

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

POLYGROUP LIMITED,
Petitioner,

v.

WILLIS ELECTRIC CO., LTD.,
Patent Owner.

Case IPR2014-01264
Patent 8,454,187 B2

Before WILLIAM V. SAINDON, CHRISTOPHER L. CRUMBLEY, and
BARBARA A. PARVIS, *Administrative Patent Judges*.

SAINDON, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

Petitioner filed a Petition to institute an *inter partes* review (Paper 1, “Pet.”) of claims 1–15 of U.S. Patent No. 8,454,187 B2 (Ex. 1001, “the ’187 patent”). Pet. 1. Petitioner included a declaration of Mike Wood (Ex. 1014). Patent Owner filed a Preliminary Response. Paper 8 (“Prelim. Resp.”).

We have jurisdiction under 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” We have reviewed the Petition, Preliminary Response, and the evidence cited therein. For the reasons discussed below, we determine that Petitioner has not demonstrated a reasonable likelihood of prevailing with respect to any of the challenged claims of the ’187 patent.

A. Related Matters

Claims 1–15 of the ’187 patent have been challenged in *ex parte* reexamination proceeding 90/020,074. Pet. 1; Paper 6, 2. Petitioner challenges U.S. Patent No. 8,454,186 B2 in IPR2014-01263; the application issuing as the ’187 patent is a continuation of the application issuing from the ’186 patent.

B. The ’187 Patent

The ’187 patent describes artificial trees with decorative lighting having separable, modular tree portions mechanically and electrically connectable between trunk portions. Ex. 1001, 1:13–17. The ’187 patent describes using light strings, which are modular and “offer[] a user the

opportunity to easily disconnect the light string . . . for replacement.” *Id.* at 18:42–44. The mechanical and electrical connections between trunk portions are arranged such as to allow the trunk portions to be configured in multiple rotational alignments because the electrical connections between the trunk portions are made independent of the rotational orientation of the trunk portions, such as by using a coaxial electrical connector. *Id.* at 15:40–54. This eliminates the need for precise alignment when assembling the tree. *Id.*

C. Illustrative Claim

Petitioner challenges all of the claims in the ’187 patent, of which claims 1 and 7 are independent. Claim 7 is reproduced below:

7. A lighted artificial tree, comprising:
 - a first tree portion including a first trunk portion, a first plurality of branches joined to the first trunk portion, and a first light string affixed to a portion of the first plurality of branches, the first trunk portion having a first trunk body and a trunk connector assembly, at least a portion of the trunk connector assembly housed within the first trunk body and electrically connected to the first light string;
 - a second tree portion including a second trunk portion, a second plurality of branches joined to the second trunk portion, and a second light string affixed to a portion of the first plurality of branches, the second trunk portion having a trunk body and a trunk connector assembly, at least a portion of the trunk connector assembly housed within the second trunk portion and electrically connected to the second light string;
 - and
- wherein the second tree portion is mechanically and electrically connectable to the first tree

portion by coupling a lower end of the second trunk body to an upper end of the first trunk body along a common vertical axis at a rotational orientation of the first trunk portion relative the second trunk portion about the common vertical axis, thereby causing the trunk connector of the first trunk portion to make an electrical connection with the trunk connector of the second trunk portion within a trunk interior defined by the first trunk body and the second trunk body, the electrical connection being made when the lower end of the second trunk body is coupled to the upper end of the first trunk body, the electrical connection being independent of the rotational orientation of the first trunk portion relative the second trunk portion about the common vertical axis.

D. Prior Art and Asserted Grounds

Petitioner asserts 10 grounds using 6 references. Paper 1, 3–4. The grounds asserted may be divided into two groups, one primarily relying on Otto¹, and one primarily relying on Smith². We do not reproduce the list of all 10 grounds or 6 references here because a dispositive issue involves Petitioner’s reliance on each of Otto and Smith alone.

¹ German Gebrauchsmuster No. G 84 36 328.2, published April 4, 1985 (Ex. 1005) (exhibit includes the original German and a certified English translation).

² U.S. Patent No. 3,970,834, issued July 20, 1976 (Ex. 1006).

II. ANALYSIS

A. Claim Construction

We interpret the claims of an unexpired patent using the broadest reasonable interpretation in light of the specification of the patent. 37 C.F.R. § 42.100(b). Under the broadest reasonable interpretation standard, claim terms are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech. Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Further, “the specification and prosecution history only compel departure from the plain meaning in two instances: lexicography and disavowal.” *GE Lighting Solutions, LLC v. Agilight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014) (citing *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)). The standards for lexicography and disavowal are exacting, and require clear intent to define or narrow a term. *Thorner*, 669 F.3d at 1365–66.

