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The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Ex parte SAMUEL R. ROD and JON ALLEN MASSEY

Appeal No. 2002-1382  
Application No. 09/366,054

ON BRIEF

MAILED

MAR 15 2003

PAT. & T.M. OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

Before THOMAS, KRASS and JERRY SMITH, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 22-33 and 36-39. Claims 34 and 35 have been indicated by the examiner as being directed to allowable subject matter and form no part of the appeal herein.<sup>1</sup>

<sup>1</sup>An oral hearing, scheduled for March 6, 2003, was waived by appellants (Paper No. 17). Accordingly, this decision is made on brief.

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The invention is directed to a system for training a shooter of a firearm. In particular, a video camera is attached to headgear worn by the shooter and provides a video signal which is displayed to at least one of the shooter's eyes as a substitute for a view in the direct line of sight of the shooter. The video signal may be recorded and played back for the shooter and/or instructor for use as a training aid.

Representative independent claim 22 is reproduced as follows:

22. Apparatus for use by an instructor for training a shooter of a firearm equipped with a sight comprising:

head gear adapted to be worn by the shooter including:

a video camera attached to said head gear having an input optical axis aligned to approximate a natural line of sight for the shooter through the sight, and for producing a video signal representing the shooter's view at that line of sight; and

first video display attached to said head gear for displaying the video signal to at least one of the shooter's eyes as a substitute for a direct field of view of the at least one of the shooter's eyes, for use by the shooter in aiming and firing the firearm; and

second video display for remotely displaying the video signal to an instructor to evaluate the aiming and firing of the firearm.

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The examiner relies on the following reference:

Hanson et al. [Hanson]                      4,884,137                      Nov. 28, 1989

Claims 22-32, 36, 37 and 39 stand rejected under 35 U.S.C. 102(b) as anticipated by Hanson.

Claims 33 and 38 stand rejected under 35 U.S.C. 103 as unpatentable over Hanson.

Reference is made to the briefs and answer for the respective positions of appellants and the examiner.

OPINION

Under 35 U.S.C. 102(b), a reference must disclose, explicitly or implicitly, every limitation of the claimed invention. Glaxo Inc. v. Novopharm Ltd., 52 F.3d 1043, 1047, 34 USPQ2d 1565, 1567 (Fed. Cir.), cert. denied, 516 U.S. 988 (1995).

With regard to independent claim 22, the examiner relies on Figures 3 and 18 of Hanson, pointing to video display eyewear 44 and a video camera 52 attached to helmet headgear. Based on Figure 18 and column 13, lines 60-67, an instructor may evaluate a trainee's aiming and firing of the firearm via a remote video display.

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The point of contention between appellants and the examiner is whether Hanson discloses the claimed "input optical axis aligned to approximate a natural line of sight for the shooter through the sight." The examiner contends that Hanson teaches that the input optical axis of the headgear-mounted video camera can be parallel to the line of sight of the shooter, and thus "aligned" with the line of sight of the user. For their part, appellants contend that the video camera attached to the headgear in Hanson does not have an input optical axis "aligned to approximate a natural line of sight for the shooter through the site," and that the video signal obtained from the camera in Hanson is not used as a "substitute for a direct field of view" of the shooter.

We understand, from the instant disclosure (e.g., Figures 2, 2a) and from appellants' arguments, that the video camera is placed directly in the line of sight of the shooter, the line appearing to be in the same horizontal plane as the shooter's eyes and, ideally, coextensive with the shooter's natural line of sight. However, while we understand that the instant *disclosed* invention may be different from what is taught by Hanson, we agree with the examiner that, as broadly claimed, Hanson anticipates the instant claimed subject matter. That is,

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although the video camera in Hanson is positioned on the helmet, with an input optical axis above the natural line of sight of the shooter, that input optical axis is still "aligned to approximate a natural line of sight for the shooter through the sight."

There is no question in our mind that Hanson's input optical axis is "aligned" with the shooter's natural line of sight, albeit not coextensive, or colinear with, the shooter's natural line of sight. Since the input optical axis is only slightly above the natural line of sight of the shooter, it is also clear that it approximates the natural line of sight, as the term "approximate" is understood to be a relative one.

We would also invite attention to various embodiments of Hanson, such as Figure 9, for example, showing an embodiment for night vision, wherein the night vision equipment 90, apparently including a video camera, is disposed, along with the video display 88, "in the line of sight division of the respective left and right eye of the observer 92" [column 7, lines 61-63].

With regard to the video signal not used as a "substitute for a direct field of view" of the shooter, again, we agree with the examiner that the goggles, or screen 44, of Hanson displays the image generated by the video camera to the shooter and that this image provides a field of view for the shooter. Since,

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without the screen 44, the shooter in Hanson would have a "direct field of view," it can reasonably be said that the screen 44 provides "a substitute for a direct field of view" for the shooter's eyes.

