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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICHAEL BLOMQUIST, TIMOTHY BRESINA,
GAIL BYNUM, and MICHAEL WELSCH¹

Appeal 2015-001335
Application 13/242,116
Technology Center 3700

Before DONALD E. ADAMS, JEFFREY N. FREDMAN,
and TIMOTHY G. MAJORS, *Administrative Patent Judges*.

PER CURIAM

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 involving claims to a system having a pump device and a non-pump display which have been rejected as obvious. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ Appellants identify the Real Party in Interest as Smiths Medical ASD, Incorporated. (App. Br. 2.)

STATEMENT OF THE CASE

Appellants' invention relates to "devices and methods for assisting a diabetic person [to] manage insulin therapy." (Spec. 2:15–16.)

Claims 1–7 and 9–11 are on appeal. Claim 1 is illustrative:

1. A system comprising a pump device and a non-pump display device, wherein the pump device includes:

a pump;

a user interface comprising a pump device display;

a communication port; and

a processor communicatively coupled to the pump, the user interface, and the communication port, wherein the processor includes a display data module configured to:

communicate display information shown on the pump device display to the display device via the communication port;

convert input received via the user interface of the pump device into effects on pump operation and changes to the pump device display; and

communicate updated display information according to the received input to the non-pump display device, and

wherein the non-pump display device includes:

a communication port;

a monitor;

a user interface configured differently from the user interface of the pump device; and

a second processor communicatively coupled to the communication port and the monitor, wherein the second processor is configured to receive the display information shown on the pump device display via the communication port and to display an effect on pump device operation resulting from input

received via the user interface of the pump device as a change to the pump device display including a user menu for the pump device on the monitor in an enlarged format.

(App. Br. 22–23 (Claims App'x).)

The claims stand rejected as follows:

- I. Claims 1, 3, 5–7, and 9–11 are rejected under 35 U.S.C. § 103(a) over Ford² and Mak.³
- II. Claim 2 is rejected under 35 U.S.C. § 103(a) over Ford, Mak, and Brown.⁴
- III. Claims 4 and 5 are rejected under 35 U.S.C. § 103(a) over Ford, Mak, and Blomquist.⁵

REJECTION I

Claims 1, 10, and 11:

Appellants argue the patentability of these claims together. We select claim 1 as representative.

The Examiner finds that

Ford discloses a system comprising a pump device 10 and a non-pump display device 80, wherein the pump device includes: . . . a pump device display (Fig. 4); . . . and a processor communicatively coupled to the pump, . . . wherein the processor includes a display data module configured to: . . . convert input received via the user interface of the pump device into effects on pump operation and changes to the pump device display (e.g. a user can use the keypad 16/18 to setup the

² Ford et al., US 6,269,340 B1, issued July 31, 2001.

³ Mak et al., US 2005/0015731 A1, published Jan. 20, 2005.

⁴ Brown, US 5,940,801, issued Aug. 17, 1999.

⁵ Blomquist, US 5,485,408, issued Jan. 16, 1996.

data such as syringe size, infuse rate, body weight, concentration, next dose, total volume limit, etc[.] . . . as shown in Fig. 4); wherein the non-pump display device 80 includes: a communication port (a port to connect with the pump device 10); a monitor; a user interface (key pad, mouse 83) configured differently from the user interface of the pump device; and a second processor communicatively coupled to the communication port and the monitor, wherein the second processor is configured to receive the display information shown on the pump device display via the communication port.

(Ans. 2–3.) The Examiner finds that “Ford does not disclose [in] communicat[ing] updated display information according to the received input to the non-pump display device, when the data changes and shows in the pump’s LCD, the data also displays and [is] shown in the monitor of the non-pump device but in enlarged format.” (*Id.* at 3.)

