

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

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Paper No. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte CHRISTOPHER D. VOLTZ

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Appeal No. 2002-0489  
Application 08/831,731<sup>1</sup>

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ON BRIEF

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Before HAIRSTON, BARRETT, and BARRY, Administrative Patent Judges.

BARRETT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the final rejection of claims 1-63.

We affirm-in-part.

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<sup>1</sup> Application for patent filed April 1, 1997, entitled "Simulated Burst Gate Signal And Video Synchronization Key For Use In Video Recording."

BACKGROUND

The invention relates to a device having a programmable horizontal sync pulse to simulate a burst gate signal. A burst gate signal is a signal that envelops the color burst signal of a composite video signal. The burst gate signal is provided to a phase-locked-loop (PLL) device to set a window during which the PLL device locks onto the 3.58 MHz frequency of the color burst. The PLL device provides a continuous subcarrier reference frequency output to a comb filter decoder which separates the luminance (Y) and chrominance (C) components of a composite video signal. Appellant states that prior art video decoder have used internal burst gate signals (specification, p. 3). The decoder of the present invention provides an external simulated burst gate signal which allows for color separation circuitry external to the video decoder (specification, p. 4).

Claim 1 is reproduced below.<sup>2</sup>

1. An appliance using a composite video signal having a color burst, the composite video signal including a

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<sup>2</sup> The word "external" underlined in claim 1 was proposed to be deleted by amendment after final rejection (attached to Paper No. 21). The amendment was denied entry by an Advisory Action (Paper No. 22), stating that this presented a new limitation requiring further consideration. Nevertheless, since there is no rejection based on the word "external," and since we consider the word to be an obvious error which only makes the claim difficult to address, we will consider claim 1 to be without the word "external" and recommend that the examiner allow entry of the amendment deleting the term.

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luminance signal and a chrominance signal, the appliance comprising:

a video decoder for decoding the luminance signal and the chrominance signal, the chrominance signal including a color burst, the video decoder providing a programmable decoded horizontal sync pulse; and

a controller for programming the programmable decoded horizontal sync pulse of the video decoder to simulate an external burst gate signal for enveloping a color external burst,

wherein the external burst gate signal is asserted at a first suitable timing location prior to the color burst and the external burst gate signal is deasserted at a second suitable timing location after the color burst, and

wherein the external burst gate signal provides a suitable width to effectively lock onto the color burst.

The examiner relies on the following references:

Brown	3,716,795	February 13, 1973
Burrows	4,620,219	October 28, 1986
Romesburg et al. (Romesburg)	4,864,399	September 5, 1989

MC141622 Motorola Semiconductor Technical Data, Advance Information, Advanced Comb Filter-II (AFC-II), Motorola, Inc. (2/95) (MC141622).

MC44144 Motorola Semiconductor Technical Data, Advance Information, Subcarrier Phase-Locked-Loop, Motorola, Inc. (printed 4/94 (on back cover)) (MC44144).

SAA7111 Video Input Processor (VIP) Data Sheet, Philips Semiconductors, May 15, 1996 (Philips).

Greg Rogers, Guide to Comb Filters: Y/C Separation, CyberTheater: The Internet Journal of Home Cinema, [http://www.cybertheater.com/Tech\\_Reports/Comb\\_Filter\\_Tut/-guide\\_comb\\_filters.html](http://www.cybertheater.com/Tech_Reports/Comb_Filter_Tut/-guide_comb_filters.html) (printout dated 6/12/96) (Rogers).

Claims 1-3, 5, 6, 8, 12-14, 31, and 33-36 stand rejected under 35 U.S.C. § 102(a) as being anticipated by Philips.

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Claim 4 stand rejected under 35 U.S.C. § 103(a) over Philips, further in view of MC141622.

Claims 7, 9, and 32 stand rejected under 35 U.S.C. § 103(a) over Philips, further in view of MC44144.

