

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(2) is not binding precedent of the Board.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. 25

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT D. DeMASTER,
ALEXANDER R. MITKA,
JOHN V. NOWICKI,
ALEXANDER S. SINCLAIR,
RICHARD E. SKARE, and
MARK W. WEAVERS

Appeal No. 97-1398
Application 08/295,225¹

ON BRIEF

Before URYNOWICZ, MARTIN, and LEE, Administrative Patent Judges.
MARTIN, Administrative Patent Judge.

¹ Application for patent filed August 24, 1994. This application purports to be a continuation of Application 08/035,744, filed March 23, 1993, now abandoned.

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DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the examiner's final rejection of appellants' claims as unpatentable over the prior art. However, there is some confusion in the record regarding which claims are on appeal. Appellants' brief at 3,² under the heading "Status of Claims," identifies the claims on appeal as claims 2-14, 17, 28, 30-32, 35, and 38-41, the claims which were rejected in the final Office action (paper No. 15) as unpatentable over the prior art. However, the Answer (at 1), under the heading "Status of Claims," states that "upon further view [sic, review], it has been determined that claims 2, 4-11, 13, 14, 17, 28, 38, 39 and 41 are allowable over the prior art of record. The rejection of these claims is withdrawn accordingly, and the comments are drawn to the remaining claims." Nevertheless, the Answer (at 3-11) repeated the rejections of all of the pending claims and (at 12-20) added new grounds of rejection directed to all of the pending claims. Appellants' reply brief (at 1-2) noted this inconsistency and presumed that the rejections directed to the allowable claims were an oversight and could be disregarded. Accordingly, they limited their

² All references herein to the brief are to the replacement brief filed February 8, 1996.

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discussion of the old and new rejections to the non-allowable claims. However, in the Supplemental Examiner's Answer (at 1), the examiner changed his mind, stating under the heading "Status of Claims" that "[t]he statement in the examiner's answer mailed May 9, 1996 was incorrect. Accordingly, the statement of the status of the claims contained in the appeal brief filed February 8, 1996 is correct." In spite of this change in the examiner's position, appellants did not file a supplemental reply brief challenging the examiner's withdrawal of allowability. Consequently, we will address the patentability of all of appellants' pending claims. We affirm in part and add a new ground of rejection of claim 3 pursuant to 37 CFR § 1.196(b).

The invention relates to a cleaning cassette for cleaning the audio, video, and erase heads, the capstan, and the tape guides (e.g., rollers and pins) in a rotary head magnetic tape recording apparatus, such as videocassette recorder or camcorder, collectively referred to as a VCR (Spec. at 6, lines 12-17; Spec. at 8, lines 10-17). Referring to Fig. 3, the cleaning tape consists of a magnetically recordable tape portion 34 connected to a leader portion 36 by adhesive tape 42. One or both sides of the leader tape portion 36 carry layers 52 and 54 of microabrasive dry scrubbing material for cleaning the capstan

regardless of which side of the tape is contacted by the capstan. As shown in Figure 5, the length L of the leader portion is long enough to permit the microabrasive material to reach capstan 18 but short enough to prevent it from reaching the magnetic heads (not shown), which could be damaged by this material (Spec. at 10, line 32-37). The two abrasive layers on the leader portion can be formed of the same or different materials (Spec. at 9, line 37 to Spec. at 10, line 1).

The front side of the magnetically recordable tape portion 34 (Fig. 3) carries a layer 46 of magnetically recordable dry scrubbing material thereon for simultaneously cleaning the rotary head and causing the display of recorded audio and video instructions on a television receiver (Spec. at 9, lines 7-10; Spec. at 11, lines 19-24). As is apparent from Figures 1 and 3, this layer of cleaning material also cleans the tape guides (i.e., pins and rollers) that contact the front side of the tape. The back side of the magnetically recordable tape portion 34 can be provided with have a layer 48 of dry scrubbing material for cleaning the tape guides that contact the other side of the tape (Spec. at 9, line 10). The front and back scrubbing layers 46 and 48 differ from each other in that the front layer includes

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magnetic particles for recording and is smoother (Spec. at 9, lines 1-13).

The only independent claims are claims 2, 3, and 30. Appellants' brief, which discusses only the rejections given in the final Office action, groups the claims as follows (at 8):

- (a) claims 2, 4, 5, 11, 17, 28, 38, and 39;
- (b) claims 3, 12, and 35;
- (c) claim 6;
- (d) claim 7;
- (e) claim 8;
- (f) claims 9 and 10;
- (g) claims 13, 14, and 41; and
- (h) claims 30-32 and 40.

