

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROKU, INC.,
Petitioner,

v.

ECOLINK INTELLIGENT TECHNOLOGY, INC,
Patent Owner.

Case No. IPR2023-00792
Patent No. 10,692,340

PETITIONER'S SUPPLEMENTAL BRIEF

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Cases

<i>WSOU Invs. LLC v. Google LLC</i> , No. 2022-1063, 2023 WL 6889033 (Fed. Cir. Oct. 19, 2023)	1, 2, 3
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I. INTRODUCTION

Independent claims 6 and 16 positively recite timer operation limitations. *See* '340 patent, claim 6 processor method steps (“begin a measuring of an elapsed time...”; “determine whether the elapsed time has exceeded a pre-determined time”); claim 16 method steps (“starting a countdown timer...”; “determining whether the countdown timer has expired”). Lamb provides **no** timer disclosure whatsoever. For this reason, Lamb is prior art to these claims — and also why it was modified by Williams (timer/timer functionality) in Ground 1. Pet., 6-7, 13-19.

Lamb is also prior art to independent claims 1 and 11. Apparatus claim 1 positively recites “a memory having processor ***executable instructions stored thereon***” executed by the processor for causing a transmitter to ***transmit a timed alarm signal*** to the receiver only ***when*** it is determined that the human detection device indicates that the human being is inside the premises in proximity to the barrier.” *See WSOU Invs. LLC v. Google LLC*, No. 2022-1063, 2023 WL 6889033, at *5 (Fed. Cir. Oct. 19, 2023) (“claim limitations like the recited ‘computer program code, when combined with a description of what the code is intended to accomplish, convey definite structure to’ POSAs). In this regard, both experts have cited this very same code as implementing the claimed timer functionality. Since Lamb does not provide support for executable instructions that transmit a timed alarm signal, let alone a timed alarm signal transmitted only when specific sensor

conditions are met, Lamb is prior art to claim 1. Similarly, Lamb fails to support the timed alarm signal transmission step of claim 11 and therefore, is also prior art to claim 11.

Accordingly, Lamb is prior art to all challenged claims, and in combination with Williams, renders all challenged claims obvious.

II. CLAIM 1 RECITES TIMER/TIMER FUNCTION STRUCTURE

Claim 1 recites “a transmitter for transmitting *a timed alarm signal*..., the *timed alarm signal for initiating a timer* associated with the security panel.” This limitation cannot be read out of the claims, as the executable instructions in memory are positively recited structure. *Id.* (“[u]nlike in the mechanical arts, the specific *structure of software code and applications is partly defined by its function*”). Additionally, Patent Owner (“PO”)’s arguments in this IPR, and the added disclosure of the ‘340 patent confirm Lamb’s lack of disclosure.

A. “Executable Instructions” are Processed by the Processor for “Transmitting a Timed Alarm Signal . . .”

Claim 1 recites “a memory having processor-executable instructions stored thereon” and “*a processor coupled to the barrier status detection device, the transmitter, and the memory, for executing the processor-executable instructions.*” These features are further explained in the specification. *See* ‘340 patent at 8:37-59; Fig. 3. A POSA would understand that the recited executable instructions are the necessary structure for implementing the claimed software

functionality. *WSOU*, 2023 WL 6889033 at *4-5. Indeed, **both** experts agree on this point. *See* EX2004, 165:12-18 (Williams provides “a suggestion for an algorithm to enhance the functionality of Lamb by describing in some **code ...code functions** that could be **added to Lamb**, but Lamb has already provided the foundation, the processor, **the structure** to support it”); EX1012, 28:18-23 (“the processor (sic) **code** makes a decision of whether or not **to initiate a time delay...**”). As Petitioner’s counsel reiterated at the oral hearing, the transmitter needs some code-based structure to differentiate timed alarm signals from other signals it transmits. Hearing Tr., Paper 25, 54:7-19.

Claim 1 parallels claim language upheld as sufficient structure in *WSOU* reciting “at least one memory including computer program code... configured, with the at least one processor, to cause the apparatus to...” *WSOU*, 2023 WL 6889033 at *1. This claim provided structure because a POSA “reading the claim in light of the specification would understand that the recited computer program code is stored in a memory structure and running on the processor.” *Id.*, *4. Accordingly, the combination taught “what each structure is and what it is not, as well as how the various structures relate to one another.” *Id.*

As in *WSOU*, ‘340 claim 1 recites executable instructions for implementing its software functionality associated with “transmitting a timed alarm signal.” Specifically, the processor, recited as connected to the transmitter, controls the

transmitter and its recited functionality via executable instructions. '340 patent, claim 1; Fig. 3. The claim must be read as a whole. The recited executable instructions run by the processor dictate the operation of the claimed transmitter to transmit a “timed alarm signal for initiating a timer.” '340 patent, 16:54-61 (discussing processor functionality). The processor must differentiate amongst the various alarm signals to transmit a timed alarm signal, recognizable by the receiver as a timed alarm signal so that a timer may be initiated, as opposed to other alarm system signals (i.e., a bypass signal, status signal, or immediate alarm signal) that cause different responsive actions at the receiver. For example, '340 patent, Fig. 5A shows an immediate alarm signaling process. *See id.*, 17:35-39 (defining an immediate alarm). Fig. 5B shows a bypass signal signaling process. PO has separately annotated '340 Patent, Fig. 10 to identify a status signal process. POR, Paper 13, 21. As PO's expert made clear, it is the claimed “code” or executable instructions¹ that differentiate between Lamb's alarm signals and determine to transmit the ‘timed alarm signal’ to initiate a timer (only when...):

