

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HORST FROESSL

Appeal No. 96-1190
Application 07/950,177¹

ON BRIEF

Before KRASS, BARRETT, and FLEMING, Administrative Patent Judges.

BARRETT, Administrative Patent Judge.

¹ Application for patent filed September 24, 1992, entitled "Computer Method For Processing Records With Images And Multiple Fonts," which is a continuation-in-part of Application 07/783,212, filed October 28, 1991, now abandoned.

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DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the final rejection of claims 17-26. Claims 1-16 have been canceled.

We reverse.

BACKGROUND

The disclosed invention is directed to a character recognition method.

Claim 17 is reproduced below.

17. A computer-implemented method of preparing for storage and retrieval data from source documents comprising the steps of

establishing in computer memory stored patterns of electrical signals forming lexicons of images of characters in at least one font,

comparing signals representative of images of characters from the source documents with stored signals representative of images of characters in the lexicons,

identifying signals representative of images of characters for which no match is found as ambiguous characters; and

storing the signals representative of images of ambiguous characters for use in retrieval of documents in which the ambiguous characters appeared.

The examiner relies on the following prior art patent:

Katsuyama et al. (Katsuyama) 5,197,107 March 23, 1993

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(filed July 20, 1989)

Claims 17-26 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Katsuyama.

We refer to the Final Rejection (Paper No. 9) (pages referred to as "FR__") and the Examiner's Answer (Paper No. 14) (pages referred to as "EA__") for a statement of the examiner's position and to the Brief (Paper No. 13) (pages referred to as "Br__") and the Reply Brief (Paper No. 15) (pages referred to as "RBr__") for a statement of appellant's position.

OPINION

"Anticipation is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention." RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984).

Claims 17-21

Appellant argues that Katsuyama does not perform the claimed steps of "identifying signals representative of images of characters for which no match is found as ambiguous

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characters; and storing the signals representative of images of ambiguous characters for use in retrieval of documents in which the ambiguous characters appeared."

The examiner states (FR7; EA5):

Where the patterns of electrical signals forming lexicons of images of both character fonts and non-character shapes stored in the computer memory contains ambiguous characters for use in retrieval of documents in which the ambiguous character appeared (refer to column 15, line 64 through column 16, line 12). The thinning or thickening of characters in memory generates distorted characters which corresponds to applicant's ambiguous characters.

Although the initial capital letter and the final period make the first sentence above a typographical sentence, it is not a grammatical sentence because the word "where" turns the words into a dependent clause--a fragment. The idea intended to be conveyed is incomplete. We have read Katsuyama, column 15, line 64 through column 16, line 12, but fail to understand how it anticipates the claimed steps. The referenced portion of Katsuyama discusses carrying out a thickening/thinning operation governed by a parameter F and a magnification/reduction operation governed by a scale parameter S. The combination of parameters which provides the smallest "city block distance" are the optimum parameters for character recognition. Katsuyama says nothing about what

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happens when a character is "ambiguous," that is, when a character cannot be matched to a known character. In particular, Katsuyama does not disclose that an ambiguous (unidentified) character is identified as such and stored. Katsuyama, in fact, continues the recognition until recognition of all characters is complete and then enters a correction mode to allow a user to point out and correct erroneously recognized characters (figure 30; col. 23, lines 24-33);

The examiner discusses that Katsuyama generates distorted characters by thickening/thinning and magnification/reduction operations when characters are not recognized and states that "[i]t is this generation of distorted characters, that the examiner was trying to parallel to appellant's ambiguous characters" (EA8). We fail to understand the examiner's reading of the claimed limitations onto Katsuyama. The characters produced by thickening/thinning and magnification/reduction operations are used for matching and character recognition, they are not "signals representative of images of characters for which no match is found." The examiner does not explain where Katsuyama addresses

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identifying unmatched characters as ambiguous characters and storing these ambiguous characters.