Claim 10 stands rejected under 35 U.S.C. § 103(a) over Philips, further in view of Rogers and Romesburg.

Claim 11 stands rejected under 35 U.S.C. § 103(a) over Philips, Rogers, and Romesburg, further in view of Brown.

Claim 15 stands rejected under 35 U.S.C. § 103(a) over Philips, further in view of Brown.

Claims 16-18, 20, 21, 23, 27-29, 40-43 and 53-57 stand rejected under 35 U.S.C. § 103(a) over Philips and Burrows.

Claim 19 stands rejected under 35 U.S.C. § 103(a) over Philips and Burrows, further in view of MC141622.

Claims 22 and 24 stand rejected under 35 U.S.C. § 103(a) over Philips and Burrows, further in view of MC44144.

Claim 25 stands rejected under 35 U.S.C. § 103(a) over Philips and Burrows, further in view of Rogers and Romesburg.

Claim 26 stands rejected under 35 U.S.C. § 103(a) over Philips, Burrows, Rogers, and Romesburg, further in view of Brown.

Claims 37-39 stand rejected under 35 U.S.C. § 103(a) over Philips.

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Claims 44-46, 48, 49, and 58-60 stand rejected under 35 U.S.C. § 103(a) over Philips and Rogers.

Claim 47 stands rejected under 35 U.S.C. § 103(a) over Philips and Rogers, further in view of MC44144.

Claims 50 and 61 stand rejected under 35 U.S.C. § 103(a) over Philips and Rogers, further in view of Brown.

Claims 51 and 62 stand rejected under 35 U.S.C. § 103(a) over Philips and Rogers, further in view of Romesburg.

Claims 52 and 63 stand rejected under 35 U.S.C. § 103(a) over Philips, Rogers, and Romesburg, further in view of Brown.

Claim 16 stands additionally rejected under 35 U.S.C. § 103(a) over Philips, Burrows, and Rogers.

Claim 30 stands rejected under 35 U.S.C. § 103(a) over Philips, Burrows, and Rogers, further in view of Brown.

The final rejection of claims 1-63 under 35 U.S.C. § 112, first paragraph, based on lack of written description is withdrawn (examiner's answer, page 8).

We refer to the final rejection (Paper No. 20) (pages referred to as "FR\_\_") and the examiner's answer (Paper No. 25) (pages referred to as "EA\_\_") for a statement of the examiner's rejection, and to the appeal brief (Paper No. 24) (pages referred to as "Br\_\_") for a statement of appellant's arguments thereagainst.

OPINION

Grouping of claims

Appellant argues independent claim 1 as representative of claims 1-3, 5, 6, 8, 12-14, 31, and 33-36 rejected under § 102(a) over Philips. Thus, the claims in this group stand or fall together with claim 1. However, since the argument section of the brief also mentions claims 2 and 31, these claims will also be addressed to the extent they are argued.

Appellant argues independent claims 16 and 58 as representative of claims 4, 7, 9-11, 15-30, 32, and 37-63 rejected under § 103(a). Since claims 16-18, 20, 21, 23, 27-29, 40-43, and 53 stand rejected over Philips and Burrows, we treat this group of claims to stand or fall together with claim 16. Since claims 44-46, 48, 49, and 58-60 stand rejected over Philips and Rogers, we treat this group of claims to stand or fall together with claim 58.

The obviousness rejections of the dependent claims over additional references are not argued. Since 37 CFR § 1.192(c)(8)(iii) (2000) requires the appeal brief to point out the error in each rejection and appellant has not argued the separate patentability of these claims, these claims fall together with the representative claim (i.e., they are unpatentable if the representative claim is unpatentable). The claims do not necessarily stand together with the representative

claim (i.e., are not patentable if the representative claim is patentable) because the added reference may cure the deficiency in the rejection of the representative claim.

