

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

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*Ex parte* KENNETH E. GAREY

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Appeal No. 2002-0076  
Application No. 09/144,842

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ON BRIEF

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Before FLEMING, RUGGIERO, and BARRY, *Administrative Patent Judges*.  
BARRY, *Administrative Patent Judge*.

DECISION ON APPEAL

A patent examiner rejected claims 1-4, 12, and 13. The appellant appeals therefrom under 35 U.S.C. § 134(a). We affirm.

BACKGROUND

The invention at issue on appeal relates to "speakerphones." A speakerphone is a telephone equipped with a loud speaker and a microphone that allows a person to converse on a telephone without using his hands. Freeing the hands facilitates note-taking; decreases neck, arm, and shoulder fatigue; and allows the person to move about the room during the conversation. (Spec. at 1.)

The appellant explains that a speakerphone may be designed to operate in either a half-duplex ("HDX") mode or a full-duplex ("FDX") mode. In the HDX mode, only one party of a telephone call can have his voice transmitted at a time. "If both parties try to speak simultaneously, a choppy sound effect known as clipping results. Having to speak in turn can be unnatural and can make conversation difficult and laborious." (*Id.*) Thus, he explains, many speakerphones are designed to operate in the FDX mode. The FDX mode "allows incoming and outgoing parties' voices to be simultaneously transmitted so that there is no clipping or choppyness [sic]. This results in much more natural and spontaneous flowing conversation." (*Id.*)

The appellant asserts that the conventional FDX speakerphone 100 shown in Figure 1 of his specification operates under constraints that impede the audio quality of a telephonic conversation conducted therewith. More specifically, the speakerphone's speaker 108 and microphone 110 are collocated in a base station 102. Such closeness results in "acoustic coupling" between the speaker and the microphone, by which sound emanating from the speaker is picked-up by the microphone. This causes an echo signal to be transmitted by the speakerphone to a listener connected to the speakerphone via over a telephone network. The effect becomes more pronounced when a talker is much farther from the microphone than he is from the speaker. In such

a situation, the microphone receives the sound emanating from the speaker as a loud signal, while receiving the voice of the talker as a quiet signal. (*Id.* at 2.)

In contrast, the appellant's FDX speakerphone features a base station and a remote microphone. For its part, the base station includes a network connection, a speaker, and a wireless receiver. The network connection receives a first network signal from a telephone network, and the speaker emits an audible signal derived from the first network signal. For its part, the remote microphone includes a wireless transmitter. The microphone receives an audio signal, and the wireless transmitter transmits the audio signal over the air to the wireless receiver in the base station. In turn, the base station converts the audio signal into a second network signal and sends the second network signal to the network.

A further understanding of the invention can be achieved by reading the following claim.

1. A full-duplex speakerphone that is coupled to a network, comprising:
  - a. a base station having a network connection, a speaker, and a wireless receiver, the base station for receiving a first network signal from the network, and the speaker for delivering an audible signal derived from the first network signal; and
  - b. a wireless remote microphone apparatus having a microphone and a wireless transmitter, the microphone for receiving an

audio signal, and the wireless transmitter for transmitting the audio signal over the air to the wireless receiver in the base station, the base station converting the audio signal into a second network signal and sending the second network signal to the network, the base station and wireless remote microphone apparatus operating in full-duplex mode.

Claims 1-4, 12, and 13 stand rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,664,015 ("Ford"); U.S. Patent No. 4,053,717 ("Snider"); and U.S. Patent No. 5,138,651 ("Sudo").

#### OPINION

"[T]o assure separate review by the Board of individual claims within each group of claims subject to a common ground of rejection, an appellant's brief to the Board must contain a clear statement for each rejection: (a) asserting that the patentability of claims within the group of claims subject to this rejection do not stand or fall together, and (b) identifying which individual claim or claims within the group are separately patentable and the reasons why the examiner's rejection should not be sustained." *In re McDaniel*, 293 F.3d 1379, 1383, 63 USPQ2d 1462, 1465 (Fed. Cir. 2002) (citing 37 C.F.R. §1.192(c)(7) (2001)). "Merely pointing out differences in what the claims cover is not an argument as to why the claims are separately patentable." 37 C.F.R. § 1.192(c)(7). "If the brief fails to meet either requirement, the Board is free to select a single claim from each group of claims subject to a common ground of rejection as

representative of all claims in that group and to decide the appeal of that rejection based solely on the selected representative claim." *McDaniel*, 293 F.3d at 1383, 63 USPQ2d at 1465.

Here, although the appellant alleges, "[t]he claims on appeal do not stand or fall together and are believed to be separately patentable," (Appeal Br. at 5), he fails to satisfy the second requirement. His pointing out differences in what claims 2-4, 12, and 13 cover, (*id.* at 14, Reply Br. at 7), is not an argument as to why the claims are separately patentable. Therefore, claims 2-4, 12, and 13 stand or fall with representative claim 1.

