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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GREGG A. HENDERSON

Appeal 2019-002658
Application 14/622,141
Technology Center 3700

BEFORE JENNIFER D. BAHR, EDWARD A. BROWN, and
LISA M. GUIJT, *Administrative Patent Judges*.

GUIJT, *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 1–23 and 40–45. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Techtronic Industries Co. Ltd. Appeal Br. 2.

CLAIMED SUBJECT MATTER

The claims are directed to “vacuum cleaners, and more particularly to debris separators for vacuum cleaners.” Spec. ¶ 2. Claims 1 and 16 are the independent claims on appeal. Claim 1, reproduced below with the disputed limitations italicized for emphasis, is illustrative of the claimed subject matter:

1. A vacuum cleaner operable to separate debris from an airflow, the vacuum cleaner comprising:

a first stage separator having a cylindrical outer sidewall defining a cyclonic chamber, the cyclonic chamber having a dirty air inlet, a dirt outlet, and an air outlet; and

a dirt collection chamber in fluid communication with the dirt outlet of the cyclonic chamber, the dirt collection chamber further including a bottom wall and a sidewall that extends upwardly from the bottom wall, the sidewall having an opening, wherein the first stage separator, including the cylindrical outer sidewall, is removably and slidably received within the dirt collection chamber by inserting the separator into the opening of the sidewall, wherein the first stage separator, including the cylindrical outer wall is removable from within the dirt collection chamber.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Oh '727	US 2010/0115727 A1	May 13, 2010
Sullivan	US 7,914,609 B2	Mar. 29, 2011
Oh '697	US 8,282,697 B2	Oct. 9, 2012

REJECTIONS²

- I. Claims 1–9, 13, 14, 16–23, 40, 42, 43, and 45 stand rejected under 35 U.S.C. § 102(a)(1) as anticipated by Oh '727.
- II. Claims 1–6, 10–12, 15, 16, and 40–45 stand rejected under 35 U.S.C. § 102(a)(1) as anticipated by Oh '697.³
- III. Claim 15 stands rejected under 35 U.S.C. § 103 as unpatentable over Oh '727 and Sullivan.

OPINION

Rejection I

Regarding independent claims 1 and 16, the Examiner finds that Oh '727 discloses a first stage separator (i.e., colored guide unit 330) having a cylindrical outer sidewall (“sidewall near [connection portion] 337”) defining a cyclonic chamber (i.e., “inside [connection portion] 337”). Final Act. 2, 4 (citing Oh '727, Fig. 3). The Examiner explains that “the cyclone sidewall is formed by the connecting portion 337 of the guide unit 330” and that “[t]he sidewall by 337 surrounds a portion of the cyclones and defines the cyclone chamber.” Ans. 10. The Examiner also explains that claim 1 reads on the colored guide unit depicted in Figure 3 of Oh '737 because claim 1 “do[es] not require the sidewall to extend a certain length along the

² The Examiner’s objections to claims 40, 41, 43, and 44 regarding a typographical error is a petitionable, not appealable, matter. Final Act. 2. Notwithstanding, Appellant’s Amendment after Final (dated July 19, 2018), which was entered by the Examiner, appears to have addressed the Examiner’s claim objections. See Adv. Act. 1 (dated Aug. 28, 2018).

³ Although claims 1–22 are listed in the statement of the rejection, findings are only provided for claims 1–6, 10–12, 15, 16, and 40–45. Final Act. 5–8.

longitudinal axis of the cyclones nor does it require the entire length of the pipes 336 and blades 335 to be the claimed first stage separator.” *Id.*

Appellant argues that Oh ’727 does not disclose “a cylindrical outer sidewall defining a cyclonic chamber, as claimed.” Appeal Br. 7, 8. In support, Appellant submits that

the cyclone chamber 340 of the cyclone dust-collecting apparatus 300 is formed by *an internal wall of the case 360*. Alternatively, the connection portion 337 is a portion of *the colored guide unit 330*, and forms a space to hold the discharge pipe 336. The internal wall of the case 360 is separate and spaced apart from the space formed by the connection portion 337. As such, the connection portion 337 does not define the cyclone chamber 340, as recited in independent claim 1.

Id. at 7, 8 (citing Oh ’727, Fig. 4) (footnotes omitted).

We are persuaded by Appellant’s argument. Independent claims 1 and 16 require the first stage separator to have a cylindrical outer sidewall defining a cyclonic chamber, and we construe claim 1 to mean that the sidewall of the separator must define, or make clear the form of, the corresponding sidewall structure of the cyclonic chamber in its entirety. This construction is consistent with the Specification which discloses that “separator 42 includes a cylindrical side wall 74 that defines a cyclonic chamber,” wherein, with reference to Figures 3 to 5, “the cyclonic chamber 78 defines a longitudinal axis 80 with the cylindrical side wall 74 extending along the longitudinal axis 80.” Spec. ¶ 24; *see also The American Heritage Dictionary of the English Language*, Fifth Ed., Houghton Mifflin Harcourt Publishing Company (2019), definition 2a, available at <https://www.ahdictionary.com/word/search.html?q=define> (last accessed November 20, 2019) (copy of entry attached to this Decision). Thus, the

Examiner erred by construing claims 1 and 16 to allow for the separator's cylindrical outer sidewall to only partially define the sidewall of the cyclonic chamber. Because, in Oh '727, connection portion 337 of colored guide unit 330 only defines a part of the sidewall of cyclone chamber 340, Oh '727 fails to anticipate claims 1 and 16.

