"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, Boris Yevgen'yevich, laureat Leninskoy premii (Kiyev)

Make use of the achievements of welding techniques in railroad transportation. Zhel.dor.transp. 44 no.4:8-13 Ap '62. (MIRA 15:4)

1. Prezident AN USSR.
(Railroads--Equipment and supplies) (Welding)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

MEDOVAR, Boris Izrailevich; LATASH, Yuriy Vadimovich; MAKSIMOVICH, Boleslav Ivanovich; STUPAK, Leonid Mikhaylovich; PATON, B.Ye., akademik, laureat Leninskoy premii, red.; POZDNYAKOVA, G.L., red.izd-va; MIKHAYLOVA, V.V., tekhn. red.

[Electric slag remelting] Elektroshlakovyi pereplav. Pod red. B.E.Patona. Moskva, Metallurgizdat, 1963. 169 p. (MIRA 16:4)

1. Akademiya nauk SSSR (for Paton).
(Zone melting)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

ACCESSION NR: AT4016062 S/2698/63/000/000/0141/0146

AUTHOR: Paton, B. Ye.; Medovar, B. I.; Latash, Yu. V.

TITLE: Electroslag casting and its future use in the foundry industry

SOURCE: Soveshchaniye po teorii liteyny*kh protsessov. 8th, 1962. Mekhanicheskiye svoystva litogo metalla (Mechanical properties of cast metal). Trudy* soveshchaniya. Moscow, Izd-vo AN SSSR, 1963, beginning with "Protsess EShP..." on page 145 through page 146

TOPIC TAGS: casting, foundry technology, electroslag casting, electrode, electrode melting, aluminum, aluminum alloy

ABSTRACT: Following an extensive study of the techniques and uses of electroslag remelting (the remelting of used electrodes in cooled crystallizers), a process which may be used for the manufacture of high-quality, alloy steel castings of simple shape, the authors point out that electroslag casting can be used to produce sleeves, journals, liners and other parts characterized by high density, homogeneity of the macro- and microstructure, high purity, and stable mechanical properties. By employing used electrodes of varying length or by varying the number of electrodes melted, castings may be made of varying height or

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

ACCESSION NR: AT4016062

shape. The electroslag castings have about the same properties as well stressed common metal. By melting electrodes made of different metals in one bunch, it is possible to obtain alloy castings of the required composition. For example, by melting an electrode consisting of iron and aluminum bars, the Institut electrosvarki (Institute of Electric Welding) obtained castings of Yu12 and Yu16 alloys. The aluminum in these castings was distributed moreevenly than in the usual ones. Orig. art. has: 6 figures and 5 tables.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 27Dec63 ENCL: 00

SUB CODE: MM NO REF SOV: 000 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

DONSKOY, A.V.; ZHERDEV, I.T.; ZOTOV, V.P.; MURATOV, S.M.; NOVIKOV, O.Ya.; OKOROKOV, N.V.; PATON, B.Ye.; SISOYAN, G.A.; SVENCHANSKIY, A.D.

Stepan Ivanovich Tel'nyi; obituary. Elektrichestvo no.1:93 Ja '63. (MIRA 16:2)
(Tel'nyi, Stepan Ivanovich, 1890-1962)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, B. YE.
AID Nr. 995-3 21 June

CONFERENCE ON AUTOMATIC CONTROL OF WELDING PROCESSES (USSR)

Avtomaticheskaya svarka, no. 4, Apr 1963, 95-96.
S/125/63/000/004/011/011

At a conference held on 27-28 December 1962 under the auspices of the Electric Welding Institute, Ukrainian Academy of Sciences, numerous papers were delivered reporting on results of research in the field of automatic control of welding processes. Academician B. Ye. Paton reported on achievements in the research and development of new automatic control systems for arc, electroslag, resistance, and electron-beam welding, giving particular attention to program and cybernetic systems. M. P. Zaytsev's report dealt with contactless ferrotransistor control systems for resistance welders. Engineer P. L. Chuloshnikov spoke on instruments for measuring resistance-welding parameters, as well as on control devices and resistance welders for light alloys. Engineers A. P. Obolonskiy and A. B. Koval' presented papers on automatic-control systems for electron-beam welding. Engineer R. M. Shirokovskiy discussed automatic guiding of the electrode along the joint in welding gas pipes. [WB]

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APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, B.Ye.

Welding in tomorrow's world. Avtom. svar. 16 no.2:1-9 F '63.
(MIRA 16:4)

1. Institut elektrosvarki imeni Ye.O.Patona AN UkrSSR.
(Welding)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, B.Ye.

Further development of automatic control systems and the control of welding processes. Avtom.svar. 16 no.5:1-6 My '63. (MIRA 16:11)

1. Institut elektrosvarki imeni Ye.O. Patona AN UkrSSR.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 12336-63 EWP(k)/EWP(q)/EWT(m)/BDS AFFTC/ASD Pf-4 JD/HM
ACCESSION NR: AP3000138 S/0125/63/000/005/0007/0010

AUTHOR: Paton, B. Ye.; Gavrish, V. S.; Grodetskiy, Yu. S.

TITLE: Electronic (inertialess) schemes for automatic control of resistance-welding processes [Report at the Conference on Automatic Welding Control, Kiev, 25 December 1962]

SOURCE: Avtomaticheskaya svarka, no. 5, 1963, 7-10

TOPIC TAGS: electronic welding controller, resistance welding

ABSTRACT: Some well-known ways for attaining a higher speed of welding control are considered. A new welding controller designed on the principle of quenching the ignitrons permits practically inertialess controlling of the welding process. The quenching occurs at the moment when the welding current (or voltage) is equal to the set current (or voltage). The controller is suitable for applications (e.g., radio-tube industry) where the welding-current duration is 0.02-0.01 sec. The controller block diagram is shown in Fig. 2 (see Enclosure 1). With the controller on and a supply voltage of 190 v, the strength of test-welded specimens was 3-5 per cent lower than that at the rated 220 v. Other things being equal, with the controller off, the strength reduction was 30-40 per cent. Orig. art. has: 1 formula and 4 figures.

Cord 1/1

Inst. of Electric Welding

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, B.Ye., akademik

Current problems of the Ukrainian members. Vest. AN SSSR 33 no.8:43-48 Ag '63. (MIRA 16:8)

1. Prezident AN UkrSSR.
(Academy of sciences of the Ukrainian S.S.R.)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, Boris Ye.; MOVCHAN, P. S.;

"Radical Electron Beam Heaters for Melting of Metals".

Report to be submitted for the First International Conference on Electron and Ion Beam Science and Technology, sponsored by the Electrothermics and Metallurgy Division Of The Electrochemical Society and The Metallurgical Society / of The American Institute of Mechanical Engineers (AIME), 3-7 Mar 64, Toronto, Canada.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, B. Ye.; NOVCHAN, B. A.

"Electro Beam Radial Heaters for the Fusing of Metals."

Report to be submitted for the International Conference on Electron and Ion Beam Science and Technology in Toronto, Canada, 3-7 May 1964.

Kiev Institute of Electro Welding

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 43615-65 EWP(m)/EPF(n)-2/EPR/EPA(s)-2/ EWG(v)/EPA(w)-2/EWP(k)/EWA(c)/EWT(l)/
EWT(m)/EWP(b)/EPA(sp)-2/T/EWA(m)-2/EWP(v)/EWP(t) Pd-1/Pe-5/Pf-4/Pl-4/Ps-4/Pt-7/
ACCESSION NR: AT5008310 Pu-4/Pab-10 IJP(c) S/0000/64/000/000/0322/0336
WW/JD/HM/JG/GS

AUTHOR: Paton, B.Ye. (Academician); Lebedev, V. K. (Doctor of technical sciences)

TITLE: Magnetohydrodynamic phenomena during electric welding and their applications

SOURCE: AN UkrSSR. Institut elektrosvarki. Novyye problemy svarochnoy tekhniki (New problems in welding technology). Kiev, Izd-vo Tekhnike, 1964, 322-336

TOPIC TAGS: electric welding, welding magnetic field, magnetohydrodynamics, electroslag welding, arc welding

ABSTRACT: During electric welding, the molten metal, liquid slag and high temperature ionized gases are in an electromagnetic field which creates forces in the conductors. These forces, as well as others, affect metal splashing. Magnetohydrodynamic phenomena are observed due to the motion of charged particles and the magnetic field of the arc. A complicated system of electrodynamic forces destroys most of the fluid connections and moves the liquid metal over the surface of the melted parts. The investigation of magnetohydrodynamic phenomena during welding opens new possibilities for creating higher welding speeds, improving weld quality and reducing the consumption of electrical energy. In some cases this is done by limiting the electrodynamic forces.

