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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/245,589	08/24/2016	Arun Ayyagari	16-0887-US-NP	1557
111908	7590	08/27/2020	EXAMINER	
DUFT & BORNSSEN, PC 1319 W BASELINE RD SUITE 100A LAFAYETTE, CO 80026			HAN, CHARLES J	
			ART UNIT	PAPER NUMBER
			3662	
			NOTIFICATION DATE	DELIVERY MODE
			08/27/2020	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ARUN AYYAGARI, THI Q. NGUYEN, NGOC S. LE, BALLY
BANG, WEN XIN WANG, and DAVID H. AMIREHTESHAMI

Appeal 2020-000715
Application 15/245,589
Technology Center 3600

Before ANNETTE R. REIMERS, CARL M. DEFRANCO, and
LISA M. GUIJT, Administrative Patent Judges.

DEFRANCO, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the
Examiner's decision to reject claims 1–9 and 19–21. We have jurisdiction
under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word “Appellant” to refer to “applicant” as defined in
37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as The
Boeing Company. Appeal Br. 3.

CLAIMED SUBJECT MATTER

Of the claims on appeal, claims 1 and 19 are independent. Claim 1 is directed to a “method” of “adjusting a direction of motion” of a mobile robot assembly operating within the fuselage of an aircraft, while claim 19 is directed to a “non-transitory computer readable medium embodying programmed instructions” for performing essentially that same method. Claim 1 is illustrative and reproduced below.

1. A method comprising:

disposing a mobile robot assembly having a defined fore, aft, left, and right, proximate to a fuselage of an aircraft that is being assembled;

facing the mobile robot assembly in a fore direction at the fuselage;

aligning a left ranging sensor, disposed at the left of the assembly, with a left target that is disposed aft of the mobile robot assembly;

aligning a right ranging sensor, disposed at the right of the assembly, with a right target that is disposed aft of the mobile robot assembly;

directing the assembly to traverse to a location within the aircraft fuselage at which a robot on the assembly will perform work upon the fuselage;

determining a first distance between the left ranging sensor and the left target while the assembly is moving in the fore direction;

determining a second distance between the right ranging sensor and the right target while the assembly is moving in the fore direction;

detecting a difference between the determined distances;
and

adjusting a direction of motion of the assembly based on the difference.

EVIDENCE OF RECORD

The Examiner relied on the following prior art:

Name	Reference	Date
Katou	US 5,942,869	Aug. 24, 1999
Dorsey-Palmateer	US 2015/0134104 A1	May 14, 2015

EXAMINER'S REJECTIONS

Appellant appeals from the Examiner's Final Office Action, dated February 26, 2019, which includes the following rejections:

Claims Rejected	35 U.S.C. §	Basis
1-9, 19-21	112(b)	Indefiniteness
1-9, 19-21	103	Dorsey-Palmateer, Katou

ANALYSIS

A. Indefiniteness

In the Final Office Action, the Examiner rejected all the pending claims under 35 U.S.C. § 112(b) for indefiniteness. Final Act. 6-13; *see also* Exr. Ans. 4-20. Most notably, the Examiner took issue with the claim language reciting that the ranging sensors are “disposed at the left of the assembly” and “disposed at the right of the assembly.” Exr. Ans. 16-20. The Examiner also took issue with the recitation that the left and right targets are “disposed aft of the mobile robot assembly.” *Id.* According to the Examiner, the claim language “disposed at the left of” and “disposed at the right of” with respect to the location of the ranging sensors lacks clarity as to whether the sensors are affixed to opposite sides of the mobile robot assembly *or* merely positioned to the left and right of the assembly but detached from the assembly itself. *Id.* at 18-19. Similarly, the Examiner deemed it unclear as to whether the claimed left and right “targets” are affixed to *or* separate from the aft section of the assembly. *Id.*

We agree with the Examiner. The configuration of the claimed left and right ranging sensors relative to the left and right sides of the mobile robot assembly lacks clarity, as does the configuration of the claimed left and right targets relative to the “aft” of the mobile robot assembly lacks clarity. As claimed, the sensors and targets could be arranged in any number of configurations relative to the robot assembly, for instance: (1) all the sensors and targets are affixed to the robot assembly, (2) all the sensors and targets are separate and distinct, i.e., detached, from the robot assembly, or (3) some sensors and targets are affixed, while others are detached, from the robot assembly. That the claim language necessarily entails making arbitrary assumptions in order to ascertain the location of the sensors and targets relative to the mobile robot assembly supports a finding of indefiniteness.

Appellant responds to the Examiner’s concerns by merely repeating the relevant claim language without any explanation as to why the Examiner is wrong in his observation that the claim language is subject to different interpretations. Appeal Br. 8–9 (“[T]here is no confusion regarding where the left sensor and right sensor are disposed. They are disposed at the left of the assembly and at the right of the assembly, respectively.”). Thus, Appellant does not persuade us of error in the Examiner’s indefiniteness rejection.

Dependent claims 2–9 do not cure the deficiencies of claim 1, as they provide no further clarity. Indeed, if anything, the dependent claims add further confusion and uncertainty by reciting that the targets may be “on the assembly,” “on the fuselage,” or “on a workstand” that holds both the assembly and the targets. *See, e.g.*, Claims App. 22 (claims 6 and 9). In the

end, one is left to speculate as to whether the sensors and targets are attached to or separated from the mobile robot assembly. As presently worded, the claim language does not provide the answer. Thus, we sustain the Examiner's rejection of claims 1–9 as indefinite.

Claims 19 suffers the same lack of clarity as claim 1, particularly with respect to the recitation that the targets are “disposed behind the assembly.” Similar to claim 1's recitation that the target is “disposed aft of the mobile robot assembly,” we agree with the Examiner that claim 19's recitation that the target is “disposed behind the assembly” is equally unclear as to whether the claimed targets are affixed to *or* separate from the rear section of the assembly. *See* Final Act. 11–13. Neither dependent claims 20 nor 21 help to clarify the location of the targets recited by claim 19. Thus, we sustain the Examiner's indefiniteness rejection of claims 19–21.

B. Obviousness

The Examiner also rejected claim 1–9 and 19–21 under 35 U.S.C. § 103 as unpatentable over Dorsey-Palmateer and Katou. *See* Exr. Ans. 20–41. In view of our determination that the claims are indefinite, and because an analysis of the sufficiency of the Examiner's obviousness rejection would necessarily involve a speculative assumption as to the meaning of the claims, we do not sustain the Examiner's obviousness rejection of the claims. *See In re Steele*, 305 F.2d 859, 862-63 (CCPA 1962). Our decision in this regard is pro forma and based solely on the indefiniteness of the claim language.

CONCLUSION

The Examiner's rejection under 35 U.S.C. § 112(b) is AFFIRMED.

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Basis	Affirmed	Reversed
1-9, 19-21	112(b)	Indefiniteness	1-9, 19-21	
1-9, 19-21	103	Dorsey-Palmateer, Katou		1-9, 19-21
Overall Outcome			1-9, 19-21	

TIME PERIOD FOR RESPONSE

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

AFFIRMED