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(54) **Meltless preparation of martensitic steel articles having thermophysically melt incompatible alloying elements**

(57) An article of iron base metal base metal alloyed with an alloying element is prepared by mixing (44) a chemically reducible nonmetallic base-metal precursor compound (40) of the iron base metal and a chemically reducible nonmetallic alloying-element precursor compound (42) of an alloying element to form a compound mixture. The alloying element is preferably thermophysically melt incompatible with the iron base metal. The method further includes chemically reducing (48) the compound mixture to a metallic alloy, without melting the metallic alloy, and thereafter consolidating (50) the metallic alloy to produce a martensitic-composition consolidated metallic article, without melting the metallic alloy and without melting the consolidated metallic article.

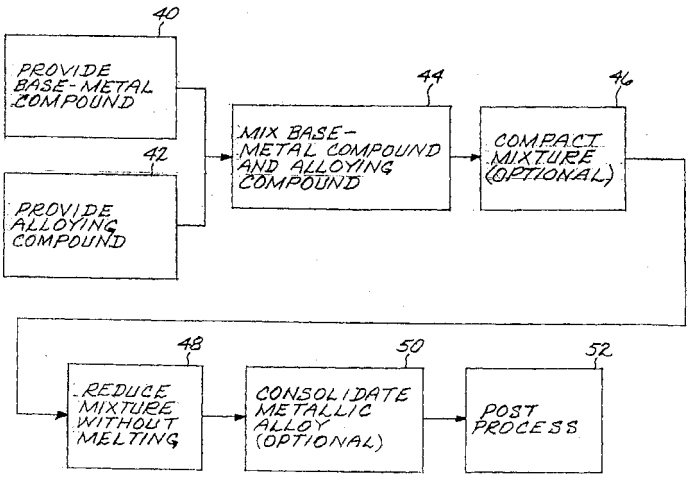

FIG. 2

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EUROPEAN SEARCH REPORT

Application Number
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
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CATEGORY OF CITED DOCUMENTS

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EPO FORM 1503 03.82 (P04C01)

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