UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SHAWN B. BENSON

Appeal 2007-3082
Application 10/935,444
Technology Center 3700

Decided: August 29, 2008

Before HUBERT C. LORIN, LINDA E. HORNER, and
JOSEPH A. FISCHETTI, *Administrative Patent Judges*.

FISCHETTI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant seeks our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 1-58. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

SUMMARY OF DECISION

We AFFIRM-IN-PART.

THE INVENTION

Appellant claims a golf club which is extensible in length by using segments to lengthen the club shaft. (Specification 1:15-17.)

Claims 1, 16, 30, and 45, reproduced below, are representative of the subject matter on appeal.

> 1. An extensible golf club comprising:
> a club head presenting a substantially flat ball-striking surface configured to strike a golf ball;
> a handle; and
> a shaft including upper and lower shaft sections that cooperatively present a common axis along which each of the sections extends, with the handle being fixed to the upper shaft section and the club head being fixed to the lower shaft section so as to be spaced a distance from the handle,
> said shaft including at least one spacer selectively connectable between the upper and lower shaft sections to increase the distance between the handle and the club head, with the at least one spacer presenting a spacer axis that is at least substantially aligned with the common axis when the at least one spacer is connected between the upper and lower shaft sections,
> said shaft operable in both a non-extended condition in which the spacer is removed from the shaft sections and an extended

condition in which the spacer is connected between the upper and lower shaft sections.

16. An extensible golf club comprising:
a club head presenting a substantially flat ball-striking surface configured to strike a golf ball;
a handle; and
a shaft including upper and lower shaft sections that cooperatively present a common axis along which each of the sections extends, with the handle being fixed to the upper shaft section and the club head being fixed to the lower shaft section so as to be spaced a distance from the handle,
said shaft including at least one spacer selectively and non-telescopically connectable between the upper and lower shaft sections to increase the distance between the handle and the club head, with the at least one spacer presenting a spacer axis that is at least substantially aligned with the common axis when the at least one spacer is connected between the upper and lower shaft sections.

30. An extensible golf club comprising:
a club head presenting a substantially flat ball-striking surface configured to strike a golf ball;
a handle; and
a shaft including upper and lower shaft sections that cooperatively present a common axis along which each of the sections extends, with the handle being fixed to the upper shaft section and the club head being fixed

to the lower shaft section so as to be spaced a distance from the handle,

said shaft including at least one spacer connected between the upper and lower shaft sections to increase the distance between the handle and the club head, with the at least one spacer presenting a spacer axis that is at least substantially aligned with the common axis,

at least one of the shaft sections and the at least one spacer being releasably connected so that the at least one of the shaft sections can be removed from the at least one spacer.

45. An extensible golf club comprising:

a club head presenting a substantially flat ball-striking surface configured to strike a golf ball;

a handle; and

a shaft including upper and lower shaft sections, with the handle being fixed to the upper shaft section and the club head being fixed to the lower shaft section so as to be spaced a distance from the handle,

said shaft including a plurality of spacers for selectively interconnecting the upper and lower shaft sections, with the distance between the club head and the handle being adjustable by varying the number of spacers connected between the shaft sections.

THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Lesher	US 3,722,604	Mar. 27, 1973
Arkin	US 3,829,092	Aug. 13, 1974

The following rejections are before us for review:

1. Claims 1-6, 13-20, 28-34, 42-49, 57, and 58 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Arkin or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Arkin.
2. Claims 7-12, 21-27, 35-41, and 50-56 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Arkin in view of Lesher.

ISSUES

The first issue before us is whether Appellant has shown that the Examiner erred in rejecting claims 1-6, 13-20, 28-34, 42-49, 57, and 58 under 35 U.S.C. § 102(b) as anticipated by Arkin. This anticipation issue turns on whether Arkin expressly or inherently discloses removable and/or non-telescopically connectable spacers to adjust the length of the club shaft.

The second issue is whether Appellant has sustained his burden of showing that the Examiner erred in rejecting claims 1-6, 13-20, 28-34, 42-49, 57, and 58 as being unpatentable under 35 U.S.C. § 103(a) over Arkin. This rejection again turns on whether Arkin discloses removable and/or non-telescopically connectable spacers to adjust the length of the club shaft.

The third issue is whether Appellant has sustained his burden of showing that the Examiner erred in rejecting claims 7-12, 21-27, 35-41, and 50-56 as being unpatentable under 35 U.S.C. § 103(a) over Arkin in view of Lesher. This rejection turns on whether a person with ordinary skill in the art would have modified Arkin to include removable and/or non-telescopically connectable spacers to adjust the length of the club shaft.

