Paper No. 29

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES L. LEVINE and MICHAEL A. SCHAPPERT

Appeal No. 1998-0936
Application No. 08/369,011

ON BRIEF[1]

Before GROSS, LEVY, and SAADAT, Administrative Patent Judges.

LEVY, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection[2] of claims 1-8 and 12-18. Claims 9-11 have been allowed.

[1] The Oral Hearing scheduled for November 21, 2002 has been waived by appellants in a communication received, via facsimile transmission, on October 16, 2002.

[2] The amendment (Paper No. 9, filed June 24, 1996) submitted subsequent to the final rejection (Paper No. 8, mailed April 24, 1996) has been denied entry by the examiner (Paper No. 10, mailed July 9, 1996). The amendment submitted concurrently with the brief (Paper No. 13½, filed September 10, 1996) has been entered by the examiner.

BACKGROUND

Appellants' invention relates to a wireless pointing device for remote cursor control. A circuit is connected to IRLEDs for sequentially pulsing the IRLEDs to individually and sequentially emit modulated infrared light signals. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced as follows:

1. A hand-held pointing device for remotely controlling a cursor on a display device comprising:

at least three infrared light emitting diodes (IRLEDs), each of said IRLEDs aimed off a main or pointing axis of the device in different directions;

at least one activating device on said hand-held pointing device; and

a circuit connected to each of said IRLEDs for sequentially pulsing said IRLEDs with pulse trains so as to cause the IRLEDs to individually and sequentially emit modulated infrared light signals to position said cursor.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Brienza et al. (Brienza)	4,150,285	Apr. 17, 1979
Auerbach	4,796,019	Jan. 3, 1989
Zalenski	4,807,166	Feb. 21, 1989
Ogasahara et al. (Ogasahara)	5,349,460	Sep. 20, 1994

Claims 1-3, 15, and 17 stand rejected under 35 U.S.C.

§ 102(b) as being anticipated by Auerbach.

Claims 7, 8, 16, and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Auerbach.

Claims 6 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Auerbach in view of Zalenski.

Claims Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Auerbach in view of Brienza.

Claims 4, 12, and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Auerbach in view of Ogasahara.

Rather than reiterate the conflicting viewpoints advanced by the examiner and appellants regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 14, mailed November 25, 1996) and supplemental answer (Paper No. 17, mailed March 10, 1997) for the examiner's complete reasoning in support of the rejections, and to appellants' brief (Paper No. 13, filed September 10, 1996) and reply brief (Paper No. 15, filed January 21, 1997) for appellants' arguments thereagainst. Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the brief have not been considered. See 37 CFR 1.192(a).

OPINION

In reaching our decision in this appeal, we have carefully considered the subject matter on appeal, the rejections advanced by the examiner, and the evidence of anticipation and obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, appellants' arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer and supplemental answer.

Upon consideration of the record before us, we reverse, for the reasons set forth by appellants in the brief and reply brief.

We begin with the rejection of claims 1-3, 15, and 17 under 35 U.S.C. § 102(b). As evidence of anticipation, the examiner offers Auerbach. To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently. In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997).

The issue before us is whether Auerbach discloses sequentially pulsing the IRLEDs to individually and sequentially emit modulated infrared light signals to position the cursor. Appellants assert (brief, page 7) that in Auerbach, the IRLEDs

are simultaneously pulsed, and phase modulation is then used to differentiate between the diodes at a receiver. The examiner's position (answer, page 6) is that the IRLEDs are individually and sequentially pulsed because each of the diodes "have been drive[n] by a circuit (see figure 6) with their own drive signals, which are +90°, 0, -90° square waves."

