UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JEFF ALTON SHAW

Appeal 2007-2336
Application 10/365,855[1]
Technology Center 2100

Decided: January 4, 2008

Before ROBERT E. NAPPI, JEAN R. HOMERE, and
SCOTT R. BOALICK, *Administrative Patent Judges*.

HOMERE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1 through 20. We have jurisdiction under 35 U.S.C. § 6(b). We affirm in part.

[1] Filed on Feb. 13, 2003. Dell Products L.P. is the real party in interest.

The Invention

Appellant invented a method and system for verifying the hardware component failure diagnosis of an information handling system. (Spec. 1.) Particularly, the invention discloses a support center that examines the diagnostics code of the hardware component to verify that said component has indeed failed before dispatching a replacement component to the information handling system. (*Id.* 3.)

An understanding of the invention can be derived from exemplary independent claim 1, which reads as follows:

> 1. A system for verifying an information handling system hardware component failure diagnosis, the system comprising:
>
> a diagnostics module integrated with the information handling system and operable to detect a hardware component failure of the information handling system, to generate a hardware diagnostics code and to communicate the hardware diagnostics code to a support center;
>
> a communication module associated with the support center and operable to receive the hardware diagnostics code; and
>
> a diagnostics engine interfaced with the communication module and operable to verify failure of the hardware component with the hardware diagnostics code.

The Examiner relies upon the following prior art to reject the claims on appeal:

Scholl	US 5,400,018	Mar. 21, 1995
Daimon	US 2001/0013109A1	Aug. 09, 2001

The Examiner rejects the claims on appeal as follows:

A. Claims 1 through 3, 10 through 13, and 17 through 19 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Scholl.

B. Claims 4 through 9, 14 through 16, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Scholl and Daimon.

APPELLANT'S CONTENTIONS and EXAMINER'S RESPONSES

Appellant contends that Scholl does not anticipate independent claims 1, 10, and 17. Particularly, Appellant contends that Scholl does not teach the following limitations:

(i) information handling system failure, as recited in claim 1. Particularly, Appellant states that:

> Although Scholl's use of a microprocessor located on a vehicle may disclose the use of an information handling system integrated in the vehicle, Scholl addresses vehicle component failures, not information handling system component failures… Scholl discloses communication of status of a vehicle, not status of an information handling system.

(App. Br. 3, Reply Br. 2.)

(ii) automatically initiating shipment of a replacement hardware component for the failed hardware component, as recited in claim 10. (*Id*.)

(iii) verifying the authenticity of each hardware diagnostics code before authorizing shipment of the associated hardware component to the information system, as recited in claim 17. Particularly, Appellant states that:

> Scholl performs no verification of the authenticity of a diagnostics code and provides no suggestion at all that verification of the authenticity of a diagnostics code is needed. Further, Scholl does not teach, disclose or suggest verification of authenticity of a diagnostics code as a precondition to the

> shipment of the "associated hardware component to the information handling system."

(App. Br. 4, Reply Br. 2.)

In response, the Examiner asserts the following:

(i) Scholl teaches diagnosing the component of the claimed information handling system as diagnosing the failure of a vehicle's components including a microprocessor-based monitor and associated components. (Ans. 8.)

(ii) Scholl implicitly teaches automatically shipping a replacement hardware component as part of the maintenance and repair services including a list of replacement parts performed at the service dealer. Particularly, the Examiner states:

> Scholl teaches (col. 2, lines 66-68) that the maintenance may be done at the dealer service center and the repair order may include a list of needed parts. He further teaches (col. 4, lines 66-68) that after receiving a fault code, and may in view of the vehicle's history have enough information to generate repair instruction and that would include replacement component list if any. He thus teaches automatically initiating shipment of a replacement hardware component for the failed hardware component.

(Ans. 9.)

(iii) Scholl teaches verifying authenticity of a diagnostics code by disclosing a diagnostics module that generates a fault code indicating a particular fault. The fault code is subsequently examined by an expert at a remote service hub center to decide if repairs are indeed needed. (Ans. 9.)