FINDINGS OF FACT

1. Arkin discloses that

> [t]he telescopic shaft **10** is formed of a plurality of telescopic sections and, as shown in FIGS. **1** and **2**, comprises five sections designated by the numerals **48**, **50**, **52**, **54** and **56**. The outermost section **56** is closed at its outer end and forms the handle and the innermost section **48** has the means whereby it is detachably secured to the shank **16** of the iron head **12**.

(Arkin, col. 2, ll. 37-43.)

2. Arkin discloses that

> [t]he collapsible shaft is formed of tubular sections made preferably of metal. The innermost section **48** has the smallest diameter and the diameter of each section increases progressively with the handle section **56** having the greatest diameter so that the sections can be collapsed. Since all of the sections are generally similar in

> construction and operation, only two adjacent sections will be described in detail, the same general description being applicable to the remaining sections.

(Arkin, col. 3, ll. 39-47.)

3. Lesher discloses a direct connection between two axially extending rod segments whereby one end 2 of a rod segment is circumferentially reduced and externally threaded and is received in to an internally threaded socket 3 in the connecting member 4 of the handle 5, and the other end of the rod segment has an internally threaded socket 6 to receive the externally threaded shaft 2 of the next section 7 (Lesher, col. 1, ll. 24-31; Fig. 2).

PRINCIPLES OF LAW

Claim Construction

During examination of a patent application, pending claims are given their broadest reasonable construction consistent with the specification. *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969); *In re Am. Acad. of Sci. Tech Ctr*., 367 F.3d 1359, 1364 (Fed. Cir. 2004).

Although a patent applicant is entitled to be his or her own lexicographer of patent claim terms, in *ex parte* prosecution it must be within limits. *In re Corr*, 347 F.2d 578, 580 (CCPA 1965). The applicant must do so by placing such definitions in the specification with sufficient clarity to provide a person of ordinary skill in the art with clear and precise notice of the meaning that is to be construed. *See also In re Paulsen*, 30

F.3d 1475, 1480 (Fed. Cir. 1994) (although an inventor is free to define the specific terms used to describe the invention, this must be done with reasonable clarity, deliberateness, and precision; where an inventor chooses to give terms uncommon meanings, the inventor must set out any uncommon definition in some manner within the patent disclosure so as to give one of ordinary skill in the art notice of the change).

Anticipation

"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), *cert. denied*, 484 U.S. 827 (1987).

Obviousness

"Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 127 S. Ct. at 1734 ("While the sequence of these

questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.")

In *KSR*, the Supreme Court emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," *id.* at 1739, and discussed circumstances in which a patent might be determined to be obvious. In particular, the Supreme Court emphasized that "the principles laid down in *Graham* reaffirmed the 'functional approach' of *Hotchkiss*, 11 How. 248." *KSR*, 127 S. Ct. at 1739 (citing *Graham*, 383 U.S. at 12 (emphasis added)), and reaffirmed principles based on its precedent that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* The Court explained:

> When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

Id. at 1740. The operative question in this "functional approach" is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.*

The Supreme Court stated that there are "[t]hree cases decided after *Graham* [that] illustrate the application of this doctrine." *Id.* at 1739. "In *United States v. Adams*, … [t]he Court recognized that when a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result." *Id.* at 1739-40. "*Sakraida* and *Anderson's-Black Rock* are illustrative – a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.* at 1740.

The Supreme Court stated that "[f]ollowing these principles may be more difficult in other cases than it is here because the claimed subject matter may involve more than the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement." *Id.* The Court explained:

> Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.

Id. at 1740-41. The Court noted that "[t]o facilitate review, this analysis should be made explicit." *Id.* (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) ("[R]ejections on obviousness grounds cannot be sustained by

mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness")). However, "the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ."

ANALYSIS

The rejections are affirmed as to claims 45-57 and reversed as to claims 1-44 and 58.

Rejections based on Arkin alone

Claims 1-6, 13-15

Claim 1 requires that the shaft be operable in both a non-extended condition in which the spacer is removed from the shaft sections and an extended condition in which the spacer is connected between the upper and lower shaft sections.

