

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

FORD MOTOR COMPANY,  
Petitioner,

v.

PAICE LLC & THE ABELL FOUNDATION, INC.,  
Patent Owner.

---

Case IPR2015-00767  
Patent 7,455,134 B2

---

Before SALLY C. MEDLEY, KALYAN K. DESHPANDE, and  
CARL M. DeFRANCO, *Administrative Patent Judges*.

MEDLEY, *Administrative Patent Judge*.

DECISION  
Denying Institution of *Inter Partes* Review  
*37 C.F.R. § 42.108*

I. INTRODUCTION

Petitioner, Ford Motor Company, filed a Petition requesting an *inter partes* review of claims 1, 2, 4–6, 16–20, 27, 40, 41, 43, 44, 53–55 and 57–60 of U.S. Patent No. 7,455,134 B2 (Ex. 1101, “the ‘134 patent”). Paper 2 (“Pet.”). Patent Owner, Paice LLC & The Abell Foundation, Inc., filed a Preliminary Response in both unredacted and redacted forms. Papers 11, 12

(“Prelim. Resp.”).<sup>1</sup> Patent Owner also filed a Motion to Seal. Paper 13 (“Mot. to Seal.”). We have jurisdiction under 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted “unless . . . the information presented in the petition . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

Based on the facts before us, we exercise discretion to deny review under 35 U.S.C. § 325(d).

#### A. Related Proceedings

The ’134 patent is involved in *Paice LLC v. Ford Motor Co.*, No. 1-14-cv-00492, filed on February 19, 2014, in the United States District Court for the District of Maryland. Pet. 1. Petitioner twice filed an earlier Petition for *inter partes* review of the ’134 patent, but we did not institute trial. *Ford Motor Co. v. Paice LLC & The Abell Foundation, Inc.*, Case IPR2014-00568 (PTAB Sept. 8, 2014) (Paper 12), and *Ford Motor Co. v. Paice LLC & The Abell Foundation, Inc.*, Case IPR2014-00852 (PTAB Nov. 20, 2014) (Paper 11).

#### B. The ’134 Patent (Ex. 1201)

The ’134 patent describes a hybrid vehicle with an internal combustion engine, a traction motor, a starter motor, and a battery bank, all controlled by a microprocessor. Ex. 1201, Abs. Figure 4, reproduced below, shows a block diagram of a hybrid vehicle. *Id.* at Fig. 4.

---

<sup>1</sup> Citations are to the redacted version of Patent Owner’s Preliminary Response (Paper 12, “Prelim. Resp.”).

