

UNITED STATES PATENT OFFICE

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HEAT-RESISTANT FERRITIC ALLOY

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1 Claim. (Cl. 75—126)

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Our invention relates to a heat resistant, fer-
ritic alloy usable as electric resistance material
for high temperatures as well as for manufac-
turing details of construction exposed to high
temperatures.

This application is a continuation-in-part of
our copending application Ser. No. 610,206, filed
August 10, 1945, now abandoned.

As heat resisting alloys for the above named
kind two main types have been used hitherto.

very disagreeable influence on the properties of the alloy.

It is also possible to form oxides and carbides at the same time or successively by the named measures in one melt.

In its broader aspects the invention con-

Standing below is a table showing some bending tests performed with alloys according to Tables 1 and 2 showing a large difference in toughness in adding the above named additions. All tests are heated 100 days at 1200° C. under the same conditions.

Table 3

Alloy	Grain size expressed in million parts of mm.	Bending Angle	Alloy	Grain size expressed in million parts of mm.	Bending Angle
1a-----	16,300	degrees 30	1b	1,049,000	degrees 0
3a-----	1,000	180	3b	2,097,000	0

¹ It has proved possible after bending 180° completely to press the shanks together without rupture.

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der of 1200° C. uniformly dispersed in the alloy as an insoluble suspension, the alloy containing on an average at least six particles of oxides and carbides per square inch cross-section in a linear enlargement of 250 times.

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NILS GÖSTA REHNQVIST.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
Re. 13,861	Walker	Jan. 5, 1915
1,266,928	Elliott	May 21, 1918
1,274,245	Crockard	July 30, 1918

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Number	Name	Date
1,621,523	Clement	Mar. 22, 1927</