

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(2) is not binding precedent of the Board.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. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARK L. WAMBACH

Appeal No. 1997-0800
Application 08/382,926¹

ON BRIEF

Before THOMAS, FLEMING, and HECKER, Administrative Patent Judges.

HECKER, Administrative Patent Judge.

¹ Application for patent filed February 02, 1995.
According to appellant, this application is a division of
07/807,197, filed December 16, 1991.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 21 through 30, all claims pending in this application.

The invention relates to a computer mouse glove. In one embodiment of the invention, left-right movement of the wrist controls the horizontal component of a cursor movement in a video display, while up-down movement of an index finger controls the vertical component of a cursor movement. Additional sensors permit other fingers to control "click" buttons on the hand-worn device for implementing the select and drag functions.

Representative independent claim 21 is reproduced as follows:

21. A computer mouse for controlling movement of a cursor in a video display in at least first and second opposing directions, comprising:

a glove-like apparel having at least one finger joint and a finger, said finger being rotatable about said joint from an initial rotational position in opposing first and second directions through first and second rotated positions respectively;

a microswitch apparatus mounted on said glove-like apparel near said finger joint and having first and second ON states occurring while said finger remains rotated from said initial rotational position through at least a

Appeal No. 1997-0800
Application No. 08/382,926

corresponding one of said first and second rotated positions;

a circuit connected to said microswitch apparatus for converting an occurring one of said first and second ON states of said microswitch apparatus to a command signal to move said cursor in a corresponding one of said first and second directions for a duration of said occurring ON state.

The Examiner relies on the following references:

Robinson, II	4,613,139	Sep. 23, 1986
Kramer et al.(Kramer)	5,280,265	Jan. 18, 1994 (filed Dec. 10, 1990)
Darroch	Canada No.1,245,782	Nov. 29, 1988

Claims 26 and 27 stand rejected under 35 U.S.C. § 103 as being unpatentable over Robinson in view of Darroch.

Claims 21 through 25 and 28 through 30 stand rejected under 35 U.S.C. § 103 as unpatentable over Robinson in view of Darroch and Kramer.

A 35 U.S.C. § 112, second paragraph, rejection of claim 27 has been withdrawn by the Examiner upon entry of an amendment. A rejection of all pending claims for obviousness-type double patenting has been withdrawn due to the filing of

Appeal No. 1997-0800
Application No. 08/382,926

a terminal disclaimer.

Rather than reiterate the arguments of Appellant and the Examiner, reference is made to the brief and answer for the respective details thereof.

OPINION

After a careful review of the evidence before us, we will not sustain the rejection of claims 21 through 30 under 35 U.S.C. § 103.

The Examiner has failed to set forth a *prima facie* case. It is the burden of the Examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the reasonable teachings or suggestions found in the prior art, or by a reasonable inference to the artisan contained in such teachings or suggestions.

In re Sernaker, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983). "Additionally, when determining obviousness, the claimed invention should be considered as a whole; there is no

Appeal No. 1997-0800
Application No. 08/382,926

legally recognizable 'heart' of the invention." **Para-Ordinance
Mfg. v. SGS Importers Int'l, Inc.**, 73 F.3d 1085, 1087, 37
USPQ2d 1237, 1239 (Fed. Cir. 1995) (**citing W. L. Gore &
Assocs., Inc. v. Garlock, Inc.**, 721 F.2d 1540, 1548, 220 USPQ
303, 309
(Fed. Cir. 1983), **cert. denied**, 469 U.S. 851 (1984)).

With regard to the rejection of claims 26 and 27 under 35 U.S.C. § 103 as being unpatentable over Robinson in view of Darroch, Appellant argues on pages 4 and 5 of the brief that Darroch does not allow a user to type on a keyboard when wearing its device, that only Appellant uses velocity commands, and that Appellant's translation of commands is so simple that command translation is done on the glove itself.

These arguments fail at the outset because they are not based on limitations appearing in the claims. Thus, ability to use a keyboard with the glove on, use of velocity commands and where command translation is performed are

Appeal No. 1997-0800
Application No. 08/382,926

immaterial. See

In re Self, 671 F.2d 1344, 1350, 213 USPQ 1, 5 ((CCPA 1982).