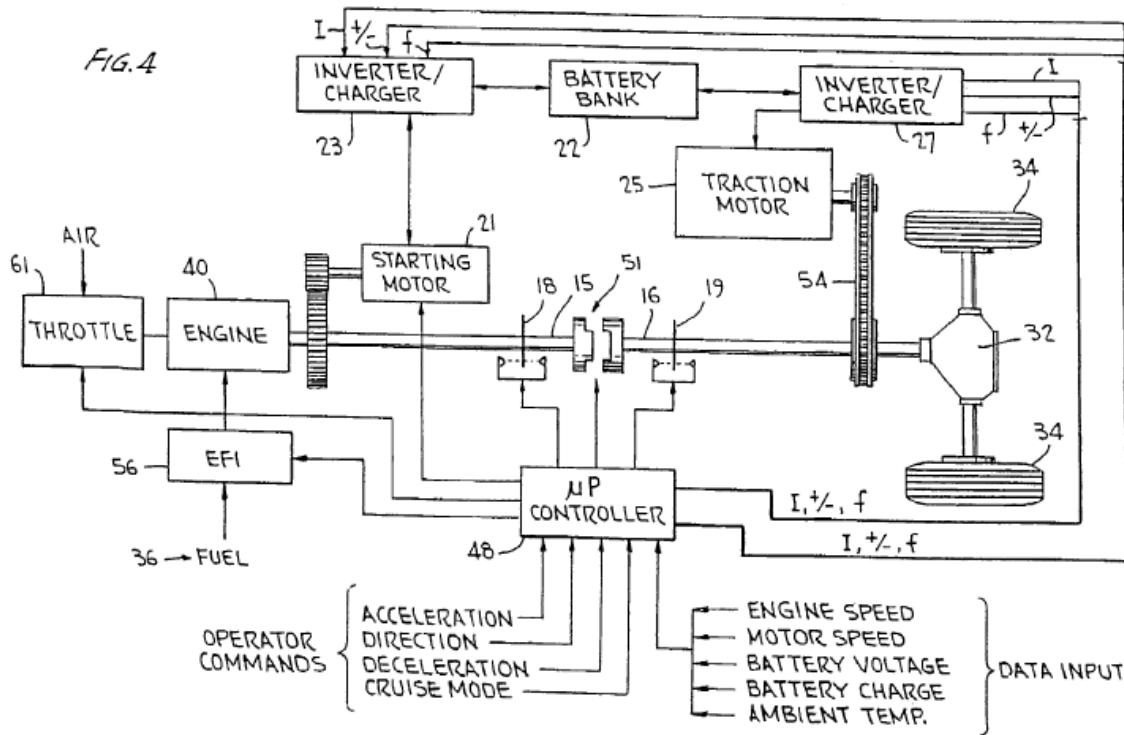


Figure 4 illustrates a block diagram of a hybrid vehicle.

The hybrid vehicle includes two wheels 34 operable to propel the vehicle, traction motor 25, starting motor 21, and engine 40 coupled to starting motor 21. *Id.* Inverter/charger 27 is coupled to traction motor 25 and inverter/charger 23 is coupled to starting motor 21. *Id.* Battery bank 22 is coupled to inverter/charger 23, as well as inverter/charger 27. Controller 48 controls the operation of engine 40 and motors 21 and 25. *Id.* The components of the vehicle “are to be sized so that the ratio between battery voltage under load to peak current is at least about 2.5, and preferably is at least 3.5 to 4:1.” *Id.* at 50:5–9.

### C. Claims

Petitioner challenges independent claim 1 and dependent claims 2, 4–6, 16–20, 27, and 40, which depend directly or indirectly from claim 1.

Petitioner also challenges independent claim 41 and dependent claims 43, 44, 53–55, and 57, which depend either directly or indirectly from claim 41.

Petitioner also challenges independent claim 58 and dependent claims 59 and 60 which depend directly from claim 58. Claim 1 reads:

1. A hybrid vehicle, comprising:
  - at least two wheels, operable to receive power to propel said hybrid vehicle;
  - a first alternating current (AC) electric motor, operable to provide power to said at least two wheels to propel said hybrid vehicle;
  - a second AC electric motor;
  - an engine coupled to said second electric motor, operable to provide power to said at least two wheels to propel the hybrid vehicle, and/or to said second electric motor to drive the second electric motor to generate electric power;
  - a first alternating current-direct current (AC-DC) converter having an AC side coupled to said first electric motor, operable to accept AC or DC current and convert the current to DC or AC current respectively;
  - a second AC-DC converter coupled to said second electric motor, at least operable to accept AC current and convert the current to DC;
  - an electrical storage device coupled to a DC side of said AC-DC converters, wherein the electrical storage device is operable to store DC energy received from said AC-DC converters and provide DC energy to at least said first AC-DC converter for providing power to at least said first electric motor; and
  - a controller, operable to start and stop the engine to minimize fuel consumption;
- wherein a ratio of maximum DC voltage on the DC side of at least said first AC-DC converter coupled to said first electric motor to current supplied from said electrical storage device to at least said first AC-DC converter, when maximum current is so supplied, is at least 2.5.

*Id.* at 56:43–57:7.

*D. Asserted Grounds of Unpatentability*

Petitioner contends that claims 1, 2, 4–6, 16–20, 27, 40, 41, 43, 44, 53–55 and 57–60 of the ’134 patent are unpatentable under 35 U.S.C. § 103 based on the following specific grounds:

Reference[s]	Basis	Challenged Claim(s)
’455 PCT publication <sup>2</sup> and Severinsky <sup>3</sup>	§ 103	1, 2, 4–6, 19, 20, 27, 40, 41, 43, 44, 57, and 58
’455 PCT publication, Severinsky, and Furutani <sup>4</sup>	§ 103	16–18, 53–55, and 60
’455 PCT publication, Severinsky, and Sasaki <sup>5</sup>	§ 103	59

## II. ANALYSIS

### A. Exercising Discretion to Deny Institution

An issue in this proceeding is whether we should exercise our discretion and deny institution under 35 U.S.C. § 325(d). Pet. 2–4; Prelim. Resp. 10–20. That section states, in relevant part, that “[i]n determining whether to institute or order a proceeding under this chapter, chapter 30, or chapter 31, the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office.”

