

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ASUSTEK COMPUTER INC. and
ASUS COMPUTER INTERNATIONAL,
Petitioner,

v.

EXOTABLET, LTD.,
Patent Owner.

Case IPR2015-00046
Patent 7,477,919 B2

Before JUSTIN T. ARBES, BRIAN J. McNAMARA, and
MICHAEL J. FITZPATRICK, *Administrative Patent Judges*.

McNAMARA, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and
37 C.F.R. § 42.73

BACKGROUND

On April 23, 2015, we instituted an *inter partes* review of claims 1–4, 6–7, 14, and 19 of U.S. Patent No. 7,477,919 B2 (“the ’919 Patent”). Paper 6, 25 (“Dec. to Inst.”).

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a). We base our decision on the preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d). Having reviewed the arguments of the parties and the supporting evidence, we conclude, that claims 1–4, 6–7, 14, and 19 are unpatentable.

THE ’919 PATENT

The ’919 Patent addresses the need for a portable wireless device that permits instant communication and remote access to information, is sufficiently small and lightweight to be carried around conveniently by a user on a routine basis, permits the user to enter information such as a web site address or an e-mail message to control the device to browse the web or send e-mail messages (or to view web pages and e-mail messages), and permits the user to access information stored on a remote computer. Ex. 1001, col. 1, ll. 57–67. Figure 1 of the ’919 Patent illustrates the claimed input/output device.

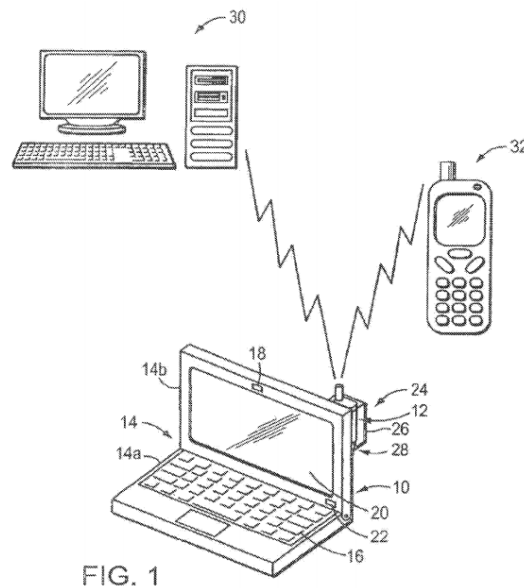


FIG. 1

Figure 1 of the '919 Patent

As shown above, the '919 Patent discloses an input/output device that has a phone port for connecting to a cell or other portable phone. *Id.* at col. 2, ll. 1–2. The device has input components, such as a keyboard, and output components, such as a screen, that are easier for a person to use than the small keypad and screen available on a cell phone. *Id.* at col. 2, ll. 3–9. Signals representing information or commands a user supplies with the input components are sent via the phone port to the phone, which transmits wireless signals to the intended destination device. *Id.* at col. 2, ll. 10–13. The phone also receives wireless signals that are sent through the phone port of the input/output device to be displayed as text or images on the screen. *Id.* at col. 2, ll. 13–16.

The input/output device generally has a housing that houses (i) the input components, e.g., a microphone or keyboard, (ii) the output components, e.g., a screen or speaker, (iii) a data storage device, e.g., a hard drive that can store a browser, email, and wireless application protocol, (iv) a processor, and (v) a phone interface having a support member for the portable phone and the phone port. *Id.* at col. 2, ll. 17–26. A modem also can be provided for use with a portable phone

that does not have one. *Id.* at col. 2, ll. 21–22. A user engaged in a conversation on a portable phone can insert the phone into the phone interface on the device to bring up a web page or view other data on its display screen and use the keyboard or another input component to enter data, such as a website address, email messages, personal information for making online purchases, a file location on a remote computer, or control functions. *Id.* at col. 4, ll. 36–57. The phone transmits wireless signals representing the data to the intended destination and receives wireless signals that are communicated to the device, which processes the signals to display text and images or to provide audible output. *Id.* at col. 4, l. 57–col. 5, l. 5. The device can be provided with minimum functionality to perform input/output operations, or can be provided with additional functionalities, e.g., browser functionality, a video card, additional storage drives, a scanner, a printer, and Bluetooth functionality. *Id.* at col. 6, ll. 7–24, 28–35. The device can be powered, e.g., by photovoltaic cells, or by a 120/240V line source through a detachable power cord. *Id.* at col. 6, ll. 25–28.

The '919 Patent describes a first exemplary embodiment in which the housing has the shape and size of a portable computer and a support member is formed by (i) a frame, e.g., a solid, perforated or lattice frame that may be elastic to fit different sized phones, having a bottom or side wall with the port disposed thereon pivotally mounted to the housing so that the frame pivots into and out of the housing opening, or (ii) a slot formed in the base housing section, or (iii) a slot formed in the pivotal housing section, or (iv) a base plate slidably attached to the housing at an opening so that the base plate slides into and out of the housing, or a retractable arm attached to the housing so that the arm slides out of the opening to laterally support the phone, or (v) a base plate pivotally mounted to the housing at an opening so that the base plate pivots into and out of the housing, or a pivotably

retractable arm attached to the housing at an opening so that the arm pivots. *Id.* at col. 2, ll. 30–59.

The '919 Patent discloses a second exemplary embodiment in which the slot has a channel for receiving the portable phone, with the support member formed by one of the walls defining the slot or channel. *Id.* at col. 2, ll. 60–64. A third exemplary embodiment, similar to the second, includes an adapter sleeve that receives and holds the phone so that the phone can be slid into and out of the sleeve and slot as desired. *Id.* at col. 2, l. 64–col. 3, l. 3.

