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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte HANS-GERHARD GIESA, MICHAEL WEIDEL and
VALERIE RENAULDON-DUMAIN

Appeal 2015-005902
Application 12/936,743
Technology Center 2600

Before ALLEN R. MacDONALD, NABEEL U. KHAN and
MICHAEL J. ENGLE, *Administrative Patent Judges*.

MacDONALD, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of claims 1–8, 11, 13–22, and 25. We have jurisdiction under 35 U.S.C. § 6(b).

Exemplary Claims

Exemplary claims 1 and 21 under appeal read as follows (emphasis and formatting added):

1. System for preventing inadvertent slide deployment for an aircraft, comprising:

at least one sensor for *sensing the proximity of a person within a predetermined distance in front of an aircraft door*, without the person having to grip or to attempting to grip a door handle; and

at least one optical warning means operable to provide an optical indication in a vicinity of a slide arming lever when the at least one sensor detects the proximity of a person in front of the aircraft door.

21. A method for preventing inadvertent slide deployment for an aircraft, comprising:

receiving aircraft data;

determining whether the aircraft is on the ground;

sensing proximity of a person within a predetermined distance in front of a door, without the person having to grip or to attempting to grip a door handle; and

if a person is detected in proximity to the door, providing at least one optical warning.

Rejections

The Examiner rejected claims 1–6, 13, 14, and 25 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Farmer et al. (US 2008/0284619 A1; Nov. 20, 2008) and Heppeler (US 2007/0171053 A1; July 26, 2007).¹

The Examiner rejected claims 11, 21, and 22 under 35 U.S.C. § 103(a) as being unpatentable over various combinations of Farmer, Heppeler, and Pashko-Paschenko (US 2006/0287829 A1; Dec. 21, 2006).²

The Examiner rejected claim 7 under 35 U.S.C. § 103(a) as being unpatentable over various combinations of Farmer, Heppeler, and Murphy (US 2008/0007400 A1; Jan. 10, 2008).³

The Examiner rejected claims 8 and 18–20 under 35 U.S.C. § 103(a) as being unpatentable over various combinations of Farmer, Heppeler, and Friedman et al. (US 4,929,936; May 29, 1990).

¹ Separate patentability is not argued for claims 2–6, 13, 14, and 25. Except for our ultimate decision, the rejection of these claims is not discussed further herein.

² Separate patentability is not argued for claims 11 and 22. Claim 11 is argued by virtue of its dependence from claim 1. App. Br. 16. Thus, the rejection of claim 11 turns on our decision as to claim 1. Claim 22 is argued with claim 21. App. Br. 14. Except for our ultimate decision, the rejection of claims 11 and 22 is not discussed further herein.

³ Separate patentability is not argued for claims 7, 8, and 15–20. These claims are argued by virtue of their dependence from claim 1. App. Br. 16. Thus, the rejections of these claims turns on our decision as to claim 1. Except for our ultimate decision, the rejections of these claims are not discussed further herein.

The Examiner rejected claims 15–17 under 35 U.S.C. § 103(a) as being unpatentable over various combinations of Farmer, Heppeler, and Brooks et al. (US 2003/0210139 A1; Nov. 13, 2003).

Appellants' Contentions

1. Appellants contend that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 103(a) because Heppeler is nonanalogous art because it is not from the same field of endeavor:

Heppeler is not analogous art because it relates to emergency exits and evacuation routes in public buildings. (*See id.* ¶¶ [0002]–[0004].)

App. Br. 6.

While the claimed inventions and the primary reference *Farmer* are related to the field of aircraft doors equipped with slides, the secondary reference *Heppeler* is related to monitoring evacuation routes and escape doors in buildings. The field of endeavor for monitoring infrequently used evacuation routes and escape doors for unauthorized intrusion is not the same as that for preventing inadvertent slide deployments in aircraft doors, which doors are in fact regularly used.

App. Br. 7.

