



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO. Includes application details for Fredrik Lindström and examination information for LAGUARDA, GONZALO.

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):

mcnairip@mcnair.net

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

*Ex parte* FREDRIK LINDSTRÖM, PÄR MARTINSSON,  
MAGNUS OTTOSSON, and RIKARD RYDBERG

---

Appeal 2020-001235  
Application 14/110,604  
Technology Center 3700

---

Before JOHN C. KERINS, KEVIN F. TURNER, and  
JEREMY M. PLENZLER, *Administrative Patent Judges*.

KERINS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the Examiner's decision to reject claims 1–5 and 7–21. Claim 6 is canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

---

<sup>1</sup> The term “Appellant” is used herein to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies Husqvarna AB as the real party in interest. Appeal Br. 1.

## THE CLAIMED SUBJECT MATTER

Appellant's invention relates to a fuel valve and a fuel supply system and method including a fuel valve and a carburetor. Claim 1 is illustrative, and is reproduced below:

1. A fuel valve for controlling delivery of fuel to a main air passage of a carburetor of an internal two stroke combustion engine, the fuel valve comprising:
  - an inlet port for receiving fuel from a fuel regulator of the carburetor,
  - a fuel outlet port for connecting to at least one nozzle in the air passage leading into the engine,
  - a fuel cavity disposed within a valve body of the fuel valve and between the inlet port and the outlet port of the fuel valve,
  - a plunger movable within a chamber of the fuel cavity along a longitudinal axis of the chamber between two states, a first state permitting flow of fuel from the inlet port of the fuel valve through the fuel cavity to the outlet port of the fuel valve, and a second state at least principally blocking such flow, and
  - a pump port in communication with the fuel cavity of the fuel valve, wherein said pump port is directly connected to a manually operated pump via a fuel line, the manually operated pump connected between the fuel valve and a fuel tank on the fuel line to draw the fuel from the inlet port of the fuel valve through the fuel cavity of the fuel valve and return the fuel to the fuel tank thereby extracting air present and wetting interior surfaces of the fuel cavity of the fuel valve with fuel.

## THE REJECTIONS

The Examiner rejects:

(i) claims 1–3, 5, 9–14, and 17–21 under 35 U.S.C. § 102(b) as being anticipated by Pattullo (US 2006/0219225 A1, published Oct. 5, 2006);

(ii) claims 1, 4, 7, and 8 under 35 U.S.C. § 103(a) as being unpatentable over Larsson (WO 2009/116902 A1, published Sep. 24, 2009) and Pattullo;

(iii) claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Pattullo in view of Sasaki (US 6,123,322, issued Sep. 26, 2000); and

(iv) claim 16 under 35 U.S.C. § 103(a) as being unpatentable over Pattullo in view of Vonderau (US 4,903,655, issued Feb. 27, 1990).

## ANALYSIS

### *Claims 1–3, 5, 9–14, and 17–21--Anticipation by Pattullo*

Appellant's arguments are principally directed to limitations appearing in independent claim 1, and Appellant notes that independent claims 11, 17, and 19 include similar limitations, to which the same arguments apply. Appeal Br. 6. Appellant does not separately argue the patentability of claims 2, 3, 5, 9, 10, 12–14, 18, 20, and 21. We thus regard all claims subject to this rejection as being argued as a group, and we take claim 1 to be representative of the group. Claims 2, 3, 5, 9–14, and 17–21 stand or fall with claim 1.

The Examiner finds that Pattullo discloses a fuel valve having all of the claimed elements, including inlet port 38 for receiving fuel from fuel regulator 34; fuel outlet port 48 for connecting to nozzle 50 in an air passage leading to a carburetor, a fuel cavity in the form of a passage in the area to

which reference numeral 36 points, beginning at valve plunger 42 and extending to fuel outlet port 48; plunger 42; pump port 56 in communication with the fuel cavity and directly connected to manually-operated pump 16 via a fuel line; and the pump being positioned between the fuel valve and fuel tank 14. Non-Final Act. 3–4. An Examiner-annotated version of a portion of Figure 1 of Pattullo appears below, the figure having been further modified by us for clarity, by retracing a gray outline provided by the Examiner in orange.

