

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
27 December 2002 (27.12.2002)

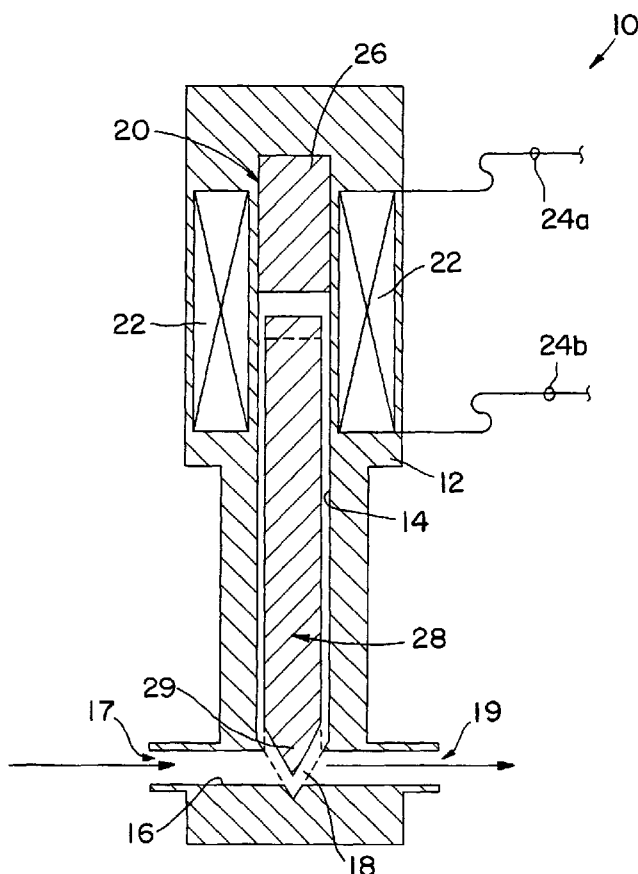
PCT

(10) International Publication Number
WO 02/103720 A1

- (51) International Patent Classification⁷: **H01F 1/147**, C22C 38/00, 38/18, F16K 31/06
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- (21) International Application Number: PCT/US02/18826
- (72) Inventors; and
- (22) International Filing Date: 12 June 2002 (12.06.2002)
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- (25) Filing Language: English
- (26) Publication Language: English
- (74) Agents: **PACE, Vincent, T.** et al.; Dann, Dorfman, Herrell and Skillman, P.C., Suite 720, 1601 Market Street, Philadelphia, PA 19103-2307 (US).
- (30) Priority Data:
09/880,974 14 June 2001 (14.06.2001) US
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
- (63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:
US 09/880,974 (CON)
Filed on 14 June 2001 (14.06.2001)

[Continued on next page]

(54) Title: CORROSION RESISTANT MAGNETIC ALLOY, AN ARTICLE THEREFROM AND A METHOD OF USING SAME



(57) Abstract: A corrosion resistant, soft magnetic, ferritic steel alloy, a useful article made therefrom, and a method of using the alloy are described. The alloy has the following composition in weight percent. C - 0.005-0.040; Mn - 1.0 max.; Si - 1.0 max.; P - 0.050 max.; S - 0.020 max.; Cr - 27.0-30.0; Ni - 0.35 max.; Mo - 0.35 max.; Cu - 0.35 max.; Co - 0.25 max.; N - 0.010-0.05. The balance is essentially iron and the usual impurities found in similar grades of ferritic stainless steels. In accordance with another aspect of this invention, there is disclosed a magnetic component for a magnetically actuated device such as a solenoid valve wherein the magnetic component is formed of the aforesaid alloy. In accordance with a further aspect of this invention, there is disclosed a solenoid valve that incorporates a movable magnetic core that is formed of the aforesaid alloy.



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MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG,
SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VN, YU, ZA, ZM, ZW.

(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG).

Published:

— *with international search report*

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent

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