

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte HIDENORI HIRAOKA, KAZUSHIGE SUGIMOTO,  
TSUTOMU HIRAM and YOSHIMASA KOIZUMI

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Appeal No. 2001-0030  
Application No. 08/685,680

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HEARD: May 21, 2002

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Before GARRIS, PAWLIKOWSKI and NAGUMO, Administrative Patent Judges.  
GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the final rejection of claims 1-5, which are all of the claims in the application.

The subject matter on appeal relates to a golf ball comprising a core and a cover. This appealed subject matter is adequately illustrated by independent claim 1 which reads as follows:

1. A golf ball comprising a core and a cover covering the core, wherein

the core consists essentially of a vulcanized molded article of a rubber composition comprising 100 parts by weight of a base rubber containing not less than 80% by weight of a butadiene rubber having not less than 80 molar by % of cis-1,4 bond, 10 to 30 parts by weight of calcium carbonate, 18 to 35 parts by weight of zinc acrylate or methacrylate and 0.5 to 2.5 parts by weight of a peroxide, and

the cover is made from a resin composition having a flexural modulus of 1,400 to 3,800 kgf /cm<sup>2</sup>, wherein

the total volume of dimples of the cover is from 250 to 400 mm<sup>3</sup>.

The references relied upon by the examiner as evidence of obviousness are:

Fujio et al. (Fujio)	4,169,599	Oct. 02, 1979
Kamata et al. (Kamata)	4,611,810	Sep. 16, 1986
Melvin et al. (Melvin)	4,679,795	Jul. 14, 1987
Molitor	4,726,590	Feb. 23, 1988
Yamada et al. (Yamada '038)	4,968,038	Nov. 06, 1990
Sullivan et al. (Sullivan '060)	5,116,060	May 26, 1992
Yamada et al. (Yamada '637)	5,127,655	Jul. 06, 1992
Sullivan (Sullivan '637)	5,387,637	Feb. 07, 1995

Claims 1-5 stand rejected under 35 U.S. C. § 103 as being unpatentable over any one of Molitor, Kamata or Sullivan '637 in view of Yamada '038 or Yamada '655, and claims 1-4 stand correspondingly rejected over Sullivan '060 in view of Yamada '038 or Yamada '655.<sup>1</sup>

We refer to the brief and to the answer for a complete exposition of the opposing viewpoints expressed by the appellants and by the examiner concerning the above-

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<sup>1</sup> At least some of the appealed claims have been separately grouped and argued with respect to the above-noted rejections, and therefore we have individually considered these separately grouped and argued claims in our disposition of this appeal. See 37 CFR 1.192(c)(7)(8)(1998).

noted rejections.

### OPINION

For the reasons expressed in the answer and below, we will sustain each of the rejections before us in this appeal.

It is the examiner's basic position that each of the applied primary references teaches (or at least would have suggested) a golf ball core of the type here-claimed but differs from the appealed claims with respect to the appellants' claimed golf ball cover. In this latter regard, the examiner finds that Yamada '038 or Yamada '655 discloses a golf ball cover corresponding to the here-claimed cover and concludes that it would have been obvious for one with ordinary skill in the art to provide the golf ball core of the respective primary references with a golf ball cover of the type and for the reasons taught by Yamada '038 or Yamada '655.

On the other hand, the appellants argue that their claimed golf ball core patentably distinguishes over those of the primary references because the latter include ingredients said to be excluded from the appealed claims by virtue of the "consisting essentially of" language in the appealed independent claim. Further, the appellants argue that no basis exists for combining the teachings of the primary references with the teachings of the secondary Yamada references in the manner proposed by the examiner.

It is well settled that the language "consisting essentially of" renders a claim open

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to unlisted ingredients that do not materially affect the basic and novel properties or characteristics of the claimed invention. PPG Industries, Inc. v. Guardian Industries Corp., 156 F.3d 1351, 1354, 48 USPQ2d 1351, 1353-54 (Fed. Cir. 1998).

