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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ATSUSHI FUKUNAGA, DAISUKE UMEKAWA,
KENTA KOBAYASHI, and RYOTA HATAKEYAMA

Appeal 2018-008933
Application 14/874,699
Technology Center 3600

Before MICHAEL C. ASTORINO, CYNTHIA L. MURPHY, and
KENNETH G. SCHOPFER, *Administrative Patent Judges*.

ASTORINO, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), the Appellant¹ appeals from the Examiner's decision to reject claims 1–9. We have jurisdiction under 35 U.S.C. § 6(b). An oral hearing was held on May 28, 2020.

We REVERSE.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. The Appellant identifies the real party in interest as “KABUSHIKI KAISHA KOBE SEIKO SHO.” Appeal Br. 1.

STATEMENT OF THE CASE

Subject Matter on Appeal

The Appellant’s “invention relates to a teaching apparatus used for operation of an industrial robot” and more specifically, “provides a teaching apparatus exhibiting improved ease of operation that allows the operator to easily change settings regarding the movement of a robot.” Spec. 1:5–6, 2:20–22. Claim 1, the sole independent claim, is representative of the subject matter on appeal and is reproduced below.

1. A teaching apparatus that is connected to a control apparatus controlling a robot and outputs a command intended for the robot to the control apparatus, the teaching apparatus comprising:

 a setting-manipulating portion provided on a first face of the teaching apparatus and accepting an operation of changing a setting that defines a movement of the robot;

 an enabling switch provided on a second face of the teaching apparatus that is opposite the first face, the enabling switch accepting an operation of changing a state of electrification of the robot; and

 a robot-movement-manipulating portion provided on the second face and accepting an operation of executing the movement of the robot,

 wherein, seen from a side of the first face, the setting-manipulating portion provided on the first face is positioned entirely on a left side or a right side with respect to a center of the teaching apparatus, and the enabling switch and the robot-movement-manipulating portion provided on the second face are positioned entirely on a same side as the setting manipulating portion,

 wherein the teaching apparatus outputs a command intended for the robot to the control apparatus when the enabling switch and the robot-movement-manipulating portion are operated simultaneously.

References

The prior art relied upon by the Examiner is:

Name	Reference	Date
Oshima	US 5,665,945	Sept. 9, 1997
Willner et al. (“Willner”)	US 5,874,906	Feb. 23, 1999
Ferla et al. (“Ferla”)	US 2004/0068335 A1	Apr. 8, 2004
Cai et al. (“Cai”)	US 2011/0234369 A1	Sept. 29, 2011

Rejections

Claims 1, 6, 8, and 9 are rejected under 35 U.S.C. § 103 as unpatentable over Cai and Willner.²

Claim 2 is rejected under 35 U.S.C. § 103 as unpatentable over Cai, Willner, and Oshima.

Claims 3, 5, and 7 are rejected under 35 U.S.C. § 103 as unpatentable over Cai, Willner, and Feria.

Claim 4 is rejected under 35 U.S.C. § 103 as unpatentable over Cai, Willner, Oshima, and Feria.

ANALYSIS

Claim 1 recites “[a] teaching apparatus that is connected to a control apparatus controlling a robot and outputs a command intended for the robot to the control apparatus” including “a setting-manipulating portion provided on a first face of the teaching apparatus,” in which “the setting-manipulating portion provided on the first face is *positioned entirely on a left side or a*

² Although the Examiner sets forth separate statements for the rejection of claims 1 and 6 (Final Act. 4–6) and claims 8 and 9 (*id.* at 12–13), we consolidate the statements into a single ground of rejection because they are each based upon same the combination of references.

right side with respect to a center of the teaching apparatus.” Appeal Br. 10, Claims App. (emphasis added).

The Examiner finds Cai discloses “a setting-manipulating portion ([control panel] 77 as per [grip handle] 751 or [grip handle] 752) provided on a first face (‘various thumb-operates switches’) of the teaching apparatus ([dual-handle controller] 70).” Final Act. 4; *see* Cai ¶ 48, Fig. 7. The Examiner also finds Cai discloses “the setting-manipulating portion (77 as per 751 or 752) provided on the first face (‘for actuation by a user’s thumb’) is positioned entirely on a left side *or* a right side with respect to a center of the teaching apparatus (70).” Final Act. 5 (emphasis added); *see* Ans. 5.

The Appellant argues that Cai’s control panel and switches fail to be “positioned *entirely* on a left side or a right side with respect to a center of the teaching apparatus,” as required by claim 1. Reply Br. 1–2; *see* Appeal Br. 5–6. The Appellant’s argument is persuasive.

At the outset, we note that the Examiner construes the “setting-manipulating portion” in light of the Specification. *See* Ans. 3 (citing Spec. 9:3–6). The Specification describes, “the screen change key 47 and the change keys 48 are collectively referred to as a welding parameter manipulating portion 49.” Spec. 9:3–4; *see id.* at Fig. 4. The Appellant identifies welding parameter manipulating portion 49 as the setting-manipulating portion. Appeal Br. 2; *see* Ans. 3. The Examiner construes the term “setting-manipulating portion” as a region that accepts a change to a setting operation. *See* Ans. 4–5. We agree with this construction of the

term the “setting-manipulating portion.”³ With respect to the structure of the “setting-manipulation portion,” the region may, for example, include one or more keys that accept a change to a setting operation.

