. 103 as being unpatentable over Sugimoto et al. (US 2007/0137591), Poelhman (US 4,489,699) and Tsuda et al. (US 5,809,979), and further in view of Swanson et al. (US 5,611,312).

Regarding Claim 21 - 23, 37 - 43, 45 - 47:

Modified Sugimoto et al. is silent to a rotating shaft extending through an opening in the carburetor; and a valve member coupled to the shaft in the carburetor that rotates to control fuel flow into the fuel passage.

However, Swanson et al. teaches a rotating shaft (58) extending through an opening in the carburetor (50); and a valve member (395) coupled to the shaft in the carburetor that rotates to control fuel flow into the fuel passage.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the fuel cut-off of Swanson et al. in the engine of modified Sugimoto et al. in order to prevent fuel backflow and to control the flow of fuel through the carburetor.

Regarding Claim 24:

Modified Sugimoto et al. is silent to a compression spring on the shaft in the carburetor pushing the valve member to close the fuel passage; and a plug in the opening surrounding the shaft to hold the compression spring against the valve member.

However, Swanson et al. teaches a compression spring (82) on the shaft in the carburetor pushing the valve member to close the fuel passage; and a plug (368') in the opening surrounding the shaft to hold the compression spring against the valve member.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the fuel cut-off of Swanson et al. in the engine of modified Sugimoto et al. in order to prevent fuel backflow and to control the flow of fuel through the carburetor.

Regarding Claims 25 and 26:

Modified Sugimoto et al. is silent to a lever coupled to the shaft outside the carburetor; and a cable coupled to the lever to actuate the valve member to open and close the fuel passage.

However, Swanson et al. teaches a lever (395) coupled to the shaft outside the carburetor; and a cable (400) coupled to the lever to actuate the valve member to open and close the fuel passage.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the fuel cut-off of Swanson et al. in the engine of modified Sugimoto et al. in order to prevent fuel backflow and to control the flow of fuel through the carburetor.

14. Claims 27 - 29 are rejected under 35 U.S.C. 103 as being unpatentable over Sugimoto et al. (US 2007/0137591) Poelhman (US 4,489,699), and Tsuda et al. (US 5,809,979), and further in view of Andersson et al. (US 2010/0258099).

Regarding Claims 27 - 29:

Modified Sugimoto et al. is silent to the fuel shutoff is magnetically actuated to selectively close the fuel passage, controlled by a manually actuated magnet coupled to the carburetor.

However, Andersson et al. teaches a spring (79) pushing the liquid fuel cut-off (18) to interrupt liquid fuel; and an actuating magnet (77 and 72) coupled to the carburetor (12) to selectively pull the liquid fuel cut-off against the spring away from a position interrupting liquid fuel for the purpose of energizing the valve to open and close.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the magnet of Andersson et al. in the solenoid valve of modified Sugimoto et al. in order to minimize delay with the valve closure.

Response to Arguments

15. Applicant's arguments filed May 28, 2019 have been fully considered but they are not persuasive.

On Page 12 of the Remarks, the Applicant argues that the combination of Poehlman and Tsuda do not teach the liquid cut off incorporated into the carburetor. The Examiner disagrees and maintains the rejection because Poehlman teaches the main structure and function of a liquid valve controlling fuel attached to a carburetor, and Tsuda merely teaches the bodily incorporation of such a valve into a carburetor. The motivation as discussed in the above rejection would give one of ordinary skill in the art to make such a modification to Poelhman.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

On Page 14 of the Remarks, the Applicant argues that Poehlman does not teach the liquid and gaseous fuel valves interrupts the fuel. The Examiner

disagrees and maintains the rejection because Poehlman explicitly states that the valves 43 and 45 are moveable between open and closed positions, and control means 41 selectively switches between the two fuels (Col 3 lines 62 – 69).