Claims 1-15 and 31-39

Claims 1, 3-15, and 35-39

There is no question that Philips teaches "[a]n appliance using a composite video signal having a color burst, the composite video signal including a luminance signal and a chrominance signal," as recited in the preamble of claim 1. There is also no question that Philips teaches "a video decoder for decoding the luminance signal and the chrominance signal, the chrominance signal including a color burst, the video decoder providing a programmable decoded horizontal sync pulse," as recited in claim 1. The video input processor (VIP) of Philips is a video decoder (p. 2 under "GENERAL DESCRIPTION") which provides a programmable decoded horizontal sync pulse HS (p. 7 for symbol "HS"; p. 27, Fig. 19; p. 37, "Horizontal sync start" and "Horizontal sync stop"; p. 41, Tables 15 & 16). Further, there is no question that the VIP of Philips has "a controller for programming the programmable decoded horizontal sync pulse of the video decoder," as recited in claim 1, because the start and end of the pulse can be programmed (id.).

The issue involves the language "to simulate an external burst gate signal for enveloping a color burst"<sup>3</sup> and the effect of the "wherein" clauses. The examiner finds that Fig. 19 shows the horizontal sync output signal HS enveloping the color burst signal and being asserted before the color burst and being deasserted after the color burst and, therefore, simulates a burst gate signal (FR4-5). Since appellant's Fig. 9 is clearly a copy of curves in Fig. 19 of Philips with the labels removed or changed, and shows the color burst enveloped by the horizontal sync pulse HS in the same way as Fig. 19, the examiner makes a prima facie case of anticipation.

Appellant argues that the HS signal in Philips is not an "external burst gate signal" because it does not have a suitable width to lock onto the color burst, Philips does not disclose simulating an external burst gate signal for enveloping a color burst, and the fact that the HS signal starts before the color burst and ends after the color burst does not make it a burst gate signal (Br11-12). It is argued that "[a]ny described programmable functionality in Philips of the HS signal alone fails to anticipate the specific claimed subject matter of programming the horizontal sync pulse to simulate an external burst gate signal for enveloping a color burst" (Br11-12).

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<sup>3</sup> See footnote 2.

Initially, there is an issue of claim interpretation. Claim 1 recites "a controller for programming the programmable decoded horizontal sync pulse of the video decoder to simulate an external burst gate signal for enveloping a color burst." We interpret "for programming" to be a statement of intended use, i.e., the controller must be structurally capable of programming the sync pulse, rather than a positive limitation that the sync pulse is actually programmed. Under this interpretation, the "wherein" clauses merely further describe the burst gate signal when programmed as intended. Statements of intended use are not structural limitations that distinguish over the prior art where the prior art is capable of that use. See In re Pearson, 494 F.2d 1399, 1403, 181 USPQ 641, 644 (CCPA 1974); In re Yanush, 477 F.2d 958, 959, 177 USPQ 705, 706 (CCPA 1973); In re Casey, 370 F.2d 576, 580, 152 USPQ 235, 238 (CCPA 1967). We think there is no question that the horizontal sync pulse HS of Philips is capable of being programmed "to simulate an external burst gate signal for enveloping a color burst" no matter how appellant defines the burst gate signal since the start and stop positions of the HS signal in Philips are both programmable. It is also noted that the "external burst gate signal" is a statement of intended use for the horizontal sync pulse since no actual use of the burst gate signal is recited. The programming of HS is not like programming a computer to perform a new function--it is

setting start/stop positions which are meant to be set.

Essentially what is being claimed is a (possible) new use of an old device, i.e., the use of the Philips decoder, with its programmable horizontal sync pulse HS, as a burst gate signal generator. New and unobvious uses of old devices must be claimed as process claims. 35 U.S.C. § 100(b). Another claim interpretation issue is that the claimed "external burst gate signal" is merely a label and the nomenclature alone does not distinguish over the horizontal sync output signal HS in Philips.

