

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SHENZHEN XINZEXING E-COMMERCE CO., LTD.,  
Petitioner,

v.

SHENZHEN CARKU TECHNOLOGY CO., LTD.,  
Patent Owner.

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Case IPR2024-00222  
Patent No. 9,643,506

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SECOND DECLARATION OF DR. GARY L. WOODS

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I, Dr. Gary L. Woods, declare as follows:

**I. INTRODUCTION AND SCOPE OF WORK**

1. On November 21, 2023, I provided a First Declaration in IPR2024-00222. *See* EX1003. I provide this Second Declaration for purposes of responding to Patent Owner's Response to Petition (POR) submitted on October 30, 2024 and the declaration testimony of Dr. Ricketts (EX2001). Dr. Ricketts is the witness engaged by the Patent Owner (Shenzhen Carku Technology Co., Ltd.) to analyze issues in this proceeding. In this Second Declaration, I provide additional analysis regarding the claims of the '506 patent and the relied-upon prior art references.

2. My analysis is based upon my education, training, and experience in the relevant field, including my professional experience and additional experience working with persons of ordinary skill in the art as of the earliest alleged priority date of the '506 patent. I am familiar with the technology described in the '506 patent, and I am also familiar with the knowledge of a person of ordinary skill in the art (POSITA) with respect to this technology both as of the filing date of the '506 Patent (April 29, 2016) and as of the earliest alleged priority date of the '506 patent (December 9, 2011).

3. I am being compensated for my work in connection with this IPR proceeding at my standard hourly rate. My compensation is not in any way contingent on the substance of my opinions or the outcome of these proceedings.

## **II. EXPERIENCE AND MATERIALS CONSIDERED**

4. My analysis set forth in this Second Declaration is based on my education, training, and experience as summarized in my First Declaration and detailed in my CV, as well as my review of the '506 patent, its prosecution history, and the prior art references relied-upon in this IPR proceeding. I have also reviewed the Patent Owner's Response to Petition, each of the accompanying exhibits submitted with the POR (Exhibits 2001-2008), the Board's Decision Instituting IPR ("Institution Decision"), and the deposition transcript of Dr. Ricketts (EX1101), and Exhibits 1102-1106 (cited below).

## **III. TECHNICAL DISCUSSION**

5. The analysis expressed in my First Declaration fully explains why each and every feature of the Challenged Claims of the '506 patent is provided in the prior art. I understand that Patent Owner and Dr. Ricketts have considered my analysis and offered their own proposals, some of which are inconsistent with my analysis. I will address some of those points below. The fact that I do not address all of Patent Owner and Dr. Ricketts's opinions should not be interpreted as agreement with them.

6. The POR fails to address, much less rebut, much of the analysis I provided in my First Declaration. Indeed, rather than squarely confronting the substantial evidence of unpatentability offered through my First Declaration, Patent Owner and Dr. Ricketts sometimes mischaracterize my testimony, the disclosure of the '506 patent, and the cited prior art. As I previously explained with reference to

the applied prior art, each of Grounds 1A-3E render obvious the Challenged Claims. I need not repeat that analysis here. Rather, my Second Declaration is intended to be responsive to particular arguments presented in the POR and the testimony of Dr. Ricketts (his declaration (EX2001) and his deposition (EX1101)).

#### IV. CLAIM CONSTRUCTION

##### A. “first operating mode”

7. Responsive to Patent Owner’s argument that a “first operating mode” as recited in the claims of the ’506 patent is “an operating mode of the portable backup charger wherein the battery pack is configured to output a first current through one or more output ports of the at least one output port, and outputting a second current capable of starting a vehicle engine through the pair of output terminals is inhibited”, I disagree that this ordinary three-word phrase would require insertion of Patent Owner’s substitute language. POR, 5, 25-27; EX2001 (Dr. Ricketts Dec.), ¶¶73-81. I note three reasons below.

8. First, this proposed construction is inconsistent with the context of the other claim language. Patent Owner and Dr. Ricketts theorize that the “first operating mode” requires more than the battery pack being “configured to output a *first* current ...” as recited in the actual claim language—it somehow mandates a narrow circumstance in which “outputting a *second* current” must be “*inhibited*.” POR, 5, 25-27; EX2001 (Dr. Ricketts Dec.), ¶¶66, 73-81, 102. In the context of the example

embodiment of the '506 patent, this narrow circumstance occurs when the “fuse” to the output terminals is “blown” and therefore the second current path is entirely “inhibited.” POR, 5; EX2001, ¶66. In that state, the charger would no longer have any second “current path to the battery pack different from” the first current path (Element [1.3]) and likewise would no longer have the “second current path” structure (Element [21.3]). To be clear, a POSITA would recognize that a “blown” fuse (POR, 5) is the opposite of a “current path”; that is the basic intention of blowing a “fuse.” Additionally, I note that Patent Owner’s construction is inconsistent with some dependent claims too. For example, dependent claims 14 and 28 plainly describe the structure of “a controller,” and not a blown “fuse,” that must be “configured to control the operating mode” of the battery pack. EX1001 (the '506 Patent), Claims 14, 28. Based upon my knowledge and experience in this field and my review of the '506 patent, it is clear a POSITA would not have conditioned an “operating mode” of a charger based on whether or not a fuse is blown.

9. A second reason that Patent Owner’s proposed construction is incorrect is that it is inconsistent with the specification. None of the different options described in the specification for operating in the “first operating mode” require a condition where the second current path must be “inhibited.” The specification does not describe an example of the charger device actually outputting the first current while at the same time the fuse (along the second current path) must be “blown.” EX1001,

4:18-29. Instead, the specification describes in the text of column 4 (newly added in the 2016) that, “***when the portable battery charger 100 is working in the first operating mode***, it can output one or more output currents to one or more external electronic devices, respectively.” EX1001, 4:30-33 (emphasis added). The specification does not describe that anything more is required to be working in the first operating mode—and certainly does not describe a requirement for the fuse to be “blown” as theorized by Patent Owner’s construction. For purposes of dictating which operating mode is used, the specification mentions the structure of “a controller (not shown)” that is used “to control its [the charger’s] operating mode.” EX1001, 4:20-23. There is no description of the “fuse” being the structure that dictates whether the charger is working in the “first operating mode.” EX1001, 4:30-33. As I discussed above (§9), a POSITA would not have conditioned an “operating mode” of a charger based on whether or not a fuse is blown.

10. Even if the ’506 patent did describe any example in which the fuse must be “blown” for the existence of the “first operating mode,” which it does not for at least the reasons I have outlined above, the specification plainly states that the examples described in connection with FIGS. 1 and 3 are simply “embodiments.” EX1001, 3:8-9 (“an embodiment”), 3:12-14 (“one embodiment”), 5:58-62 (“another embodiment”). I have been informed that, under the law, the words of a claim should be “given their ordinary and customary meaning,” and one should “avoid the danger

of reading limitations from the specification into the claim.” Here, the language of “first operating mode” in claim 1 requires no more than the battery pack being “configured to output a first current” through one or more output ports (and, for claim 21, that a state in which “a **first** current is output by the battery pack”). A POSITA would not read this ordinary three-word phrase (“**first** operating mode”) in a manner that is further limited to the necessary inhibition of the “**second** current.” The Patent Owner’s proposed construction attempts to do so based upon arguments about the “embodiments” in FIGS. 1 and 3 rather than the actual language of claim 1 (and claim 21).

11. Simply put, when referring to this straightforward language actually used in claims 1 and 21 (§10 above), the “first operating mode” relates to the output of a “first current” regardless of whether the second current is enabled or not. For example, based on my review and under the plain meaning of “the first operating mode,” the battery pack is “configured to output a first current” in the “first operating mode” under a variety of other conditions including at least the following: (1) the second current is not output because the output terminals are not connected to any car battery; (2) the second current is enabled-but-not-active (e.g., fuse is intact but the second current is not actively jumpstarting a car); (3) the second current is output in a reduced manner because the car battery was successfully jumpstarted (and the cables remain momentarily connected); (4) the second current is actively output

while jumpstarting a car; or (5) the second current is not output because the fuse is not intact. EX1001, 3:38-45, 4:18-5:52.