2. Further, Appellants also contend that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 103(a) because Heppeler is nonanalogous art because it is not reasonably pertinent to the problem addressed by the present application:

[W]hile *Heppeler* describes a monitoring unit for detecting presence of an object in the escape door security area, one of ordinary skill in the art would not combine the monitoring unit of *Heppeler* with the *Farmer* aircraft door alarm system because of completely different functions performed by the systems of the cited art.

App. Br. 6.

[T]he claimed inventions are directed toward alerting an operator only when necessary and still providing sufficient time for the operator to process the warning means and reconsider the course of action, for example of actuating the aircraft door handle while the slide arming lever is armed.

Heppeler, on the other hand, is geared toward solving a problem very different from that faced by the Appellants. *Heppeler* relates to a system for deterring persons from actuating an escape door of an evacuation route in a public building and/or to ensure availability of the evacuation routes as well as ability to open the escape doors at all times.

App. Br. 8–9.

3. Additionally, Appellants also contend that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 103(a) because:

Farmer is silent regarding the location of the LED 34. Thus, *Farmer* does not, and cannot, disclose at least one optical warning means operable to provide an optical indication in a vicinity of a slide arming lever as recited in claim 1.

App. Br. 11.

[A]n intermittent blinking of the LED 34 indicates that the alarm system is armed and in a “stand by” mode and a permanently lit LED 34 indicates that the alarm system has been activated. (*See id.* ¶¶ [0033]-[0034].) Thus, it is not the function of the LED 34 of *Farmer* to draw attention to particular component of the aircraft door.

App. Br. 11.

4. Appellants contend that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 103(a) because:

As further described in the specification, the optical warnings means is activated only when an operator is within a *predetermined distance* and not otherwise, to prevent an operator from becoming so inured to the warnings that the

operator may ignore or overlook them. (*See* 5:20-27.) Thus, *Farmer* does not disclose or suggest at least one optical warning means as recited in claim 1.

App. Br. 12, emphasis added.

5. Appellants contend that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 103(a) because:

[E]ven if a person of ordinary skill in the art were to modify the *Farmer* system in view of *Heppeler*, the resulting combination would be an intrusion sensor substituting the contactless sensor of *Farmer*.

App. Br. 14.

6. Appellants contend that the Examiner erred in rejecting claim 21 under 35 U.S.C. § 103(a) because:

There is no commonality between the problem of collisions and the problem of inadvertent slide deployment for an aircraft door. *Pashko-Paschenko* is neither from the same field of endeavor nor is reasonably pertinent to the problems faced by the Inventors. *Pashko-Paschenko*, therefore, constitutes nonanalogous art.

App. Br. 15.

7. Appellants contend that the Examiner erred in rejecting claim 21 under 35 U.S.C. § 103(a) because:

The Examiner fails to provide any articulation of the reasons as to why or how the modified system would “provide a more efficient and automated system.” (*Id.*) In fact, it is not clear from the Final Office Action how the proposed modified system is “more efficient and automated” relative to the *Farmer* system. Moreover, the *Pashko-Paschenko* system is configured to be activated when the aircraft, for example, is moving, albeit on the ground. (*See Pashko-Paschenko* ¶ [0030].)

App. Br. 15–16.

Issue on Appeal

Did the Examiner err in rejecting claims 1 and 21 as being obvious?

ANALYSIS

We have reviewed the Examiner's rejections in light of Appellants' arguments (Appeal Brief and Reply Brief) that the Examiner has erred. We disagree with Appellants' conclusions. Except as noted below, we adopt as our own (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken and (2) the reasons set forth by the Examiner in the Examiner's Answer in response to Appellants' Appeal Brief. We concur with the conclusions reached by the Examiner. We highlight the following points.

