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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(2) is not binding precedent of the Board.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. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DONALD P. McCONNELL and WILLIAM R. McINTYRE

Appeal No. 95-3891
Application 08/066,405¹

ON BRIEF

Before HAIRSTON, MARTIN and CARMICHAEL, Administrative Patent Judges.

MARTIN, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision in an appeal under 35 U.S.C. § 134
from the examiner's rejection of claims 1-12, all of appellants'

¹ Application for patent filed May 24, 1993. According to appellants, this application is a continuation of Application 07/164,314, filed March 4, 1988, which is a continuation-in-part of Application 06/739,357, filed May 30, 1985, now Patent No. 4,774,511, issued September 27, 1988.

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pending claims, under § 103 as unpatentable over prior art. We reverse.

The claimed invention relates to a "universal" remote control transmitter which includes a memory which has been preprogrammed by the manufacturer to store formatting data for a plurality of devices in each of a plurality of different device categories, such as television receivers (TVs), video cassette recorders (VCRs), or cable signal decoders (CBLs). Prior to using the transmitter to control a particular TV, VCR, or cable decoder, it is necessary for the operator to "set up" the transmitter by identifying which stored formatting data corresponds to that device. In the particular embodiment depicted by the flowchart of Figures 2-5, the operator sets up the transmitter for use with a particular device by first depressing the "record" key, followed by depressing whichever one of the "TV," "VCR," and "CBL" keys corresponds to the type of device to be controlled, and then using number keys to enter the device's two-digit numerical code, which can be obtained from an instruction book. This causes the corresponding format data to be identified for subsequent use by the microprocessor in generating control signals whenever the corresponding one of the "TV," "VCR," and "CBL" keys is selected.

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Claim 1, which is the only independent apparatus claim,
reads as follows:²

1. Remote control transmitter for transmitting device control signals remotely controlling a plurality of devices each belonging to a respective category of devices, at least two of said devices being of the same category of devices, and at least two being of different categories of devices, two of said devices of the same or different categories requiring a different signal format, comprising:

memory means permanently storing respective specific device formatting data for said plurality of devices at respective memory addresses;

keyboard means having a plurality of keys for providing respective keyboard output signals upon user activation of respective one of said keys, said plurality of keys including a predetermined group of keys each representing a different one of said different categories of devices, each of said memory addresses corresponding to at least one of said keyboard output signals, said keyboard output signals further comprising an entry initiate signal;

means for addressing said memory means in response to activation of said at least one of said keys following activation of one key of said predetermined group of keys and receipt of said entry initiate signal, thereby

² Claim 2 is the sole independent method claim.

reading out said specific device
formatting data for a selected device in
a specific one of said different
categories of devices as determined by
the activated one key of said
predetermined group of keys; and

transmitter means operative under
control of said specific device
formatting data to transmit said device
control signals towards said selected
one of said plurality of devices in said
specific one of said different
categories of devices as determined by
the activation of one key of said
predetermined group of keys.

Reading the claim onto appellants' disclosed
embodiment, the recited "memory means" corresponds to EPROM 16,
which stores formatting data for a plurality of devices in each
of a plurality of different device categories. The "keyboard
means" corresponds to keyboard 36, the "plurality of keys" to all
of the keys, the "predetermined group of keys" to the "CBL,"
"VCR," and "TV" keys 36a, 36b, and 36c, and the "entry initiate
signal" to the "YES" signal generated by depressing the "RECORD"
key (Fig. 3). The "means for addressing said memory means" and
"thereby reading out specific device formatting data" includes
microprocessor 10 and the various buses and lines which transfer
the selected formatting data from EPROM 16 to RAM 44. The
"transmitter means" includes microprocessor 10 and infrared (IR)
driver 29. As appellants acknowledge in the brief (at 6), the

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claim does not preclude the "entry initiate signal" from being generated by operation of one of the device category keys (i.e., the claimed "predetermined group of keys").

The references relied on by the examiner are:

Kocher et al. (Kocher)	4,386,436	May 31, 1983
Harger et al. (Harger)	4,566,034	Jan. 21, 1986
Platte et al. (Platte)	4,728,949	Mar. 1, 1988

Claims 1-12 stand rejected under 35 U.S.C. § 103 as unpatentable over Platte in view of Kocher and Harger. The brief (at 4) indicates that apparatus claims 1 and 3-9 stand or fall together and that method claims 2 and 10-12 stand together.

Platte discloses a remote control transmitter which minimizes the number of keys by permitting each key 3 (Fig. 1) to perform different functions at different times, with the current function being indicated by an associated electronically controlled display element 2, such as an LCD element. Platte employs, for each device to be controlled, a separate plug-in memory element (12, 13, 14) containing the formatting data required for that device (col. 4, lines 22-46).

In the Answer (at 2-4), the examiner quotes extensively from a Board decision in a prior appeal in parent application

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07/164,314,³ in which it was determined that claims 1 and 2, which are now before us in amended form, are unpatentable for obviousness over Platte. The quoted passage explains that in reaching that decision, the panel held, inter alia, that the artisan would have understood that different manufacturers use different remote control formats for their control codes, that nothing in Platte suggests using only appliances from the same manufacturer or with the same control format, that Platte does not put a limit on the number of appliances to be controlled or the number of locations for plug-in memories, and that Platte "contemplates acquiring memories along with new appliances and using vacant (not occupied) slots relative thereto." These findings are not disputed by appellants in this appeal. We note that these findings appear to reflect the previous panel's belief that the preambles of those appealed claims, which are identical to the preambles of claims 1 and 2 now before us and describe the types of devices having formatting data stored in the memory means, are entitled to weight. We concur in that view, because the references to "said plurality of devices" in the "memory means" limitation of claim 1 and in the third "user activation"

³ Decision mailed July 22, 1992, in Appeal No. 92-0582, adhered to in a Decision on Reconsideration mailed April 28, 1993.