12. Another reason that Patent Owner's proposed construction is incorrect is that Patent Owner (and Dr. Ricketts) rely upon a theory in which a dependent claim (e.g., claim 3) somehow demands a narrower view of its independent claim (e.g., claim 1). POR, 25-27. I have been informed that, under the law, an independent claim is presumed to be broader than its dependent claim because the presence of a dependent claim raises a presumption that the limitation of that dependent claim is not found in the independent claim. Here, the Patent Owner and Dr. Ricketts appear to contend the opposite—that independent claim 1 is not broader than its dependent claim 3, but instead must be limited by (or be identically coextensive with) the limitation in dependent claim 3. POR, 26 (“by claiming a third operating mode [in dependent claim 3]”); EX1101, 43:23-44:14 (the charger “meets [claim] 3” but “it would not” meet claim 1 alone) and 30:9-32:9 (“then you would practice claim 3” and “that would not meet claim 1”). I disagree with this conclusion that claim 1 must be strictly limited to the option recited in its dependent claim 3. Rather, for the reasons I explained above (§11), the '506 patent specification describes that the battery pack is “configured to output a first current” in the “first operating mode” under a variety of other conditions, some of which include the option of dependent claim 3 and some of which do not. For the three reasons I have explained above, I

do not believe a POSITA would consider the three-word phrase “first operating mode” as it appears in claim 1 (and 21) to be limited by the recitation of an additional option in a dependent claim.

**B. “second operating mode”**

13. Responsive to Patent Owner’s argument that a “second operating mode” as recited in the claims of the ’506 patent is “an operating mode of the portable backup charger wherein the battery pack is configured to output a second current capable of starting a vehicle engine through the pair of output terminals, and outputting a first current through one or more output ports of the at least one output port is inhibited,” I disagree for at least three reasons explained below. POR, 27; EX2001 (Dr. Ricketts Dec.), ¶¶82-91. I note that Patent Owner’s construction for this three-word phrase “second operating mode” relies upon similar assumptions to those I highlighted above for the “first operating mode.” *Supra*, ¶¶7-12.

14. First, the plain text of the claimed “second operating mode” recited in claim 1 requires the battery pack being “**configured to** output a second current **capable of** starting a vehicle engine” through the pair of output terminals. Nothing in the claim 1 language tethers the three-word phrase “second operating mode” to the “first current” (and the same is true for the language of claim 21). Patent Owner and Dr. Ricketts theorize that the “second operating mode” requires more than what is recited in the claim language—to mandate a circumstance in which “outputting a

*first* current” must be “*inhibited*.” POR, 5, 27; EX2001, ¶66. For this reason, Patent Owner’s proposed construction is inconsistent with the language itself in each of independent claims 1 and 21. For the exact reasons I explained above in ¶12, I understand that the existence of dependent claim 3 does not then mandate a narrower scope of its independent claim. *Supra*, ¶12. Patent Owner (and Dr. Ricketts) rely upon the opposite theory, where the presence of dependent claim (e.g., claim 3) somehow imports a narrower scope for independent claim 1. POR, 27, EX2001, ¶87-88. I understand this conclusion is incorrect for the reasons explained above and furthermore because it results in Dr. Rickett’s proposed scenario where dependent claim 3 would somehow encompass devices that otherwise avoid independent claim 1. EX1101, 43:23-44:14 (the charger “meets [claim] 3” but “it would not” meet claim 1 alone) and 30:9-32:9 (“then you would practice claim 3” and “that would not meet claim 1”).

15. A second reason this construction is incorrect is that there is no disclosure in the specification of the ’506 patent where the three-word phrase “*second* operating mode” requires a disablement of a “*first* current.” Instead, the specification uses the “second operating mode” to describe the “second current,” without discussing any type of disablement of the first current. EX1001, 5:30-45. Additionally, the specification does not describe “inhibiting” the first current, so it follows that the specification does not expressly describe doing so specifically when

the battery pack is “configured to output a second current” in the “second operating mode.” At most, the specification explains in the FIG. 3 embodiment that the user can control the “MCU circuit 7” to “flexibly choose **a particular output voltage** [singular] for the charger (19 V, 12 V, **or** 5 V) to supply current source for a particular instrument.” EX1001, 7:30-41 (emphasis added). To be clear, a POSITA would have recognized that a mere teaching in column 7 for choosing **one** output voltage (e.g., which version of the “first current”) **to be enabled** is far different from a teaching of how to completely “inhibit” the first current altogether. *Id.* Also, in reference to FIG. 1, the specification describes “a controller” without any disclosure of that controller somehow “disabling” the first current to the output ports. EX1001, 4:18-29. Column 4 explains that “[i]n some embodiments” the charger of FIG. 1 may automatically switch operating modes when it detects a load connected to one of the output ports, but this describes the charger’s continuous capability to detect whether a load is present at one of the output ports—a teaching that shows the first operating mode remains fully enabled (“configured to output a first current”), not “inhibited.” EX1001, 4:23-29. Simply put, the specification does not expressly describe the scenario that is assumed in Patent Owner’s construction.

16. Even if the ’506 patent did describe any example in which the first current was fully “disabled” or “inhibited,” which it does not for at least the reasons I have described above, it is clear that the Patent Owner is relying upon mere

“embodiments” in the specification. EX1001, 3:8-9 (“an embodiment”), 3:12-14 (“one embodiment”), 5:30-45 (“example”). Again, I have been informed that, under the law, the words of a claim should be “given their ordinary and customary meaning,” and one should “avoid the danger of reading limitations from the specification into the claim.” As recited in claim 1, the “second operating mode” requires no more than the battery pack being “configured to output a second current” through the pair of output terminals—regardless of whether the “first current” is disabled or enabled. And similarly for claim 21, the plain text simply recites that the “second operating mode” exists because “a second current capable of starting a vehicle engine is output” through the second current path—without any mandate for whether the first current is disabled or enabled. A POSITA would have recognized this straightforward language in the independent claims without any need to import mere examples/embodiments from the specification of the ’506 patent.

**C. “a current path to the battery pack different from that of the at least one output port to the battery pack”**

17. Responsive to Patent Owner’s argument that a “a current path to the battery pack different from that of the at least one output port to the battery pack” as recited in the claims of the ’506 patent is “a current path between the output terminals and the battery pack that does not overlap with a current path between the at least one output port and the battery pack,” I disagree for several reasons noted below. POR, 27-30; EX2001 (Dr. Ricketts Dec.), ¶¶92-99. Initially, I note that the two-word

phrase “different from” is not complex or a specialized terminology that might require an express construction. Rather, the term “different from” element in claim 1 is plainly stated without the need for substitute language. It does not mandate current paths must be “entirely different from” or be “different and separate from” one another—just that they must be “different from” one another in some unspecified manner. That is all. Patent Owner’s overly narrow construction is incorrect for at least the following three reasons.

18. A first reason that this construction is incorrect is that it conflates the phrase “different from” in the claims with the narrower phrase, “different **and separate** from,” used in the specification. EX1001, Claim 1 (“different from”); 5:46-48 (“different and separate from”). In particular, the POR argues that this example in column 5:46-48 “supports” the narrow claim construction in the POR. POR, 29. But, it instead shows the opposite—namely, the specification uses a four-word phrase that I have been informed could have been amended into claim 1 but was not. EX1101, 61:22-62:3 (“if patent owner opted to amend this claim language” and “I’d want to think about it and consider that more.”). Based upon my knowledge and experience in this field and my review of the ’506 patent as a whole, these two phrases do **not** have an identical scope and meaning. Rather, a POSITA would have recognized from the competing language in claim 1 versus that of column 5:46-48 that the inventor chose to use the narrower four-word phrase (“different and separate

from”) for describing the Figure 1 embodiment, but then used the broader two-word phrase (“different from”) in the actual claim language. This text in column 5:46-48 for the Figure 1 embodiment provides evidence for the fact that two current paths can be “different from” one another even if they are not separated along their entire lengths. Moreover, even if claim 1 was narrowly interpreted to require the “different and separate from” example in column 5, such a narrower view of claim 1 does not also mandate that there must be absolutely zero “overlap” of the current paths for their entire lengths. Rather, column 5 leaves open the option in which the two current paths could be arranged with some limited initial overlap so long as the “first protection circuit 107” does “not affect the current outputting through the pair of output terminals 109.” EX1001, 5:46-57.