Cai’s Figure 7 is reproduced below:

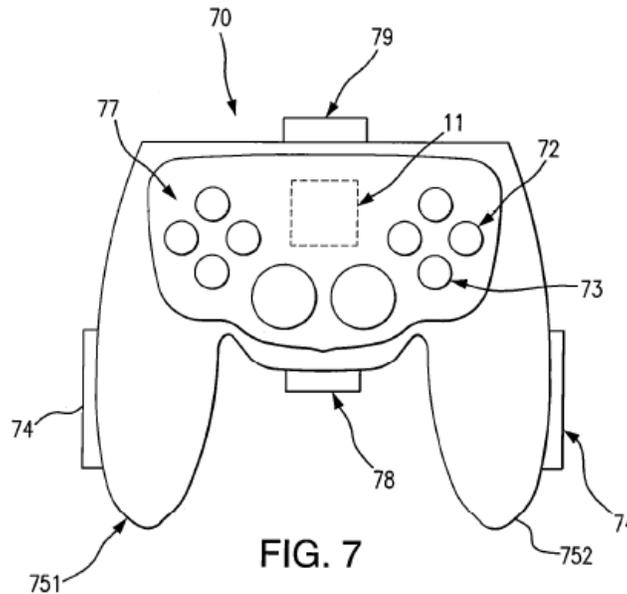


Figure 7 shows dual-handle controller 70. Cai ¶ 48. Controller 70 includes two ergonomic grip handles 751, 752, “Enable” switches 74, control panel 77 with various thumb-operated switches, for example, “Mode” switch 72, “Reset” switch 73, and six unnumbered switches that are similarly depicted as switches 72 and 73.⁴ *Id.* Four of these unnumbered

³ The Examiner further understands the term “setting-manipulating portion” as a region that is restricted to an area accessible by a user’s thumb or thumbs. *See* Ans. 3–4 (citing Spec. 9:8–11). Here, we disagree with the Examiner. We do not understand the location of the setting-manipulating portion — relative to a user’s thumb or thumbs — as part of the term’s construction. Rather, the location of the “setting-manipulating portion” is limited by the language of claim 1. *See supra.*

⁴ Cai, in paragraph 48, describes Figure 7, and references “Mode” switch 32. Figure 7 does not include reference number 32, but does include reference

switches are on the left side of control panel 77 (i.e., the left side set of switches) and the remaining two unnumbered switches, “Mode” switch 72, and “Reset” switch 73 are on the right side of control panel 77 (i.e., the right side set of switches). The left side set of switches are a mirror image of the right side set of switches across a longitudinal centerline of control panel 77, as well as controller 70.

As discussed above, the Examiner finds that the claimed “setting-manipulating portion” reads on the various thumb-operation switches associated with Cai’s control panel 77. Final Act. 4–5. In making this finding, the Examiner relies on the thumb-operation switches with respect to handle 751 *or* handle 752; i.e., the left side set of switches *or* the right side set of switches. *See id.*; Ans. 5. The Examiner’s use of the word “or” reveals more than just a disjunctive approach to the application of Cai’s control panel 77 to the claimed “setting-manipulating portion.” The use of the word “or” strongly suggests that the Examiner finds that the left side set of switches *and* the right side set of switches are part of the setting-manipulating portion. In other words, the Examiner does not appear to find that either the left side set of switches *or* the right side set of switches *are excluded* as part of the claimed “setting-manipulating portion.”

Accordingly, the Examiner must explain how the left side set of switches

number 72. Reference number 72 is not referenced in paragraph 48 or in the remainder of the Specification. Additionally, Figure 3A shows a “mode” switch 32, but Figure 3A is directed to a different embodiment of Cai’s invention than Figure 7. Therefore, we understand “Mode” switch 32 in paragraph 48 as a typographical error and that reference number 72 should have been written as the “Mode” switch for Figure 7. *See* Appeal Br. 5 (“a ‘Mode’ switch 72 (mis-numbered as ‘32’ in paragraph [0048] of Cai)[.]”)

and the right side set of switches as a group correspond to the claimed “setting-manipulating portion.” Because the group of switches are positioned on both the left side and the right side with respect to a center of the dual handle controller 70, we disagree with the Examiner’s finding that these switches of control panel 77 correspond to a “setting-manipulating portion provided on the first face is *positioned entirely* on a left side or a right side with respect to a center of the teaching apparatus,” as recited in claim 1 (emphasis added). *See* Tr. 10:3–13:2 (mailed June 11, 2020).

The Examiner fails to rely on the teachings of Willner, Oshima, and/or Feria in any manner that would remedy the deficiency in the Examiner’s rejection as discussed above. Thus, we do not sustain the Examiner’s rejections of claims 1–9.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	References/Basis	Affirmed	Reversed
1, 6, 8, 9	103	Cai, Willner		1, 6, 8, 9
2	103	Cai, Willner, Oshima		2
3, 5, 7	103	Cai, Willner, Feria		3, 5, 7
4	103	Cai, Willner, Oshima, Feria		4
Overall Outcome				1–9

REVERSED