116 takes that input and through the *processor (sic) code makes a decision* of whether or not *to initiate a time delay* or initiate a predetermined delay or predetermined timeout or ... to send a request *for security response immediately. . .*

¹ The '340 patent defines processor-executable instructions as “executable code” '340 15:12-15

EX1012, 28:18-23 (emphasis added). The ‘340 patent added this disclosure.

EX1008, pgs. 5, 7-8, 17-21. This disclosure is found nowhere in Lamb.

B. Timed Alarm Signal Executable Instructions Added in ‘340

The executable instructions of claim 1 constitute positively recited structure that perform the claim’s recited software functionality enabling the claimed alarm to identify appropriate alarm signals for transmission at appropriate times (*i.e.*, status, bypass, immediate, and timed alarm signals) to dictate appropriate responses. At a *minimum*, claim 1’s “transmission of a timed alarm signal for initiating a timer” limitation must be given weight to account for the memory structure processed to execute this software function. This claim structure is nowhere found Lamb, as shown in EX1008, a redline comparing Lamb and the ‘340 patent, so Lamb is prior art to claim 1. *See* EX1008, pgs. 5, 7-8, 17-21.

C. PO Repeatedly Argued a Timed Alarm Signal is Not the Other Alarm Signals Taught by Lamb

Despite its irrelevance to the Lamb ground proposed in the petition (modified by Williams) and adopted by the Board for trial, PO has emphatically argued throughout its briefing that a timed alarm signal cannot be any of the signals disclosed in Lamb (in constructing its strawman argument against the true IPR ground). *See* PO Response, Paper 13, 31 n.6; PO Sur-Reply, Paper 19, 13-14. For example, PO argued that “Lamb’s barrier alarm device transmits a ‘*bypass signal*’” and “there is *no dispute* that a bypass signal is not a ‘timed alarm signal.’”

PO Sur-Reply, 13-14 (emphasis original). PO cannot switch horses now to argue that transmitting a timed alarm signal for initiating a timer is somehow supported by Lamb's bypass, status, or immediate alarm signal transmissions.²

D. Claim Differentiation - Claim 2 Adds Further Executable Code Structure For a Different Alarm Signal

Claim differentiation also confirms that the claim 1 utilizes different executable instructions from claims reciting transmission of different alarm signals. Claim 2 depends from claim 1 and recites ("wherein the processor-executable instructions *further comprises instructions . . .*"). That is, the claims require executable instruction structure for different alarm signal differentiation and transmission (i.e., executable instruction structure for different signal types by identifying immediate alarms as an example of a signal that is a different signal transmitted at a different time). *Compare* '340 Figs. 5A to 10.

III. CLAIM 11 RECITES TIMER/TIMER FUNCTION STRUCTURE

Claim 11 tracks claim 1 in a method format, and similarly recites "transmitting by the barrier alarm device a timed alarm signal to the central security panel for the purpose of initiating a timer associated with the central

² PO repeatedly urged in its brief that the Lamb ground relied on these signals, but this is just a strawman because Lamb is modified by Williams "to transmit a timed alarm signal." *See* Pet., 28; *see also* DI, Paper 8, 15; Pet. Reply, Paper 15, 10-11.

security panel only when it is determined that the human detection device indicates that the human being is [] inside the premises and in proximity to the barrier.” Even if the clause reciting “for the purpose of initiating a timer...” is ignored as intended use, claim 11 still requires a “timed alarm signal” that is “transmit[ed] by the barrier alarm device... to the central security panel.” Moreover, like claim 1, claim 11 also requires that transmission occur “only when it is determined that the human detection device indicates that the human being is [] inside the premises and in proximity to the barrier.”

Accordingly, the “timed alarm signal” limitation of claim 11 must also be given patentable weight. It also cannot be interpreted as corresponding to other alarm signals of the ‘340 patent disclosure—or, as PO has now repeatedly emphasized on this record, those same signals in Lamb. As PO’s expert made clear, such a transmission requires a processor determination based on corresponding executable instructions such that the barrier alarm device of claim 11 can send its claimed timed alarm signal or claim 12 its immediate alarm signal. And a POSA recognizes such barrier device code functionality as structure. Lamb provides no such disclosure and is prior art to all challenged claims, and as such, all such claims should be cancelled.

Respectfully submitted,

Date: August 12, 2024

/Scott A. McKeown/

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CERTIFICATE OF SERVICE UNDER 37 C.F.R. § 42.6 (E)(4)

I certify that on August 12, 2024, I will cause a copy of the foregoing document, including any exhibits filed therewith, to be served via electronic mail, as previously consented to by Patent Owner, upon the following:

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