UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/576,162	11/21/2017	Tahar BOUAZIZ	2319.1250	4626

21171 7590 09/01/2020

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER
YI, RINNA

ART UNIT	PAPER NUMBER
2144	

NOTIFICATION DATE	DELIVERY MODE
09/01/2020	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptomail@s-n-h.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte TAHAR BOUAZIZ, DANIEL LOTTES, and ONOFRIO DI FRANCO

Appeal 2019-006588
Application 15/576,162
Technology Center 2100

Before ALLEN R. MacDONALD, BRADLEY W. BAUMEISTER, and MICHAEL J. STRAUSS, *Administrative Patent Judges.*

STRAUSS, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the Examiner's decision to reject claims 11–30. Appeal Br. 5–13. We have jurisdiction under 35 U.S.C. § 6(b). We heard oral arguments on August 6, 2020. *See* Transcript entered into the record August 21, 2020. "Tr."

Pursuant to our discretionary authority under 37 C.F.R. § 41.50(b), we newly reject claims 11–30 under 35 U.S.C. § 112(b) (pre-AIA § 112, ¶ 2) as failing to particularly point out and distinctly claim the subject matter that the inventor regards as the invention.

We summarily REVERSE the rejections of record.

---

[1] Appellant identifies the real party in interest as Audi AG. Appeal Brief filed March 19, 2019 ("Appeal Br."), 1.

REFERENCES

The Examiner relies upon the following prior art:

Name	Reference	Date
Reed	US 9,594,492 B1	Mar. 14, 2017
Kim	US 2014/0095994 A1	Apr. 3, 2014
Pryor	US 2009/0273563 A1	Nov. 5, 2009
Bulut	Machine Translation of DE102014015403 A1	Mar. 26, 2015

REJECTIONS

Claims 11–30 stand rejected under 35 U.S.C. § 112(a) as failing to comply with the written description requirement. Final Act. 4–5, Ans. 3.[2]

Claims 11, 13, 14, 18, 19, 21–23, 25, 26, and 30 stand rejected under 35 U.S.C. § 102(a)(1) as being anticipated by Bulut. Final Act. 5–12.

Claims 12, 20, and 24 stand rejected under 35 U.S.C. § 103 as being unpatentable over Bulut and Pryor. Final Act. 12–14.

Claims 15, 16, 27, and 28 stand rejected under 35 U.S.C. § 103 as being unpatentable over Bulut and Reed. Final Act. 14–16.

Claims 17 and 29 stand rejected under 35 U.S.C. § 103 as being unpatentable over Bulut and Kim. Final Act. 17–18.

THE INVENTION

Appellant describes the present invention as follows:

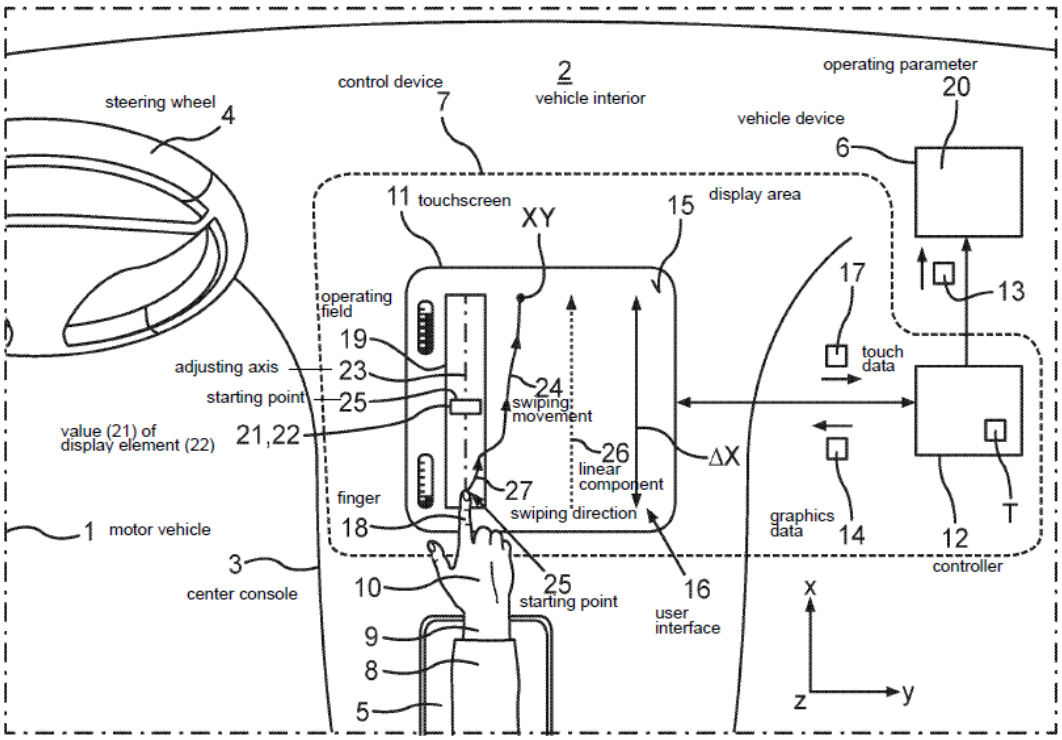
> A user interface for a motor vehicle is displayed on a touchscreen [that] detects at least one [s]wiping movement. The user interface is generated by a control device controlling a