Assuming that the external burst gate signal limitations are interpreted to be structural limitations, appellant has not shown how the limitations define over HS shown in Fig. 19 of Philips. Appellant's Fig. 9 is a copy of the curves in Fig. 19 of Philips with the labels removed or changed, and shows the color burst enveloped by the horizontal sync pulse HS in the same way as Fig. 19. If appellant's Fig. 9 shows an appropriate simulated burst gate signal, then so does Fig. 19 of Philips or, at least, appellant has not explained why it does not. That the horizontal sync output signal HS in Philips is not called a simulated external burst gate signal is mere matter of labels or intended use. Appellant does not explain why the HS signal shown in Fig. 19 Philips cannot function as a burst gate signal, for example, by pointing to claimed characteristics of the burst gate signal not present in HS. Appellant does not explain why the

horizontal sync HS signal in Fig. 19 of Philips does not have a suitable width to lock onto the color burst. While the specification discloses that the "simulated burst gate signal is preferably not so far back in timing as to intersect the sync region and not so far forward in timing as to intersect the active video region" (specification, p. 16, lines 15-17), this is not recited in claim 1, nor is it argued. Appellant has not presented convincing arguments why the horizontal sync signal HS in Fig. 19 of Philips cannot be a simulated burst gate signal.

Appellant argues that the examiner's view of the HS signal as a burst gate signal is inconsistent with the showing in Philips of a burst gate accumulator which generates an internal burst gate signal (Br12) and "Philips cannot disclose its external HS signal as a burst gate signal while also implicitly disclosing an internal burst gate signal" (Br12).

We agree with the examiner's response (EA8-9) that since the horizontal sync signal HS is output from the VIP decoder, it is an external signal. Claim 1 does not require the decoder to use the HS signal to lock onto the color burst or to be used for decoding in the decoder; in fact, claim 1 only requires that the horizontal sync signal simulates an external burst gate signal without requiring that it ever be used. The fact that appellant's Fig. 10 shows the decoding being done in the digital comb filter 288 external to the video decoder 244 using the

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external burst gate signal is not claimed. Moreover, Fig. 10 appears inconsistent with claim 1 because the decoding is not done in the video decoder, as claimed. The decoder is used only as a burst gate generator.

In summary, we are not persuaded of error in the examiner's rejection. The rejection of claims 1, 3, 5, 6, 8, 12-14, 35, and 36 is sustained. The rejections of dependent claims 4, 7, 9-11, 15, and 37-39 have not been argued and, accordingly, the rejections of these claims are sustained.

#### Claim 2

Appellant argues (Br14) that Philips fails to disclose the claimed "video circuitry external to the video decoder and receiving the horizontal sync pulse programmed to simulate the external burst gate signal." Appellant argues that the examiner errs in stating that the decoder of Philips is "suitable" for any video circuitry (Br14).

The examiner notes that Philips discloses, at page 3, that the VIP decoder has applications in desktop video applications which would require external video circuitry (EA10).

We agree with the examiner that the stated applications of the integrated circuit video decoder (VIP) of Philips in desktop video, multimedia, digital television, image processing, and video phone (Philips, p. 3) teach that the integrated circuit VIP

chip is attached to video circuitry external to the video decoder. Since the horizontal sync signal HS is output from the circuit (Fig. 2, pin 38), the signal HS is received by the external circuitry of which the VIP integrated circuit is a component. The rejection of claim 2 is sustained.

Claims 31-34

Appellant contests (Br14-15) the examiner's statement that "[i]t is well known that the horizontal sync is used as a simulated burst gate signal" (FR9). Appellant argues that this statement has been strongly traversed and the examiner has not made of record any reasonable support for his view (Br15). It is argued that a horizontal sync pulse is separate from a burst gate signal (Br15).

