BAAKASHVILI, V.S.; POZDEYEV, A.A.; TARNOVSKIY, V.I.

Use of the methods of the law of heredity in studying resistance to deformation. Soob. AN Gruz. SSR 29 no. 3:269-274 S '62 (MIRA 19:1)

1. Institut metallurgii AN GruzSSR, Tbilisi. Submitted December 18, 1961.

TARNOVSKIY, I.Ya.; POZDEYEV, A.A.; KOLMOGOROV, V.L.; VAYSBURD, R.A.; GUN', G.Ya.; KOTEL'NIKOV, V.P.; TARNOVSKIY, V.I.; SKOROKHODOV, A.N.

[Variational principles of mechanics in the theory of metal-working by pressure] Variatsionnye printsipy mekhaniki v teorii obrabotki metallov davleniem. Moskva, Metallurgizdat, 1963. 52 p. (MIRA 17:5)

TARNOVSKIY, I.Ya.; POZDEYEV, A.A.; MEANDROV, L.V.; KHASIN, G.A.

Dependence of the resistance to deformation on steel toughness properties in hot press working. Izv.vys. ucheb. zav.; chern. met. no.3:82-90 '61. (MIRA 14:3)

1. Ural'skiy politekhnicheskiy institut.
(Forging) (Deformations(Mechanics))

POZDEYEV, A.A., kand.tekhn.nauk, dots.: TARNOVSKIY, V.I.

Calculation of end dislocations by their increment during the press forging of metals. Izv.vys.ucheb.zav.: chern.met. 2 no.6:43-51 Je '59. (MIRA 13:1)

1. Ural'skiy politekhnicheskiy institut. Rekomendovano kafedroy obrabotki metallov davleniyem Ural'skogo politekhnicheskogo instituta.

(Forging) (Deformations (Mechanics))

TARNOVSKIY, Iosif Yakovlevich; POZDEYEV, Aleksandr Alekseandrovich; MRANDROV, Lev Vyacheslavovich; KHASIN, Gersh Aronovich; LYASHKOV, V.B., red.; TSYMBALIST, N.N., red.izd-va; YEPIMAKHOVA, M.Ya., tekhn.red.

[Mechanical properties of steel under the effect of press forging] Mekhanicheskie svoistva stali pri goriachei obrabotke davleniem. Sverdlovsk, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii. Sverdlovskoe otd-nie, 1960. 263 p.
(MIRA 13:9)

(Steel) (Deformations (Mechanics))

MEANDROV, L.V.; TARNOVSKIY, I.Ya.; POZDEYEV, A.A.

Methods for a rapid testing of steel at high temperatures. Zav. lab. 26 no.2:201-203 '60. (MIRA 13:5)

1. Ural'skiy politekhnicheskiy institut imeni S.M.Kirova.
(Steel--Testing)

POZDEYEV, A.A.

25(1) PHASE I BOOK EXPLOITATION SOV/3283

Tarnovskiy, Iosif Yakovlevich, Aleksandr Aleksandrovich Pozdeyev, and Oleg Aleksandrovich Ganago

Deformatsii i usiliya pri obrabotke metallov davleniyem (Deformations and Forces in Metal Forming) Moscow, Mashgiz, 1959. 303 p. Errata slip inserted. 5,000 copies printed.

Reviewer: Ye.P. Unksov, Professor, Doctor of Technical Sciences; Ed.: V.N. Vydrin, Docent, Candidate of Technical Sciences; Tech. Ed.: N.P. Yermakov; Exec. Ed.(Ural-Siberian Division, Mashgiz): A.V. Kaletina, Engineer.

PURPOSE: This book is intended for engineers and scientific workers as well as students of higher technical schools specializing in metal forming.

COVERAGE: The authors describe a method of investigating deformations in metal forming using the principle of the minimum of the total energy of deformation, and one of the direct (Ritz's) methods of variational calculus. The method of determining

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forces, required for the plastic deformation. from the condition of the conservation of energy is also presented. Besides the general method, the solution of a series of problems of open die forging and stamping, and the experimental check of the obtained theoretical formulas, are also given. The authors mention A.A. Il'yushin, S.A. Khristianovich, V.V. Sokolovskiy, A.D. Tomlenov, L.A. Shofman, Ye.P. Unksov, G.A. Smirnov-Alyayev, A.F. Golovin, and V.B. Lyashkov, as contributors in the theory of deformation. The authors thank V.N Trubin, S.G. Puchkov, R.A. Vaysburd, and G.A. Yeremeyev. There are 47 references: 46 Soviet and 1 German.