[2] In the Final Action the Examiner identifies only claims 2 and 25 in the statement of the rejection under 35 U.S.C. § 112(a) even though all pending claims are referenced in the Examiner's narrative. Final Act. 5. The Examiner corrects the statement of the rejection in the Answer. Ans. 3.

vehicle device as a function of the at least one [s]wiping movement. The user interface includes an operator control panel for setting a value of an operating parameter of the vehicle device. The control device activates the operator control panel as a function of a predetermined activation condition and sets the value in the operator control panel as a function of the at least one [s]wiping movement when the operator control panel is activated. The control device assigns a part of the at least one [s]wiping movement, detected outside the operator control panel, to the operator control panel and sets the value as a function of the part detected outside the operator control panel.

Spec. Abstract.[3]

Appellant's sole, unnumbered Figure is reproduced below:



The above Figure depicts, *inter alia*, the invention's touch screen.

[3] We additionally refer to the following documents: Substitute Specification, filed November 21, 2017 ("Spec."); Final Office Action, mailed October 25, 2018 ("Final Act."); Advisory Action, mailed December 27, 2018 ("Advisory Act."); Examiner's Answer, mailed July 23, 2019 ("Ans."); and the Reply Brief, filed August 30, 2019 ("Reply Br.").

As originally filed on November 21, 2017, claim 1 read as follows:

> 1. A control device (7) for a motor vehicle (1), having:
>
> a touchscreen (11) for displaying a graphical user interface (16) and for capturing at least one swiping movement (24),
>
> a controller (12) for generating the user interface (16) and for controlling a vehicle device (6) in dependence on the at least one swiping movement (24), *wherein the user interface (16) has an operating field (19) for setting a value (21) of an operating parameter (20) of the vehicle device*, and the controller (12) is set up to activate the operating field (19) in dependence on a predetermined activation condition and, *once the operating field (19) is activated*, *to set the value (21) in the operating field (19)* in dependence on the at least one swiping movement (24),
>
> characterized in that
>
> the controller (12) is set up to *assign*, *if the operating field (19) is activated*, *a portion of the at least one swiping movement (24) that is captured outside the operating field (19) to the operating field (19)*, and to set the value (21) in dependence on *the portion that is captured outside the operating field (19)*.

Spec. 18 (emphasis added).

By preliminary amendment filed contemporaneously with Appellant's application on November 21, 2017, claims 1–10 were canceled and claims 11–30 substituted. The original version of preliminarily amended claim 11 read as follows:

> 11. A control device for a motor vehicle, comprising:
>
> a touchscreen configured to display a graphical user interface and to capture at least one swiping movement; and
>
> a controller configured to generate the graphical user interface and to control a vehicle device in dependence on the at least one swiping movement, the graphical user interface having an operating field for setting a value of an operating parameter of the vehicle device, the controller further configured to activate the operating field in dependence on a predetermined activation condition and, once the operating field is activated, to set the

> value in the operating field in dependence on the at least one swiping movement, including to *assign,* when the operating field is activated, *a portion of the at least one swiping movement captured outside the operating field to the operating field*, and to set the value in dependence on the portion that is captured outside the operating field.

Preliminary Amendment filed Nov. 21, 2017, at 5 (emphasis added).

To summarize, both original claim 1 and preliminarily amended claim 11 recite that the graphical user interface (GUI) has an operating field (19). A value (21) of an operating parameter (20) associated with the operating field (19) is set by a swiping movement (24) associated with the operating field (19). When the operating field (19) is activated, the operating-parameter value's (21) dependence on the swiping movement (24) includes a portion of the swiping motion that is captured outside of the operating field (19).

