

EXHIBIT H



**UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/608,116	02/28/96	BISSET	S P-1930-1

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EXAMINER

BELL, P

ART UNIT	PAPER NUMBER
2775	8

DATE MAILED:


12/05/97

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No. 08/608,116	Applicant(s) Bisset et al.
Examiner PAUL BELL	Group Art Unit 2775



- Responsive to communication(s) filed on Aug 22, 1997
- This action is **FINAL**.
- Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

- Claim(s) 1-13, 15-17, and 20-45 is/are pending in the application.
- Of the above, claim(s) _____ is/are withdrawn from consideration.
- Claim(s) _____ is/are allowed.
- Claim(s) 1-13, 15-17, and 20-45 is/are rejected.
- Claim(s) _____ is/are objected to.
- Claims _____ are subject to restriction or election requirement.

Application Papers

- See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- The drawing(s) filed on _____ is/are objected to by the Examiner.
- The proposed drawing correction, filed on _____ is approved disapproved.
- The specification is objected to by the Examiner.
- The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - All Some* None of the CERTIFIED copies of the priority documents have been
 - received.
 - received in Application No. (Series Code/Serial Number) _____.
 - received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- *Certified copies not received: _____
- Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- Notice of References Cited, PTO-892
- Information Disclosure Statement(s), PTO-1449, Paper No(s). 5
- Interview Summary, PTO-413
- Notice of Draftsperson's Patent Drawing Review, PTO-948
- Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

RESPONSIVE TO AMENDMENT FILED ON 08/22/97.

1. The examiner is withdrawing his statement in office action mailed 4/18/97 that claims 1-13, 15-17 and 20-23 are allowable over the prior art of record. As a result of careful reconsideration of the prior art the allowance of these claims would be inappropriate.

2. Claims 2 and 15-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regards to claim 2, it is not clear what an aggregate area or aggregate position is, therefore it is vague and indefinite.

In regards to claim 15, it is not clear how an individual user of this method could have up to 15 fingers being scanned. The applicant for example, claims there are three groups of fingers and each group has up to five fingers. Therefore the claim is vague and indefinite as to how this can be done when an average user has 8 fingers and 2 thumbs.

Claim 17 recites the limitation "the pointing device". There is insufficient antecedent basis for this limitation in the claim.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-13, 26-34 is rejected under 35 U.S.C. § 103 as being unpatentable over Miller et al. (5,648,642).

In regards to claim 1, Miller et al. shows a method for detecting the operative coupling of multiple fingers to a touch sensor and scanning the touch sensor to identify a first maxima and minima following the maxima (abstract, figure 2 item 54 and 46 and figure 3A, column 1, lines 10-15, column 2, lines 1-10 and lines 52-64).

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Although Miller et al. does not directly show all possible waveforms such as a second maxima following the minima such a feature is suggested in the Miller et al. apparatus. To support this contention the examiner points to figure 3A where a single horizontal x line scan illustrates the centroid of the profile of an object touching the apparatus which by mathematical concept has a maxima and a minima. When you consider that Miller et al. states that his apparatus can detect and report if one or more points are being touched (column 2, lines 8-9) and further that his apparatus saves information for every node in its sensor matrix and can thereby give the full X/Y dimension picture of what it is sensing (column 2, lines 53-64). It is obvious that if two fingers were to touch the Miller et al. apparatus the corresponding profile plots would illustrate exactly what the applicant is claiming in 1.

In regards to claims 3-6 and 29-34 where the applicant claims mouse functions such as pointing device, drag, select ink function, removal and replacement of maxima and reaching the edge, the examiner contends that such mouse functions are common and since Miller et al. states that his apparatus can be used as a mouse (column 2, lines 1-10) such functions would be obvious. The examiner serves official notice that all of these claimed mouse functions or methods of operation are well-known.

In regards to claims 26-28 Miller et al. shows the maxima the largest local peak variation in a single value on a line due to capacitive coupling of a finger (figure 3a).

In regards to claims 7-13, 23 and 35-45 all of the limitations were already addressed above.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 2, 15-17, 20- 22, 24-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Dunthorn (4,914,624).

In regards to claim 2, Dunthorn to summarize shows a method for detecting the operative coupling of a plurality of fingers to a touch sensor based on the position or area of those fingers (abstract and figure 1 item 22 and 29 and column 3, lines 1-44 and column 4, lines 11-24).

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In regards to claim 15, Dunthorn to summarize shows in figure 1 three buttons that each respond to a group of at least one finger.

In regards to claim 16, Dunthorn to summarize shows in figure 1 fingers and as a result of motion of those fingers to touch buttons they are detected.

In regards to claim 17, Dunthorn to summarize shows in figure 1 item 28 which is text and states in column 6, lines 56-66 that you can scroll (cycle) through it.

In regards to claim 20, Dunthorn to summarize shows the operative coupling and decoupling of multiple objects to a touch sensor to perform a control function (abstract and figure 1 item 22 and 29 and column 3, lines 1-44 and column 4, lines 11-24).

In regards to claims 21 and 22, Dunthorn to summarize shows the "button down" feature (figure 1 and 2).

In regards to claims 24 and 25, Dunthorn to summarize shows the control function comprises a cursor movement (column 2, lines 28-47) and objects comprise fingers (figure 1 and 2).

7. Claims 2, 15 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Greanias et al. (4,686,332).

In regards to claim 2, Greanias et al to summarize shows a method for detecting the operative coupling of a plurality of fingers to a touch sensor based on the position or area of those fingers (figure 19). This claim is very broad because an average user has a plurality of fingers and he may use one finger at one instant of time and the next use a different finger or he may even use two fingers together and since the Greanias device works under all these conditions of finger use it reads on the applicants broad claim 2.

In regards to claim 15, Greanias et al. to summarize shows in figure 19 a finger controlling a cursor on a touch display. It is inherent that at time 1 on scan 1 that a operator can have finger 1 on the screen and before time 2 lift finger one and put down finger 2 for scan 2 and for time 3 have finger 3 for scan 3. This claim is very broad.

In regards to claim 20, Greanias et al. to summarize shows the operative coupling and decoupling of multiple objects to a touch sensor to perform a control function (figure 19, item 70, 60, 270 and 260).

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8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure; Logan et al. (5,327,161), Stein et al. (5,365,461), Mikan (5,376,946), Calder et al. (5,432,531); Tannenbaum et al. (5,442,376), Miller et al. (5,495,077), Gerpheide et al. (5,565,658), Arbeitman et al. (5,528,266) and Gillespie et al. (5,543,591) all show display touch input devices.

9. Applicant's arguments filed 8/22/97 with respect to claims 1-45 have been considered but are moot in view of the new ground(s) of rejection. (Reference 1-45 rejections above)

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Bell whose telephone number is (703) 306-3019. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to: Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to: (703) 308-9051, (for formal communications intended for entry)

Or: (703) 308- 8606 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to: Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

PAB
Paul Bell
11/24/97


STEVEN SARAS
PRIMARY EXAMINER