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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SCOTT PATRICK RIES and
KENDRICK MORRISON

Appeal 2017-006311
Application 14/174,181
Technology Center 3600

Before JOHN C. KERINS, GEORGE R. HOSKINS, and
FREDERICK C. LANEY, *Administrative Patent Judges*.

LANEY, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Scott Patrick Ries and Kendrick Morrison (Appellants) appeal under 35 U.S.C. § 134(a) from the Examiner’s decision, set forth in the Final Action (May 20, 2016, hereinafter “Final Act.”), rejecting claims 8–10 and 17–20.¹ We have jurisdiction under 35 U.S.C. § 6(b).

¹ Appellants’ claims 1–7 have been withdrawn, and the Examiner has determined claims 11–16 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Final Act. 1, 5. Therefore, these claims are not before us on appeal.

We REVERSE.

INVENTION

Appellants' invention "relates to the field of controls of automatic transmissions" and, more specifically, "a method of controlling transmission shift elements as a shift selector is moved among Park, Reverse, Neutral, and Drive positions." Spec. ¶ 1.

Claims 8 and 17 are independent. Claim 8 is illustrative of the claimed invention and reads as follows:

8. A transmission comprising:

a first brake or clutch which is *engaged in a park state and a forward launch state and disengaged in a reverse launch state*;
and

a second brake or clutch which is *engaged in the park state and the reverse launch state and disengaged in the forward launch state*.

Appeal Br. (Claims App. 1) (emphasis added).

REJECTIONS

The following rejections are before us for review:

- I. The Examiner rejected claims 8–10 under 35 U.S.C. § 102(a)(1) as being anticipated by Tabata (US 6,183,389 B1, iss. Feb. 6, 2001).
- II. The Examiner rejected claims 17–20 under 35 U.S.C. § 102(a)(1) as being anticipated by Nishimine (US 2009/0280953 A1, pub. Nov. 12, 2009).

According to Appellants, the real party in interest is Ford Global Technologies, LLC.

ANALYSIS

Rejection I

The Examiner finds Tabata discloses each element of claim 8 in Figure 4, reproduced below. Final Act. 2–3.

FIG. 4

		CO	C1	C2	BO	B1	B2	B3	B4	FO	F1	F2																								
P		○								○																										
R	(STOPPED)	○		○					○	○																										
R	(RUNNING)			○	○				○																											
N		○								○																										
D	4	○	○						△	○		○																								
	3												○	○			○	○																		
	2																				○	○			○	○										
	L																												○	○			○	○		
	1st																																			
2nd	○	○			△	○			○	○																										
3rd	○	○	○			⊗			○																											
4th		○	○	○			⊗																													
5th																																				

○ ENGAGED △ ENGAGED AT THE TIME OF ENGINE BRAKING ⊗ ENGAGED, BUT IRRELEVANT TO DRIVING FORCE TRANSMISSION

The above Figure 4 depicts “a chart showing operational states of a frictional engaging device for setting various transmission levels of [a] gear transmission device.” Tabata col. 3, ll. 10–12. In a gear transmission device structured as Tabata teaches, “five forward speeds and one reverse speed can be set by engaging/disengaging the frictional engaging system of each clutch and brake as shown in the operation/engagement table of FIG. 4.” *Id.* col. 5, ll. 63–67. Explaining the meaning of the symbols used in Figure 4, Tabata states,

In FIG. 4, a “O” shows that the frictional engaging system is engaged, and “△” shows that the frictional engaging system is engaged at the time of engine braking, and a “⊗” shows that the frictional engaging system may either be engaged or disengaged,

or in other words, that even if the frictional engaging system is engaged, it is unrelated to transmission of torque. An empty box shows that the frictional engaging system is disengaged.

Id. col. 5, l. 67–col. 6, l. 7.

Referring to “C0” in Figure 4, the Examiner finds Tabata discloses a first shift element that is engaged in both a park state (i.e., P) and forward launch state (i.e., any of 1st–4th), but that is disengaged in a reverse launch state (i.e., R(stopped)). Final Act. 3–4. Referring to “F0” in the same Figure 4, the Examiner finds it shows a second shift element that is engaged in both the park state (i.e., P) and reverse launch state (i.e., R(running)), but disengaged in the forward launch state (i.e., 5th). *Id.* at 4. Thus, the Examiner finds Tabata anticipates claim 8.

Appellants argue an error occurred, however, because the Examiner fails to apply properly the principle of antecedent basis regarding the second shift element. Appeal Br. 4. Specifically, Appellants contend the recitation of “*the* park state,” “*the* reverse launch state,” and “*the* forward launch state” in claim 8 requires the engagement/disengagement of first and second shift elements to be evaluated in view of their condition during the *same* “park state,” “reverse launch state,” and “forward launch state.” We agree.