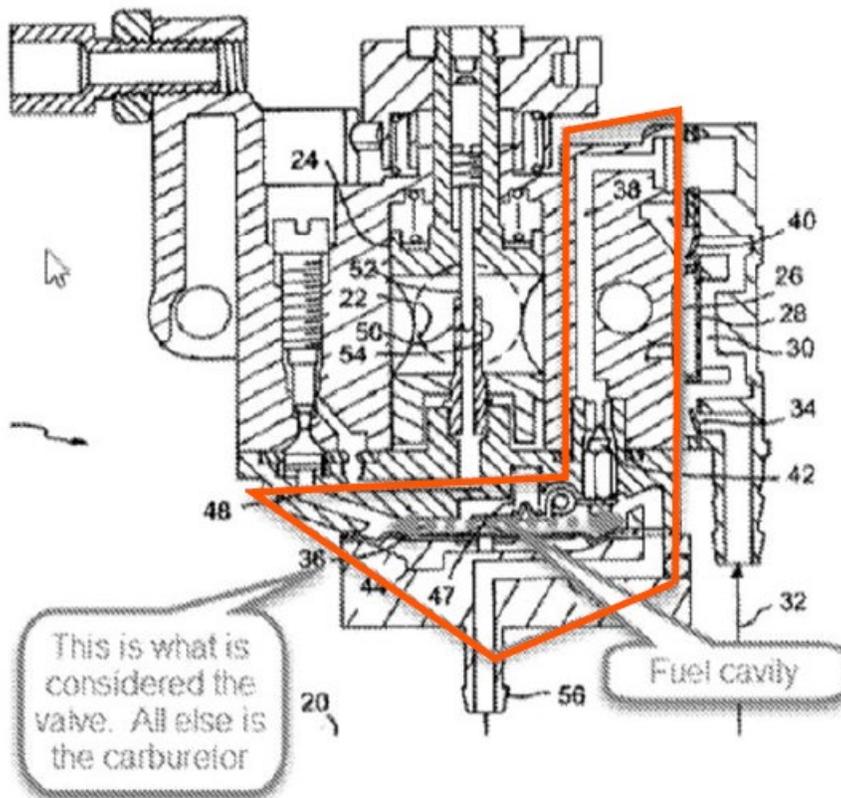


Figure 1 – Taken from Fig. 1 of the Patullo reference.

Depicted above is a portion of Figure 1 of Pattullo, which is a schematic view of a carburetor. Pattullo ¶ 9. The drawing figure, as annotated by the Examiner, appears at page 5 of the Answer, and is modified by us for clarity.

Appellant argues that the fuel valve of Pattullo that corresponds to its claimed fuel valve is solely element 42, and that certain of the elements in Pattullo relied on by the Examiner as being components of a fuel valve, namely fuel cavity 36 and fuel outlet port 48, are components of carburetor 12, and not components of a fuel valve. Appeal Br. 6–7; Reply Br. 2–3. Appellant argues, in this regard, that Pattullo does not disclose, in connection with valve element 42, an inlet port, a fuel outlet port, a fuel cavity, and a plunger. Appeal Br. 7. Appellant asserts that the rejection is based on an arbitrary labeling of components in Pattullo in order to read on the claimed features present in claim 1. Reply Br. 3.

The Examiner maintains that valve element 42 is not the only part of the Pattullo device that corresponds to the claimed fuel valve, and that the elements contended by Appellant to be part of carburetor 12 are part of what the Examiner regards as being components of the fuel valve, as evidenced in the annotated version of Figure 1 of Pattullo reproduced above. Ans. 4–5. The Examiner explains that parts of a valve and parts of a carburetor in a fuel supply system of the type disclosed in Pattullo depend on one another to operate correctly, and are often incorporated into each other's systems, and, as such, "although the identified parts are part of a carburetor, these components comprise the fuel valve as shown in the annotated Figure 1." *Id.* at 3–4.

