

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte ALAIN ARTIERI

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Appeal No. 1997-2310  
Application No. 08/329,945

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HEARD: February 10, 2000

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Before KRASS, LALL, and GROSS, Administrative Patent Judges.  
GROSS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 35. In an amendment filed on March 18, 1996, after the final rejection, appellant canceled claims 8, 18, and 26. Accordingly, claims 1 through 7, 9 through 17, 19 through 25, and 27 through 35 remain before us on appeal.

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Appellant's invention relates to a picture processing system for decompressing compressed data corresponding to pictures. The system includes plural memories, each coupled to a decoder and storing reconstructed data from both the associated decoder and an adjacent decoder. Claim 1 is illustrative of the claimed invention, and it reads as follows:

1. A system for processing compressed data corresponding to pictures, the compressed data including a plurality of slices of data, the system comprising:

a decoder system having an input that receives the compressed data, the decoder system generating decoded picture data based upon a current block of the compressed data and a predictor block of decoded picture data previously decoded by the decoder;

wherein the decoder system includes a plurality of decoders and a plurality of picture memories, each of the plurality of decoders being coupled to a respective one of the plurality of picture memories, each picture memory of the plurality of picture memories storing one of the plurality of slices of data and at least one boundary area of an adjacent slice of the plurality of slices of data that is decoded by at least one second decoder of the plurality of decoders.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

|                        |           |                          |
|------------------------|-----------|--------------------------|
| Retter et al. (Retter) | 5,379,070 | Jan. 03,<br>1995         |
|                        |           | (filed October 02, 1992) |

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Knee et al. (Knee)                      WO 91/11074                      Jul. 07, 1991

Claims 6, 15, and 23 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Knee.

Claims 1 through 7, 9 through 17, 19 through 25, and 27 through 35 stand rejected under 35 U.S.C. § 103 as being unpatentable over Retter in view of Knee.

Reference is made to the Final Rejection (Paper No. 9, mailed December 15, 1995), the Examiner's Answer (Paper No. 17, mailed September 30, 1996) for the examiner's complete reasoning in support of the rejections, and to appellant's Brief (Paper No. 16, filed August 21, 1996) and Reply Brief (Paper No. 18, filed December 2, 1996) for appellant's arguments thereagainst.

OPINION

We have carefully considered the claims, the applied prior art references, and the respective positions articulated by appellant and the examiner. As a consequence of our review, we will reverse both the anticipation rejection of claims 6, 15, and 23 and also the obviousness rejection of claims 1 through 7, 9 through 17, 19 through 25, and 27 through 35.

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"It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim." In re King, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986). See also Lindemann Maschinenfabrik v. American Hoist and Derrick, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984). The only limitation in dispute with respect to the anticipation rejection of claims 6, 15, and 23 is a memory which stores both reconstructed data and reconstructed adjacent data. The examiner states (Answer, page 4) that Knee includes frame delays 18, 20, and 22, each connected to a decoder, and each serving "to store and supply both reconstructed data and reconstructed adjacent data." The examiner contends that each frame delay supplies adjacent data as the previous store ( $FD_{i-1}$ ) and supplies reconstructed data as the current store ( $FD_i$ ). The examiner concludes that such frame delays meet the claimed limitation of memories which store both reconstructed data and reconstructed adjacent data.

Figure 3 of Knee and the accompanying text on page 3 indicate that frame delays 18, 20, and 22 provide previously compensated data from stripe  $i$  of the previous frame, and from

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adjacent stripes (i-1) and (i+1), respectively, for processing by sub-decoder i. In other words, each frame delay provides data from a single stripe of the previous frame, and, therefore, does not store both reconstructed data and reconstructed adjacent data. The sub-decoder uses reconstructed data and reconstructed adjacent data, but there is no indication that both types of data are stored in the same memory in Knee. Accordingly, Knee does not disclose every element of claims 6, 15, and 23, and consequently does not anticipate claims 6, 15, and 23.

As to the obviousness rejection of claims 1 through 7, 9 through 17, 19 through 25, and 27 through 35 over Retter in view of Knee, the examiner contends (Final Rejection, pages 4-5, and Answer, pages 5-7) that it would have been obvious to combine Knee's teaching to use adjacent data for motion picture processing with Retter's still picture processing system to allow the device to process both still and motion pictures. Appellant argues (Brief, page 8) that nothing in Retter nor Knee would suggest combining a JPEG (still picture) system with an MPEG (motion picture) system, and that one

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would turn to Retter alone for still picture processing and to Knee alone for motion picture processing.

