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The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte FRED L. BORDEN, JAMES F. MANSFIELD and
JERRYLIN D. EDWARDS

Appeal No. 97-4004
Application 08/459,417¹

ON BRIEF

Before MEISTER, FRANKFORT and McQUADE, **Administrative Patent Judges**.

MEISTER, **Administrative Patent Judge**.

DECISION ON APPEAL

Fred L. Borden, James F. Mansfield and Jerrylin D. Edwards
(the appellants) appeal from the final rejection of claims 1-11
and 15-26, the only claims remaining in the application.

¹Application for patent filed June 2, 1995.

We AFFIRM-IN-PART.

The appellants' invention pertains to a bowling apparatus, a method of bowling in low ambient light and a method of training a bowler. Independent claims 1, 15 and 24 are further illustrative of the appealed subject matter and read as follows:

1. A bowling apparatus for bowling in low ambient light, said bowling apparatus comprising:

a room containing a plurality of fluorescent bowling lanes wherein at least a portion of a surface of each said fluorescent bowling lane is fluorescent;

a rack of bowling pins positioned in each said fluorescent bowling lane, at least one of said pins of said rack having at least a partially fluorescent exterior surface;

a bowling ball; and

a means for subjecting said room and each said fluorescent bowling lane and said rack of pins to ultraviolet light.

15. A method of bowling in low ambient light in a room containing a plurality of fluorescent bowling lanes, said method comprising:

providing at least one bowling pin having at least a partially fluorescent exterior of a rack of bowling pins for each said fluorescent bowling lane;

coating at least portions of each said fluorescent bowling lane with fluorescent material; and

illuminating said room and each said fluorescent

bowling lane and each said rack of pins with ultraviolet light, whereby said fluorescent surfaces of said pins and each said fluorescent bowling lane will be illuminated.

24. A method of training a bowler comprising the steps of:
- supplying fluorescent material on a plurality of positions on the bowler;
 - minimizing ambient light in the bowling environment; and
 - illuminating the bowling environment with ultraviolet light, whereby the bowler's form may be easily viewed and analyzed through illumination of said fluorescent material.

The references relied on by the examiner are:

Clapham	3,301,558	Jan. 31, 1967
Davidson et al.	3,917,264	Nov. 04, 1975
Panosh	3,971,560	Jul. 27, 1976

Claims 1-11 and 15-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Clapham in view of Davidson and Panosh.

The examiner's rejection is explained on pages 3 and 4 of the answer. The arguments of the appellants and examiner in support of their respective positions may be found on pages 6-29 of the brief, pages 2-9 of the reply brief and pages 4-9 of the

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answer.²

OPINION

We have carefully reviewed the appellants' invention as described in the specification, the appealed claims, the prior art applied by the examiner and the respective positions advanced by the appellants in the brief and reply brief, and by the examiner in the answer. As a consequence of this review, we will sustain the rejection of claims 1, 2, 5, 6, 15, 16, 18 and 20. We will not, however, sustain the rejection of claims 3, 4, 7-11, 17, 19 and 21-26.

Considering first the rejection of claims 1, 2, 5, 6, 15, 16, 18 and 20, the appellants note various alleged deficiencies of the references individually and urge that the examiner has

² On January 12, 1998, the appellants also filed a paper styled "SUPPLEMENTAL REPLY BRIEF TO EXAMINER'S ANSWER" (Paper No. 19). This paper, however, contains no arguments pertaining to the rejection before us for consideration. Instead, it is directed to the propriety of the examiner's refusal to consider the reference to Perrier which was cited in the Information Disclosure Statement filed on April 12, 1996 (Paper No. 7). Even if we were to agree with the appellants that they **nominally complied** with the provisions of 37 CFR § 1.97 in filing this Information Disclosure Statement, we must point out that under 35 U.S.C. § 134 and 37 CFR 1.191, appeals to the Board of Patent Appeals and Interferences are taken from the decision of the primary examiner to reject claims. We exercise no general supervisory power over the examining corps and decisions of primary examiners to deny entry of papers is not subject to our review. See **Manual of Patent Examining Procedure** (MPEP) §§ 1002.02(c) and 1201 (6th ed., Rev. 3, July 1997); **cf In re Mindick**, 371 F.2d 892, 894, 152 USPQ 566, 568 (CCPA 1967) and **In re Deters**, 515 F.2d 1152, 1156, 185 USPQ 644, 648 (CCPA 1975). Thus, the relief sought by appellants would have properly been presented by a petition to the Commissioner under 37 CFR § 1.181.

