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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ANTHONY W. GANT¹

Appeal 2016-003016
Application 12/694,009
Technology Center 2600

Before JOSEPH L. DIXON, JAMES W. DEJMEK, and
STEVEN M. AMUNDSON, *Administrative Patent Judges*.

DEJMEK, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from a Non-Final Rejection of claims 1–20. Because the claims on appeal have been twice rejected, we have jurisdiction pursuant to 35 U.S.C. §§ 6 and 134. *Ex parte Lemoine*, 46 USPQ2d 1420, 1423 (BPAI 1994) (precedential).

We affirm.

¹ Appellant identifies Hewlett-Packard Development Company, LP as the real party in interest. App. Br. 1.

STATEMENT OF THE CASE

Introduction

Appellant's claimed invention is directed to a contact microphone coupled to the backside of a display lens of an electronic device. Abstract, Spec. ¶ 8. According to the Specification, a contact microphone, such as a piezoelectric transducer, attached to the backside of a display lens allows for sound to reach the microphone and also eliminates the need for an aperture to be cut or drilled in the display lens surface. Spec. ¶¶ 7–8. Further according to the Specification, the proposed solution avoids opportunities to damage the display lens assembly, provides a sealed display enclosure, and is cost effective. Spec. ¶¶ 7–8, 17.

Claim 1 is representative of the subject matter on appeal and is reproduced below with the disputed limitations emphasized in *italics*:

1. An electronic device comprising:
 - a display unit to generate an electronic image;
 - a display lens separate from the display unit and not assisting in generation of the electronic image, the display lens having a front side and a backside opposite the front side, *wherein the display lens is formed around the perimeter of the display unit*; and
 - a contact microphone* coupled directly to the backside and upper area of the display lens formed above the display unit, wherein the contact microphone is configured to convert acoustic signals received on the front side of the display lens without the formation of an aperture at a corresponding position on the front side of the display lens.

The Examiner's Rejections

1. Claims 1–5, 7–9, and 17–20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hill (US 7,800,595 B2; Sept. 21, 2010) and Miyata (US 7,657,042 B2; Feb. 2, 2010). Non-Final Act. 3–7.

2. Claims 6 and 10–16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hill, Miyata, and Markow (US 6,137,890; Oct. 24, 2000). Non-Final Act. 7–9.

Issues on Appeal

1. Did the Examiner err in finding the combination of Hill and Miyata teaches or suggests a display lens separate from a display unit, “wherein the display lens is formed around the perimeter of the display unit,” as recited in claim 1?

2. Did the Examiner err in finding the combination of Hill and Miyata teaches or suggests “a contact microphone” coupled to the back of a display lens, as recited in claim 1?

ANALYSIS²

Appellant asserts the Examiner erred in finding the display lens of Hill is “formed around the perimeter of the display unit,” as recited in claim 1. App. Br. 4–5. In particular, Appellant contends the display lens of Hill is

² Throughout this Decision, we have considered the Appeal Brief, filed July 31, 2015 (“App. Br.”); the Reply Brief, filed January 27, 2016 (“Reply Br.”); the Examiner’s Answer, mailed on November 27, 2015 (“Ans.”); and the Non-Final Office Action (“Non-Final Act.”), mailed on March 4, 2015, from which this Appeal is taken.

flush with, or “formed directly on top of” the display unit. App. Br. 5 (citing Hill, Fig. 11).

The Examiner finds, under a broadest reasonable interpretation, the disputed limitation encompasses the touch sensor system illustrated in Figure 11 of Hill. Ans. 9. Further, the Examiner notes the claim language does not require the display lens to overlap the display unit. Ans. 9. Additionally, the Examiner finds it would have been obvious to an ordinarily-skilled artisan to modify the display lens of Hill to extend past the perimeter of the display unit. Ans. 10.

