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

Paper 37

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte SAF-T-GLO, Ltd.

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Appeal No. 2006-0699
Reexamination Control No. 90/005,937
Reexamination of United States Patent 5,961,072[1]

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ON BRIEF

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Before MARTIN, LEE, and MOORE, *Administrative Patent Judges*.

MOORE, *Administrative Patent Judge.*

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(b) from the final rejection of claims 27-29 of this reexamination. Claims 1, 3-5, 7, 9-18, 22, 23, and 26 have been cancelled. The Examiner has confirmed the patentability of claims 2, 6, 8, 19-21, 24, and 25. The Examiner has also found new claim 30 to be patentable. Thus, only claims 27-29 are before us on this appeal.

1 Reexamination Request Filed by Astronics Corporation, a third party.

REPRESENTATIVE CLAIM

The Appellant has indicated (Amended Appeal Brief, page 5) that, for the purposes of this appeal, the claims will stand or fall together. Accordingly, we select claim 27, the only independent claim on appeal, as representative of all of the claims on appeal, and reproduce it below.

27. An aircraft having an aisle extending longitudinally adjacent a plurality of seats, comprising:

(a) an elongate photoluminescent strip having a width, a thickness, and a length, said photoluminescent strip extending longitudinally and continually along the aisle of the aircraft, emitting visible light without being energized by an electrical current, and having an upper surface that is generally flat, continuously, along the length of the elongate photoluminescent strip; and

(b) a light-transmissive plastic material extending continuously over the elongate photoluminescent strip to protect it and having opposed side portions that locate and retain said photoluminescent strip, said light-transmissive plastic material and said elongate photoluminescent strip forming an integral guide strip having a continuous flat, smooth top surface in the longitudinally extending direction of the elongate photoluminescent strip, an interface between a top of the elongate photoluminescent strip and light-transmissive material also being flat and smooth, said elongate photoluminescent strip emitting light in a continuous track along the aisle of the aircraft.

THE REFERENCES

In rejecting the claims under 35 U.S.C. § 103(a), the Examiner relies upon the following references:

Gagne (Gagne)	5,499,170	Mar. 12, 1996
Connew (Connew)	4,998,391	Mar. 12, 1991
Intrad News, Edition 13, September, 1989 (Intrad)		

THE REJECTION

Claims 27-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gagne in view of Intrad and Connew.

THE INVENTION

The invention relates to an emergency lighting system for aircraft utilizing a photoluminescent strip mounted in a channel secured to the floor of the aircraft. A transparent cover member holds the photoluminescent member in place. (Abstract).

DISPOSITION

On consideration of the record, including the above-listed materials, we reverse the Examiner's prior art rejection.

The Rejection of Claims 27-29 Under 35 U.S.C. § 103(a)

The Examiner has found that Gagne describes in its Figures 1-3 an emergency exit guidance system that includes a light-transmissive plastic material (70) extending continuously over an illumination strip (90). The Examiner has additionally found that the light-transmissive plastic material includes opposed side portions (71, 72) that locate and retain the illumination strip by locking the plastic material (70) to the support (50). The top wall portion of plastic helps to prevent the illumination strip from being removed. The Examiner has further found that the illumination strip (90) and plastic material (70) are considered integral as they are attached together by the support. Moreover,

the Examiner has found that the top surface (75) of the plastic material (70) is smooth.

Finally, the Examiner has found that Gagne describes attaching the guidance system to a public passenger vehicle such as a railway passenger car. (Examiner's Answer, page 3, lines 10-21).

The Examiner has also found that Intrad describes an aircraft aisle having continuous luminescent markers attached to each side of an aircraft aisle and advantages to be gained from using phosphorescent materials. (Examiner's Answer, page 4, lines 2-5).

Finally, the Examiner has found that Connew describes a base (30, 31), a photoluminescent strip attached to the base, and a transparent cover. (Examiner's Answer, page 4, lines 5-7).