The Examiner turns to Mak as disclosing

a computer system comprising: a first hand held device 410 including a first display 402 with an actual size display; a second device 404 includes a second display 418 in enlarged format. The two device systems are synchronized to each other. For example: the changes made in or directed to display area or viewable region of the first display 402 (e.g., data entry, deletion, modification, etc.) also will be directed to and appear in larger display area or viewable region 418 of the second display device 404. In other words, the first and second devices 410/404 . . . communicate [with] updated information according to the received input

(*Id.*) The Examiner concludes that it would have been obvious to “modify the device of Ford with a second display in enlarged format, as taught by Mak, in order to provide an enlarged feature for better viewing, for example: . . . for [an] impaired vision person.” (*Id.*)

The issue with respect to this rejection is: Does the evidence of record support the Examiner's conclusion that Ford and Mak would have rendered claim 1 obvious?

Findings of Fact (FF)

1. Ford teaches

A system for creating a customized drug library for an electronically loadable drug infusion pump, the system including a drug library containing a plurality of drug entries, there being associated with each drug entry a set of associated drug delivery parameters and/or drug delivery protocols for configuring the drug infusion pump; a tool for selecting a set of drug entries from among the plurality of drug entries in said drug library; a tool for adding the selected drug entries along with the sets of drug delivery information associated therewith to a customized library; and a loading tool for causing the system to electronically load the customized library into the drug infusion pump.

(Ford Abstract; *see also* Ans. 2–3.)

2. Ford's Figure 4 is reproduced below:

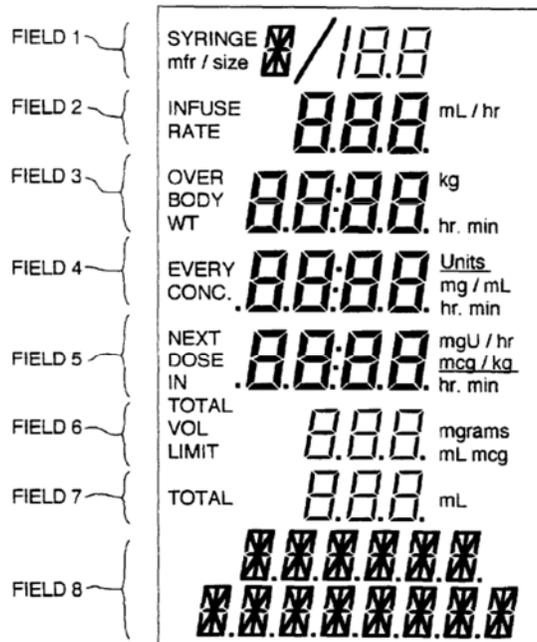


FIG 4

Figure 4 shows “a view of the pump’s display screen with all LCD segments activated” in which “field **8** is a two line field that displays text prompts.”
(Ford 7:9–10, 10:61–62; *see also* Ans. 2–3.)

3. Ford’s Figure 5 is reproduced below:

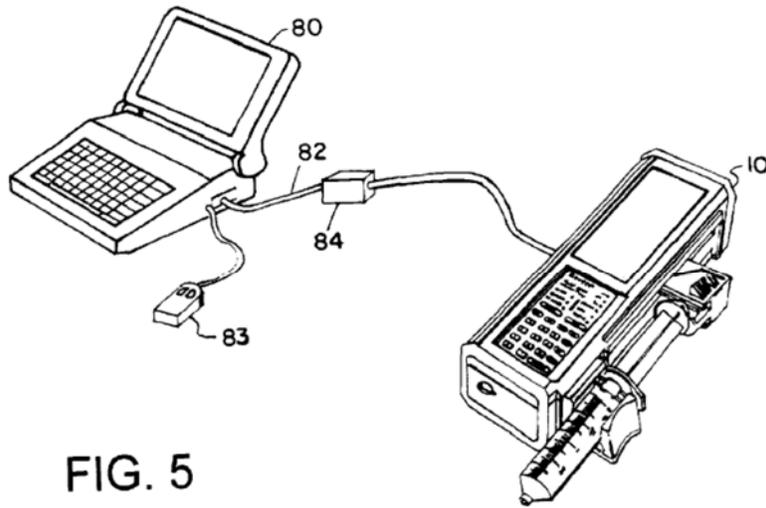


FIG. 5

Figure 5 shows “a personal computer connected to a drug infusion pump for transferring information from and to the pump.” (Ford 7:11–13; *see also* Ans. 2–3.)

