

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 35

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RAZIEL HAIMI-COHEN and ADAM V. REED

Appeal No. 1998-2974
Application No. 08/524,106

ON BRIEF

Before THOMAS, GROSS, and BARRY, Administrative Patent Judges.
GROSS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 14, 15, 17 through 19, 21, 22, and 24 through 27, which are all of the claims pending in this application. The rejection of claim 15, however, does not appear in the Examiner's Answer, nor is the secondary reference previously used in the rejection of claim 15 included in the Examiner's Answer under the listing of the prior art. Therefore, we assume that the rejection of claim 15 has been withdrawn. Accordingly, only claims 14, 17

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through 19, 21, 22, and 24 through 27 remain before us on appeal.

Appellants' invention relates to a method of speech recognition in a telecommunication network wherein an input signal is estimated, plural approximations are output, and one of the approximations is confirmed. Claim 14 is illustrative of the claimed invention, and it reads as follows:

14. A method of speech recognition in a telecommunication network consisting essentially of the steps of placing an input signal onto the network from a first terminal, estimating the content of the input signal within the network, transmitting an output signal comprising an estimate of the content of the input signal back to the first terminal for confirmation, said estimate comprising more than one approximation of the input signal, and confirming one of the more than one approximation.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Hanle et al. (Hanle)	5,054,055	Oct. 01, 1991
Larkey	5,127,055	Jun. 30, 1992
Darden	5,204,894	Apr. 20, 1993
Rhee	5,524,137	Jun. 04,
1996		

(filed Oct. 04, 1993)

Claims 14, 18, 22, and 24 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Darden.

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Claims 17, 19, and 21 stand rejected under 35 U.S.C. § 103 as being unpatentable over Darden in view of Hanle and Larkey.

Claims 25 through 27 stand rejected under 35 U.S.C. § 103 as being unpatentable over Darden in view of Rhee.

Reference is made to the Examiner's Answer (Paper No. 29, mailed April 14, 1998) for the examiner's complete reasoning in support of the rejections, and to appellants' Brief (Paper No. 28, filed March 23, 1998) and Reply Brief (Paper No. 31, filed August 13, 1998) for appellants' arguments thereagainst.

OPINION

We have carefully considered the claims, the applied prior art references, and the respective positions articulated by appellants and the examiner. As a consequence of our review, we will reverse both the anticipation rejection of claims 14, 18, 22, and 24 and also the obviousness rejections of claims 17, 19, 21, and 25 through 27.

Independent claims 14 and 24 recite "transmitting an output signal comprising an estimate of the content of the input signal . . . said estimate comprising more than one approximation of the input signal." Similarly, independent

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claims 25 and 27 each recite "transmitting an output signal comprising more than one approximation of the content of the input signal." Thus, all of the claims require that the output signal include plural approximations of the input signal. Darden discloses (column 6, lines 10-52) that a subscriber stores a listing in a directory by saying the first four letters of the name to be stored followed by the complete name and the telephone number. To retrieve a listing in the directory, the subscriber is asked to say the first four letters of the name to be retrieved. Then the voice recognition unit replies with all of the names that begin with those first four letters, and the subscriber then confirms which of the names is the correct listing. (See column 6, line 63-column 7, line 26.) Thus, the input signal consists of the first four letters of the name to be retrieved. The output, however, does not approximate the content of the first four letters, as explained by appellants (Brief, page 5), but rather includes all names stored using the four letters. Although Darden may output multiple names, the names are not approximations of the input. Since Darden does not meet each and every limitation of claims 14, 18, 22, and 24, we cannot

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sustain the anticipation rejection of claims 14, 18, 22, and 24.

Regarding claims 17, 19, and 21, Hanle and Larkey fail to cure the deficiency of Darden. Specifically, Hanle is directed to a caller identification system which displays information about a caller to the person being called. Hanle does not disclose a voice recognition system which outputs plural approximations of an input signal. Larkey discloses a voice recognition system in which during speech recognition, the user modifies the content of stored representations by changing a quality score for each of plural candidates which approximate the input speech to indicate or confirm which candidate should be stored as the best. Although Larkey appears to disclose the claimed method steps of providing an input signal (though not on a telecommunications network), transmitting an output signal comprising more than one approximation of the input signal, and confirming one of the approximations, it is unclear how or why one would combine Larkey's method of modifying stored representations of speech with Darden's phone directory retrieval system to arrive at the claimed invention of a speech recognition system in a

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telecommunication network. Therefore, we will not sustain the rejection of claims 17, 19, and 21 over Darden, Hanle, and Larkey.

