

# United States Patent [19]

Wegman et al.

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[54] HEAT, CORROSION, AND WEAR RESISTANT STEEL ALLOY

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[\*] Notice: The portion of the term of this patent subsequent to May 29, 2007 has been disclaimed.

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### Related U.S. Application Data

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[51] Int. Cl.<sup>5</sup> ..... C22C 38/46

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[58] Field of Search ..... 420/56, 57, 47, 48, 420/59, 584; 148/326, 327, 419

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### [57] ABSTRACT

A heat, corrosion and wear resistant austenitic steel and article made therefrom is disclosed containing in weight percent about

	w/o
Carbon	0.35-1.50
Manganese	3.0-10.0
Silicon	2.0 max.
Phosphorus	0.10 max.
Sulfur	0.05 max.
Chromium	18-28
Nickel	3.0-10.0
Molybdenum	Up to 10.0
Vanadium	Up to 4.0
Boron	Up to 0.03
Nitrogen	0.25 min.
Tungsten	Up to 8.0
Niobium	1.0 max.

the balance being essentially iron. To attain the unique combination of properties provided by the present alloy w/o C+w/o N must be at least about 0.7, w/o V+0.5 (w/o Mo)+0.25 (w/o W) must be about 0.8-9.0.

20 Claims, No Drawings