Accordingly, we do not sustain the Examiner's rejection of independent claims 1 and 16, and claims 2–9, 13, 14, 16–23, 40, 42, 43, and 45 depending therefrom.

Rejection II

Regarding independent claim 1, the Examiner finds that Oh '697 discloses a first stage separator (i.e., secondary dust separating unit 40) received within a dirt collection chamber (i.e., dust collecting unit 10) by inserting the separator into an opening of a sidewall of the dirt collection chamber, as claimed. Final Act. 6 (citing Oh '697 Figs. 3, 4). Similarly, regarding independent claim 16, the Examiner finds that Oh '697 discloses a first stage separator (i.e., dust separating unit 40) received within a dirt collection chamber (i.e., dust collecting unit 10) along a generally horizontal direction, as claimed. *Id.* at 7 (citing Oh '697 Figs. 3, 4).

Appellant correctly argues that “[n]either first stage separating unit 20 [n]or second stage separating unit 40 are removable through an opening in a sidewall of a dirt collection container.” Reply Br. 4.

Indeed, Oh '697 depicts in Figures 3 and 4, that secondary dust separating unit 40, as relied on by the Examiner, is *vertically* received in a *top* wall of external casing 11 (if at all, via connection unit 30) and into a space created by partition 12 within casing 11. *See also* Oh '697 4:33–42.

Accordingly, we do not sustain the Examiner's rejection of independent claims 1 and 16, and claims 2–6, 10–12, 15, and 40–45 depending therefrom.

Rejection III

The Examiner's reliance on Sullivan for disclosing a baffle tube does not cure the deficiencies in the Examiner's findings with respect to independent claim 1, as discussed *supra* and from which claim 15 depends. Final Act. 8–9.

Accordingly, for essentially the same reason presented *supra* in Rejection I, we also do not sustain the Examiner's rejection of claim 15.

CONCLUSION

The Examiner's rejection of claims 1–9, 13, 14, 16–23, 40, 42, 43, and 45 under 35 U.S.C. § 102(a)(1) as anticipated by Oh '727 is REVERSED.

The Examiner's rejection of claims 1–6, 10–12, 15, 16, and 40–45 under 35 U.S.C. § 102(a)(1) as anticipated by Oh '697 is REVERSED.

The Examiner's rejection of claim 15 under 35 U.S.C. § 103 as unpatentable over Oh '727 and Sullivan is REVERSED.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1-9, 13, 14, 16-23, 40, 42, 43, 45	102(a)(1)	Oh '727		1-9, 13, 14, 16-23, 40, 42, 43, 45
1-6, 10-12, 15, 16, 40-45	102(a)(1)	Oh '697		1-6, 10-12, 15, 16, 40-45
15	103	Oh '727, Sullivan		15
Overall Outcome				1-23, 40-45

REVERSED

Notice of References Cited	Application/Control No. 14/622,141	Applicant(s)/Patent Under Patent Appeal No. 2019-002658	
	Examiner	Art Unit 3723	Page 1 of 1

U.S. PATENT DOCUMENTS

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
	A	US-			
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NON-PATENT DOCUMENTS

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)			
	U	The American Heritage Dictionary of the English Language, Houghton Mifflin Harcourt Publishing Company (2019), Fifth Ed, available at https://www.ahdictionary.com/word/search.html?q=define (last accessed November 20, 2019)			
	W				
	X				

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
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de·fine  (dĭ-fĭn)

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v. de·fined, de·fin·ing, de·fines

v.tr.

1.

a. To state the precise meaning of (a word or sense of a word, for example).

b. To describe the nature or basic qualities of; explain: *define the properties of a new drug; a study that defines people according to their median incomes.*

2.

a. To make clear the outline or form of; delineate: *gentle hills that were defined against the sky.*

b. To specify distinctly: *define the weapons to be used in limited warfare.*

3. To give form or meaning to: "*For him, a life is defined by action*" (*Jay Parini*).

v.intr.

To make or write a definition.

[Middle English *definen*, *diffinen*, from Old French *definir*, *diffiner*, from Latin *dēfīnīre*, to limit, determine : *dē-*, intensive pref.; see *DE-* + *fīnis*, boundary, limit.]

de·fin'a·bil i·ty *n.*

de·fin a·ble *adj.*

de·fin a·bly *adv.*

de·fine ment *n.*

de·fin er *n.*

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