These elements and functionalities correspond to the disclosure of Appellant's originally filed Specification. For example, Appellant's Specification discloses, "[a] current value 21 of the operating parameter 20 can be illustrated or displayed on the operating field 19 for example by a respective display element 22. . . . The display element [22][4] can be, for example, in each case a bar graph or a slider." Spec. ¶ 31.

Like the written Specification, Appellant's unnumbered Figure also depicts the elements and functionalities, as recited in original claim 1 and in the originally presented version of claim 11. The Figure depicts a graphical

[4] Although paragraph 31 of the Specification refers to "display element 21," the Specification otherwise uses the reference number 22 for the display element, and it uses the reference number 21 in connection with "current value 21" of the operating parameter 20. *E.g.*, Spec. ¶ 31.

user interface 16 that includes touchscreen 11. Figure; *see also*, Spec. ¶ 30. The GUI includes an operating field 19 depicted as having a rectangular form that bounds a slider. Figure; Spec. ¶ 31. The slider-shaped operating field 19 includes a display element (i.e., a slider indicator) 22 that can be adjusted up or down along a depicted slider track or adjusting axis 23. Figure; Spec. ¶ 32. The slider-indicator display element 22 has a current value 21 that is associated with the position of the display element on the adjusting axis 23. Figure; Spec. ¶ 31. The Figure depicts the boundary of the slider operating field 19 by a rectangular outline. *Id.*

The Figure also depicts a swiping movement 24 being performed by a human finger 18. Figure; Spec. ¶¶ 34–36. The swiping movement is initiated at one of two possible starting points 25 that are located within the depicted rectangular boundary of the operating field 19, and the swiping movement 24 moves in swiping direction 27. Figure; Spec. ¶¶ 35, 39. The swiping movement 24 continues along swiping direction 27, passing outside of the depicted rectangular boundary 19 of the operating field. Figure; Spec. ¶ 42.

Claim 11 was amended on September 21, 2018, to introduce the touchscreen functionality, "display at least one displayed field of a graphical user interface" and to require "each operating field [is] permitted to exceed boundaries of a corresponding displayed field."

Claim 11, reproduced below with relevant claim language emphasized, illustrates the claimed subject matter currently on appeal:

> 11. A control device for a motor vehicle, comprising:
>
> a touchscreen configured to *display at least one displayed field of a graphical user interface* and to capture at least one swiping movement; and

> a controller configured to
>
> generate the graphical user interface and to control a vehicle device in dependence on the at least one swiping movement, the graphical user interface having at least one operating field, respectively associated with the at least one displayed field, for setting a value of an operating parameter of the vehicle device, *each operating field permitted to exceed boundaries of a corresponding displayed field*,
>
> activate the operating field in dependence on a predetermined activation condition and,
>
> once the operating field is activated, set the value in the operating field in dependence on the at least one swiping movement, including
>
> to assign, when the operating field is activated, a portion of the at least one swiping movement captured *outside the operating field* to the operating field, and
>
> to set the value in dependence on the portion that is captured outside the operating field.

Appeal Br. 14 (emphasis added).

Neither claims 1 and 11, as originally filed, nor Appellant's originally filed Specification, expressly recites "a displayed field." Nor do the originally filed claims or Specification disclose that an operating field is permitted to exceed boundaries of a displayed field. Nor does Appellant's Specification even expressly define what the difference is between a displayed *field* and a display *element*.

ANALYSIS

Before considering the rejections, we first must determine the meaning of the claim term "a displayed field," its relationship to the claimed

operating field, and the scope of the claims. *In re Geerdes*, 491 F.2d 1260, 1262 (CCPA 1974) ("Before considering the rejections . . ., we must first [determine the scope of] the claims.").

Under one potential interpretation, "a field" might be interpreted, in the present context, to mean an area of a GUI display on which visual display elements can be illustrated or displayed and into which area a user can provide input. That is, a "field" might be interpreted as an area of the GUI touchscreen in which a user's contact (e.g., a finger touch or swipe) generates an input. *See, e.g.*, Spec. ¶ 31 ("The operating field 19 can be used to set an operating parameter 20 in the vehicle device 6. A current value 21 of the operating parameter 20 can be illustrated or displayed on the operating field 19 for example by a respective display element 22.").