SOLE CLAIM AT ISSUE

We instituted trial on certain of Petitioner's challenges to claims 1–4, 6–7, 14, and 19 of the '919 Patent. Dec. to Inst. 25. The Patent Owner Response addressed only Petitioner's challenge to claim 7. Paper 17, 10–51 ("PO Resp."). At oral hearing, Patent Owner agreed that it is not challenging Petitioner's assertions as to any of the challenged claims other than claim 7. Paper 24, 44:12–45:3. We have reviewed the Petition and the evidence cited therein, and are persuaded that for each ground on which we instituted trial of claims 1–4, 6, 14, and 19, Petitioner has established by a preponderance of the evidence that the corresponding claims are unpatentable. *See* Dec. to Inst. 9–25.

Claim 7, the only remaining claim, depends from claim 1 and is reproduced below, showing [in brackets] the elements of claim 1 incorporated into the claim:

7. The mobile telephone input output device of claim 1 [An input/output device for a mobile telephone providing a handheld, wirelessly portable, enhanced user interface for the mobile telephone having a display screen, comprising:
a housing sized and configured to be conveniently carried by hand;

- an electronic display screen mounted to or enclosed in the housing that is larger than the display screen on the mobile telephone;
- a user operable input device mounted to or enclosed in the housing for receiving user commands for controlling the mobile telephone while the input/output device is handheld and wirelessly portable;
- a cradle mounted to or enclosed in the housing configured for physically receiving and holding the mobile telephone;
- a communication port mounted to or enclosed in the housing for communicating with the mobile telephone when the mobile telephone is held by the cradle;
- wherein the input/output device is configured to physically hold and transport the mobile telephone while the input/output device is handheld, the input device is used to control the mobile telephone, and the enlarged display screen displays information supplied by the mobile telephone; and
- wherein the mobile telephone input/output device holding the mobile telephone is configured to be conveniently operated while handheld and used as an integrated wireless communication device in which the mobile telephone engages in wireless communications while the input/output device operates as a handheld, wirelessly portable, enhanced user interface for the mobile telephone];
- wherein the cradle defines a channel for receiving the mobile telephone in a position in which the display screen for the mobile telephone is concealed by the input/output device.

CLAIM CONSTRUCTION

We interpret claims of an unexpired patent using the broadest reasonable construction in light of the specification of the patent in which they appear. *See* 37 C.F.R. § 42.100(b); *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1278 (Fed.

Cir. 2015), *cert. granted sub nom. Cuozzo Speed Techs. LLC v. Lee*, 136 S. Ct. 890 (2016). In applying a broadest reasonable construction, claim terms generally are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

Concealed

In our Decision to Institute, we adopted Petitioner’s proposed construction that “concealed,” as used in claim 7, means *hidden from view*.¹ Dec. to Inst. 9. Although Patent Owner does not offer an explicit construction for the term *concealed*, Patent Owner implies that it requires the mobile phone be placed into the claimed input/output device in an orientation that precludes performing voice call functions with the phone. PO Resp. 8–10.

Claim 7 recites a structure in which “the cradle defines a channel for receiving the mobile telephone in a position in which the *display screen for the mobile telephone is concealed by the input/output device*.” Emphasis added. As Petitioner notes, the term *concealed* is not used in the Specification of the ’919 Patent outside of the claims. Pet. 11. Citing the Declaration of its witness, Dr. Dean Sirovica, Patent Owner contends that in claim 7, “[t]he concealment is both visual and functional” because in the ’919 Patent, the input/output is unified and brought to a single interface presented to the user. PO Resp. 5 (citing Ex. 2003, Declaration of Dr. Dean Sirovica (“Sirovica Decl.”) ¶ 18). In support of its functional concealment argument, Patent Owner argues that the Specification

¹ We also interpreted the claim terms “cradle,” “channel,” and “power source.” Dec. to Inst. 7–9. The parties do not dispute these interpretations in their Patent Owner Response and Petitioner’s Reply. We do not perceive any reason or evidence that now compels any deviation from these interpretations. Accordingly, we adopt our previous analysis for purposes of this Decision.

discloses two embodiments of the claimed input/output device as having a housing with input and output components that can include a microphone and a speaker, thus allowing the input/output device to perform voice call functions. *Id.* at 5–7. In view of these disclosures, Patent Owner argues that the telephone’s display screen is concealed because the mobile telephone, including its voice calling functionality, is being controlled by the device. *Id.* at 8–9.

The descriptions cited by Patent Owner do not support its implicit construction of “concealed” in claim 7 because they do not describe the presence of a microphone and a speaker in the device as pertinent to the input/output device concealing the display screen of the mobile telephone, as recited in claim 7. The passage at column 4, lines 44–50, cited by Patent Owner discloses only that a user engaged in a phone conversation can insert his phone into the phone interface to bring up a web page or view data on the display screen and, when desired, remove the phone from the interface and “*resume[]* using the phone as a conventional portable phone.” Ex. 1001, col. 4, ll. 44–50 (emphasis added). The passage at column 9, lines 49–53, also cited by Patent Owner, similarly discloses that “when the phone is inserted into the input/output device, the phone provides connectivity to the device by functioning as a modem and/or wireless communications device providing real time communications capabilities with other communications devices,” and that when the user slides the phone out of the input/output device, the phone “*resumes* operation as a conventional portable phone.” *Id.* at col. 9, ll. 55–56 (emphasis added); *see also id.* at col. 3, ll. 17–19 (“When the user removes the phone from the device, the phone then *returns* to functioning as a conventional portable phone.” (emphasis added)). These portions suggest that the phone is used for voice call functions before and after it is connected to the input/output device, but not during the time it is connected.

The position of the antenna on the left side of the phone in Figure 1 of the '919 Patent appears to suggest a configuration in which phone 32 is placed into interface 24 in such a manner that the mobile phone display screen faces the back of the input/output device. Ex. 1001, Fig. 1. However, the accompanying description states only that the phone is inserted into engagement with interface 24 and device 10 communicates with portable phone via port 28. *Id.* at col. 4, ll. 36–50. The Specification does not describe port 28 as being positioned relative to the corresponding port on the phone, so as to require that the phone face a direction that conceals any particular functionality of the phone. Even if Figure 1 is read to imply that, when placed in the cradle, the entire front face of the phone, including both its display and keypad are concealed, there is no discussion in the '919 Patent concerning the actual placement of port 28 that connects to the phone. Depending upon the relative position of the phone port and the port of the input/output device, the mobile phone could face the opposite direction from that implied by Figure 1, with functional operation buttons on the mobile phone facing outward. For example, Petitioner argues that Figure 6, when viewed in conjunction with Figure 1, shows the front face of the mobile phone facing outward from the input/output device, such that it would in fact be accessible to the user. Paper 19, 4 (“Reply”).