The examiner responds that the book Television Engineering Handbook, edited by K. Blair Benson (McGraw-Hill, Inc. 1986), of record, "teaches that it is [sic, was] well known in the art the technique of utilizing the horizontal sync pulse signal to derive (simulate) the burst gating pulse signal" (EA10). It is argued that although separate horizontal sync and burst gate signals are used, the "simulated" burst gate signal can be represented by the horizontal sync rather than by an external decoder (EA10-11).

We are not convinced by the examiner's reasoning, as stated. Benson teaches that the gating pulse can be derived from the

trailing edge of the horizontal sync pulse (p. 13.141). Deriving a burst gate signal from the horizontal sync pulse is not the same thing as using the horizontal sync pulse itself to simulate the burst gate signal, as stated. However, the horizontal sync output signal HS in Philips is programmable in position from the horizontal sync pulse as shown in Fig. 19. In view of Benson's teaching that it was known to derive the burst gate signal from the horizontal sync pulse, it would have been obvious to one skilled in the art of designing burst gate signal circuitry to program the horizontal sync output signal HS to be used as a burst gate signal. Benson also teaches the parameters for the burst gate signal (the leading and trailing edges of the burst should be passed and video information should be excluded).

Nevertheless, the issue is whether the subject matter of claim 31 is anticipated, not whether the examiner was correct in stating that it was well known to use a horizontal sync signal as a simulated burst gate signal. As noted in the discussion of claim 1, if the horizontal sync signal has characteristics that simulate a burst gate signal, it makes no difference what name it is given. Claim 31 is different from claim 1. However, since appellant's brief does not argue the merits of the rejection, as required by 37 CFR § 1.192(c)(8)(iii), so that the examiner has a chance to respond, we will not address the merits of claim 31. The rejection of claims 31, 33, and 34 is sustained. Since the

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rejection of claim 32 under § 103(a) has not been argued, the rejection of claim 32 is sustained.

Claims 16-30, 40-43, and 53-57

The examiner finds that Philips teaches the limitations of claim 16 except for "a) claimed counter circuitry for generating and providing a simulated external burst gate; [and] b) claimed counter circuitry externally coupled to the video decoder" (FR19). The examiner finds that Burrows teaches that a conventional way to determine a burst gate signal was to time an interval from the leading or trailing edge of the horizontal sync pulse, that it was well known to use counters to time an interval, and, accordingly, it would have been obvious to use counter circuitry for generating and providing a simulated burst gate signal (FR20). The examiner further finds that Philips teaches a clock generation circuit separate from the decoder and, therefore, it would have been obvious to couple the counter circuitry externally to the video decoder to "recognize the benefit[s] of versatil[ity] and flexibility" (FR20).

Appellant argues that the counter circuitry internal to a video decoder in Burrows is limited to use with video circuitry internal to a video decoder and to use with a traditional burst gate signal, whereas counter circuitry external to a video decoder can use the simulated burst gate signal for video circuitry

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external to the video decoder, such as a standalone external video decoder (Br17). It is argued that the examiner fails to provide any objective reason to combine the references (Br17). It is argued that the examiner's ignores that any need to generate a burst gate signal is already met by the prior art technique of generating a traditional burst gate signal (Br17).

The examiner responds by citing In re McLaughlin, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

The examiner's response is not helpful. Unlike claim 1, which claims an intended use for the horizontal sync pulse (to simulate an "external burst gate signal") output from the decoder, claim 16 recites "counter circuitry externally coupled to said video decoder for generating and providing a simulated external burst gate signal by counting cycles of the pixel clock after the programmable decoded horizontal sync pulse." Thus, the rejection must deal with this external counter circuitry for generating a burst gate signal. The examiner relies on the horizontal sync signal HS in Philips as the claimed "programmable decoded horizontal sync pulse" and as the "simulated external burst gate signal" (FR18-19). However, claim 16 requires the "simulated external burst gate signal" to be generated by the counter circuitry counting cycles after the programmable horizontal sync pulse; it is not the horizontal sync pulse. For this reason, the rejection is confusing. The examiner also finds