The Examiner then concludes it would have been obvious to modify Gagne by attaching a continuous guidance system to an aisle of an aircraft in view of Intrad's teachings. The Examiner also concludes that it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the lighting element of Gagne with the photoluminescent material of Intrad since this would allow the evacuation route to be illuminated in a more reliable manner.

Specifically for claim 27, the Examiner has found that Connew describes a smooth undersurface of a cover is conventional in the

art. Thus, the Examiner concludes that it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the cover smooth. (Examiner's Answer, page 4, lines 17-21).

We observe that Gagne describes a lighting system for emergency use in public passenger vehicles (Column 1, lines 5-6); prior art railway cars exit signage (Column 1, lines 60-64); and prior art aircraft emergency low level lighting systems (Column 1, line 65 – column 2, line 14).

Intrad describes the use of photoluminescent materials for marking and lighting escape routes in buildings (Page 1, Title, lines 3-4). Intrad also describes and illustrates the use of photoluminescent materials in transport. (Page 6, central illustration, and columns 2-3). Intrad further describes and illustrates the use of photoluminescent materials on either side of the aisle of an aircraft. (Page 6, central illustration and caption).

Intrad additionally describes and illustrates a plurality of seats adjacent an aisle (Page 6, central illustration). The Intrad illustration describes an elongate photoluminescent strip extending longitudinally and continually along the aisle of an aircraft. (Page 6, central illustration). The Intrad elongate photoluminescent strips emit visible light without being energized

by an electrical current; they are excited by visible light (Intrad, page 1, "Technical Note" in the last two columns).

The Intrad elongate photoluminescent strips are in the form of flat tapes. (Page 5, "Standard Products," "Tapes," and accompanying illustration).

Gagne describes a preferably clear and strong (column 4, lines 45-46) protective top cover 70 (column 5, line 28) over an electroluminescent material 90 (column 5, line 4) contained in a receptacle 50 having a recess 65 (column 5, lines 1-3) fitting into an outer track 30 (column 1, lines 12-15).

Gagne describes the protective top cover as having a lens 74 separating sidewalls 71 and 72 (column 4, lines 38-39 and 44) which depend into channels 63 of the receptacle (column 4, lines 54-57). The protective top cover is releasably engaged by interfering barriers with the receptacle, which is in turn releasably engaged into the outer track. (column 5, lines 16-29).

Stripped of excess language, the Gagne inner receptacle clicks into place in the fixed track, and the receptacle is capped of by a clear lid which has sidewalls that click down into place in the inner receptacle, protecting the source of illumination and through the cooperating members retaining the receptacle and lighting element in place (column 2, lines 18-59).

The Appellant's principal argument is that the side portions

of the protective strip of Gagne do not locate and retain the photoluminescent strip. (Appeal Brief, page 7, lines 11-12). The basis for this statement is that Gagne states at column 5, lines 4-7 that:

> [T]he electroluminescent lighting element 90 is thereby disposed between the receptacle 50 and the protective top cover 70, and is retained in place by way of double sided tape 51 [sic-99]

According to the Appellant, this statement means that Gagne does not suggest or teach the claimed invention, in that Claim 27 requires the side portions of the light transmissive plastic material locate and retain the elongate photoluminescent strip. (Appeal Brief, page 8, lines 28-29). The appellant urges that it is the recess and double-sided tape of Gagne that retain the strip in place, not the protective cover.

First, we need determine what the term "locate and retain" means.

In examining a patent claim, the PTO must apply the broadest reasonable meaning to the claim language, taking into account any definitions presented in the specification. *In re Yamamoto*, 740 F.2d 1569, 1571, 222 USPQ 934, 936 (Fed. Cir. 1984). Words in a claim are to be given their ordinary and accustomed meaning unless the inventor chose to be his own lexicographer in the

specification. *Lantech, Inc. v. Keip Mach. Co.*, 32 F.3d 542, 547, 31 USPQ2d 1666, 1670 (Fed. Cir. 1994).