Under this potential interpretation, "a display element," in turn, might be interpreted to mean a graphic or visual element that is depicted within the field or that is associated with the field. For example, depicted display element 22, which includes depicted slider track or adjusting axis 23 and depicted position or value indictor 21, reasonably might constitute "a display element" within the meaning of the claim. Likewise, either of the sub-element adjusting axis 23 and the value indicator 21, alone, reasonably might constitute "a display element."

However, Appellant's Specification casts doubt on this interpretation. For example, Appellant's Specification states,

> The user interface has an operating field for setting a value of an operating parameter of a vehicle device of the motor vehicle. *This operating field can be, for example, a slider or a bar graph or a rotary adjuster*. The operating field is here represented or displayed in each case by way of a pixel graphic.

Spec. ¶ 8. That is, Appellant's Specification appears to refer to the slider 22, itself, including the adjusting axis 23 and value indicator 21, as a "field," as opposed to as a display "element."

To be sure, when read as a whole, paragraph 8 of the Specification may mean that the area bounded by rectangular operating field 19 more specifically constitutes a slider operating field. That is, paragraph 8 may be describing the operating field by the function that is performed when a user touches or initiates a sliding motion anywhere within that bounded area 19. Restated, paragraph 8 may be interpreted as disclosing (1) that the slider operating field entails the area bounded by operating-field rectangle 19, and (2) that the available functionality of this slider operating field is visually represented by graphical display element 22, which consists of sub-display graphical elements 21 and 23.

Appellant's arguments, though, cast doubt on this potential interpretation of "field" and "display element," as set forth above. For example, Appellant argues in relation to the written-description rejection under 35 U.S.C. § 112(a),

> the drawing illustrates that "the operating parameter 20 can be illustrated or displayed on the operating field 19 for example by a respective display element 22" (paragraph [0031] of the Substitute Specification), where the display element 22 has a width and a height smaller than the operating field 19. This has been captured in claim 11 as "each operating field permitted to exceed boundaries of a corresponding displayed field."

Appeal Br. 5–6 (citing claim 11, lines 8–9).

Counsel for Appellant repeats this argument at oral argument:

> JUDGE STRAUSS: You have the display element 22, but I don't see a display field. I'm sorry, display, yeah, displayed field as opposed to a display element 22. I understand operating

> field 19 would be equivalent to, or is being mapped to functional field four of the Bulut reference. But my question is about what is the displayed field?
>
> MR. GOLLHOFER: *Well, my understanding at the present time is that the display element 22 corresponds to the displayed field*.
>
> JUDGE BAUMEISTER: Why is the --
>
> MR. GOLLHOFER: This piece is a movable display element.
>
> JUDGE BAUMEISTER: *I was interpreting the display field to correspond to, like you said before, the operating field 19, the whole depiction of the slider*. Is there any -- and then the operating field would include that area outside of operating field 19 to include that area where the finger can move along path 24. Is there any reason that's not a reasonable interpretation? Is that not what's intended?
>
> JUDGE STRAUSS: This is Judge Strauss, I'm not sure that that was argued that way, but I'd have to review.
>
> MR. GOLLHOFER: Yeah. *I believe that the displayed -- because the term operating field permitted to exceed the boundaries of a corresponding displayed field, the operating field is 19, and the displayed field corresponds to the display element 22, which can be moved by operations of the user*.
>
> JUDGE BAUMEISTER: But the specification nowhere calls display element 22 a display field?
>
> MR. GOLLHOFER: That's the -- in my search I did not find the term used.

Tr. 4–5 (emphasis added).

That is, Appellant argues, both in the Appeal Brief and at oral argument, that a display *element* 22 is a type of *field*—specifically, the claimed "displayed field." *See also* Reply Br. 2 ("'[E]ach operating field [is] permitted to exceed boundaries of a corresponding displayed field' in

claim 11 is supported by the illustration of 'the operating field 19' as a rectangle that is larger than the 'display element 21' which in the drawing is illustrated as 'a bar graph or a slider.'") (citing Spec. ¶ 31).