19. A second reason this construction is incorrect is that Patent Owner and Dr. Ricketts incorrectly assume the “schematic block diagram[s]” in FIG. 1 and FIG. 3 as conclusively depicting the physical “current paths” like that of traditional circuit diagrams. EX1001, 3:8-14; POR, 27-30; EX2001 (Dr. Ricketts Dec.), ¶¶95-96. However, a POSITA would have recognized that FIGS. 1 and 3 of the ’506 patent are each the type of a “schematic block diagram” that do not depict the actual physical embodiment of current paths—they instead simply show the functionality of the interconnected blocks. EX1101, 70:13-72:2. The ’506 patent does include “circuit diagrams” at FIGS. 4-11, but neither the Patent Owner nor Dr. Ricketts

relied upon the actual current paths depicted therein because they do not provide any support for Patent Owner’s proposed construction here. EX1001, 3:15-30; POR 27-30; EX2001 (Dr. Ricketts Dec.), ¶¶92-99. These circuit diagrams do not appear to depict any current path including any fuse nor any output terminals for jumpstarting a vehicle—instead only showing the current path for the low current outputs (e.g., 19V, 12V, and 5V output circuits). EX1001 (the ’506 Patent), FIGs. 4-11; EX1101, 72:10-73:22.

20. A third reason the Patent Owner’s proposed construction is flawed is that Patent Owner (and Dr. Ricketts) appear to assume that the “different from” language is present in independent claim 21. It is not present at all. A POSITA would have readily recognized this difference between claims 1 and 21. There is no text in claim 21 that requires the limitation of “different from.” And, as explained above in ¶18, I understand that it would be improper to further read into claim 21 the “embodiment” of the Figure 1 described in column 5 (col. 5:46-48 (“different **and separate** from”)). Rather, the language of claim 21 is plainly stated without the need for substitute language. It simply states there is a “first current path” for a first current and a “second current path” for a second current, and a POSITA would have understood that such different output currents could be delivered regardless of whether those two current paths diverged after some partial overlap or whether they were “different and separate from” one another.

**V. GROUND 1A: CHEN ANTICIPATES ALL ELEMENTS OF CLAIMS 1, 9, 11-14, 16- 19, 21, 26-28, 30-33**

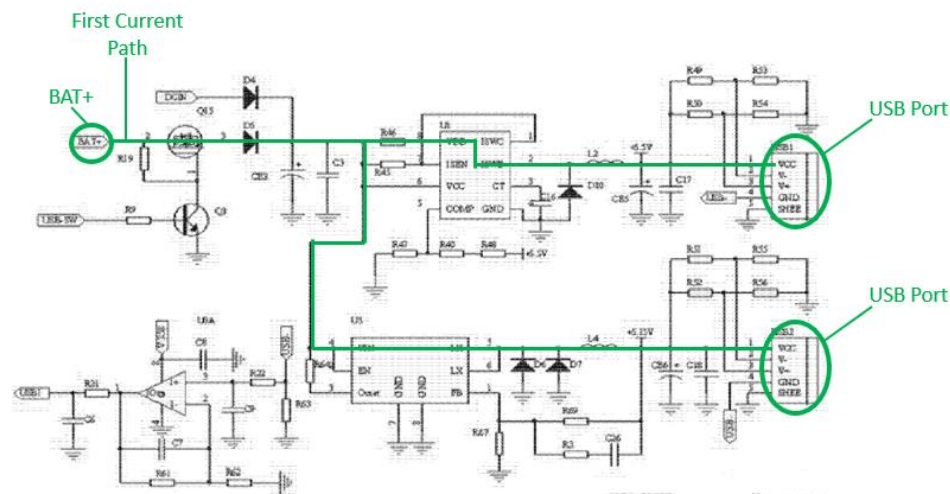
**A. Chen Discloses Elements [1.3]/[21.2]-[21.3]**

21. Responsive to Patent Owner’s argument that Chen fails to disclose Elements [1.3]/[21.2]-[21.3], I disagree for at least the following reasons. POR, 31-33; EX2001 (Dr. Ricketts Dec.), ¶¶151-155.

22. As a first reason, the POR’s argument relies on Patent Owner’s incorrect construction. POR 31-33; *supra*, Section IV.C. The actual language of Elements [1.3]/[ 21.2]-[21.3] never mandates that the first current path “does not overlap” with the second current path, nor that the first and second current paths must be “different ***and separate*** from” one another. *supra*, Section IV.C. Accordingly, Chen discloses Elements [1.3]/[ 21.2]-[21.3] for the reasons outlined in my previous declaration. EX1003, ¶¶53-57; Pet. 16-20.

23. Next, even if Patent Owner’s overly narrow construction was applied, the same teachings in Chen show that Chen’s charger device still discloses Elements [1.3]/[21.2]-[21.3]. Specifically, a POSITA would have recognized that Chen’s actual current paths were non-overlapping (as posited by the Patent Owner’s construction) by reviewing Chen’s circuit diagrams. First, a POSITA would have recognized that the connections of Chen’s current paths are plainly depicted in FIGs. 4, 6, and 7—all of which were cited in the original Petition and my first declaration. Pet., 16-20. From these Figures it is clear that both current paths are “different” and

surely “do not overlap.” For example, as shown in the FIGs. 3-7 that I have annotated below.



EX1006 (Chen), FIG. 7 (annotated), [0026]-[0027]. Notably, Dr. Ricketts also immediately recognized this fact from Chen's Figure 7. EX1101, 80:3-23. To the extent there would be any question that the "BAT+" node in Figure 7 is in fact from Chen's battery, Chen's Figure 3 confirms this fact.

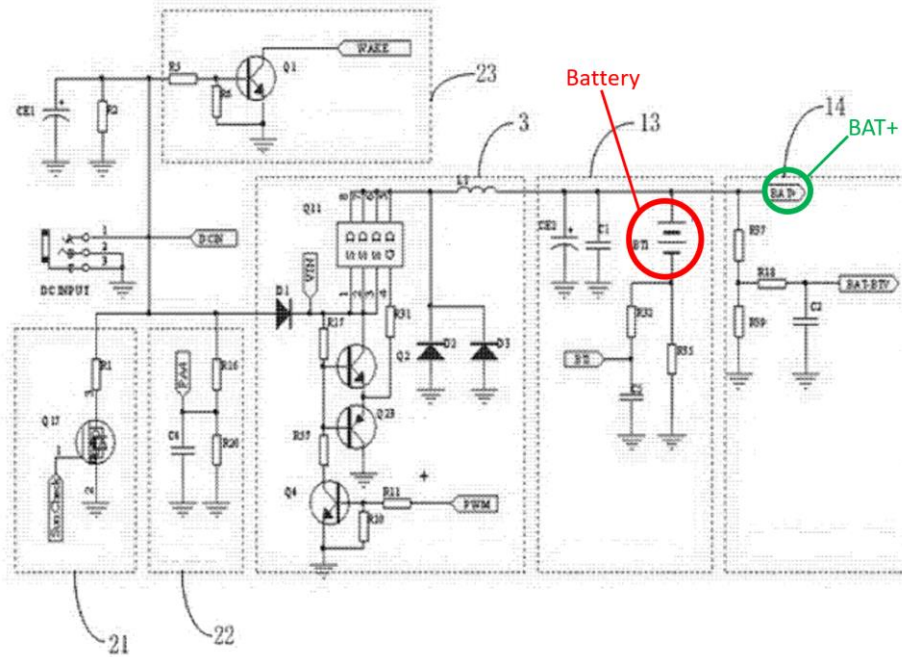


FIG. 3

EX1006 (Chen), FIG. 3 (annotated above), [0026]-[0027].