TABLE OF CONTENTS:

Deformations and Forces (Cont.) SOV/3283

Card 5/5

VK/jb
4-11-60

Pozdeyev, A.A.

PHASE I BOOK EXPLOITATION SOV/4653

Tarnovskiy, Iosif Yakovlevich, Aleksandr Aleksandrovich Pozdeyev, Lev Vyacheslavovich Meandrov, and Gersh Aronovich Khasin

Mekhanicheskiye svoystva stali pri goryachey obrabotke davleniyem (Mechanical Properties of Steel During Hot Pressworking) Sverdlovsk, Metallurgizdat Sverdlovskoye otd-niye, 1960. 263 p. Errata slip inserted. 6,200 copies printed.

Ed.: V.B. Lyashkov; Ed. of Publishing House: N.N. Tsymbalist; Tech. Ed.: M.Ya. Yepimakhova.

PURPOSE: This book is intended for technical personnel at rolling mills and forge shops, scientific workers, and students specializing in the pressworking of metals.

COVERAGE: The authors view steel being hot-pressworked as a substance having visco-plastic properties. They describe the results of investigations dealing with the dependence of steel resistance to deformation on temperature and the degree and speed of deformation. The book contains experimental data on the plasticity and strength properties of 16 grades of steels. From the experimental

Card 1/4

Mechanical Properties of Steel (Cont.) SOV/4653

data, equations are derived for the physical state of the metal or the relation of stress to deformation in hot working of steel. A method is set forth for using these equations in analyzing the stress-strain state of a metal, particularly by means of variational methods used in the mechanics of continuous media. No personalities are mentioned. There are 73 references: 72 Soviet, 1 English.

TABLE OF CONTENTS:

Card 2/4

Mechanical Properties of Steel (Cont.) SOV/4653

AVAILABLE: Library of Congress (TS307.T3) 261

Card 4/4

VK/dwm/gmp
1-10-61

S/137/61/000/007/012/072
A060/A101

AUTHORS: Tarnovskiy, I. Ya.; Pozdeyev, A. A.

TITLE: Problems of mechanics of strain seat during rolling

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 7, 1961, 2, abstract 7D11 ("Tr. Konferentsii: Tekhn. progress v tekhnol. prokatn. proiz-va". Sverdlovsk, Metallurgizdat, 1960, 3-16)

TEXT: The hypothesis of plane sections according to which transverse vertical sections which are plane before the deformation remain plane at every instant of rolling and after it, and undergo no bending and distortion, probably describes the rolling process with an accuracy sufficient for practical purpose when the ratio of the length l of the geometrical strain seat to its mean thickness H is equal to 1.5 - 2.0. The conditions at the Magnitogorsk metallurgical combine are: in the blooming mills $l/H < 0.8$, in the continuous billet mills $l/H < 1.2$, in the section mills $l/H < 1.5 - 1.6$. At $l/H < 1.5$ the nonuniformity of the metal strain is very marked, the deviations from the hypothesis of plane sections are sufficiently appreciable and they have to be taken into account while solving definite problems.

[Abstracter's note: Complete translation]

Yu. Manegin

Card 1/1

24 USSR
T 1310

S [illegible]/63/000/00 [illegible]/015
A161/A136

AUTHORS: [illegible] Ya.; Vavburd, R. A.; Levanov, A. N., Pla[illegible]
[illegible], A. A.; Ganago, O. A., and Korolenkov, V. P.