4. Ford teaches that “PC **80** is connected to pump **10** through a connector cable **82** that may include an externally powered adapter **84**, which performs whatever signal level shifting is required to enable PC **80** and pump **10** to communicate with each other.” (Ford 11:1–4; *see also* Ans. 2–3, 11.)

5. Mak's Figure 6a is reproduced below:

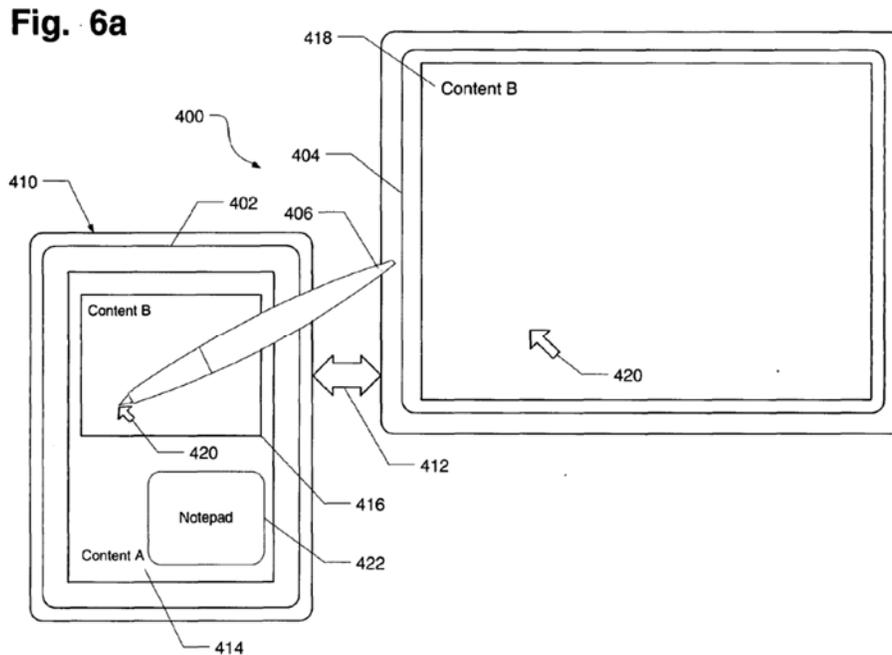


Figure 6a shows:

Display device **404**, in this illustrated example, includes a display area or viewable region **418** that also displays the second portion of the computer desktop (also identified as “Content B” and including arrow **420** in **FIG. 6a**). In this example, *the content of the second display area or viewable region 416 of the first display device 402 and the display area or viewable region 418 of the second display device 404 mirror one another (although, in at least some instances, in different sizes).* Additionally, in this example, changes made in or directed to display area or viewable region **416** of the first display device **402** (e.g., data entry, deletion, modification, etc.) also will be directed to and appear in display area or viewable region **418** of the second display device **404**.

(Mak ¶ 57 (emphasis added); *see also id.* at Fig. 6b; *see also* Ans. 3, 8.)

DISCUSSION

Based on the preponderance of the evidence, we agree with the Examiner that claim 1 would have been obvious over Ford and Mak. We address below Appellants' arguments.

Appellants contend that “the Examiner utilized hindsight afforded by the present invention by taking the reasoned rationale for making the combination directly out of Appellants' own specification rather than basing the rationale on facts gleaned from the prior art.” (App. Br. 11; *see also* Reply Br. 2–3.)

This argument is unpersuasive.

[E]vidence of a motivation to combine need *not* be found in the prior art references themselves, but rather may be found in “the knowledge of one of ordinary skill in the art or, in some cases, from the nature of the problem to be solved.” . . . When not from the prior art references, the “evidence” of motive will likely consist of an *explanation* of the well-known principle or problem-solving strategy to be applied.

Dystar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co., 464 F.3d 1356, 1366 (Fed. Cir. 2006) (quoting *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999)).

