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| CARRIER BLACKMAN AND ASSOCIATES<br>43440 WEST TEN MILE ROAD<br>EATON CENTER<br>NOVI, MI 48375 |             |                      | GURARI, EREZ        |                  |
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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* HIROATSU INUI, DAI ARAI, and KENJI MATSUO

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Appeal 2011-000828  
Application 11/804,057  
Technology Center 3600

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Before: JENNIFER D. BAHR, BENJAMIN D. M. WOOD, and  
PATRICK R. SCANLON, *Administrative Patent Judges*.

BAHR, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Hiroatsu Inui et al. (Appellants) appeal under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1-14 under 35 U.S.C. § 103(a) as unpatentable over Nishikawa (US 6,453,762 B1, iss. Sep. 24, 2002) and Narita (US 6,085,607, iss. Jul. 11, 2000). We have jurisdiction under 35 U.S.C. § 6(b). An oral hearing was held on January 8, 2013.

We REVERSE.

*The Claimed Subject Matter*

Claim 1, reproduced below, is illustrative of the claimed subject matter.

1. An internal combustion engine including an engine case, an engine case cover, a crankshaft disposed within the engine case, an output shaft, and a transmission disposed within the engine case,

the transmission configured to transmit rotation of the crankshaft of the output shaft at a modified speed, the transmission comprising:

a plurality of speed change gears which are selectively combinable, a selected combination of gears determining an output speed of the engine, and

a transmission driving mechanism which is operable to shift gears within the transmission to obtain a desired selected combination of gears, the transmission driving mechanism comprising:

a shift spindle rotatably supported on the engine case such that a first end of the shift spindle extends through the engine case cover and protrudes outside the engine case cover, the shift spindle operably connected to the gears such that rotating the shift spindle changes the selected combination of gears,

a turning angle sensor operatively attached to a second end of the shift spindle,

a shift actuator operably connected to the first end of the shift spindle to drive rotation of the shift spindle,

a fitting part formed at the protruding first end of the shift spindle and configured to receive a working end of a manual turning tool fitted thereon, wherein:

the engine is configured and arranged such that a clearance is provided adjacent the protruding first end of the shift spindle;

the fitting part is substantially unobstructed and accessible for selective engagement with the manual turning tool while maintaining the operable connection of the shift actuator; and

the clearance allows for an unobstructed turning range of the manual turning tool.

### OPINION

For the reasons set forth on pages 4-8 of Appellants' Reply Brief, Nishikawa's serration connecting portion **11a**, on which the Examiner reads the claimed "fitting part" (Ans. 4), is not "substantially unobstructed and accessible for selective engagement with the manual turning tool while maintaining the operable connection of the shift actuator" to the first end of the shift spindle to drive rotation of the shift spindle, as called for in Appellants' independent claims 1 and 7.

Nishikawa's change device has a motor change mode in which the change spindle is operated only by the change motor and a manual change mode in which the change spindle is operated only by the change manipulating member (i.e., change pedal **70**). Col. 1, ll. 51-60. According to Nishikawa, "when one change mode is selected, the other change mode becomes inoperable so that the operational interference between the change motor and the change pedal can be obviated in advance." Col. 1, l. 66 – col. 2, l. 3.

In the motor change mode, Nishikawa's mode changeover lever **41** is set in the motor change position A, and the clutch gear **36** is in the clutch

ON position so that “rotation of the rotor shaft **31a** of the change motor **31** can be transmitted to the change spindle **11**.” Col. 6, l. 41 – to col. 7, l. 5. In this mode, Nishikawa’s connection constraining cover **51** is in the constraint position E shown in figure 7, in which it covers the serration connection portion **11a** such that “the mounting of the change pedal **70** to the connecting portion **11a** is *impossible*.” Col. 7, ll. 15-16 (emphasis added). Consequently, in this mode, Nishikawa’s serration connection portion **11a** cannot reasonably be considered to be “substantially unobstructed and accessible for selective engagement with” the manual turning tool (i.e., with change pedal 70).

To change over from the motor change mode to the manual change mode and permit the connection constraining cover **51** to be moved from the constraint position E to the unconstraint position F, Nishikawa’s changeover lever **41** must be pivoted to the manual change mode position B, as shown in figures 8 and 9, thereby causing the shift fork **39** to shift the clutch gear **36** to the clutch OFF position to disengage the clutch teeth from the spindle gear teeth so as to interrupt the clutch means **35**. Col. 7, ll. 21-33, 38-54. This in turn causes the transmission between the spindle gear and the change spindle **11** to be interrupted “so that the gear change operation by the change motor **31** becomes impossible.” Col. 7, ll. 34-37. In this mode, the operable connection of Nishikawa’s change motor **31** to the first end of the change spindle **11** is not maintained. Thus, Nishikawa’s device fails to satisfy the language of claims 1 and 7 in this mode as well.

The Examiner does not rely on Narita for any teaching that would remedy the deficiency of Nishikawa. Accordingly, the Examiner fails to establish that the subject matter of claims 1 and 7 would have been obvious.

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Thus, we do not sustain the rejection of claims 1 and 7 and of their dependent claims 2-6 and 8-14.

**DECISION**

The Examiner's decision rejecting claims 1-14 is reversed.

**REVERSED**

JRG