

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MICHEL BAILLY

Appeal No. 1998-2554
Application 08/527,334¹

HEARD: November 30, 2000

Before BARRETT, DIXON, and BLANKENSHIP, Administrative Patent Judges.

BARRETT, Administrative Patent Judge.

DECISION ON APPEAL

¹ Application for patent filed September 12, 1995, entitled "Method For The Video-Assisted Remote Control Of Machines, Especially Vehicles, And Device For The Implementation Of This Method," which claims the foreign filing priority benefit under 35 U.S.C. § 119 of French Application 94 11497, filed September 27, 1994.

Appeal No. 1998-2554
Application 08/527,334

This is a decision on appeal under 35 U.S.C. § 134 from the final rejection of claims 2-5 and 7-12.

We reverse, but enter a new ground of rejection.

BACKGROUND

The disclosed invention relates to a method and device for video-assisted remote control of machines, especially vehicles, to allow real-time viewing of an environment of the machine. In particular, the machine has a plurality of cameras and the images are "mixed" so they can be displayed on a single screen.

Claim 12 is reproduced below.

12. A device for video-assisted remote control of a machine to enable real-time viewing of an environment of said machine, said device comprising:

a remote control center including a transmitter of remote control data, a video and audio receiver and at least one video monitor; and

wherein said machine includes a video and audio transmitter, a remote control receiver, a plurality of video cameras and a video mixing device.

The Examiner relies on the following prior art:

Oliver, Jr. (Oliver)	4,814,869	March 21, 1989
Katz	5,216,502	June 1,
1993		
VanZeeland	5,448,290	September 5, 1995

Appeal No. 1998-2554
Application 08/527,334

1991) (filed August 23,
Brubaker et al. (Brubaker) 5,481,257 January 2,
1996
1994) (filed May 24,
Cooper 5,508,736 April 16, 1996
(effective filing date
May 14, 1993)

We refer to the Final Rejection (Paper No. 7) for a statement of the Examiner's rejection because the Examiner's Answer (Paper No. 13) (pages referred to as "EA__") erroneously repeats the rejection from the First Office Action (Paper No. 5). However, we refer to the Examiner's Answer for the Examiner's response to the arguments. We refer to the Appeal Brief (Paper No. 12) (pages referred to as "Br__") and the Reply Brief (Paper No. 14) (pages referred to as "RBr__") for a statement of Appellant's arguments thereagainst.

Claims 11, 4, and 5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over VanZeeland and Oliver.

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over VanZeeland and Oliver, as applied to the rejection of claim 11, further in view of Cooper.

Appeal No. 1998-2554
Application 08/527,334

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over VanZeeland and Oliver, as applied to the rejection of claim 11, further in view of Katz.

Claims 7-9 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over VanZeeland, Oliver, and Brubaker.

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over VanZeeland, Oliver, and Brubaker, as applied to the rejection of claim 12, further in view of Cooper.

OPINION

The obviousness issues argued are (1) whether Oliver discloses "mixing" as described in the specification, and (2) whether there is motivation to combine.

Appellant argues (Br6: RBr2) that Oliver has "mixing" which is completely different from the mixing occurring in Appellant's invention as disclosed in the originally filed specification. It is argued (Br7) that Oliver discloses frequency division multiplexing as opposed to combining two or more video signals so that a single video image comprises a composite of two or more transmitted video images as described in the specification at page 3, lines 28-34. Appellant

Appeal No. 1998-2554
Application 08/527,334

further argues (RBr2) that claim 11 specifies that there is a resultant signal coming from a mixing of video signals and that this resultant signal is viewed at the control station.

The Examiner states that there is no need to refer to the specification because the term "mixing" is well understood in the art and is unambiguous and the claims do not require any specific type of mixing (EA8).