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The volumetric forces may be created and adjusted in three ways: first, by welding in a magnetic field made by an electromagnet; secondly, by selecting required characteristics of the source of current, and finally, by periodic strengthening of electrodynamic forces using a pulsed increase in the welding current. The present paper considers placing the welding arc in a magnetic field perpendicular to the arc and magnetic field intensity vector. A rotating conical arc is used for welding annular joints of small diameter, simplifying the welding process. A running arc was proposed in 1959 by VNIIESO. The periodic heating of the metal to boiling by the arc and the free access of air into the relatively large gap between the pipes are favorable for the formation of refractory oxides, which are removed with difficulty from the joint during shrinkage. The methods of magnetic control allow one to solve the problem of arc shifting between two electrodes at equal distances, at a certain speed needed for welding the parts during one pass. Welding may also be done by a DC arc controlled by an alternating magnetic field. Such arcs allow one to adjust the heat density of the arc flow on the surface of the part over a wide range. A welding bath placed in a transverse magnetic field improves formation of the weld joint and increases the welding speed. A transverse magnetic field was first used by H. Gunter with a frequency of 100 cps, the magnetic

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 43[illegible]-65

ACCESSION NR: AT5008310

flow coinciding with the phase of the welding current. A magnetic field can apparently be used for preventing flowing out of the liquid metal from the welding bath through the gaps between parts. It may be assumed that the transverse magnetic field facilitates the formation of weld joints in different positions. The investigation of volumetric forces during three-phase welding with two arcs in a common bath is of special interest. Good joints are obtained when the voltage between the electrodes is $\sqrt{3}$ times the voltage between the electrode and part. Moreover, the order of investigation of the potentials of the electrode and part must be such that terminal A of the phase indicator is connected to the first electrode, terminal B — to the part, and terminal C — to the second electrode of the phase indicator disk rotating counter-clockwise. The arc pressure against the melted metal in the bath is a result of electrodynamic forces. It may be assumed that a transverse magnetic field is effective with twin arc welding. Almost the same system of forces acts on the metal during electroslag welding as during arc welding. Intensive mixing of the molten metal is advisable when using electroslag welding. In the future, the greatest possibilities exist when rectifiers create constant current components flowing through the molten metal bath. Impulse control is created by shifting the electrode metal during welding. Electrodynamic forces are increased for the transfer of fine drops. This is done by a special device which lowers the minimum welding current several fold. Orig. art. has: 10 figures and 2 formulas.

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APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 43615-65
ACCESSION NR: AT5008310

ASSOCIATION: Institut elektrosvarki im. Ye. O. Patona AN UkrSSR (Electric Welding Institute, AN UkrSSR)

SUBMITTED: 05Nov64 ENCL: 00 SUB CODE: IE, EM

NO REF SOV: 009 OTHER: 001

Card 4/4 cc

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, B.Ye. [Paton, B.IE.], akademik

All forces of Ukrainian science [ ] the future of communism! Dop.
AN URSR no.4:428-435 '64. (MIRA 17:5

1. President AN UkrSSR.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, B.Ye., akademik

Present status and prospects for expanding welding in the U.S.S.R.
[Trudy]LMZ no.11:7-20 '64. (MIRA 17:12)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 17093-65 EWT(1)/EWP(e)/EPA(s)-2/EWT(m)/EPF(n)-2/EWG(v)/EWA(d)/EWP(v)/EEC-4/
EWA(w)-2/EWP(j)/EEC(t)/T/EWP(t)/EWP(k)/EWP(b) Pc-4/Pe-5/Pf-4/Pt-10/Pu-4/Pab-10/
Pae-2 DIAAP/AFTC(p) RM/WH/GW/JD/HM

ACCESSION NR: AP5000614 S/0029/64/000/011/0013/0013

AUTHOR: Paton, B. Ye.

TITLE: Welding in space

SOURCE: Tekhnika - molodezhi, no. 11, 1964, 13

TOPIC TAGS: welding equipment, welder

ABSTRACT: Discussing developments in welding the author states that it is moving from the melting of metals to the wider use of ultrasonic vibrations, friction forces, and explosive energy. The first results in laboratory attempts at refractory-metal welding have already been obtained. Using lasers, it will become possible to weld at a great distance, and even through transparent surfaces. Under present laboratory conditions, it is theortically possible to weld all metals in various combinations and to weld metals to nonmetals. The use in space of remote welders with electronic controls which can determine meteorite damage in hundredths of a second, register pressure drops, and instantly issue commands to the welder is predicted. Electron-beam welding, nuclear welding, ion-beam welding, and incandescent-plasma welding are also mentioned.

ASSOCIATION: none

Card 1/2

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 17093-65
ACCESSION NR: AP5000614

SUBMITTED: 00 ENCL: 00 SUB CODE: MM, SV

NO REF SOV: 000 OTHER: 000 ATD PRESS: 3149

Card 2/2

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

ACCESSION NR: AP4009279 S/0125/64/000/001/0001/0006

AUTHOR: Paton, B. Ye.; Potap'yevskiy, A. G.; Podola, N. V.

TITLE: Pulsation arc consumable-electrode welding with a programed control

SOURCE: Avtomaticheskaya svarka, no. 1, 1964, 1-6

TOPIC TAGS: dc arc welding, consumable electrode, program control welding, pulsation welding, pulsation arc welding

ABSTRACT: A new welding method is described in which short pulses are superimposed on a d-c arc for the purpose of considerably increasing the arc power at the moment of electrode-metal droplet formation. The pulse height, duration, and repetition frequency are program-controlled as well as the ratio of the principal d-c arc current to the pulse current. The physical phenomena in the pulsation arc have been studied by oscillographic and high-speed motion-picture techniques. The program control permits regulating wire melting, electrode-

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

ACCESSION NR: AP4009279

metal transfer, chemical composition, shape, and size of the weld in all welding positions. The rate of electrode-wire melting may be increased by up to 30%. Wires of 1.6 and 2.0-mm diameter can be used instead of 1.0-1.2-mm for welding thin sheets. The advantages claimed also include: a higher range of usable currents, higher productivity, and simpler techniques in doing vertical, horizontal, and overhead welds. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Institut elektrosvarki im. Ye. O. Patona AN UkrSSR (Institute of Electric Welding, AN UkrSSR)

SUBMITTED: 11Jul63 DATE ACQ: 07Feb64 ENCL: 00

SUB CODE: MM NO REF SOV: 000 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, B.Ye., akademik; MEDOVAR, B.I.; KIRDO, I.V.; PUZRIN, I.G.; BOYKO, G.A.; LUTSYUK-KHUDIN, V.A.

Spontaneous removal of oxide films from metals. Dokl. AN SSSR 159 no.1:72-73 N '64. (MIRA 17:12)

1. Institut elektrosvarski im. Ye.O. Patona AN UkrSSR.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, B.Ye., akademik, otv. red., ASNIS, A.Ye., doktor tekhn. nauk, red.; KAZIMIROV, A.A., kand. tekhn. nauk, red.; KASATKIN, B.S., doktor tekhn. nauk, red.; RAYEVSKIY, G.V., doktor tekhn. nauk, red.; TRUFYAKOV, V.I., kand. tekhn. nauk, red.; SHEVERNITSKIY, V.V., kand. tekhn. nauk red.[deceased]; GILELAKH, V.I., red.

[Design of welded structures; reports] Proektirovanie svarnykh konstruktsii; doklady. Kiev, Naukova dumka, 1965. 426 p. (MIRA 18:6)

1. Vsesoyuznaya konferentsiya po proyektirovaniyu svarnykh konstruktsii, Kiev, 1963.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

MEDOVAR, Boris Izrailevich; LATASH, Yuriy Vadimovich; PATON, B.Ye., akademik, otv. red.; POGORETSKAYA, L.N., red.; FURER, P.Ya., red.

[Electric slag remelting] Elektroshlakovyi pereplav. Kiev, Naukova dumka, 1965. 78 p. (MIRA 18:4)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 25304-65 EPA(s)-2/EWT(m)/EPF(n)-2/EWP(t)/EPA(bb)-2/EWP(b) Pt-10/Pu-4
IJP(c) JD/JG
ACCESSION NR: AP5004550 S/0030/65/000/001/0025/0029

AUTHOR: Paton, B. Ye. (Academician); Movchan, B. A. (Corresponding member AN-UkrSSR)

TITLE: Electron beam in the modern vacuum metallurgy

SOURCE: AN SSSR. Vestnik, no. 1, 1965, 25-29

TOPIC TAGS: electron beam melting, metal melting, electron beam furnace

ABSTRACT: The Electric Welding Institute, Academy of Sciences UkrSSR, has developed an electron-beam furnace with several electron guns arranged in a circle around the mold so that some beams are focused on the melted billet and some on the surface of the metal in the mold to keep it in a molten state. The melting and refining are divided into four stages: 1) degassing of the billet in solid state; 2) removal of oxygen, hydrogen, and nitrogen during the formation and the fall of the metal droplets into the mold; 3) further removal of impurities from the metal in the mold under high vacuum; 4) additional removal of impurities by directional crystallization, achieved by pulling the ingot at a rate of 1 mm/min or less. Electron-beam melting of vacuum arc-melted niobium reduced the gas content from the initial 0.03% O_2, 0.01% N_2, and 0.001% H_2 to 0.001% O_2, 0.004% N_2, and

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 25304-65

ACCESSION NR: AP5004550

0.0001% H_2. The initial tantalum content of 0.1% O_2, 0.04% N_2, and 0.05% H_2 was reduced to 0.0003% O_2, 0.001% N_2, and 0.0001% H_2. Electron-beam melting increased the ductility and lowered the hardness and strength of nickel. It also improved the corrosion resistance of tantalum, niobium, and, especially, of nickel and zirconium. Orig. art. has: 2 tables and 2 figures. [ND]

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: IE, MM

NO REF SOV: 000 OTHER: 000 ATD PRESS: 3181

Card 2/2

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 35031-65 EWT(m)/EWP(b)/EWP(t) WD

ACCESSION NR: AP5008155 B/0286/65/000/005/0034/0034

AUTHOR: Paton, B. Ye.; Dudko, D. A.; Medovar, B. I.; Latash, Yu. V.; Maksimovich, B. I.; Shevchenko, A. I.; Stupak, L. M.; Goncharenko, V. P.; Grigor'yev, L. F.; Petukhov, G. K.; Chudin, N. I.; Lubenets, I. A.; Yartsev, M. A.; Keys, N. V.; Tulin, N. A.; Kapel'nitskiy, V. G.; Privalov, N. T.; Pis'mennov, V. S.; Kholodov, Yu. A.; Bystrov, S. N.; Bastrakov, N. F.; Donets, I. D.; Silayev, A. Ya.