TITLE: Selection of suitable functions for the utilization of the R-R method in the theory of working metal by pressure

PERIODICAL: [illegible]

TEXT: The article deals with the application of the R-R method (Ritz, W., Über eine neue Methode zur Lösung gewisser Variationsprobleme der mathematischen Physik. Journ. f. d. reine und angewandte Mathematik, Bd. 135, H. 1, 1908) for the calculation of different practical problems of pressure working. Such problems consist in determining the functions of displacement components, and the searches for functions are written in a series:

$$U_k = a_1 f_1(x,y,z) + a_2 f_2(x,y,z) + \ldots + a_n f_n(x,y,z). \quad (1)$$

where U_k is any of the coordinate axes; $a_1 \ldots a_n$ are indefinite (variable)

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Selection of suitable functions for the

parameters: $f_i(x,y,z)$ - "suitable" functions reflecting qualitatively the displacements pattern and satisfying the boundary zone conditions. The problems discussed as examples are: upsetting of cylindrical [illegible] between flat plates; a parallelepiped between flat plates, and [illegible] the purpose is to determine the propagation of plastic deformation, with a simple axisymmetrical forging used as an example. The mathematical analysis of the individual cases ends with recommendations: 1) for the Ritz method used, the suitable functions must be selected so as to [illegible] completely the boundary conditions corresponding the purpose of investigation. 2) The system of suitable functions describing the deformed state in technological problems can be selected with a series of known simple problems (uniform deformation, the hot theory of flat sections, etc.). 3) When the propagation of displacements and information within the body has to be determined in detail, the suitable functions will be more complex and contain two or three variable parameters, and at the same time satisfy the boundary conditions more completely. There are 8 figures and [illegible] references, 3 Soviet-bloc and [illegible] non-Soviet-bloc.

ASSOCIATION: Ural'skiy politekhnicheskiy institut (Ural Polytechnical Institute)

SUBMITTED: April 20, 1960

Card 2/2

TARNOVSKIY, I.Ya.; POZDEYEV, A.A.; MEANDROV, L.V.

Composite structures in the theory of the press forging of metals. Izv. vys. ucheb. zav.; chern. met. no.1:66-71 '60. (MIRA 13:1)

1. Ural'skiy politekhnicheskiy institut.
(Forging)

SOV/137-59-1-1626

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 216 (USSR)

AUTHORS: Tarnovskiy, I. Ya., Pozdeyev, A. A., Puchkov, S. G.

TITLE: Employment of Variational Methods in an Investigation of the Deformations and Stresses Occurring During the Manufacture of Heavy Forgings (Issledovaniye deformatsiy i usiliy variatsionnymi metodami pri kovke krupnykh pokovok)

PERIODICAL: Nauchn. dokl. vyssh. shkoly. Metallurgiya, 1958, Nr 1, pp 150-156

ABSTRACT: Variational methods are employed by the author in computing the strain distribution of a metal strip with a rectangular cross section being drawn in a drawing press equipped with flat heads. The case of deformation of bodies of considerable height and possessing "rigid" outer ends is examined.

M. Ts

Card 1/1

25(1) SOV/148-59-2-7/24

AUTHORS: Tarnovskiy, I.Ya., Professor, and Pozdeyev, A.A., Docent

TITLE: Contact Stresses and Average Specific Pressure in Setting and Rolling (Kontaktnyye napryazheniya i sredniye udel'nyye davleniya pri osadke i prokatke)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya metallurgiya, 1959, Nr 2, pp 51-60 (USSR)

ABSTRACT: According to recent data friction forces on contact surfaces depend on the condition of the friction surface and on the shape of the deformed body. The distribution of friction forces on the surface depends on kinematic conditions. The author shows that functions for pressure distribution can be obtained with the use of integral equations. These are applicable to any law of distribution of contact tangential stresses. A method for the approximative computation of deformation is suggested which serves to obtain graphs of pressure and average specific pressures for different cases of rolling.

Card 1/2

Contact Stresses and Average Specific Pressure in Setting and Rolling

There are 9 sets of graphs and 7 Soviet references.

ASSOCIATION: Ural'skiy politekhnicheskiy institut (Ural Polytechnical Institute), Kafedra obrabotki metallov davleniyem (Chair of Metal Processing Under Pressure)

SUBMITTED: July 14, 1958

TARANOVSKIY, I.Ya.; POZDEYEV, A.A.

Mechanics of the process of drawing solid profiles including hardening. Nauch.dokl.vys.shkoly; met. no.1:97-104 '59.
(MIRA 12:5)

1. Ural'skiy politekhnicheskiy institut.
(Drawing (Metalwork))
(Deformations (Mechanics))

POZDEYEV, A.A.; TARNOVSKIY, V.I.