25. Similar to Chen's FIG. 7 (shown above), Chen's FIGs. 5-6, show the current path from battery (from the same "BAT+" node) to the DC multi-gear output (the 8.4 V and 9.5 V outputs in FIG. 5; the 12 V, 16 V, 19 V and 24 V outputs in FIG. 6):

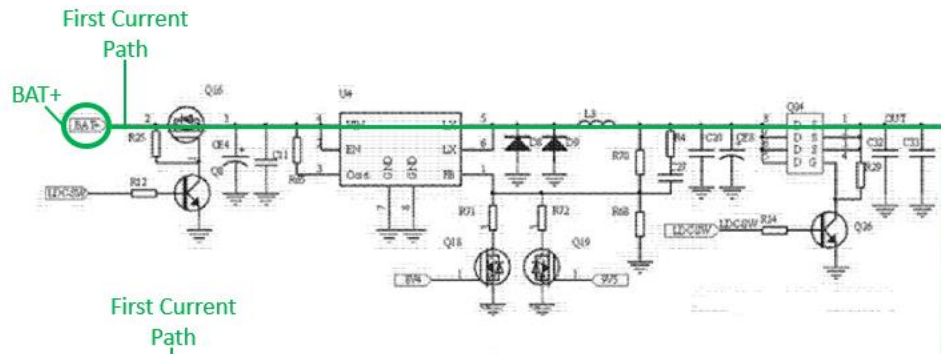


FIG. 5

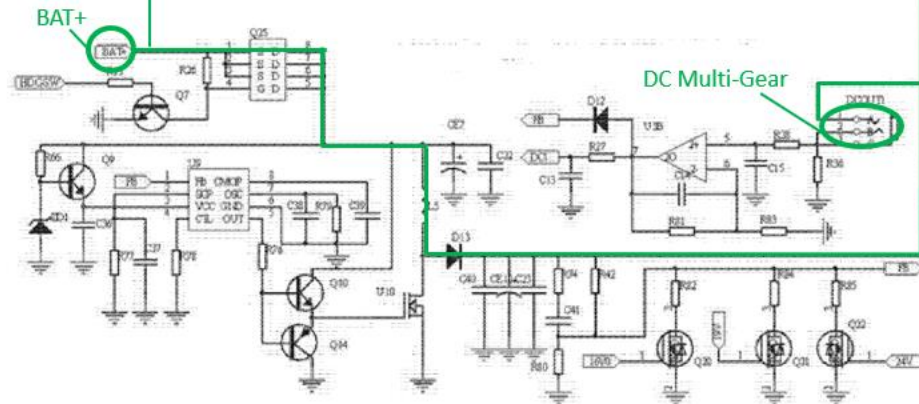


FIG. 6

EX1006 (Chen), FIGs. 5-6 (annotated),[0026].

26. Notably, Chen’s FIG. 4 plainly illustrates that the second current path (for outputting the jumpstarter current) is different from the low-current paths depicted above in FIGs. 5-7. Namely, Chen’s FIG. 4 shows a non-overlapping current path for the jumpstart current when the relay K1 is closed: specifically, the current path from a different battery node (“B1+”) to the high-current output terminal (“OUT+1”):

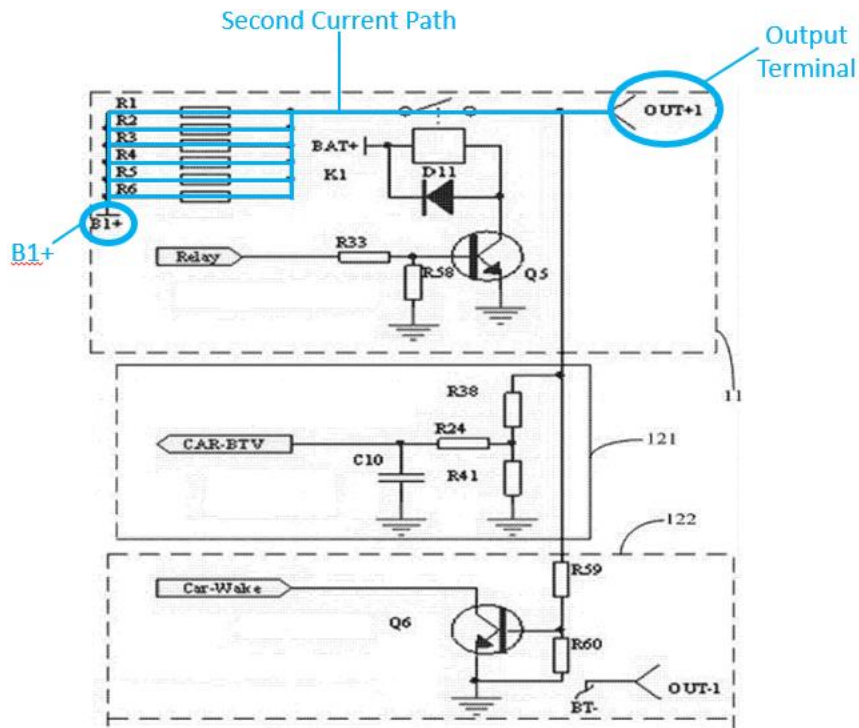


FIG. 4

EX1006 (Chen), FIG. 4 (annotated), [0025]-[0026]. Notably, Dr. Ricketts also recognized this fact from Chen’s Figure 4. EX1101, 80:25-81:22 (“Current can flow from B1+, through the resistors, through the relay, to OUT+1”).

27. For at least these reasons, even if Patent Owner’s construction was applied, Chen’s circuit diagrams show a current path between Chen’s battery and the high-current output module (from “B1+” to “OUT+1” in Figure 4) that **does not overlap** with a low-current path from Chen’s battery to the DC multi-gear output/USB outputs (from “BAT+” to any of the low-current outputs in Figures 5-7). Accordingly, Chen discloses Elements [1.3]/[ 21.2-21.3].

#### B. Chen Discloses Elements [1.4]/[21.4]

28. Responsive to Patent Owner’s argument that Chen fails to disclose Elements [1.4]/[21.4], I disagree for at least the following reasons. POR, 33-36; EX2001 (Dr. Ricketts Dec.), ¶156-161.

29. Patent Owner’s analysis here is premised on two incorrect assumptions. The first erroneous assumption relates to Chen’s “multi-gear output” and the second erroneous assumption relates to Chen’s “USB” outputs. POR, 33-36. Despite Patent Owner’s flawed assumptions, I will reiterate that the Petition and my first Declaration cited to **both** of Chen’s low-current options—Chen’s “multi-gear output” and “USB” outputs—for purposes of achieving all Elements [1.2]-[1.4] (and, similarly, all Elements [21.2]-[21.4]). Pet., 14-20; EX1003, ¶¶51-60. Each of Patent Owner’s two assumptions resulted from the Patent Owner overlooking my testimony and other evidence cited in Petition for the analysis of Elements [1.2]-[1.4].

30. For example, regarding Patent Owner’s incorrect assumptions about the Petition’s reliance on Chen’s “DC multi-gear output,” the Petition at pages 14-16 cites to my previous declaration (EX1003) at ¶¶51-52 and Chen’s FIGS. 5-7 for Element [1.2] and highlighting the “DC multi-gear output” at one of Chen’s output ports for the first current. See Pet., 14-16. Additionally, the Petition at pages 16-20 cites to my previous declaration (EX1003) at ¶¶53-57 and Chen’s [0022]-[0026] for Element [1.3]. Regarding Element [1.3], the Petition was explicit on its reliance of

Chen’s “DC multi-gear output” and cited to evidence indicating why Chen’s jump-start current was “higher than” the first current to Chen’s “DC multi-gear output”:

the second current (to Chen’s “high-current output unit 11”) is higher than the first current (to Chen’s “USB” connectors/**DC multi-gear output**]. EX1003, ¶57. First, the unit 11 for the second current labeled as a “high-current” output ([0022]-[0025]) unlike **the others**, and Chen teaches that the second current is “200A.” EX1006 (Chen), [0025].

Pet., 19-20 (annotated). Additionally, for this same point, the Petition cited to ¶57 of my previous declaration, but my testimony on this topic was not acknowledged in the POR nor in Dr. Ricketts’s declaration. EX1101, 88:12-92:7 (Dr. Ricketts acknowledging that he read all of my paragraphs in my first declaration “at some point” but never addressing my testimony in ¶57). Nothing cited by Patent Owner in the POR refutes my position that Chen labels the 200A jump-start output—and only that particular output—as the “high-current” option while Chen’s traditional multi-gear output is never described as “high-current.” EX1003, ¶57; EX1006 (Chen), [0025]-[0026] .