TITLE: Method of electroslag casting of ingots. Class 18, No. 168743

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 5, 1965, 34

TOPIC TAGS: ingot casting, ingot electroslag casting, electroslag melting, steel melting, alloy melting, metal melting

ABSTRACT: This Author Certificate introduces a method of electroslag casting of ingots in an open or protective atmosphere or in vacuum, in which slag is first melted in a mold with a nonconsumable or consumable electrode arc or plasma jet. To improve the metal quality and the ingot surface and to raise the yield, the molten metal or, if needed, the slag is poured into the mold through a hollow consumable or nonconsumable electrode (see Fig. 1 of the Enclosure). Orig. art. has: 1 figure. [HD]

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APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 35031-65

ACCESSION NR: AP5008155

ASSOCIATION: Chelyabinskiy metallurgicheskiy zavod (Chelyabinsk Metallurgical Plant)

SUBMITTED: 06Feb63	ENCL: 01	SUB CODE: MM, IE
NO REF SOV: 000	OTHER: 000	ATD PRESS: 3215

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APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

14543-66 EWT(m)/EPF(n)-2/EWP(v)/T/EWP(t)/EWP(k)/EWP(b) JD/WW/HW/JG

ACC NR: AP6006309 SOURCE CODE: UR/0413/66/000/002/0013/0013

INVENTOR: Paton, B. Ye.; Medovar, B. I.; Puzrin, L. G.; Boyko, G. A.; Lutsyuk-Khudin, V. A.; Bondarchuk, O. P.; Timofeyev, D. I.; Dryapik, Ye. P.

ORG: none

TITLE: Method of producing metal laminates. Class 7, No. 177824 [announced by the Electric Welding Institute im. Ye. O. Paton (Institut elektrosvarki)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1966, 13

TOPIC TAGS: metal, clad metal, metal laminate, metal rolling

ABSTRACT: This Author Certificate introduces a method of producing metal laminates by pack rolling with a low-melting vanishing insert placed between the metals to be bonded. To obtain a strong bond between dissimilar metals, the rolling is done with the insert in the liquid state. [ND]

SUB CODE: 11/ SUBM DATE: 29May64/ ATD PRESS: 4197

Cladding

Card 1/1

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 63744-65 EWT(m)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c)
ACCESSION NR: AP5013233 MJW/JD/HM UR/0125/65/000/005/0001/0007
621.791(75+91)

33
29
B

AUTHOR: Paton, B. Ye.; Sheyko, P. P.

TITLE: Controlling the transfer of metal in consumable-electrode arc welding

SOURCE: Avtomaticheskaya svarka, no. 5, 1965, 1-7

TOPIC TAGS: welding, arc welding, consumable electrode welding

ABSTRACT: An approximate analysis of the forces acting upon the molten metal at the electrode tip is presented, and the possibility of controlling the process of metal transfer is demonstrated. A formula (2) connecting the surface tension of the molten metal with its temperature is derived. An approximate equation is set up for the temperature field at the electrode tip which permits determining the surface-tension force. As the metal transfer by large drops is undesirable (additions burn out, weld strength is affected), a smaller-drop transfer is suggested by superimposing current pulses on the welding arc. The process can

Card 1/2

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 63744-65

ACCESSION NR: AP5013233 4

be controlled by adjusting the frequency and height of the pulses. An experimental verification included AMg6 1.6-mm aluminum-electrode argon welding with a current of 80—100 amp at 18—20 v, with 50-cps superimposed current pulses. A controllable small-drop transfer at a rate of 50 droplets per sec, with a droplet diameter of 0.8—0.9 mm, was observed. Orig. art. has: 6 figures and 24 formulas.

ASSOCIATION: Institut elektrosvarki im. Ye. O. Patona AN UkrSSR (Institute of Electric Welding, AN UkrSSR) 44,55

SUBMITTED: 10Nov64 ENCL: 00 SUB CODE: MM

NO REF SOV: 010 OTHER: 000

mrb

Card 2/2

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 5019-66 EWT(m)/EWP(t)/EWP(k)/EWP(b)/EWA(c) JD/HW

ACC NR: AP5022041 SOURCE CODE: UR/0286/65/000/014/0113/0113

AUTHORS: Paton, B. Ye.; Dudko, D. A.; Medovar, B. I.; Khrundzhe, V. M.; Lutsyuk-Khudin, V. A.; Sayenko, V. Ye.; Dryapik, Ye. P.; Shekhter, S. Ya.; Salov, Ye. M.; Baranov, S. V.

ORG: none

TITLE: A method for obtaining two-layer rolling. Class 49, No. 173115 [Institute of Electric Welding im. Ye. O. Paton, AN UkrSSR (Institut elektrosvarki AN UkrSSR)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 113

TOPIC TAGS: metal rolling, metal cladding, metal industry

ABSTRACT: This Author Certificate presents a method for obtaining two-layer rolling by lining a plate ingot with a solid plate. To produce proper adhesion between the layers, the plate ingot is lined with a plate of cladding metal to which is welded a plate of metal analogous in composition to the one being lined.

SUB CODE: IE, MM/ SUBM DATE: 04Jul63/ ORIG REF: 000/ OTH REF: 000

Card 1/1 UDC: 621.771.8

0901 0723

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, B.Ye.; POKHODNYA, I.K.

Welding science and technology in Japan. Avtom. svar. 18 no.5:70-76 My '65. (MIRA 18:6)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 23458-66 EWT(d)/EWT(m)/EWP(w)/EWP(v)/T/EWP(t)/EWP(k) IJP(c) JD/HW/EM

ACC NR: AP6006334 SOURCE CODE: UR/0413/66/000/002/0057/0057

AUTHOR: Paton, B. Ye.; Dudko, D. A.; Medovar, B. I.; Lutsyuk-Khudin, V. A.; Savenko, V. Ya.; Kumysh, I. I.; Andrianov, G. G.; Karpov, V. F.; Dovzhenko, N. F.; Antonets, D. P.; Kuzema, I. D.

ORG: none

TITLE: Method of producing composite rolled stock. Class 21, No. 177985 [announced by Electric Welding Institute im. Ye. O. Paton (Institut Elektrosvarki)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1966, 57

TOPIC TAGS: welding, metal rolling, sandwich rolling

ABSTRACT: An Author Certificate has been issued for a method of producing composite rolled metal by using a billet consisting of ingots or plates welded together by electroslag welding. To save on stainless steel, lower the thickness of the clad layer, and simplify the welding procedure, it is suggested that the process be begun with a heterogeneous plate made from prewelded and prerolled smaller billets having been a carbon steel and clad layer, and then adding additional ingots or plates to produce sandwich rolled stock. [LD]

SUB CODE: 13/ SUBM DATE: 11Apr63 ORIG: none/ OTH REF: none/

Card 1/1 UDC: 621.791.793:621.771.2-419.5

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, B.Ye., akademik

New objectives for welding. Svar. proizv. no.1:1-4 '59.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, B.Ye., akademik; MOVCHAN, B.A.

Electron beam in modern vacuum metallurgy. Vest. AN SSSR 34 no.1: 25-29 Ja '65. (MIRA 18:2)

1. Chlen-korrespondent AN Ukr.SSR (for Movchan).

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

ACC NR: AP6030265 EWT(d)/EWT(m)/EWP(v)/T/EWP(t)/ETI/EWP(k)/EWP(h)/EWP(l) IJP(c)
(N)JD/HM/HW SOURCE CODE: UR/0125/66/000/008/0001/0005

AUTHOR: Paton, B. Ye.; Lakomskiy, V. I.; Dudko, D. A.; Zabarilo, O. S.; Pryanishnikov, I. S.; Topilin, V. V.; Klyuyev, M. M.

ORG: [Paton; Lakomskiy; Dudko; Zabarilo] Electric Welding Institute im. Ye. O. Paton, AN UkrSSR (Institut elektrosvarki AN UkrSSR); [Pryanishnikov; Topilin; Klyuyev] Elektrostal' Plant im. I. F. Tevosyan (Zavod "Elektrostal'")

TITLE: Plasma arc melting of metals and alloys

SOURCE: Avtomaticheskaya svarka, no. 8, 1966, 1-5.

TOPIC TAGS: plasma arc, metal melting, plasma arc melting, plasma arc furnace

ABSTRACT: A plasma arc furnace (see Fig. 1) for melting metals and alloys has been designed and built. The furnace is equipped with a PDM-3 plasma gun operating with a power input of 5—50 kw at a working voltage of 40—80 v and an open circuit voltage of 120 v. Ingots are 50—100 mm in diameter and up to 600 mm long. Several metals and alloys were melted in this furnace. It was found that the surface quality of the ingots was very high, there were no shrinkage holes, and the content of gaseous impurities was reduced significantly. For instance, the oxygen content in an NP-3 nickel (99.3% Ni+Co) dropped from $1.77 \cdot 10^{-2}$% to $3-7 \cdot 10^{-4}$% and the density of the metal increased from 8.804 to 8.8424 g/cm^3. The ingots were cold rolled from 75 mm to 0.10 mm with only one process annealing. In comparison with the original alloy, the formability improved 2—3 times, the rupture strength 40—60%, and elongation and

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UDC: 621.791:669.187.6

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

ACC NR: AP6021764 SOURCE CODE: UR/0413/66/000/012/0020/0020

INVENTOR: Paton, B. Ye.; Mandel'berg, S. L.