Applying the Ritz method to the theory of the press working of metals. Izv. vys. ucheb. zav.; chern. met. 5 no.10:67-76 '62. (MIRA 15:11)

1. Ural'skiy politekhnicheskiy institut.
(Deformations (Mechanics))

ZYKOV, Yu.S.; TARNOVSKIY, I.Ya.; POZDEYEV, A.A.

Investigating by the variation method the widening of the metal during hot rolling in plain grooves. Izv. vys. ucheb. zav.; chern. met. 5 no.10:77-87 '62. (MIRA 15:11)

1. Ural'skiy politekhnicheskiy institut.
(Rolling (Metalwork))

POZDEYEV, A.A.; TARNOVSKIY, V.I.

Investigating the stress condition during upsetting. Izv.vys. ucheb.zav.; chern.met. 5 no.11:90-98 '62. (MIRA 15:12)

1. Ural'skiy politekhnicheskiy institut.
(Forging) (Strains and stresses)

TARNOVSKIY, I.Ya.; POZDEYEV, A.A.; KOTEL'NIKOV, V.P.; PUCHKOV, S.G.

New method of experimental investigation of the state of stress in metalworking by pressure. Nauch.dokl.vys.shkoly; met. no.2: 131-135 '59. (MIRA 12:5)

1. Ural'skiy politekhnicheskiy institut.
(Deformations (Mechanics))
(Metals--Testing)

TARHOVSKIY, I.Ya.; POZDEYEV, A.A.

Conditions of the problem on the theory of metalworking by pressure. Nauch.dokl.vys.shkoly; met. no.2:136-139 '59.
(MIRA 12:5)

1. Ural'skiy politekhnicheskiy institut.
(Deformations (Mechanics)
(Metalwork)

SOV/163-58-1-28/53

AUTHORS: Tarnovskiy, I. Ya., Pozdeyev, A. A., Puchkov, S. G.

TITLE: The Investigation of Deformation and the Forces Involved in Forging Larger Pieces by Means of the Variation Method (Issledovaniye deformatsiy i usiliy variatsionnymi metodami pri kovke krupnykh pokovok)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1958, Nr 1, pp 150-156 (USSR)

ABSTRACT: The variation method and the theory of plasticity were used for the calculation and the determination of the deformation in the production of complicated pieces to be forged. Functions for the calculation of the deformation and the displacement in forging were obtained.
The value of the complete work A of the deformation is determined by the parameters a_2, a_3 and l_1. The parameter values are calculated by means of the following equations:

$$\frac{\partial \Sigma A}{\partial a_2} = 0, \quad \frac{\partial \Sigma A}{\partial a_3} = 0 \quad \text{and} \quad \frac{\partial \Sigma A}{\partial l_1} = 0$$

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The Investigation of Deformation and the Forces Involved in Forging Larger Pieces by Means of the Variation Method

$$a_2 = \varepsilon \frac{2,090+0,451\frac{l_o^3}{h^2}+0,154\frac{h}{l_o}}{4,444+7,492\frac{l_o^2}{h^2}}\cdot ; \quad a_3 = \frac{1,333\frac{l_o}{h}+0,333\frac{G_{o_2}}{\varepsilon}}{1,6\frac{l_1}{h}+0,888\frac{h}{l_1}}$$

The values of these functions are given in tables.
The theoretical conclusions obtained were compared with the corresponding experimental data and it was found that the results agreed.
There are 2 figures, 1 table, and 4 references, 4 of which are Soviet.

ASSOCIATION: Ural'skiy politekhnicheskiy institut (Ural Polytechnical Institute)

SUBMITTED: October 5, 1957

Card 2/2

TARNOVSKIY, I.Ya.; POZDEYEV, A.A.

Variational methods in the theory of pressure metalwork.
Nauch. dokl. vys. shkoly; met. no.1:93-98 '58. (MIRA 11:9)

1. Ural'skiy politekhnicheskiy institut.
(Deformations (Mechanics)) (Metalwork)

TARNOVSKIY, I.Ya.; POZDEYEV, A.A.; PUCHKOV, S.G.