The recitation of “the” is properly understood as referring to a same element previously recited in the claim. As such, claim 8 clearly requires different engagement/disengagement conditions for the first and second shift elements during the *same* recited park, reverse launch, and forward launch states. Specifically, claim 8 requires, at some point of operation, the first shift element to be disengaged in the reverse launch state, while engaging the second shift element, and the first shift element to be engaged in a forward launch state, while disengaging the second shift element. Figure 4

in Tabata, however, shows the first and second shift elements, C0 and F0, have the same engage/disengage characteristics in every state.

As a result, the Examiner has failed to establish by a preponderance of the evidence Tabata anticipates claim 8. Therefore, we do not sustain the Examiner’s rejection of claim 8, as well as, claims 9 and 10 depending therefrom.

Rejection II

The Examiner finds Nishimine discloses each element of claim 17 in Figure 2, reproduced below. Final Act. 3–4 (citing Nishimine Fig. 2).

FIG. 2

SHIFT POSITIONS	SOLENOID VALVES							ENGAGEMENT ELEMENTS						
	SL1 N/C	SL2 N/C	SL3 N/C		SL4 N/C	SLU N/C	SL N/C	C1	C2	B1	B2	B3	OWC	L/C
P	○	x	x		△	△	x	x	x	x	△	x	x	x
P (B3 ENGAGED)	○	x	x		△	x	○	x	x	x	x	△	x	x
R	x	x	x		○	x	x	x	x	x	○	○	x	x
N⇄R	x	x	x		△	x	○	x	x	x	○	△	x	x
R-PROHIBITED	x	x	x		x	○	○	x	x	x	x	x	x	x
N (B2 ENGAGED)	○	x	x		△	△	x	x	x	x	△	x	x	x
N (B2 DISENGAGED)	○	x	x		x	x	x	x	x	x	x	x	x	x
D • B	1STon	○	x	x		x	△	○	○	x	x	x	x	○
	1SToff	○	x	x		x	x	x	○	x	x	x	x	○
	EGB	○	x	x		x	○	x	○	x	x	○	x	△
	2ND	△	x	○		x	△	○	○	x	○	x	x	△
	N CONTROL	△	x	△		x	x	x	△	x	△	x	x	○
	3RD	○	x	x		○	△	○	○	x	x	x	○	△
	4TH	○	○	x		x	△	○	○	x	x	x	x	△
	5TH	x	○	x		○	△	○	x	○	x	x	○	x
6TH	x	○	○		x	△	○	x	○	○	x	x	x	

IN CASE OF TOTAL DISCONNECTION: 5th GEAR STEP OR HIGHER IS 5th, 4th GEAR STEP OR LOWER IS 3rd, RE-D→N→NEXT 3rd GEAR STEP

○ : COMPLETELY ENGAGED
 △ : ENGAGED BY REGULATED PRESSURE
 x : RELEASED

Above Figure 2 depicts “a table illustrating a combination of engaged states and disengaged states of clutches and brakes for establishing respective shift gear steps of [an] automatic transmission.” Nishimine ¶ 26. The Examiner finds SL1 satisfies the engagement/disengagement configurations that claim

17 recites for the first shift element. Final Act. 3. For the second shift element, the Examiner finds the claimed engagement/disengagement configurations are shown by B2. *Id.* at 3–4. Lastly, the Examiner finds B3 shows the claimed engagement/disengagement configurations for the third shift element.

Similar to claim 8 above (*see supra* Rejection I), Appellants argue the engagement/disengagement configurations of the first, second, and third shift elements must be considered at the same claimed state (i.e., park state, forward launch state, and reverse launch state). Appeal Br. 6–7. This is because claim 17 clearly refers to “*the* park state,” “*the* forward launch state,” and “*the* reverse launch state” when describing the engagement/disengagement configurations for the second and third shift elements. Appeal Br. (Claims App. 1). We agree using “the” before each subsequent reference to a previously identified “state” indicates the identified states, respectively, are the same. As a result, claim 17, interpreted properly, requires a first, second, and third shift element to be “engaged” in the *same* “park state,” for example.

Turning to Figure 2 of Nishimine, it is clear that B2 and B3 are not both engaged during the same park state, as claim 17 recites. *See* Nishimine Fig. 2. To the contrary, Figure 2 indicates that B3 is *released* when B2 is engaged in the park state, and vice versa. *Id.* Therefore, the Examiner has not shown Nishimine to disclose each and every element of claim 17 by a preponderance of the evidence. Therefore, we do not sustain the Examiner’s anticipation rejection of claim 17, as well as claims 18–20 depending therefrom.

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DECISION

The Examiner's rejections of claims 8–10 and 17–20 are reversed.

REVERSED