ORG: None

TITLE: A method for producing spiral tube. Class 7, No. 182663

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 12, 1966, 20

TOPIC TAGS: metal tube, seam welding

ABSTRACT: This Author's Certificate introduces a method for producing spiral tubes. The process consists of forming tube blanks and welding the edges on both sides. The welding rate is increased and the quality of the welded joints is improved by rough welding the edges in the zone of their initial alignment. The working seams are lapped successively each half-turn of the spiral and the seam which was lapped first is welded on the side opposite the rough seam while the working seam which remelts the rough seam is lapped last.

SUB CODE: 13/ SUBM DATE: 13Jul64

Card 1/1 UDC; 621.774.21;621.791.75

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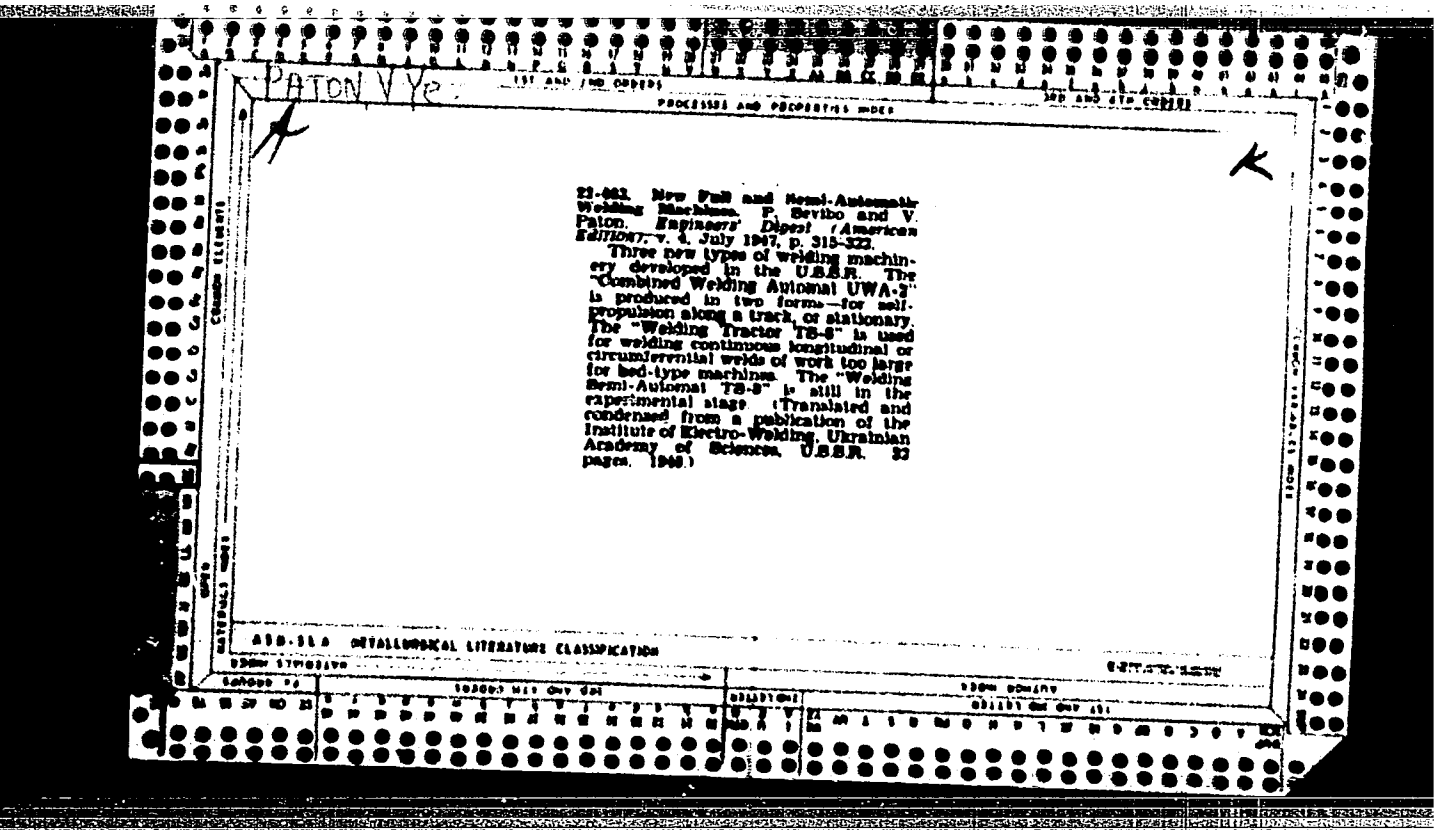
"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123



PATON V Ye

PROCESSES AND PROPERTIES INDEX

22-883. New Full and Semi-Automatic Welding Machines. P. Sevbo and V. Paton. *Engineers' Digest (American Edition)*, v. 4, July 1947, p. 315-322.

Three new types of welding machinery developed in the U.S.S.R. The "Combined Welding Avtomat UWA-2" is produced in two forms—for self-propulsion along a track, or stationary. The "Welding Tractor TS-6" is used for welding continuous longitudinal or circumferential welds of work too large for bed-type machines. The "Welding Semi-Automat TS-9" is still in the experimental stage. (Translated and condensed from a publication of the Institute of Electro-Welding, Ukrainian Academy of Sciences, U.S.S.R. 32 pages. 1946.)

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123[illegible]

PATON, V. (SIC) YE.

Paton, V. (sic) Ye. "The new A[illegible] [illegible] Institute", Trudy Vsesoyuz. [illegible] 1947. [illegible] ev, 1[illegible]

Sc: [illegible], 1 [illegible] (L[illegible] 19[illegible]).

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123[illegible]

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, V. YE.

Paton, V. Ye. "The TS-17 welding tractor", Trudy po avtomat. svarke pod flyusom (In-t elektrosvarki im. Patona), Collection 5, 1949, p. 20-30.

SO: U-5392, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No 21, 1949).

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, V. YE.

Paton, V. Ye. "A saturation coil in the welding circuit", Trudy po avtomat. svarke pod flyusom (In-t elektrosvarki im. Patona), Collection 5, 1949, p. 53-71, - Bibliog: 5 items.

SO: U-4392, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No 21, 1949).

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, V.YE.

USSR/Engineering - Welding, Equipment Jul 51

"Impulse Magnetic Driving Mechanisms for Welding Machines," V. Ye. Paton, Cand Tech Sci

"Avtomat Svarka" No 4 (19), pp 82-84

Discusses purpose, operational principle and advantages of new mechanism for trackless movement of welding machine directly along vertical or inclined edges to be welded. Mechanism consists of 2 magnets, alternately holding welding machine on working surface, pulling magnet and return spring. Weighing 8 kg, mechanism develops traction up to 16 kg in vertical direction and 24 kg on horizontal surface.

215T31

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, V.E., laureat Stalinskoy premii.

Magnetic automatic machines for welding on a vertical surface. Visnyk AN URSR 26 no.2:25-48 F '55. (MLRA 8:4)
(Welding)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

FISHKIS, M.M.; PATON, V.Ye.; DUBOVETSKIY, V.Ye.

Automatic welding under flux with use of magnetically moving equipment for the construction of presses. Avtom. svar. 10 no.5: 106-111 S-O '57. (MIRA 10:12)

1. Moskovskiy avtomobil'nyy zavod im. Likhacheva (for Fishkis). 2. Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im. Ye.O. Patona AN USSR (for Paton, Dubovetskiy).
(Power presses--Welding) (Magnetic instruments)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

24(8) PHASE I BOOK EXPLOITATION SOV/2117

Soveshchaniye po eksperimental'noy tekhnike i metodam vysokotemperaturnykh issledovaniy, 1956

Eksperimental'naya tekhnika i metody issledovaniy pri vysokikh temperaturakh; trudy soveshchaniya (Experimental Techniques and Methods of Investigation at High Temperatures; Transactions of the Conference on Experimental Techniques and Methods of Investigation at High Temperatures) Moscow, AN SSSR, 1959. 789 p. (Series: Akademiya nauk SSSR. Institut metallurgii. Komissiya po fiziko-khimicheskim osnovam proizvodstva stali) 2,200 copies printed.

Resp. Ed.: A.M. Samarin, Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House: A.L. Bankvitser.

PURPOSE: This book is intended for metallurgists and metallurgical engineers.

COVERAGE: This collection of scientific papers is divided into six parts: 1) thermodynamic activity and kinetics of high-temperature processes 2) constitution diagram studies 3) physical properties of liquid metals and slags 4) new analytical methods and production of pure metals 5) pyrometry, and 6) general questions. For more specific coverage, see Table of Contents.

Stroyev, A.S., Ye.S. Ovsepyan, and A.N. Ivanov. Arc Melting of Molybdenum in Vacuum 470

The high degree of purity necessary for satisfactory deformation of molybdenum can be obtained in electric arc furnaces only with high vacua of the order of 10^{-3} mm Hg and with proper deoxidation. Ingots weighing up to 15 kg, made under these conditions, are free of defects in the central zone, irrespective of the rate of cooling after melting. Because of their relatively fine grain structure and the distinctness of their grain boundaries, such ingots can be deformed by any method including hammer forging provided proper cooling and reduction conditions are adhered to. The deformed molybdenum exhibits satisfactory ductility characteristics at room temperature.

