

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

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte Ralph M. Kling

Appeal No. 2006-0717
Application No. 09/561,409

ON BRIEF

Before KRASS, BARRY, and BLANKENSHIP, *Administrative Patent Judges*.
BARRY, *Administrative Patent Judge*.

A patent examiner rejected claims 52-57, 63-67, and 77-80. The appellant appeals therefrom under 35 U.S.C. § 134(a). We reverse.

I. BACKGROUND

The invention at issue on appeal concerns keypads. (Spec., p. 1, l. 8.) Many electronic devices feature a keypad for inputting data. Figure 1 of the appellant's specification shows a keypad used primarily with phones. The keypad includes 12 keys: 10 keys for the numerals 0-9, a "#" key, and a "*" key. Alphabetic characters are also printed on the keys for the numerals 2-9. (*Id.* at ll. 11-16.)

Entering numerals via the keypad is straightforward. Because there are not enough keys to represent all the letters of the alphabet individually, however, entering alphabetic characters via the keypad can be cumbersome. (*Id.* at ll. 17-19.)

In contrast, the appellant's invention comprises a compact alphanumeric keypad having a numeric mode and an alphabetic mode. Figure 3A of his specification shows that his keypad features "interstitial" keys 309 and 311 between conventional keys 303, 305, and 307. (Appeal Br. at 3.) When pressed, each interstitial key generates a distinct electrical signal. (*Id.*)

A further understanding of the invention can be achieved by reading the following claim.

52. A keyboard having numeric and alphabetic modes, the keyboard comprising:

a plurality of regular keys, wherein when pressed individually in the numeric mode each regular key has a first output, and when pressed individually in the alphabetic mode each regular key has a second output; and

an interstitial key positioned between at least two adjacent regular keys, wherein when pressed in the alphabetic mode the interstitial key produces a third output.

Claims 52, 53, 55, 57, 63, 64, 67, 77, 79, and 80 stand rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 4,994,992 ("Lapeyre"). Claims 54, 56, 65, 66, and 78 stand rejected under 35 U.S.C. § 103(a) as obvious over Lapeyre and U.S. Patent No. 5,973,621 ("Levy").

II. OPINION

"Rather than reiterate the positions of the examiner or the appellant *in toto*, we focus on the main point of contention therebetween." *Ex parte Sehr*, No. 2003-2165, 2005 WL 191041, at *2 (Bd.Pat.App & Int. 2004).. The examiner alleges, "Lapeyre teaches an interstitial key positioned between at least two adjacent keys by teaching how, for example, key 23 is positioned between keys (9 & F) and (6 & T) (see figure 4 at 23)." (Examiner's Answer at 4.) The appellant argues, "What is disclosed in Lapeyre therefore is not an interstitial key, as this term is used in the claims and with this term interpreted consistently with the specification, because it is simply an extension of a pair of regular keys, rather than a wholly separate key positioned in the interstice between at least two regular keys." (Reply Br. at 3.)

In addressing the point of contention, the Board conducts a two-step analysis. First, we construe the independent claims at issue to determine their scope. Second, we determine whether the construed claims would have been obvious.

A. CLAIM CONSTRUCTION

"Analysis begins with a key legal question — *what is the invention claimed?*" *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1567, 1 USPQ2d 1593, 1597 (Fed. Cir. 1987). In answering the question, "[c]laims must be read in view of the specification, of which they are a part." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979, 34 USPQ2d 1321, 1329 (Fed. Cir. 1995).

Here, independent claim 52 recites in pertinent part the following limitations: "an interstitial key positioned between at least two adjacent regular key. . . ." Independent claims 63 and 77 recite similar limitations. The appellant's specification explains that "it is another aspect of the present invention to modify a conventional input keypad with a small 'dummy' key 309 and 311 that can be inserted between the conventional keys of the input keypad. . . ." (Spec., p. 6, ll. 1-3.) "[T]he dummy keys may be differentiated by having a different physical size or shape. Furthermore," (*id.* at ll. 8-9), "the dummy keys 309, 311, 409, and 411 may be electrically active. In other words, the dummy keys when depressed will cause its [sic] own distinct electrical signal to be output by the input keypad." (*Id.* at p. 7, ll. 5-7.) Reading claims 52, 63, and 77 in view of the specification, the limitations require a physical, interstitial key separate from and positioned between adjacent, regular keys.