The Examiner has the better position here, as evidenced by Appellant's own Specification, which states that its invention "further relates to a carburetor having an integral fuel valve or a fuel valve that connects to the exterior of the carburetor." Spec., p. 1, ll. 31–32. Appellant's Figure 2, although schematic in form, illustrates fuel valve 60 as a black box residing

within carburetor 20, with duct 31 connecting fuel valve 60 to fuel metering chamber 28. *See Spec.*, p. 8, l. 29; p. 9, l. 5. As such, we do not find error in the Examiner’s reliance on portions of Pattullo’s system that might be regarded as being parts of a carburetor system as also being ports and cavities forming components of its fuel valve 42.<sup>2</sup> Indeed, Pattullo illustrates, by sectional lining, that the components relied on by the Examiner as constituting elements of the valve are part of a structure that is separate from, and positioned below, the structure containing air-fuel mixing portion 22 of the carburetor, and can be regarded as being separate from the carburetor in that sense.

Appellant additionally argues that “Pattullo only discloses an electronically operated pump,” and therefore does not teach the limitation requiring the pump port of the fuel valve to be directly connected to a *manually* operated pump. Appeal Br. 8 (emphasis added). Appellant relies on, in support of this argument, a passage in paragraph 29 of Pattullo stating that “[t]he automatic purging pump 16 eliminates the need for a user to search for and manually operate a purge pump.” *Id.* Pattullo does not, however, disclose that its purge pump is electronically operated. As explained by the Examiner, pump 16 in Pattullo is incorporated into pull cord mechanism 11, which is manually operated, and that Pattullo’s disclosure of “automatic” operation is in reference to the pump being actuated by operation of the pull cord, which is operated in order to start the engine. Ans. 6. In other words, the manual operation of the pull cord to

---

<sup>2</sup> We further note that, from a practical standpoint, the plunger element 42 in Pattullo cannot, in and of itself, function as a valve to open and close a fuel path, in that the plunger must interact with a valve seat of some form, and have a flow path into and out of the valve (i.e., via inlet and outlet ports).

start the engine, also “automatically” operates the pump. Appellant’s argument fails to apprise us of Examiner error in this regard.

Appellant further argues that pump 16 in Pattullo is not connected between the fuel valve and fuel tank 14, because Pattullo discloses that fuel inlet valve 42 is interposed between pump chamber 30 and metering chamber 36. Appeal Br. 8, citing Pattullo ¶ 15. Appellant then argues that Figure 1 of Pattullo illustrates that metering chamber 36 is directly connected to pump 16, and therefore pump 16 is connected between the metering chamber and fuel tank, and not between the fuel valve and fuel tank. *Id.*

The argument does not persuade us of error in the Examiner’s rejection, for two reasons. First, the Examiner’s rejection identifies the region designated generally by reference numeral 36 to be the fuel cavity of Pattullo’s valve, even though Pattullo refers to that region as a metering chamber. As discussed above, Appellant’s argument that metering chamber 16 is part of the carburetor and not properly considered to be part of a fuel valve is not persuasive. Therefore, even if, as Appellant asserts, pump 16 is connected between the metering chamber and the fuel tank, since the metering chamber is regarded as being part of the fuel valve, the pump is connected between the fuel valve and fuel tank, as claimed. Further, the Examiner finds that element 56 of Pattullo corresponds to the claimed pump port of the fuel valve, which finding Appellant does not specifically contest. Figure 1 evidences that this port, whose path leads in a different direction from plunger 42 than the path to the region of the metering chamber, connects to pump 16, which in turn connects to fuel tank 14, and thus the

pump is properly regarded as being between the fuel valve, via port 56, and fuel tank, as claimed.

Relatedly, Appellant argues that pump 16 in Pattullo is not disclosed as operating to draw fuel from the inlet port of the fuel valve through the fuel cavity of the fuel valve and return the fuel to the fuel tank to extract air present and wet interior surfaces of the fuel cavity of the fuel valve. Appeal Br. 9. Appellant quotes a portion of paragraph 13 of Pattullo that discusses pump 16 operating to purge fuel vapor and stale liquid fuel from the carburetor via fuel passage 20, and pumping the same to the fuel tank as evidencing that the pump does not draw fuel from the inlet port as claimed. *Id.* at 8–9.