Appellant argues that "[a]t no place in Katsuyama et al is there any indication that an unrecognized character or ambiguous character is stored and subsequently used as part of a search word for retrieval of a document in which the ambiguous character appeared" (emphasis added) (Br7). The examiner states that there is no support in claim 17 for the emphasized language. We agree with the examiner that claim 17 requires storing signals "for use in retrieval of documents," which does not positively recite the step of using the ambiguous character in a subsequent search. Nevertheless, we agree with the first part of appellant's argument, that "[a]t no place in Katsuyama et al is there any indication that an unrecognized character or ambiguous character is stored" (Br7) and, absent such a teaching, there is no anticipation. Accordingly the rejection of claims 17-21 is reversed.

Claims 22-26

Claim 22 calls for identifying numerals by comparing signals representative of images of characters from a source

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document with stored patterns of electrical signals forming lexicons of images of characters, "assigning a value to signals representing each numeral found," and "using the signals representing the images of the numerals to perform calculations." Claim 25 calls for identifying numerals by comparing signals representative of images of characters from a source document with stored patterns of signals forming lexicons of images of characters and "displaying only the characters representing numerals for human review and storing signals representative of other characters without human review." Neither claim 22 nor claim 25 recite identifying ambiguous characters.

Appellant argues that "there is no cogent or comprehensible rejection of claims 22-26 and there is no disclosure in Katsuyama et al which can be said to provide any reasonable basis for a rejection of those claims under § 102(e) or any other section of the statute" (Br9). The examiner disagrees, stating that claims 22 and 25 are similar in content to claim 17 and that claims 22 and 25 were directly addressed in the Final Rejection (EA9). The examiner equates "using signals to perform calculations" with "reiteration of

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the correction algorithm" (EA12). Appellant responds that "[i]f this is not a new ground of rejection, it is certainly a total rephrasing of prior rejections" (RBr2). We agree with appellant that the Final Rejection did not address the specific limitations of claims 22 and 25, much less in this specific way. Nevertheless, we consider the examiner's new reasons to be unpersuasive.

The examiner compares the limitations of claim 17 with claims 22 and 25 (EA9-12). The first two limitations of claims 17, 22, and 25, establishing stored patterns and comparing signals, are similar and are not disputed as being in Katsuyama.

The third limitation in claim 17 of "identifying signals . . . for which no match is found as ambiguous characters" is not found in Katsuyama as discussed supra. The third limitation of claims 22 and 25 of "identifying signals . . . which represent numerals" is found in Katsuyama because Katsuyama identifies both letters and numerals.

The fourth limitation of claim 17 of "storing the signals representative of images of ambiguous characters for use in retrieval of documents in which the ambiguous characters

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appeared" is not found in Katsuyama as discussed supra. As to the fourth and fifth limitations of claim 22 of "assigning a value to signals representing each numeral found" and "using the signals representing the images of the numerals to perform calculations," the examiner states that "the limitation of using the signals to perform calculations is fairly broad, so the reiteration in the correction algorithm can be considered other calculations" (EA12). We disagree. Presumably the examiner is referring to the correction of image data by thickening/thinning and magnification/reduction of the image shown as step 405 in figure 7 and the procedure for determining optimum parameters in figure 21. This external procedure is not the same thing as recognizing a numeral and then using a value assigned to the recognized numeral in performing calculations. If the examiner is referring to extraction of the characteristic quantity in step 423 of figure 21 followed by calculation of distance in step 424, these are steps in the recognition, not a step subsequent to recognition as claimed. We agree with appellant's argument (RBr2) that the claimed steps of assigning values and performing calculations is not the same as the reiteration

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sequence referred to by the examiner. Accordingly, we find that Katsuyama does not anticipate claims 22-24. The rejection of claims 22-24 is reversed.

As to the fourth limitation of claim 25, "displaying only the characters representing numerals for human review and storing signals representative of other characters without human review," the examiner refers only to "figure 28 : 43" (EA12). Element 43 in figure 28 is a display. Katsuyama apparently displays all the characters for possible correction in a correction mode (col. 23, lines 24-33). We find no description of the selective displaying of only numerals as recited in claim 25, nor does the examiner explain how such limitation is disclosed by Katsuyama. Accordingly, we find that Katsuyama does not anticipate claims 25 and 26. The rejection of claims 25 and 26 is reversed.

CONCLUSION

The rejection of claims 17-26 is reversed.

REVERSED

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Administrative	Patent Judge)
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)	BOARD OF PATENT
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