

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RICHARD AVIS

Appeal No. 2005-1335
Application No. 10/128,266

HEARD: July 13, 2005

Before MCQUADE, CRAWFORD, and BAHR, Administrative Patent Judges.
MCQUADE, Administrative Patent Judge.

DECISION ON APPEAL

Richard Avis appeals from the final rejection of claims 1 through 45, all of the claims pending in the application.

THE INVENTION

The invention relates to "a game ball that includes bridged, non-equilateral, hexagonal panels" (specification, page 1).

Representative claim 1 reads as follows:

1. A game ball including a plurality of panels connected along abutting edges, said plurality of panels comprising a bridged panel formed of two seamlessly-joined non-equilateral, hexagonal portions, said bridged panel defining a plurality of edges, each said edge having a length selected from a short length and a long length, a ratio of said short length to said long length being selected to provide substantially equal values of material stress and degree of stretch in said plurality of panels.

THE PRIOR ART

The references relied on by the examiner to support the final rejection are:

| | | |
|-----------------------------|-----------|---------------|
| Schaper et al. (Schaper) | 5,674,149 | Oct. 07, 1997 |
| Schwaner | 5,709,623 | Jan. 20, 1998 |

THE REJECTION

Claims 1 through 45 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Schaper in view of Schwaner.

Attention is directed to the main brief filed June 16, 2004 and the reply brief filed November 18, 2004 and to the Office action mailed November 4, 2003 and the answer mailed September 21, 2004 for the respective positions of the appellant and the examiner regarding the merits of this rejection.

DISCUSSION

Schaper, the examiner's primary reference, discloses an inflatable game ball, e.g., a soccer ball, constructed of a plurality of hexagonal and pentagonal panels stitched together along adjacent edges and dimensioned so as to be subject to essentially equal material stresses and degrees of stretch when the ball is inflated. Schaper describes the ball as follows:

The ball according to the invention is composed of twelve equilateral pentagonal parts 1 and twenty hexagonal parts 2, each pentagon being connected to five hexagons and each hexagon being connected to three other hexagons and three pentagons.

According to the invention, the hexagons are equiangular, but not equilateral, the ratio between the length of the relatively short cathetuses b and the length of the relatively long cathetuses a being at least 0.69 and preferably 0.839. The length of the long cathetuses a corresponds to the length of a side of a pentagon. It has been established that by choosing $0.69a < b < a$, the difference in material stress and material stretch in the pentagons and hexagons of an inflated ball is smaller than when b is smaller than $0.69a$ or greater than a . When the preferred value $b = 0.839a$ is used, the material stress and the degree of stretch in the hexagons, in the inflated state of the ball, are virtually equal to the material stress and the degree of stretch in the pentagons. As long as the value of b is in the said range between a and $0.69a$, the difference in material stress and degree of stretch will be less than when a and b are equal, i.e. when the hexagons are [equilateral] [column 2, lines 10 through 31].

As conceded by the examiner, Schaper does not respond to the limitations in independent claim 1, or the corresponding limitations in independent claims 11, 22, 30, 33, 38 and 43, requiring a bridged panel formed of two seamlessly-joined hexagonal portions. To account for these differences, the examiner turns to Schwaner.

Schwaner also discloses an inflatable game ball, e.g., a soccer ball, designed to retain the spherical symmetry afforded

by a conventional ball composed of twenty separately formed hexagonal portions and twelve separately formed pentagonal portions while reducing the number of seams on the ball and the manufacturing inefficiencies and structural drawbacks associated therewith (see, for example, column 1, line 23, through column 2, line 9). To this end, Schwaner provides a ball wherein the twenty hexagonal portions (or three-arm stars) are embodied in one, two, five or ten integrally (i.e., seamlessly) formed pieces (see Figures 2 and 3, Figures 8 and 9, Figures 4 and 5, and Figures 6 and 7, respectively).

In proposing to combine Schaper and Schwaner to reject the appealed claims, the examiner submits that it would have been obvious to one of ordinary skill in the art "to eliminate the seam between the adjacent hexagonal portions [in the Schaper ball] for the reasons advanced by Schwaner" (Office action mailed November 4, 2003, page 3).

Generally speaking, the combined teachings of Schaper and Schwaner would have provided the artisan with ample motivation or suggestion to utilize seamlessly joined hexagonal portions of the sort disclosed by Schwaner in place of the separately formed hexagonal portions disclosed by Schaper in order to take

advantage of the manufacturing and structural integrity benefits discussed by Schwaner. As so modified in light of the Schwaner embodiment having ten integrally formed pieces, each consisting of two hexagonal portions, the Schaper ball would respond to all of the limitations in claim 1 including the one requiring a bridged panel formed of two seamlessly-joined hexagonal portions. The appellant's arguments to the contrary are not persuasive because they focus on the Schwaner embodiment having one integrally formed piece consisting of twenty hexagonal portions to the exclusion of the embodiment having the ten integrally formed portions.

Accordingly, we shall sustain the standing 35 U.S.C. § 103(a) rejection of independent claim 1 as being unpatentable over Schaper in view of Schwaner.

We also shall sustain the standing 35 U.S.C. § 103(a) rejection of dependent claims 2 through 10 as being unpatentable over Schaper in view of Schwaner since the appellant has not challenged such with any reasonable specificity, thereby allowing these claims to stand or fall with parent claim 1 (see In re Nielson, 816 F.2d 1567, 1572, 2 USPQ2d 1525, 1528 (Fed. Cir. 1987)).

We shall not sustain, however, the standing 35 U.S.C. § 103(a) rejection of independent claims 11, 22, 30, 33, 38 and 43, and dependent claims 12 through 21, 23 through 29, 31, 32, 34 through 37, 39 through 42, 44 and 45, as being unpatentable over Schaper in view of Schwaner.

Each of independent claims 11, 22, 30, 33, 38 and 43 recites a game ball including at least one hexagonal panel in addition to at least one bridged panel formed of two seamlessly-joined hexagonal portions. As indicated above, the Schaper ball does not have any bridged panels and the Schwaner ball does not have any hexagonal panels. The only suggestion for selectively combining these prior art balls so as to arrive at a ball having at least one hexagonal panel and at least one bridged panel formed of two seamlessly-joined hexagonal portions as recited in independent claims 11, 22, 30, 33, 38 and 43 stems from hindsight knowledge impermissibly derived from the appellant's disclosure. Hence, the examiner's conclusion that the subject matter recited in claims 11 through 45 would have been obvious within the meaning of § 103(a) is unsound.

SUMMARY

The decision of the examiner to reject claims 1 through 45 is affirmed with respect to claims 1 through 10 and reversed with respect to claims 11 through 45.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

| | | |
|-----------------------------|---|-----------------|
| JOHN P. MCQUADE |) | |
| Administrative Patent Judge |) | |
| |) | |
| |) | |
| |) | |
| |) | BOARD OF PATENT |
| MURRIEL E. CRAWFORD |) | APPEALS |
| Administrative Patent Judge |) | AND |
| |) | INTERFERENCES |
| |) | |
| |) | |
| |) | |
| JENNIFER D. BAHR |) | |
| Administrative Patent Judge |) | |

Appeal No. 2005-1335
Application No. 10/128,266

Page 9

BANNER & WITCOFF, LTD.
1001 G STREET, N.W.
WASHINGTON, DC 20001-4597