B. ANTICIPATION DETERMINATION

"Having construed the claim limitations at issue, we now compare the claims to the prior art to determine if the prior art anticipates those claims." *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349, 64 USPQ2d 1202, 1206 (Fed. Cir. 2002). "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (citing *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 715, 223 USPQ 1264, 1270 (Fed. Cir. 1984); *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548, 220 USPQ 193, 198 (Fed. Cir. 1983); *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 771, 218 USPQ 781, 789 (Fed. Cir. 1983)). "[A]bsence from the reference of any claimed element negates anticipation." *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1571, 230 USPQ 81, 84 (Fed. Cir. 1986).

Here, Lapeyre "relates to keyswitch type manual entry keyboards for both entry of data and functional control of data processing operations." (Col. 1, ll. 16-18.) A "field of twelve keys is operated by one hand as a typewriter using a single finger for each entry to close a keyswitch (or to concurrently close a combination of keyswitches)." (Col. 4, ll. 28-31.) On each key, "depressions 20 and raised surfaces 23 . . . permit [an] operator to feel the proper finger positions and to know when the fingers are resting in a

home position or reaching. . . ." (*Id.* at ll. 31-34.) The raised ridges "of two side-by-side keys, including sin 14, π and the like, are arranged on a flat surface junction line which is felt by the operator when the finger is in place for a key stroke of this set of virtual (two simultaneous keyswitch single) keys." (*Id.* at ll. 45-49.) In other words, "the set of virtual keys for more than two simultaneous keyswitch closures by a single finger stroke are located at the raised ridges 23, which are felt by the operator to assure that the finger is properly registered." (*Id.* at ll. 49-53.) Accordingly, the reference's "virtual keys" merely refer to the activation of "two or more [regular] keyswitches . . . simultaneously. . . ." (*Id.* at ll. 43-44.) The virtual keys are not physical keys separate from regular keys.

The absence of a physical, interstitial key separate from and positioned between adjacent, regular keys negates anticipation. Therefore, we reverse the anticipation rejection of claims 52, 63, and 77 and of claims 53, 55, 57, 64, 67, 79, and 80, which depend therefrom.

C. OBVIOUSNESS DETERMINATION

"In rejecting claims under 35 U.S.C. Section 103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness." *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993) (citing *In re Oetiker*, 977 F.2d 1443,

1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992)). "A *prima facie* case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art." *In re Bell*, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993) (quoting *In re Rinehart*, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976)).

Here, the examiner asserts that "it is clear from figures 1, 2, and 6 of Levy that, indeed, an interstitial key such as key 7 (figure 6 at 7) is positioned between keys (I, J, M, N) (see figure 6 at 7, I, J, M, N)." (Examiner's Answer at 8.) The reference's "FIG. 1 shows a perspective view of a finger actuating the function 'number 7' in a telephone keypad. . . ." (Col. 5, ll. 16-17.) More specifically, "[t]he finger 20 is shown pressing the associated key caps 14 which actuate the number '7'." (Col. 6, ll. 11-13.) Like Lapeyre virtual keys, Levy's number 7 refers to the simultaneous activation of regular keys. The number 7 is not a physical key separate from regular keys.

Absent a teaching or suggestion of a physical, interstitial key separate from and positioned between adjacent, regular keys, we are unpersuaded of a *prima facie* case of obviousness. Therefore, we reverse the obviousness rejection of claims 54, 56, 65, 66, and 78.

III. CONCLUSION

In summary, the rejection of claims 52, 53, 55, 57, 63, 64, 67, 77, 79, and 80 under § 102(b) is reversed. The rejection of claims 54, 56, 65, 66, and 78 under § 103(a) is also reversed.

REVERSED

ERROL A. KRASS
Administrative Patent Judge

LANCE LEONARD BARRY
Administrative Patent Judge

HOWARD B. BLANKENSHIP
Administrative Patent Judge

)
)
)
)
)
) BOARD OF PATENT
) APPEALS
) AND
) INTERFERENCES
)
)
)
)
)

Appeal No. 2006-0717
Application No. 09/561,409

Page 10

CHUN M. NG
BLAKELY, SOFOLOFF, TAYLOR & ZAFMAN, LLP
SEVENTH FLOOR
12400 WILSHIRE BOULEVARD
LOS ANGELES, CA 90025-1026