Variational method for the investigation of deformation and pressure in making large forgings. Nauch. dokl. vys. shkoly; met. no.1:150-158 '58. (MIRA 11:9)

1. Ural'skiy politekhnicheskiy institut.
(Forging) (Deformations (Mechanics))

TARNOVSKIY, I.Ya., doktor tekhn.nauk, prof.; POZDEYEV, A.A., dots.

Investigating the deformed state in upsetting parallelepipeds with the use of variation methods. Izv. vys. uchob. zav.; chern. met. no.7:123-133 Jl '58. (MIRA 11:10)

1. Ural'skiy politekhnicheskiy institut.
(Forging) (Calculus of variations)

POSHNYY, A. A.

Dissertation: "Investigation of the Irregularity of Deformations and Stress Conditions in Pressure Working of Metals." Cand Tech Sci, Ural' Polytechnic Inst, Sverdlovsk, 1953. (Referativnyy Zhurnal--Mekhanika, Moscow, Apr 54)

SO: SUM 243, 19 Oct 1954

TARNOVSKIY, Iosif Yakovlevich, doktor tekhnicheskikh nauk, professor;
POZDEYEV, Aleksandr Aleksandrovich, kandidat tekhnicheskikh nauk;
LYASHKOV, Vladimir Borisovich, kandidat tekhnicheskikh nauk;
ZAYKOV, M.A., redaktor; KEL'NIK, V.P., redaktor izdatel'stva; ZEF,
Ye.M., tekhnicheskiy redaktor

[Deformation of metal in rolling] Deformatsiia metalla pri prokatke.
Pod obshchei red. I.IA.Tarnovskogo. Sverdlovsk, Gos.nauchno-tekhn.
izd-vo lit-ry po chernoi i tsvetnoi metallurgii, Sverdlovskoe otd-
nie, 1956. 287 p. (MLRA 9:11)
(Rolling (Metalwork))

L 57523-65 EWT(d)/EWT(m)/EWA(d)/EWP(v)/EWP(k)/EWP(h)/EWP(t)/EWP(b)/EWP(l)/EWA(c) Pf-4 JD/HW

ACCESSION NR: AR5013007

UR/0137/65/000/004/D009/D010
621.771.001

SOURCE: Ref. zh. Metallurgiya, Abs. 4D60

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B

AUTHOR: Tarnovskiy, I. Ya.; Odinokov, Yu. I.; Antonov, S. P.; Pozdeyev, A. A.; Uziyenko, A. M.; Kustobayev, G. G.; Chichigin, V. A.; Ryabchikov, F. D.; Sychkov, B. D.

TITLE: Conditions for rolling large ingots on a slab mill

CITED SOURCE: Tr. Ural'skogo n.-i. in-ta chern. met, v. 3, 1964, 167-181

TOPIC TAGS: metal rolling, slab mill, rolling mill

TRANSLATION: The 1150 slab mill for rolling heavy UNS-21T ingots was studied. It was found that the degree of reduction could be increased while the number of passes was reduced. Optimally stable conditions for rolling heavy ingots in 23-25 passes were developed and introduced into industry. It was found that the most difficult conditions (rolling in 21 passes) leave a reserve for holding conditions. Further improvement is limited by the power of stand motors and strength of stand

Card 1/2

L 57523-65

ACCESSION NR: AR5013007

parts. It was found that motors with vertical rolls with a power of 4000-4500 kw may be installed on new mills. This will make rolling without side passes possible with intense compression of the side edges of slabs in the vertical rolls and will improve the quality of the rolled product. The investigations have not exhausted the possibilities of the 1150 mill. N. Yudina.

SUB CODE: IE, MM ENCL: 00

Card 2/2

L 54974-65 EWG(j)/EWT(m)/EPF(c)/EWP(i)/EWA(d)/EPR/T/EWP(t)/EWP(z)/EWP(b)/EWA(c)
Pr-4/Pad/Ps-4 IJP(c) JD/HW/JG/WB

ACCESSION NR: AP5007623 S/0365/65/001/001/0020/0028
620.193.01

AUTHOR: Pozdeyeva, A. A.; Antonovskaya, E. I.; Sukhotin, A. M.