ISSUE

The *pivotal* issue in the appeal before us is as follows:

Has Appellant shown[2] that the Examiner failed to establish that Scholl's disclosure anticipates the claimed invention under 35 U.S.C. § 102(b)? Particularly, has Appellant shown that the Examiner erred because Scholl's disclosure does not teach the following limitations:

(i) diagnostic failure of a hardware component of an information handling system;

(ii) automatically initiating shipment of a replacement hardware component for the failed hardware component, and

(iii) verifying the authenticity of each hardware diagnostics code before authorizing shipment of the associated hardware component to the information system.

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[2] In the examination of a patent application, the Examiner bears the initial burden of showing a prima facie case of unpatentability. *In re Piasecki,* 745 F.2d 1468, 1472 (Fed. Cir. 1984). When that burden is met, the burden then shifts to the applicant to rebut. *Id.*; *see also In re Harris*, 409 F.3d 1339, 1343-44 (Fed. Cir. 2005) (finding rebuttal evidence unpersuasive). If the applicant produces rebuttal evidence of adequate weight, the prima facie case of unpatentability is dissipated. *Piasecki*, 745 F.2d at 1472. Thereafter, patentability is determined in view of the entire record. *Id.* However, Appellant has the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

FINDINGS OF FACT

The following findings of fact (FF) are supported by a preponderance of the evidence.

The Invention

1. As depicted in figure 1, Appellant invented a method and system for verifying the hardware component failure diagnosis of an information handling system (14), which includes a diagnostics module (24), and other hardware components (16, 18, 20, 22). (Spec. 6.) Upon detecting a hardware component failure, the diagnostics module (24) generates a unique diagnostics code for the detected failure, and communicates the generated code to a support center (30) via the Internet (26) or a public switched telephone network (28). (Id. 7)

2. A diagnostics engine (38) at the support center (30) accepts the diagnostics code, and compares the code with data in a diagnostics database (40) to verify the authenticity of the code. If the diagnostics engine (38) confirms that the code is authentic then it automatically dispatches a replacement component via the hardware shipper module (44) to the information handling system (14). (*Id.*)

The Prior Art Relied Upon

3. As depicted in Figure 1, Scholl discloses a method and system for relaying information from a fleet of vehicles (104, 106) to a remote service support hub (112). The vehicles (104, 106) are located at a work site (102) including a service center (118), which performs routine maintenance and repairs on the vehicles. (Col. 2, ll. 45-57.)

4. As shown in Figure 2, each vehicle (202, 204, 206) includes a microprocessor-based monitor (210), which receives data from various sources on the vehicle including sensors and the electronic control modules (ECM- 208). (Col. 3, ll. 17-29.)

5. As shown in Figure 3, the monitor (210) may include a diagnostics module (308), a prognostic module (304), and a plurality of computer based models (302). (Col. 3, ll. 48-57.)

6. Upon receiving data from the sensors indicating that a component in the vehicle is not performing inside a preset range (e.g., computer-based model parameters, col. 5, ll. 1-27), the diagnostics module generates a fault code corresponding to a predetermined condition, and indicating a particular fault. (Col. 4, ll. 5-16.)

7. The generated fault code is then communicated to a vehicle specialist (220) or an expert (222) at the remote service support hub (112). (Col. 4, ll. 43-46.)

8. The expert then examines the received fault code, along with the vehicle's history including maintenance records, past fault codes, and other previously transmitted data from the vehicle to determine whether to issue certain repair instructions or to request additional data. (Col. 4, ll. 47-53.)

9. If the expert decides to issue repair instructions to remedy the identified fault, the instructions are sent to the service center or the dealer service center (118). The repair order to the dealer may also include a list of needed parts. (Col. 2, l. 59 - col. 3, l. 2.)

PRINCIPLES OF LAW

ANTICIPATION

It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim. *See In re King*, 801 F.2d 1324, 1326 (Fed. Cir. 1986) and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.,* 730 F.2d 1452, 1458 (Fed. Cir. 1984).