The argument does not apprise us of error in the rejection. The Examiner points out that the very next sentence in paragraph 13, not included in the portion quoted by Appellant, sets forth that, “[a]ccordingly, the system 10 ensures that the carburetor 12 receives fresh, liquid fuel . . . by automatically purging the upstream fuel passage 20 while the pull cord 18 is being pulled, thereby providing a user with a quick and easy mechanism by which to start the engine.” Pattullo ¶ 13; Ans. 6–7. The Examiner then provides a cogent explanation as to how pump 16 creates a pressure differential in metering chamber 36 that causes valve plunger 42 to open to provide fresh, liquid fuel, as disclosed by Pattullo. Ans. 7–8. Appellant does not include, in the Reply Brief, any argument that the Examiner’s understanding of Pattullo is in error in this respect.

Appellant additionally argues that Pattullo does not disclose that its fuel inlet valve has a plunger, nor a plunger that is movable within a chamber in the fuel cavity along a longitudinal axis of the chamber. Appeal

Br. 10. Appellant then repeats the pertinent claim language, and asserts that Pattullo does not disclose or suggest the same.

The Examiner replies that a plunger is generally considered to be “a sliding reciprocating piece driven by or against fluid pressure,” and that Appellant’s argument appears to be that Pattullo simply does not refer to valve element 42 as a plunger. Ans. 9, citing an unspecified version of a Merriam-Webster dictionary. The Examiner additionally finds that the axis along which valve element 42 travels may be construed as the claimed longitudinal axis. *Id.* Appellant does not take issue with these explanations of the Examiner’s position, nor does Appellant provide an explanation as to why valve element 42 would not be considered to be a plunger. Appellant’s argument is analogous to those in *In re Lovin*, 652 F.3d 1349 (Fed. Cir. 2011) (“we hold that the Board reasonably interpreted Rule 41.37 to require more substantive arguments in an appeal brief than a mere recitation of the claim elements and naked assertion that the corresponding elements were not found in the prior art”). Accordingly, Appellant has not apprised us of error in the Examiner’s rejection.

For the foregoing reasons, we are not apprised of Examiner error, and we sustain the Examiner’s rejection of claim 1 as being anticipated by Pattullo. Claims 2, 3, 5, 9–14, and 17–21 fall with claim 1.

*Claims 1, 4, 7, and 8--Unpatentability over Larsson and Pattullo*

Appellant traverses this rejection on the basis that Pattullo does not teach a pump port that is directly connected to a manually operated pump, relying on the same reason advanced with respect to the rejection of claim 1 based on Pattullo. Appeal Br. 11. In addition, Appellant argues that Pattullo

does not have the pump connected between the fuel valve and a fuel tank, for the same reasons presented in traversing the rejection of claim 1 based on Pattullo. *Id.*

For the reasons set forth in the analysis of the rejection of claim 1 as being anticipated by Pattullo, we do not find these arguments persuasive that the Examiner's findings are in error. The rejection of claims 1, 4, 7, and 8 as being unpatentable over Larsson and Pattullo is sustained.

*Claim 15--Unpatentability over Pattullo and Sasaki*

Appellant argues that Sasaki does not cure the alleged deficiencies in Pattullo. Appeal Br. 12. In that we do not find Pattullo deficient as asserted by Appellant, for the reasons presented above, this rejection is sustained.

*Claim 16--Unpatentability over Pattullo and Vonderau*

Appellant argues that Vonderau does not cure the alleged deficiencies in Pattullo. Appeal Br. 12. In that we do not find Pattullo deficient as asserted by Appellant, for the reasons presented above, this rejection is sustained.

## DECISION

The rejection of claims 1–3, 5, 9–14, and 17–21 as being anticipated by Pattullo is affirmed.

The rejection of claims 1, 4, 7, and 8 as being unpatentable over Larsson and Pattullo is affirmed.

The rejection of claim 15 as being unpatentable over Pattullo and Sasaki is affirmed.

The rejection of claim 16 as being unpatentable over Pattullo and Vonderau is affirmed.

### CONCLUSION

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1-3, 5, 9-14, 17-21	102(b)	Pattullo	1-3, 5, 9-14, 17-21	
1, 4, 7, 8	103(a)	Larsson, Pattullo	1, 4, 7, 8	
15	103(a)	Pattullo, Sasaki	15	
16	103(a)	Pattullo, Vonderau	16	
<b>Overall Outcome</b>			<b>1-5, 7-21</b>	

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

**AFFIRMED**