31. In fact, Dr. Ricketts appears to acknowledge the traditional amperage values for powering such gear, like the traditional “12V/10A” maximum outputs for the “12V” DC outputs for powering such 12V gear and the traditional “19V/3.5A” maximum outputs for the “19V” DC outputs for powering such 19V gear. See EX2001, ¶105; EX1101, 74:20-76:20 (“which a POSITA would know are much less

power than 100 amps”). I agree with this background knowledge cited by Dr. Ricketts for those traditional maximum current values—all of which are far less than 200 Amps (Chen’s jump starter current). That is why, turning back to the fact that Chen refers only to the jumpstarter current (and not any others) as the “high-current” output (refer to ¶57 of my first Declaration), a POSITA would have recognized that Chen’s “DC multi-gear output” is not such a “high-current” output. Were it otherwise, the “19V” output of Chen’s “DC multi-gear output” would have output a dangerously high amount of current (200 Amps *i.e.*, 3800 Watts as calculated by  $19V \times 200 \text{ Amps}$ )—an amount a POSITA would have immediately recognized as unsafe and inconsistent with Chen’s 19V output of “DC multi-gear output” being accomplished via the traditional “DC boost output circuit” for powering various ordinary 19V gear/electronics. EX1006, [0026], FIGs. 5-7. And the same is true for the “12V” output of “DC multi-gear output,” which would not output 200 Amps for the same reasons. Were it otherwise, the “12V” output of Chen’s “DC multi-gear output” would have output the dangerously high amount of 200 Amps of current (*i.e.*, 2400 Watts as calculated by  $12V \times 200 \text{ Amps}$ )—an amount a POSITA would have immediately recognized as unsafe and inconsistent with Chen’s 12V output of “DC multi-gear output” being accomplished via the traditional “DC boost output circuit” for powering various ordinary 12V gear/electronics. EX1006, [0026], FIGs. 5-7. Simply put, Chen’s “multi-gear output” was relied upon for in the Petition for

Elements [1.2]-[1.3]/[21.2]-[21.3]. Then, for Element [1.4]/[21.4], Patent Owner never disputes my contention in ¶58 of my first Declaration that at least the electronics of “U3B and D12” form “an output power limit control” configured to protect Chen’s internal battery 4 from an overcurrent condition through the multi-gear output 10. Pet., 20 (citing my testimony at EX1003, ¶¶58-60).

32. Regarding the Patent Owner’s second erroneous assumption, Patent Owner overlooks my testimony cited in the Petition for Element [1.4] as it relates to Chen’s USB outputs. The Petition and my previous declaration provide analysis of the USB outputs for Element [1.4], and plainly refer to Chen’s protection for “the USB outputs 8,9” in the analysis of Element [1.4]. Pet., 20. For example, the Petition plainly relied upon the protection provided at both the “USB outputs 8, 9” and the “multi-gear output 10”:

The evidence here confirms that this circuit is configured to protect Chen’s internal battery 4 from an overcurrent condition through the USB outputs 8, 9 (or the multi-gear output 10) that might otherwise cause “damage” to Chen’s battery and other electronics. EX1003, ¶¶58-60 (citing to Chen [0026] and FIGS. 5-7).

Pet., 20 (annotated). Notably, the Petition cited to ¶¶58-60 of my previous Declaration and FIG. 7 of Chen, both of which expressly refer to the op-amp “U3A” as providing the overcurrent protection. EX1003, ¶59 (“**Overcurrent protection is enabled by the current-sense circuitry connected to op-amp U3A in Figure 7.**”). I

note that Dr. Ricketts indicated that he considered my testimony in ¶59 of my first Declaration, but oddly, he never disputed my testimony regarding the overcurrent protection circuit shown in Chen’s FIG. 7 for the USB outputs. EX1101, 92:4-94:1 (Dr. Ricketts conceding that his declaration testimony “has no analysis of this section of Figure 7”). This clarifies that Patent Owner’s second erroneous assumption overlooks meaningful evidence about Chen’s teaching for the overcurrent protection provided to the “USB” outputs.

**C. Chen Discloses Elements [1.5]/[21.5]**

33. Responsive to Patent Owner’s argument that Chen fails to disclose Elements [1.5]/[21.5], I disagree for at least the following reasons. POR, 36-39; EX2001 (Dr. Ricketts Dec.), ¶162-166.

34. First, Patent Owner’s argument appears to rely on an implicit claim construction—one that requires the “second protection circuit” to “detect a current” or actually “measure” a current value. POR, 36-39. EX2001, ¶165, EX1101, 146:8-23 (“this is specifying the parameter measured as currents” and “[t]hat is my understanding of “overcurrent”). Patent Owner’s arguments against Chen are flawed for at least the following three reasons.

35. As a first reason, nothing in the claim language requires a structure that actually detects a current value, but Patent Owner and Dr. Ricketts appears to assume otherwise. Again, Elements [1.5]/[21.5] only require a “protection circuit” that is

“configured to prevent overcurrent condition.” I disagree with Dr. Ricketts’s contention that the ’506 patent’s preferred embodiment of a conventional “fuse” actually “measures” a current value. EX1101, 146:8-23 (“this is specifying the parameter measured as currents” and “[t]hat is my understanding of “overcurrent”). Based on my review, these claim elements do not require the second protection circuit to detect/measure a current value. The Petition cited to my earlier testimony to show that Chen’s second protection circuit does indeed achieve the claimed functionality of being “configured to prevent overcurrent condition,” and that is enough. For example, page 21 of the Petition establishes that Chen’s relay K1 is able “to automatically turn off” the output current and thereby “prevent long-term high-current output from damaging the lithium battery.” EX1006 (Chen), [0025], [0035], FIG. 4. Here, the functionality of “prevent[ing]” high-current output from “damaging the lithium battery” is a straightforward example of Chen’s circuit including the relay K1 being “configured to prevent overcurrent condition.”

36. As a second reason, Patent Owner acknowledges that the mere “fuse” of the ’506 patent is a “second protection circuit,” but the Patent Owner never explained why the overcurrent protection provided by Chen’s relay K1 was different from this conventional “fuse.” EX1101, 154:16-21. In fact, as I explained in my first Declaration, Chen’s relay “K1” would have operated like a resettable fuse (internally housed) to prevent an overcurrent condition. Chen, [0018], [0025-0026], [0035],

FIG. 4; EX1003, ¶¶61-62. Patent Owner, at page 38 of the POR, argues that Chen’s relay uses a voltage divider (R38 and R41) to detect a voltage and “not a current detection” circuit. This ignores the fact that Chen’s detection circuit (which places a current-viewing resistor in series with the current to be measured, and measures the voltage across the resistor) is one of the most ubiquitous forms of monitoring/detecting a current in a DC power system. EX1101, 99:17-19 (admitting that such a circuit arrangement—where the “voltage across an impedance or resistor” is detected—“could be used to measure current”). I note that in FIG. 4 of Chen, the resistors R1-R6 can serve the purpose of current-viewing resistors. EX1006 (Chen), FIG. 4, [0025].

37. Finally, as a third reason, the Patent Owner’s theory that Chen’s relay K1 does not “protect against an overcurrent condition” is contradicted by Patent Owner’s later arguments for the Chen-White combination (Ground 1B). POR, 41-42. There, the Patent Owner implies that Chen’s relay K1 already provides an overcurrent protection function and questions why White’s suggestion (for adding a fuse in the jumper cable harness) would be helpful. *Id.* Within the same document, Patent Owner appears to be taking opposite positions. *Compare* POR, 38, *with* POR, 41-43. A POSITA would not do so, and would instead recognize Chen’s teaching in [0025] (refer to ¶35 above) for an internally housed relay that is indeed “configured to prevent overcurrent condition” as recited in Elements [1.5]/[21.5]. For at least

these reasons, as well as those outlined in the petition and my previous declaration Chen discloses elements [1.5]/[21.5]. Pet. 21; EX1003, ¶¶61-62.

**VI. GROUND 1B: THE CHEN-WHITE COMBINATION RENDERS OBVIOUS ALL ELEMENTS OF CLAIMS 1-2, 6-9, 11-14,16-22, 25-28, 30-33**

38. Responsive to Patent Owner’s argument that the Chen-White combination fails to invalidate claims 1-2, 6-9, 11-14,16-22, 25-28, 30-33 (POR, 39-44), I disagree for at least the two reasons detailed below. At a high level, the Patent Owner relies on an incorrect theory that “Chen and White refute making such a combination.” POR, 39-43. But my earlier testimony (which was cited in the Petition) explained why the resulting combination would have provided added protection “even beyond” Chen’s original solution. Pet., 31-32 (citing to EX1003, ¶¶92-98). I note that Patent Owner’s arguments simply overlooks much of my testimony on this topic from my first declaration.

39. First, Patent Owner overlooks that the Petition and my previous declaration provided evidence that both “layers” of over current prevention (e.g., Chen’s original solution and the further protection suggested by White) provide improved safety and protection to the battery. For example, the Petition, at pages 31-32, describes a “first” articulated reasoning that would have provided “added safety and damage prevention *even beyond the internal ‘relay K1’ of Chen.*” Pet., 31-32 (citing to EX1003, ¶¶94-96). This testimony was lengthy, demonstrating specific examples of added convenience and safety for the end user, but none of those

articulated reasons were refuted in the POR. Here, I note Dr. Ricketts's statement that White's fuse "is **not** redundant and unnecessary in Chen's mobile power supply." EX2001, ¶176. I also agree that adding a fuse to the jumper cable harness (as suggested by White) in Chen's system was **not** redundant with Chen's original solution, and my earlier testimony stated several added benefits to such a predictable combination.

