

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ERIC SAUND

Appeal No. 2000-1531
Application No. 08/897,405

ON BRIEF

Before HAIRSTON, KRASS, and RUGGIERO, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-28, all of the pending claims.

The invention is directed to controlling a computing

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device through recognition of hand drawn markings. More particularly, the hand drawn marks are rendered in electronic form by the use of a video camera and the electronic representation of the marks is analyzed to identify two types of hand drawn marks; a command designator, indicating a particular type of function or operation to be performed, and a selection designator, the detection of which causes the function of operation to be performed.

Representative independent claim 1 is reproduced as follows:

1. A method of initiating an action of a computing device using a hand drawn command designator hand drawn on a surface that produces no output in electronic form, an electronic camera system capturing an image of a set of hand drawn marks on the surface to generate an electronic rendition of the surface, the set of hand drawn marks including the command designator, a selection designator and other hand drawn marks, the method comprising:

a) analyzing the set of hand drawn marks represented by the electronic rendition of the surface to recognize the hand drawn command designator;

b) analyzing the set of hand drawn marks represented by the electronic rendition of the surface to recognize the presence on the surface of the hand drawn selection designator, the presence of the selection designator indicating selection of the action associated with the command designator; and

c) initiating performance of the action by the computing

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device if the hand drawn selection designator is present.

The examiner relies on the following references:

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| Endo et al. (Endo) | 5,012,521 | Apr. 30, 1991 |
| Bloomberg et al. (Bloomberg) | 5,201,011 | Apr. 06, 1993 |
| Hargrove | 5,371,847 | Dec. 06, 1994 |

(filed Sep. 22, 1992)

Claims 1-28 stand rejected under 35 U.S.C. 103. As evidence of obviousness, the examiner cites Bloomberg and Endo with regard to claims 1-10, 12, 15-24 and 26, adding Hargrove to this combination with regard to claims 11, 13, 14, 25, 27 and 28.

Reference is made to the brief and answer for the respective positions of appellant and the examiner.

OPINION

We REVERSE.

It is the examiner's position that Bloomberg discloses a hand drawn designator for initiating an action of a computing device and an analysis of an electronic version of the hand drawn designator to recognize the designator. However, the

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examiner recognizes that Bloomberg fails to disclose the claimed set of hand drawn marks including a command designator, a selection designator and other hand drawn marks, an analysis to determine the presence of the selection designator indicating the selection of the action to be performed and the initiation of that action by the computing device if the hand drawn selection designator is present.

The examiner turns to Endo to supply these recognized deficiencies in Bloomberg and contends that it would have been obvious to combine Endo's selection designators and command designators with Bloomberg's image markup detection device because "it would have provided a method to perform various editing operations on the text surrounded by Bloomberg's circles" [answer-pages 4-5].

Our analysis of Bloomberg comports with appellant's assessment that Bloomberg merely "teaches the identification of hand drawn marks on a medium by distinguishing such marks from machine written (e.g. printed) marks" [brief-page 5].

The examiner's combination of teachings would take the extraction of the hand drawn marks taught by Bloomberg and

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analyze those marks as taught by Endo. As far as this reasoning goes, we have no problem with the combination. The problem is that the claims require more than a mere analysis of extracted hand drawn marks.

Independent claim 1 requires, inter alia, that the set of hand drawn marks includes "the command designator, a selection designator and other hand drawn marks." This set of hand drawn marks is analyzed to recognize the hand drawn command designator and then the set is analyzed to recognize the presence of the

hand drawn selection designator, whose presence indicates the selection of the action associated with the command designator.

Appellant argues that in Endo, analysis is performed on *all* hand drawn marks and not on merely a subset of those marks, i.e., only on the command designator and the selection designator. This argument seems to be borne out by reference to Endo's Figure 1 which shows that every tablet input, i.e., every hand drawn mark, is subject to pattern recognition at box 38. Of course, if every hand drawn mark in Endo constituted only command designators and selection

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designators, appellant's argument would fail.

In any event, we will not sustain the rejection of independent claim 1 under 35 U.S.C. 103 because we find no evidence in Bloomberg or Endo that those references contemplate distinguishing a command designator and a selection designator from other hand drawn marks, wherein the presence of the selection designator indicates selection of the action associated with the command designator. The examiner cites column 4, lines 24-67, of Endo for a showing of distinguishing a command designator from other hand drawn marks. That portion of Endo describes various inputs, including, for example, "X," "/", and closed parentheses, representative of the commands "erase," "cut," and "wrap," respectively.

While we agree that Endo certainly discloses hand drawn commands indicative of such commands as "erase," "cut," and "wrap," and that such commands cause the commanded action, it is unclear in Endo where there are command designators distinguished from selection designators such that the command designators indicate an action to be taken and the presence of a selection designator indicates selection of that action.

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The only explanation the examiner gives, at page 5 of the answer, is that Endo's wrapper is the command designator and the arrow head, described at column 4, lines 52 et seq., is the selection designator. However, Endo explains that a wrap command "has a function to recognize the pattern element enclosed by the closed pattern" and combining this wrapper with an arrow head defines "the operator having the commands to copy, magnify and reduce." Thus, in Endo, it appears that drawing the wrapper around a mark indicates that the mark, or pattern element, surrounded by the closed pattern is to be recognized. The arrow head then causes the command to "copy" the pattern recognized by the wrapper. Thus, the wrapper and the arrow head appear to be directed to two different operations. If Endo is to be suggestive of the instant claimed subject matter, for example, the wrapper would need to indicate the function of "copy" and then the drawing of the arrowhead, and sensing thereof, would indicate that the copy function had been selected and the copy function would be initiated.

The instant claimed invention requires that a command designator indicates a function to be performed and that a

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selection designator indicates the selection of that function and the performance of the function is initiated. We do not find this teaching in either Bloomberg or Endo, or in the combination thereof.

Independent claim 15 similarly requires the combination of a command designator and a selection designator, the selection designator indicating selection of the action associated with the command designator. Again, we find no such teaching or suggestion in the applied references.

Independent claims 10 and 24 do not mention the selection designator but they do call for first and second geometric shapes of the hand drawn marks to be determined and for analyzing the electronic renditions to find the first geometric shape and the second geometric "nested within the first geometric shape." While the examiner indicates that "Endo discloses the details of recognizing virtual circle, arc and other geometrical shapes,"

[answer-page 12], referring to column 4, lines 1-35, the examiner never indicates where the claimed second geometric shape being "nested within the first geometric shape" is suggested by the applied references. Accordingly, the

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examiner has not established a prima facie case of obviousness with regard to this claimed subject matter.

Since Hargrove does not provide for the deficiencies of Bloomberg and Endo, and we have not sustained the rejection of independent claims 1, 10, 15 and 24 under 35 U.S.C. 103, we also will not sustain the rejection of dependent claims 2-9, 11-14, 16-23 and 25-28 under 35 U.S.C. 103.

The examiner's decision is reversed.

REVERSED

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| KENNETH W. HAIRSTON |) | |
| Administrative Patent Judge |) | |
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| ERROL A. KRASS |) | BOARD OF PATENT |
| Administrative Patent Judge |) | APPEALS AND |
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