Fogel', A.A. Noncrucible Melting by the Induction-Heating Method 478

Berezin, A.B., and Yu.P. Stepanov. Production of High-purity Aluminum by Zonal Melting 489

The method, based on the separation of elements during crystallization, makes it possible to obtain aluminum 99.9999 percent pure, but is at present very costly and time consuming.

Paton, B.Ye., B.I. Medovar, V.Ye. Paton, Yu.V. Latash. New Method for "Electrical Casting of Ingots" 495

The ingot is formed of metal from one or more melting electrodes.

Card 18/32

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

AUTHOR:

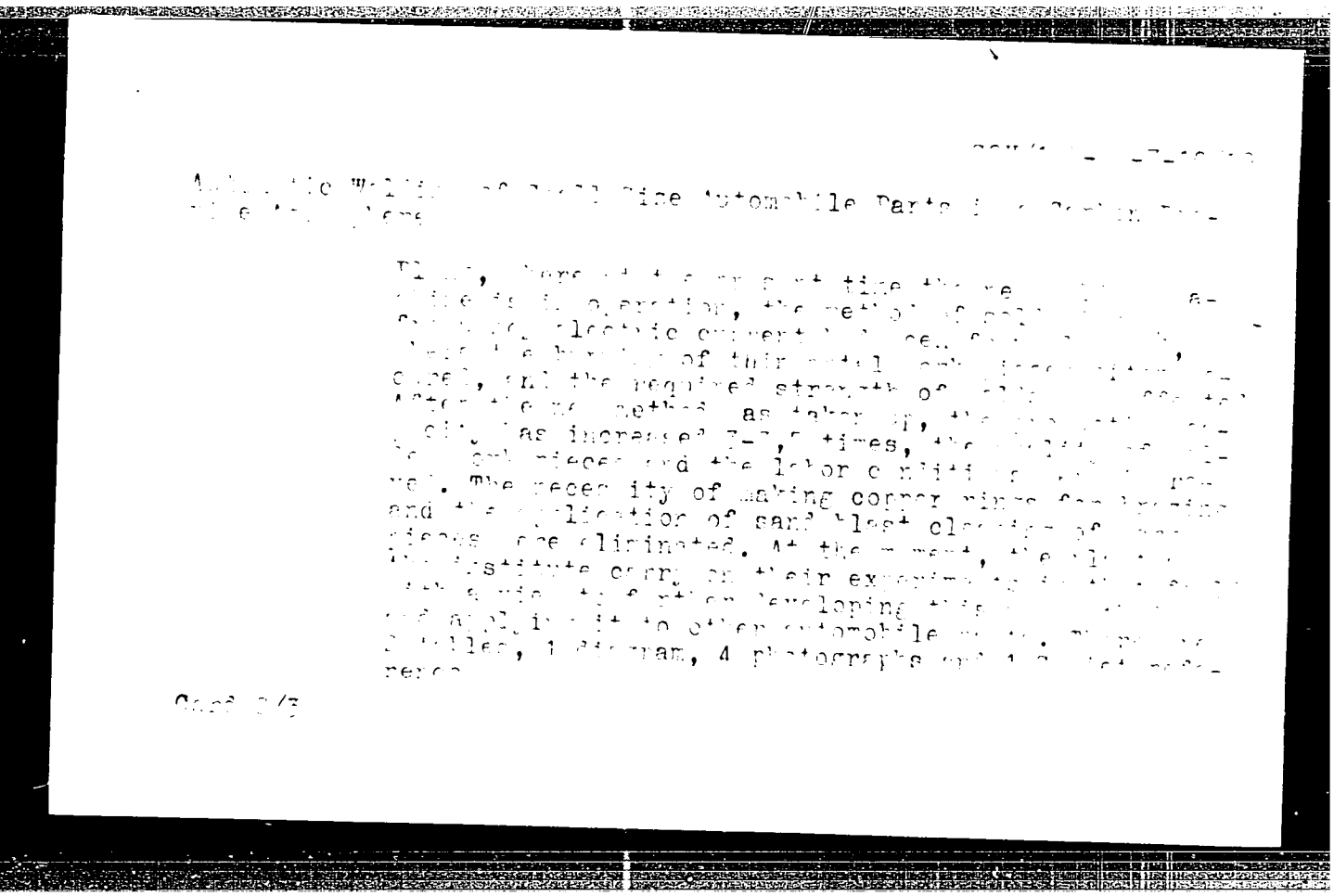
TITLE:

PERIODICAL:

ABSTRACT:

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123



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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

ASSOCIATION: UkrSSR

Card 3/3

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

SEVBO, P.I.; PATON, V.Ye.; HEL'FOR, M.G.

Selecting the type and design of electric slag welding equipment.
Avtom.svar. 12 no.1:8-17 Ja '59. (MIRA 12:4)

1. Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im.
Ye.O.Patona AN USSR.
(Electric welding--Equipment and supplies)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

ACC NR: AP6021797 (A) SOURCE CODE: UR/0413/66/000/012/0061/0062

INVENTORS: Paton, V. Ye.; Esibyan, E. M.; Shnayder, B. I.; Mutsenko, B. S.; Svetsinskiy, A. S.; Litovchuk, V. B.

ORG: none

TITLE: A device for arc welding under argon. Class 21, No. 182809 [announced by Institute of Electric Welding im. Ye. O. Paton (Institut elektrosvarki)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 12, 1966, 61-62

TOPIC TAGS: welding, arc welding, inert gas welding, welding equipment, welding technology

ABSTRACT: This Author Certificate presents a device for arc welding (under argon) of capillary and thin-walled tubes of small diameters. The device contains a driving mechanism, feeding and positioning rollers, a torch, and a protecting chamber (see Fig. 1). To produce a high quality of welding, the positioning rollers are located directly under the electrode of the welding head, while the protecting chamber is made in the form of a closed pipe cooled with water and provided with a gas-supplying

UDC: 621.791.753.93.037

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

ACC NR: AP6021797

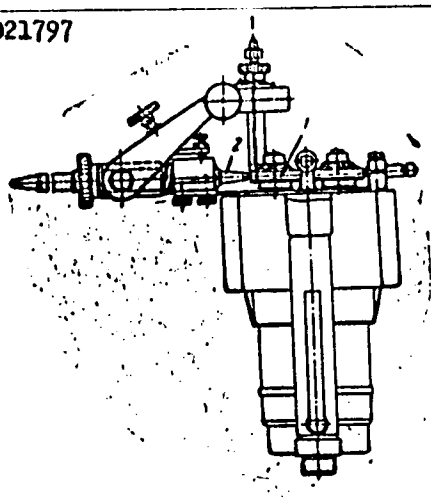

Fig. 1. 1 - positioning rollers; 2 - protecting chamber

flexible hose. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 14Jul65

Card 2/2

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, V.Ye.; YEGOROV, S.V.; BEL'FOR, M.G.

Type TS-34 welding tractor for the welding of girth joints.
Avtom. svar. 17 no.7:58-60 Jl '64. (MIRA 17:8)

1. Institut elektrosvarki im. Ye.O. Patona AN UkrSSR.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

SEVBO, Platon Ivanovich; PATON, V.Ye., kand. tekhn. nauk, otv. red.
SYTNIK, N.K., red.

[Overall mechanization and automation of welding processes] Kompleksnaia mekhanizatsiia i avtomatizatsiia svarochnykh protsessov. Kiev, Naukova dumka, 1964. 86 p.
(MIRA 17:12)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

KAKHOVSKIY, Nikolay Ivanovich, kand. tekhn. nauk; GOTAL'SKIY, Yuzef Nikolayevich, kand. tekhn. nauk; PATON, Vladimir Yevgen'yevich, kand. tekhn. nauk; TRUSHCHENKO, Anton Antonovich, inzh.; ZVEGINTSEVA, K.V., nauchn. red.; GORYUNOVA, L.K., red.; NESMYSLOVA, L.M., tekhn.red.

[Technology of mechanized arc and electric slag welding] Tekhnologiia mekhanizirovannoi dugovoi i elektroshlakovoi svarki. [By] N.I.Kakhovskii i dr. Moskva, Proftekhizdat, 1963. 383 p. (MIRA 17:1)
(Electric welding--Equipment and supplies)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

CHVERTKO, A.I.; PATON. V.Ye.; SMOLYARKO, V.B.; STESIN, V.V.

Standardized semiautomatic welding machines. Avtom. svar. 16 no.8:65-75 Ag '63. (MIRA 16:8)

1. Institut elektrosvarki imeni Ye.O. Patona AN UkrSSR.
(Electric welding—Equipment and supplies)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

CHVERTKO, A.I.; BEL'FOR, M.G.; PATON, V.Ye.

Classification of apparatuses for electric arc and electric slag welding and hard facing. Avtom. svar. 16 no.2:52-57 F '63. (MIRA 16:4)

1. Institut elektrosvarki imeni Ye.O.Patona AN UkrSSR.
(Electric welding—Equipment and supplies)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATON, Yevgeniy Oskarovich; SAVIN, G.N., akademik, otv. red.; DOBROKHOTOV, N.N., akademik, red.; KHRENOV, K.K., akademik, red.; BELYANKIN, F.P., akademik, red.; PATON, B.Ye., akademik, red.; REMENNIK, T.K., red.; KADASHEVICH, O.A., tekhn. red.