Most important to our construction, however, is that the relevant language of claim 7 requires only that the display screen is concealed. More specifically, claim 7 does not recite that the display screen is concealed to prevent operation of any particular function, nor does claim 7 recite that the mobile phone keypad or any functional buttons on the face of the mobile phone be concealed by the input/output device. The relevant language of claim 7 requires only that the input/output device receive the mobile phone in such a manner that the mobile phone display screen is concealed. As the claim explicitly recites that the mobile

phone display screen is concealed by the input/output device, we do not read into claim 7 a limitation requiring that any other part or functionality be concealed by the input/output device. For purposes of this Decision, we interpret “concealed” to mean hidden from view from all perspectives. See Tr. 6:16–9:18, 32:23–33:14.

ANALYSIS OF PRIOR ART CHALLENGES

Introduction

As previously discussed, claim 7 depends from claim 1 and recites the additional limitation “wherein the cradle defines a channel for receiving the mobile telephone in a position in which the display screen for the mobile telephone is concealed by the input/output device.” In view of Patent Owner’s concessions with respect to claim 1, we address only the challenges to claim 7 as (1) obvious over Barvesten² and (2) obvious over the combination of Kahn³ and Kumar.⁴

A fundamental premise of Patent Owner’s argument, that we address further in the context of each challenge, is that there is no reason to modify a prior art reference where the modification would render the disclosed device inoperative for its intended purpose. PO Resp. 26 (citing *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984)). Patent Owner contends, generally, that in the combination of references together, the phone is flipped over and that it is undisputed the combination device will not work for its intended purpose, i.e., to make a phone call. Tr. 21:3–7. Patent Owner supports this assertion with testimony from Dr. Sirovica stating that both Barvesten and Kahn seek to preserve and enhance the normal use of the mobile telephone. PO Resp. 10 (citing Sirovica Decl. ¶ 19).

² U.S. Patent No. 6,714,802 B1 (filed Sept. 21, 2000, issued Mar. 30, 2004) (Ex. 1002).

³ U.S. Patent No. 6,505,055 B1 (filed May 1, 1998, issued Jan. 7, 2003) (Ex. 1003).

⁴ WO 00/60450 (publ. Oct. 12, 2000) (Ex. 1005).

Patent Owner contends that Barvesten and Kahn's accessory devices do not have a speaker or microphone and rely upon the mobile telephone itself to conduct a voice call. *Id.*

In *Gordon*, a claimed blood filtering device provided an inlet at the bottom, allowing blood to follow a spiral path to the top, where bubbles vented out a gas vent and an outlet at the bottom. *Gordon*, 733 F.2d at 900–901. In contrast, the sole reference, a gravity assist liquid strainer for removing dirt and water from gasoline, provided an inlet and outlet for the filtered gasoline at the top of the device and undesired water was drained using a pet-cock at the bottom. *Id.* The court found no motivation to modify the prior art apparatus by turning it upside down to have both the inlet and outlet valve at the bottom, because that would have rendered it inoperable for its intended purpose by trapping gasoline to be filtered in a pocket, while the water the reference seeks to separate would flow freely out of the outlet. *Id.* at 902. As discussed further herein, however, the devices described in the references asserted in this case are not rendered inoperable (by Petitioner's proposed modifications/combinations) for their intended purpose of providing an enhanced user interface; nor do the proposed modifications/combinations disable the phones they are used with from making a voice call. In each case, the phone is intended to be attached to the input/output device to provide an enhanced user interface and can be detached to make voice calls as well. This is also a feature of the device recited in claim 7 of the '919 Patent, which does not require voice call capability.

Patent Owner argues that the input/output device in the '919 Patent, in addition to having a second display and second keyboard, has a second microphone and second speaker, so that it can be used to replace the voice call functions of the mobile telephone. PO Resp. 10. According to Patent Owner, this is in contrast to

Barvesten and Kahn, in which the accessory devices rely upon and require the mobile telephone to conduct a voice telephone call. *Id.*

The input/output device in the '919 Patent cannot conduct a voice call, or perform any other wireless communication, without the mobile telephone. Indeed, Patent Owner made this specific argument at the hearing arguing that “[c]laim 7 requires the two combined. It requires the phone in a cradle in a slot, connected to an I/O device.” Tr. 24:4–7. In the input/output device of the '919 Patent or the accessory devices in any of the references on which we instituted trial for claim 7, the mobile telephone is required to provide wireless communication. Thus, Patent Owner’s argument distills to its contention that voice call functionality is a requirement of the input/output device recited in claim 7. It is not.

Patent Owner reads into claim 7 limitations that are not present. Although claim 7 incorporates the limitations of claim 1, neither claim 1 nor claim 7 recites a microphone, a speaker, or voice call functionality. Petitioner notes that Patent Owner’s witness, Dr. Sirovica, conceded that neither a microphone nor a speaker is recited in claim 7 and that he was reading these features into claim 7 from the Specification. Reply 5–6 (citing Ex. 1017, Deposition Testimony of Dr. Dean Sirovica, 75:5–77:5 (“Sirovica Tr.”)).