40. As a second reason, Patent Owner's positions for Ground 1B appear to be inconsistent with Patent Owner's earlier statements about Chen Ground 1A (Element [1.5]). *Compare* POR, 38 (contending that Chen's relay K1 does not "protect against an overcurrent condition") *with* POR, 41-43 (implying the opposite). If Patent Owner's theory in Ground 1A (Element [1.5]) was true, then Chen's charger would have benefited even more from White's suggestion for using a fuse in the jumper cable harness (as demonstrated in Ground 1B). Pet., 31-33. These opposing positions from the Patent Owner (within the same POR document) are inconsistent.

41. In sum, and as articulated in detail in my previous declaration, a POSITA would have been motivated to incorporate Chen's device in a predictable manner that employs White's suggested benefits (a jumper cable harness equipped with polarity-protection connector at one end and a fuse along a jumper cable wire) so as to achieve several layers of added benefits. EX1003, ¶¶92-98. None of these

specific reasons are addressed in the POR, and I did not see any statements from Dr. Ricketts that actually dispute my articulated reasons, such as the prevention of damage to the wiring harness (EX1003, ¶94), overcurrent protection during the time “before the car battery is successfully jumpstarted (EX1003, ¶96), and the “simplified maintenance/repair” (EX1003, ¶97).

## **VII. GROUND 1C: THE CHEN-RICHARDSON COMBINATION RENDER OBVIOUS ALL ELEMENTS OF CLAIMS 10**

42. Responsive to Patent Owner’s and Dr. Ricketts’s argument that the Chen-Richardson combination fails to invalidate claim 10, I disagree for at least two reasons noted below. POR, 44-49; EX2001 (Dr. Ricketts Dec.), ¶168-177.

43. First, Patent Owner’s arguments appear to rely upon a premise that the “relay 34, temperature sensor 41 and jump cables 60 in the cited upper portion of FIG. 2C” in Richardson must somehow “connect with” Chen’s circuit elements “in FIGS. 1, 2, and 4.” POR, 49. This appears to overlook the actual suggestion from Richardson that was noted in my first declaration, and the predictable combination from applying such a suggestion to Chen’s conventional device. EX1003, ¶139 (“so that the switching module ceased the jumpstarting current after a predetermined time period (as suggested by Richardson)”). I have been informed that, under that law, the test for obviousness is not whether the features of a secondary reference may be “bodily incorporated” into the structure of the primary reference. Rather, the test is what the combined teachings of those references “would have suggested to those of

ordinary skill in the art.” I did not rely upon any “bodily incorporation” theory for my analysis of the Chen-Richardson combination. The Patent Owner’s arguments here are demanding a showing of how Richardson’s “relay 34, temperature sensor 41 and jump cables 60 in the cited upper portion of FIG. 2C” would bodily incorporate with Chen’s Figures. However, I understand that the true question is what Richardson would have suggested to a POSITA, and whether such a suggestion would have achieved a predictable benefit when applied to Chen’s solution. As I explain in my first declaration, there was a predictable benefit. EX1003, ¶139 (“thereby preserving the internal lithium battery and avoiding an overheating condition”).

44. Second, the Patent Owner’s argument never actually disputed the known benefits that I articulated in my first Declaration regarding the Chen-Richardson combination. The Petition and my previous Declaration properly noted that a POSITA would have recognized from Richardson’s suggestion that Chen’s solution would achieve added benefits, and thus a POSITA would have been motivated to implement such an improvement in Chen. Pet., 44-45 (“advantageously avoids over-exhaustion”); EX1003, ¶¶138-139. These actual benefits noted in my first Declaration are not disputed in the POR nor in Dr. Ricketts’s testimony.

**VIII. GROUND 2A; THE INSKEEP-JOHNSON COMBINATION  
RENDERS OBVIOUS ALL ELEMENTS OF CLAIMS 1, 3, 6-14, 16-17, 20-  
21, 23, 25-28, 30-31**

45. Responsive to Patent Owner’s argument that the Inskeep-Johnson combination fails invalidate claims 1, 3, 6-14, 16-17, 20-21, 23, 25-28, 30-31, I disagree for the reasons noted in subsections A, B, and C below. POR, 50-55; EX2001 (Dr. Ricketts Dec.), ¶¶188-203.

**A. Inskeep’s “DC 12V port” and its protection circuit provide Elements [1.2]-[1.4]/[21.2]-[21.4]**

46. Patent Owner argues that the Inskeep’s “DC 12V port” fail to satisfy elements [1.2]-[1.3]/[21.2]-[21.3], but these arguments are based on two false assumptions. First, the Patent Owner theorizes that Inskeep’s conventional cigarette style 12V port might output a current at least as high as Inskeep’s jumpstarter current (500 Amps), but a POSITA would have recognized that this is utterly unrealistic. POR, 51 (theorizing that the current might be “**greater** or less than the second current of 500A”). Indeed, as cited in the Petition and in my first Declaration, Inskeep teaches that the 12V port 112 mimics a traditional vehicle cigarette lighter port—one that mates with a charger cable having “a conventional cigarette style plug.” EX1008, [0034], FIG. 4; *see also* EX1003, ¶159, Pet., 53. Here, Dr. Ricketts agreed that Inskeep’s teaching would have indicated to a POSITA that Inskeep was describing a DC power “similar to what a conventional cigarette lighter – cigarette-style plug would have been, for instance in an automobile.” EX1101, 156:15-157:6. And Inskeep expressly teaches that this 12V port was used for powering “12 V accessories” (EX1008, [0034]) just like the same type of 12V accessories that Dr.

Ricketts described in his testimony receiving a current “much less” than a jumpstarter current. EX2001, ¶105 (admitting that the traditional output for such a “12 V” output was “12V/**10A**” (emphasis added)); EX1101, 74:20-76:20 (“which a POSITA would know are much less power than 100 amps”). Here, I believe Dr. Ricketts’s testimony (EX2001, ¶105; EX1101, 74:20-76:20) is fully consistent with my earlier testimony in the first Declaration as to why a POSITA would have known that Inskeep’s DC 12V port was a low-current output far less than Inskeep’s 500A jumpstarter current. EX1003, ¶161. If Inskeep’s DC 12V port hypothetically did output the same or more current than the 500A jumpstarter current, the “12V” output of Inskeep’s port 112 would output the dangerously high amount of current (500A i.e., 6000 Watts as calculated by  $12V \times 500 \text{ Amps}$ )—an amount a POSITA would have immediately recognized as unsafe and inconsistent with Inskeep’s teaching for powering traditional “12 V accessories” through a “conventional cigarette style plug.” EX1008, [0034]. For at least these reasons, I disagree with the Patent Owner’s theory that Inskeep’s 12V port could have delivered currents in the range of hundreds of Amps, which would be unconventional and dangerous.

47. Further, not only is Dr. Ricketts’s testimony (EX2001, ¶105; EX1101, 74:20-76:20) consistent with my earlier testimony about what a POSITA would have recognized from Inskeep’s teaching (refer to EX1003, ¶161), but Inskeep’s teaching for powering traditional “12 V accessories” through a “conventional cigarette style

plug” is even more telling (beyond the text of the ’506 patent that Dr. Ricketts was relying upon in EX2001, ¶105). Namely, a POSITA would have recognized from Inskip’s teaching ([0034]) that this type of conventional cigarette style plug was designed for a power output far less than a current of 500 Amps, and indeed such 12V paths were ordinarily fused for a maximum output current of only about 10-20 Amps. This ubiquitous fact would have been known to a POSITA and is also corroborated by numerous publications. EX1102, 2:15-20 (“automobile cigarette lighters are typically fused with a 10 amp fuse”); EX1103, 1:44-2:4 (traditional “adapter for a vehicle cigarette lighter socket” wherein the “fuse in the adapter is preferably 10 amp”); EX1104, 2:20-28 (“connectors historically referred to as 12V cigarette lighter socket ... typically have recommended maximum operating currents on the order of 5 to 10 amps”); EX1005, 3 (“built-in 20A fuse”); EX1106, [0004]-[0005] (“U.S. 12V automobile plugs use the ‘UL2089’ standard, and the “plugs are defined in the ANSI/SAE J563 specification”). Without such protection, any accidental short (such as a child sticking something metallic into the cigarette lighter output) would deliver enormous current – enough to melt wires, injure users, or cause a fire. Dr. Ricketts does not appear to dispute this well-known nature of conventional cigarette style plugs for outputting power to ordinary 12V accessories. EX1101, 156:15-157:6 (“similar to what a conventional cigarette lighter – cigarette-style plug would have been, for instance in an automobile”), 122:20-123:7. Thus,

based on Inskeep's teaching that the DC 12V port was used for powering ordinary "12V accessories" (EX1008, [0034]), a POSITA would have recognized that such a port was outputting a current far less than the 500A jumpstarter current. EX1003, ¶1003; Pet., 56.