Besides casting doubt on what the terms "display element" and "operating field" mean, Appellant's argued interpretation for what the new claim term "displayed element" means does not account for the Specification's discussion and depiction of the touchscreen's functionality relating to the effects of swiping movements that occur outside of the operating field 19 when the operating field is activated. Appellant's Specification reads, in relevant part,

> One variant makes provision for a determination to be carried out, in dependence on a position or location of the starting point 25 on the display area 15, as to whether the operating field 19 is activated. In the example illustrated in the figure, the starting point 25 lies within the operating field 19. For this reason, the operating field 19 is activated by the controller 12 and operated during the swiping movement 29. Here, a linear component 26 can be ascertained for determining the value 21. The value change in the value 21 of the operating field 19 is here set in dependence on the linear component 26 of the swiping movement 24. The linear component 26 is the component of the swiping movement 24 that results from a projection of the trajectory of the swiping movement 24 onto the adjusting axis 23 of the operating field 19. The linear component 26 correspondingly defines the value 21 of the operating parameter 20 by way of the operating field 19. Accordingly, the display element 22 is set or displaced to the respectively newly set value 21.
>
> One variant makes provision for an initial movement direction or starting direction 27 of the swiping movement 24 to be ascertained by the controller 12 independently of a location of the starting point 25, and for the operating field 19 to be selected in dependence on the starting direction 27. In the illustrated example, the starting direction 27 is aligned parallel, or at least

> predominantly parallel, with respect to the adjusting axis 23 of the operating element 19. The operating element 19 is accordingly activated by the controller 12 and operated during the swiping movement 24.
>
> As illustrated in the figure, all three variants allow the driver 8 to be able to perform his or her swiping movement 24 with the finger 18 even outside the operating field 19 and that the operating field 19 is still set in accordance with the swiping movement 24.

Spec. ¶¶ 38–40.

This passage, as well as Appellant's unnumbered Figure, indicates that Appellant's argued interpretation is incorrect. It seems more reasonable that claim 11, as currently amended, intends to map operating field 19 to the claimed "displayed field" and map the depicted area covered by swiping movement 24 to the claimed "each operating field permitted to exceed boundaries of a corresponding displayed field." This interpretation would seem to cause the language of claim 11 to be consistent at least with the functionality set forth in paragraphs 38–40 of the Specification.

Interpreting the claimed "displayed field" to correspond to operating field 19 is not without its own problems, though. First, this interpretation also conflicts with the terminology of Appellant's Specification. The Specification uses the term "operating field" or "operating element" to mean the area bounded by the rectangle 19, and it uses terms like "another location on the touchscreen" to refer to the area outside of the rectangle 19 that reads the swiping motion contingent upon the operating field 19 being activated. Spec. ¶¶ 38–42. The Specification does not use the term "displayed field" to refer to the area of the operating field inside of the rectangle 19. Nor does the Specification use "operating field" to mean the area outside of the operating field 19.

Second, this interpretation is contrary to the interpretation that Appellant advances, as discussed above. Appeal Br. 5–6; Reply Br. 2; Tr. 4–5. We recognize that appellants typically are in a better position to understand what their claims mean than is the Board, and we do not contradict Appellant's interpretation lightly.

Third, interpreting the claim term "displayed field" to mean the operating field 19 presupposes that the Specification discloses employing a visual effect or display element to visually indicate the extent of the rectangular area that is bounded by operating field 19. To be sure, depicted rectangle 19 clearly illustrates a *functional* boundary of operating field 19, but it is unclear whether rectangle 19 also denotes a boundary of a *visual* feature. That is, it could well be the case that the *visual* aspect of disclosed slider bar display element 22 only includes the adjusting axis 23 and value indicator 21—not the rectangular area bounded by operating field 19.

Restated, the rectangle used in Appellant's Figure to depict operating field 19 may merely denote the functional area surrounding the depicted slider bar display element 22 that is functional to activate the slider bar when initially touched, and to denote the boundary of that functional area from the exterior area, which only produces input if the operating field 19 already is activated. *See* Appeal Br. 2 (wherein Appellant only argues that the "operating field 19" is a rectangle that has boundaries outside the "display element 21[,]" which in the drawing is illustrated as "a bar graph or a slider.").

To summarize, claim 11 has been amended to recite, "each operating field [is] permitted to exceed boundaries of a corresponding displayed field." The record does not render it reasonably clear what is meant by the claim

term "a displayed field." It is not reasonable to interpret the displayed field as corresponding to display element 22 because the Specification provides insufficient basis to determine that a display element also constitutes a field. Furthermore, this interpretation further requires interpreting the rectangular area inside of operating field 19 to correspond to the area that captures swiping motion when the motion exceeds the operating field. This interpretation is a non-sequitur.

On the other hand, it is not reasonable to interpret alternatively the claimed "displayed field" as corresponding to the disclosed operating field 19, itself. This is because, *inter alia*, claim 11 expressly recites, "each operating field [is] permitted to exceed boundaries of a corresponding displayed field." Such an alternative interpretation also constitutes a non-sequitur. Thus, the Specification is unclear concerning what constitutes a displayed field, as claimed, and what relationship a displayed field has to operating field 19 such that the latter is permitted to exceed boundaries of the former.