Auerbach discloses (col. 3, lines 43-49) that "LEDs of the handunit having respective fixed physical angular offsets from the pointing axis of the remote control handunit are simultaneously energized with respective signals having corresponding fixed phase shifts from a 0° reference phase." Auerbach further discloses (figure 5 and col. 6, lines 28-52) that IR transmission from the remote control is partitioned into four principal intervals. Signals transmitted during the synch and phase-reference interval synchronize the receiver with the transmitter. In the Y-axis measurement interval, there is simultaneous energization of LEDS 401-406. During the data measurement interval, a signal representative of the output of an array of pushbutton switches is transmitted simultaneously by all of the LEDs using the same energizing signal. In the X-measurement interval there is a simultaneous energization of LEDs 401-404, 407, and 408.

From our review of Auerbach, we find that the IRLEDs are simultaneously driven. Further, although Auerbach teaches (col. 8, lines 12-15) that groups of LEDs are lit in sequence to transmit information, Auerbach does not teach sequential lighting of individual IRLEDs. Accordingly, we agree with appellants (reply brief, page 2) that "the phases of the square-waves do not energize the LEDs in sequence, rather, they transmit information."

We are not persuaded by the examiner's assertion (answer, page 7) that "[h]owever, even though it is true [that Auerbach lights the three diodes simultaneously], it does [not] means Auerbach can not light these didoes [sic: diodes] (202,204, 206) individually and sequentially when he light these didoes [diodes] (202, 204, 206) simultaneously." (See also answer, page 8). We find that the examiner's assertion does not directly address the issue of whether Auerbach teaches the claim limitation of "sequentially pulsing said IRLEDs with pulse trains so as to cause the IRLEDs to individually and sequentially emit modulated infrared light signals" as recited in each of the independent claims. Because the examiner has not provided a showing that in Auerbach, the circuit sequentially pulses the IRLEDs to cause the IRLEDs to individually and sequentially emit modulated infrared

light signals to position the cursor, we find that the examiner has failed to establish a prima facie case of anticipation of the invention set forth in claims 1-3, 15, and 17. The rejection of claims 1-3, 15, and 17 under 35 U.S.C. § 102(b) is therefore reversed.

We turn next to the rejection of claims 7, 8, 16, and 18 under 35 U.S.C. § 103(a) as unpatentable over Auerbach. Independent claim 7, like claim 1, requires that the circuit connected to each of the IRLEDs sequentially pulses the IRLEDs to cause the IRLEDs to individually and sequentially emit modulated and infrared signals. Even if, assuming arguendo, the circuitry of Auerbach is capable of sequentially pulsing the diodes to cause the diodes to individually and sequentially emit the modulated infrared signals, we find no suggestion in Auerbach, and no suggestion or convincing line of reasoning has been brought to our attention by the examiner, that would have motivated an artisan to sequentially pulse the diodes to cause the diodes to individually and sequentially emit modulated infrared signals, as required by independent claim 7. Accordingly, we find that the examiner has failed to establish a prima facie case of obviousness of claims 7, 8, 16, and 18. The

rejection of claims 7, 8, 16, and 18 under 35 U.S.C. § 103(a) is therefore reversed.

We turn next to the rejection of claims 6 and 14 under 35 U.S.C. § 103(a) as unpatentable over Auerbach in view of Zalenski. We reverse the rejection of these claims because Zalenski does not make up for the basic deficiencies of Auerbach.

We turn next to the rejection of claim 5 under 35 U.S.C. § 103(a) as unpatentable over Auerbach in view of Brienza. We reverse the rejection of this claim because Brienza does not make up for the basic deficiencies of Auerbach.

We turn next to the rejection of claims 6 and 14 under 35 U.S.C. § 103(a) as unpatentable over Auerbach in view of Ogasahara. We reverse the rejection of these claims because Ogasahara does not make up for the basic deficiencies of Auerbach.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1-3, 15 and 17 under 35 U.S.C. § 102(b) is reversed. The decision of the examiner to reject claims 4-8, 12-14, 16, and 18 under 35 U.S.C. § 103(a) is reversed.

REVERSED

ANITA PELLMAN GROSS Administrative Patent Judge	)
STUART S. LEVY Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
MAHSHID D. SAADAT Administrative Patent Judge	)

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