---

<sup>2</sup> PCT International Publication Number WO 00/015455, published Mar. 23, 2000 (Ex. 1203) (“the ’455 PCT publication”).

<sup>3</sup> U.S. Patent No. 5,343,970, issued Sept. 6, 1994 (Ex. 1206) (“Severinsky”).

<sup>4</sup> U.S. Patent No. 5,495,906, issued Mar. 5, 1996 (Ex. 1205) (“Furutani”).

<sup>5</sup> S. Sasaki et al., *Toyota’s Newly Developed Electric-Gasoline Engine Hybrid Powertrain System*, 14<sup>th</sup> International Electronic Vehicle Symposium and Exposition (Dec. 1997) (Ex. 1207) (“Sasaki”).

This is Petitioner’s third attempt challenging claims of the ’134 patent. We denied institution in two earlier cases, and, thus, did not institute trial on any of the challenged claims of the ’134 patent. *See Ford Motor Co. v. Paice LLC*, Case IPR2014-00568, Paper 12 (PTAB Sept. 8, 2014), and *Ford Motor Co. v. Paice LLC*, Case IPR2014-00852, Paper 11 (PTAB Nov. 20, 2014).

In IPR2014-00568, Petitioner challenged claims 1–3, 5, 6, 19, 20, 26, 27, 40, 58, and 62, and in IPR2014-00852, Petitioner challenged claims 1–3, 5, 6, 19, 27, 40, and 58. In both cases, Petitioner relied on the disclosure of the inventor’s own earlier patent or parent patent to meet the requirement of every challenged claim of a maximum DC voltage to current supplied to be at least 2.5. *See IPR2014-00568*, Paper 12, 12–14; *IPR2014-00852*, Paper 11, 9–10. In other words, Petitioner relied on Patent Owner’s own work to meet the requirement of a maximum DC voltage to current supplied to be at least 2.5, which we held not to be permissible. *Id.*

Several months after the last of our two decisions denying institution, Petitioner filed the instant Petition challenging several claims already twice challenged, along with newly challenged claims. In the Petition, Petitioner relies on Severinsky for its description of a maximum DC voltage to current supplied to be at least 2.5 limitation required by every challenged claim. Pet. 28–29. The base reference is the same as the base reference Petitioner relied on in IPR2014-00568—the ’455 PCT publication. Severinsky, contrary to Petitioner’s assertions made on page 2 of the Petition that it is a newly relied on prior art reference, previously was relied on in explaining the state of the art, along with features known to those skilled in the art at the time of the invention, including the description in Severinsky of a preference

for high voltage/low current hybrid systems. IPR2014-00568, Paper 1, 19–20. Although Petitioner includes two additional references (Furutani and Sasaki) for some of the challenged dependent claims, Petitioner relies on '455 PCT publication and Severinsky to meet the majority of claim terms. For all of these reasons, we find that the prior art is substantially the same as previously presented in at least IPR2014-00568.

We also have considered Petitioner's arguments that because it presents a new set of claims, e.g., consisting of previously challenged claims, but also including newly challenged claims, we must consider the Petition. Pet. 2, 4. We are not persuaded by this argument because the express language of 35 U.S.C. § 325(d) does not mention claims as being a factor in deciding whether to institute trial. Rather, 35 U.S.C. § 325(d) is concerned only with whether a petition presents the “same or substantially the same prior art *or arguments.*” Emphasis added.

Here, the newly challenged or presented claims appear to us to be of similar scope as previously challenged claims. For example, Petitioner contends that newly presented independent claim 41, with the exception of two modifications, “duplicates the claim limitations in independent claim 1.” Pet. 38. The two modifications are not explained to be significant, insofar as claim 41 is concerned. *Id.* Moreover, based on the record before us, Petitioner does not persuade us that the arguments previously presented with respect to claim 1 are not substantially the same as those presented for newly presented independent claim 41. We determine them to be substantially the same. *Compare* Pet. 24–29, with IPR2014-00568, Paper 1, 19, 20, 23–27, 34–38.

Challenged claims 43, 44, and 57 depend from claim 41, and are described as duplicative of claims 5, 6, and 27, claims previously challenged. *See* Pet. 41. Petitioner has not explained why the arguments previously presented with respect to dependent claims 43, 44, and 57 are not substantially the same as those previously presented for claims 5, 6, and 27. They appear to be substantially the same. *Compare* Pet. 36, 37, 41, with IPR2014-00568, Paper 1, 32, 33.

