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PAT.&T.M. OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

This opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte USHA VARSHNEY

Appeal No. 95-2672
Application No. 07/757,568

ON BRIEF

Before GARRIS, PAK, and OWENS, *Administrative Patent Judges*.
GARRIS, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal from the refusal of the examiner to allow claims 22 through 30 as amended subsequent to the final rejection.² The only other claims remaining in the

¹ Application for patent filed September 11, 1991.

² We observe that the amendment-after-final (Paper No. 11, filed February 28, 1994) has not yet been clerically processed notwithstanding the examiner's entry-authorization via the advisory action mailed March 17, 1994 (Paper No. 12).

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application, which are claims 5 through 20, stand withdrawn from further consideration by the examiner.

The subject matter on appeal relates to a ferrimagnetic transformer or inductor core material of an NiZnCoCr ferrite compound defined by a particular formula. This appealed subject matter is adequately illustrated by independent claim 22 which reads as follows:

22. An improved ferrimagnetic transformer or inductor core material for megahertz frequency high flux density applications, said ferrimagnetic core material consisting essentially of a compound of the formula RFe_2O_4 , where R is $Ni_{1-x-y-z}Zn_xCo_yCr_z$, said core material being further characterized in that x is in the range of from about 0.01 to about 0.7, y is in the range of from about 0.001 to about 0.25 and z is in the range of from about 0.01 to about 0.4.

The references relied upon by the examiner as evidence of obviousness are:

Guillaud et al. (Guillaud)	2,980,618	Apr. 18, 1961
Van Der Burgt	3,020,426	Feb. 6, 1962
Sixtus et al. (Sixtus)	3,032,503	May 1, 1962
Rabl et al. (Rabl)	3,514,405	May 26, 1970

All of the appealed claims are rejected under 35 U.S.C. § 103 as being unpatentable over van der Burgt, Sixtus or Rabl in view of Guillaud. On pages 2 and 3 of the answer, the examiner expresses his position as follows:

van der Burgt, Sixtus et al and Rabl et al disclose NiZnCo ferrites that differ from that claimed in that they do not contain Cr. Guillaud et al, however, teach the incorporation of Cr into NiZn ferrite material and

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accordingly the incorporation of Cr into the NiZn ferrite material of van der Burgt, Sixtus et al and Rabl et al would have been obvious therefrom. The determination of the optimum quantity of constituents would have been within the scope of one of ordinary skill in the art.

We cannot sustain this rejection.

On this record, the appellant and the examiner seem to agree that none of the applied references are directed to core materials of NiZnCoCr ferrite compounds. That is, the ferrite compounds of van der Burgt, Sixtus and Rabl include Ni, Zn and Co but not Cr whereas the ferrite compounds of Guillaud include Ni, Zn and Cr but not Co. The examiner believes that the teachings of Guillaud would have suggested incorporating Cr into the ferrite compounds of van der Burgt, Sixtus or Rabl. We agree with the appellant, however, that the examiner's belief is not well founded.

From our perspective, the uses envisioned for the respective core materials of the primary and secondary references are not sufficiently related that the teachings concerning one would have suggested applicability to the other. For example, the ferrite compounds of Guillaud are "intended for use in devices in which the gyromagnetic effect at hyperfrequencies is required" (column 1, lines 16-17). We find no teaching, and the examiner points to none, in any of the primary references that the ferrite compounds

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thereof are used in devices which require "the gyromagnetic effect at hyperfrequencies". Moreover, the applied reference teachings provide no reasonable expectation of success concerning the combined use of Co and Cr in NiZn ferrite core materials. For all we know based upon these teachings, the combined use of Co and Cr in such ferrite core materials would have been detrimental rather than beneficial.

The appellant and the examiner also seem to agree that none of the applied references envision use of the core materials respectively disclosed therein for applications of the type envisioned by the appellant (e.g., ferromagnetic transformer or inductor core materials for megahertz frequency high flux density applications). Apparently, the examiner considers the intended use of the here claimed core material "to be of no moment". According to the appellant's specification, however, the intended application or use of the here claimed core material is related to the here claimed formula coefficients (e.g., see the paragraph bridging specification pages 16 and 17 and the first full paragraph on specification page 17). For this reason, and since the intended applications or uses of the cited reference core materials differ from that of the appellant's claimed core material, no basis exists for the examiner's implicit belief that

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the here claimed formula coefficients would have resulted from "[t]he determination of the optimum quantity of constituents". Stated otherwise, the optimized constituent quantities of the reference core materials would presumably differ from the constituent quantities of the here claimed core material because the intended applications or uses of these respective core materials differ.

In light of the foregoing, we cannot sustain the examiner's § 103 rejection of claims 22 through 30 as being unpatentable over van der Burgt, Sixtus or Rabl in view of Guillaud.

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The decision of the examiner is reversed.

REVERSED

Bradley R. Garris

BRADLEY R. GARRIS)
Administrative Patent Judge)

Chung K. Pak

CHUNG K. PAK)
Administrative Patent Judge)

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) APPEALS AND
) INTERFERENCES
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Terry J. Owens

TERRY J. OWENS)
Administrative Patent Judge)

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