TITLE: Passivity of molybdenum

SOURCE: Zashchita metallov, v. 1, no. 1, 1965, 20-28

TOPIC TAGS: molybdenum passivation, molybdenum oxide, molybdenum oxidation, electrode polarization, oxide film

ABSTRACT: The potentiostatic method was used to study the polarization curves for the oxidation of molybdenum in acid and alkaline media (0.1 N H_2SO_4 and 0.1 N KOH); these curves were compared with the electrochemical behavior of all known Mo oxides. In acid solutions, Mo is passivated by a film of γ phase. Oxidation of the latter begins at the potential of anodic activation of passive Mo, φ = 0.45 V. At φ = 0.75-0.80 V, a new oxide of high electrical resistance appears on the surface of the γ phase. In 1 N H_2SO_4, at potentials greater than 0.6 V, all Mo oxides oxidize and hence cannot passivate the metal. Mo does not passivate in alkaline solutions because MoO_2 and Mo_2O_5 (β and γ phase), which would make up the passivating film, oxidize to MO_4^{2-} at -0.96 to 1.0 V, values which are very

Card 1/2

L 54974-65
ACCESSION NR: AP5007623

close to the potential (-0.9 V) at which these oxides are formed. In 1 N KOH, the lower oxides γ and γ are electrochemically unstable over the entire potential range where the dissolution of Mo is possible. The oxides β and β' are stable from -0.2 to +0.15 V, but the rapid rate of their dissolution in the alkaline medium makes the passivation of Mo by these phases impossible. At high current densities, a visible layer of these oxides, which inhibits the dissolution process, appears on the surface of the Mo anode. As the alkali concentration increases, the oxide film becomes thinner, and the limiting dissolution current of Mo rises substantially. "We express our sincere thanks to Yu. D. Kondrashov and Yu. A. Omel'chenko for carrying out the X-ray structural measurements at our request. Orig. art. has: 4 figures, 1 formula and 4 tables.

ASSOCIATION: Institut prikladnoy khimii (Institute of Applied Chemistry)

SUBMITTED: 15Sep64 ENCL: 00 SUB CODE: MM, GC

NO REF SOV: 007 OTHER: 014

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342810013-8"

ACCESSION NR: AP4018348 S/0251/64/033/001/0019/0025

AUTHORS: Baakashvili, V. S.; Pozdoyev, A. A.; Tarnovskiy, V. I.

TITLE: Physical equations for the state of a metal in the theory of heredity (Presented by academician O. D. Oniashvili 22 January, 1963)

SOURCE: AN GruzSSR. Soobshcheniya, v. 33, no. 1, 1964, 19-25

TOPIC TAGS: equation of state, heredity, plasticity, deformation, stress deformation, Boltzman-Volterra equation, dynamic equilibrium, elastic aftereffect

ABSTRACT: In the general theory of plasticity, the methods of the theory of heredity, based on the equation of elastic aftereffect of Boltzman-Volterra, are useful. The solution of many problems in the theory of working of metals by pressure can also be obtained by using the theory of heredity. The authors derive physical equations for the state of a metal for a complex stress-deformation state with consideration of the influence of heredity. They discuss the physical meaning of the Boltzman-Volterra equation for a medium with nonlinear relations between deformation and stress. Orig. art. has: 13 formulas, 1 table, and 1 figure.

Card 1/2

ACCESSION NR: AP4018348

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S. M. Kirova (Ural Polytechnical Institute)

SUBMITTED: 22Jan63 DATE ACQ: 19Mar64 ENCL: 00

SUB CODE: AP NO REF SOV: 006 OTHER: 001

Card 2/2

ACCESSION NR: AP4018348 S/0251/64/033/001/0019/0025

AUTHORS: Baakashvili, V. S.; Pozdeyev, A. A.; Tarnovskiy, V. I.

TITLE: Physical equations for the state of a metal in the theory of heredity (Presented by academician O. D. Oniashvili 22 January, 1963)

SOURCE: AN GruzSSR. Soobshcheniya, v. 33, no. 1, 1964, 19-25

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ABSTRACT: In the general theory of plasticity, the methods of the theory of heredity, based on the equation of elastic aftereffect of Boltzman-Volterra, are useful. The solution of many problems in the theory of working of metals by pressure can also be obtained by using the theory of heredity. The authors derive physical equations for the state of a metal for a complex stress-deformation state with consideration of the influence of heredity. They discuss the physical meaning of the Boltzman-Volterra equation for a medium with nonlinear relations between deformation and stress. Orig. art. has: 13 formulas, 1 table, and 1 figure.