Initially, we observe that the terms "locate and retain" are not to be found together in the specification of U.S. 5,961,072. They appear separately, as follows:

"Retain"

> Referring to FIG. 1, this shows a molded plastics guide track 16 that has been retro-fitted to an aircraft that originally had an electric emergency floor path lighting system. The original plastics material base section 18 is retained. In an electrical lighting system wires and lights are ***retained*** in a channel 21, but in the retro-fitted photoluminescent system they have been removed and the top of the channel 21 has been closed by a plastics material support formation 23 which is releasably snap-fitted to hook formations at the top of the side walls of the channel 21. (Column 6, line 60 – column 7, line 2)(emphasis added).

As used here, "retained," given a broad, reasonable interpretation consistent with the above usage, means physically kept in a position.

"Locate"

> Preferably a backing member (e.g. a strip or plate) is secured to the floor of the aircraft where the lighting is to be positioned.
>
> Preferably the carpet is laid on top of the backing member.
>
> Preferably ***locating*** means is provided on the backing member to locate the lighting. The ***locating*** means may be holes or studs which co-operate with studs or holes, respectively, on the lighting. (column 4, lines 32-40)(emphasis added).

and

> A backing plate is secured to the floor of the cabin where the tracking is required to run. This plate either has ***locator*** holes or studs, it can work either way, along its length. The carpet is laid on top of it and the photoluminescent tracking (it will have to be a lower profile than the present one) is married up and pressed home attaching to the backing plate. Although the attachment could work male to female, or female to male, we feel that the studs should be on the back plate as it would be far easier to ***locate***. (column 9, lines 10-18)(emphasis added).

As used here, "locate" given a broad, reasonable meaning, means to physically fix in a position.

Thus, we agree with the appellant that the instant claim requires the sidewalls of the top plastic transmissive layer to physically determine the location of the photoluminescent material and to physically keep it in its position (" . . . a light-transmissive plastic material extending continuously over the elongate photoluminescent strip to protect it and having opposed side portions that locate and retain said photoluminescent strip forming a channel . . .")(Claim 27).

The Appellant states that it is not the protective cover of Gagne which does any of this function because of the disclosure of (1) double sided tape which retains the lighting element and (2) the recess sidewalls which locate the lighting element. We agree with this interpretation of Gagne.

The Examiner, on the other hand, observes that the side portions (71, 72) of Gagne secure the plastic material (70) to the support (50) that helps prevent the illumination strip (90) from being removed from the support (50). (Examiner's Answer, page 5). This, in the Examiner's view, "locates and retains" the strip.

We disagree with this interpretation of the phrase "locate and retain." The sidewalls do not retain or locate the luminescent material in Gagne. The sidewalls of the plastic material act only to anchor a protective cap. In Gagne, the double-sided adhesive tape acts to retain the luminescent material, while the sidewalls of the recessed channel fix it in a particular position. As a consequence, we cannot say that the sidewalls of Gagne, which may "encapsulate" the luminescent material, act to "locate" and "retain" as required by the claim language.

The Examiner has not provided any rationale explaining why deletion of the double sided tape would have been obvious, and modifying the structure of Gagne to have the channel sidewall function performed by the clear plastic cap.

We therefore find that the Examiner has not sustained the burden of showing that the subject matter of claim 27 would have found it to have been obvious to one of ordinary skill in the art at the time the invention was made. Accordingly, we cannot sustain

this rejection.

SUMMARY OF DECISION

The rejection of claims 27-29 under 35 U.S.C. § 103(a) over Gagne in view of Intrad and Connew is reversed.

REVERSED

JOHN C. MARTIN Administrative Patent Judge	)
JAMESON LEE Administrative Patent Judge	) BOARD OF PATENT) APPEALS AND) INTERFERENCES
JAMES T. MOORE Administrative Patent Judge	)

JTM/mg

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