

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 35

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JIN-SU PARK

Appeal No. 95-1187
Application 08/024,495

HEARD: 9 June 1997

Before HARKCOM, Vice Chief Administrative Patent Judge, and
FLEMING and TORCZON, Administrative Patent Judges.

TORCZON, Administrative Patent Judge.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

FINDINGS OF FACT

Nature of the appeal

1. The subject application for patent was filed 1 March 1993. (Paper 1 at 1.)

2. Applicant claims the benefit under 35 U.S.C. § 119 of Korean patent application number 88-18099, filed 31 December 1988. Applicant also claims the benefit under 35 U.S.C. § 120 of United States patent application numbers 07/398,927, filed

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28 August 1989 (now abandoned) and 07/681,843, filed 21 November 1990 (now abandoned). (Paper 4 at 2.)

3. Applicant appeals from the final rejection of claims 2 through 9. (Paper 14.)

4. As of the hearing, the examiner has allowed claims 2 through 7 and 9. Claim 8 remains rejected under 35 U.S.C. §§ 102(b) and 103. No other claims are pending. (Paper 24.)

5. The subject matter of the invention is a locking method for a system with an on-screen display, such as a videotape recorder ("VTR"). According to Applicant,

The locking device on a VTR is generally used for the purpose of keeping children from watching adult video programs, by preventing their reproduction. The conventional locking device for the above purpose is used to display the status of the secret codes being inputted by the viewer on an additional display unit[,] such as a digitron, when locking or unlocking the VTR. Meanwhile the character generator circuit is generally incorporated in the video processing system such as [a] VTR or digital television for displaying warning information, channel or other character information on a monitor.

(Paper 1 at 1.) Applicant provides an algorithm for operating a device that uses the VTR or television display instead of an additional display unit.

6. Claim 8 defines the invention as follows:

A locking method for controlling an on-screen display system having a lock key on a keyboard or remote control, said method comprising the steps of:

checking for a key-data input signal from said keyboard or remote control during a system power standby mode of operation, and remaining in said system power standby mode of operation until said checking step identifies said key-data input signal as being indicative of an input from said lock key;

displaying prompts, on a screen, for a lock function setting state by employing an on-screen display function when the checking step identifies said key-data input signal as being indicative of an input from said lock key and sequentially storing and displaying, on said screen, a secret code input by a user in response to said prompts;

immediately determining whether the on-screen display system is in a locked state with said on-screen display system preventing viewing of any video program other than said prompts for said lock function setting state after the secret code is input to the on-screen display system;

storing the secret code as a lock code, clearing said screen of said prompts and said secret code displayed during the displaying step, and locking the on-screen display system when the determining step determines that the on-screen display system is not in said locked state;

making a comparison between the secret code and a stored lock code already in the on-screen display system when the determining step determines that the on-screen display system is in said locked state;

displaying an error message by utilizing the on-screen display function when said comparison determines that the secret code and the stored lock code do not match each other; and

clearing the secret code from the screen and unlocking the on-screen display system with said on-screen display system enabling said viewing when said comparison determines that the secret code and the stored lock code match each other.

The rejection

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7. The examiner relied on the following references:

Bonneau et al. (Bonneau)	4,510,623	9 Apr. 1985
Amano et al. (Amano)	4,620,229	28 Oct. 1986

8. Claim 8 was rejected under 35 U.S.C. § 102 in view of Bonneau, under section 102 in view of Amano, under section 103 in view of Bonneau, and under section 103 in view of Amano.

(Paper 13 at 3.)

9. Applicant has not presented any evidence in support of secondary considerations.

Bonneau does not anticipate claim 8

Paragraphs 10 through 18 set forth our fact findings for each contested limitation.

"a lock key on a keyboard or remote control"

10. Applicant's disclosure offers scant information about the lock key. (Paper 1 at 7-8.) Although the lock key must be on the keyboard or the remote control, it need not be any particular key. It could be any alphanumeric or a function key that has no other role during the system power standby mode. Neither the disclosure nor claim 8 bar the lock key from acting in conjunction with other keys.

11. Bonneau teaches a four-digit security code D D D D E , where D is a digit key and E is the enter key. (5:53-6:28.) Bonneau also teaches that more or fewer digits may be used or

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that characters may be substituted. (6:24-28.) We find that Bonneau teaches at least one lock key within the meaning of the claim.

"system power standby mode of operation"

12. Applicant defines "stand-by power" as "the power consumption while the chip is not performing any read or write operation." (Paper 25 at 5 (citing New IEEE Standard Dictionary of Electrical and Electronic Terms (5th ed.).) According to Applicant, this describes his "power stand-by mode of operation". (Paper 25 at 5.) Standby power for an unspecified chip, however, does not correlate to the claimed system power standby.