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that Burrows teaches generating a burst gate pulse by timing an interval from either the leading or trailing edge of the horizontal synchronization pulse (FR20). Thus, the examiner relies on the background description of Burrows rather than the invention in Burrows. We agree that Burrows teaches generating a burst gate signal by counting cycles after a horizontal sync pulse. However, the rejection never really comes to grips with the limitations of the counter circuitry external to the video decoder and using cycles of the pixel clock from the video decoder. Although the examiner states that the external counter circuitry would have been obvious for "the benefit[s] of versatil[ity] and flexibility" (FR20), we do not find any suggestion for this in Burrows. It is not explained why the video decoder would require an external burst gate signal. We conclude that the examiner has failed to establish a prima facie case of obviousness. The rejection of claims 16-18, 20, 21, 23, and 27-29, 40-43, and 53 over Philips and Burrows is reversed. The references MC141622, MC44144, Rogers, Romesburg, and Brown, applied to various dependent claims, do not overcome the deficiencies of Philips and Burrows. Accordingly, the rejections of claims 19, 22, 24-26, and 54-57 are reversed.

Although appellant does not address the rejection of claim 16 over Philips, Burrows, and Rogers (FR36-39), we conclude that Rogers does not overcome the deficiencies of Philips and

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Burrows. Thus, the rejection of claim 16 is reversed. The Brown reference, applied to the rejection of claim 30, does not overcome the deficiencies of Philips, Burrows, and Rogers. The rejection of claim 30 is reversed.

Claims 44-52 and 58-63

The examiner states that "Claim 58 is substantially the same as claim 44 and is rejected for the same reasoning" (FR35).

Appellant argues that claim 44 and claim 58 address different subject matter altogether (Br18-19). It is argued that the "timing envelope for a video signal" of claim 58 is not the same thing as an "external burst gate signal" in claim 44 (Br19).

The examiner contends that claim 58 is a broader version of claim 44, where the "timing envelope for a video signal" of claim 58 is a broader version of the "external burst gate signal . . . enveloping the color burst" in claim 44, and because both the timing envelope and the burst gate signal are derived from the horizontal sync output signal (EA12-13).

It would have been helpful if appellant had pointed out where the "timing envelope" is described in the specification since we do not find that terminology. Appellant argues that the "timing envelope for a video signal" of claim 58 is not the same thing as an "external burst gate signal . . . enveloping the color burst" in claim 44, but does not explain why they are

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different. We wonder whether the "timing envelope" is meant to refer to the synchronization key mentioned in the title of the application and at page 4, lines 10-13, of the specification. However, the word "envelope" implies an enclosing structure (without stating what is enveloped) and the examiner's interpretation of "timing envelope" in claim 58 as a different wording for an "external burst gate signal . . . enveloping the color burst" in claim 44 is reasonable. If appellant intended to recite a synchronization key there is no reason why the terminology of the specification could not have been used.

Appellant has not shown error in the rejection. In addition, appellant has not shown that the programmable horizontal sync output signal HS in the VIP decoder in Philips, which is intended to be used in desktop video and other applications (Philips, p. 3 under "APPLICATIONS"), is not a "timing signal for a video signal" which can be applied to a plurality of video devices. We are not persuaded of error in the rejection. The rejection of claims 44-46, 48, 49, 58-60 is sustained. The rejections of dependent claims 47, 50-52, and 61-63 have not been argued and, accordingly, the rejections of these claims are sustained.

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CONCLUSION

The rejections of claims 1-15, 31-39, 44-52, and 58-63 are sustained

The rejections of claims 16-30, 40-43, and 53-57 are reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

KENNETH W. HAIRSTON	)	
Administrative Patent Judge	)	
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	)	
	)	BOARD OF PATENT
LEE E. BARRETT	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
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	)	
LANCE LEONARD BARRY	)	
Administrative Patent Judge	)	

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