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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* VINAY SHARMA and PHILIP SCOTT KING

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Appeal 2017-008433  
Application 14/041,696<sup>1</sup>  
Technology Center 2600

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Before CARL W. WHITEHEAD JR., ERIC B. CHEN, and  
JON M. JURGOVAN, *Administrative Patent Judges*.

CHEN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the final rejection of claims 1, 5, 7, 9–11, 15, 17, 19–21, 23, and 24. Claims 2–4, 6, 8, 12–14, 16, 18, and 22 have been cancelled. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

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<sup>1</sup> According to Appellants, the real party in interest is Texas Instruments Incorporated. (Br. 2.)

## STATEMENT OF THE CASE

Appellants' invention relates to controlling operation of a vehicle, such that a camera captures an image of a screen on which a user places an object having features distinguishing the user. (Abstract.)

Claim 1 is exemplary, with disputed limitations in italics:

1. A system for controlling operation of a vehicle, the system comprising:

*at least one camera* for capturing an image of a screen on which a user places a body part having biometric features distinguishing the user, wherein the screen is an optical touch screen devoid of electrical metallization and is shaped into a form factor for installation within a console of the vehicle;

a controller coupled to the camera for: outputting information; receiving the image from the camera; detecting the biometric features in the image, *wherein the detected biometric features are coarser than fingerprints*; analyzing the detected biometric features to distinguish the user; and, in response to distinguishing the user, outputting signals for controlling operation of the vehicle; and

a digital light projector coupled to the controller for: receiving the information from the controller; and projecting the information onto the screen, so that the information is displayed on the screen for viewing by the user.

Claims 1, 5, 7, 9–11, 15, 17, 19–21, 23, and 24 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Kim (US 2002/0048391 A1; Apr. 25, 2002), Vilcovsky (US 2008/0151092 A1; June 26, 2008), and Hyundai (*Hyundai Introduces Equus Long-Wheelbase, Armored Versions*, Automobile Collection (Sept. 30, 2009), available at [http://collictiancars.blogspot.com/2009\\_09\\_01\\_archive.html](http://collictiancars.blogspot.com/2009_09_01_archive.html)).

## ANALYSIS

We are unpersuaded by Appellants' arguments (Br. 4) that the combination of Kim, Vilcovsky, and Hyundai would not have rendered obvious independent claim 1, which includes the limitation "at least one camera."

The Examiner found that the fingerprint identification sensor of Kim, for scanning the input fingerprint, corresponds to the limitation "at least one camera." (Final Act. 7; *see also* Ans. 10–11.) We agree with the Examiner's findings.

Kim relates to a fingerprint identification system for starting and operating a motor vehicle. (¶ 2.) Kim explains that "[t]he ignition mode setting unit identifies an ignition mode, scans and reads an input fingerprint" and that "[t]he matching board stores the registered fingerprint and compares the input fingerprint with the registered fingerprint to output an output signal." (¶ 8.) In particular, Kim explains that "if the ignition mode is set to the fingerprint mode, the user puts his/her finger (e.g., thumb) on the fingerprint identification sensor **113** to scan and read his/her fingerprint" and "[t]he matching board **120** compares the scanned fingerprint data from the fingerprint identification sensor **113** with the registered one in the memory **122**." (¶ 35.) Because Kim explains that fingerprint identification sensor 113 scans the fingerprint (i.e., captures an image of the fingerprint), Kim teaches the limitation "at least one camera."

Appellants argue that "Kim's fingerprint identification sensor 113 is not a camera, and the words 'camera' and 'image' are completely absent from Kim's description." (Br. 4 (emphasis omitted).) However, other than provide a conclusory statement that "fingerprint identification sensor 113 is

not a camera,” Appellants have not provided any arguments or evidence as to why the Examiner’s findings with respect to Kim are improper.

Thus, we agree with the Examiner that the combination of Kim, Vilcovsky, and Hyundai would have rendered obvious independent claim 1, which includes the limitation “at least one camera.”

We are also unpersuaded by Appellants’ arguments (Br. 5) that the combination of Kim, Vilcovsky, and Hyundai would not have rendered obvious independent claim 1, which includes the limitation “wherein the screen is an optical touch screen devoid of electrical metallization.”

In the alternative, the Examiner found that the Digital Light Processing (DLP) display of Vilcovsky corresponds to the limitation “wherein the screen is an optical touch screen devoid of electrical metallization.” (Ans. 14.) In particular, the Examiner found that “[a] DLP display, a well-known display, is a rear-projection based display where the image is formed by one or more projectors” and “Vilcovsky’s displays are mirror /glass like surfaces . . . devoid of electrical components.” (*Id.*) We agree with the Examiner’s findings.

