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. 38

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte BRENDAN MURRAY
and
KUNIAKI TAKIZAWA

Appeal No. 2004-0963
Application 09/384,088

HEARD: JANUARY 11, 2005

Before THOMAS, BARRY and SAADAT, ~~Administrative Patent Judges~~.

THOMAS, ~~Administrative Patent Judge~~.

~~DECISION ON APPEAL~~

Appellants have appealed to the Board from the examiner's final rejection of claims 1-32, 37 and 40-43.

Representative claim 1 is reproduced below:

1. A method of evaluating characters in an inputted search string to generate a search index, comprising the steps of:

a) accepting an input of the characters of the search string, wherein the characters can be represented in any of a plurality of character sets corresponding to an undetermined language;

b) evaluating the search string by comparing each of the characters of the search string to a plurality of pre-determined candidate character sets to determine one or more matches between the plurality of pre-determined candidate character sets and the search string; and

c) generating the search index by assigning character sets to a code page, wherein the character sets are assigned based on the results of the evaluation of the characters of the search string and the plurality of pre-determined candidate character sets that correspond to the characters of the search string.

The following references are relied on by the examiner:

Tateno	5,778,400	July 7, 1998 (filing date Feb. 22, 1996)
Halstead, Jr. et al. (Halstead)	5,946,648	Aug. 31, 1999 (filing date July 24, 1998)
Houchin et al. (Houchin)	6,321,192	Nov. 20, 2001 (filing date Oct. 22, 1998)
Marshall	WO 92/15067	Sept. 3, 1992

All claims on appeal stand rejected under 35 U.S.C. § 103. As evidence of obviousness as to claims 1, 2, 4-10, 12-18, 20-26 and 28-32, the examiner relies upon Tateno in view of Halstead. In a second stated rejection, the examiner further relies upon Houchin as to claims 3, 11, 19 and 27. Lastly, the examiner considers claims 37 and 40-43 obvious in light of the combined teachings and showings of Tateno, Halstead, and Marshall. Seven additional rejections of claims 1, 9, 17 and 25 have been set forth at pages 4-16 of the final rejection, Paper No. 26, mailed on March 31, 2003, where the examiner provisionally rejects these claims under the judicially created doctrine of obviousness-type double patenting over various copending applications.

Rather than repeat the positions of the appellants and the examiner, reference is made to the brief (no reply brief has been filed) for the appellants' positions, and to the answer for the examiner's positions.

OPINION

Essentially for the reasons set forth by appellants in the brief, we reverse each of the separately stated rejections of all the claims on appeal under 35 U.S.C. § 103. On the other hand, as the examiner notes at page

2 of the answer, the seven outstanding provisional obviousness-type double patenting rejections noted earlier have not been addressed in the brief. As such, we ~~pro forma~~ sustain these rejections of these claims.

As noted at the bottom of page 3 of the brief on appeal, appellants group independent claims 1, 9, 17 and 25 together. Additionally, we note these claims are the independent claims presented in the first stated rejection and they each have corresponding limitations in respective method, system, system and medium claims.

To simplify our decision making in this appeal, we assume arguendo that the applied prior art is properly combinable within 35 U.S.C. § 103 for each of the three separately stated rejections. Additionally, no arguments are presented in the brief that the respective references are not properly combinable within 35 U.S.C. § 103.

Notwithstanding these considerations, we reverse the rejection of all claims in the first stated rejection, including each independent claim 1, 9, 17, and 25 and their respectively rejected dependent claims essentially for the reasons set forth by appellants between pages 5-7 of the brief. Since our study of Tateno and Halstead is substantially in agreement with the

appellants' views set forth at pages 6 and 7 of these arguments, we reproduce them here:

> Appellants respectfully submit that the portions relied upon by the Examiner in Halstead disclose postfix, stem, and prefix morphology analysis on broken subsections of an inputted Japanese text string. These postfix, stem and prefix are various morphemes (i.e., morphological sections) of a word. As one of ordinary skill in the art is aware, morphemes usually represents a group of multiple characters taken together. Thus, any analysis on each of these morphemes is on the group of characters as a whole, rather than each individual character within the group.
>
> Moreover, Halstead discloses an analysis for a stem morpheme by matching the whole stem morpheme against words stored in a primary lexicon file, stored morpheme patterns, and stored Kanji bi-gram (See col. 9, lines 35-50, col. 10, lines 12-19, and col. 12, lines 6-21 of Halstead). Therefore, Halstead does not teach or suggest comparing each character of the inputted search string to a plurality of predetermined candidate character sets as set forth in claim 1. For at least the foregoing reasons, Appellants respectfully submit that claim 1 is patentable over Tateno in view of Halstead.
>
> For the sake of argument, if the prefix morpheme is considered by the Examiner as a single character, Halstead still remains deficient in teaching or suggesting evaluating each of the characters of the inputted search string to a plurality of pre-determined candidate character sets, as set forth in claim 1, because the prefix is not the only morpheme in the inputted Japanese Text string disclosed by Halstead. In addition to prefix, the inputted Japanese text string in Halstead includes stem and postfix (See Fig. 2 of Halstead). A stem can not be

> considered a single character. For at least this additional reason, Appellants respectfully submit that claim 1 is patentable over Tateno in view of Halstead.