In rejecting claims under 35 U.S.C. § 102, a single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation. *Perricone v. Medicis Pharmaceutical Corp.*, 432 F.3d 1368, 1375 (Fed. Cir. 2005), citing *Minn. Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 1565 (Fed. Cir. 1992). Anticipation of a patent claim requires a finding that the claim at issue "reads on" a prior art reference. *Atlas Powder Co. v. IRECO, Inc.*, 190 F.3d 1342, 1346 (Fed. Cir. 1999) ("In other words, if granting patent protection on the disputed claim would allow the patentee to exclude the public from practicing the prior art, then that claim is anticipated, regardless of whether it also covers subject matter not in the prior art.") (citation omitted).

ANALYSIS

Claims 1 through 9

Independent claim 1 requires-in-part a diagnostics module that detects the failure of a hardware component in an information handling system. (App. Br. 6, Claims Appendix.) As indicated above, Appellant argues that

Scholl discloses the communication of status of a vehicle, not status of the information handling system. The Examiner responds that Scholl detects fault in the microprocessor-based monitor components by detecting fault in the vehicle components, which include the monitor and associated components. We agree with the Examiner that Scholl's disclosure reasonably teaches this limitation.

It is undisputed that Scholl discloses a diagnostics module that detects fault in a vehicle, which includes a microprocessor-based monitor. (FF 4.) Further, similar to Appellant's information handling system, Scholl's monitor integrates a diagnostics module. (FF 5.) Scholl's monitor also includes other components, inter alia, the computer-based model, and the prognostics module. (*Id*.) Additionally, Scholl discloses that the detected fault may also include data pertaining to the performance of the computer-based data model. (FF 6.) Thus, Scholl's diagnostics module not only detects faults in the components of the vehicle, which includes the computer-based monitor, it also detects faults in the components of the computer-based monitor itself.

It follows that the Examiner did not err in rejecting independent claim 1 as being anticipated by Scholl.

Appellant did not provide separate arguments with respect to the rejection of claims 2 and 3. Therefore, we select independent claim 1 as being representative of the cited claims. These claims consequently fall together with representative claim 1. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Further, Appellant has not provided arguments directed to the Examiner's rejection of claims 4 through 9 under 35 U.S.C. § 103(a). Thus, we find no error in the Examiner's rejection of claims 4 through 9.

Claims 10 through 13

Independent claim 10 requires-in-part automatically initiating shipment of a replacement hardware component for a failed hardware component. (App. Br. 7, Claims Appendix.) Scholl discloses that the expert may issue repair instructions to the service dealer after examining the vehicle's repair history. (FF 8.) Scholl further discloses that the issued repair instructions may also include a list of needed parts. (FF 9.)

We disagree with the Examiner that the cited findings teach or even suggest automatically initiating shipment of the needed parts to replace parts previously identified as being defective. Scholl, at best, teaches that the expert may provide the service dealer with a list of needed parts along with repair instructions after examining the fault or failure in the vehicle's component. However, Scholl's teachings do not extend to automatically initiating shipping the needed parts to the dealer. Even if we were to construe "initiating shipping" as "beginning the process of shipping" the needed parts, Scholl's teachings would still fall short of suggesting that the list of needed parts is made in anticipation of automatically shipping the parts. To somehow construe Scholl's creation of the needed parts list as automatically initiating the shipment of the needed parts to the service dealer would require us to resort to speculation and strain the reference's teachings beyond reasonable limits.

It follows that the Examiner erred in rejecting independent claim 10 as being anticipated over Scholl. We find for these same reasons that Scholl does not anticipate dependent claims 11 through 13.

Claims 14 through 16

Appellant argues that Scholl cannot anticipate claim 10 or claims 11 through 16, which depend from claim 10. (Br. 4.) This statement is erroneous since dependent claims 14 through 17 are rejected as being unpatentable over the combination of Scholl and Daimon. We interpret this argument to mean that the combination of Scholl and Daimon does not render dependent claims 14 through 16 unpatentable under 35 U.S.C. § 103(a) since Daimon does not remedy the deficiencies of Scholl.

In light of our interpretation of Appellant's argument, we agree with Appellant that the cited combination does not render these claims unpatentable. Daimon was relied upon for its teaching that an information system can be connected to a PC, a telephone, a facsimile, or other equipment. (Ans. 6.) Therefore, it does not cure Scholl's failure to teach automatically initiating shipping the replacement parts as required by these claims by virtue of their dependency on independent claim 10.