Card 1/2

ACCESSION NR: AP4018348

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S. M. Kirova (Ural Polytechnical Institute)

SUBMITTED: 22Jan63	DATE ACQ: 19Mar64	ENCL: 00
SUB CODE: AP	NO REF SOV: 006	OTHER: 001

Card 2/2

POZDEYEV, A. A., Doc Tech Sci, "Variational methods in the mechanics of THE THEORY OF METAL ~~PROCESSING~~ BY ~~MEANS OF~~ PRESSURE." Sverdlovsk, 1961. (Min of Higher and Sec Spec Ed RSFSR. Ural Polytech Inst imeni S. M. Kirov). (KL-DV, 11-61, 216).

S/148/61/000/010/002/003
E193/E435

AUTHORS: Pozdeyev, A.A., Tarnovskiy, I.Ya., Zykov, Yu.S.

TITLE: Foundations of the theory of visco-plastic deformation of metal during rolling

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, no.10, 1961, 50-58

TEXT: Experimental evidence indicates that a hot-worked metal possesses both plastic and viscous properties and should therefore be considered as a complex visco-plastic medium. In contrast to the theory of small elastoplastic deformations in which the equations of state for a deformed metal establish the relationship between the stress and strain components, the corresponding equations for the theory of visco-plastic deformation describe the relationship between stress- and strain (deformation)-rate components. One advantage of using the latter theory as a tool for studying the mechanism of hot deformation is that it is concerned with increments of stress and strain rates. As a result the limiting condition of small degrees of deformation no longer applies and the theory can be applied to studying the variation of the stress-strain state at any moment of the deformation process.

Foundations of the theory of ...

In the present paper, this theory is applied to the analysis of the mechanism of flat hot rolling. A slab of rectangular cross-section is considered whose dimensions are H_o (thickness), L_o (length) and B_o (width). Its thickness is reduced during rolling by ΔH and its final dimensions are H_1, L_1 and B_1, the half-thickness and half-width being denoted by h and b with appropriate indices (0 or 1). The relationship between stress and strain rates is described by a set of equations for a visco-plastic medium (Ref.2: L.M.Kachanov. Mechanics of Plastic Media. Gostekhizdat, 1948)

$$\left.\begin{aligned} \sigma_x - \sigma &= 2\tau_s \frac{\xi_x}{H} + 2\mu'\xi_x; & \tau_{xy} &= \tau_s \frac{\eta_{xy}}{H} + \mu'\eta_{xy}; \\ \sigma_y - \sigma &= 2\tau_s \frac{\xi_y}{H} + 2\mu'\xi_y; & \tau_{yz} &= \tau_s \frac{\eta_{yz}}{H} + \mu'\eta_{yz}; \\ \sigma_z - \sigma &= 2\tau_s \frac{\xi_z}{H} + 2\mu'\xi_z; & \tau_{xz} &= \tau_s \frac{\eta_{xz}}{H} + \mu'\eta_{xz}. \end{aligned}\right\} \quad (1)$$

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in which μ' (tensor coefficient) represents the coefficient of proportionality between the components of stress and the rate of deformation. Jordan's principle (Ref.3: L.S.Leybenzon. Course of Theory of Elasticity, Gostekhizdat, 1947) applied to an incompressible metal is expressed by

$$\iiint_V (\sigma_x \delta\xi_x + \sigma_y \delta\xi_y + \cdots + \tau_{xz} \delta\eta_{xz})\, dV = \iint_S (X_n \delta v_x + Y_n \delta v_y + Z_n \delta v_z)\, dS, \quad (4)$$

where X_n, Y_n, Z_n - projections of external forces applied to the body under deformation, on the axis of the coordinates; δv_x, δv_y, δv_z - variations of velocity components of the displacements on the points of the body on which external forces are acting. The left hand side of Eq.(4) represents the variation of the work of internal forces, while the right hand side represents the variations of the work of external forces. Utilizing Eq.(1), applying calculus of variations and introducing a

