

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS J. KENNEDY, III

Appeal No. 2004-0240
Application No. 09/730,867

ON BRIEF

Before GARRIS, TIMM, and JEFFREY T. SMITH, Administrative Patent Judges.

GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the final rejection of claims 1-9 which are all of the claims in the application.

The subject matter on appeal relates to a golf ball dimple. With reference to the Appellant's drawing, the dimple comprises an outer edge 12 and a concavity 14, the diameter x of the outer edge being less than the diameter y of a portion of the concavity beneath the outer edge, thereby to be define an undercut portion 16 of the dimple which increases the turbulence of the golf ball surface to reduce drag and increase the distance the ball will

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travel when struck. This appealed subject matter is adequately illustrated by independent claim 1 which reads as follows:

1. A dimple arranged in a spherical surface of a golf ball, comprising an outer edge defining a geometric configuration at the intersection with the spherical surface and a concavity in the ball surface, the diameter of the outer edge being less than the diameter of a portion of said concavity beneath said outer edge, thereby to define an undercut portion of the dimple beneath the surface of the golf ball, said undercut portion increasing the turbulence at the golf ball surface to reduce drag and increase the distance the ball will travel when struck.

The references set forth below are relied upon by the

Examiner as evidence of obviousness:

Miller	1,795,732	Mar. 10, 1931
Oka et al. (Oka)	5,174,578	Dec. 29, 1992

Hotchkiss, 500 Years of Golf Balls: History & Collector's Guide, pp. 78-80, 115-23 (Antique Trader Books, 1997).

Claims 1-4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hotchkiss in view of Miller. According to the Examiner, "it would have been obvious, in view of Miller, to one having ordinary skill in the art at the time the invention was made to modify the recesses of a conventional golf ball having concave bottoms so as to be undercut enough to permit the entry of concave, shiny, colored spangles to enable the ball to be more easily seen" (answer, page 5).

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Claims 5-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Oka in view of Hotchkiss and Miller. The Examiner concludes that "it would have been obvious, in view of Miller, to one having ordinary skill in the art at the time the invention was made to modify the recess of a golf ball such as that of Oka . . . having concave bottoms so as to be undercut enough to permit the entry of concave spangles to enable the ball to be more easily seen" (answer, page 7).

A more complete exposition of the Examiner's viewpoint as well as the opposing position expressed by the Appellant are set forth in the answer as well as the brief and reply brief.

OPINION

We cannot sustain either of the above noted rejections.

We share the Appellant's fundamental viewpoint that the applied references contain no teaching or suggestion for combining them in the manner proposed by the Examiner. With respect to each of the rejections before us, the Examiner concludes that "it would have been obvious, in view of Miller, . . . to modify the recesses of . . . [the Hotchkiss or the Oka] golf ball having concave bottoms so as to be undercut enough to permit the entry of concave . . . spangles to enable the ball to

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be more easily seen" (answer, page 5 as well as page 7). Like the Appellant, however we do not believe Miller would have suggested such a modification.

This is because Miller contains no teaching or suggestion of golf ball recesses which have "concave bottoms" or of golf ball recesses which are associated with "concave . . . spangles" (id.).

In the Miller golf ball, the recesses 2 and the corresponding spangles 4 are convex, like the outer surface of the ball 1, rather than concave (e.g., see figure 3 and the disclosure relating thereto). Moreover, it is significant that the Examiner has failed to explain why the convex recesses and spangles of Miller would have suggested providing concave recesses with concave spangles. This failure by the Examiner is particularly significant since the above discussed deficiencies of Miller were expressly argued by the Appellant (e.g., see the last two sentences in the last full paragraph on page 5 of the brief).

On the record before us, it is only the Appellant's own disclosure which teaches any reason for providing a concave recess or dimple with an undercut portion as required by the claims on appeal. For this reason and in light of the

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infirmities of Miller, it is our determination that the Examiner has formulated the rejections before us based upon impermissible hindsight. See W.L. Gore & Assocs. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). It follows that we cannot sustain the Examiner's Section 103 rejections of claims 1-4 based on Hotchkiss in view of Miller and of claims 5-9 based on Oka in view Hotchkiss and Miller.

The decision of the examiner is reversed.

REVERSED

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BRADLEY R. GARRIS)	
Administrative Patent Judge)	BOARD OF PATENT
)	APPEALS AND
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CATHERINE TIMM)	
Administrative Patent Judge)	

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JEFFREY T. SMITH, Administrative Patent Judge, dissenting.

I respectfully dissent from the majority's decision to reverse the prior art rejections advanced by the Examiner on this appeal.

I share the Examiner's conclusion that it would have been obvious for one with ordinary skill in this art to include a spangle in at least one of the recesses of a conventional golf ball. The spangles being held in place by an undercut area in the recess.

