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

Paper No. 12

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte MOHAMMED REZAUR RAHMAN

Appeal No. 2001-1480
Application No. 09/129,285

ON BRIEF

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

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-7, which are all of the claims pending in this application.

BACKGROUND

The appellant’s invention relates to techniques for controlling the flow of vehicular traffic under varying

traffic conditions (specification, page 1). Representative claim 1 reads as follows.

1. A method for controlling traffic comprising:

developing global positioning system information about a plurality of vehicles;

analyzing traffic patterns based on said information;

developing traffic control signals based on said traffic patterns; and

transmitting said traffic control signals to traffic control devices.

The examiner relied upon the following prior art references in rejecting the appealed claims:

Marcy	4,390,951	Jun. 28, 1983
Ayanoglu et al. (Ayanoglu)	5,689,252	Nov. 18, 1997

This panel relied upon the following additional prior art in making a new ground of rejection:

Admitted prior art (AAPA) on page 1 of appellant's specification

Claims 1, 3 and 5-7 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Ayanoglu.

Claims 2 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ayanoglu in view of Marcy.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the answer (Paper No. 11) for the examiner's complete reasoning in support of the rejections and to the brief (Paper No. 10) for the appellant’s arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. As a consequence of our review, we make the determinations which follow.

The anticipation rejection

Ayanoglu discloses a navigation system comprising a central database 50 for storing traffic information including traffic congestion, traffic speed, road conditions, road closures, detours, etc. This traffic information is transmitted to a microcontroller 22 located on a vehicle and used to calculate the travel time for all possible alternative routes and to determine the best route (i.e, the one which

will take the shortest time) for that vehicle, given the current location of the vehicle, based on global positioning system (GPS) information, and a desired destination input by the user at an input source 25 located in the vehicle. As disclosed by Ayanoglu, in a preferred embodiment,

> traffic information is periodically updated to the central database 50 whereby mobile users periodically transmit their respective position and speed to the central database 50. The central database 50 is configured to then average the aforementioned received information provided by the mobile users so as to determine the average speed rate on various traffic routes. Preferably, each mobile user is enabled to initiate the minimum path information, and by notifying the central database 50 of its position and its destination, the mobile user can obtain the best route information from the central database 50. Still further, the transmitted wireless message from each mobile user may include any known type of information such as differential correction information from the GPS receiver 26 [column 3, line 64, to column 4, line 10].

Based on the above disclosure, it is clear that Ayanoglu discloses a method comprising developing GPS information about a plurality of vehicles, analyzing traffic patterns (i.e., determining the average rate of speed on various traffic routes) based on the GPS information and transmitting route information to vehicles based, at least in part, on the traffic patterns. Ayanoglu also broadly contemplates use of

the system in a driverless vehicle navigation system (column 5, lines 41-43). However, for the reasons which follow, we share appellant's view that the transmission of best route information to vehicles does not constitute transmitting traffic control signals to ***traffic control devices*** as recited in claim 1. Accordingly, we shall not sustain the examiner's anticipation rejection of claim 1 or claims 3 and 5-7 which depend from claim 1.

While it is true that the claims in a patent application are to be given their broadest reasonable interpretation consistent with the specification during prosecution of a patent application (see, for example, In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989)), it is also well settled that terms in a claim should be construed as those skilled in the art would construe them (see Specialty Composites v. Cabot Corp., 845 F.2d 981, 986, 6 USPQ2d 1601, 1604 (Fed. Cir. 1988) and In re Johnson, 558 F.2d 1008, 1016, 194 USPQ 187, 194 (CCPA 1977).

In this instance, it is apparent from a reading of page 1, lines 9-18, of appellant's specification that "traffic control devices" as used in appellant's specification refer to

devices, such as speed limit signs, traffic metering lights, traffic signs and traffic signals. Appellant's discussion in the specification from page 2, line 11, to page 3, line 17, also makes a distinction between the use of the GPS information to regulate "traffic control devices," such as traffic signals, traffic signs and metering lights, and the use of the GPS information to transmit alternate routing information back to the vehicle. Accordingly, in light of the underlying disclosure and consistent with appellant's arguments throughout the brief, we do not consider a vehicle to be a traffic control device as that terminology is used in appellant's claim 1.

The examiner's reliance (answer, page 4) on Ayanoglu's disclosure in column 3, lines 51-61, as a teaching of regulating speed limits based upon traffic information is not well placed. This portion of Ayanoglu's disclosure addresses the type of traffic information, such as traffic speeds, which is input to a central database for use in determining best route information for transmission to vehicles. Ayanoglu provides no disclosure whatsoever of regulating speed limits as the examiner alleges or of transmitting control signals to

traffic control devices such as speed limit or traffic signs, traffic signals or traffic metering lights to regulate traffic.

Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984). In other words, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. Scripps Clinic & Research Found. v. Genentech Inc., 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991). In that Ayanoglu lacks a teaching of transmitting traffic control signals to traffic control devices as recited in claim 1, the examiner's rejection of claim 1, as well as claims 3 and 5-7 which depend from claim 1, as being anticipated by Ayanoglu must fail.[1]

The obviousness rejection

[1] See Kloster Speedsteel AB v. Crucible Inc., 793 F.2d 1565, 1571, 230 USPQ 81, 84 (Fed. Cir. 1986) ("absence from the reference of any claimed element negates anticipation").

While appellant has argued, and we agree, that Ayanoglu lacks a teaching of transmitting traffic control signals to traffic control devices as recited in claim 1, the examiner's obviousness rejection is based on a combination of the teachings of Ayanoglu and Marcy. Appellant's brief does not challenge the examiner's determination that it would have been obvious, in view of the teaching by Marcy of regulating traffic lights using traffic patterns analyzed on the basis of traffic information obtained by automated traffic monitoring devices, to use the traffic information stored in the central database 50 of Ayanoglu to regulate traffic control devices such as traffic lights to alleviate road encumbrances. In that we discern no error in the examiner's determination of obviousness based on the combination of references and appellant has not addressed the combination of references applied by the examiner in the obviousness rejection, we shall sustain the rejection of claims 2 and 4.

NEW GROUND OF REJECTION

Pursuant to our authority under 37 CFR § 1.196(b), we enter the following new ground of rejection.

Claims 1 and 5-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ayanoglu in view of Marcy.

Our discussion *supra* of Ayanoglu and Marcy is incorporated herein. As noted above, Ayanoglu discloses the method of claim 1 with the exception of the step of transmitting traffic control signals to traffic control devices. However, Marcy's teaching of regulating traffic lights using traffic patterns analyzed on the basis of traffic information obtained by automated traffic monitoring devices would have provided ample suggestion to one skilled in the art to use the traffic information stored in the central database 50 of Ayanoglu to regulate traffic control devices such as traffic lights to alleviate road encumbrances.

As for claim 5, Ayanoglu discloses transmission of signals and traffic information via a wireless radio link (column 3, line 43). In light of this teaching, it would have been obvious to transmit control signals to the traffic control devices, such as traffic lights, over a wireless radio link. With regard to claims 6 and 7, Ayanoglu teaches transmitting real time information about traffic patterns to individual vehicles to enable course determination (see column

3, line 31, to column 5, line 46). With particular regard to claim 7, Ayanoglu contemplates using the traffic information in a driverless vehicle navigation system (column 5, lines 41-43), which, from our perspective, would involve automatically routing the individual vehicles based on traffic patterns determined from the traffic information in the central database 50.

Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Ayanoglu in view of Marcy, as applied to claim 1 above, and further in view of the admitted prior art (AAPA) on page 1 of appellant's specification.

As explained above, Ayanoglu and Marcy suggest using GPS traffic information to analyze traffic patterns and transmitting control signals, based on those traffic patterns, to traffic control devices such as traffic lights. Further, as admitted by appellant on page 1 of the specification, it was known in the art at the time of appellant's invention to change speed limits displayed on speed limit signs based on traffic conditions in order to alleviate traffic congestion on existing roadways and highways. Thus, it would have been obvious to one skilled in the art at the time of appellant's

invention to use the traffic information obtained from GPS information and other sources as taught by Ayanoglu to regulate variable speed limit signs in order to alleviate traffic congestion on existing roadways and highways.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 3 and 5-7 under 35 U.S.C. § 102(e) and claims 2 and 4 under 35 U.S.C. § 103(a) is reversed as to claims 1, 3 and 5-7 and affirmed as to claims 2 and 4. New grounds of rejection of claims 1, 3 and 5-7 are entered pursuant to 37 CFR § 1.196(b).

In addition to affirming the examiner's rejection of one or more claims, this decision contains new grounds of rejection pursuant to 37 CFR § 1.196(b). 37 CFR § 1.196(b) provides, "A new ground of rejection shall not be considered final for purposes of judicial review."

Regarding any affirmed rejection, 37 CFR § 1.197(b) provides:

> (b) Appellant may file a single request for rehearing within two months from the date of the original decision . . . .

37 CFR § 1.196(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new grounds of rejection to avoid termination of proceedings (37 CFR § 1.197(c)) as to the rejected claims:

> (1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .
>
> (2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

Should the appellant elect to prosecute further before the Primary Examiner pursuant to 37 CFR § 1.196(b)(1), in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If the appellant elects prosecution before the examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned

to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for rehearing thereof.

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

AFFIRMED-IN-PART; 37 CFR § 1.196(b)

CHARLES E. FRANKFORT Administrative Patent Judge	)
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JENNIFER D. BAHR Administrative Patent Judge	)

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