48. Finally, for Element [1.4]/[21.4], I note that Patent Owner did not dispute my testimony about Inskeep's "DC 12V port" being protected by a first protection circuit. EX1003, ¶162; Pet., 56-57 (fuse 'F2').

**B. Inskeep's "USB port" and its protection circuit provide Elements [1.2]-[1.4]/[21.2]-[21.4]**

49. The Patent Owner relies upon a flawed assumption for its argument that the protection circuit for Inskeep's "USB port" fails to satisfy elements [1.4]/[21.4]. POR, 51-53. As explained in my earlier testimony, Inskeep's "low voltage protection circuit" protects the internal battery/circuit against a "short circuit or other conditions" causing "a voltage drop" at the USB port. EX1003, ¶162 (citing Inskeep at [0032], claim 3, and FIG. 3). My testimony regarding the momentary "voltage drop" during a short circuit at a USB port was not refuted in the POR, and instead Dr. Ricketts appears to agree with my explanation regarding a "voltage drop" in such circumstances. EX1101, 124:2-125:3 ("the voltage will drop"). As such, there appears to be no dispute: when Inskeep's USB port suffers a short circuit or unexpectedly high current load, it will suffer a voltage drop, yet Inskeep's "low voltage protection circuit" will perform its function of a "protection" circuit.

EX1003, ¶162. I note that the Patent Owner appears to focus on the label (“low voltage”) of Inskeep’s protection circuit rather than addressing what it actually does during a short circuit or unexpectedly high current load. I disagree that such a label would have been dispositive to a POSITA. Rather a POSITA would have recognized the type of protection afforded to Inskeep’s USB port—namely, a circuit configured to prevent an overcurrent condition caused by short circuit or unexpectedly high current load at the USB port. EX1003, ¶162; EX1008, [0032].

**C. The Inskeep-Johnson Combination teaches a “first operating mode” / “second operating mode”**

50. Responsive to the Patent Owner’s arguments that the Inskeep-Johnson combination fails to disclose the “first operating mode” and “second operating mode,” I disagree with Patent Owner’s theory for at least the following reasons. See POR 52-55.

51. First, these arguments rely on Patent Owner’s overly narrow constructions, which are inconsistent with the claim language and improper here. *Supra*, Section IV.A-B. The Patent Owner does not dispute my testimony of why Inskeep teaches these claim elements under the plain meaning of the claim phrases (without the substitute language suggested by the Patent Owner). See EX1003, ¶¶159-164 (cited at Pet. 53-58). Therefore, the Inskeep-Johnson combination provides the “first operating mode” and “second operating mode” for at least the reasons I previously noted in my first Declaration.

52. Second, even if Patent Owner’s overly narrow construction was applied here, the Patent Owner neglects the fact that the Inskeep-Johnson would provide these elements under that narrow construction. For example, Inskeep teaches that a “USB icon 20 is depicted when the USB port is available for use and illustrating of the voltage output”:

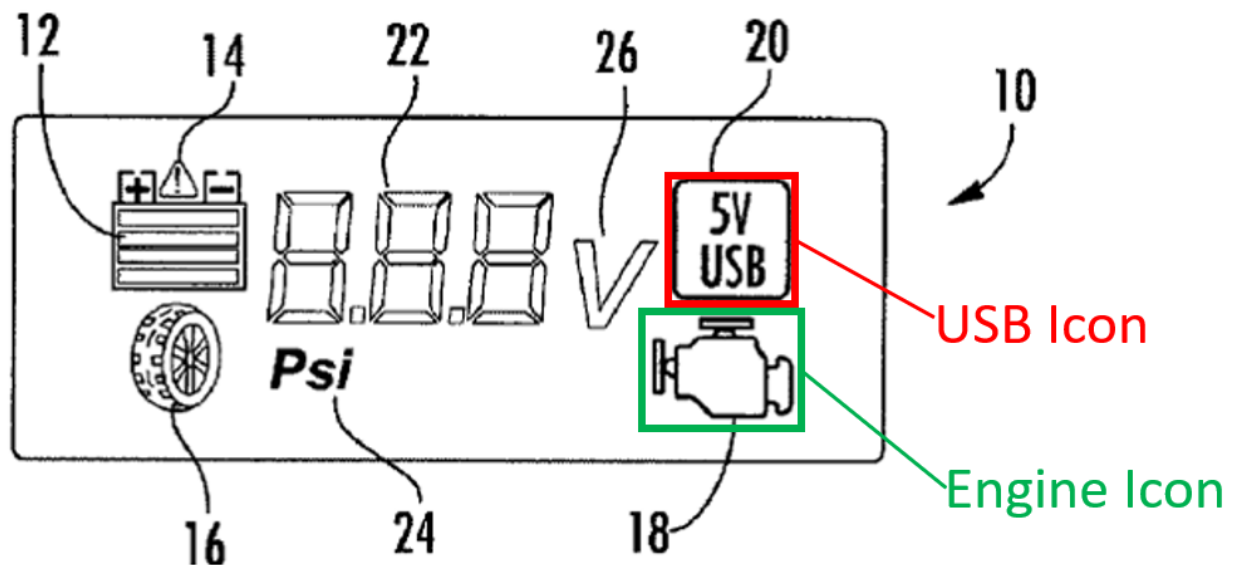


**FIG. 2**

EX1008, FIG. 2 (annotated), [0027]. Simply put, the USB port can be active (when USB icon 20 is illuminated) or inhibited (when USB icon 20 is not illuminated). Similarly, the graphic display, shown in FIG. 2, indicates “an engine icon 18” when “the jump starter circuit is activated.” EX1008 [0027]. A POSITA would have recognized from these teachings, taken together, that Inskeep teaches that both the current for the USB output and the current for charging a vehicle’s battery can be selectively activated or inhibited, including in accordance with the “first operating

mode” (for example, when the USB icon 20 is illuminated and the “engine icon 18” is not illuminated on the graphic display) and the “second operating mode” (for example, when the USB icon 20 is not illuminated and the “engine icon 18” is illuminated on the graphic display).

**IX. GROUND 3A: NOOK ANTICIPATES ALL ELEMENTS OF CLAIMS 1, 2, 6, 8-16, 19-22, 26-30, 33**

**A. Nook discloses a “first operating mode”/“second operating mode” [1.2]-[1.3]/[21.2]-[21.3]**

53. Responsive to Patent Owner’s argument that Nook fails to disclose Elements [1.2]-[1.3]/[21.2]-[21.3], I disagree for at least the following reasons. POR, 56-58; EX2001 (Dr. Ricketts Dec.), ¶¶208-210.

54. First, Patent Owner’s argument that the Nook fails to anticipate the “first operating mode” and “second operating mode” relies on Patent Owner’s erroneously narrow constructions. *Supra*, Section IV.A-B. The Patent Owner does not dispute my testimony of why Nook teaches these claim elements under the plain meaning of the claim phrases (without the substitute language suggested by the Patent Owner). *See* EX1003, ¶¶200-202, 222-223; *see also* Pet., 70-72. Therefore, the Nook provides the “first operating mode” and “second operating mode” for at least the reasons I previously noted in my previous Declaration.

