



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/680,806	03/01/2007	Guofang CAO	62593.17	5919
36596	7590	02/26/2013	EXAMINER	
LAW OFFICES OF J.F. LEE 17800 CASTLETON STREET SUITE 560 CITY OF INDUSTRY, CA 91748			THANH, LOAN H	
			ART UNIT	PAPER NUMBER
			3764	
			MAIL DATE	DELIVERY MODE
			02/26/2013	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

*Ex parte* GUOFANG CAO

---

Appeal 2010-011831  
Application 11/680,806  
Technology Center 3700

---

*Before* JOSEPH A. FISCHETTI, BIBHU R. MOHANTY, and  
PHILIP J. HOFFMANN, *Administrative Patent Judges*.

HOFFMANN, *Administrative Patent Judge*.

DECISION ON APPEAL

### STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134 from the final rejection of claims 1-5<sup>1</sup>. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

The rejected claims are directed a dumbbell head impact protection structure, which endures more force when the dumbbell is dropped or impacted as compared to a dumbbell that does not include the protection structure (Spec. 2). Claim 1 is the sole independent claim.

#### *Exemplary Claim*

Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. Dumbbell head impact protection structure, comprising:
  - a. a cylindrical dumbbell head having an annular groove removed from one end farthest from the handle bar; and,
  - b. a layer of coating material wrapped around said dumbbell head so that the coating has extra thickness at the place of said annular groove.

#### *The Rejection*

The Examiner rejects the claims as follows:

Claims 1-5 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Harms (US 7,048,678 B2, iss. May 23, 2006).

---

<sup>1</sup> Our decision will refer to Appellant's Specification ("Spec.," filed Mar. 1, 2007) and Appeal Brief ("App. Br.," filed Feb. 8, 2010), as well as the Examiner's Answer ("Ans.," mailed May. 12, 2010).

## ANALYSIS

The Examiner rejects independent claim 1, from which claims 2-5 depend, as unpatentable over Harms. Independent claim 1 recites “a layer of coating material wrapped around said dumbbell head so that the coating has extra thickness at the place of said annular groove.” Appellant argues that Harms “discloses nothing for the formation of a groove” (internal quotations omitted) (App. Br. 9). In response, the Examiner acknowledges “Harms fails to explicitly teach an annular ‘groove[,]’ instead teaching a beveled portion,” but states it would have been obvious to use an annular groove in place of the beveled portion in Harms (Ans. 3). We find that it would be an obvious expedient to have used an annular groove in place of the beveled portion in Harms, for example to adjust the weight of the dumbbell or to help retain the rubber shell 52 on the dumbbell.

Further, Figure 2 of Harms appears to show that the rubber shell 52 is thicker at the beveled portion than it is underneath the endcap 54. Thus, we find that substituting the annular groove for the beveled portion in Harms would result in “the coating ha[ving] extra thickness at the place of said annular groove” as recited in independent claim 1. Regardless, we find that it would have been obvious to make the rubber shell 52 thicker over an annular groove, for example to provide a more uniform shape to the dumbbell of Harms by avoiding a noticeable step in the outer surface of the rubber shell 52.

Appellant also argues that Harms “simply did not cover anything about Applicant’s ‘wrap around weight head,’” because in Harms the endcap 54 covers the open end of the rubber shell 52 (App. Br. 8). In response, the Examiner indicates that although the rubber shell 52 of Harms does not

Appeal 2010-011831  
Application 11/680,806

“encapsulate the dumbbell head,” the rubber shell 52 does wrap around the dumbbell head as required by claim 1 (italics omitted) (Ans. 4). We agree with the Examiner, noting that Appellant has not identified a definition of “wrapped around” in either the claim itself or the Specification, which would require the rubber shell 52 of Harms to encapsulate the dumbbell head. Thus, in view of the foregoing, we sustain the rejection of independent claim 1 under 35 U.S.C. § 103(a).

Claims 2-5 depend from independent claim 1. Thus, we affirm the rejection of claims 2-5 under 35 U.S.C. § 103(a) for the same reasons as claim 1.

#### DECISION

The Examiner’s rejection of claims 1-5 as unpatentable over Harms is **AFFIRMED**.

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).

**AFFIRMED**

Klh