However, as the examiner correctly notes (Answer at 2), because claim 40 depends on claim 3 rather than on claim 30, it is being treated as standing or falling with claim 3.

The broadest independent claim insofar as the composition of the tape is concerned is claim 3, which reads as follows:

3. A VCR component cleaning cassette for cleaning at least VCR heads and tape guides comprising:

a videocassette housing having an opening through which tape is pulled during a play mode;

a supply reel mounted in the housing;

a takeup reel mounted in the housing; and

a length of tape mounted between the supply reel and the takeup reel, wherein the tape has a front side which has a recordable front side scrubbing material for cleaning the heads, and a backside, wherein the tape comprises magnetic material on the front side to permit the tape portion to record and play signals including audio sounds and video images, and wherein the magnetic material and the scrubbing material are located in the same length of tape portion to permit simultaneous cleaning and playing of recorded signals; and

wherein when the cleaning cassette is inserted into the VCR the tape is capable of cleaning the heads and tape guides with only the front side of the tape contacting the heads, regardless of the internal configuration of these components in the VCR.

Unlike claim 2, claim 3 does not recite a leader portion, let alone a leader portion that carries a scrubbing material for cleaning the capstan. Nor does claim 3 require a scrubbing material on the back side of the tape, as required by claims 2 and 30. The only limitations claim 3 places on the composition of the tape are that its front side have a scrubbing material and a recordable (but not necessarily prerecorded) magnetic material located in the same length of the tape portion so as to permit simultaneous cleaning and playing of recorded signals. As for the "wherein" clause, appellants have not explained, and it is

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not apparent to us, how this clause implies any structural limitations beyond those expressly recited in this claim.³

The references relied on by the examiner are:

Sasaki et al. (Sasaki)	3,823,947	Jul. 16, 1974
Siddiq	4,893,209	Jan. 9, 1990
Nagaoka	4,616,274	Oct. 7, 1986
Nelson et al. (Nelson) (European Patent Appln.)	0 122 724	Oct. 24, 1984
Kubota (Japan)	JP 58-19776	Feb. 4, 1983
Fujimura (Japan Laid Open Pub.)	61-192017	Aug. 26, 1986

We additionally rely on the following reference in a new ground of rejection being entered pursuant to 37 CFR § 1.196(b):

Nowicki et al. (Nowicki) 3,978,520 Aug. 31, 1976

In the final Office action, the prior art was applied against the claims as follows:

- claims 2-6, 11-14, 17, 28, 30-32, 35, 38, 40, and 41 - Sasaki in view of Siddiq;
- claims 7 and 8 - Sasaki in view of Siddiq and Nelson; and
- claims 9, 10, 17, and 39 - Sasaki in view of Siddiq, Nagoaka, and Kubota.

³ As will appear, an identical "wherein" clause constitutes an additional limitation in claim 2, which, unlike claim 3, calls for the tape to include a "tape portion" and a "leader portion."

In the new grounds of rejection given in the Answer, the prior art was applied against the claims as follows:

- claims 2-6, 11-14, 17, 28, 30-32, 35, 38, 40, and 41 - Fujimura in view of Sasaki;
- claims 7 and 8 - Fujimura in view of Sasaki and Nelson;
- claims 9, 10, 17, and 39 - Fujimura in view of Sasaki, Nagoaka, and Kubota.

A. The rejections based on Sasaki and Siddiq

Sasaki discloses a cassette-mounted tape consisting of a magnetic recording tape 1 (having a magnetic recording layer 2 thereon) attached by an adhesive tape 6 to a leader tape 3, which performs the cleaning operation. While the type of information to be recorded is not specified, it is apparent from the structure of the cassette (Fig. 2) that the cassette is of the audio rather than the video type. Two embodiments are disclosed. In the first embodiment (Fig. 1), the leader tape surface opposite to the magnetic layer 2 is exposed to sand blasting or chemical etching in order to provide a roughened surface for cleaning the capstan (col. 1, lines 52-56; col. 2, lines 16-22). In the second embodiment (Fig. 3), both surfaces of the leader tape are roughened in order to provide cleaning of the magnetic head and the capstan (col. 2, lines 23-27). Sasaki does not

disclose that the front and rear surfaces of the leader tape can have different scrubbing materials, as required by claims 2 and 30.

