

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 29

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHIKAKO FUJINAGA, AKIO TOSAKA, TOSHIYUKI KATO,
KAKU SATO, HIDEO KUGUMINATO and YOSHIHIRO OKAWA

Appeal No. 1997-0375
Application No. 08/287,473¹

ON BRIEF

Before CAROFF, KIMLIN and ELLIS, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

¹ Application for patent filed August 8, 1994. According to appellants, this application is a continuation of Application No. 08/020,057, filed February 19, 1993, now abandoned.

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This is an appeal from the final rejection of claims 1-6, all the claims in the present application. Claim 1 is illustrative:

1. A method of producing a high-strength steel sheet having excellent workability used for can making comprising:

hot rolling a slab at a temperature within the range of about the A_{r3} transformation temperature to about 950°C to provide a rolled steel strip;

coiling the rolled steel strip at a temperature range of about 400°C to 600°C to provide a hot-rolled steel strip;

pickling and cold rolling the hot-rolled steel strip to provide a cold-rolled steel strip;

continuously annealing the cold-rolled steel strip at a temperature higher than its recrystallization temperature;

and then temper rolling the annealed cold-rolled steel strip at a reduction of about 5% or more;

wherein said slab comprises:

C: about 0.0005 to 0.01 wt%,

N: about 0.001 to 0.04 wt%,

the total amount of C and N being about 0.008 wt% or more and at least a majority of the components C and N being present as a solid solution,

Mn: about 0.05 wt% to 2.0 wt%,

Al: about 0.005 wt% or less,

O: about 0.01 wt% or less, and

the balance consisting of Fe and impurities.

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The examiner relies upon the following references as evidence of obviousness:

Kawano	3,988,173	Oct. 26, 1976
Osawa et al. (JP '326)	64-15326	Jan. 19, 1989

Appellants' claimed invention is directed to a method of producing a steel sheet that is used for making cans. The method comprises subjecting an alloy composition to hot rolling, coiling, pickling and cold rolling, continuous annealing and temper rolling. The alloy composition comprises C and N with "the total amount of C and N being about 0.008 wt% or more and at least a majority of the components C and N being present as a solid solution." The processed composition may also contain B in an amount of about 0.0001 to 0.001 wt%.

Appealed claims 1-6 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kawano in view of JP '326.

Upon careful consideration of the opposing arguments presented on appeal, we find that the examiner has failed to establish a prima facie case of obviousness for the claimed subject matter. Accordingly, we will not sustain the examiner's rejection.

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While we appreciate the thoroughness of the examiner in treating the various issues on appeal, it is our opinion that Kawano fails to provide the requisite teaching or suggestion of processing a composition wherein the majority of C and N are present as a solid solution. As pointed out by appellants, Kawano specifically teaches that B is included in the composition in an amount of from 0.002% to about 0.005% in order to precipitate BN and AlN (column 2, lines 40-52 and column 5, lines 28-30). Hence, not only does Kawano teach away from processing a composition wherein the majority of C and N are present as a solid solution, but Kawano also emphasizes that the amount of B must be greater than the amount of B presently claimed and disclosed by appellants. Although independent claims 1 and 4 do not recite the presence of B in the composition, and employ the term "comprises" in defining the composition, the claims cannot be reasonably interpreted as comprising more than 0.001 wt% of B. Appellants' dependent claims 2 and 5 are consistent with their specification disclosure in setting the maximum amount of B at 0.001 wt%. While, as noted by the examiner, page 15 of appellants' specification states that B may be used in

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combination with Ti and Nb, the specification further teaches at page 16 that the amount of B should not exceed 0.001 wt%. Again, this is in contrast to Kawano's specific disclosure that a B content less than 0.002 wt% results in the desired effects not being obtained (column 5, lines 29 and 30).

JP '326, relied upon by the examiner for its teaching of temper rolling at a reduction of 1.5-10%, does not alleviate the deficiencies of Kawano outlined above.

Inasmuch as we find that the prior art applied by the examiner fails to establish a prima facie case of obviousness, we find it unnecessary to evaluate the probative weight of the declaration evidence submitted by appellants.

In conclusion, based on the foregoing, the examiner's decision rejecting the appealed claims is reversed.

REVERSED

MARC L. CAROFF)	
Administrative Patent Judge)	
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EDWARD C. KIMLIN)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES

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