The Examiner has combined Robinson with Darroch stating that Robinson teaches all the claimed elements, except the sensing apparatus (16a-16e, 18a-18b) is not disposed near a finger joint. And, since Darroch teaches an input device with a finger direction sensor (10) near a finger joint, it would have been obvious to have modified Robinson with Darroch since they both control movement of a cursor with finger movement and mounting the sensor near a finger joint would allow an operator's hand to remain in a typing position while the operator moves a finger to control cursor movement.

(Answer-pages 2 and 3.)

Appellant argues:

Robinson teaches sensing whether individual fingertips have been pressured to control mouse movement direction. Darroch teaches sensing the absolute position of a finger to control cursor movement. The Examiner then makes a leap in logic to say that fingertip contact sensing (Robinson) plus absolute finger position sensing (Darroch) equals finger direction or finger joint rotation sensing. (Brief-page 5.)

Appeal No. 1997-0800
Application No. 08/382,926

We agree with Appellant. The Examiner admits that Robinson does not teach the claimed sensor at a finger joint. Although Darroch may be interpreted as sensing movement of a finger joint, by monitoring different finger positions, its optical finger position sensor is totally different than Robinson's fingertip contacts. To use Darroch with Robinson, one would have to through out just about everything on Robinson's glove and mount Darroch's device on a glove finger. We see no motivation to do so, without the hindsight of Appellant's disclosure. Even if one were to combine Robinson and Darroch, we find that the following limitation of claim 26 would not be met,

sensing apparatus mounted on said glove-like apparel near said finger joint and having first and second states indicative of rotation of said finger in a corresponding one of said first and second directions; (emphasis added)

because Darroch does not have two states indicative of two directions. Also, the combination of references would not meet the following limitation of claim 21,

a microswitch apparatus mounted on said glove-like apparel near said finger joint and having first and second ON states occurring while said finger remains rotated from said initial rotational

Appeal No. 1997-0800
Application No. 08/382,926

position through at least a corresponding one of said first and second rotated positions; (emphasis added)

because Darroch does not have two ON states, an initial position, and two corresponding rotated positions.

Kramer does not supply these missing limitations since it was cited for its "direction sensor" (answer-page 4) and it is unclear how one would combine Kramer with Robinson and Darroch. Darroch has been used to replace Robinson's fingertip switches, 16a-16e, and now Kramer is proffered by the Examiner to replace the same switches, 16a-16e. If Kramer now replaces switches 16a-16e, what happens to Darroch?

The Federal Circuit states that "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." ***In re Fritch***, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992), ***citing In re Gordon***, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). "Obviousness may not be established using hindsight or in view of the teachings

Appeal No. 1997-0800
Application No. 08/382,926

or suggestions of the inventor." *Para-Ordnance Mfg. v. SGS Importers Int'l*, 73 F.3d at 1087, 37 USPQ2d at 1239, *citing W. L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d at 1551, 1553, 220 USPQ at 311, 312-13.

As pointed out above, we see no motivation to combine the cited references, nor how any resulting combination would meet the limitations of Appellant's two independent claims. Thus we will not sustain the Examiner's rejection of claims 21 and 26. Likewise, since the remaining claims on appeal also contain the above limitations, we will not sustain the Examiner's rejection of claims 22 through 25 and 27 through 30.

Appeal No. 1997-0800
Application No. 08/382,926

We have not sustained the rejection of claims 21 through 30 under 35 U.S.C. § 103. Accordingly, the Examiner's decision is reversed.

REVERSED

PATENT

James D. Thomas)	
Administrative Patent Judge)	
)	
)	BOARD OF
Michael R. Fleming)	
Administrative Patent Judge)	APPEALS AND
)	
)	INTERFERENCES
)	
Stuart N. Hecker)	
Administrative Patent Judge)	

Appeal No. 1997-0800
Application No. 08/382,926

SH/dm

Michaelson & Wallace
1001 Patridge Drive
Suite 330
Ventura CA 93003