Newly presented claims 16–18, 53–55, 59, and 60 appear to be similar in scope to at least previously challenged claims 40 and 58. For example, based on the record before us, Petitioner has not explained why the arguments presented with respect to claims 16–18, 53–55, and 60 are not substantially the same as those previously presented for claim 40. We determine them to be substantially the same. *Compare, e.g.,* Pet. 47, 48, with IPR2014-00568, Paper 1, 33, 34. Claims 1–3, 5, 6, 19, 20, 26, 27, 40, 58, and 62 were all previously challenged twice before, and we have determined that the arguments presented previously in at least the IPR2014-00568 Petition are substantially the same as presented in the instant Petition.

We also have considered Petitioner’s argument that the Board did not have the opportunity to fully consider the impact of the ’455 PCT Publication on patentability. Pet. 2. We are not persuaded by this argument as we did consider the ’455 PCT Publication in rendering our decision in IPR2014-00568. IPR2014-00568, Paper 12, 10–14.

We also are not persuaded by Petitioner’s argument that it could not have presented the challenges to the claims before us now in one of its previous petitions, because of page limits. Pet. 3. The Petition filed in at least IPR2014-00568 was 42 pages long, 18 pages shy of the 60 page limit.

It appears to us that much of what is presented in the instant Petition could have been presented in at least IPR2014-00568. Along similar lines, we are not persuaded by Petitioner's argument that multiple petitions were necessary because Patent Owner has charged Ford with infringing five patents containing over two hundred and seventy-five claims. *Id.* Petitioner does not explain, however, how that representation is relevant to this case, involving the '134 patent. That Patent Owner is asserting infringement of other claims from other patents would appear to bear little on the facts of this case. In contrast, Petitioner does not explain how many and which of the '134 patent claims it is being charged with infringing. Such information would be relevant.

Petitioner argues that it could not have foreseen that its reliance on the Patent Owner's earlier disclosure in combination with other prior art in challenging the '134 claims would lead to a denial of the previous petitions. *Id.* 2–3. It is fundamental patent law that claims cannot be challenged as unpatentable under 35 U.S.C. §§ 102 or 103 based on the inventor's own work, known only to them. *See, e.g.,* IPR2014-00568, Paper 12, 14; IPR2014-00852, Paper 11, 10. That Petitioner took such a position in the two previous cases does not persuade us to exercise our discretion to now consider yet a third petition on the merits.

For all of the above reasons, we exercise our discretion to deny institution.

#### *B. Patent Owner Motion to Seal*

Patent Owner moves to seal the unredacted Patent Owner Preliminary Response (Paper 11) and Exhibit 2002. Paper 13. In rendering our decision not to institute trial, we found it unnecessary to rely on the information

Patent Owner seeks to maintain as sealed. For these reasons, we expunge the unredacted version of the Patent Owner Preliminary Response and Exhibit 2002. Patent Owner's motion to seal is *dismissed* as moot.

### III. CONCLUSION

For the foregoing reasons, we determine that the Petition presents substantially the same prior art and arguments previously presented, and, taking into account the particular facts of this case, we exercise our discretion to deny institution of review under 35 U.S.C. § 325(d).

### IV. ORDER

Upon consideration of the record before us, it is  
ORDERED that the Petition is *denied* and no trial is instituted;  
FURTHER ORDERED that Patent Owner's motion to seal is  
*dismissed*; and

FURTHER ORDERED that Patent Owner's unredacted preliminary response (Paper 11) and Exhibit 2002 be expunged from the record.

FOR PETITIONER:

Frank A. Angileri  
Sangeeta G. Shah  
Michael D. Cushion  
[FPGP0106IPR3@brookskushman.com](mailto:FPGP0106IPR3@brookskushman.com)  
[fangileri@brookskushman.com](mailto:fangileri@brookskushman.com)  
[sshah@brookskushman.com](mailto:sshah@brookskushman.com)  
[mcushion@brookskushman.com](mailto:mcushion@brookskushman.com)

Lissi Mojica  
Kevin Greenleaf  
[iptdocketchi@dentons.com](mailto:iptdocketchi@dentons.com)

FOR PATENT OWNER:

Timothy W. Riffe  
Kevin E. Greene  
Ruffin B. Cordell  
Linda L. Kordziel  
Brian J. Livedalen  
[riffe@fr.com](mailto:riffe@fr.com)  
[greene@fr.com](mailto:greene@fr.com)  
[IPR36351-0012IP3@fr.com](mailto:IPR36351-0012IP3@fr.com)