[A]n implicit motivation to combine exists not only when a suggestion may be gleaned from the prior art as a whole, but when the “improvement” is technology-independent and the combination of references results in a product or process that is more desirable, for example because it is stronger, cheaper, cleaner, faster, lighter, smaller, more durable, or more efficient. Because the desire to enhance commercial opportunities by improving a product or process is universal—and even commonsensical— . . . there exists in these situations a motivation to combine prior art references even absent any hint of suggestion in the references themselves. In such situations, the proper question is whether the ordinary artisan possesses knowledge

and skills rendering him *capable* of combining the prior art references.

(*Id.* at 1368.)

Ford teaches a “pump’s display screen with . . . LCD segments.” (FF 2.) Ford also teaches “a personal computer connected to a drug infusion pump for transferring information *from and to* the pump.” (FF 3 (emphasis added).) Ford further teaches that “PC **80** is connected to pump **10** through a connector cable **82** that may include an externally powered adapter **84**, which performs whatever signal level shifting is required to enable PC **80** and pump **10** *to communicate with each other.*” (FF 4 (emphasis added).)

Mak teaches that

the content of the second display area or viewable region **416** of the first display device **402** and the display area or viewable region **418** of the second display device **404** *mirror one another* (although, in at least some instances, *in different sizes*). Additionally, in this example, changes made in or directed to display area or viewable region **416** of the first display device **402** (e.g., data entry, deletion, modification, etc.) also will be directed to and appear in display area or viewable region **418** of the second display device **404**.

(FF 5 (emphasis added).)

The Examiner concludes that it would have been obvious to “modify the device of Ford with a second display in enlarged format, as taught by Mak, in order to provide an enlarged feature for better viewing, for example: . . . for [an] impaired vision person.” (Ans. 3.) We are not persuaded the Examiner used impermissible hindsight based on the Specification in proposing the combination of Ford and Mak. Indeed, Mak provides motivation for enlarging contents from “relatively small display devices” that are “difficult for some users to see” and thus provides a magnifier

function. (See Mak ¶ 64.) Further, the Examiner’s basis for combining the teachings of Ford and Mak “for better viewing . . . for [an] impaired vision person” is a reasonable explanation, and would have been a predictable and obvious variation over the prior art. See generally *Dystar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.* That Appellants also appreciated and recited in their Specification an obvious variation and rationale — making the content of a secondary display larger so that it is easier to see — does not foreclose the Examiner’s reliance on a similar rationale here.

We recognize, but are not persuaded by Appellants’ contention that “in situations where the content of device 402 may be difficult to read, Mak teaches an entirely different solution – a magnifier that magnifies the content on its own display – rather than use of a separate display device.” (App. Br. 12–13 (referring to Mak ¶ 64).) Appellants do not persuasively show that Mak’s “magnifier” only enlarges content on the original display device. Contrary to Appellants’ contention, Mak’s Figures 6a, 6b, 7a, and 7b show that the content is enlarged in a separate display device. (FF 5.)

Appellants further contend that

Mak therefore teaches nothing regarding enlarging a display of any type of device, let alone a medical device, on a separate device in order to aid users with impaired vision. Ford contains no discussion at all regarding the size of the display screen on its pump and therefore also fails to provide any motivation for one skilled in the art to adjust the system to accommodate users with impaired vision.

(App. Br. 13).

This argument is unpersuasive as well. “Non-obviousness cannot be established by attacking references individually where the rejection is based

upon the teachings of a combination of references [The reference] must be read, not in isolation, but for what it fairly teaches in combination with the prior art as a whole.” *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

Appellants argue that

even if Ford were modified in view of Mak to utilize the computer to display inputs made at the pump on the computer, the combination still would not meet the limitation of claim 1 that “an effect on pump device operation resulting from input received via the user interface of the pump device” be displayed on the display device.

(App. Br. 14.)