Vilcovsky relates to imaging and display systems, in particular, interactive displays. (¶ 2.) Figure 1 of Vilcovsky illustrates interactive system 100, which includes image control unit 120, imaging device 130, and mirror-display device 140. (¶¶ 26–27.) In one embodiment, Vilcovsky explains that “[m]irror-display device **140** may include any other suitable device implementing any suitable display technology” including “a Digital Light Processing (DLP) display.” (¶ 32.) Because Vilcovsky explains that mirror-display device 140 may include a DLP display (i.e., a rear projector) for projecting images on such mirror-display device 140, Vilcovsky teaches

the limitation “wherein the screen is an optical touch screen devoid of electrical metallization.”

Appellants argue “such assertion [that Hyundai includes a touch screen that is devoid of electrical components and is shaped into a form factor for installation into the car’s console] is not evident in the Hyundai reference itself.” (Br. 5 (emphasis omitted).) However, the Examiner also cited to Vilcovsky for teaching the limitation “wherein the screen is an optical touch screen devoid of electrical metallization.” (Ans. 14.)

Appellants have not presented any evidence or arguments as to why the Examiner’s findings with respect to Vilcovsky are improper.

Thus, we agree with the Examiner that the combination of Kim, Vilcovsky, and Hyundai would have rendered obvious independent claim 1, which includes the limitation “wherein the screen is an optical touch screen devoid of electrical metallization.”

We are not persuaded by Appellants’ arguments (Br. 4) that the Examiner improperly combined Kim, Vilcovsky, and Hyundai.

The Examiner found that the biometric input device of Vilcovsky, for example, a camera for scanning a face, corresponds to the limitation “wherein the detected biometric features are coarser than fingerprints.”

(Final Act. 9.) The Examiner concluded that:

[t]he ordinarily-skilled artisan, starting with the system and method for operating a motor vehicle based on biometric identification of Kim, would have appreciated the benefits of . . . a touch screen interface that includes a capturing means for obtaining biometric information from a user (fingerprint, hand, face, etc.) as proposed by Vilcovsky.

(*Id.*; see also *id.* at 4.) We agree with the Examiner.

Vilcovsky explains that “[i]nput device **124** . . . may be embedded, for example, in mirror-display device **140**,” such input device 124 including “a biometric input device, e.g., a fingerprint scanner, and/or a camera for scanning a face.” (¶ 45.) Because Vilcovsky explains that input device 124 can be a biometric input device that is embedded in mirror-display device 140, Vilcovsky teaches the limitation “wherein the detected biometric features are coarser than fingerprints.”

Combining Kim, Vilcovsky, and Hyundai no more than the simple substitution of the biometric input device of Vilcovsky for the fingerprint identification sensor 113 of Kim, as modified by Hyundai, with no unexpected results. *See KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 417 (2007). Thus, we agree with the Examiner (Final Act. 4, 9) that modifying Kim and Hyundai to incorporate the biometric input device of Vilcovsky would have been obvious.

Appellants argue that “Kim’s ‘fingerprint identification’ directly teaches away from claim 1’s requirement of detected biometric features that are coarser than fingerprints, therefore refuting the Examiner’s proposed theoretical combination of Kim with Vilcovsky and Hyundai.” (Br. 4.) However, other than providing a conclusory statement that Kim teaches away from the claimed invention, Appellants do not provide any persuasive arguments as to how Kim criticizes, discredits, or otherwise discourages the claim limitation “wherein the detected biometric features are coarser than fingerprints.” *See In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004). As discussed previously, the combination of Kim, Vilcovsky, and Hyundai is based on the simple substitution of one known element for another known element.

Therefore, the Examiner has properly combined Kim, Vilcovsky, and Hyundai to reject independent claim 1 under 35 U.S.C. § 103(a).

Accordingly, we sustain the rejection of independent claim 1 under 35 U.S.C. § 103(a). Claims 5, 7, 8, and 10 depend from independent claim 1, and Appellants have not presented any additional substantive arguments with respect to these claims. Therefore, we sustain the rejection of claims 5, 7, 8, and 10 under 35 U.S.C. § 103(a) for the same reasons discussed with respect to independent claim 1.

Independent claims 11 and 21 recite limitations similar to those discussed with respect to independent claim 1, and Appellants have not presented any additional substantive arguments with respect to these claims. We sustain the rejection of claims 11 and 21, as well as dependent claims 15, 17, 19, 20, 23, and 24 for the same reasons discussed with respect to claim 1.

#### DECISION

The Examiner's decision rejecting claims 1, 5, 7, 9–11, 15, 17, 19–21, 23, and 24 is 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