Unfortunately, neither Appellant nor the Examiner provide a definition of "mixing" to support their respective positions. Appellant seems to admit that Oliver shows "mixing," just not the kind of mixing that was intended by the specification. If this were so, we would agree with the Examiner that "mixing" does not have to be the same kind of mixing disclosed in the specification. The limitations of mixing to output a "resultant signal" and "viewing of said resultant signal . . . on one or more display devices" in claim 11 do not distinguish over a frequency division multiplexed signal, which can be considered a resultant, multiplexed signal and where each multiplexed channel can be viewed on a different display. However, we do not agree with

Appeal No. 1998-2554
Application 08/527,334

Appellant or the Examiner that frequency division multiplexing is a form of "mixing."

As we understand "mixing," this term refers to combining two or more signals into a composite signal. For example, a "mixer" is defined as "A) In a sound transmission, recording or reproducing system, a device having two or more inputs, usually adjustable, and a common output, which operates to combine linearly in a desired proportion the separate input signals to produce an output signal . . .," The New IEEE Standard Dictionary of Electrical and Electronics Terms (5th ed., IEEE, Inc., 1993). With video, the signals are typically not linearly combined as in audio, except for the generation of special effects such as fading or dissolving from one scene to another. Instead, a video image may be reduced in size (using data reduction or compression techniques) and overlaid on another video image (e.g., picture in picture) or two video images may be juxtaposed to occupy adjacent portions of a display. In both cases, the resultant video signal is a standard frame (two fields) of data containing a composite of both video images. This is consistent with Appellant's description of mixing (specification, p. 3, line 32 to p. 4,

Appeal No. 1998-2554
Application 08/527,334

line 6; p. 5, lines 17-25; p. 6, lines 4-9). By contrast, frequency division multiplexing is a way of deriving two or more simultaneous, continuous channels from a propagation medium by assigning separate portions of the available frequency spectrum to each of the individual channels. The channels are separated from each other in frequency and so are not "mixed" together to form a composite signal. For these reasons, we find that Oliver does not disclose "mixing" as recited in claim 11 or a "video mixing device" as recited in claim 12. The other references to Cooper, Katz, and Brubaker, do not cure the deficiency in the combination of VanZeeland and Oliver. Therefore, we conclude that the Examiner has failed to establish a prima facie case of obviousness. The rejections of claims 2-5 and 7-12 are reversed.

Although we have reversed the rejection of independent claims 11 and 12, we nonetheless address Appellant's argument (Br6-7) that there is no teaching to combine Oliver with VanZeeland because VanZeeland discloses (at col. 7, lines 50-55) that if more than one camera is located on the remote control device, means must be included to select only one transmitter/receiver 34 at a time, which teaches away from

Appeal No. 1998-2554
Application 08/527,334

multiplexing signals as in Oliver. We agree with the Examiner that it would have been obvious to combine Oliver with VanZeeland. VanZeeland does not state that other conventional ways of transmitting multiple camera signals known to those of ordinary skill in the art, such as the frequency division multiplexing of Oliver, will not work and, so, does not teach away. See In re Gurley, 27 F.3d 551, 553, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994) ("A reference may be said to teach away when a person of ordinary skill, upon [examining] the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant."). One of ordinary skill in the art would have been motivated to employ the multiplexing system of Oliver with a multiple camera system of VanZeeland to obtain the advantages of allowing the output of several cameras to be watched at the same time, instead of sequentially.

We briefly comment on two other aspects of the Examiner's rejection. The Examiner applies Cooper against claim 2 and finds that Cooper teaches combining two sources to provide an overlay image (Paper No. 5, p. 5). While Cooper discloses

Appeal No. 1998-2554
Application 08/527,334

overlaying graphical information (e.g., text) on a video image, it does not show an "overlay of one image on another," as recited in claim 2. This difference is not argued by Appellant, but it would seem that better prior art must exist. The Examiner applies Katz against claim 3 to show juxtaposing image sources on a single display. While Katz shows juxtaposing images (e.g., a video image from each cashier lane, col. 3, lines 15-18), there is no teaching that the juxtaposed images "obtain a wide-field image," as recited in claim 3. This difference is not addressed by the Examiner, but is also not argued by Appellant.