With regard to independent claim 31, appellants argue that the camera is selectively positionable with respect to the head of a shooter so that an input optical axis for the camera is aligned to approximate a natural line of sight for the shooter through the open sight of the firearm and that Hanson "teaches away" from the use of the camera to sight through the open sight of a gun [principal brief-page 9].

We agree with the examiner that the claim language does not require the camera to be sighted through the open sight of a gun. Rather, the claim language requires the input optical axis of the camera "to approximate the shooter's natural view for aiming the firearm through the open sight." As explained supra, with regard to claim 22, Hanson does, in fact, teach an input optical axis of a camera which approximates the shooter's natural view. When that natural view is the view through the open sight of a firearm, the input optical axis of the camera in Hanson approximates the shooter's natural view for aiming the firearm through the open sight, as claimed.

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With regard to being "selectively positionable," we agree with the examiner that since the camera is attached to headgear in Hanson, movement of the head changes the position of the input optical axis of the camera, making the camera "selectively positionable," as claimed.

With regard to independent claim 37, appellants point out that the claim requires the optical axis of the camera to be "selectively positionable" with respect to the eyewear, in addition to approximating the shooter's natural view for aiming the firearm through its sight. Further, appellants, argue, claim 37 recites that the axis extends from a point in front of the shooter's eye and that the video signal obtained from the camera is displayed as a substitute for a direct view. It is appellants' position that Hanson teaches none of these features. We disagree.

The features of: "selectively positionable," a "substitute for a direct view" and to "approximate the shooter's natural view for aiming the firearm through its sight" have been discussed supra and the same rationale applies here. Moreover, with regard to the "the input optical axis...extending from a point in front of the shooter's eyes" feature, it would appear from a cursory examination of Figure 2a or Figure 3 of Hanson that the input

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optical axis of camera 12 does extend from a point in front of the shooter's eyes. There are also points on the axis that are behind the shooter's eyes, but if one were to extend the axis from the video camera 12 all the way to the target, there are many points along the optical axis and there are clearly some points on the axis which are in front of the shooter's eyes so it may reasonably be said that from any of those points, the input optical axis extends "from a point in front of the shooter's eyes," as claimed.

Appellants argue further that even if the examiner has established a prima facie case, secondary considerations, such as "long felt need," and "broad acceptance...in the law enforcement and military training fields," should be taken into account.

Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc. might be utilized to give light to the circumstances surrounding the origins of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevancy. Graham v. John Deere Co., 383 U.S. 1, 17-18, 148 USPQ 459 (1966). In determining the question of obviousness, within the meaning of 35 U.S.C. 103, objective evidence of nonobviousness must always be taken into account. Hybritech Inc.

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v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 231 USPQ 81 (Fed. Cir. 1986).

In considering appellants' proffer of objective evidence, first, we point out that such "secondary considerations" have no probative value with regard to an anticipation rejection under 35 U.S.C. 102 since all of the claimed subject matter is taught or it is not taught by the prior art and objective evidence of nonobviousness would appear not to be relevant to a novelty inquiry. Accordingly, such considerations are immaterial with regard to the rejection of claims 22-32, 36, 37 and 39 under 35 U.S.C. 102(b).

Second, with regard to the obviousness rejection of claims 33 and 38, while we have reviewed appellants' arguments anent secondary considerations by looking anew at the instant claimed subject matter as a whole and all of the evidence purporting to show obviousness/nonobviousness, with a view toward the alleged long felt need and broad acceptance in the art, we remain unconvinced of the nonobviousness of the instant claimed subject matter. Appellants merely quote various passages from law enforcement bulletins. From this sparsity of evidence, it is difficult to tell if the authors are comparing appellants' invention to similar prior art devices or even whether they are

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referring to the instant claimed subject matter. In alleging long felt need and broad acceptance, appellants must establish that it is the instant "claimed subject matter," and not something else, which has established the alleged "broad acceptance." A nexus is required between the merits of the claimed invention and the evidence offered, if that evidence is to be given substantial weight in reaching a conclusion on the obviousness issue. Cable Elec. Prod., Inc. v. Genmark, Inc., 770 F.2d 1015, 226 USPQ 881 (Fed. Cir. 1985); Vandenberg v. Dairy Equip. Co., 740 F.2d 1560, 224 USPQ 195 (Fed. Cir. 1984); Solder Removal Company et al. V. U.S. Int'l Trade Comm., 582 F.2d 628, 199 USPQ 129; In re Noznick, 478 F.2d 1260, 178 USPQ 43. Yet, appellants' submission of such evidence on the record is insufficient for us to make a determination as to whether there is any nexus between the endorsements and praise recited and the instant "claimed subject matter." Accordingly, we do not find these "secondary considerations" to be persuasive of nonobviousness.

The examiner's decision rejecting claims 22-32, 36, 37 and 39 under 35 U.S.C. 102(b) and claims 33 and 38 under 35 U.S.C. 103 is affirmed.



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