As to claims 25 through 27, the examiner combines Rhee with Darden. However, Rhee fails to cure the deficiency of Darden noted above. In particular, Rhee discloses a multi-media messaging system, not a voice recognition system which outputs a plurality of approximations of an input signal. Consequently, the examiner has failed to establish a *prima facie* case of obviousness, and we cannot sustain the rejection of claims 25 through 27.

The reversal of the rejection is based solely on the record before us. Although we note the similarities between Larkey's method and the claimed steps, we decline to make a new ground of rejection combining Larkey's method with a telecommunication network, since we find no evidence in the record before us that would suggest the combination as recited in the claims. There is no reason, in our judgement, as to why it would have been obvious to combine Larkey with Daudelin, PN 4,922,519, as proposed in the concurring

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opinion. 35 U.S.C. § 103 requires that the combination would have been obvious, not merely that it could have been obvious or that the references could have been combined.

CONCLUSION

The decision of the examiner rejecting claims 14, 18, 22, and 24 under 35 U.S.C. § 102(e) is reversed. The decision of the

examiner rejecting claims 17, 19, 21, and 25 through 27 under 35 U.S.C. § 103 is reversed.

REVERSED

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JAMES D. THOMAS)
Administrative Patent Judge)
) BOARD OF PATENT
) APPEALS AND
) INTERFERENCES
)
ANITA PELLMAN GROSS)
Administrative Patent Judge)
)

BARRY, Administrative Patent Judge, Concurring:

I agree with the majority's decision to reverse the
examiner's rejection of claims 14, 18, 22, and 24 as being

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anticipated by Darden; his rejection of claims 17, 19, and 21 as being obvious over Darden in view of Hanle and Larkey; and his rejection of claims 25-27 as being obvious over Darden in view of Rhee. In addition, I would enter a new ground of rejection under 37 C.F.R. § 1.196(b). Specifically, I would reject at least claims 14 and 24 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 4,922,519 (Daudelin)¹(copy attached) in view of Larkey.

The appellants admit that employing a speech recognizer in a telecommunications networking environment was known in the art, citing Daudelin as evidence thereof. Specifically, "the speech recognizer itself can be located ... in the network as in United States Patent No. 4,922,519." (Spec. at 1.) Although Daudelin describes "an illustrative embodiment of [its] invention," col. 16, ll. 57-58, the reference emphasizes that "various and numerous other arrangements may be devised by one skilled in the art" Col. 17, ll. 3-5.

¹Daudelin was patented on May 1, 1990.

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Larkey would have suggested one such arrangement. The reference teaches an inventive "speech recognition apparatus and method." Col. 1, ll. 11-12. I agree with the majority that "Larkey appears to disclose the claimed method steps of providing an input signal ..., transmitting an output signal comprising more than one approximation of the input signal, and confirming one of the approximations" Furthermore, Larkey mentions several advantages of its invention. Specifically, "a primary object of the invention is to improve the recognition accuracy in a speech recognition environment. Other objects of the invention are a dynamic reference pattern updating mechanism for improving the precision with which incoming unknown speech can be identified, and providing reference patterns which better characterize a speaker's manner of pronouncing a selected word vocabulary." Col. 1, ll. 49-56. Because employing Larkey's speech recognition apparatus and method in Daudelin's speech recognition environment, i.e., its telecommunications network, would have improved recognition accuracy, improved identification precision, and better characterized a speaker's manner of pronunciation, I am persuaded that the prior art as a whole

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would have suggested arranging the invention of claims 14 and 24. Therefore, I would enter a new ground of rejection against claims 14 and 24 as being obvious over Daudelin in view of Larkey.

LANCE LEONARD BARRY) BOARD OF PATENT
Administrative Patent Judge) APPEALS AND
) INTERFERENCES

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