As to Appellants' above contentions 1 and 2, prior art is analogous if either (A) "the art is from the same field of endeavor, regardless of the problem addressed" or (B) regardless of field of endeavor, the reference is "reasonably pertinent to the particular problem with which the inventor is involved." *Innovation Toys, LLC v. MGA Entm't, Inc.*, 637 F.3d 1314, 1321 (Fed. Cir. 2011) (quotation omitted). "A reference is reasonably pertinent if . . . it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." *Id.* (quotation omitted). "If a reference disclosure has the same purpose as the claimed invention, the reference relates to the same problem, and that fact supports use of that reference in an obviousness rejection." *Id.* (quotation omitted). Whether a prior art reference is "analogous" is a question of fact. *Id.* However, "[t]he pertinence of the reference as a source of solution to the inventor's problem must be recognizable with the foresight of a person of ordinary skill, not with the

hindsight of the inventor's successful achievement.” *Sci. Plastic Prod., Inc. v. Biotage AB*, 766 F.3d 1355, 1359 (Fed. Cir. 2014).

In *Innovention*, the patentee argued the references “describ[ed] computer-based, chess-like strategy games” and were “non-analogous art because the [asserted] patent’s inventors were concerned with making a non-virtual, three-dimensional, laser-based board game, a project that involves mechanical engineering and optics, not computer programming.” 637 F.3d at 1316, 1321. The Federal Circuit found “an *electronic*, laser-based strategy game, even if not in the same field of endeavor, would nonetheless have been reasonably pertinent to the problem facing an inventor of a new, *physical*, laser-based strategy game” because both “relate to the same goal: designing a winnable yet entertaining strategy game.” *Id.* at 1322.

As to contention 1, given the record before us, we are not persuaded by Appellants’ arguments. Appellants too narrowly interpret the field of endeavor of the prior art. For example, Appellants limit Farmer to “preventing inadvertent slide deployments in aircraft doors.” App. Br. 7. Appellants then limit Heppeler to “monitoring infrequently used evacuation routes and escape doors for unauthorized intrusion.” *Id.* Yet Farmer describes their field more broadly as “[a]n alarm system for an aircraft door.” Farmer Abst. Farmer goes on to state that the door is for emergency evacuation. Farmer ¶ 3. Heppeler also describes his field more broadly: “The present invention relates to an evacuation route monitoring system for monitoring an evacuation route having an escape door.” Heppeler Abst. Further, Appellants’ Specification at page 1, lines 20–22 shows the

invention to be in the field of aircraft evacuation doors. We find that the field of endeavor here is the broader field of evacuation doors.

As to contention 2, as with the field of endeavor Appellants too narrowly interpret the pertinent prior art and the particular problems they try to address. We find the problem being addressed is the broader problem of effective door alarms/indicators, rather than the narrow problems listed by Appellants, e.g., “detering persons from actuating an escape door of an evacuation route in a public building and/or to ensure availability of the evacuation routes as well as ability to open the escape doors at all times.” App. Br. 9. Thus, even if we were persuaded by Appellants that Farmer and Heppeler are directed to different fields of endeavor, we would still find that they are analogous art based on Heppeler’s building door alarm system being reasonably pertinent to the broader aircraft door alarm/indicator problem with which the inventor is involved. Our view is reinforced by Farmer which points to Pioch (US 3,824,576) as pertinent art.

An alarm system activated by a touch-sensitive door knob is disclosed in U.S. Pat. No. 3,824,576. In this patent rotation of the door knob retracts a latch bolt thus causing an electrical connection between the knob and the bolt thereby triggering an alarm. The system also provides a procedure whereby authorised personnel can enter the premises and de-activate the alarm system before the alarm is activated either through a time-delay circuit or through a separate deactivation means outside the building.

Farmer ¶ 6. As with the system in Heppeler, Farmer—which relates to an alarm system for aircraft doors—suggests that Pioch is relevant prior art despite being directed to an alarm system for a building door.

As to Appellants’ above contention 3, we disagree. Contrary to Appellants’ argument, we do not find Farmer to be “silent regarding the

location of the LED 34.” App. Br. 11. Rather, Farmer at paragraph 28 states, “FIG. 2 shows the *reverse side of a door operating handle* 20 similar to that referenced [as label] 3 in FIG. 1.” Emphasis added. Farmer at paragraph 32 states, “FIG. 3 shows a circuit diagram for an alarm system *substantially similar to the embodiment illustrated in FIG. 2.*” Emphasis added. Together these are sufficient to suggest to an artisan that the LED 34 in Figure 3 is on or near the door operating handle.