13. The specification does not describe a "system power standby mode". The closest description relates to the system's main power status. (Paper 1 at 7.) The specification discloses a main program loop that runs whether the system power is on or off. The lock-function is only executed if the main system power is off (i.e., in standby status). Thus, we construe "checking . . . during a system power standby mode" (claim 8) to mean running the key-checking function while the main system power is off.¹ Bonneau discloses no equivalent requirement for starting

¹ The fact that the power to the overall system is off does not mean that no power is available to the remote control or the "micom". By analogy, the power button on a standard television remote control communicates with a detector in the television that must receive some power even though the overall

the locking process from a system-power-off state. Thus, Bonneau does not anticipate the claimed invention.

Displaying prompts and the key code on the screen

14. Bonneau displays two kinds of prompts for entry of a security code: a blank screen (8:22-24) and a blinking screen (7:50-53). Bonneau displays the blank screen during security-code entry so the code cannot be observed. Applicant, however, discloses acts of prompting for each digit of the code independently and of displaying each digit as it is entered. (Paper 1 at 8-11; Fig. 4.²) Thus, Bonneau's display step is not equivalent to the claimed display step.

"immediately determining whether the on-screen display is in a locked state"

15. Applicant argues that Bonneau's determination is not immediate because one must press the enter key before the determination is made. (Paper 25 at 9.) The enter key, however, is within the range of equivalents for key code inputs (i.e., the enter key is the last digit of the code) when claim 8 is broadly construed -- as it must be during prosecution. Thus, Bonneau's

television is off.

² Figure 4 shows six displays entitled "LOOK SET". The Korean priority document entitles the displays "LOCK SET", which makes more sense in context. (Korean patent application number 88-18099, Fig. 3.)

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determination after the enter key is detected is equivalent to the claimed immediate determination.

*storing the secret code, clearing the display,
and locking the system if it is unlocked*

16. Applicant is mistaken in his belief that an old code in Bonneau cannot be changed for twelve hours. (See 9:8-12.) Bonneau can set, clear, and reset the code. Bonneau does not, however, have a step equivalent to Applicant's process of clearing the existing code or setting a new code each time. (Paper 1 at 12-13.) Moreover, since Bonneau does not display the code, it cannot clear the code from the display.

determining whether the system is locked

17. Both Applicant and Bonneau check a lock flag in memory. Applicant's lock flag indicates whether the whole display device is locked. (Paper 1 at 12.) Bonneau determines whether a particular channel is locked. (5:33-46.) Broadly construed, a system that is locked with respect to even one input (channel) can be said to be locked. Thus, we find Bonneau's determination to be equivalent to Applicant's claimed determination.

*displaying an error message
when an incorrect code is entered*

18. Bonneau displays a channel equivalent to the last two digits of the incorrect code. (6:63-68.) Broadly construed,

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this is equivalent to an error message. It would certainly alert the user to the fact that a mistake has been made.

Bonneau does not anticipate the claimed invention

19. After considering the contested limitations, we do not find a preponderance of evidence supporting a finding of anticipation under 35 U.S.C. § 102(b) in view of Bonneau.

Amano does not anticipate claim 8

Paragraphs 20 through 27 set forth our fact findings for each contested limitation.

20. Applicant's arguments regarding Amano are substantially the same as those for Bonneau so we will note only significant differences.

"a lock key on a keyboard or remote control"

21. Amano's PPC (programmable pickup center) key (5:16-20) anticipates Applicant's claimed lock key since the signal from the PPC key is used as a trigger for the lockout operations. (Compare 6:39-41 with Paper 1 at 8.) The fact that the PPC key may be pressed many times to achieve many different functions does not alter this finding. Nothing in the claim or the specification limits the lock key to only one use. Rather, the lock key is only defined in terms of a particular triggering function at a particular time. The PPC meets that definition.

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"system power standby mode of operation"

22. Amano has nothing equivalent to Applicant's claim limitation that the system power be off during the checking step. The system power is on during Amano's code entry steps. (5:36-45; Fig. 3.)

"immediately determining whether the on-screen display is in a locked state"

23. As with Bonneau, the argument that Amano does not immediately determine the lock state (Paper 25 at 8) is unavailing. The PPC key can be broadly construed as part of the code sequence. Consequently, the fact that the PPC key must be pressed before the determination begins does not remove Amano from the scope of claim 8.

storing the secret code, clearing the display, and locking the system if it is unlocked

24. Amano is silent about whether the entered lock code is stored. Nothing in Amano suggests a step equivalent to Applicant's step of storing a new code if the system is not locked.

determining whether the system is locked

25. As with Bonneau's system, Amano's system can be said to be locked when any channel is locked within the broadest permissible meaning of claim 8. Thus, Applicant's argument that Amano's system is not locked (Paper 25 at 10) is not correct.

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*displaying an error message
when an incorrect code is entered*

26. Amano discloses the broad equivalent of an error message display. If the tuner is tuned to a blocked channel, the screen says "BLOCKED". (6:51-56; Fig. 4F.) If the user does not enter the correct code, the screen will still say "BLOCKED". (6:65-7:3.) Thus, the "BLOCKED" screen is equivalent to Applicant's claimed error message since it effectively conveys to the user that the unlocking step was not successful.