Claim 7 incorporates the structure recited in claim 1. Claim 1 recites a hand sized housing, electronic display screen, user operable input device, cradle, and communications port. Claim 1 also recites two “wherein” clauses. The first “wherein” clause recites the device “is configured to physically hold and transport the mobile telephone while the input/output device is handheld, the input device is used to control the mobile telephone, and the enlarged display screen displays information supplied by the mobile telephone.” The second “wherein” clause recites that the handheld device is “used as an integrated wireless communication

device in which the mobile telephone engages in wireless communications while the input/output device operates as a handheld, wirelessly portable, enhanced user interface for the mobile telephone.” The third “wherein” clause recites that the “cradle defines a channel for receiving the mobile telephone in a position in which the display screen for the mobile telephone is concealed by the input/output device.” None of these limitations recites a microphone, speaker, or any particular type of wireless voice or data communications. With a mobile phone inserted, the input/output device can be used to “control” the mobile telephone and “display” information supplied by the mobile telephone. The mobile telephone engages in “wireless communications” that are not enumerated in the claim, while the input/output device operates as a handheld, wirelessly portable enhanced user interface for the mobile telephone. There is no requirement in the claim that the “wireless communications” be voice call functionality (as opposed to, for example, data communications), or any other functionality of the device or the phone.

Obviousness Over Barvesten

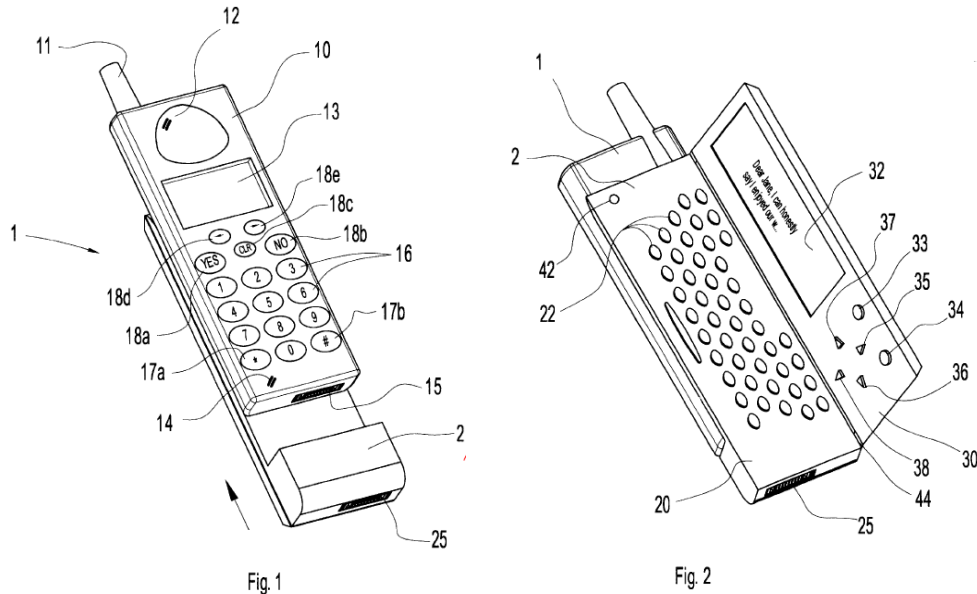
Petitioner presents two independent explanations of why claim 7 is unpatentable under 35 U.S.C. § 103(a) as obvious over Barvesten. As discussed below, we find that Petitioner has demonstrated by a preponderance of the evidence that claim 7 is unpatentable under its theory regarding modifying Barvesten.

1. Motivation to Modify Barvesten

Barvesten discloses an accessory device with a connector into which a known portable communications apparatus, such as a radio phone or GSM telephone, can be inserted. Ex. 1002, col. 3, ll. 29–34; col. 4, ll. 1–6.

Figures 1 and 2 of Barvesten are shown side-by-side below. Figure 1 of Barvesten illustrates an orientation in which display screen 13 and numeric keys 16

of the phone face the user. Figure 2 illustrates an orientation in which the device is flipped over, so that the display screen and numeric keys of the phone do not face the user.



Figures 1 and 2 of Barvesten

As shown in Figure 2 above, Barvesten's accessory device 2 includes QWERTY keypad 22, cursor navigation keys 35–38, and large display 32. *Id.* at col. 4, ll. 13–18. The QWERTY keypad, navigation keys and large display are contained in a housing having first and second portions 20 and 30, respectively, coupled by hinge mechanism 44, so that second portion 30 of the housing, is foldable between an open and closed position. *Id.* at col. 4, ll. 7–10, 18–20.

Petitioner contends that the purpose of Barvesten's accessory device is to provide an improved user interface for accessing accessory functionality provided by the central controller and man-machine interface of the mobile telephone. Pet. 14 (citing Ex. 1002, col. 6, ll. 16–20). Citing the supporting testimony of its Declarant, Dr. William Alberth, Petitioner argues that it would have been an

obvious design choice to modify Barvesten to flip the mobile phone in the channel such that its display screen would not face outward. *Id.* at 31 (citing Ex. 1013 ¶ 48). Petitioner notes that such an arrangement is shown in Kumar (Ex. 1005, Fig. 1), but does not cite Kumar as part of this challenge. *Id.*

Patent Owner argues that a person of ordinary skill would not have been motivated to modify Barvesten, and that Barvesten teaches away from making Petitioner's alleged design choice modification. PO Resp. 2. According to Patent Owner, Petitioner's proposed modification is contrary to the design modality of Barvesten, which is preserving and enhancing the "normal" function of the mobile telephone. *Id.* We agree with Petitioner that Patent Owner's design modality argument is flawed. Reply 3–6. As discussed above, claim 7 is broadly worded to recite an input/output device in which "the mobile telephone engages in wireless communications while the input/output device operates as a handheld, wirelessly portable, *enhanced user interface* for the mobile telephone." Emphasis added. *See also* Ex. 1001, col. 3, ll. 4–17 (describing the advantages of the invention). Thus, the design goals and intended use of Barvesten overlap those of the invention recited in claim 7.

Patent Owner further contends that, even if Barvesten were modified, such modification would yield a device that is inoperable, i.e., a device that could not initiate, receive, or conduct a voice call. PO Resp. 2.

Patent Owner contends that Barvesten primarily is drawn to an accessory device that makes text communication easier due to the accessory device's display screen being larger than that of the phone it accessorizes. *Id.* at 12 (citing Ex. 1002, col. 2, ll. 44–48). The cited portion of Barvesten actually says:

it is an object of the present invention to provide an accessory device, which will *make it easier for a user of a mobile telephone to input text into the telephone, without*

having to rely solely on the ordinary numeric telephone keypad thereof.