The additional arguments in the Remarks pertain to the same concepts discussed above.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LONG T TRAN whose telephone number is (571)270-1899. The examiner can normally be reached on Mon - Fri 9:00 - 5:00.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lindsay Low can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LONG T TRAN/
Primary Examiner, Art Unit 3747

Notice of References Cited	Application/Control No. 14/925,441	Applicant(s)/Patent Under Reexamination Collie et al.	
	Examiner LONG T TRAN	Art Unit 3747	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20150122230-A1	05-2015	Sarder; Mark J.	F02D19/0647	123/525
*	B	US-20110253102-A1	10-2011	Watanabe; Tsuyoshi	F02D41/064	123/438
*	C	US-20100258099-A1	10-2010	Andersson; Martin N.	F02D31/006	123/676
*	D	US-20070137591-A1	06-2007	Sugimoto; Yasuhiro	F02B43/00	123/41.7
*	E	US-6591817-B2	07-2003	Deutsch; Robert W.	F02D19/0647	123/525
*	F	US-20020134362-A1	09-2002	Deutsch, Robert W.	F02D19/0647	123/575
*	G	US-5809979-A	09-1998	Tsuda; Hiroyuki	F02M13/08	123/525
*	H	US-5611312-A	03-1997	Swanson; Mark S.	F02M1/02	123/179.18
*	I	US-4489699-A	12-1984	Poehlman; Arthur G.	F02B69/04	123/525
*	J	US-4393848-A	07-1983	Poehlman; Arthur G.	F02B69/04	123/525
*	K	US-3783849-A	01-1974	Bramfitt; Thomas Hugh	F02M13/06	123/576
*	L	US-3718000-A	02-1973	Walker; Brooks	F02B11/02	60/285
*	M	US-3659574-A	05-1972	Reschke; Albert H.	F02M13/08	123/525

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
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	Q					
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	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	04/18/2017	08/02/2017	01/22/2018	06/11/2018	10/04/2018	02/19/2019	07/17/2019		
	1	÷	✓	✓	✓	✓	✓	✓		
	2	÷	✓	✓	✓	✓	✓	✓		
	3	÷	✓	✓	✓	✓	✓	✓		
	4	÷	✓	✓	✓	✓	✓	-		
	5	÷	✓	✓	✓	✓	✓	✓		
	6	÷	✓	✓	✓	✓	✓	✓		
	7	÷	✓	✓	✓	✓	✓	✓		
	8	÷	✓	✓	✓	✓	✓	✓		
	9	÷	✓	✓	✓	✓	✓	✓		
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	40	÷	N	✓	✓	✓	✓	✓		
	41	÷	N	✓	✓	✓	✓	✓		
	42	÷	N	✓	✓	✓	✓	✓		

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CLAIM		DATE								
Final	Original	04/18/2017	08/02/2017	01/22/2018	06/11/2018	10/04/2018	02/19/2019	07/17/2019		
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	63	÷	N	✓	✓	✓	✓	✓		
	64						✓	✓		
	65						✓	✓		

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CPC - Searched*		
Symbol	Date	Examiner
F02D19/0647; F02D19/0613; F02D29/06; F02D41/0025; F02D11/02; F02D19/0642; F02D35/0053; F02B63/04; F02B43/00; F02B63/044; F02M13/08; F02M19/08; F02M21/047; F02N3/02	8/2/2017	LT

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
Inventor search	8/2/2017	LT
PLUS search	8/2/2017	LT
Forward and backward citation	8/2/2017	LT
Text search	8/2/2017	LT
Updated text search	1/22/2018	LT
Updated text search	6/11/2018	LT
Updated text search	10/4/2018	LT
Updated text search	07/17/2019	LT

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Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

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Harbor Freight Tools USA, Inc. et al v. Champion Power Equip., Inc.
IPR2025-01271

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	1069	engine and ((dual double two second$4 plural$4 multi multiple bi pair supplement$4) near2 fuel) and ((switch$4 chang$4 transition$3 alternat44)) and (valve same (carburetor carburretor) same fuel) and solenoid	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/07/17 16:32

7/ 17/ 2019 4:33:14 PM
C:\ Users\ ltran2\ Documents\ EAST\ Workspaces\ 14925441.wsp

Customer No. 26629
Confirmation No. 1059

Patent
Attorney Docket No. CET1090.042

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	:	Collie et al.
Serial No.	:	14/925,441
Filed	:	October 28, 2015
For	:	BATTERYLESS DUAL FUEL ENGINE WITH LIQUID FUEL CUT-OFF
Group Art No.	:	3747
Examiner	:	Long T. Tran

CERTIFICATION UNDER 37 CFR 1.8(a) and 1.10

I hereby certify that, on the date shown below, this correspondence is being:

