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THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 31

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

MAILED

MAR 27 1996

Ex parte THOMAS J. GLEASON

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

Appeal No. 95-4975
Application 05/634,710¹

ON BRIEF

Before ABRAMS, FRANKFORT and STAAB, Administrative Patent Judges.
FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 2, 3, 5, 6, 8 and 9, which are all of the claims remaining in this application. Claims 1, 4 and 7 have been canceled.

Appellant's invention relates to a technique for eliminating retroreflected light energy from a military optical viewing system in order to prevent optical detection of such system by a

¹ Application for patent filed November 20, 1975.

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nonuser (i.e., an enemy), and further to an optical viewing system, such as a gun sight, which includes an apparatus that employs the above technique to eliminate the detection of retroreflected light energy by a nonuser (the enemy). Claims 8 and 9 are representative of the subject matter on appeal and read as follows:

8. In a military optical viewing system, an apparatus which eliminates the detection of retroreflected light energy by a nonuser, the apparatus comprising:

a weapon sight including a hollow housing and an eyepiece in which a plurality of lens members are mounted in spaced relation along an optical path, the elements aligned such that the light energy enters the forward end of the housing and is impinged on the eyepiece at the rearward end of the housing;

a polarizing means, located forward of the eyepiece, along the optical path, operative over a known range of wavelengths for polarizing light entering the system before the light reaches the eyepiece; and

a shifting means, located between the polarizing means and the eyepiece and along the optical path, operative over a predetermined range of wavelengths for changing the polarization state of light passed by the polarization means before the polarized light reaches the eyepiece and such that two passes through said shifting means results in a 90° rotation of the plane of polarization of the light;

whereby light energy which is retroreflected off the eyepiece is prevented from leaving the optical viewing system and being detected by the nonuser.

9. A technique for eliminating retroreflected light energy from military optical viewing systems in order to prevent optical detection of such systems, comprising the steps of:

utilizing an optical system for viewing an intended object;

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interposing at the light receiving end of the optical system a light energy polarizer which passes only one of the two mutually perpendicular components of light;

subjecting the polarized light to a wave shifter so that the polarized light is spacially rotated by 45°;

observing the intended object at the viewing end of the optical system causing light energy to be reflected back towards the receiving end;

subjecting the reflected light energy again to the wave shifter so that the light is further rotated by 45° for a total shift of 90°;

preventing the 90° shifted light energy from being detected by the nonuser by again polarizing the light energy to eliminate the other component of light energy.

The sole prior art reference of record relied upon by the examiner in rejecting the appealed claims under 35 U.S.C. § 103 is:

Morgan

2,318,705

May 11, 1943

In addition to the Morgan patent, the examiner has also relied upon certain disclosures on pages 2 and 3 of appellant's specification and on a statement made by appellant on page 3, lines 11-15 of the amendment filed February 28, 1977 (Paper No. 4) as being Admitted Prior Art.

Claims 2, 3, 5, 6, 8 and 9 stand rejected under 35 U.S.C. § 103 as being unpatentable over "Morgan or Applicant's statement on page 3, lines 11-15 of the amendment dated February 28, 1977, in view of the prior art noted in the specification, pages 2 and 3, lines 11-25 and 1-7 respectively." According to the examiner,

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Morgan discloses, and Applicant admits as old and well known in the art, the elimination of undesired reflections of light by passing incoming light through a polarizer and a 45° optical rotator (such as a quarter-wave plate) before it strikes the reflective element and then passing the reflected light again into the 45° rotating element so as to completely block the reflected light. Applicant, on pages 2 and 3 of the specification, shows the problem of detecting retroreflected beams from the focal plane to gunsights to be old and well known in the art (note Fig. 1). Concomitantly, it would be obvious to one skilled in the art to utilize the well known reflected light blocking by polarization technique to prevent focal plane [sic, plane] retroreflection of gunsights. (answer, page 2).

Reference is made to the examiner's answer (Paper No. 11, mailed June 12, 1978) for the examiner's complete reasoning in support of the above-noted rejection. Appellant's arguments thereagainst are found in the brief (Paper No. 10, filed May 6, 1978).

