UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHRISTOPHER M. OSBORNE

Appeal 2008-2089
Application 10/751,801
Technology Center 3600

Decided: August 13, 2008

Before WILLIAM F. PATE, III, JENNIFER D. BAHR, and STEVEN D.A. McCARTHY, *Administrative Patent Judges*.

BAHR, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Christopher M. Osborne (Appellant) appeals under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1, 3-8, 11-19, and 21. Claims 2, 9, 10, and 20 have been canceled. We have jurisdiction over this appeal under 35 U.S.C. § 6 (2002).

THE INVENTION

The Appellants' invention is drawn towards a self-propelled lawn mower LM including a housing MD holding a cutting element CE, a handle H, and a motor M for transferring power to drive wheels WD through a variable speed transmission T (Spec. 8, ll. 7-15; Spec. 9, ll. 9-13; and fig. 1A). The lawn mower further includes an operator presence control OPC for safely controlling the lawn mower between an ON position in which the lawn mower LM is engaged and an OFF position in which the lawn mower is disabled (Spec. 10, ll. 6-7; Spec. 11, ll. 1-15; and fig. 1A). The speed of the lawn mower LM is controlled by positioning a twist-grip throttle control TC, mounted substantially coaxial with a portion of the handle H, between a NEUTRAL speed state, a LOW speed state, a HIGH speed state, and intermediate states between the LOW and HIGH states (Spec. 12, ll. 1-9; Spec. 13, ll. 6-12; and figs. 1A and 2A-2C).

Claims 1 and 16 are representative of the claimed invention and read as follows:

> 1. A self-propelled, walk-behind mowing machine comprising:
>
> (a) a cutter housing;
>
> (b) a handle attached to the housing;
>
> (c) an engine attached to the housing;
>
> (d) a variable speed transmission for propelling the self-propelled, walk-behind mowing machine; and
>
> (e) a twist-grip throttle control substantially coaxial with

a portion of the handle and operatively connected to the variable speed transmission for controlling the variable speed transmission whereby self-propelled speed of the mowing machine can be controlled by operating the twist-grip throttle control between a neutral position and an engaged position.

16. A method of controlling propulsion speed of a self-propelled, walk-behind mowing machine comprising:

(a) providing a handle attached to a cutter housing of a self-propelled, walk-behind mowing machine; and

(b) rotating a twist-grip throttle control disposed substantially coaxially on the handle to control a variable speed transmission on the mowing machine whereby the variable speed transmission controls the propulsion speed of the mowing machine, wherein the twist-grip throttle control comprises a grooved portion for holding an operator presence control in the grooved portion when the twist-grip throttle control is rotated.

THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Busboom	US 2003/0000190 A1	Jan. 2, 2003

Claims 1, 3-8, 11-19, and 21 stand rejected under 35 U.S.C. § 102(b) as anticipated by Busboom.[1]

[1] Both the Final Office Action mailed April 12, 2006 at 2 and the Examiner's Answer at 3 omitted claim 8 from the list of claims rejected under § 102(b). The Examiner corrected this error in a Communication mailed April 10, 2007.

The Examiner provides reasoning in support of the rejections in the Answer (mailed January 29, 2007). The Appellant presents opposing arguments in the Appeal Brief (filed September 8, 2006) and the Reply Brief (filed March 29, 2007).

FACTS

Busboom

We make the following findings of fact with respect to Busboom:

1. Busboom discloses a walk behind lawn-mower 100 including an operator control system 200, a frame 102, an engine 104, a pair of drive wheels 106, a pair of hydraulic pumps 107 (variable speed transmission), a cutting deck 114 (housing) holding the cutting blades (cutting element), and a handle 203 having a transverse portion 204 (horizontal portion), a first hand grip having a first axis 201a, a second hand grip 202b having a second axis 201b, and curved portions 206 (Page 2, ¶¶ 28, 29, and 33; Page 3, ¶¶ 34, 36 and 37; figs. 1A, 1B, 2A, 2B, and 2C).

2. The speed and the moving direction of the mower 100 is controlled incrementally by moving levers 220a and 220b between a forward position F, a neutral position N, and a reverse position R (Page 4, ¶¶ 48-49 and fig. 5).

3. To control the delivery of power to the drive wheels the levers 220a and 220b are coupled to the respective hydraulic pumps 107 by way of tie rods 222 and lever arms 224 which respectively manipulate hydraulic valves (Page 3, ¶ 42 and fig. 3).

4. The mower of Busboom further includes a pair of neutral locks (latching devices) 270 for temporarily locking the levers 220a and 220b in a

predetermined position by pivoting (rotating) about the axes 201a and 201b (Page 4, ¶ 50 and fig. 5).

5. To terminate operation of the mower 100 when the presence of an operator is not detected, the mower of Busboom further includes an operator presence control (OPC) device configured as levers 240a and 240b (Page 5, ¶ 56 and fig. 5).

PRINCIPLES OF LAW

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California,* 814 F.2d 628, 631 (Fed. Cir. 1987). It is not necessary that the reference teach what the subject application teaches, but only that the claim read on something disclosed in the reference, i.e., that all of the limitations in the claim be found in or fully met by the reference. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772 (Fed. Cir. 1983).