[Selected works; in three volumes] Izbrannye trudy; v trekh tomakh. Kyiv, Izd-vo Akad. nauk USSR. Vol.2. [Welded structures] Svarnye konstruktsii. 1961. 418 p. (MIRA 14:8)

1. Akademiya nauk Ukrainskoy SSR (for Savin, Dobrokhotov, Khrenov, Belyankin, Paton,B.Ye.)

(Structural frames—Welding)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

HUNGARY

KEMENES, Ferenc, Dr., PATONAY, Janos, Dr., NEMES, Tamas, Dr., ZSEMBERY, Dezso, Dr., and WEINER, Gyorgy, Dr., Institute for Epidemics at the University for Veterinary Sciences (Allatorvostudomanyi Egyetem, Jarvanytani Intezet) in Budapest; Department for Infectious Diseases at the Hospital of the City Council (Varosi Tanacs Korhaza, Fertozo Osztaly) in Esztergom; Department of Internal Medicine at the Hospital of the Jaras Council (Jarasi Tanacs Korhaza, Belosztaly) in Dorog; and Station for Hygienic Epidemology at the Megye (Megyei Kozegeszsegugyi Jarvanyugyi Allomas) in Tatabanya, Megye Komarom.

"Incidence of Weil's Disease Among Hungarian Coal Miners"

Budapest, Orvosi Hetilap, Vol 107, No 26, 26 Jun 1966, pp 1210-1212.

Abstract: Four cases of Weil disease observed in coal miners working in Western Hungary were described. They involved the typical, lethal icterohemorrhage form; two typical, anicteric, forms; and a typical, icterohemorrhage form with subsequent recovery. Some wild rats captured at the mine site had Leptospira icterohaemorrhagiae in their kidneys. 16 references, including 8 Hungarian, 2 German, and 6 Western.

1/1

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R0012

"The Experimental Basis for the Chemotherapy of Trichomonas Vaginalis." Zanl Biol Sci, Laboratory of Pharmaceutical Chemistry, Acad Sci Armenian SSR, Yerevan, 1954. (VI, No 2, Feb 55)

SO: Sum. No. 631, 26 Aug 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (1)

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

Patera, E.

CZECHOSLOVAKIA / Chemical Technology. Chemical Products and Their Applications. Chemical Processing of Solid Fossil Fuels. H-28

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 9551.

Author : Lono, J., Zavorka, J., Sidlik, F., Patera, E., Malina, E., Borenok, S., Formanek, J., Klee, V., Biodl, B.

Inst : Not given.

Title : Concerning the Article by Vilka: "A Study of the Problem of Complex Chemical Energy Utilization of Brown Coal."

Orig Pub: Paliva, 1958, 38, No 9, 316-320; No 10, 350-354; No 11, 378-380; No 12, 413-416.

Abstract: See Ref Zhur Khim, 1959, 82638.

Card 1/1

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APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATORA, F.

"Jozef Iwaszkiewicz; An Obituary" p. 355. (Gospodarka Wodna, Vol. 13, no. 9, Sept. 1953, Warszawa)

SO: Monthly List of East European Accessions, Vol. 3, No. 2, Library of Congress, February, 1954 ~~1953~~, Uncl.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

EXCERPTA MEDICA Sec 17 Vol 5/3 Public Health Mar 59

1036. EVALUATION OF THE FITNESS OF THE ZEISS CONIMETER IN DETERMINING AIR POLLUTION BY DUST - Ocena przydatności konimetru Zeissa w oznaczaniu zanieczyszczenia powietrza pyłem - Patora H. and Szymczykiewicz K. Zakł. Hig. Pracy Inst. Med. Pracy, Łódź - MED. PRACY 1958, 9/3 (219-225) Tables 5 Illus. 1

The results were compared with those obtained with a microimpinger in similar conditions, and the following conclusions were drawn: (1)Using the Zeiss conimeter, it is possible to determine the pollution of air by dust only when the pollution is below 1,800 10^6 particles/cu.m. of air. (2) Application of the American industrial standards determined by the microimpinger is in the case of sampling with the Zeiss conimeter, admissible only when the volume of air samples taken by the conimeter is 2.5 cu.m.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

LISIECKA-ADAMSKA, Halina; PATORA, Teresa

Observations on foot osteoarthropathy in diabetes mellitus.
Pol. arch. med. wewnet. 35 no.9:1399-1404 '65.

1. Z I Kliniki Chorob Wewnetrznych AM w Lodzi (Kierownik:
prof. dr. med. J.W. Grott).

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

KHIL'CHENKO, A.Ye. [Khil'chenko, A.IE.]; PATORZHINSKAYA, A.M. [Patorzhyns'ka, A.M.]

State of mobility of the basic nervous processes in patients with manic-depressive psychoses. Fiziol.zhur.[Ukr.] 9 no.1: 102-109 Ja-F '63. (MIRA 18:5)

1. Laboratoriya vysshey nervnoy deyatel'nosti cheloveka i zhivotnykh Instituta fiziologii im. A.A.Bogomol'tsa AN UkrSSR, Kiyev.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

ZELINSKIY, S.P. [Zelins'kyi, S.P.]; PATORZHINSKAYA, A.M. [Patorzhyns'ka, A.M.]

Effect of aminazine and caffeine on the function of the adrenal cortex in schizophrenics. Fiziol. zhur. [Ukr.] 9 no.5: 651-659 S-O'63 (MIRA 17:4)

1. Otdel psikhiatrii i patologii vysshey nervnoy deyatel'nosti Instituta fiziologii imeni A.A. Bogomol'tsa AN UkrSSR i Kiyevskaya klinicheskaya psikhonevrologicheskaya bol'nitsa imeni I.P.Pavlova.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATOTSKIY, V., kapitan

Protecting bridges from moving ice. Voen. vest. 40 no. 3:94-96 Mr '61. (MIRA 14:2)
(Ice on rivers, lakes, etc.) (Bridges)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATOVSKAYA A. A.

11(4) PHASE I BOOK EXPLOITATION SOV/1319

Akademiya nauk SSSR. Bashkirskiy filial

Khimiya sera-organicheskikh soyedineniy, soderzhashchikhsya v neftyakh i neftyeproduktakh; materialy II nauchnoy sessii (Chemistry of Sulfur-Organic Compounds Contained in Petroleum Products; Papers of the 2nd Scientific Session) v. 1. Ufa, Izd. Bashkirskogo filiala AN SSSR, 1958. 226 p. 1,500 copies printed.

Ed.: Sukhikh, K.I.; Editorial Board: Ayvazov, B.B., Mushkina, A.V., Cholmatov, B.D. (Resp. Ed.), Rozhkovetskiy, V.P., and Shamis, L.L.; Tech. Ed.: Rakhimov, R. Kh.

PURPOSE: This book is intended for petroleum specialists of scientific research establishments, educational institutions, and petroleum refining plants.

COVERAGE: This collection is the first of a multivolume publication on the results of scientific research work carried out in the Soviet Union on the chemistry and technology of sulfur- and nitrogen-organic compounds during the period 1954-1955; and according to a coordinated research project outlined in 1956 by the sponsoring agency (Bashkir Branch, AS USSR).

Card 1/15

Cholmatov, B.D., and A.A. Patovskaya. A Differential Polarographic Method of Determining Elementary Sulfur and Disulfides in Several Hydrocarbon Solutions 122

In contrast to the usual polarographic method (where curves of the dependency of the current "I", passing through the solution, on the applied electromotive force "E" are derived), this method investigates the dependency of the speed of current change

$\frac{dI}{dE}$ on the applied e. m. f. "E." A differential polarogram of nitrate salts of lead and thallium showed two distinct maxima which corresponded to the presence of two cations in the solution.

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

S/589/62/000/063/011/021
E194/E436

AUTHORS: Ipatov, Yu.S., Leykum, V.I., Oleynik, B.N., Patovskaya, Z.K.

TITLE: Instruments for measuring thermal conductivity

SOURCE: USSR. Komitet standartov, mer i izmeritel'nykh priborov. Trudy institutov Komiteta. no.63(123). Moscow, 1962. Issledovaniya v oblasti teplovykh i temperaturnykh izmereniy. 143-150

TEXT: In 1960 a need was pointed out for instruments to measure thermal conductivity quickly, though not necessarily with great accuracy. For this purpose the here described instrument A-21 is suitable. The cylindrical specimen is in contact with an insulated heater. The measurements are carried out with a constant current passing through the heater. Under such conditions the thermal flux passing through specimens is a function of their thermal conductivity, providing they have the same length. In the base of the instrument is a transformer which supplies the heater. Microammeter M-95 measures the output from the thermo-couples in the contact plates at the top and bottom of the test

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

piece. The influence on the readings of the pressure on the specimen, the air temperature around the specimen and the cooling temperature were studied, using test pieces 15 mm diameter and 20 mm long made of fused quartz or of fluoroplast-4 (teflon). These specimens are longer than the optimum length of 5 to 10 mm and so the maximum stabilisation time could readily be determined, with quartz it was up to 125 minutes. Similar results were obtained with fluoroplast-4. The specimen diameter is not critical but it will probably be convenient to use a value of 10 to 15 mm. The mean standard error was ± 1% and the overall error of measuring the coefficient of thermal conductivity of a specimen 10 to 15 mm diameter and 5 to 10 mm long is about ± 2% for a large number of tests or about ± 3% for two or three measurements. These values apply for thermal conductivities in the range 0 to 1 W/(metre degree) but for materials of greater thermal conductivity the errors will be greater and indeed the A-21 instrument is not recommended for them. A somewhat improved version, type A-22, is of very similar performance. In order to extend the range of thermal conductivity that can be measured,

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instrument type A-24 has been developed. It measures the heat flow through a given specimen which is in thermal contact with a standard specimen. In this instrument there is no need to maintain the heater output constant. By appropriate calibration of the microammeter scale, measurements can be made in the same way as with instrument A-22. However, the range of thermal conductivity coefficients that can be measured may be extended to semiconducting materials by using a standard specimen of convenient dimensions and thermal conductivity. By measurements of quartz and fluoroplast-4 specimens of 15 mm diameter and 10 mm long, it was found that the repeatability was about ± 1%. The overall error in the measurements is about ± 3% and the instrument can measure thermal conductivities up to 2W/(metre degree). There are 7 figures.