Ex. 1002, col. 2, ll. 44–48 (emphasis added). Barvesten further distinguishes the modes of operation stating:

the portable communication apparatus shall appear in a compact size, having a low weight and a low power consumption, in situations where the user is only interested in normal telephony services (communication of speech). On the other hand, in situations where more advanced features than normal speech communication are required (such as text processing or presentation of graphic information), the portable communication apparatus shall provide a user interface, which is better for these services.

Id. at col. 2, ll. 51–60 (emphasis added). Barvesten further describes its intended use as follows:

the accessory device 2 of the preferred embodiment is intended to provide an improved user interface for accessing functionality provided by the central controller and man-machine interface of the mobile telephone 1. However, the controller 410 of the accessory device 2 may also be arranged to provide additional functionality, which is not included in the standard man-machine interface of the mobile telephone 1.

Id. at col. 6, ll. 16–23 (emphasis added).

Although nowhere in this description does Barvesten explicitly discuss the voice capabilities of the phone as being part of the intended use of the accessory, Barvesten does identify as an objective a device that has “low weight and a low power consumption, in situations where the user is only interested in normal telephony services (communication of speech).” *Id.* at col. 2, ll. 53–55. This objective, however, only requires low weight and power, and does not require the accessory device to provide voice call functionality that is already available from

the mobile phone. Barvesten's intended use is to provide a user interface that is "better" for "more advanced features than normal speech communication[s] . . . (such as text processing or presentation of graphic information)." *Id.* at col. 2, ll. 56–60.

Petitioner contends it would have been an obvious design choice to flip the phone in Barvesten's cradle, such that the display screen does not face outward from the rear of the accessory. Pet. 31–32.⁵ As Petitioner notes, Patent Owner acknowledges there were reasons why a person of ordinary skill would consider flipping the phone to conceal the display screen, for example, to prevent scratching the display screen. Reply 10–11 (citing PO Resp. 9, Sirovica Tr. 80:2–81:17, 86:14–87:1).

Patent Owner contends that by flipping the display screen, Barvesten could not be used as intended because it could not be operated for communication of speech, i.e., making a voice call. PO Resp. 25–26. Thus, Patent Owner argues, a person of ordinary skill would not have been motivated to make such a design choice. *Id.* Petitioner responds that, even with the phone flipped over, it would still have been possible to use the Barvesten phone in a conventional way to make voice calls by taking it out of the sleeve. Reply 13. Patent Owner counters that by taking the mobile phone out of the sleeve, "[y]ou no longer have the claimed combination." Tr. 24:3–6 (statement by counsel for Patent Owner). However, as discussed above, although claim 7 recites "wireless communications," claim 7 does not require voice call capability.

⁵ Although not part of this ground, Petitioner also cited related prior art by Kumar (Ex. 1005), which we discuss further in this Decision, as illustrating a docking display for a mobile phone in which the display screen is entirely concealed by the docking display. Pet. 32.

Patent Owner attempts to distinguish Barvesten because, even though Barvesten provides the same feature as that explicitly recited in claim 7, i.e., an enhanced user interface, Barvesten suggests an additional intended purpose, i.e., voice communication. However, as previously discussed, Barvesten's intended use is to provide a user interface "where more advanced features than normal speech communication are required." Ex. 1002, col. 2, ll. 56–57. Thus, we do not find that modifying Barvesten to conceal the mobile phone display screen, for example by flipping the phone in the slot, would render Barvesten inoperative for its intended purpose. *See In re Urbanski*, 809 F.3d 1237, 1244 (Fed. Cir. 2016) (Board properly found that one of ordinary skill would have been motivated to pursue the desirable properties taught by one reference, even if that meant forgoing the benefit taught by another).

Petitioner also notes that this is exactly how the '919 Patent works. Reply 13. The '919 Patent does not describe making calls using the I/O device, but instead, discusses using the microphone to incorporate voice recognition into the device. Ex. 1001, col. 5, l. 66–col. 6, l. 1. The '919 Patent further states that when desired the user simply removes the phone from the interface and resumes using the phone in the conventional manner. *Id.* at col. 3, ll. 17–19, col. 4, ll. 48–50, col. 9, ll. 49–60.

The question before us is whether one of ordinary skill would have been motivated to flip the mobile phone in Barvesten to conceal the display screen in a device that provides wireless communications. Barvesten discloses the advantages to enhancing the display screen, which is a feature recited in claim 7. Petitioner's arguments that one of ordinary skill would have been motivated to protect the display screen from damage and that flipping the phone in the Barvesten cradle would have provided this advantage are persuasive. Reply 10–11. As discussed

above, the parties agree that, if flipped in the cradle, the mobile phone in Barvesten could be used to make a voice call by removing the phone from the cradle. Thus, the evidence is that, even if modified as suggested by Petitioner, Barvesten would have remained operable for its intended functions. Indeed, making a voice call with the mobile phone removed from the cradle is described in the '919 Patent. Thus, we find that one of ordinary skill would have been motivated to modify Barvesten and that, as modified, Barvesten would have continued to be operative for its intended purpose, i.e. to provide wireless communications and an enhanced user interface. On this basis, we conclude that, under this theory, Petitioner has demonstrated that the limitations of claim 7 are taught or suggested by Barvesten, and that a person of ordinary skill in the art would have had reason to modify the teachings of Barvesten to achieve the device recited in claim 1.

Obviousness Over Kahn and Kumar

Petitioner contends that Barvesten, discussed above, discloses an input/output device for use with a bar type phone, while, as shown in Figure 1A, Kahn discloses an input/output device for use with a flip-phone, such as a StarTAC™ cellular phone. Pet. 37–38. Figure 1A of Kahn (rotated for easier viewing) is shown below.