In accordance with the examiner's position, it is noted that the examiner views Tateno as not teaching any part of the evaluating step b (as set forth in representative independent claim 1 on appeal argued in the above-noted portions of the brief). From our study of the reference, it clearly focuses only upon searching through a tagged document for the location of any desired words rather than any specific characters comprising words as is required such as in the comparison operation in the evaluation step of representative claim 1 on appeal.

Correspondingly, even the title of Halstead "Identification of words in Japanese text by a computer system" focuses only upon words and parts of words, such as morphemes (including prefixes, stems and postfixes as portions of words). Halstead does not exclusively deal with any individual character comparisons. The initial states in the abstract of Halstead's patent emphasizes this as well as the discussion at column 3, lines 55-57 which indicates that the invention in Halstead is concerned with word breaking for breaking a text string of Japanese into separate words and

phrases.

Thus, even if Tateno and Halstead were properly combined within 35 U.S.C. § 103, we agree with appellants' basic urgings in the brief that the feature of evaluating a search string by comparing each of the characters in the search string to a plurality of predetermined candidate character sets cannot be met according to the combined teachings and showings of Tateno and Halstead irrespective of the examiner's urgings in the answer otherwise.

Dependent claims 3, 11, 19 and 27 stand rejected under 35 U.S.C. § 103 with the addition of Houchin. Again, the rejection of these dependent claims must be reversed for similar reasons as their parent independent claims as just stated in this opinion. For corresponding reasons, since Houchin clearly only focuses upon key word or phrase matching operations and does not aid the artisan in coming to grips with the claimed features of comparing each of the individual characters of a search string to a plurality of predetermined candidate character sets as necessary even for the independent claims 1, 9, 17 and 25 on appeal.

As a final matter in considering the last stated rejection of claims 37

and 40-43 under 35 U.S.C. § 103 in light of the collective teachings and showing of Tateno, Halstead and Marshall, we must reverse this rejection too. The examiner's positions focus upon the abstract and certain teachings at pages 14, 16 and 17 of Marshall and Figures 2 and 4 thereof. Although there are significant teachings of Marshall relating to a character string being made up of separately discernible substrings or patterns, the matching operations using masks focus upon the patterns as comprising more than one character. We recognize that there is a general teaching of a character pattern comprising at least one character, but the reference does not really develop this in such a manner as to lead us to understand the manner in which Tateno and Halstead could be combined with this reference to operate upon individual characters of a search string as claimed. The examiner's rationale of combinability of the teachings of Marshall to those of Tateno and Halstead focuses upon the bitmask feature discussed in this reference in a weakly developed manner in the answer. Additionally, the apparent ability of Marshal to operate upon character patterns of at least one character leads us to merely speculate as to how that would have been applicable to the combined teachings of Tateno and

Halstead to have arrived at the subject matter of claim 37 and claim 40 as representative of claims 40-43.

Essentially, from our study of Tateno, Halstead and Marshall, we are led to agree with and are persuaded by appellants' remarks with respect to claim 37 set forth at the bottom of page 14 of the brief on appeal which we reproduce here:

> Appellants respectfully submit that the portions relied upon by the Examiner in Marshall discloses matching a pattern of characters (i.e., a group of characters as a whole) against a text to identify occurrences of matching patterns in the text. In contrast, the Appellants' invention is directed to comparing representations of each character of a text against pre-selected character set indicators of a bitmask.

In a corresponding manner, the subject matter of representative claim 40 on appeal sets forth various recitations of bitmasks yet the examiner fails to address in detail the particular clauses comprising the bulk of the body of this representative claim. We agree with appellants' observation at the top of page 16 of the brief that the examiner apparently has not addressed in detail these limitations as they apply to representative claim 40 on appeal. The latter pages of the remarks portion of the answer

only briefly indicate the applicability of Marshall to the subject matter of representative claim 40 on appeal. There appears to us to be no attempted correlation of the applied prior art and the two recited clauses related to filling operations of each of claims 40-43 on appeal.

In summary, since we have sustained the various provisional obviousness-type double patenting rejections set forth in the final rejection of independent claims 1, 9, 17 and 25 on appeal, but have reversed the rejection of claims 1-32, 37 and 40-43 under 35 U.S.C. § 103, the decision of the examiner is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv)(effective Sept. 13, 2003; 69 Fed. Reg. 49960 (Aug. 12, 2004); 1286 Off. Gaz. Pat., Office 21 (Sept. 7, 2004)).

AFFIRMED-IN-PART

James D. Thomas Administrative Patent Judge	)	
Lance Leonard Barry Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
Mahshid Saadat Administrative Patent Judge	)	

JDT/cam

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