



US005891215A

# United States Patent [19]

[11] Patent Number: **5,891,215**

Meseha et al.

[45] Date of Patent: **Apr. 6, 1999**

[54] **MOLTEN METAL DEGASSING AND FILTERING METHODS**

4,277,281	7/1981	Weber et al.	75/411
4,472,195	9/1984	Gupta et al.	75/552
4,515,630	5/1985	Tyler et al.	75/407
5,037,471	8/1991	Iwamura et al.	75/648
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**FOREIGN PATENT DOCUMENTS**

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[21] Appl. No.: **988,529**

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[22] Filed: **Dec. 10, 1997**

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**Related U.S. Application Data**

[57] **ABSTRACT**

[62] Division of Ser. No. 612,277, Mar. 7, 1996, Pat. No. 5,733,500.

Molten metal (e.g., on its way to a continuous casting machine for forming a bar that will be rolled into a rod to be drawn down to wire) is filtered to remove particulate impurities by passing it through at least one and preferably several ceramic filters. In addition, the molten metal is degassed by injecting a flushing gas into the metal through one or more porous plugs in the bottom of the chamber through which the molten metal flows. A partial vacuum column above each porous plug is used to help pull gas up through and out of the metal.

[51] **Int. Cl.<sup>6</sup>** ..... **C22B 15/14**

[52] **U.S. Cl.** ..... **75/407; 75/411**

[58] **Field of Search** ..... **75/407, 411, 647, 75/648**

[56] **References Cited**

**U.S. PATENT DOCUMENTS**

3,689,048	9/1972	Foulard et al.	266/648
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**12 Claims, 1 Drawing Sheet**