With this representation in mind, rather than reiterate the positions of the examiner or the appellant *in toto*, we address the four points of contention therebetween in the following order:

- omission of Ford
- additions of Ford
- problems solved by the appellant
- motivation to combine.

#### *Omission of Ford*

The examiner finds, "Ford discloses . . . a base unit (150) having . . . a speaker (182). . . ." (Final Rejection at 2.) The appellant argues, "[a]lthough *Ford*

shows a speaker in the base unit, it fails to disclose any circuitry whereby the speaker in the base unit can be used with the microphone in the housing 16." (Reply Br. at 4.)

"Analysis begins with a key legal question -- *what* is the invention *claimed*?" *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1567, 1 USPQ2d 1593, 1597 (Fed. Cir. 1987). In answering the question, "the Board must give claims their broadest reasonable construction. . . ." *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1668 (Fed. Cir. 2000). "Moreover, limitations are not to be read into the claims from the specification." *In re Van Geuns*, 988 F.2d 1181, 1184, 26 USPQ2d 1057, 1059 (Fed. Cir. 1993) (citing *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989)).

Here, claim 1 specifies in pertinent part the following limitations: "a base station having . . . a speaker . . . and . . . a wireless remote microphone apparatus having a microphone. . . ." Giving the representative claim its broadest, reasonable construction, the limitations require a base station to have a speaker and a remote unit to have a microphone. The claim does not require, however, that the speaker in the base station be used with the microphone in the remote unit.

Having determined what subject matter is being claimed, the next inquiry is whether the subject matter would have been obvious. The question of obviousness is "based on underlying factual determinations including . . . what th[e] prior art teaches explicitly and inherently. . . ." *In re Zurko*, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966); *In re Dembiczak*, 175 F.3d 994, 998, 50 USPQ 1614, 1616 (Fed. Cir. 1999); *In re Napier*, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995)). "A *prima facie* case of obviousness is established when the teachings from the prior art itself would . . . have suggested the claimed subject matter to a person of ordinary skill in the art." *In re Bell*, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993) (quoting *In re Rinehart*, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976)).

Here, Ford discloses "[a] shower speaker telephone system 10. . . ." Col. 4, l. 24. "The shower telephone system has a base unit 150 (FIGS. 4 and 5) providing a base." Col. 7, ll. 56-57. As aforementioned, the appellant admits, "*Ford* shows a speaker in [its] base unit. . . ." (Reply Br. at 4.) Furthermore, the reference adds that the "speaker 182 [is] mounted along the base housing for hands-free telephone discussions from the base unit." Col. 8, ll. 52-53.

Ford's shower speaker telephone system 10 further "comprises a portable cordless shower speaker telephone 12 providing a light weight waterproof handset 14. . . ." Col. 4, ll. 25-27. The portable handset is "a hands-free speakerphone. . . ." Abs., l. 1. We find that the portable handset, which can be used remotely from the base unit, includes a microphone, viz., "an amplified microphone 76." Col. 5, l. 24.

*Additions of Ford*

The examiner finds, "Ford discloses a cordless telephone including a speakerphone coupled to a network comprising a base unit (150) having a connection to the telephone line (reads on network connection) of a user's home, office, etc., . . . and telephone circuitry (164) including a transmitting and receiving circuitry." (Final Rejection at 2.) The appellant argues, "[t]he telephone circuitry 164 of *Ford* includes both transmitting circuitry and receiving circuitry. *Ford* fails to disclose any modifications to this circuitry whereby the transmitting circuitry does not operate. Thus, *Ford* requires an additional element which the invention of claim 1 does not." (Appeal Br. at 9.) He further argues, "[l]ikewise, the invention of claim 1 does not require echo cancelers, which would be required by *Ford*. . . ." (*Id.*)

“A transitional term such as ‘comprising’ or . . . ‘which comprises,’ does not exclude additional unrecited elements, or steps. . . .” *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1271, 229 USPQ 805, 812 (Fed. Cir. 1986). Here, because claim 1 uses the transitional term “comprising,” it excludes neither operative transmitting circuitry nor echo cancelers. We are unpersuaded by the appellant’s argument.

*Problems Solved by the Appellant*

The appellant asserts, “problems solved by the invention of claim 1 are that it provides flexibility that does not limit the talker’s mobility and that it would not include a cable 310 that could become entangled with furniture.” (Reply Br. at 5.) He argues, “[o]ne of ordinary skill in the art would not consider the teachings of *Ford* to be relevant to either of these two problems.” (*Id.* at 6.) The examiner responds, “the environment which the Appellant is arguing has not be incorporated into the limitation of the claims.” (Examiner’s Answer at 5.)