ASSOCIATION: VNIIM

SUBMITTED: February 20, 1961

Card 3/3

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATRABOLOVA, L.G., kand.biol.nauk.

Falling of leaves in the Teberda Preserve. Priroda 47 no.11: 126 N '58. (MIRA 11:12)

1. Teberdinskiy zapovednik.
(Teberda Preserve--Defoliation)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

MALYSHEV, A.A., kand.sel'skokhoz.nauk; PATRABOLOVA, I.G., kand.biolog. nauk; UTYAKOV, P.A.; UTYAKOVA, D.P.; INYAKOVA, A.P., mladshiy nauchnyy sotrudnik; VINTER, A.L., vrach; PROMSKAYA, K.I., red.; STEBLYANKO, T.V., tekhn.red.

[Teberda; sketches of the Teberdinskiy Preserve] Teberda; ocherki o Teberdinskom zapovednike. Stavropol', Stavropol'skoe knizhnoe izd-vo, 1958. 153 p. (MIRA 12:12)
(Teberdinskiy Preserve)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

SOV-26-58-11-48/49

AUTHOR: Patrabolova, I.G., Candidate of Biological Sciences (Teberda Reserve)

TITLE: Fall in the Teberda Reserve (Listopad v Teberdinskom Zapovednike)

PERIODICAL: Priroda, 1958, Nr 11, p 127 (USSR)

ABSTRACT: The Teberda Reserve in the North Caucasus on the upper course of the Teberda river basin at an altitude of over 2,000 m above sea level is separated from the Black Sea coast area by the main watershed of the Caucasian mountain range. This situation brings about a vast diversity of weather and temperature conditions. In autumn the color of the leaves may change as early as in September and as late as in October, while the leaves are shed between September and November. The average period between color change and shedding is 2 weeks.

1. Meteorology--USSR

Card 1/1

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123[illegible]

PATRACIC, .

PATRACIC, A. The Massey-Harris combine. p. 14.

Vol. 4, No. 5, May 1956.
POLJOPRIVREDA
AGRICULTURE
Beongead, Yugoslavia

So: East European Accession, Vol. 6, No. 2, February 1957

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123[illegible]

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

CZECHOSLOVAKIA/Cultivated Plants - Decorative. M-8

Abs Jour : Ref Zhur - Biol., No 3, 1958, 11131

Author : Patrak, K.
Inst :
Title : Utilization of Growth Stimulators for Vegetative Reproduction of the Azalea.

Orig Pub : Ovocnar. a zelinar., 1957, 5, No 2, 46-47

Abstract : In Czechoslovakia the most effective growth stimulator is considered to be the combination of indolyl-oil-acid and nicotinic-acid which, when applied according to Rzhetovskiy's and Gomola's method (1948), causes intense formation of adventive roots. Variations are given in the method of treatment (10-12 hours) by dipping the lower part of the cuttings, or dipping the whole cuttings, in the stimulator solution.

Card 1/1

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATRAKHIN, N. I.

Thermomagnetism

Toward the theory of galvanomagnetic and thermomagnetic phenomena in ferrite [illegible] materials. Izv. AN SSSR Ser. fiz. 16, No. 5, 1952.

Monthly List of Russian Accessions, Library of Congress June 1953. UNCL.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

AUTHOR: Patrakhin, N. P. SOV/126-6-1-2/33

TITLE: An Explanation of the Transverse Electrical Thermomagnetic Effect in Ferromagnetics Using the (s-d)-Exchange Model (Ob"yasneniye poperechnogo elektricheskogo termomagnitnogo yavleniya v ferromagnetikakh s ispol'zovaniyem dannykh (s-d)-obmennoy modeli metalla)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1958, Vol 6, Nr 1, pp 15-22 (USSR)

ABSTRACT: In 1952 the author gave a quantum mechanical explanation of the thermomagnetic effect (Ref.2). This work is now repeated using a different method and taking into account the spin-orbit interaction on the basis of the (s-d)-exchange model. This model was first put forward by Vonsovskiy (Ref.3). It is assumed that s-electrons are mainly responsible for thermal conduction in metals. The d-electrons and the lattice also contribute but they are less important and are not taken into account. On this basis it is shown that the transverse electric field is proportional to the "technical" magnetisation and the temperature gradient. The paper is highly mathematical

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SOV/126-6-1-2/33

An Explanation of the Transverse Electrical Thermo-magnetic Effect in Ferromagnetics Using the (s-d)-Exchange Model

and there are no diagrams or figures.
There are 6 references, 3 of which are Soviet, 1 is a Russian translation from English and 2 English

ASSOCIATION: Sverdlovskiy sel'skokhozyaystvennyy institut (Sverdlovsk Agricultural Institute)

SUBMITTED: November 6, 1956

Card 2/2

1. Ferromagnetic materials--Electrical factors
2. Ferromagnetic materials--Temperature factors
3. Ferromagnetic materials--Magnetic factors
4. Mathematics--Applications

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

SOV/126-7-4-2/26

AUTHOR: Patrakhin, N.P.

TITLE: Theory of the Transverse Thermal Galvanomagnetic Effect in Ferromagnetic Conductors

PERIODICAL: Fizika metallov i metallovedeniye, 1959, Vol 7, Nr 4, pp. 491-494 (USSR)

ABSTRACT: An attempt is made to explain the transverse thermal galvanomagnetic effect in ferromagnetics on the basis of the (s-d)-exchange model of a metal put forward by Vonsovskiy (Ref 3). The effect consists in the appearance of a transverse temperature difference in a ferromagnetic conductor magnetized in the direction perpendicular to the electric current. The effect is sometimes known as the Ettingshausen effect. In nonferromagnetic metals it is described by Eq (1), where H_z is the transverse magnetic field and P is a constant. In nonferromagnetic metals, the effect is analogous to other galvanomagnetic effects, while in ferromagnetics it has not been investigated experimentally sufficiently well. The authors have been unable to find any published explanation of the appearance of the transverse temperature difference in a ferromagnetic

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

Theory of the Transverse Thermal Galvanomagnetic Effect in Ferromagnetic Conductors

conductor carrying a current. The present paper attempts to give this explanation. As before (Ref 1 and 2), the spin-orbit interaction of s-electrons with the lattice ions is taken into account on the basis of the results obtained by Vonsovskiy (Ref 3). For simplicity, it is assumed that the conductor is in the form of a monocrystal and is magnetized in a direction perpendicular to the current. It is shown that at a relatively high temperature, and in the case of weak fields, the transverse temperature gradient may be associated with the spin-orbit interaction within the framework of the (s-d)-exchange model. Professor S.V.Vonsovskiy is thanked for suggesting the problem and for his useful suggestions. There are 4 Soviet references, one of which is a translation from German.

ASSOCIATION: Sverdlovskiy sel'skokhozyaystvennyy institut (Sverdlovsk Agricultural Institute)

SUBMITTED: March 13, 1958

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

SOV/126- -7-5-4/25

AUTHOR: Patrakhin, N. P.

TITLE: An Explanation of the Reasons for the Appearance of a Transverse Temperature Difference Due to Longitudinal Heat Flow in a Ferromagnetic (Ob'yasneniye prichin poyavleniya v ferromagnetike poperechnoy raznosti temperatur, obuslovlennoy prodol'nym teplovym potokom)

PERIODICAL: Fizika metallov i metallovedeniye, 1959, Vol 7, Nr 5, pp 666-668 (USSR)

ABSTRACT: In non-ferromagnetic conductors the transverse temperature difference is governed by Eq (1) or by Eq (3) where q_x is given by Eq (2), H_z is the intensity of the external magnetic field, k is the thermal conductivity and S is a constant characterizing the substance. In ferromagnetics this effect has not been sufficiently studied and there is no theory of it. The theory is now set up on the basis of the s-d exchange model suggested by Vonsovskiy in Ref 3, which takes into account spin-orbit interaction of conductivity

Card 1/3

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

An Explanation of the Reasons for the Appearance of a Transverse Temperature Difference Due to Longitudinal Heat Flow in a Ferro-magnetic

electrons and ions. It is assumed that the quantity $\partial T/\partial y$ consists of an ordinary part $(\partial T/\partial y)_H$ and an extra-ordinary part $(\partial T/\partial y)_I$. The first of these depends on the magnetic field H and the second on the magnetization of the specimen. The present paper is only concerned with the second part. To begin with the conductor is assumed to be a single monocrystal magnetized along the Oz axis. The final expression obtained on the basis of the above model is given by Eqs (13) and (14), where S' is a constant analogous to Hall's constant. The other symbols are defined in Ref 2. Calculation shows that the effect should depend on the technical magnetization and the corresponding constants should depend on the square of spontaneous magnetization. Thus the s-d exchange model may be used to treat

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

SOV/126- - -7-5-4/25

An Explanation of the Reasons for the Appearance of a Transverse Temperature Difference Due to a Longitudinal Heat Flow in a Ferro-Magnetic

Card 3/3

all the four transverse galvano- and thermo-magnetic phenomena, taking into account spin-orbit forces. There are 4 Soviet references.