55. Second, even if Patent Owner’s overly narrow construction was applied, the Patent Owner overlooked that Nook still discloses Elements [1.2]-

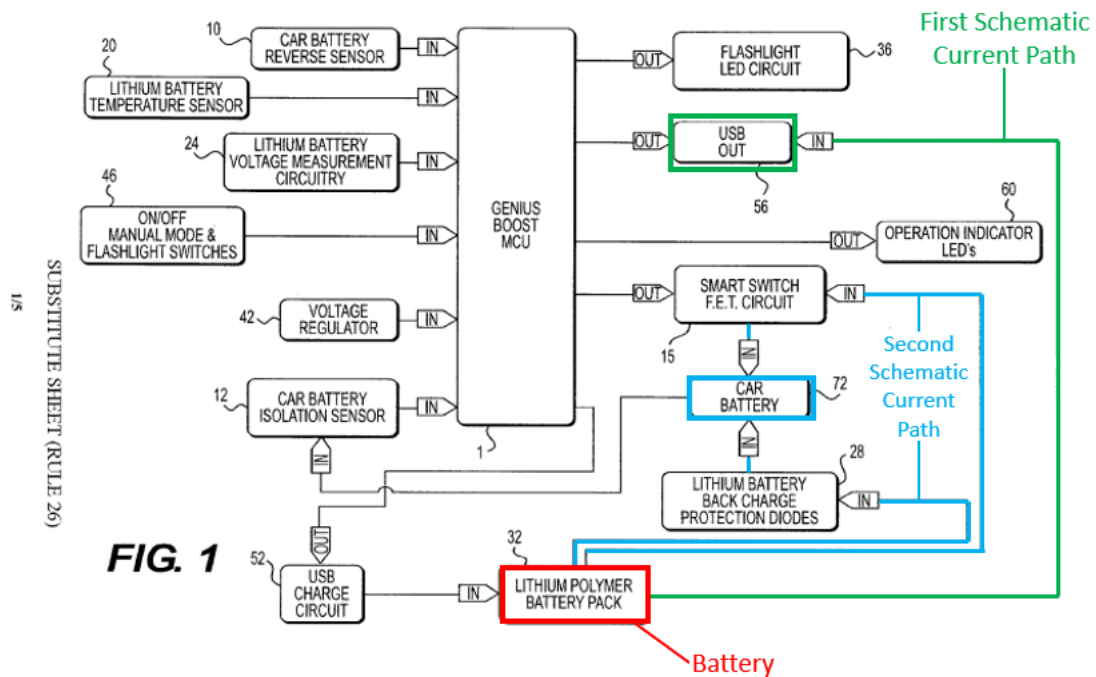
[1.3]/[21.2]-[21.3]. For example, Nook explains that a “smart switch FET circuit 15 electrically switches the handheld battery booster lithium battery to the vehicle's electric system only when the vehicle battery is determined by the MCU 1 to be present ...and connected with the correct polarity.” EX1012, 6-7. Therefore, in this state, Nook provides the first operating mode when smart switch FET circuit 15 is not switched to the vehicle's electric system and the USB output is activated. Nook also discloses that “the microcontroller 1 allows the USB Out 56 to be turned on and off by software control to prevent the internal lithium battery getting too low in capacity.” EX1012, 10. Therefore, in this state, Nook can turn off the USB Out 56 (as described above) even when the device is outputting current to a car battery, for example, when the device is in the claimed “second operating mode.”

56. I also disagree with Patent Owner's argument that Nook's disclosure for using software to turn off the USB out 56 (to prevent the battery from reaching too low capacity) would also require the switch in series with the battery to prevent the current from flowing to the jumpstarter output terminals. POR, 57. This is incorrect, for example, because Nook's software can turn off the USB out 56 to prevent the battery from reaching a low capacity while the voltage monitored by the “lithium battery voltage measurement circuit 24” is determined to be sufficiently high to allow a discharge operation. EX1012, 7, 9.

**B. Nook discloses the claimed current paths [1.3]/[21.2]-[21.3]**

57. Responsive to Patent Owner's argument that Nook fails to disclose Elements [1.2]-[1.3]/[21.2]-[21.3], I disagree because the Petition did indeed cite to portions of Nook showing the second current path was different from the first current path. POR, 58-59; EX2001 (Dr. Ricketts Dec.), ¶¶211-214. Patent Owner's argument is premised on two erroneous assumptions, which I address in turn.

58. First, this contention is premised upon the Patent Owner's overly narrow construction, which suffers from fatal flaws for the reasons I explained above. *Supra*, Section IV.C. Second, even if Patent Owner's overly narrow construction was applied, the Petition (and my earlier testimony in the first Declaration) originally cited to Nook's FIG. 1, which plainly depicted two different schematic current paths from the output terminals to the battery and the USB out to the battery:



EX1012, FIG. 1 (annotated), 7-8, 10-11; see also EX1012, FIGS. 2A-C; Pet. 70-72; EX1003, ¶¶197-204. I note that while FIG. 1 of Nook is a schematic block diagram which is not the same as a circuit diagram, the specificity of the connectors (with arrows) would have allowed a POSITA to infer direction and content of power and information flow. The specificity of the connectors shown in FIG. 1 of Nook would have been enough for a POSITA to understand that the first and second current paths do not overlap.

### C. Nook discloses elements [1.5]/[21.5]

59. Responsive to Patent Owner's argument that Nook fails to disclose Elements [1.5]/[21.5], I disagree for at least the following reasons. POR, 59-60; EX2001 (Dr. Ricketts Dec.), ¶¶211-214.

60. First, the Patent Owner’s argument that Nook fails to disclose Elements [1.5]/[ 21.5] is based upon Patent Owner’s flawed assumption that the claimed “second protection circuit” must “detect” a current or “measure” a current. POR, 59-60. Dr. Ricketts reiterated this implicit claim construction during his deposition. EX1101, 146:8-23 (“this is specifying the parameter measured as currents” and “[t]hat is my understanding of “overcurrent”). But, as I previously explained, the actual language of the claim does not require the function of detecting/measuring a current value. Instead, Elements [1.5]/[21.5] simply recite a “protection circuit” that is “configured to prevent overcurrent condition”—without any recitation that mandates the detecting or measuring of a current parameter. *See Supra*, ¶35. Second, when the actual claim language is considered (“configured to prevent overcurrent condition”) without importing more, the Petition and my previous Declaration identified three examples in Nook where particular circuits are indeed “configured to” prevent an overcurrent condition. EX1003, ¶¶204-206; Pet. 72-74; EX1012, 10, FIGs. 1, 2B.

**X. GROUND 3B: THE NOOK-WHITE COMBINATION RENDERS OBVIOUS ALL ELEMENTS OF CLAIMS 1, 2, 6-16, 19- 22, 25-30, 33 [GROUND 3B]**

61. Responsive to Patent Owner’s argument that Nook fails to disclose Elements [1.5]/[21.5], I disagree for at least the following reasons. POR, 61-64; EX2001, ¶¶216-226. At a high level, the Patent Owner relies on an incorrect theory

that “Nook and White refute such combination.” POR, 62. But my earlier testimony (which was cited in the Petition) explained why the resulting combination would have provided “added protection” beyond Nook’s original circuit protection. Pet., 80; EX1003, ¶233.

62. First, I note that the Patent Owner’s arguments never address the specific list of known benefits described in my earlier testimony on this topic. Pet., 80; EX1003, ¶233. For example, I testified that the known benefits of implementing Nook with a fuse along the jumper cable wires (as suggested by White) would have predictably achieved the added benefit of “preventing damage to the wiring harness ... in the event of a short-circuit or overcurrent condition.” EX1003, ¶233. The Patent Owner did not dispute this added benefit. Also, I noted the added layer of protection that would have prevented damage “to the car battery ... if the wiring harness experiences an over current condition during the jump starter process.” EX1003, ¶233. Again, there is no evidence contesting that the added protection would have provided benefits for the end user. Here, I note Dr. Ricketts’s statement that White’s suggested fuse “is **not** redundant and unnecessary in Nook’s mobile power supply.” EX2001, ¶225. I agree that adding a fuse to the jumper cable harness (as suggested by White) in Nook’s system was **not** redundant with Nook’s original solution, and my earlier testimony stated several added benefits to such a predictable combination. EX1003, ¶233.

63. Second, the Patent Owner's arguments for Ground 3B appear to be inconsistent with its arguments in Ground 3A (Element [1.5]). *Compare* POR, 60 (does not "protect against an overcurrent condition"), *with* POR, 62-63 (implying the opposite). If Patent Owner's theory in Ground 3A (Element [1.5]) was true, then Nook's charger would have surely benefited from White's suggestion for using a fuse in the jumper cable wire (as demonstrated in Ground 3B). *See* EX1003, 233; EX1101, 149:16-150:12 (agreeing that, if a fuse was put into Nook's original jumper cables, such a fuse would be "a form of overcurrent protection"). These opposing positions from the Patent Owner are incompatible.

## **XI. CONCLUSION**

64. I hereby declare that all statements made of my own knowledge are true and that all statements made on information and belief are believed to be true. I further declare that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of the Title 18 of the United States Code.

Dated: 01/22/2025

By: Gary L. Woods  
Dr. Gary L. Woods