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step of claim 2 clearly refer to the devices described in the preambles, making this a case where "the claim drafter cho[se] to use both the preamble and the body to define the subject matter of the claimed invention." Bell Communications Research v. Vitalink Communications Corp., 55 F.3d 615, 620, 34 USPQ2d 1816, 1820 (Fed. Cir. 1995) (emphasis in original). As a result, claim 1 requires that the memory means store formatting data for a plurality of devices, of which at least two are in the same category of devices and at least two are in different categories of devices, with two devices in the same or different categories requiring different signal formats. Because at least two of the devices are in the same device category (e.g., TV), it is necessary to identify which set of stored formatting data to use when the "TV" category key (i.e., one of the "predetermined group of keys") is activated. This function is performed by the "means for addressing said memory means . . . and reading out said specific device formatting data for a selected device."

Kocher discloses a remote control system for controlling a television receiver and one or more other appliances, such as electric lamps. Remote control decoding circuitry located in the television receiver determines whether the received IR signal is intended to be a TV control signal

(e.g., sound level or channel selection) or an appliance control signal (e.g., lamp on or off). If it is the latter, the decoder controls the appliance via a control signal sent over the AC power line to an appliance control module 55 (Fig. 1). As explained at column 2, line 33 et seq., the remote control transmitter is put into the appliance control mode by pressing key "9," after which one of keys "1" through "6" is pressed to identify which appliance is to be controlled. Next, the type of control (e.g., on or off) is indicated by pressing one of keys "7," "8," "9," "CHANNEL UP," or "CHANNEL DOWN." The appliance control mode is terminated manually by pressing the "RECALL" key or automatically if sixteen seconds pass without activation of a key.

Harger discloses a microcontroller circuit that can be used in various types of remote control transmitters, including a TV remote control transmitter 10a (Fig. 1), a VCR remote control transmitter 12a (Fig. 1), a video disc player (VD) remote control transmitter 14a (Fig. 1), and a "unified" transmitter 20 for remotely controlling all three types of devices (Fig. 2). Referring to Figure 3, depending on the type of transmitter in which it is being used, microcontroller output terminals "OUT 1," "OUT 2," and "IN" are strapped to ground (binary "0") or a source

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of supply voltage (binary "1") or to each other (col. 6, lines 22-27).

Reading claim 1 onto the prior art, the "plurality of keys" reads on all of the keys of Platte, Harger, or Kocher. The claimed "predetermined group of keys each representing a different one of said different categories of devices" reads on Platte's multi-function keys 3 when they are in the device selection mode (Fig. 4) and also on the "TV," "VCR," and "VD" keys of Harger's "unitary" remote control transmitter (Fig. 2). However, the examiner has not adequately explained, and it is not apparent to us, how and why the teachings of these references and the factual findings by the previous panel can be combined to satisfy the requirement of claim 1 for (a) memory means that stores, at respective memory addresses, formatting data for at least two devices within the same device category and (b) addressing means, responsive to activation of one of the plurality of keys following activation of one of the device selection keys (e.g., the "TV" key) and receipt of an "entry initiate signal," for reading out the specific device formatting data for a selected device (e.g., the particular TV to be controlled). In fact, these limitations are not specifically

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addressed by the examiner, who instead broadly contends it would have been obvious in view of the prior art that

the keys whether they are distinct key [sic, keys] are [sic, or] plural function key [sic] can be used as a predetermined group of keys each representing a different device; and after the key selects the device the same or other keys can select different function [sic] in view of Harger et al, Kocher et al, and a suggestion in Figure 4 of Platte et al. [Answer at 5.] and also that it would have been obvious "to use a single [sic, key] or plural keys to initiate a system and control devices in the system" (Answer at 6).

Nor is it apparent to us how the reference teachings can be (or why they would be) combined to satisfy the memory and addressing limitations of claim 1 or the corresponding steps of claim 2. As appellants correctly note, Platte does not require a plural-step setup procedure to identify which stored formatting data corresponds to a device category key, because every device to be controlled has a corresponding memory element that is accessed by activation of its corresponding selection key (e.g., "TV" in Fig. 4). Thus, assuming for the sake of argument that it would have been obvious to use Platte's transmitter to control two devices in the same category (e.g., two TVs), each would have a corresponding memory element and selection key (e.g., TV1 and TV2). In other words, when Platte's keys are in the mode

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depicted in Figure 4, they actually serve as particular device selection keys rather than as device category selection keys.

Appellants also correctly note that Harger's transmitter does not store formatting data for a plurality of devices in any device category and thus fails to disclose means for enabling the user to select which stored formatting data to use in a particular device category. As for Kocher, although the transmitter is used to control devices in two categories (i.e., TV and appliances) and a plurality of devices within the "appliance" category, it does not store formatting data for any of the appliances, let alone different formatting data for different appliances.

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For the foregoing reasons, we cannot sustain the rejection of apparatus claim 1, method claim 2, or dependent claims 3-12.

REVERSED

KENNETH W. HAIRSTON)	
Administrative Patent Judge)	
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JOHN C. MARTIN)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
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