ASSOCIATION: Sverdlovskiy sel'skokhozyaystvennyy institut (Sverdlovsk Agricultural Institute)

SUBMITTED: March 13, 1958.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

S/058/61/000/007/051/086
A001/A101

AUTHOR: Patrakhin, N.P.

TITLE: Theory of transverse thermomagnetic effect of Nernst-Ettingshausen

PERIODICAL: Referativnyy zhurnal. Fizika, no. 7, 1961, 268, abstract 7E371 ("Tr. Sverdlov. s.-kh. in-ta", 1959, v. 6, 201 - 211)

TEXT: An expression for the ferromagnetic constant of the Nernst-Ettingshausen effect has been derived in the framework of the s-d exchange model with allowance for spin-orbit interaction.

[Abstracter's note: Complete translation]

Card 1/1

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

S/058/61/000/007/052/085
A001/A101

14,2200

AUTHOR: Patrakhin, N.P.

TITLE: Ettingshausen effect in ferromagnetics

PERIODICAL: Referativnyy zhurnal. Fizika, no. 7, 1961, 268, abstract 7E372 ("Tr. Sverdlovsk. s.-kh. in-ta", 1959, v. 6, 213 - 217)

TEXT: The qualitative picture of Ettingshausen's effect in the framework of s-d exchange model with allowance for spin-orbit interaction is presented for comparatively high temperatures and weak fields. A dependence of Ettingshausen's ferromagnetic constant on spontaneous magnetization is obtained, analogous to Hall's ferromagnetic constant.

E. G.

B

[Abstracter's note: Complete translation]

Card 1/1

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

S/058/61/000/007/053/086
A001/A101

24.2200

AUTHOR: Patrakhin, N.F.

TITLE: An explanation of the transverse heat thermomagnetic phenomena in ferromagnetics

PERIODICAL: Referativnyy zhurnal. Fizika, no. 7, 1961, 268, abstract 7E373 ("Tr. Sverdlovsk. s.-kh. in-ta", 1959, v. 6, 219 - 222)

TEXT: The Righi-Leduc effect in ferromagnetics is qualitatively explained in the framework of s-d exchange model with allowance for spin-orbit interaction. An expression for the ferromagnetic constant of Righi-Leduc's effect has been derived.

E. Galosnina

[Abstracter's note: Complete translation]

Card 1/1

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PATRAKHIN, P.

Do you have disciples? Grazhd.av. 20 no.5:18-19 My '63.
(MIRA 16:7)

1. Nachtatnyy korrespondent zhurnala "Grazhdanskaya aviatsiya."
(Vocational education)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 14535-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD

ACCESSION NR: AP3005310 S/0181/63/005/008/2065/2069

AUTHOR: Dorin, V. A.; Patrakova, A. Ya.

TITLE: Investigation of electrical characteristics of TiO_{2-x}-Ag contact with an intermediate insulating layer

SOURCE: Fizika tverdogo tela, v. 5, no. 8, 1963, 2065-2069

TOPIC TAGS: electrical-contact characteristic, electrical characteristic, contact characteristic, titanium oxide, titanium-oxide contact characteristic

ABSTRACT: The electrical characteristics of a TiO_{2-x}-Ag contact with an insulating layer have been investigated at room temperature and at 400C. The characteristics obtained were compared with those of a system without an insulating layer. It was found that unipolar conductivity exists up to 500C in specimens with insulating layers. Rectification takes place in the area of contact with the intermediate layer at 400C. At 300C the specimen had equal conductivity in both directions. In the region of low voltages the volt-ampere characteristics of the specimens indicated that the introduction of an insulating layer

Card 1/2

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 14535-63

ACCESSION NR: AP3005310

at room temperature only increases the resistance of the system. When a system with an insulating layer is heated to 400C the rectification factor is 30 at 100 mv. An analysis of separate sections of the volt-ampere characteristics in the reverse direction showed that the current increased proportionally with the increase of voltage up to approximately 1 v. Above 4 v, an exponential dependence takes place either at low or high temperature. The same dependence was observed in the contact area of Ag-TiO_{2-x} at lower voltages. Thus, the introduction of an insulating layer consisting of a material different from TiO_{2-x} does not change the qualitative picture of the characteristics. It serves only to elevate the temperature (by 200—250C) at which rectification takes place. Orig. art. has: 5 figures, 5 formulas, and 2 tables.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR, Leningrad (Leningrad Physicotechnical Institute, AN SSSR)

SUBMITTED: 28Jan63 DATE ACQ: 06Sep63 ENCL: 00

SUB CODE: PH NO REF SOV: 006 OTHER: 003

Card 2/2

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

DORIN, V.A.; PATRAKOVA, A.Ya.; TARTAKOVSKAYA, F.M.

Effect of an insulating layer on the electrical properties of rectifiers with a TiO_{2-x} base. Radiotekh. i elektron. 8 no.8:1462-1465 Ag '63. (MIRA 16:8)

1. Fiziko-tekhnicheskiy institut im. A.F.Ioffe AN SSSR.
(Electric current rectifiers)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

AUTHORS: Nasledov, D. N., Patrakova, A. Ya., Tsarenkov, B. V. 57-28-4-16/39

TITLE: Etching Media for Gallium Arsenide (Travitel' dlya arsenida galliya)

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1958, Vol. 28, Nr 4, pp. 779-781 (USSR)

ABSTRACT: The purpose of etching is here formulated in the following manner: A layer deformed during mechanical treatment shall be removed in a manner that the intact monocrystal appears and that the micropollution at the surface of the constructed device is also removed. The experiments showed that the etching reagent with the following composition is useful for this purpose: 50 mL 5% NaOH + 10 ml 30% H_2O_2. This chemical etching reagent is used by the authors in the production of electron-hole transitions in gallium-arsenide. Here polycrystalline samples as well as monocrystals of electron-gallium--arsenide were investigated. On the basis of these experiments the following is stated: 1.) Etching during 5 minutes entirely removes the deformed surface-layer of the monocrystal and does not produce any new formations at its surface. 2.) Etching

Card 1/2

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lets distinctly appear the boundaries between the crystals in polycrystalline samples and the etch pattern of the individual crystals. 3.) Etching guarantees the production of reliable alloy-contacts and reduces the leakage current of the electron--hole transitions. The electronograms were obtained by V.A. Dorin. There are 3 figures and 2 references, 1 of which is Soviet.

ASSOCIATION: Leningradskiy fiziko-tekhnicheskiy institut AN SSSR (Leningrad Physical-Technical Institute, AS USSR)

SUBMITTED: December 12, 1957

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

DORIN, V.A.; PATRAKOVA, A.Ya.

Electric characteristics of the contact TiO_{2-x} - Ag divided by an isolating layer. Fiz. tver. tela 5 no.8:2065-2069 Ag '63. (MIRA 16:9)

1. Fiziko-tekhnicheskiy institut im. A.F.Ioffe AN SSSR, Leningrad.
(Electric insulators and insulation)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

NASLEDOV, D.N.; PATRAKOVA, A.Ya.; TSARENKOV, B.V.

An etchant for gallium arsenide. Zhur. tekh. fiz. 28 no.4:779-781 Ap '58. (MIRA 11:4)

1. Leningradskiy fiziko-tekhnicheskiy institut AN SSSR.
(Gallium arsenide--Electric properties)

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LEVINA, L.I.; PATRAKOVA, S.N.; PATRUSHEV, D.A.

Dependence of yield and quality of benzene chlorosulfonate on excess of chlorosulfonic acid and additions of sodium salts. Zhur.ob.khim. 28 no.9:2427-2428 S '58. (MIRA 11:11)
(Benzene) (Chlorosulfonic acid) (Sodium salts)

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PATRANEK, J.; KOMARKOVA, E.

"Orientation of the Shells of Cephalopods in the Limestones of the Barrandian and its Paleogeographical Significance", P. 145, (SBORNIK. ODDIL GEOLOGICKY, Vol. 20, 1953, Praha, Czech.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 3, Mar 1955, Uncl.

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COUNTRY : USSR

CATEGORY : Forestry. Forest Cultures

ABS. JOUR. : RZhBiol., No. 2, 1959, No. 7155

AUTHOR : Petranin, A.V.

INST. : Leningrad Forest Engineering Academy

TITLE : Pine Plantings on Concentrated Fellings in Vologodskaya Oblast.

ORIG. PUB. : Tr. Leningr. lesotekhn. akad., 1957, vyp. 81, ch. 3, 29-35

ABSTRACT : Forest restoration undertakings in the oblast (1955) extended to 80% of all the annual clearing. Natural regeneration on concentrated felling did not always occur successfully in pine wood types. In pines the restoration period involved 2 age classes. On 50% of the area pine restoration was possible only through cultures which first of all had to be established on fellings under conditions of the type of forest of pine-red bilberry

CARD: 1/2

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7 PA[illegible]RA[illegible], [illegible].V., C[illegible] Agr Sci-- (diss) "An[illegible] [illegible] on [illegible]
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[illegible] the types [illegible] V[illegible] O[illegible]." [illegible], [illegible]
(Min. of Higher Education USSR. [illegible] [illegible] r) [illegible] [illegible]
in S.M.Kirov), [illegible] [illegible] (KL,[illegible], [illegible])

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YEMEL'YANCHIKOV, A.N., kand.tekhn.nauk; PATRANINA, O.P., inzh.

Increasing the output of ski blanks in the Vologda Furniture Factory. Der.prom. 11 no.4:17-19 Ap '62. (MIRA 15:4)

1. Arkhangel'skiy lesotekhnicheskiy institut im. V.V.Kuybysheva.
(Vologda--Skis and skiing)

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