Siddiq's invention is a cleaning cassette (Fig. 6) for a VCR. The cassette tape has at least one segment for cleaning the magnetic head spliced together with at least one segment for providing diagnostic/instructional information for the user (col. 1, lines 44-47; Fig. 1). The cleaning segment may take any of various forms, such as a fabric layer bonded to a polymeric substrate or a homogeneous material of the type disclosed in copending application 07/182,829, which is incorporated by reference (col. 1, lines 53-62). Because the cleaning segment does not employ a highly abrasive magnetic coating, it is possible to use liquid cleaners (col. 2, lines 29-32). The cleaning tape may include cleaning segments of different types to provide "added cleaning effectiveness" (col. 4, lines 9-12). The tape may also include a polishing segment following a cleaning segment (col. 3, line 65 to col. 4, line 4). Siddiq does not disclose a back side scrubbing material, as required by claims 2 and 30.

The examiner contends that Siddiq satisfies claims 3's limitation that "the magnetic material and the scrubbing material

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are located in the same length of tape to permit simultaneous cleaning and playing of recorded signals" and claims 30's similar limitation. Noting that the claims do not recite that the magnetic material and the scrubbing material are superimposed one over the other (Answer at 19), the examiner argues that "the magnetic material and the scrubbing material of Siddiq are in the same length, i.e., in the same portion of tape between two points thereby permitting simultaneous cleaning [and playing]" (Answer at 5). We agree with appellants that the examiner is incorrect on this point (Brief at 15). As explained in In re Morris, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997), "the PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification." Because appellants' specification does not include a definition of the term "simultaneously," we must give it its usual meaning, i.e., "[h]appening, existing, or done at the same time." The American Heritage Dictionary of the English Language (New College Edition 1975), p. 1207. Thus construed, the claim does not encompass

Siddiq's technique of using alternating cleaning and instructional segments, which will result in alternating periods of cleaning and playing. Nor will the limitation in question be satisfied if, as the examiner contends, it would have been obvious "to modify the tape portion of Sasaki et al[.] so that the cleaning of the head is done by the tape portion as in the cleaning/diagnostic tape taught by Siddiq" (Answer at 6), as this will also result in alternating periods of cleaning and playing. Therefore, the rejection of claims 3 and 30 over Sasaki in view of Siddiq is reversed, as is the rejection of dependent claims 12, 31, 32, 35, and 40, which are grouped therewith.⁴

Independent claim 2 does not call for simultaneous cleaning and playing. Instead, it recites, inter alia, a tape portion and a leader portion, with the tape portion having a scrubbing material that differs from the scrubbing material on the leader portion and the leader portion having a length which prevents it

⁴ With respect to claim 3's requirement for different scrubbing materials on the front and back sides of the tape, we note that appellants do not challenge the examiner's taking of "official notice" that this is "notoriously old and well known in the art" (Answer at 5). In fact, appellants state that "[a]lthough tapes may exist which have different cleaning properties on the front than on the back, whether by design or coincidence, this has no bearing on the claimed invention" (Brief at 13-14).

from reaching the magnetic heads.⁵ We agree with appellants that Sasaki and Siddiq do not suggest this combination. Even assuming for the sake of argument that it would have been obvious to combine Sasaki's cleaning leader with Siddiq's cleaning/instructional tape, it would not have been obvious from these references to make the leader short enough to prevent it from reaching the magnetic head. Indeed, Sasaki specifically discloses making the cleaning leader long enough to reach the magnetic head as well as the capstan (col. 2, lines 43-47). Consequently, we are reversing the rejection of claim 2 based on Sasaki in view of Siddiq, as well as the rejection of the dependent claims that were rejected as unpatentable over these two references, i.e., claims 4-6, 11, 13, 14, 28, 38, and 41. The rejections of the remaining dependent claims (i.e., claims 7-10, 17, and 39) are reversed because the foregoing deficiency is not cured by the additional references cited against those claims in the final Office action (i.e., Nelson, Nagaoka, and Kubota).

⁵ This limitation reads: "wherein when the cleaning cassette is inserted into the VCR the tape is capable of cleaning the heads, tape guides, and capstan with only the front side of the tape portion contacting the heads, regardless of the internal configuration of these components in the VCR" (emphasis added).