The standard for definiteness under section 112(b) "mandates clarity, while recognizing that absolute precision is unattainable." *Ex parte McAward*, Appeal No. 2015-006416, 2017 WL 3669566, *4 (PTAB Aug. 25, 2017) (precedential) (internal citations omitted). The standard set forth in *McAward* also accords with opinions of the Supreme Court stating that "the certainty [that] the law requires in patents *is not greater than is reasonable*, having regard to their subject matter." *Minerals Separation, Ltd. v. Hyde*, 242 U.S. 261, 270 (1916).

Language in a claim is unclear if it is "ambiguous, vague, incoherent, opaque, or otherwise unclear in describing and defining the claimed

invention," *In re Packard*, 751 F.3d 1307, 1311 (Fed. Cir. 2014), or if it is "is amenable to two or more plausible claim constructions," *Ex parte Miyazaki*, 89 USPQ2d 1207, 1211 (BPAI 2008) (precedential). As such, one of ordinary skill in the art would not be reasonably apprised of the metes and bounds of claim protection being sought as recited by the pending claims.

For the reasons discussed, pursuant to our discretionary authority under 37 C.F.R. § 41.50(b), we newly reject independent claim 11 under 35 U.S.C. § 112(b) as being indefinite. Because independent claims 19 and 23 also include the limitation "each operating field [is] permitted to exceed boundaries of a corresponding displayed field," each of these claims exhibits the same deficiencies as those rendering claim 11 indefinite. Therefore, we, likewise, newly reject independent claims 19 and 23 under 35 U.S.C. § 112(b) as being indefinite together with dependent claims 12–18, 20–22, and 24–30, which incorporate the indicated indefiniteness through their dependencies from the respective independent claims.

THE APPEALED REJECTIONS

Because independent claims 11, 19, and 23 are so indefinite that "considerable speculation as to [the] meaning of the terms employed and assumptions as to the scope of such claims" is needed, we do not address the merits of the Examiner's rejections under 35 U.S.C. §§ 112(a), 102(a)(1), and 103. *See In re Steele*, 305 F.2d 859, 862 (CCPA 1962) (holding that the Examiner and the Board were wrong in relying on what, at best, were speculative assumptions as to the meaning of the claims and in basing a prior-art rejection thereon). We therefore reverse these rejections *pro forma*.

CONCLUSIONS

Pursuant to our discretionary authority under 37 C.F.R. § 41.50(b), we reject claims 11–30 under 35 U.S.C. § 112(b) as being indefinite. Rule 37 C.F.R. § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review." Rule 37 C.F.R. § 41.50(b) also provides,

> When the Board enters such a non-final decision, [A]ppellant, within two months from the date of the decision, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:
>
> (1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new Evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the prosecution will be remanded to the examiner. The new ground of rejection is binding upon the examiner unless an amendment or new Evidence not previously of Record is made which, in the opinion of the examiner, overcomes the new ground of rejection designated in [this] decision. Should the examiner reject the claims, appellant may again appeal to the Board pursuant to this subpart.
>
> (2) *Request rehearing*. Request that the proceeding be reheard under §41.52 by the Board upon the same Record. The request for rehearing must address any new ground of rejection and state with particularity the points believed to have been misapprehended or overlooked in entering the new ground of rejection and also state all other grounds upon which rehearing is sought.

Further guidance on responding to a new ground of rejection can be found in the Manual of Patent Examining Procedure § 1214.01 (9th Ed., Rev. 10.2019, June 2020).

DECISION SUMMARY

Claims Rejected	**35 U.S.C. §**	**Reference(s)/Basis**	**Affirmed**	**Reversed**	**New Ground**
11–30	112(a)	Written Description		11–30	
11, 13, 14, 18, 19, 21–23, 25, 26, 30	102(a)(1)	Bulut		11, 13, 14, 18, 19, 21–23, 25, 26, 30	
12, 20, 24	103	Bulut, Pryor		12, 20, 24	
15, 16, 27, 28	103	Bulut, Reed		15, 16, 27, 28	
17, 29	103	Bulut, Kim		17, 29	
11–30	112(b)	Indefiniteness			11–30
Overall Outcome				**11-30**	**11–30**

REVERSED;
37 C.F.R. § 41.50(b)