Appeal No. 1998-2554
Application 08/527,334

NEW GROUND OF REJECTION PURSUANT TO 37 CFR § 1.196(b)

Claims 4, 5, 8, 9, 11, and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the admitted prior art (APA) in the specification at page 1, lines 1-29, VanZeeland, and Brubaker.

The APA discloses that video-assisted remote control of machines using multiple cameras was known. One approach to viewing the cameras is described as follows (specification, p. 1, lines 22 to p. 2, line 3):

In one variant of this first approach, the video signals from several cameras are assembled (for example in groups of four) to form a single image divided into several zones (for example four zones), each one of which corresponds to the image given by one of the cameras. This single image is transmitted on a single transmission channel and displayed with these same zones at reception. Such an approach not only reduces the size of the different partial images but is difficult to interpret owing to the fact that the arrangement of the partial images (each occupying one quadrant of the display screen) does not correspond to the arrangement of the cameras.

We find this describes "mixing" four images into a resultant image that can be displayed on a single screen, transmitting the resultant signal to the remote control station on a single transmission channel, and viewing the resultant signal at the remote control station on a display device. At the oral

Appeal No. 1998-2554
Application 08/527,334

hearing, we asked why this APA was not "mixing" as recited in the claims, but did not get a clear explanation; thus, this new ground of rejection is required to obtain a written answer.

It seems logical that the other limitations of claims 4, 5, 8, 9, 11, and 12 would have been incorporated in the APA devices. That is, video-assisted remote control of vehicles necessarily implies a transmitter for remote control data and a remote control receiver on the machine or there would be no remote control.² Nevertheless, we apply VanZeeland to show a remote controlled vehicle and a remote control center having a display. The vehicle can have multiple cameras (col. 7, lines 50-55) and a camera can have a zoom lens 52 (i.e., adjustable focal distance, specification, p. 5, lines 3-4) and an elevation adjusting motor 50, as recited in claims 4, 5, and 8. It would have been obvious to implement the remote controlled vehicle in the APA with the remote control

² Appellant is in the best position to know what else was contained in the prior art described in the APA. Since Appellant has a duty to disclose information material to patentability, we will interpret arguments of counsel that limitations are not described in the APA as a representation by Appellant that such limitations were not known to be prior art as to him.

Appeal No. 1998-2554
Application 08/527,334

arrangement and camera controls of VanZeeland because it is a known structure, or, alternatively, to provide the remote control arrangement in VanZeeland with mixing of the camera signals as taught in the APA to gain the advantage of viewing several images at the same time. It would have been obvious to provide a microphone, audio transmitter, and audio receiver as taught by Brubaker to detect sound in the remote control environment of the APA or VanZeeland.

We leave it to the Examiner to examine the patentability of the other dependent claims.

CONCLUSION

The rejections of claims 2-5 and 7-12 are reversed.

New grounds of rejection have been entered against claims 4, 5, 8, 9, 11, and 12 pursuant to 37 CFR § 1.196(b).

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 that "[a] new ground of rejection shall not be considered final for purposes of judicial review."

Appeal No. 1998-2554
Application 08/527,334

37 CFR § 1.196(b) also provides that the appellant,
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. . . .

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

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

REVERSED - 37 CFR § 1.196(b)

LEE E. BARRETT)
Administrative Patent Judge)
)
)
)
) BOARD OF PATENT

Appeal No. 1998-2554
Application 08/527,334

JOSEPH L. DIXON)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
)	
HOWARD B. BLANKENSHIP)	
Administrative Patent Judge)	

Appeal No. 1998-2554
Application 08/527,334

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT
Fourth Floor
1755 Jefferson Davis Highway
Arlington, VA 22202