To establish a prima facie case of obviousness, the examiner must provide a reason why the skilled artisan would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. In re Oetiker, 977 F.2d 1443, 1447, 24 USPQ2d 1443, 1446 (Fed. Cir. 1992); Uniroyal, Inc. v. Rudkin-Wiley, 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988). Merely that the prior art can be modified in the manner suggested by the examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-4 (Fed. Cir. 1992). We agree with appellant that the examiner has provided no such suggestion from the references to combine the two different types of processing systems. In fact, as each reference is limited to either JPEG or MPEG processing, if

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anything, the prior art would suggest that the two types of processing are mutually exclusive and not combinable.

In addition, regarding the obviousness rejection of claim 1 and its dependents, the examiner fails to point out in either the Final Rejection or the Answer what elements are relied upon for the claimed memories. Each claimed memory stores a slice of data and the boundary area of an adjacent slice of data. The examiner (Answer, page 5) explains that boundary data is necessary for constructing a file in Retter, since Retter uses "Restart" markers at the end of segments, but never discusses the storage of such information. Boundary data may be used for decoding the current stripe without being stored with the data for the current slice. Further, the Restart marker in Retter refers to the boundary of a segment of the current slice and not to a portion of the adjacent slice.

The examiner (Answer, page 6) contrasts appellant's storage of adjacent motion data with Retter's "stor[age of] boundary synchronization data for still picture reconstruction." Thus, the examiner appears to admit that Retter does not disclose storage of the boundary area of

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adjacent stripe data with current data and, therefore, must be relying on Knee for such memories. However, as detailed above, such reliance on Knee is misplaced as Knee stores each slice separately. Accordingly, the examiner has failed to establish a prima facie case of obviousness for claim 1. Consequently, we cannot sustain the rejection of claim 1 and its dependents, claims 2 through 5 and 35.

Similarly, for independent claims 6, 15, and 23 the examiner fails to point out in either the Final Rejection or the Answer what elements are relied upon for the claimed memories. In the claims, each memory stores reconstructed data with reconstructed adjacent data. The examiner (Final Rejection, page 4) discusses how adjacent stripe information must be accessed in decoding the current stripe in Knee. However, adjacent data may be accessed for decoding the current stripe without being stored therewith. In contrasting appellant's storage of adjacent motion data with Retter's "stor[age of] boundary synchronization data for still picture reconstruction" (Answer, page 6), the examiner appears to admit that Retter does not disclose storage of adjacent data with current data and, therefore, must be relying on Knee for

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such memories. However, as explained above, such reliance on Knee is misplaced as Knee stores each slice separately.

Accordingly, the examiner has failed to establish a prima facie case of obviousness for claims 6, 15, and 23.

Therefore, we cannot sustain the rejection of claims 6, 15, and 23, and their dependents, claims 7, 9 through 14, 16, 17, 19 through 22, 24, 25, and 27 through 31.

With respect to independent claim 32, again the examiner combines Retter with Knee with no suggestion from the prior art to do so. Furthermore, the examiner completely fails to address the method steps of claim 32 in both the Final Rejection and the Answer, and therefore does not meet his burden to establish a prima facie case of obviousness. We find no mention of determining vertical amplitudes of motion vectors nor basing the amount of memory needed on the maximum vertical amplitude in either Retter (which is limited to the processing of still pictures) or Knee. Accordingly, we must reverse the rejection of claim 32 and its dependents, claims 33 and 34.

#### CONCLUSION

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The decision of the examiner rejecting claims 6, 15, and 23 under 35 U.S.C. § 102(b) is reversed. The decision of the examiner rejecting claims 1 through 7, 9 through 17, 19 through 25, and 27 through 35 under 35 U.S.C. § 103 is reversed.

REVERSED

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|-----------------------------|---|-----------------|
| ERROL A. KRASS              | ) |                 |
| Administrative Patent Judge | ) |                 |
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|                             | ) | BOARD OF PATENT |
| PARSHOTAM S. LALL           | ) | APPEALS         |
| Administrative Patent Judge | ) | AND             |
|                             | ) | INTERFERENCES   |
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| ANITA PELLMAN GROSS         | ) |                 |
| Administrative Patent Judge | ) |                 |

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