

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

MAILED

Ex parte ERIK SOLHJJELL

FEB 6 1996

PAT & TM OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Appeal No. 95-2195
Application 07/717,936¹

ON BRIEF

Before HAIRSTON, JERRY SMITH and FLEMING, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1, 5, 6 and 8 through 11. In a first Amendment After Final (paper number 13), claim 8 was canceled, and claims 1 and 10 were amended. In a second Amendment After Final (paper number 16),

¹ Application for patent filed June 20, 1991.

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claim 9 was canceled. Accordingly, claims 1, 5, 6, 10 and 11 remain before us on appeal.

The disclosed invention relates to a mouse assembly having a roller ball mounted in both of the sidewalls of a computer keyboard.

Claim 11 is illustrative of the claimed invention, and it reads as follows:

11. A computer keyboard mouse system, comprising:

a computer keyboard having a substantially horizontal keyboard surface with a plurality of keys therein and having side walls at each opposite side of the keyboard;

a mouse assembly having a roller ball integrally mounted in both of the side walls such that the ball protrudes outwardly from an outer surface of the side wall with a remainder of the ball being inwardly of an outer surface of the side wall, and including means for retaining the roller ball inwardly of the outer surface; and

at least one control key for each of the mouse assemblies located and integrally mounted within the respective side wall directly adjacent the respective mouse assembly on the respective side wall.

The references relied on by the examiner are:

Kim	4,404,865	Sep. 20, 1983
Lachman	5,021,771	Jun. 4, 1991
Shiff	5,088,070	Feb. 11, 1992
		(filing date May 6, 1991)
Grant	5,119,078	Jun. 2, 1992
		(filing date Mar. 24, 1989)
Veel (U.K.)	2,221,016	Jan. 24, 1990
Malmkvist	W091/09363	Jun. 27, 1991

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Claims 1 and 11 stand rejected under 35 U.S.C. § 103 as being unpatentable over Lachman in view of Grant, Shiff and Malmkvist.

Claims 5, 6 and 10 stand rejected under 35 U.S.C. § 103 as being unpatentable over Lachman in view of Grant, Shiff, Malmkvist, Kim and Veel.

Reference is made to the briefs and the answers for the respective positions of the appellant and the examiner.

OPINION

We have carefully considered the entire record before us, and we will sustain the 35 U.S.C. § 103 rejection of claims 1 and 11, and reverse the 35 U.S.C. § 103 rejection of claims 5, 6 and 10.

Appellant and the examiner both agree that the reference to Lachman only discloses a roller ball 30 of a mouse assembly that projects from the upper surface 22 of a keyboard 13. In Figure 8 of the reference to Grant, a cursor control unit 146 is shown in the front face of a keyboard 102. At column 7, lines 3 through 26, Grant explains that the cursor control unit 146 in the front face of the keyboard is "similar to that of a track ball mouse or a joy stick," and that the "front of the keyboard provides an area where other keys or controls may be located to permit further advantageous use of the grasping motion of the thumb toward the forefinger." Based upon these teachings

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in Grant, we find that it would have been obvious to one of ordinary skill in the art to locate a trackball in lieu of the cursor control unit 146² in the front face of the keyboard, and to locate mouse control keys adjacent to the trackball assembly in the front face of the keyboard.

We agree with the appellant that the resultant modified structure in Grant does not disclose a mouse assembly roller ball and an associated control key protruding from both of the side walls³ of the keyboard. On the other hand, we are of the opinion that the skilled artisan would have known from the teachings of Grant to place the mouse on either the front face of the keyboard or the side walls of the keyboard for the advantage of saving space on the upper surface of the keyboard for other keys or controls. With respect to a roller ball and associated control keys in each of the side walls, we find that the two roller balls are never used at the same time, and that the claims on appeal are silent as to how the keyboard is held during use. (Brief, page 5). Some sort of undisclosed control is needed to shift

² The reference to Shiff discloses an actuator/cursor control unit 9 through 13 in Figure 1, and a trackball-type actuator 28 in Figure 2. The Abstract in Shiff indicates that the two types of actuators move selecting indicia similar to a cursor. The teachings of Shiff are merely cumulative to those already found in column 7, lines 5 through 7 of Grant.

³ The reference to Malmkvist discloses a detachable mouse that can be attached to the side wall of a keyboard.

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back and forth between the two roller balls and controls to accommodate both left and right-handed users of the keyboard. With that in mind, the skilled artisan would have known to locate a roller ball and associated controls in each of the sidewalls for both left and right-handed users of the keyboard if the increased cost of the two roller balls and associated controls is not a factor. Accordingly, we agree with the examiner that "a track ball or a mouse to be mounted on both sides of a keyboard is an obvious design choice." (Examiner's Reply Brief, page 1).

In view of the foregoing, the 35 U.S.C. § 103 rejection of claim 11 is sustained. The 35 U.S.C. § 103 rejection of claim 1 is likewise sustained because appellant has chosen in the grouping of the claims to let this claim stand or fall with claim 11.

Turning to the 35 U.S.C. § 103 rejection of claims 5, 6 and 10, we agree with the appellant that the references of record neither teach nor would they have suggested to the skilled artisan a mouse assembly "wherein the roller ball is retained in a ball retaining member which projects through an aperture in each of the side walls, and wherein a spring means is provided for biasing the ball retaining member outwardly." The reference to Kim discloses a trackball 65 that is biased outwardly by springs 39, but the trackball is not retained "in a ball retaining member which projects through an aperture" in the side

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wall of the cover 70. The same holds true for the trackball 1 which protrudes through the housing 2 in Veel. The 35 U.S.C. § 103 rejection of claims 5, 6 and 10 is reversed.

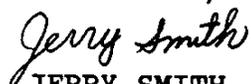
DECISION

The decision of the examiner rejecting claims 1, 5, 6, 10 and 11 under 35 U.S.C. § 103 is affirmed as to claims 1 and 11, and is reversed as to claims 5, 6 and 10. Accordingly, 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).

AFFIRMED-IN-PART


KENNETH W. HAIRSTON)
Administrative Patent Judge)


JERRY SMITH)
Administrative Patent Judge)


MICHAEL R. FLEMING)
Administrative Patent Judge)

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