B. The new grounds of rejection based on Fujimura and Sasaki

Fujimura,⁶ at page 3 under the heading "Practical Example," describes a cleaning tape which begins as a base film 4 having on one surface (5) thereof alternating surface portions 6 and 7 of "different surface roughness" and having formed on the other surface a magnetic layer 9 (Trans. at 3, lines 12-15). This tape, when tightly rolled, causes a "back transfer" of the roughness of surface 5 to the magnetic layer, giving the magnetic layer alternating areas 10 and 11 of different surface roughness such that "the part 10 which possesses a large surface roughness becomes the cleaning tape, and the part 11 which possesses a small roughness becomes the check tape" (Trans. at 3, lines 20-22). It is undisputed that at least the "check" tape portions 11 of the recording layer contain recorded audio and video information which is played during the cleaning process in order

⁶ Our understanding of this reference is based on two translations. The first was prepared for the PTO by Schreiber Translations, Inc. in May 1996, which is the month when the Answer was mailed. As this translation is not mentioned in or attached to the Answer, we assume it was not mailed to appellants, an assumption which is consistent with appellants' submission of a different translation with their reply brief. A comparison of the two translations reveals no significant differences. References hereinafter to the translation of Fujimura are to appellants' translation.

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to "confirm the degree of image and sound recovery" (Trans. at 2, lines 6-7.).

The examiner contends that Fujimura satisfies the requirement of claims 3 and 30 for simultaneous cleaning and playing in several different ways (Suppl. Answer at 2). The first, which is that the claim language is broad enough to read on the alternating check and cleaning tape portions, is unconvincing for the reason discussed above in connection with Siddiq. Alternatively, the examiner argues that the check portions 11 also perform some cleaning (Answer at 12-13):

Fujimura et al shows in figure 1 recordable front side scrubbing material 11, [which] is capable of cleaning the magnetic heads and tape guides, and backside scrubbing material 6, which is capable of cleaning capstans.
. . . Material 9/11 is magnetic material as well as scrubbing material, and since magnetic material is present this permits audio and video images to be recorded and/or reproduced. Also, Fujimura et al describes material 11 as a check portion, i.e., this portion provides a diagnostic video image in which the image quality is checked.

While we believe it is clear from the foregoing passage that the examiner is arguing that the check portions 11 also provide some cleaning, appellants apparently understood the examiner to be arguing that the cleaning portions 10 are capable of recording audio and video information for playback during cleaning, because they contend that "the mere presence of a magnetic material in a tape layer does not necessarily render that tape capable of

playing video signals. It does not render the tape capable of playing clear video pictures, such as those recited in claim 12" (Reply Brief at 3). This argument is unconvincing because claim 3 does not require that the tape be capable of playing back audio and video information with any particular degree of clarity during cleaning. Instead, the claim is broad enough to read on a tape which is capable of recording and playing back audio and video information with a lower degree of clarity during cleaning (e.g., during Fujimura's cleaning portions 10) and with a higher degree of clarity when not cleaning (e.g., during Fujimura's check portions 11).⁷ We therefore conclude that Fujimura's cleaning portions 10 satisfy the "simultaneous cleaning and playing" limitation of claim 3.

We also agree with the examiner that Fujimura's check portions 11 satisfy the "simultaneous cleaning and playing" limitation, which appellants did not address in the reply brief. Any doubt that this was how the examiner was relying on Fujimura should have been dispelled by the following comment in examiner's Supplemental Answer (at 2):

In the Practical Example section on page 3, lines 20-22 of appellants' translation of Fujimura the following is

⁷ As noted earlier, claim 3 does not require the actual recording of audio/information to be played back during cleaning.

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disclosed: "the part 10 which possesses a large surface roughness becomes the cleaning tape, and the part 11 which possesses a small roughness becomes the check tape." Therefore, both "check tape" 11 and "cleaning tape" 10 have surface roughness. As [a] result[,] when the rough surfaces rub against the internal components, cleaning of the components takes place due to the abrasiveness of the surfaces.

Nevertheless, appellants did not file a supplemental reply brief addressing this contention, which strikes us as a reasonable one. In the absence of any argument or evidence in opposition to the this contention, we agree with the examiner that Fujimura's check portions 11 satisfy claim 3's requirement for "simultaneous cleaning and playing." See In re King, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) (where the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on) (citing In re Ludtke, 441 F.2d 660, 169 USPQ 563 (CCPA 1971), and In re Swinehart, 439 F.2d 210, 169 USPQ 226 (CCPA 1971)).

From the foregoing discussion, it is apparent that the only limitations of claim 3 that are not satisfied by Fujimura are the claimed videocassette housing, the supply reel, and the takeup

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reel. The reply brief does not explain why it would have been unobvious in view of Sasaki's audio cassette to incorporate Fujimura's cleaning tape into a VCR cassette having supply and takeup reels. In fact, the reply brief does not discuss Sasaki at all, instead discussing Siddiq, which was not relied in the new grounds of rejection. Accordingly, the rejection of claim 3 over Fujimura in view of Sasaki is affirmed, as is the rejection of dependent claims 12, 35, and 40, which were not separately argued with respect to the examiner's reliance on Fujimura's check portions 11.