This argument is unpersuasive. As discussed above, Ford teaches a “pump’s display screen with . . . LCD segments” (FF 2),⁶ and Mak teaches that “the content of the second display area or viewable region **416** of the first display device **402** and the display area or viewable region **418** of the second display device **404** mirror one another” (FF 5). During prosecution, we give claim terms the broadest reasonable interpretation as understood by a person of ordinary skill in the art in light of the specification. *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997); *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004) (“Construing claims broadly during

⁶ Ford teaches that “preferred embodiments include means for causing the system to read pump configuration information from the drug infusion pump” (Ford 4:20–22), “a user interface for operating the pump; and means for creating in the event log a sequence of event records, each event record documenting a different event in the operation and/or programming of the pump” (*id.* at 6:18–22), and that “[p]ump **10** includes a programmable peripheral interface (PPI) **41** that functions as a port expander for master microprocessor **40**. PPI **41** manages input from keyboard **43** and several of a collection of sensors **52**” (*id.* at 9:26–29).

prosecution is not unfair to the applicant . . . because the applicant has the opportunity to amend the claims to obtain more precise claim coverage.”) Accordingly, the information displayed on Ford’s pump display discloses “an effect on pump device operation resulting from input received via the user interface of the pump device” as claimed, and we are not persuaded by Appellants’ contention to the contrary.

Claim 3:

Claim 3 requires “wherein the display data module is configured to communicate, for display on the display device, at least one of an indication of status of the pump device, a prompt to initiate a task by the insulin pump device, or an operation parameter of the insulin pump device.” (App. Br. 23 (Claims App’x).)

Appellants contend that “Figure 4 of Ford depicts the *pump (10) display*, not the display of the separate computing device (80) to which it is attached.” (App. Br. 15.)

This argument is unpersuasive. As discussed above, Ford teaches “a personal computer connected to a drug infusion pump for transferring information *from and to* the pump.” (FF 3 (emphasis added).)⁷ Accordingly, applying the broadest reasonable interpretation, the information displayed on Ford’s pump display discloses “at least one of an indication of status of the pump device, a prompt to initiate a task by the

⁷ Ford teaches that “[t]he ability to log pump events and to download them from the pump to a personal computer enables clinicians to perform automated record-keeping relative to drug infusion history for a specific patient, and to collect device utilization information.” (Ford 6:51–55.)

insulin pump device, or an operation parameter of the insulin pump device⁸” as claimed.

Claim 5:

Claim 5 requires “wherein the processor includes a report module configured to generate a device report, and wherein the display data module is configured to communicate the device report to the display device for display.” (App. Br. 23 (Claims App’x).)

Referring to column 10, lines 65–66 of Ford, Appellants contend that

[t]his citation cannot reasonably be relied upon as teaching generation of a device report by a pump and display of such a report on a non-pump display device given that it relates to information communicated *from the computer to the pump*, not from the pump to the computer as claimed, and relates to a database and data set, not a device report.

(App. Br. 17; *see also* Reply Br. 4–6.)

We are not persuaded for the reasons discussed above that Ford does not teach communicating information from the pump to the computer. Further, Appellants have not cited a definition or other reasonable interpretation drawn from the Specification that differentiates a “device report” from the information that is displayed based on the combined teachings of Ford and Mak.

⁸ Ford teaches displaying information that is reasonably interpreted as a status or operation parameter of the pump (*see* Ford Figs. 13a–13g), and steps that can be considered as prompting to initiate a task by the pump (*see id.* at Fig. 25 (block 420: “PROMPT USER TO ENTER OTHER REQUIRED DRUG DELIVERY INFORMATION (e.g. PATIENT WGHT)”).

Claim 6:

Claim 6 requires “a second user interface communicatively coupled to the second processor, wherein the second processor is configured to manipulate the user menu for the pump device on the monitor according to input received via the user interface.” (App. Br. 24 (Claims App’x).)

Appellants contend that “[t]he cited portions of Ford do not teach or suggest these limitations.” (App. Br. 19; *see also* Reply Br. 6–7.)

This argument is unpersuasive and fails to account for the combined teachings of Ford and Mak as discussed above. (FF 5; *see also* Mak ¶ 64.) We conclude that it would have been obvious to manipulate any user menu taught by Ford via a second user interface and a second processor because Mak teaches manipulating a second display area that mirrors another display area.