Petitioner and Patent Owner propose constructions for “wiring harness” and “wiring assembly” (claims 1, 4–7, and 10). Pet. 5–6; Prelim. Resp. 11–12. Patent Owner additionally proposes constructions for “light string” (claims 1–15) and “in at least four different rotational alignments” (claim 1). Prelim. Resp. 12–17. The construction of “light string” is a dispositive issue and is the only term we need to construe for purposes of this Decision.

Both independent claims of the ’187 patent recite at least “a first light string.” Petitioner does not offer a construction of the term. Patent Owner proposes that the term means: “string of lights that can be positioned over a plurality of branches that includes a first electrical connector portion

connected to the light string wiring that is configured to connect to a second electrical connector portion.” Prelim. Resp. 12–13. For the reasons that follow, we construe a “light string” to be “a string of lights that can be positioned over a plurality of branches.”

The ’187 patent does not define the term “light string,” but discusses the term at length. In each of these descriptions of a light string, the specification is describing a structure that is separate from the branches of the tree and, instead, is placed on the branches of the tree. For example, the specification contains the following passages that discuss “light strings”: “[t]raditionally, consumers wrap strings of lights about the artificial tree” (Ex. 1001, 1:26–27); “[w]ires of the light string are clipped to branch structures” (*id.* at 1:35–36); “the modularity of individual light strings . . . offers a user the opportunity to easily disconnect the light string from trunk . . . for replacement” (*id.* at 18:41–44). The figures of the ’187 patent likewise depict the light string as a structure apart from the branches. *See, e.g., id.*, Figs. 1, 2, and 4 (items 124, 162, 182). Figure 1 of the ’187 patent, reproduced below, depicts several “light strings.”

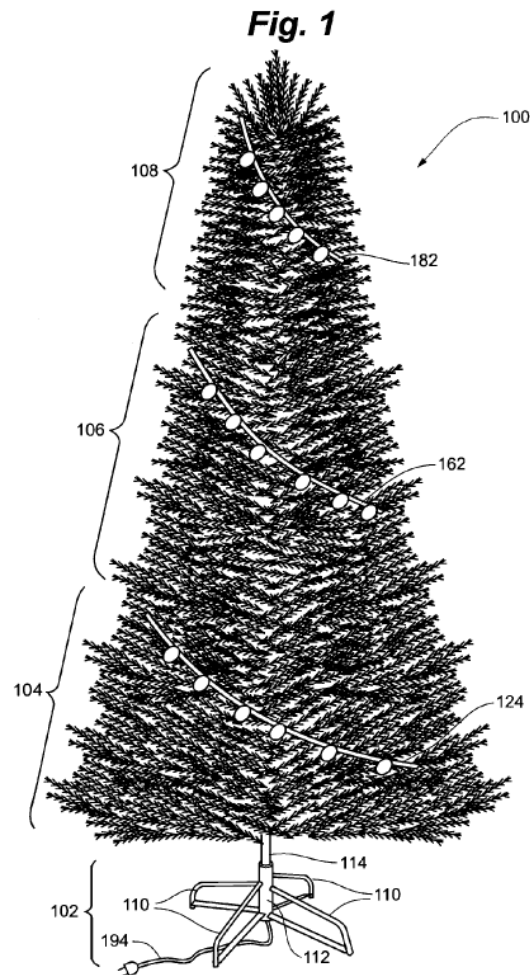


Figure 1 of the '187 patent depicts a lighted tree having light strings 124, 162, and 182, which are depicted as structures apart from the branches.

Extrinsic evidence likewise supports a construction of “light string” being a structure apart from the branches. Otto distinguishes “string lights” from lights “fixedly and permanently connected to the lighted branches.” Ex. 1005, 15–18.³ Otto characterizes the string lights as “particularly problematic” due to the appearance of the electrical lines. *Id.* at 17. Otto’s solution is to place the electrical lines inside the branches rather than draping

³ Citations to Otto are to the page numbers stamped on the lower right hand corner of the exhibit.

them over the branches. *Id.* at 17–18, Figs. 1, 2. Accordingly, we take this as evidence that one of ordinary skill in the art considers light strings (or string lights) to be a name for a particular lighting structure that is different from a lighting structure wherein the lights are integrated into the branches.

Taking into consideration the above, we construe “light string,” on this record, to mean “a string of lights that can be positioned over a plurality of branches.”

*B. Petitioner’s Reading of “Light String”
on the Prior Art*

Petitioner reads the “light string” of both independent claims of the ’187 patent on certain structures of Otto and Smith. We address each reference in turn.