In reply, Appellant argues the Examiner’s interpretation of a display lens “formed around the perimeter of the display unit” is impermissibly unreasonable. Reply Br. 2–3. Appellant argues “[t]he ordinary and accustomed meaning of the term ‘around’ is not ‘on top of,’ ‘above,’ or ‘over.’ The ordinary and accustomed meaning of the phrase ‘around the perimeter’ is not ‘on the top surface of,’ ‘above the top surface of,’ or ‘over the top surface of.’” Reply Br. 3. Instead, Appellant asserts that a reasonable interpretation would be “a display lens on all sides of the perimeter of the display unit” or “a display lens located or situated on every side of the display unit.” Reply Br. 2.

When construing claim terminology during prosecution before the Office, claims are to be given their broadest reasonable interpretation consistent with the Specification, reading claim language in light of the Specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

Figure 2C from Appellant's Specification is illustrative and is reproduced below:

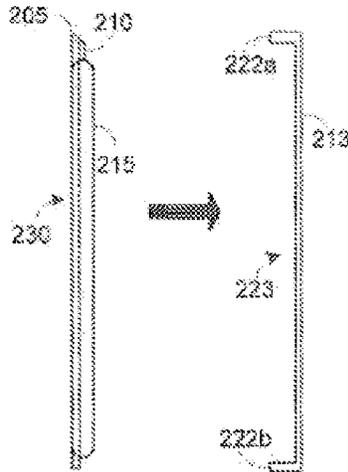


FIG. 2C

Figure 2C is an exploded view of the claimed display enclosure during the assembly process. Spec. ¶ 4.

As shown in the second assembled portion 230 of FIG. 2C, the contact microphone 210 is positioned just above the uppermost portion of the display unit 215. Moreover, *the display lens 205 is positioned around the outer perimeter of the display unit 215 so that the front side 208a lies flush with the front side 218a of the display unit 215.*

Spec. ¶ 13 (emphasis added).

Thus, contrary to Appellant's assertions, the Specification describes the assembly process of forming the display lens around the perimeter of the display unit as having the display lens being "flush" against the display unit. Rather than being located or situated on all sides of the display unit, the Specification describes the display lens to be positioned over the top side of the display unit such that it covers the entirety of the display unit (i.e., around the perimeter of the display unit). Accordingly, we determine the

Examiner's interpretation of a "display lens formed around the perimeter of the display unit" is reasonable and consistent with the Specification.

Additionally, we agree with the Examiner that the touch sensor system of Hill, as illustrated in Figure 11 of Hill, teaches a display lens (i.e., Hill's touch sensor 1110) formed around the perimeter of a display unit (i.e., Hill's display 1130). Non-Final Act. 3; Ans. 9; *see also* Hill, col. 10, ll. 34–36, Fig. 11.

Appellant also argues the Examiner erred in finding the excitation source of Miyata corresponds to the claimed contact microphone, as recited in claim 1. App. Br. 6.

As the Examiner explains, although a preferred embodiment of Miyata is directed to adding a sound output function (i.e., loudspeaker) to a display (*see, e.g.*, Miyata, col 2, ll. 31–41), Miyata also teaches the excitation source may be replaced by a pickup unit to provide microphone functionality. Ans. 11 (citing Miyata, col. 4, l. 56–col. 5, l. 6); *see also* Miyata, col. 25, ll. 20–23 (explaining the pickup unit could be manufactured using a piezoelectric element). Further, the Examiner notes Hill teaches the display lens may include either a panel-type microphone or panel-type loudspeaker. Ans. 11 (citing Hill, col. 8, ll. 31–35). Thus, we agree with the Examiner's findings that the combination of Hill and Miyata teaches or suggests the claimed "contact microphone."

For the reasons discussed *supra*, we are unpersuaded of Examiner error. Accordingly, we sustain the Examiner's rejection of independent claim 1. For similar reasons, we also sustain the Examiner's rejections of independent claims 10 and 17, which recite similar limitations and were not argued separately. *See* App. Br. 6. Further, we sustain the Examiner's

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rejection of claims 2–9, 11–16, and 18–20, which depend therefrom and were not argued separately. *See* App. Br. 6.

DECISION

We affirm the Examiner’s decision to reject claims 1–20.

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). *See* 37 C.F.R. § 41.50(f).

AFFIRMED