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relied upon a hindsight reconstruction of the references to Clapham, Davidson and Panosh in arriving at a conclusion of obviousness. We disagree. From our perspective, there is no need to resort to the appellants' disclosure for a suggestion to combine the relied on prior art. In order to establish obviousness under § 103 it is not necessary that the cited references must specifically suggest making the claimed combination. *See, e.g., B.F. Goodrich Co. V. Aircraft Braking Systems Corp.*, 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996) and *In re Nilssen*, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988). Instead, the issue of obviousness is not only determined by what the references expressly state but also is determined by what they would fairly suggest to those of ordinary skill in the art. *See, e.g., In re Delisle*, 406 F.2d 1386, 1389, 160 USPQ 806, 808-809 (CCPA 1969) and *In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549-50 (CCPA 1969). *See also In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981):

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.

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As a broad proposition, each of the three references relied on by the examiner is directed to a sporting apparatus and method that utilizes fluorescent markings or elements in conjunction with radiant energy (e.g., ultraviolet light) to provide visible enhancement to the sport being played (i.e., bowling in the case of Clapham, billiards in the case of Davidson and table tennis in the case of Panosh). More specifically, Clapham teaches a bowling apparatus and method wherein a selectively actuated ball path indicator displays to a bowler the proper path along which the ball should be rolled in order to knock down the maximum number of pins. Although fluorescent lamps 26 provide a preponderant proportion of the total ambient light falling on the pin deck and on the bowling pins standing thereon (see column 2, lines 61-63), Clapham teaches that fluorescent images 148 applied directly to the pin deck may be selectively caused "to fluoresce or luminesce as a result of being subjected to radiant energy from the appropriate one of the projectors 35" (see column 6, lines 22-24), thus providing a visible image which indicates the proper path for the ball.

Davidson teaches a billiard apparatus wherein (1) the balls 21 (including the cue ball and the remaining balls which it

strikes) are provided with a luminescent coating 23 (which may be a fluorescent material - see column 2, lines 55-62), (2) the rails on the billiard table are provided with luminescent tape 34 and (3) the indicating markers on the billiard table are in the form of luminescent dots or diamonds 38. The artisan would reasonably infer that the luminescent tape and indicating

markers, as is the case with the balls 21, may be formed of a fluorescent material.³ Davidson also provides a radiation means 31 for emitting ultraviolet radiation in the "black light" band (see column 2, lines 52-54) in order that the balls, the tape on the rails and the indicating markers will glow in a darkened room. By such an arrangement (1) a beginner may more readily determine the angles of incidence and angles of rebound of the balls as they move on the billiard table and (2) an amusing effect is created (see column 1, lines 29-49). Thus, at the broadest level, Davidson teaches providing various parts of a sporting apparatus with fluorescent exterior surfaces, including

³ In evaluating such references it is proper to take into account not only the specific teachings of the references but also the inferences which one skilled in the art would reasonably be expected to draw therefrom. **See In re Preda**, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

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(1) a ball (i.e., cue ball), (2) the items which the cue ball strikes during the course of play (i.e., other balls) and (3) indicator markers associated with the playing area, so that they will all glow in a darkened room when subjected to ultraviolet light for the purposes of providing training and creating an amusing effect.

Panosh teaches a table tennis apparatus wherein the ball, the net, a part of the paddles and the peripheral edge portions of the table (which define the playing area) are all provided with a fluorescent material on the exterior surfaces thereof (see, generally, column 1). Panosh also provides a source of infrared or ultraviolet radiation so that, when subjected to the ultraviolet radiation, the various fluorescent surfaces are illuminated to the extent that "table tennis may be played in the dark" (see column 1, lines 57-61), thereby providing a "novel entertainment" (see column 1, line 12). Thus, at the broadest level, Panosh teaches providing various parts of a sporting apparatus with fluorescent exterior surfaces, including a ball and markers defining the playing surface (the peripheral edges of the table) so that they will glow in a darkened room when

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subjected to ultraviolet light for the purpose of providing novel entertainment.

