

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JEAN G. BRISSON and JEAN BEGUINOT

Appeal No. 96-0154
Application No. 08/047,434¹

ON BRIEF

Before JOHN D. SMITH, GARRIS, and PAK, Administrative Patent Judges.

GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the final rejection of claims 12 through 19 which are all of the claims remaining in the application.

¹ Application for patent filed April 15, 1993.

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The subject matter on appeal relates to a planar clad sheet having improved abrasion resistance and being substantially free of residual stresses. The clad sheet comprises a layer of low-alloy steel having a rolled structure and a layer of tool steel having a rolled structure and comprising tempered martensite, coarse primary carbides and a fine dispersion of secondary carbides. The sheet is produced by joining the tool steel and low-alloy steel layers, hot rolling the joined layers, cooling the hot rolled joined layers to below 200°C and tempering the cooled joined layers at a temperature between 250°C and 650°C. This appealed subject matter is adequately illustrated by independent claim 12 which reads as follows:

12. A planar clad sheet having improved abrasion resistance and being substantially free of residual stresses, comprising a layer made of tool steel having a chemical composition comprising, by weight, more than 0.5% carbon and more than 3% chromium and a layer made of low alloy steel having a chemical composition comprising, by weight, up to 0.25% carbon and a carbon equivalent up to 0.5% the layer made of low-alloy steel having a rolled structure and the layer made of tool steel having a rolled structure and comprising tempered martensite, coarse primary carbides and a fine dispersion of secondary carbides.

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of secondary carbides and/or coarse primary carbides, recited in the claims, would be inherent to the use of AISI D2 (or similar tool steels) when heat treated in the manner that Metals Handbook discloses as optimum for these compositions.

OPINION

The above noted rejection cannot be sustained.

As correctly indicated by the appellants, the Metals Handbook disclosure is directed to heat or tempering treatments of tool steels per se rather than a clad sheet which includes a tool steel layer and a low-alloy or mild steel layer of the type claimed by the appellants and described in, for example, the Admitted Prior Art. Like the appellants, we consider the Metals Handbook to contain no suggestion of applying the tempering treatments described therein to such clad sheets. Moreover, the examiner's contrary view is militated against by the evidence of record which reflects that tempering treatments reduce the hardness of tool steels (e.g., see Figure 8 of the Metals Handbook) and that reduced hardness is antithetical to the abrasion resistance characteristic desired in this art (e.g.,

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see the publications attached to the Brief as Exhibits 1 and 2). Finally, the examiner's obviousness conclusion is yet further vitiated by the fact that the applied prior art contains no teaching or suggestion of a clad sheet having tool steel carbides, improved abrasion resistance and substantially no residual stresses as disclosed and claimed by the appellants.

Under the foregoing circumstances, it is our determination that the rejection before us is based upon the unwitting application of impermissible hindsight derived from the appellants' own disclosure rather than some teaching, suggestion or incentive derived from the applied prior art. Accordingly, we cannot sustain the examiner's § 103 rejection of claims 12 through 19 as being unpatentable over the Admitted Prior Art or Salesky in view of the Metals Handbook.

The decision of the examiner is reversed.

REVERSED

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JOHN D. SMITH)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
BRADLEY R. GARRIS)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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CHUNG K. PAK)	
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