OPINION

In reaching our conclusion on the obviousness issues raised in this appeal, we have carefully considered appellant's specification and claims, the applied prior art, and the respective viewpoints advanced by appellant and the examiner. As a consequence of our review, we have made the determination that the examiner's rejection of the appealed claims under 35 U.S.C. § 103 cannot be sustained. Our reasons follow.

In determining the propriety of a rejection under 35 U.S.C. § 103, it is well settled that the obviousness of an invention cannot be established by combining the teachings of the prior art

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absent some teaching, suggestion or incentive supporting the combination. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); Ashland Oil, Inc. v. Delta Resins and Refractories, Inc., 776 F.2d 281, 227 USPQ 657 (Fed. Cir. 1985); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 221 USPQ 929 (Fed. Cir. 1984). The law followed by our court of review, and thus by this Board, is that "[a] prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art." In re Rinehart, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976). See also In re Lalu, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1984) ("In determining whether a case of prima facie obviousness exists, it is necessary to ascertain whether the prior art teachings would appear to be sufficient to one of ordinary skill in the art to suggest making the claimed substitution or other modification.")

In this case, the Admitted Prior Art pointed to by the examiner in appellant's specification (pages 2-3 and Fig. 1) is directed to a technique which appellant characterizes as being "presently employed" to detect the presence and location of enemy troops and optical systems by the use of retroreflected light

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energy. On page 6 of the brief, appellant concedes that the detection technique illustrated in Figure 1 of the application is prior art. There is, however, nothing in appellant's disclosure at pages 2-3, or in the statement referred to by the examiner in the amendment filed Feb. 28, 1977, which in any way teaches or suggests a technique or apparatus for thwarting the "presently employed" prior art detection technique; such an apparatus and technique are instead the subject matter of appellant's claimed invention.

As further noted by appellant (brief, page 5), although Morgan discloses some fundamental principles involving polarization and wave shifting, the overall technique taught by Morgan involves the use of a different apparatus and lens arrangement to solve an entirely different problem than that addressed by appellant. More specifically, while appellant seeks to eliminate the detection of light energy which is retroreflected off of the eyepiece of a weapon sight by a nonuser (enemy) by preventing that light energy from leaving the optical viewing system of the weapon sight and being detected by the nonuser, Morgan uses the general principles of polarization and wave shifting to prevent

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unwanted reflected light from the specimen being viewed from getting to the eyepiece of the microscope therein and being seen by the user of the microscope as a fog or mist which partially obscures the image of the specimen and in some cases completely obscures the outer edges of the image whereby only a small central portion of the specimen may be examined. Like appellant, we are of the view that the teachings of Morgan have little or no relationship to the technique and apparatus as defined in appellant's claims on appeal.

Put simply, we find nothing in any of the prior art relied upon by the examiner which even remotely addresses a technique or apparatus which prevents the detection of light energy retroreflected from the eyepiece of an optical weapon sight by a nonuser, as is set forth in appellant's claims on appeal. The mere existence of the concepts of polarization and wave shifting in an optical system environment are certainly not sufficient, even when considered with the Admitted Prior Art pointed to by the examiner, to have made the particular apparatus and technique claimed by appellant obvious to one of ordinary skill in the art at the time such invention was made. In our opinion it is only by

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using appellant's own teachings and relying upon impermissible hindsight that one versed in the art would have been led to even contemplate picking and choosing among the various and diverse structures disclosed in Morgan so as to arrive at the subject matter claimed by appellant.

In this regard, we note that it is impermissible to use the claimed invention as an instruction manual or "template" to piece together isolated disclosures and teachings of the prior art so that the claimed invention may be rendered obvious. We additionally note that a rejection based on § 103 must rest on a factual basis, with the facts being interpreted without hindsight reconstruction of the invention from the prior art. In making this evaluation, the examiner has the initial duty of supplying the factual basis for the rejection he advances. He may not, because he doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. See In re Warner, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967). Since we perceive no factual basis in the prior art relied upon which supports the proposed combination thereof, and have thus determined that the examiner's conclusion of obviousness is based on hindsight reconstruction of the claimed invention from isolated disparate teachings in the

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