

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. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PETER R. EVANS and WILLIAM TENER

Appeal No. 2000-1271
Application No. 08/861,095

HEARD: March 7, 2001

Before MCCANDLISH, Senior Administrative Patent Judge, FRANKFORT and LAZARUS, Administrative Patent Judges.

MCCANDLISH, Senior Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 1 through 3, 5, 7 through 12 and 17 through 19. No other claims are pending in the application.

Appellants' invention relates to a golf tee (claims 1-3, 5, 7, 8 and 17-19) and to a method of making a golf tee (claims 9-12). The golf tee defined in the appealed claims comprise a body (24) which is formed from a mixture of an earthen material and a biodegradable binder. According to appellants' invention, the body (24) is covered with

a biodegradable soluble coating (26).¹ Being biodegradable, the binder and the coating enable the earthen tee to “return into the ground after use by the golfer” (main brief, page 2). This action avoids the harmful effect that wooden or plastic tees have on maintenance equipment such as grass cutting equipment.

Claim 1, the only independent article claim on appeal, recites that the golf tee comprises “an earthen material; a biodegradable binder material; and a biodegradable soluble polymer coating having a desired thickness.”

A copy of the appealed claims is appended to appellants’ brief.

The following references are relied upon by the examiner as evidence of obviousness in support of his rejections under 35 U.S.C. § 103:

Whelan et al. (Whelan)	3,954,263	May 4, 1976
Desmarais	4,014,541	Mar. 29, 1977
Takeno	5,082,264	Jan. 21, 1992

Mang, Michael, et al., “Synthesis and Properties of New Biodegradable Polyesters Derived from Diacids and Diglycidyl Ethers”, The Dow Chemical Company, pgs 417-418, May 20, 1997.

The appealed claims stand rejected under § 103 as follows:

1. Claims 1-3, 5, 7, 8 and 17-19 as unpatentable over Takeno in view of Mang;
2. Claims 9-12 as unpatentable over Takeno in view of Mang and Desmarais;
3. Claims 1-3, 5, 7, 8 and 17-19 as unpatentable over Whelan in view of Mang;

¹ According to Technomic Publishing’s [Glossary of Biotechnology Terms](#) by Kimball R. Nill (2001) (see [biotechterms.org](#)), the term “biodegradable” describes “any material that can be broken down by biological action.”

4. Claims 9-12 as unpatentable over Whelan in view of Mang and Desmarais.

According to the examiner's findings (see pages 3 and 5 of the answer), both of the primary references (namely the Takeno and Whelan patents) disclose a golf tee having a coated body portion wherein the body is formed from a mixture of an earthen material and a biodegradable binder. The examiner concedes that the coatings utilized in the primary references for covering the body portion are not biodegradable. He nevertheless concludes that the teachings of Mang would have made it obvious to substitute a biodegradable soluble coating for the non-biodegradable coating in each of the primary references.

Appellants concede that Mang "discloses a biodegradable polyester coating" (main brief, page 5). However, they contend that the prior art does not suggest the substitution proposed by the examiner.

We have carefully considered the record before us together with the examiner's remarks and appellants' arguments. As a result, we conclude that the evidence adduced by the examiner is insufficient to establish a prima facie case of obviousness.

To establish a prima facie case of obviousness, the examiner must show some objective teaching in the prior art or knowledge generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to meet the terms of the claims In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

Both of the primary references recognize the problem solved by appellants, namely the damage caused by used wooden or plastic golf tees to grass mowing equipment. However, in addressing this problem, the primary references employ

different methods for exposing the earthen body of the used tee to the ground, thereby allowing the used tee to “return” to ground as appellants described the degrading process on page 2 of the main brief.

In the Takeno patent, the composition of the non-biodegradable coating for the earthen tee body is such that it will be weakened by water to allow the earthen body and the binder to effloresce. In the Whelan patent, the non-biodegradable coating is weak enough to be broken by a grass mower, thereby exposing the body of the tee to the ground. Thus, neither of these references teaches or suggests appellants’ claimed solution involving a biodegradable coating.

In contrast to the Takeno and Whelan patents, the Mang reference does not identify the article or structure to be covered by the biodegradable coating. Moreover, Mang is not concerned with a means for exposing a body to the ground to allow the body to degrade into the ground. Thus, Mang does not teach or suggest the use of a biodegradable coating as an alternative way of exposing a substance to the ground.

In support of his rejection, the examiner contends that the “desirable strength characteristics” of Mang’s polyester would have made it obvious to substitute Mang’s biodegradable polyester for the non-biodegradable coating of either Takeno or Whelan (see the paragraph bridging pages 7 and 8 of the answer). The difficulty with this position is that the examiner has not established that the strength of Mang’s biodegradable polyester is greater than the golf tee coatings disclosed in either Takeno or Whelan to make the proposed substitution advantageous.

The Demarais patent, which is cited in support of the rejections of claims 9-12, does not rectify the deficiencies of Takeno, Whelan and Mang.

For the foregoing reasons we cannot agree that the evidence adduced by the examiner is sufficient to establish a prima facie case of obviousness of the claimed subject matter.

The examiner's decision to reject claims 1 through 3, 5, 7 through 12 and 17 through 19 under § 103 is therefore reversed.

REVERSED

HARRISON E. MCCANDLISH)	
Senior Administrative Patent Judge)	
)	
)	
)	
CHARLES E. FRANKFORT)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
)	
)	
RICHARD B. LAZARUS)	
Administrative Patent Judge)	

Appeal No. 2000-1272
Application No. 08/861,095

HARNES, DICKEY & PIERCE
P.O. BOX 828
BLOOMFIELD HILLS, MI 48303