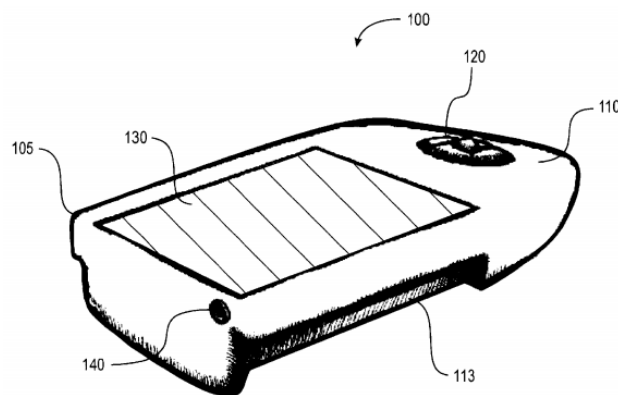


Fig. 1A of Kahn

Petitioner cites Kahn as disclosing a camel-back digital organizer (“Organizer”) that enhances a phone’s user interface by providing, in a housing, a larger display, i.e., output component, screen 130, than the one on a StarTAC flip-phone and input navigation buttons 120 and 150. *Id.* at 34–35, 42–43. Petitioner cites Kahn’s disclosure that the Organizer fits in the palm of the user’s hand, and provides a portable electronic organizer that attaches to a wireless telephone to enhance the phone, as recited in claim 1. *Id.* at 40–41 (citing Ex. 1003, col. 7, ll. 11–13, col. 14, l. 57, col. 2, l. 66–col. 3, l. 2). Petitioner contends that when the phone and Kahn’s Organizer are connected to communicate, the digital organizer displays a list of entries having phone number information and receives user requests to dial a phone number, and transmits a command to the phone to carry out the request. *Id.* at 43–44. Thus, Petitioner contends that Kahn discloses a user operable input device in a housing that receives user commands for controlling the phone while being handheld and wirelessly portable, as recited in claim 1 of the ’919 Patent. *Id.* Kahn discloses that the Organizer is attached to a phone using the same technique as that used to attach an auxiliary battery to a phone. Ex. 1003, col. 7, ll. 18–20, 39–48. The Organizer’s housing 105 has metal spring connector 170 that grips the top of the phone and plastic connectors 108, 109 that fit into slots on the phone and hold the unit in place. Pet. 36, 44.

Petitioner notes that Kahn further discloses the claimed communication port in the form of a communication interface plug or connector at the bottom of the housing that snaps into a corresponding communication port on the phone and is designed, with corresponding power and signal pin-outs to access the phone directly, to issue telephony requests, such as a dial request. *Id.* at 45–46 (citing Ex. 1003, col. 7, ll. 26–35).

In Kahn, the flip-phone may be opened to provide access to its display and keypad. Petitioner notes that Kahn discloses it can be used with other phone designs. *Id.* at 51 (citing Ex. 1003, col. 6, ll. 8–12). Petitioner cites Kumar, which discloses a portable docking display unit 30 and detachable handset 20. *Id.* at 51–53 (citing Ex. 1005). Figure 1 of Kumar is shown below.

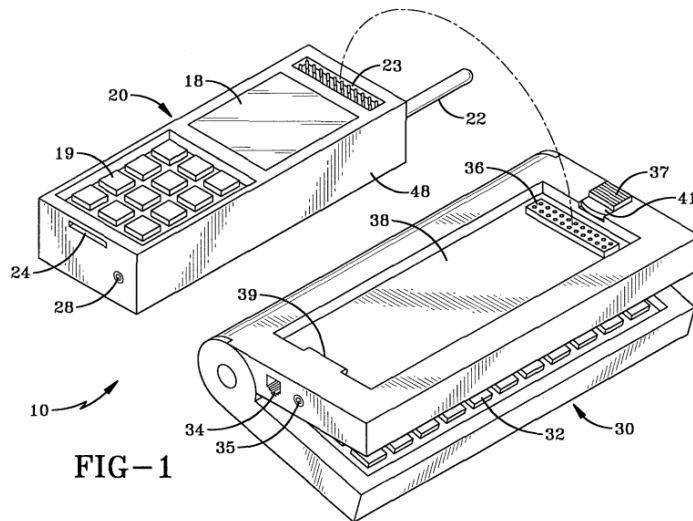


Figure 1 of Kumar

In our Decision to Institute, we determined that Petitioner had demonstrated a reasonable likelihood it would succeed in demonstrating that claim 1, from which claim 7 depends, is anticipated by Kahn. Dec. to Inst. 19–21. Patent Owner has not responded to that ground. Tr. 44:18–45:3. For this ground, Petitioner notes that Kahn, which concerns a device for use with a flip-phone, discloses that it can be used with other phone designs. Pet 51 (citing Ex. 1003, col. 6, ll. 8–12). Petitioner cites Kumar, which discloses a portable docking display unit 30 and detachable handset 20. Pet. 51–53 (citing Ex. 1005). In Kumar, handset 20 is inserted face down, so that the display on the handheld device is obscured, into portable docking display 30, which connects to the handset through

mating connectors 23 and 36 and provides auxiliary keypad 32 and auxiliary display 31. Ex. 1005, 5, Fig. 1.

Patent Owner contends that Kumar and Kahn cannot be combined because (1) Kumar “expressly criticizes and teaches away from Kahn” (PO Resp. 2, 37–42), (2) that “no motivation exists” for a person of ordinary skill to combine Kahn and Kumar because “Petitioner’s proposed combination is completely contrary to the design modality of Kahn, which is preserving the ‘normal’ function of the mobile telephone” (PO Resp. 2, 43–44), and (3) that, “even if combined, Kahn and Kumar would result in a device that is inoperable, i.e., a device that could not initiate, receive, or conduct a telephone call” (PO Resp. 2–3, 44–48).