1. Otto

Otto describes an artificial tree having electric lights. Ex. 1005, 16:13–21. As discussed in our claim construction section above, Otto distinguishes the lights of his tree from “string lights.” *Id.* at 17 (“the object of the invention is to provide a Christmas tree in which no lines are visible between the candle lights”). Figure 1 of Otto is reproduced below:

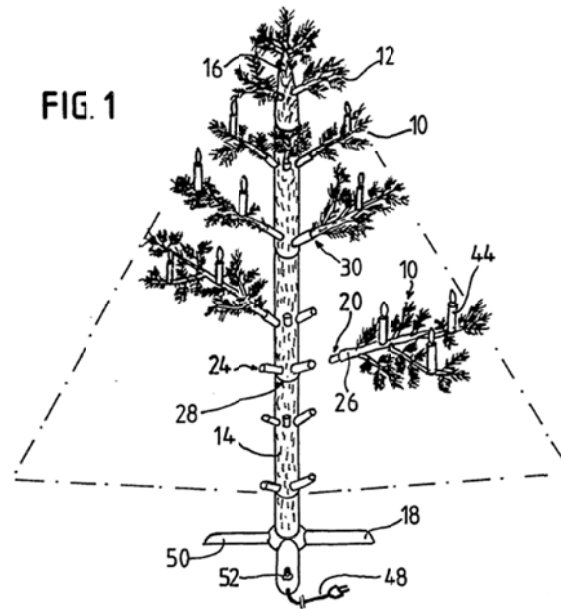


Figure 1 of Otto depicts candle lights 44 are mounted directly to branch 26. The electrical lines powering candle lights 44 are contained within branch 26. *Id.* at 18:8–15. Accordingly, the structure providing lighting in Otto is integrated into the branches.

2. Smith

Smith describes an artificial tree having built-in electric lights. Ex. 1006, 1:30–32. As in Otto, the center of the branches contain the electrical wiring to power electrical lights mounted directly to the branches. This arrangement is shown in Figure 4 of Smith, reproduced below:

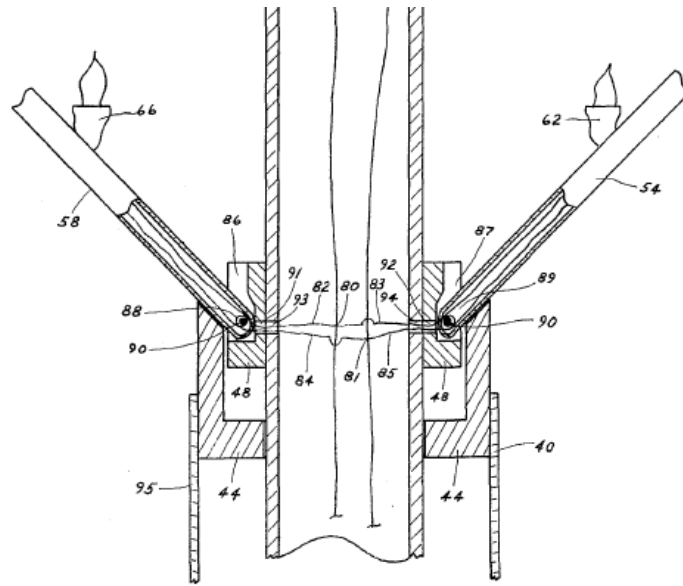


FIG. 4

Figure 4 of Smith depicts light 66 attached to branch 58 and powered by wires 82 and 84. *Id.* at 5:22–23. Accordingly, the structure providing lighting in Smith is integrated into the branches.

3. Petitioner's Assertions

With respect to claim 1, Petitioner asserts that the light string in Otto is “candle lights 44 of a lighted branch 10.” Pet. 42; *see also id.* at 51 (referring back to this citation for independent claim 7). Similarly, with respect to claim 1, Petitioner asserts that the light string in Smith is “[l]ight 29 and other lights . . . shown on branch 21”). *Id.* at 42–43; *see also id.* at 51 (referring back to this citation for independent claim 7). Reviewing these assertions, we note that each of the structures that Petitioner asserts to disclose a “light string” is not a string of lights that can be positioned over a plurality of branches, but rather a series of lights *integrated into a branch*. Accordingly, these structures are not “light strings” as we have construed the term. Therefore, Petitioner has not shown, on this record, that Otto and

Smith describe “light strings” as required by independent claims 1 and 7. Petitioner does not argue that any of the other references describe or render obvious an artificial tree as claimed and specifically having a “light string.”

4. Conclusion

Petitioner has not demonstrated, on this record, that the prior art describes each element of independent claims 1 and 7, or of claims 2–6 and 8–15, which depend therefrom.

III.ORDER

In view of the foregoing, it is hereby:

ORDERED that no *inter partes* review of the ’187 patent is instituted and that all grounds set forth in the Petition challenging the ’187 patent are *denied*.

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