Independent method claim 30 requires the recording of signals representing audio sounds and images to be played simultaneously with cleaning. This is implied by the step of running a length of the tape "through the VCR to clean the heads and tape guides and simultaneously to play audio sounds and video images." The examiner has neither contended nor explained why it would have been obvious to actually record audio and video information in Fujimura's cleaning portions 10, as is required to satisfy claim 30. Consequently, the rejection of that claim is reversed, as is the rejection of dependent claims 31 and 32, which are not separately argued in the reply brief.

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As for independent claim 2, the new ground of rejection based on Fujimura in view of Sasaki fails for the same reason as the rejection based on Sasaki in view of Siddiq: Even assuming or the sake of argument that it would have been obvious to combine Sasaki's cleaning leader with Fujimura's cleaning/instructional tape, it would not have been obvious from these references to make the leader short enough to prevent it from reaching the magnetic head. As a result, the rejection of claim 2 is reversed, as is the rejection of dependent claims 4-6, 11, 13, 14, 28, 38, and 41, which were also rejected as unpatentable over these two references. The rejections of the remaining dependent claims (i.e., claims 6-10, 17, and 39) are reversed because the foregoing deficiency is not cured by the additional references cited against those claims in the Answer (i.e., Nelson, Nagaoka, and Kubota).

In summary, the rejection of claims 2-6, 11-14, 17, 28, 30-32, 35, 38, 40, and 41 as unpatentable over Sasaki in view of Siddiq is reversed, as are the rejection of claims 7 and 8 based on Sasaki in view of Siddiq and Nelson and the rejection of claims 9, 10, 17, and 39 based on Sasaki in view of Siddiq, Nagaoka, and Kubota. The rejection of claims 3, 12, 35, and 40 as unpatentable over Fujimura in view of Sasaki is affirmed. The

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rejection of claims 2, 4-6, 11-14, 17, 28, 30-32, 35, 38, and 41 as unpatentable over Fujimura in view of Sasaki is reversed, as are the rejection of claims 7 and 8 based on Fujimura in view of Sasaki and Nelson and the rejection of claims 9, 10, 17, and 39 based on Fujimura in view of Sasaki, Nagaoka, and Kubota.

C. New Ground of Rejection under 37 CFR § 1.196(b)

Pursuant to 37 CFR § 1.196(b), claim 3 is hereby rejected under § 102 as anticipated by Nowicki et al. (Nowicki) U.S. Patent 3,978,520, which is described at column 1, lines 23-41 of Siddiq and which is cited in appellants' specification (at 9) as disclosing a suitable material for the front side recordable abrasive material. A copy of Nowicki was submitted with appellants' Information Disclosure Statement received March 23, 1993 (paper No. 4). Nowicki discloses "a magnetic recording tape product having sufficient abrasivity for rapid and thorough removal of deposits of foreign matter from the head surfaces while at the same time providing magnetically recorded signals capable of producing at the video monitor a high quality pattern" (col. 2, lines 13-21). Nowicki also discloses that the tape is installed in a cassette for insertion into a vtr (video tape recorder) (col. 3, lines 49-52). It is well known that a tape cassette includes supply and takeup reels. As a result, the

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Nowicki cassette satisfies all of the limitations of claim 3. We leave it to the examiner to determine whether any other claims are anticipated by or obvious over Nowicki.

In addition to affirming the examiner's rejection of one or more claims, this decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b) (amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark Office 63,122 (Oct. 21, 1997)). 37 CFR § 1.196(b) provides, "A new ground of rejection shall not be considered final for purposes of judicial review."

Regarding any affirmed rejection, 37 CFR § 1.197(b) provides:

(b) Appellant may file a single request for rehearing within two months from the date of the original decision

37 CFR § 1.196(b) also provides that the appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (37 CFR § 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

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(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

Should the appellants elect to prosecute further before the Primary Examiner pursuant to 37 CFR § 1.196(b)(1), in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If the appellants elect prosecution before the examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for rehearing thereof.

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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 - 37 CFR § 1.196(b)

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STANLEY M. URYNOWICZ, JR.)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
JOHN C. MARTIN)	
Administrative Patent Judge)	APPEALS AND
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