We begin with Patent Owner’s third point, in which Patent Owner argues that Kahn does not disclose a speaker or microphone on the accessory device. *Id.* at 29–30. We addressed a similar argument previously in this Decision in the context of modifying Barvesten. Patent Owner emphasizes Kahn’s disclosure that, when the host phone is in use to place a voice call, the unit is held generally so that the display of the Camel-Back Design Organizer (CDO) is facing away from the user’s view. *Id.* at 31 (citing Ex. 1003, col. 7, ll. 11–15). Kahn, however, is silent as to the direction of the mobile phone screen. Kahn describes its Camel-back Design Organizer (CDO) unit as clipping onto the phone in the same manner as the phone’s auxiliary battery, but does not mention the direction of the display screen of the mobile phone. Ex. 1003, col. 7, ll. 16–19. The figures in Kahn do not show the direction the mobile phone display screen faces. *Id.* at Figs. 1A–5C. Figure 4 of Kahn, which is the only figure that shows an actual display, illustrates the CDO display. In this Figure, the display screen of the mobile phone would be concealed by the CDO because the CDO blocks sight of the mobile phone display screen. Kahn’s discussion of a user initiated phone call from the integrated device

concludes with the statement that “the voice call can proceed without further assistance from the digital organizer.” *Id.* at col. 11, l. 54–col. 12, l. 29. Thus, in Kahn, although one can initiate a call from the CDO by pressing certain buttons, one can remove the phone from the CDO and conduct the call without the CDO.

As Petitioner notes, in the combination of Kahn and Kumar, where the front panel of the phone is concealed, Kumar’s bar phone can be removed from the device to conduct a voice call. Reply 19–20. Therefore, in both Kahn and Kumar, the device can be used as intended to provide an enhanced user interface and the phone can be used as intended to make voice calls. Thus, neither Kahn nor Kumar is inoperative for its intended purpose.

In a related argument, Patent Owner contends that Kahn’s standalone accessory device is not used to conduct a voice telephone call.⁶ PO Resp. 31–32. We addressed this argument previously in this Decision. Claim 7 does not require that the input/output device conduct a voice call. Claim 7 does not require that the input/output device be equipped with a speaker or microphone. Thus, Patent Owner’s contention is not commensurate with the scope of the claim.

Citing the brevity of the Petition, Patent Owner also contends that Petitioner did not provide articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. PO Resp. 33–35. Our determination is guided by the content of the Petition, rather than its length. The Petition notes that, although Kahn focuses on an organizer for the StarTAC (a flip phone), Kahn discloses that the design, construction and operation taught are not limited to StarTAC models, but can be applied to other phones, including ones of markedly

⁶ Patent Owner acknowledges, however, that the user can use the standalone accessory device to dial a telephone number and then use the mobile telephone by itself to conduct the call. PO Resp. 31.

different design. Pet. 51 (citing Ex. 1003, col. 6, ll. 8–12). Petitioner’s citation of this passage from Kahn (Ex. 1003, col. 6, ll. 8–12) demonstrates that a person of ordinary skill would have been motivated to apply Kahn’s principles to phones with other form factors. The subject matter Patent Owner quotes from the Petition notes that the flip-phone used in Kahn’s Organizer was one of two commonly used form factors for mobile phones known to those of ordinary skill at that time, and that the bar phone, such as that shown in Kumar, was the second. PO Resp. 34 (citing Pet. 52–53, referencing Ex. 1013, Declaration of Dr. William Alberth (“Alberth Decl.”) ¶ 9). Thus, Petitioner articulated sufficient reasoning for combining Kumar, which concerns a bar phone, with Kahn to form a device such as Kahn’s configured for use with a bar phone.

Patent Owner also argues that Kumar cannot be combined with Kahn because, by criticizing Kahn, Kumar teaches away from it. PO Resp. 37–42. Patent Owner cites *Ricoh Co., Ltd. v. Quanta Comp. Inc.*, 550 F.3d 1325, 1332 n.5 (Fed. Cir. 2008), for the proposition that a reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. *Id.* at 37. However, in *Ricoh* the court found no issue of material fact that the reference did *not teach away* from using its disclosed optical media write strategy (which was the same write strategy as that claimed in the involved patent), in a high speed range, because Ricoh did not explain how the reference’s teaching of using a particular type of medium limited to use below 5.0 m/s would criticize, discredit, or otherwise discourage a person of ordinary skill from using the write strategy at higher speeds when writing to an optical media not limited to speeds below 5.0 m/s. *Ricoh*, 550 F.3d at 1332 (citing *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir.

2004) (refusing to conclude that prior art disclosure taught away from the claimed invention where the disclosure did not “criticize, discredit, or otherwise discourage the solution claimed”)).

Here, Patent Owner contends that Kumar’s single non-synching device is different from Kahn’s system, which requires a standalone accessory, a mobile telephone and a PC that requires three way synchronization. PO Resp. 38–42 (citing statements in Kumar that Motorola’s StarTAC Organizer does not achieve reduced cost or size of an integrated combination). In contrast to Patent Owner’s characterization of Kumar’s treatment of the StarTAC clipOn Organizer, much of the subject matter cited in the Patent Owner Response is not specific to StarTAC and concerns objectives Kumar seeks to achieve. *Id.* at 37–42. Kumar’s entire discussion of the clipOn Organizer reads as follows:

Recently Motorola, Inc. of Schaumburg, Illinois has begun to sell its clipOn Organizer as an attachment to its StarTAC cellular telephone and provide it with smart phone functionality. The clipOn Organizer and StarTAC phone have been designed to operate as individual, standalone units that each furnish its own processor and power supply. Consequently, attaching the units does not achieve the reduced size or cost desired in an integrated combination.

Ex. 1005, 2:8–13.

Kumar’s acknowledgement of Motorola’s clipOn Organizer as an attachment to its StarTAC cellular telephone serves to distinguish Kumar’s integrated combination as an improvement, rather than as a teaching away from Kahn. Kahn discloses a CDO for a flip phone, stating that what is needed is a solution that “combines telephony with personal information management in a single integrated hand-held unit” (Ex. 1003, col. 1, l. 66–col. 2, l. 1) and that the CDO:

is preferably implemented as an add-on component[,] which can be easily attached and detached from a phone by a customer and, once in place, can dramatically enhance the phone functionality, converting the phone into a “smart phone.”

Id. at col. 2, ll. 17–21.

With respect to a bar phone, Kumar discloses that:

the present invention relates to systems that detachably mate a plurality of portable processor based devices to provide their combined functionality in an integrated structure.