Amano does not anticipate the claimed invention

27. In light of the above findings, the preponderance of evidence does not support a finding of anticipation under 35 U.S.C. § 102(b) in view of Amano.

CONCLUSIONS OF LAW

Claim construction

Scope of claim 8

1. During prosecution, claims are given their broadest reasonable interpretation consistent with the specification. In re Snead, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983).

The steps in claim 8 must be construed to cover corresponding acts in the specification

2. Claim 8 is written in step-plus-function format, which triggers a presumption that its steps must be construed to cover the corresponding acts in the specification. 35 U.S.C. § 112; see also York Prods. Inc. v. Central Tractor Farm & Family Ctr., 99 F.3d 1568, 1574, 40 USPQ2d 1619, 1623 (Fed. Cir. 1996) (Use of "means" language triggers the presumption.); In re Cohn, 438 F.2d 989, 999, 169 USPQ 95, 97 (CCPA 1971) (applying then-paragraph three to a similarly worded method claim).

3. This presumption finds support in the record, where both Applicant and the examiner discuss the equivalence of various elements. (E.g., Paper 25 at 11-12; Paper 26 at 4-5.) Moreover, claim 8 recites broad functions in comparison to the specificity of the disclosure (e.g., Paper 1, Figs. 3A & 3B),

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which further suggests an intent to claim in terms of broad functions instead of specific steps.

4. At the hearing, Applicant's agent stated that the claim did not fall within paragraph six, but he offered no explanation for his statement. On this record, Applicant has not overcome the presumption that paragraph six applies. Hence, we must construe claim 8 to cover to the acts disclosed in the specification or their equivalents. 35 U.S.C. § 112; In re Donaldson Co., 16 F.3d 1189, 1195 n.5, 29 USPQ2d 1845, 1850 n.5 (Fed. Cir. 1994) (in banc); Valmont Indus. v. Reinke Mfg., 983 F.2d 1039, 1041-42, 25 USPQ2d 1451, 1453-54 (Fed. Cir. 1993). The subject matter of claim 8 was not obvious

5. Even if the invention is not identically disclosed or described in the prior art reference, it is unpatentable if the claimed subject matter would have been obvious to a person having ordinary skill in the art. 35 U.S.C. § 103(a).

6. A determination of obviousness based on a particular prior art reference requires a suggestion or motivation to modify the teachings of that reference. This suggestion or motivation need not be expressly stated. B.F. Goodrich Co. v. Aircraft Braking Sys., 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996).

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7. The examiner bears the burden of establishing unpatentability by a preponderance of evidence. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

8. Curiously, Applicant does not challenge the examiner's rejections for obviousness in his brief.

9. Even the reply brief, which is ostensibly limited to new points raised in the examiner's answer, 37 CFR § 1.193(b),³ only mentions obviousness in passing. (Paper 30 at 6 n.5, 7 n.8, and 10, 11, and 12.)

10. When we asked Applicant's agent at the hearing about his arguments against the obviousness rejections, he indicated that they were the same as his arguments regarding anticipation. Obviousness and anticipation are, however, different rejections requiring different analyses.

11. Applicant complains that the examiner has improperly dissected claim 8 rather than view the claim in its entirety. (Paper 30 at 6 n.5.) Applicant points specifically to the dispute over the equivalence of power standby to blocked channels. (Paper 30 at 6-7.)

12. As we have already noted in the fact findings, the arguments of both the examiner and Applicant are inconsistent with the language of claim 8 and the specification. Claim 8 uses

³ The examiner did not refuse to enter the reply brief.

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the phrase "system power standby" (emphasis added), which we have construed to mean the power of the system is off.

13. Neither of the references teaches or suggests a reason to initiate the lockout operation while the system power is off. Although it would be simple enough to modify Bonneau or Amano to operate that way, we see no motivation to do so. In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Thus, we cannot conclude that the subject matter of claim 8 would have been obvious in light of Bonneau or Amano.

14. We do not, however, agree with Applicant that Bonneau does not teach or render obvious the step of displaying the code on-screen. (Paper 30 at 10.) Bonneau expressly teaches causing the display to be blank so the code cannot be observed. (8:22-24.) Nevertheless, a reference is valid for all it would have suggested to a person having ordinary skill in the art. The fact that Bonneau has deliberately chosen one of two possible options (display the code for convenience, hide the code for security), does not mean that the alternative choice would have been lost on the artisan.

DECISION

The record does not support a finding of anticipation or a conclusion of obviousness in light of Bonneau or Amano for

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claim 8, when properly construed. Consequently, all of the
rejections on appeal are reversed.

REVERSED

GARY V. HARKCOM, Vice Chief)	
Administrative Patent Judge)	
)	
)	
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)	BOARD OF PATENT
MICHAEL R. FLEMING)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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