Appellant's Specification does not specifically define the term spacer, nor does it utilize the term contrary to its customary meaning. *Merriam Webster's Collegiate Dictionary* (10th Ed.) defines spacer as: "*to place at intervals or arrange with space between.…*" Thus, we read the term spacer as a noun which requires the existence of an interruption or spacing between two otherwise consecutively connected elements, in this case as between shaft sections, each separated by a spacer. Appellant argues that in Arkin, "… the outermost section 56 'is closed at its outer end' such that the sections

48, 50, 52, 54, 56 are not removable from each other (Arkin '092 Specification, Col. 2, L 40-5; FIG. 1)" (Appeal Br. 13). We find that the tubular sections 48, 50, 52, 54, and 56 which make up the shaft 10 in Arkin cannot be read as removable such that each creates a space as occurs between Appellant's otherwise axially connected shaft sections 20 and 12. This is because each telescoped section in Arkin must connect to its immediately adjacent section as fabricated because the shaft has a progressively increasing diameter (FF 2) which requires that successively ordered sections remain connected as fabricated. The removal any one section would cause a mismatch in the end diameters of the sections and thereby prohibit the shaft from being connected at this point. Thus, claim 1 is not anticipated by Arkin under 35 U.S.C. § 102(b).

Since claims 2-6 and 13-15 depend from claim 1, we cannot sustain the rejection of these claims either under 35 U.S.C. § 102(b).

Regarding the rejection made in the alternative of claims 1-6, 13-15 under 35 U.S.C. § 103(a), we cannot sustain the rejection under 35 U.S.C. § 103(a) because a person with ordinary skill in the art would not remove a shaft segment in Arkin as required by claim 1 because such removal would result in a disconnected shaft which cannot be reconnected without the removed segment.

Thus, the rejection of claim 1 under 35 U.S.C. § 103(a) cannot be sustained. Since claims 2-6, 13-15 depend from claim 1, we cannot sustain the rejection of these claims either under 35 U.S.C. § 103(a).

Claims 16-20, 28 and 29

Claim 16 requires that the shaft include at least one spacer selectively and non-telescopically connectable between the upper and lower shaft sections. For the reasons set forth above, we do not read the shaft sections 48, 50, 52, 54, and 56 in Arkin as selectably connectable because each is prescribed to a given orientation along the length of the shaft 10. Second, as found *supra* (FF 1) the shaft 10 of Arkin is formed from five *telescopically* connected sections, and thus has a structure which is inconsistent with the requirement of claim 16, namely that the spacers have a non-telescopic connection. Further, in Arkin, the shaft sections remain connected to each other even in their collapsed condition (FF 1, 2), and hence are not "selectively connectable" as required by claim 16. Thus, claim 16 is not anticipated by Arkin under 35 U.S.C. § 102(b).

Since claims 17-20, 28 and 29 depend from claim 16, we cannot sustain the rejection of these claims either under 35 U.S.C. § 102(b).

Regarding the rejection made in the alternative of claims 16-20, 28 and 29 under 35 U.S.C. § 103(a), we cannot sustain the rejection under 35 U.S.C. § 103(a) because we see no apparent reason why a person with ordinary skill in the art would consider modifying the shaft segments in Arkin to be selectively and non-telescopically connectable as required by claim 16 given that removal of one or more segments would result in a

disconnected shaft which cannot be reconnected without the removed segment(s).

Hence, the rejection of claim 16 under 35 U.S.C. § 103(a) cannot be sustained. Since claims 17-20, 28 and 29 depend from claim 16, we cannot sustain the rejection of these claims either under 35 U.S.C. § 103(a).

Claims 30-34, 42-44

Claim 30 requires at least one of the shaft sections and the at least one spacer being releasably connected so that the at least one of the shaft section can be removed from the at least one spacer. As discussed above, the tubular sections 48, 50, 52, 54 and 56 which make up the shaft 10 in Arkin are not releasably connected. This is because each telescoped section in Arkin must connect and stay connected to the section which is immediately adjacent it because the tube has a progressively increasing diameter which requires linking of one successively ordered section with the other as fabricated, and hence removal or causing a space between any section, would disrupt the consecutive connections of the sections ordered by diameter at their mating ends. Thus, claim 30 is not anticipated by Arkin under 35 U.S.C. § 102(b).

Since claims 31-34 and 42-44 depend from claim 30, we cannot sustain the rejection of these claims either under 35 U.S.C. § 102(b).

Regarding the rejection made in the alternative of claims 30-34 and 42-44 under 35 U.S.C. § 103(a), we cannot sustain the rejection under 35

U.S.C. § 103(a) because we see no apparent reason why a person with ordinary skill in the art would consider modifying the shaft segments in Arkin to be releasably connected so that the at least one of the shaft sections can be removed from the at least one spacer as required by claim 30 given that removal of one or more segments would result in a disconnected shaft which cannot be reconnected without the removed segment(s).

Hence, the rejection of claim 30 under 35 U.S.C. § 103(a) cannot be sustained. Since claims 31-34 and 42-44 depend from claim 30, we cannot sustain the rejection of these claims either under 35 U.S.C. § 103(a).