It follows that the Examiner erred in rejecting dependent claims 14 through 16 as being unpatentable over the combination of Scholl and Daimon.

Claims 17 through 20

Independent claim 17 requires-in-part "verifying the authenticity of each hardware diagnostics code before authorizing shipment of the associated hardware component to the information handling system." (App. Br. 9, Claims Appendix.) As set forth above, Appellant argues that Scholl does not verify the authenticity of diagnostics codes before shipping the associated hardware component to the information handling system. The Examiner responds that Scholl's disclosure of an expert that verifies the unique fault codes received from the diagnostics module teaches the limitation of verifying the authenticity of the diagnosis before shipping the component. We agree with the Examiner.

Scholl discloses a diagnostics module that generates a fault code corresponding to an identified component failure in the microprocessor-based monitor in a vehicle. (FF 6.) The generated fault code is communicated to an expert who examines it along with the repair history of the identified vehicle to determine whether to request additional data or to provide repair instructions to the service dealer. The expert may decide to provide the service dealer with repair instructions along with a list of needed parts. (FF 7-9.)

One of ordinary skill in the art would readily recognize that each fault code generated by Scholl's diagnostics module uniquely identifies a particular component failure in the vehicle. In other words, the ordinarily skilled artisan would recognize from Scholl's disclosure that the diagnostics module generates and communicates unique fault codes to the remotely located expert,enables the expert to particularly identify the vehicle, the

failed component, as well as to locate the vehicle's repair history. Further, only after analyzing the vehicle's data history and fault code does the expert suggest repair instructions with a list of needed parts, if any. Therefore, the ordinarily skilled artisan would readily appreciate that the expert's examination of the received unique fault code along with the vehicle's repair history teaches that the expert does verify the authenticity of the received fault code. In other words, if the diagnostics module mistakenly communicates to the expert a fault code that identifies an unknown vehicle component or an undefined component failure, the expert would not be able to find any prior data concerning such component. Thus, at a bare minimum, the expert's review of the vehicle's historical data teaches that the expert compares the received fault code identifying a failed component with historical data to ensure that the vehicle does include such component, and that the reported failure is typical of the identified vehicle. We find that this disclosure is sufficient to teach the claimed limitation.

Appellant's argument that Scholl does not disclose verification authentication of the diagnostics codes as a precondition to the shipment of the hardware component is unavailing. The claim does not require that the replacement component be actually shipped. It merely requires verifying that the diagnostics code is authentic (before shipping the parts, which may or may not occur.) Thus, Scholl's disclosure that the expert examines the received unique codes along with the vehicle's repair history before providing the service dealer with repair instructions along with a list a replacement parts, if any, reasonably teaches the claimed limitation.

It follows that the Examiner did not err in rejecting independent claim 17 as being anticipated by Scholl.

Appellant did not provide separate arguments with respect to the rejection of claim 18 and 19. Therefore, we select independent claim 17 as being representative of the cited claims. These claims consequently fall together with representative claim 17. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Further, Appellant has not provided arguments directed to the Examiner's rejection of claim 20 under 35 U.S.C. § 103(a). Thus, we find no error in the Examiner's rejection of claim 20.

SUMMARY

A. Appellant has not shown that the Examiner failed to establish that claims 1 through 3, and 17 through 19 are anticipated by Scholl under 35 U.S.C. § 102(b).

B. Appellant has not shown that the Examiner failed to establish that claims 4 through 9, and 20 are unpatentable over the combination of Scholl and Daimon under 35 U.S.C. § 103(a).

C. Appellant has shown that the Examiner failed to establish that claims 10 through 13 are anticipated by Scholl under 35 U.S.C. § 102(b).

D. Appellant has shown that the Examiner failed to establish that claims 14 through 16 are unpatentable over the combination of Scholl and Daimon under 35 U.S.C. § 103(a).

DECISION

We affirm the Examiner's decision rejecting claims 1 through 9, and 17 through 20. However, we reverse the Examiner's decision rejecting claims 10 through 16.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART

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HAMILTON & TERRILE, LLP
P.O. BOX 203518
AUSTIN, TX 78720