With this legal premise in mind, we have carefully considered the appellants' arguments that the appealed claims exclude the prior art ingredients used in the primary reference golf ball cores. However, this argument is not well taken for the reasons thoroughly detailed by the examiner in his answer. We add the following comments for emphasis and completeness.

As correctly indicated by the examiner, many if not most of the ingredients said by the appellants to be excluded from their claims are expressly disclosed in the specification as ingredients which may be included in their golf ball core composition. For example, it is argued that the claim 1 "consisting essentially of" language excludes the stearic acid and sulfur of Kamata (see pages 9-10 of the brief), the zinc stearate of Sullivan '060 (see page 11 of the brief) and the zinc oxide of Sullivan '637 (see page 2 of the supplemental brief). Because each of the aforementioned ingredients is expressly disclosed in the subject specification (see pages 5 and 6) as possible additives to their golf ball core composition, the appellants are in no position to urge that these ingredients are excluded by the claim 1 phrase "consisting essentially of". In re Janakirama-Rao, 317 F.2d 951, 954, 137 USPQ 893, 895-96 (CCPA 1963).

Analogous reasoning applies to the isocyanate ingredient of the Molitor and Sullivan '637 golf ball cores which the appellants again argue is excluded by the

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“consisting essentially of” language in appealed claim 1. Although isocyanate is not expressly disclosed in the subject specification as an ingredient of the appellants’ golf ball core, we share the examiner’s determination that an isocyanate cross-linker, for example, of the type by Molitor (e.g., see lines 34-66 in column 4) would be properly considered a vulcanization auxiliary or adjustor of the type disclosed on lines 17-20 of specification page 6 as a possible ingredient of the appellants’ core composition. Furthermore, we agree with the examiner that the specification examples (e.g., see Table 1 on page 11) establish that the here-claimed core may include a plurality of vulcanization affecting ingredients, contrary to the appellants’ apparent belief.

As a final point concerning the isocyanate ingredient of Molitor specifically, we emphasize that the enhanced coefficient of restitution obtained by patentee’s use of this ingredient (e.g., see lines 5-11 in column 2) does not militate against a determination that the golf balls of the appealed claims and of Molitor possess the same basic and novel properties or characteristics as the appellants seem to believe. See In re Herz, 537 F.2d 549, 551, 190 USPQ 461, 463 (CCPA 1976). This is particularly so because an enhanced coefficient of restitution relates to enhanced flight distance (see lines 25-30 in column 1 of Molitor) which is one of the properties or characteristics desired by the appellants (e.g., see the abstract as well as page 1 of the subject specification).

In summary, the record before us contains substantial evidence in support of the examiner’s conclusion that the appealed claims do not exclude the prior art ingredients identified by the appellants. In re Gartside, 203 F.3d 1305, 1308, 53 USPQ2d 1769,

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1775 (Fed. Cir. 2000). On the other hand, this record contains little if any evidence in support of the appellants' burden to show that these prior art ingredients would materially affect the basic and novel characteristics of the here-claimed golf ball. In re De Lajarte, 337 F.2d 870, 874, 143 USPQ 256, 258 (CCPA 1964). Therefore, we share the examiner's conclusion that it is proper to interpret the appealed claims as not excluding such prior art ingredients.

We also discern no convincing merit in the appellants' argument that no basis exists for combining the primary reference teachings with the teachings of the secondary Yamada references. From our perspective, an artisan of ordinary skill would have been motivated to provide the golf ball cores of the primary references with the golf ball covers of Yamada '038 or Yamada '655 in order to obtain the benefits of such covers which are expressly taught in the Yamada references. Such benefits include

superior flight distance (e.g., see the abstracts of the Yamada references) which the artisan clearly would have considered to be desirable for the golf balls of the primary references.

For the above stated reasons and those expressed in the answer, we hereby sustain each of the § 103 rejections advanced by the examiner in this appeal.

The decision of the examiner is affirmed.

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

AFFIRMED

BRADLEY R. GARRIS	)	
Administrative Patent Judge	)	
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	)	
	)	BOARD OF PATENT
BEVERLY A. PAWLIKOWSKI	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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	)	
	)	
MARK NAGUMO	)	
Administrative Patent Judge	)	

/vsh

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