Claim 7:

Claim 7 requires

wherein the second processor is configured to change, according to input received via the second user interface, at least one of:

a contrast of the user menu for the pump device displayed on the monitor,

a size of the user menu for the pump device displayed on the monitor, or

a color used in the displaying the user menu for the pump device on the monitor.

(App. Br. 24 (Claims App’x).)

Referring to Figure 7 and column 11, lines 46–50 of Ford, Appellants contend that “neither of these portions of Ford have anything to do with displaying a user menu of the pump on the computer, let alone manipulating such a user menu as claimed.” (App. Br. 20; *see also* Reply Br. 7–8.)

This argument is also unpersuasive. As discussed above, Ford teaches “a personal computer connected to a drug infusion pump for transferring information from and to the pump.” (FF 3.) Ford also teaches that “PC **80** is connected to pump **10** through a connector cable **82** that may include an externally powered adapter **84**, which performs whatever signal level shifting is required to enable PC **80** and pump **10** to communicate with each other.” (FF 4.) The change of the menu in terms of contrast, size, or color is a design choice as it is based on a user’s preference and one skilled in the art would have understood that modifying one display would affect another display based on the teachings of Mak.

Claim 9:

Claim 9 requires “wherein the display information includes a report generated by the pump device, and wherein the second processor is configured to display the report on the monitor.” (App. Br. 24 (Claims App’x).)

Appellants argue that

the cited portion of Ford cannot reasonably be relied upon as teaching generation of a report by a pump and display of such a report on a non-pump display device given that it relates to information stored on the computer or communicated from the computer to the pump, not from the pump to the computer as claimed, and relates to a database and data set, not a report.

(App. Br. 20; *see also* Reply Br. 8–9.)

We are not persuaded for the reasons discussed above that Ford does not teach communicating information from the pump to the computer.

Further, Appellants’ claims do not define “report” to differentiate from the information that is displayed on Ford’s pump.

REJECTION II

Appellants do not argue the deficiencies of Brown and rely on the arguments presented in regard to claim 1. (App. Br. 20–21.) Having affirmed the rejection of the parent claim for the reasons given above, we thus affirm the rejection of claim 2.

REJECTION III

Claim 4:

Claim 4 requires “wherein the display data module is configured to communicate, for display on the display device, instructions for using the pump device.” (App. Br. 23 (Claims App’x).)

Appellants contend that “Blomquist, however, does not teach the claimed limitation.” (App. Br. 16; *see also* Reply Br. 3–4.)

This argument is unpersuasive. Such features, similar to ornamentation, do not patentably distinguish the claimed subject matter in a utility patent application from a device lacking that same instruction or ornamentation. *See In re Seid*, 161 F.2d 229, 231 (CCPA 1947) *See also In re Ngai*, 367 F.3d 1336, 1338 (Fed. Cir. 2004) (printed matter such as instructions must create a “new and unobvious functional relationship” in order to patentably distinguish the claims from the prior art (quoting *In re Gulack*, 703 F.2d. 1381, 1386 (Fed. Cir. 1983))).

Separately, as previously discussed, Ford teaches steps and features which can broadly be considered “instructions for using the pump.”⁹

⁹ *See* Ford’s Fig. 25 (block 420: “PROMPT USER TO ENTER OTHER REQUIRED DRUG DELIVERY INFORMATION (e.g. PATIENT WGHT)”).

We thus conclude the preponderance of the evidence establishes that claim 4 would have been obvious over the cited art.

Claim 5:

Appellants argue that “Ford simply downloads drug library information into memory of a pump.” (App. Br. 18; *see also* Reply Br. 4–6.) We are not persuaded for the reasons discussed above.

CONCLUSION OF LAW

We affirm the rejection of claims 1, 3, 5–7, and 9–11 under 35 U.S.C. § 103(a) over Ford and Mak.

We affirm the rejection of claim 2 under 35 U.S.C. § 103(a) over Ford, Mak, and Brown.

We affirm the rejection of claims 4 and 5 under 35 U.S.C. § 103(a) over Ford, Mak, and Blomquist.

TIME PERIOD FOR RESPONSE

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

AFFIRMED