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Date: May 28, 2019

/Robyn L. Templin/
Signature

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT/RESPONSE TO OFFICE ACTION MAILED FEBRUARY 26, 2019

Dear Sir:

Responsive to the Office Action mailed February 26, 2019, please amend the Application as follows:

Electronic Acknowledgement Receipt

EFS ID:	36120812
Application Number:	14925441
International Application Number:	
Confirmation Number:	1059
Title of Invention:	BATTERYLESS DUAL FUEL ENGINE WITH LIQUID FUEL CUT-OFF
First Named Inventor/Applicant Name:	Kendall J. Collie
Customer Number:	26629
Filer:	Kevin Roger Rosin./Robyn Templin
Filer Authorized By:	Kevin Roger Rosin.
Attorney Docket Number:	CET1090.042
Receipt Date:	28-MAY-2019
Filing Date:	28-OCT-2015
Time Stamp:	10:27:24
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		Response.pdf	226181 762d054b28db0c5da62cb11e928a41b401f f5526	yes	22

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Applicant Arguments/Remarks Made in an Amendment	12	22
	Claims	2	11
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
Warnings:			
Information:			
	Total Files Size (in bytes):	226181	

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.

New Applications Under 35 U.S.C. 111

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.

REMARKS

Claims 1-65 are pending in the present application. In the Office Action mailed February 26, 2019, the Examiner rejected claims 1, 3, 4, 12, 13, 35, 36, 64, and 65 under 35 U.S.C. §103 as being unpatentable over Poehlman (USP 4,489,699) and in view of Tsuda et al. (USP 5,809,979). The Examiner next rejected claims 2, 5-10, 48, 49, 56, 57, 60, and 61 under 35 U.S.C. §103 as being unpatentable over Poehlman and Tsuda et al., and further in view of Sugimoto et al. (US Pub. 2007/0137591). Claims 19, 20, 30-34, 48, 49, 62, and 63 were rejected under 35 U.S.C. §103 as being unpatentable over Sugimoto et al. and further in view of Poehlman. Claim 11 was rejected under 35 U.S.C. §103 as being unpatentable over Poehlman, Tsuda et al., and Sugimoto et al. and further in view of Satter (USP 3,412,258). Claims 14, 15, 44, 50-55, 58, and 59 were rejected under 35 U.S.C. §103 as being unpatentable over Poehlman and Tsuda et al., and further in view of Swanson et al. (USP 5,611,312). Claims 16-18 were rejected under 35 U.S.C. §103 as being unpatentable over Poehlman and Tsuda et al., and further in view of Andersson et al. (US Pub. 2010/0258099). Claims 21-26, 37-43, and 45-47 were rejected under 35 U.S.C. §103 as being unpatentable over Sugimoto et al., Poehlman, and Tsuda et al., and further in view of Swanson et al. Claims 27-29 were rejected under 35 U.S.C. §103 as being unpatentable over Sugimoto et al., Poehlman, and Tsuda et al., and further in view of Andersson et al.

Rejection under 35 U.S.C. §103 as being unpatentable over Poehlman and Tsuda et al.

Claim 1

The Examiner rejected claim 1 under 35 U.S.C. §103 as being unpatentable over Poehlman (USP 4,489,699) and in view of Tsuda et al. (USP 5,809,979). In rejecting claim 1, the Examiner asserted that Poehlman discloses a dual fuel engine that includes "an engine (13)," "a switch (51) to change operation of the engine between gaseous fuel and liquid fuel," "a carburetor (15)," and "a liquid fuel cut-off (41)." *Office Action*, February 26, 2019, p. 3. The Examiner admitted that "Poehlman is silent to the liquid fuel cut-off is incorporated into the carburetor to interrupt liquid fuel upon actuation of the switch from liquid fuel to gaseous fuel," *id.*, and thus relied on Tsuda as teaching this limitation – stating that "Tsuda et al. teaches to the liquid fuel cut-off (14) is incorporated into the carburetor to interrupt liquid fuel upon actuation of the switch from liquid fuel to gaseous fuel." *Id.* at 5 (emphasis in original).

Without acquiescing to the rejection, Applicant has amended claim 1 to further clarify the scope of the invention. As amended, claim 1 now further calls for a liquid fuel valve positioned

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