The artisan would have recognized as a matter of common sense (*see In re Bozek, supra*) that (1) the above-noted teachings of Davidson would be applicable to other sporting apparatus wherein a ball was used to strike items and indicator markers

were used to help a player to determine the proper path along which the ball should be rolled and (2) the above-noted teachings of Panosh would be applicable to other sporting apparatus utilizing a ball and markers to define the playing area.

Particularly in view of the fact that Clapham teaches the use of fluorescent images on the pin deck in conjunction with ultraviolet light to provide markers for indicating the proper path of travel of the bowling ball in a bowling apparatus, we are convinced that a combined consideration of Clapham, Davidson and Panosh would have fairly suggested to the artisan to additionally provide the bowling apparatus of Clapham with a fluorescent bowling ball, fluorescent pins (i.e., the items which the ball strikes), fluorescent lane markers (such as a foul line) and lane arrows (to the extent that the image 148 of Clapham is not considered to

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broadly be a "lane arrow"), as well as providing a means for subjecting these fluorescent elements to ultraviolet light, in order to achieve the advantages of providing (1) training and creating an amusing effect as taught by Davidson and (2) "novel entertainment" as taught by Panosh.

As to claims 2 and 18 the appellants, while conceding that they "did not invent fluorescent apparel" (reply brief, page 4), nevertheless argue that none of the prior art relied on by the examiner teaches bowler "apparel" having a fluorescent exterior surface thereon. We must point out, however, that claims 2 and 18 are so broad that they would not define over a bowler who utilized the bowling apparatus of Clapham, as modified by Davidson and Panosh, and happened to be dressed in a well known type of apparel (i.e., fluorescent apparel). Accordingly, we do not believe that claims 2 and 8 patentably distinguish over the combined teachings of Clapham, Davidson and Panosh.

In view of the foregoing we will sustain the rejection of claims 1, 2, 5, 6, 15, 16, 18 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Clapham in view of Davidson and Panosh.

We now turn to the rejection of claims 3, 4, 7-11, 17, 19 and 21-26. With respect to claims 3, 4, 19 and 24, it is

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apparently the examiner's position that, inasmuch as fluorescent apparel is old and well known, it would have been obvious to provide fluorescent exterior surfaces on bowling shoes and a wristband. We do not agree. Obviousness under § 103 is a legal conclusion based on **factual evidence** (*In re Fine*, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988)) and the mere fact

that, generally speaking, fluorescent apparel is known does not provide a sufficient factual basis for establishing the obviousness of the claimed fluorescent bowling shoes and wristband within the meaning of 35 U.S.C. § 103 **see In re GPAC Inc**, 57 F.3d 1573, 1582, 35 USPQ2d 1116, 1123 (Fed. Cir. 1995) and *In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), **cert. denied**, 389 U.S. 1057 (1968)). As stated on page 6 of the appellant's specification, by employing a fluorescent wristband and shoes

the bowler and/or trainer can concentrate on observing the highlighted key positions of the bowler. For example, with the use of the fluorescent wristband 38 and fluorescent shoes 36, the bowler and/or the trainer can concentrate on proper movement of the arm in conjunction with the feet during the approach.

With respect to claims 24, and claims 25 and 26 which depend

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thereon, the examiner asserts that none of the steps physically performs any "training" action. We must point out, however, that independent claim 24 is directed to a "method of training" which includes the steps of supplying fluorescent material on a plurality of positions on the bowler and illuminating the bowling environment with ultraviolet light in such a manner that "the bowler's form may be easily viewed and analyzed through

illumination of said fluorescent material." Clearly there is nothing in the relied on prior art which either teaches or suggests such a method.

The examiner has also taken the position that (1) "disco balls" and fog machines (claims 9, 10, 22 and 23) and (2) fluorescent decals (claims 7 and 17) and fluorescent decorations on walls (claims 8 and 21) are all old and well known. The appellants, on the other hand, on pages 6 and 7 of the reply brief have argued that the examiner has cited no prior art to show that this is the case. Thus challenged, it was incumbent upon the examiner to cite a reference to show that these features were in fact old and well known. **See Manual of Patent Examining Procedure** (MPEP) § 2144.03 (6th ed., Rev. 3, Jul. 1997). The

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CHARLES E. FRANKFORT)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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Administrative Patent Judge)	

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