Further, contrary to Appellants’ argument, we do not find Farmer’s permanently lit LED 34 to only “indicate[] that the alarm system has been activated.” App. Br. 11. Farmer states “When the pressure sensor 37 is subjected to pressure, for example *when the door handle is gripped*, a sub-circuit including the pressure sensor 37 and LED 34 is closed and *the LED becomes permanently lit*, taking current directly from the dry cell 31 indicating the alarm has been activated.” Emphasis added. We find that Farmer describes the permanently lit LED 34 indicating that the door handle is gripped in addition to indicating the alarm has been activated.

As to Appellants’ above contention 4, we disagree. Appellants argue that Farmer does not disclose or suggest “an operator is within a predetermined distance.” App. Br. 12. However, the Examiner did not cite Farmer for that limitation. Rather, the Examiner relied on Heppeler to teach a “sensor for sensing the proximity of a person within a predetermined distance in front of a door.” Final Act. 3.

We conclude that Appellants’ argument does not address the actual reasoning of the Examiner’s rejections. Instead Appellants attack the Farmer reference singly for lacking teachings that the Examiner relied on a combination of references to show. It is well established that one cannot

show nonobviousness by attacking references individually where the rejections are based on combinations of references. *See In re Keller*, 642 F.2d 413, 426 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091 (Fed. Cir. 1986). The effect of Appellants' argument is to raise and then knock down a straw man rejection of claim 1 that was never made by the Examiner in that the Examiner did not rely solely on Farmer as argued. In other words, Appellants argue findings the Examiner never made. This form of argument is inherently unpersuasive to show Examiner error. Our reviewing court requires that references must be read, not in isolation, but for what they fairly teach in combination with the prior art as a whole. *Merck*, 800 F.2d at 1097.

As to Appellants' above contention 5, we disagree. Appellants speculate that the combination of Farmer and Heppeler render obvious "an intrusion sensor substituting the contactless sensor of *Farmer*." App. Br. 14. Even if we were to agree that the cited combination also renders obvious an invention other than the invention of Appellants' claim 1, this is simply not a relevant argument as to whether the Examiner has provided a proper final conclusion that the combination of references renders obvious the claimed invention. A combination of two references are not precluded from rendering obvious any number of distinct inventions.

As to Appellants' above contention 6, we disagree. As discussed above, Appellants again misstate the pertinent problem addressed by claim 21 for which the Examiner turns to Pashko-Paschenko. As Appellants acknowledge, "independent claim 21 recites the steps of receiving aircraft data and determining whether the aircraft is on the ground." App. Br. 14. We deem this to explicitly state the problem being addressed. Appellants'

attempt to define the problem otherwise is misguided as we do not find the “receiving” and “determining” steps recited in claim 21 to be connected to the remaining method steps recited in the claim as currently written. The Examiner relied on paragraphs 30–33 of Pashko-Paschenko as teaching these limitations. Final Act. 10. Despite Appellants’ argument as to the pertinent art, we do not find where Appellants dispute these teachings of Pashko-Paschenko. Thus, Pashko-Paschenko is reasonably pertinent to the problem of determining whether the aircraft is on the ground based on aircraft data.

As to Appellants’ above contention 7, we disagree. We deem Appellants to have admitted that it is known in the art for the cabin crew to check whether the aircraft is on the ground: “Prior to departure of a large passenger aircraft all aircraft doors are placed into a so-called ‘armed mode’ by the cabin crew.” Appellants’ Spec. 1:20–21. We agree with the Examiner that the system of Farmer as modified by Pashko-Paschenko provides a more efficient and automated system.

CONCLUSIONS

- (1) The Examiner has not erred in rejecting claims 1–8, 11, 13–22, and 25 as being unpatentable under 35 U.S.C. § 103(a).
- (2) Claims 1–8, 11, 13–22, and 25 are not patentable.

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DECISION

The Examiner's rejections of claims 1–8, 11, 13–22, and 25 as being unpatentable under 35 U.S.C. § 103(a) are affirmed.

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