Claims 45-49, 57 and 58

We sustain the rejection of claim 45 under 35 U.S.C. § 102(b) as anticipated by Arkin. Claim 45[1] only requires that the shaft include a plurality of spacers for selectively interconnecting the upper and lower shaft sections, with the distance between the club head and the handle being adjustable by varying the number of spacers connected between the shaft sections.

We read in Arkin the selective extension of one of the sections of the tubular sections 48, 50, 52, 54 and 56 which make up the shaft 10 in Arkin to selectively interconnect the upper and lower shaft members by varying the number of sections which are extended and hence connect with the end

[1] Claim 45 does not recite the limitations of the other independent claims, namely, a spacer which is removable and/or one that non-telescopically connects to adjacent shaft segments.

sections. In other words, in Arkin those tubular sections which are selected to extend cause the shaft handle length to be adjusted and connect to the upper and lower shaft sections via their extended positions.

We also affirm the rejection of dependent claims 46-49 and 57 under 35 U.S.C. § 102(b) since Appellant has not challenged such with any reasonable specificity (*see In re Nielson*, 816 F.2d 1567, 1572 (Fed. Cir. 1987)).

Regarding the rejection made in the alternative of claims 45-49 and 57 under 35 U.S.C. § 103(a), we sustain the rejection under 35 U.S.C. § 103(a) because a disclosure that anticipates under 35 U.S.C. § 102 also renders the claim unpatentable under 35 U.S.C. § 103, for anticipation is the epitome of obviousness. *See In re Pearson*, 494 F.2d 1399, 1402 (CCPA 1974); and *In re Fracalossi*, 681 F.2d 792, 794 (CCPA 1982).

Appellant does argue separately that claim 58 requires that the spacers be non-telescopically connectable between the upper and lower shaft sections and this is not shown or suggested by Arkin. (Appeal Br. 21.) We agree with Appellant. As discussed with respect to claim 16, the shaft segments in Arkin are telescopically connectable so the shaft can collapse within itself (FF 2) and thus do not meet the requirement of claim 58 that the spacers be non-telescopically connectable. Thus, we do not sustain the rejections of claim 58 under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a) for the reasons set forth above with respect to claim 16.

Rejection under 35 U.S.C. § 103(a) using Arkin in view of Lesher.

We do not sustain the rejections of claim 7-12, 21-27, and 35-41 under 35 U.S.C. § 103(a) as being unpatentable over Arkin in view of Lesher. Even assuming that one having ordinary skill in the art were to replace the telescoping connections of Arkin with the threaded connections of Lesher, the combination would still fail to cure the deficiencies noted above in the prior art with respect to claims 1, 16, and 30, from which these rejected claims depend. In particular, we see no reason why one having ordinary skill in the art would be led to modify Arkin to make the segments selectively connectable or releasably connected, as recited in claims 1, 16, and 30, in view of the teachings of Lesher. Accordingly, we cannot sustain the rejection of claims 7-12, 21-27, and 35-41 under 35 U.S.C. § 103(a) as being unpatentable over Arkin in view of Lesher.

With regard to claims 50-56, Appellant has not persuaded us of error in the Examiner's rejection. Appellant argues that Lesher is non-analogous art. We disagree. Both references relate to extending or shortening shafts and connections between adjacent shaft segments. As such, Lesher addresses the problem of variable length shafts using a plurality of sections and connecting these sections together (FF 3). Appellant further rebuts the Examiner's determination that one having ordinary skill in the art would have been led to combine the teachings of the prior art. We agree with the rationale articulated by the Examiner that the threaded connection taught by Lesher is a known equivalent way of connecting shaft segments in lieu of a telescopic

connection. *KSR*, 127 S. Ct. 1740 ("when a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.") Accordingly, we sustain the rejection of claims 50-56 under 35 U.S.C. § 103(a) as being unpatentable over Arkin in view of Lesher.

CONCLUSION

We conclude:

We affirm the rejection of claims 45-49, and 57 under 35 U.S.C. § 102(b) as being anticipated by Arkin or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Arkin, and reverse the rejection of claims 1-6, 13-20, 28-34, and 42-44 and 58 made on the same grounds.

We affirm the rejection of claims 50-56 under 35 U.S.C. § 103(a) as being unpatentable over Arkin in view of Lesher, and reverse the rejection of claims 7-12, 21-27, and 35-41 made on the same grounds.

DECISION

The decision of the Examiner to reject claims 45-57 is AFFRIMED.

The decision of the Examiner to reject claims 1-44 and 58 is REVERSED.

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-IN-PART

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