The subject matter of claim 1 is directed to an undercut dimple arranged in a spherical surface of a golf ball. The subject matter of claim 5 is directed to a golf ball containing at least one undercut dimple. It is noted that the claimed invention does not contain information describing the angle of the wall of the undercut dimple. It is further noted that the present record does not contain data that exhibits the alleged improvement in flight of the golf ball that is achieved by the use of one undercut dimple.

The Examiner has advanced motivation for incorporating a spangle in at least one of the recesses of a conventional golf ball. The spangles are held in place by an undercut area in the recesses. For each ground of rejection, the Examiner urges that

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a person having ordinary skill in the art would have been motivated to incorporate a spangle in at least one of the recesses of a conventional golf ball to enable the ball to be more easily seen. Specifically, the Examiner determined that a person having ordinary skill in the art would have been motivated to use a concave spangle to fill a concave recess of a conventional golf ball. (Answer, pages 5 and 7).

Appellant argues that there is no motivation to combine the teachings of Hotchkiss and Miller and these references do not encompass, teach or suggest the claimed invention. Specifically, Appellant states "the most striking difference is the characterizing feature of the claims, namely an undercut dimple. In the claimed invention, the dimple is a 'concavity in the ball surface' and the undercut portion is defined by the diameter of the concavity being greater than the diameter of the outer edge of the dimple. Hotchkiss does not disclose undercut dimples and Miller does not disclose any dimples whatsoever. Moreover, Miller's 'recesses' are not concavities. In fact, spangles which are arranged in Miller's recesses have a convex outer surface." (Brief, p. 5).

The Examiner provides a dictionary definition for a dimple as a "depression or indentation on a surface" and an indentation

as a "recess in a surface." (Answer, p. 8). The Examiner determined that the terms are interchangeable and teachings of Miller are pertinent to the subject matter of the claimed invention. (Id.). Appellant has failed to refute the Examiner's determinations. (Note, Reply Brief). Appellant also has not argued that Miller's undercut recess is not sufficient to reduce drag and increase the distance the ball will travel when struck.

The present record indicates that a person of ordinary skill in the art would have also recognized, based on the teachings of Miller, that the inclusion of spangles in the recesses of a golf ball would provide better visibility of the ball when hidden in the grass. (See Miller, page 1, lines 12-15). A person of ordinary skill in the art would have recognized that dimples function to effect the flight distance of golf balls. (See Hotchkiss and the prior art cited in the specification, page 2). Further, a person of ordinary skill in the art would have recognized that the shape of the dimple effects the golf ball flight and aerodynamic performance. (See Hotchkiss and the prior art cited in the specification, page 2). A person of ordinary skill in this art would have reasonably expected that the use of a spangle shaped and arranged in a dimple, as described in the prior art, would each produce the same effect as when used

individually and would supplement each other.¹ "For obviousness under § 103, all that is required is a reasonable expectation of success." In re O'Farrell, 853 F.2d 894, 904, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988). Thus, a person of ordinary skill in this art who wanted to achieve the advantages of improvement in flight distance of golf balls and improved visibility would have been motivated to incorporate spangles in at least one of the recesses of a conventional golf ball.

Miller discloses that an undercut area in the recesses prevents the spangles from being loosened at their edges. (Pg. 1, ll. 58-61). Thus, the idea of using an undercut area in the a dimple of a conventional golf ball to secure the spangle would have been obvious to a person of ordinary skill in the art who wanted to achieve the advantages of a golf ball having improvement in flight distance, improved visibility and security of the spangle.

It is the position of the majority that Miller does not teach or suggest a golf ball having recesses which have concave bottoms or golf ball recesses which are associated with concave spangles. (Slip Op., page 4). Further the majority states "[i]n

¹Miller, page 1 lines 56-57, recognizes the suitability of the spangle taking the shape of the recess.

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the Miller golf ball, the recesses 2 and the corresponding spangles 4 are convex, like the outer surface of the ball 1, rather than concave (e.g., see figure 3 and the disclosure relating thereto)." (Id.).

"The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art." In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). See also In re Sneed, 710 F.2d 1544, 1550, 218 USPQ 385, 389 (Fed. Cir. 1983) ("[I]t is not necessary that the inventions of the references be physically combinable to render obvious the invention under review."); and In re Nievelt, 482 F.2d 965, 968, 179 USPQ 224, 226 (CCPA 1973) ("Combining the *teachings* of references does not involve an ability to combine their specific structures.") As stated above, a person of ordinary skill in this art who wanted to achieve the advantages of improvement in flight distance of golf balls, improved visibility and security of the spangle would have been motivated to incorporate a spangle in at least one undercut recess of a conventional golf ball.

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For the reasons set forth above and in the answer, I believe the Examiner has established a prima facie case of obviousness within the meaning of 35 U.S.C. § 103 with respect to at least appealed claims 1 and 5. I express no view concerning the other claims on appeal since the obviousness versus nonobviousness of these claims has not been separately addressed by the majority.

In light of the foregoing, I would uphold the Examiner's Section 103 rejections, for the reasons provided above and by the Examiner.

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