The opinion in support of the decision being entered today is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MICHAEL HOLZ and EDGAR WEIDEL

Appeal 2007-1404
Application 10/212,316
Technology Center 2600

Decided: September 20, 2007

Before JOSEPH F. RUGGIERO, HOWARD B. BLANKENSHIP, and MAHSHID D. SAADAT, *Administrative Patent Judges*.

BLANKENSHIP, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal involves claims 7 and 10-14, the only claims pending in this application. We have jurisdiction under 35 U.S.C. §§ 6(b), 134(a).

INTRODUCTION

The claims are directed to a process for improving the view in a vehicle, particularly in darkness, bad weather, or fog. Laser light with a wavelength outside the visible spectrum is emitted and observed by a camera, with the images being displayed to the vehicle operator. The laser light and/or the camera are additionally used for optical communication with other vehicles. (Abstract.) Claim 7 is illustrative:

7. A process for improving the view in a vehicle as well as providing an optical communication system, comprising

emitting laser light with a wavelength outside of the visible spectrum into a predetermined spatial area,

observing the predetermined spatial area using a camera sensitive to said wavelength,

displaying images from the camera to the vehicle operator,

said process further comprising optically communicating with other vehicles using the laser light and/or the camera by

modulating said laser light with information to be transmitted to another vehicle, and

demodulating laser light received by said camera from another vehicle and evaluating the demodulated laser light for information contained therein.

The Examiner relies on the following prior art references to show unpatentability:

Owen	US 5,648,862	Jul. 15, 1997
Breed	US 6,370,475 B1	Apr. 9, 2002
Dunning	US 6,765,495 B1	Jul. 20, 2004

PR Newswire, *DaimlerChrysler's Active Night Vision Technology Improves Night Driving* (2000) (hereinafter DC).

The rejections as presented by the Examiner are as follows:

1. Claims 7, 10, 11, 13, and 14 are rejected under 35 U.S.C § 103(a) as unpatentable over DC, Dunning, and Owen.
2. Claim 12 is rejected under 35 U.S.C § 103(a) as unpatentable over DC, Dunning, Owen, and Breed.

OPINION

DC describes a night vision system for a vehicle that comprises two laser headlights on the vehicle's front end that illuminate the road by means of infrared light. A video camera records the reflected image, which appears in black and white on a heads-up screen located in the driver's field of vision. The reference lists numerous advantages of an infrared system for night driving.

Dunning describes an inter-vehicle communication system where information transfer between vehicles is provided by data sources, data sensors, and vehicle sensors connected to a central processing unit in each vehicle. The data sources are provided, preferably, by adapting vehicle headlights, taillights, or other existing light sources for optical data transfer. Dunning "Abstract." By encoding information onto vehicle components such as headlights and taillights at appropriate data rates, information can be transferred between vehicles. Dunning col. 2, ll. 22-36. Communication links are preferably established by using the headlights and taillights as communication sources. Col. 4, ll. 60-63. Information may be modulated by vehicle headlights (e.g., col. 5, l. 30 – col. 6, l. 21) and demodulated by the

receiving vehicle (e.g., col. 9, l. 4 *et seq*.). Vehicular warnings may be provided by a "heads up" display of graphics. Col. 6, ll. 61-63.

Dunning further teaches that using headlights or other visible light sources provides the advantage of double use -- for visual illumination and warning, in addition to inter vehicle communications. Dunning col. 4, ll. 10-24. The reference notes, however, that the invention does not require transmission and reception of visible light. Infrared light sources and sensors may be used. Col. 10, ll. 43-53.

The emitting, observing, and displaying steps of instant claim 7 are described by DC. The "optically communicating," modulating, and demodulating steps differ from the preferred embodiments of Dunning only in the type of light used for communication. Dunning also, however, expressly teaches that infrared light may be used, and expressly teaches that the same light sources may be used for visual illumination and for inter vehicle communications.

To be nonobvious, an improvement must be "more than the predictable use of prior art elements according to their established functions." *KSR Int'l Co. v. Teleflex Inc*., 127 S. Ct. 1727, 1740, 82 USPQ2d 1385, 1396 (2007). "[W]hen a patent 'simply arranges old elements with each performing the same function it had been known to perform' and yields no more than one would expect from such an arrangement, the combination is obvious." *KSR,* 127 S. Ct. at 1740, 82 USPQ2d at 1395-96 (quoting *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 282 (1976)).

The DC and Dunning references, considered together, would have suggested dual use of the night vision illumination system described by DC,

for night vision and for inter vehicle communications. Although instant claim 7 is rejected under 35 U.S.C § 103(a) over DC, Dunning, and Owen, Owen may be considered merely cumulative in its teachings. DC and Dunning, considered together, are sufficient to demonstrate prima facie obviousness of the subject matter as a whole of claim 7.

We have considered all of Appellants' arguments in the Brief in support of claim 7, but find them nonpersuasive and not supported by the record.

Appellants point to an isolated embodiment of Dunning, alleging that the "object" of the reference is to provide an inter vehicle communication system using low cost sensors such as photo-diodes. (Appeal Br. 5.) We disagree with the contention regarding the so-called object of Dunning. Moreover, claim 7 does not specify how much one should pay for sensors. Nor does the claim specify what type of sensor may be used in the demodulating of the laser light. Although the claim recites "demodulating laser light received by said camera," the claim is silent with respect to what elements might effect demodulation. Nor does the claim preclude additional elements (e.g., sensors) that might receive light from the camera for demodulation.

We agree with Appellants (Appeal Br. 5-6) to the extent that Dunning does not describe a night vision system including a camera to provide images. DC, however, does. "Non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references." *In re Merck & Co.*, 800 F.2d 1091, 1097, 231 USPQ 375, 380 (Fed. Cir. 1986) (citing *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981)).

We disagree that Owen is non-analogous art at least for the reason that, as the Examiner notes, the reference describes vehicle communication systems. *See* Owen, col. 9, ll. 32-56. As we have indicated, however, the teachings of Owen can be considered merely cumulative in view of the scope of instant claim 7.

Claim 7 is the representative claim argued by Appellants. We sustain the rejection of claim 7, and of claims 10, 11, 13, and 14 that fall with claim 7. *See* 37 C.F.R. § 41.37(c)(1)(vii). As Appellants rely on the arguments for claim 7 for response to the rejection of claim 12, neither are we persuaded that claim 12 has been rejected in error. We sustain the rejection of claim 12.

CONCLUSION

In summary, the rejection of claims 7 and 10-14 under U.S.C § 103(a) is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

tdl/ce

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