“[T]he main purpose of the examination, to which every application is subjected, is to try to make sure that what each claim defines is patentable. [T]he name of the game is the claim. . . .” *In re Hiniker Co.*, 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998) (quoting Giles S. Rich, *The Extent of the Protection and Interpretation of Claims --American Perspectives*, 21 Int’l Rev. Indus. Prop. & Copyright

L. 497, 499, 501 (1990)). Here, the appellant admits that the aforementioned problems "are not additional claim limitations. . . ." (Reply Br. at 6.) Although we have considered the problems in our determination of obviousness *vel non*, we refuse to read the problems into the claim.

*Motivation to Combine.*

The examiner finds, "[i]t would have been obvious to one of ordinary skill in the art at the time of the invention, to provide circuitry implementing and operating both the base unit and the shower speaker telephone of Ford in full-duplex mode as shown in Sudo for the purpose of providing simultaneous bidirectional conversation and eliminating problems relating to signal path switching which occur in half-duplex speakerphones." (Final Rejection at 4.) The appellant alleges, "the Examiner has impermissibly used the pending application as a blueprint, and is reconstructing the invention of Claim 1 from *Ford* when there is no suggestion to do so." (Reply Br. at 6.)

"[A]ny obviousness inquiry necessarily involves some hindsight." *Radix Corp. v. Samuels*, 13 USPQ2d 1689, 1693 (D.D.C. 1989). More specifically, "[a]ny judgment on obviousness is . . . necessarily a reconstruction based on hindsight reasoning, but so long as only knowledge which was within the level of ordinary skill at the time the claimed invention was made and does not include knowledge gleaned from applicant's

disclosure, such a reconstruction is proper." *In re McLaughlin*, 443 F.2d 1392, 1395, 170 USPQ 209, 212 (CCPA 1971).

"The presence or absence of a motivation to combine references in an obviousness determination is a pure question of fact." *In re Gartside*, 203 F.3d 1305, 1316, 53 USPQ2d 1769, 1776 (Fed. Cir. 2000) (citing *In re Dembiczak*, 175 F.3d 994, 1000, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999)). "[T]he question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination." *In re Beattie*, 974 F.2d 1309, 1311-12, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992) (quoting *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1462, 221 USPQ 481, 488 (Fed. Cir. 1984)). "[E]vidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved. . . ." *Dembiczak*, 175 F.3d at 999, 50 USPQ2d at 1617 (citing *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996); *Para-Ordnance Mfg. v. SGS Imports Int'l, Inc.*, 73 F.3d 1085, 1088, 37 USPQ2d 1237, 1240 (Fed. Cir. 1995)).

Here, a suggestion, teaching, or motivation to combine flows from the references themselves. We find that Ford emphasizes that its invention is not limited by the

"embodiments of the invention . . . shown and described," col. 8, ll. 66-67, therein. To the contrary, the reference invites changes to its shower speaker telephone, specifying "that various modifications and substitutions, as well as rearrangements of parts and components can be made by those skilled in the art. . . ." Col. 8, l. 67 - col. 9, l. 2.

Turning to Sudo, we find that the reference recognizes a problem facing speakerphones operating in an HDX mode. Specifically, "an alternately-talking system actuated by a voice control switch . . . causes the received voice to vanish at its start and end. . . ." Col. 1, ll. 50-52. Regarding this problem, the appellant admits, "[i]f both parties try to speak simultaneously, a choppy sound effect known as clipping results. Having to speak in turn can be unnatural and can make conversation difficult and laborious." (Spec. at 1.) We further find that Sudo solves the problem by using the FDX mode. Specifically, "a main device 1 and a sub-device 2 are arranged to enable same-time talking through a radio line." Col. 3, ll. 13-15. As admitted by the appellant, such a FDX mode "allows incoming and outgoing parties' voices to be simultaneously transmitted so that there is no clipping or choppyness [sic]. This results in much more natural and spontaneous flowing conversation." (*Id.*) Because Ford invites changes to its shower speaker telephone, which includes a speakerphone, and Sudo solves a problem facing speakerphones, we find that a suggestion, teaching, or motivation to

combine flows from the references themselves. Therefore, we affirm the obviousness rejection of claim 1 and of claims 2-4, 12, and 13, which fall therewith.

#### CONCLUSION

In summary, the rejection of claims 1-4, 12, and 13 under § 103(a) is affirmed. "Any arguments or authorities not included in the brief will be refused consideration by the Board of Patent Appeals and Interferences. . . ." 37 C.F.R. § 1.192(a). Accordingly, our affirmance is based only on the arguments made in the briefs. Any arguments or authorities not included therein are neither before us nor at issue but are considered waived. No time for taking any action connected with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

MICHAEL R. FLEMING  
Administrative Patent Judge

JOSEPH F. RUGGIERO  
Administrative Patent Judge

LANCE LEONARD BARRY  
Administrative Patent Judge

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Appeal No. 2002-0076  
Application No. 09/144,842

Page 15

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