OPINION

Claims 1, 3-8, 11-15, 18-19, and 21

The crux of the Appellant's argument is that Busboom does not teach a mowing machine having a twist-grip throttle control that is disposed "substantially coaxial" (claims 1, 3-8, 11-15, 19, and 21) or "substantially concentrically" (claim 18) along a portion of the handle and is "operatively connected" to the variable speed transmission (App. Br. 11 and 16 and Reply Br. 4). In response, the Examiner contends that the neutral lock 270 of Busboom is "capable of varying the transmission" and thus is "operatively connected to the transmission" (Ans. 23 and 24) because the neutral lock 270 controls the "drive control 220, which controls the speed of

the mower between a neutral & engaged positions" (Ans. 24). Furthermore, according to the Examiner, the neutral lock 270 of Busboom is in a coaxial relationship with a portion of the handle (Ans. 23).

In this case, we find that the neutral locks 270 of Busboom appear to be disposed substantially coaxial (concentrically) about axes 201a and 201b, respectively, along the hand grips 202a and 202b, which constitute a portion of the handle 203 (Findings of Fact 1 and 4). Moreover, we agree with the Examiner that the neutral lock 270 of Busboom constitutes a twist-grip throttle control that is "operatively connected" to the variable speed transmission.

The ordinary and customary definition of "connected" is "joined or linked together" (*Merriam Webster's Collegiate Dictionary* 244 (Tenth Ed. 1997)). Furthermore, "operative" means "producing an appropriate effect" (*Merriam Webster's Collegiate Dictionary* 815 (Tenth Ed. 1997)). Therefore, a twist-grip throttle control that is "operatively connected" to a variable speed transmission requires that the twist-grip throttle control be "linked" to the variable transmission in such a manner as to produce the effect of controlling the variable speed transmission. The Appellant appears to argue that the claim term "operatively connected" requires a physical or mechanical linkage between the twist-grip throttle control and the variable speed transmission. We disagree. The term "operatively connected" does not require a physical or mechanical connection between the twist-grip throttle control and the variable speed transmission so as to obtain a unitary structure. Rather, the claim term "operatively connected" merely requires that the twist-grip throttle control and the variable speed transmission be linked or associated in such a manner as to produce the proper effect of controlling the variable transmission. This is consistent with the decision in

Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1118 (Fed. Cir. 2004), wherein the court noted that the claim term "operatively connected" is a general descriptive claim term frequently used in patent drafting to reflect a functional relationship between claimed components and should not be interpreted to "reflect a 'physical engagement…that results in a unitary structure'." We find that the neutral lock 270 of Busboom is "operatively connected" to the variable speed transmission because it is "linked" or associated to the levers 220a and 220b when locking the levers into a fixed position such as to lock into place a set hydraulic flow level which corresponds to a set speed level (Findings of Fact 2, 3, and 4). In conclusion, the neutral lock 270 of Busboom constitutes a twist-grip throttle control that is "operatively connected" to the variable speed transmission (hydraulic pumps 107) as required by each of claims 1, 3-8, 11-15, 18-19, and 21.

Therefore, the rejection of claims 1, 3-8, 11-15, 18-19, and 21 as anticipated by Busboom is sustained.

Claims 16 and 17

With respect to claims 16 and 17, the Appellant argues that Busboom does not disclose a process for controlling the speed of a self-propelled mowing machine by rotating a twist-grip throttle to control a variable speed transmission (App. Br. 15 and Reply Br. 5). The Appellant further argues that in the mower of Busboom the neutral lock 270 cannot control the speed of the mowing machine because it is not "operatively connected" to the hydraulic pumps 107 (variable speed transmission) (App. Br. 15 and Reply Br. 6). In response, the Examiner contends that there is no substantial difference between the construction of Appellant's mower and that of

Busboom and that, as such, the operation of the Appellant's invention is the same as that of the mower of Busboom (Ans. 21).

In contrast to the Appellant's argument, we note that claims 16 and 17 do not require that the twist-grip throttle be "operatively connected" to the variable speed transmission. Claims 16 and 17 merely require that the twist-grip throttle be rotated to "control" the variable speed transmission. We find that the ordinary and customary definition of the term "control" is to "regulate" (*Merriam Webster's Collegiate Dictionary* 252 (Tenth Ed. 1997)). Furthermore, we find that "regulate" means to "fix or adjust the time, amount, degree or rate of" (underlining added) (*Merriam Webster's Collegiate Dictionary* 252 (Tenth Ed. 1997)). As shown above, when the neutral lock 270 in the mower of Busboom locks the levers 220a and 220b into a fixed position, an already set hydraulic flow level and a corresponding set speed level are also locked in place (Findings of Fact 2 and 4). Therefore, the neutral lock 270 of Busboom satisfies the limitation of a twist-grip throttle that "controls" the variable speed transmission because the neutral lock 270 in the mower of Busboom fixes in place the levers 220a and 220b, hence fixing the hydraulic flow level in the hydraulic pumps 107 (variable speed transmission) and thereby fixing the speed of the mower at the desired level.

As such, the rejection of claims 16 and 17 as anticipated by Busboom is sustained.

DECISION

The Examiner's rejection of claims 1, 3-8, 11-19, and 21 under 35 U.S.C. § 102(b) as anticipated by Busboom is affirmed.

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) (2007).

AFFIRMED

JRG

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