Ex. 1005, 1:20–22.

Contrary to Patent Owner’s contentions, these disclosures from Kahn and Kumar demonstrate that both references are directed to systems with attachable components that as a single hand held unit provide enhanced functionality.

Patent Owner does not contest Kahn’s teaching of all of the elements of claim 1 from which claim 7 depends. As to claim 7, Petitioner argues that

[t]he specific limitation of claim 7 (*i.e.*, ‘the display screen for the mobile telephone is concealed by the input/output device’) is not implicated by the statements in Kumar’s Background Art section, nor does Kumar ever indicated that Kahn’s device will not work. Distinguishing prior art does not make the prior art unavailable for combination. *See, e.g., In re Katz*, 639 F. 3d 1303, 1321 (Fed Cir. 2011) (“A reference can distinguish prior art to show the novelty of an invention without teaching away from combining the prior art with the invention disclosed in the reference.”) (Internal citations omitted).

Reply 20–21. Petitioner’s arguments are persuasive. We do not agree with Patent Owner that Petitioner has not established that Kahn and Kumar can be combined for purposes of establishing obviousness under 35 U.S.C. § 103(a). Patent Owner does not contend that the combination of Kahn and Kumar does not

disclose all the limitations of claim 7. For the reasons discussed above, we conclude that Petitioner has established that the limitations of claim 7 are taught by Kahn and Kumar, and that a person of ordinary skill in the art would have had reason to modify their teachings to achieve a device within the scope of claim 7

Secondary Considerations

Patent Owner contends that claim 7 is not obvious based on the secondary consideration of copying. PO Resp. 49–51. The sole support Patent Owner cites for copying is a District Court’s finding that Patent Owner was likely to succeed on the merits of its claim that Petitioner infringed claim 1 and the purported admission by Petitioner’s expert that Petitioner’s PadFone™ product meets the elements of claim 7. *Id.* at 50 (citing Ex. 2002, Deposition Transcript of Dr. William Alberth (Alberth Tr.”) 18:14–19:15, Ex. 2001). However, as Petitioner notes, the cited subject matter from the District Court is silent on claim 7 and the question of infringement is entirely different from that of copying. Reply 23–24; *see Wyers v. Master Lock Co.*, 616 F.3d 1231, 1246 (Fed. Cir. 2010) (“Not every competing product that arguably falls within the scope of a patent is evidence of copying; otherwise, ‘every infringement suit would automatically confirm the nonobviousness of the patent.’ . . . [C]opying requires evidence of efforts to replicate a specific product.”)(internal citation omitted). Patent Owner cites to the following testimony of Dr. Sirovica referring to the implications of the District Court’s finding:

I am informed and believe that the Court’s ruling and Mr. Alberth’s testimony evidences that Patentee ExoTablet’s device is a copy of Petitioner’s invention as claimed in ‘919 claim 7. I further understand that evidence of copying further demonstrates that claim 7 of the [’]919 patent is not unpatentable for obviousness.

Sirovica Decl. ¶ 76. Dr. Sirovica does not provide the basis of his “understand[ing]” or say who informed him concerning the District Court’s finding. However, it is clear from Dr. Sirovica’s statement that he did not reach this conclusion himself. Patent Owner has offered no evidence to substantiate its argument of copying as an objective indicia of non-obviousness.

Petitioner also notes that Patent Owner omitted from its discussion of the District Court’s order a finding that Petitioner’s obviousness case presented a substantial question of invalidity. *Id.* at 24. In fact, notwithstanding the District Court’s finding that Patent Owner was likely to succeed on the merits of its claim that the accused device meets the limitations of claim 1, the court denied Patent Owner’s motion for a preliminary injunction, finding that Petitioner “has raised a substantial question of invalidity.” Ex. 2004, 19.

In consideration of the above, we conclude that there are no objective indicia that would support a finding of non-obviousness of claim 7.

Procedural Issues

Anticipating the Petitioner’s Reply, Patent Owner in its Response argued that the Petition had not addressed its arguments concerning the motive to modify Barvesten or to combine Kahn and Kumar, thereby precluding Petitioner from introducing any evidence in response. PO Resp. 19–20, 35–36. However, as our discussions and citations to the Petition in the pertinent sections above illustrate, the Petition sufficiently addressed the relevant motivations. At the oral hearing, Patent Owner argued that the Petitioner’s Reply was the first time Petitioner discussed the motivation to combine and the first time that Petitioner discussed such elements as speaker phones. Tr. 19:21–21:2. However, as discussed above, the Petition does address the relevant motivations, and claim 7 does not recite speakers or microphones. Those are issues raised by Patent Owner and the

Petitioner's Reply appropriately responded to the arguments and evidence in the Patent Owner Response.

Obviousness Conclusion

Based on all of the evidence of record, we determine that claim 7 would have been obvious based on Barvesten, and also based on the combination of Kahn and Kumar, under 35 U.S.C. § 103(a).

CONCLUSION

In consideration of the above, we conclude that claims 1–4, 6, 7, 14, and 19 are unpatentable. Petitioner has demonstrated by a preponderance of the evidence that:

Claims 1–3, 6, and 19 are anticipated under 35 U.S.C. § 102 by Barvesten;

Claims 1–4, 6, 7, 14, and 19 are unpatentable under 35 U.S.C. § 103(a) over Barvesten;

Claims 1–3, 14, and 19 are anticipated under 35 U.S.C. § 102 by Kahn;

Claims 1–3, 14, and 19 are unpatentable under 35 U.S.C. § 103(a) over Kahn;

Claim 4 is unpatentable under 35 U.S.C. § 103(a) over the combination of Kahn and Chitturi;⁷ and

Claim 7 is unpatentable under 35 U.S.C. § 103(a) over the combination of Kahn and Kumar.

ORDER

It is ORDERED that claim 1–4, 6, 7, 14, and 19 of the '919 Patent have been shown to be unpatentable; and

⁷ U.S. Patent No. 6,489,932 B1 (filed Sept. 30, 1999, issued Dec. 3, 2002) (Ex. 1006).

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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