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new system of coordinates to the right hand side of Jordan's equation it will become

$$\delta\left[\iiint_V\left(\tau_s H+\frac{\mu'}{2}H^2\right)dV+\psi\tau_s\iint_S\sqrt{v_y^2+\left(v_B-\frac{v_x}{\cos\varphi_x}\right)^2}\,dS\right]=0. \quad (16) \qquad (16)$$

where H - the intensity of the velocity of deformation due to shear; v_B - roller velocity; φ_x - the angle characterizing the point considered ($0 < \varphi_x < \alpha$); α - contact angle; τ_s - yield point under shear; v_x, v_y, v_z - velocity components ($v_z = v_x \tan \varphi_x$). Jordan's equation presented in this form is applicable to the analysis of the process of rolling on plain rollers. If the work of shear lost on overcoming resistances τ_s is also included, it becomes:

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$$\delta\left[\iiint_V\left(\tau_s H+\frac{\mu'}{2}\right)dV+\sum_i\iint_{S_i}\tau_s[v_t]\,dS+\right.$$
$$\left.+\psi\tau_s\iint_S\sqrt{v_y^2+\left(v_n-\frac{v_\tau}{\cos\varphi_{x\tau}}\right)^2}\,dS\right]=0, \qquad (17)$$

in which summation is extended over the surfaces of the discontinuities of the velocities and v_t represents the difference between the velocities on the surface of discontinuity. Eq.(16) or (17) should be combined with an equation expressing the law of energy conservation. The work done on direct rolling is:

$$N_{пр}=M_{пр}\omega=2R\omega\left[\iint_{S_1}\psi\tau_s\,dS-\iint_{S_2}\psi\tau_s\,dS\right], \qquad (18)$$

where $M_{пр}$ - roll torque (for two rollers); ω - angular velocity; R - roller radius. The work done on overcoming friction forces and internal resistances is

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$$N_{Д} = \iiint_V (\tau_s H + \mu' H^2)\, dV + \psi\tau_s \iint_S \sqrt{v_y^2 + \left(v_n - \frac{v_x}{\cos \varphi_x}\right)^2}\, dS. \qquad (21)$$

Taking into account the work lost on the surfaces of discontinuities and the condition $N_{пр} = N_{д}$ leads to

$$N = v_n \left[\int_{\alpha 0}^{\tau\, b_x} \psi\tau_s\, dS - \int_{\tau 0}^{0\, b_x} \psi\tau_s\, dS\right] - \iiint_V (\tau_s H + \mu' H^2)\, dV -$$
$$- \psi\tau_s \iint_S \sqrt{v_y^2 + \left(v_n - \frac{v_x}{\cos \varphi_x}\right)^2}\, dS - \sum_i \iint_{S_i} \tau_s [v_t]\, dS = 0. \qquad (26)$$

where γ - critical angle. Eq.(26) and (17) taken together define the problem for the calculus of variations. They contain three unknown quantities v_x, v_y, v_z and their derivatives which have to be determined in such a manner that, on one hand, the

integral is to assume its maximum value and, on the other, the Eq.(26) be satisfied. Moreover, the functions v_x, v_y, v_z should satisfy incompressibility condition

$$\frac{\partial v_x}{\partial x} + \frac{\partial v_y}{\partial y} + \frac{\partial v_z}{\partial z} = 0. \qquad (29)$$

The solution can be obtained with the use of the calculus of variations (Ref.10: S.G.Mikhlin. Direct methods in mathematical physics. Gostekhteorizdat, 1950; Ref.11: L.V.Kantorovich, V.I.Krylov. Methods of approximation of higher analysis. Gostekhteorizdat, 1949). Thus, the velocity of the metal at any point of the volume of deformation region can be determined, whence all rolling parameters can be calculated. The power expended on deformation $N_д$ can be found from Eq.(21). If $N_д$ is known, the rolling torque $N_{пр}$ can be determined from Eq.(18), and the roll force can be calculated for a given roll radius. The velocities at the entry and exit points of the deformation region (v_o and v_1) are calculated from the known value of v_x. Then, from the ratio of the initial-to-final cross-section area of

this slab or from the values of v_1 and v_2, the elongation λ can be calculated from

$$\frac{F_o}{F_1} = \frac{v_1}{v_o} = \lambda$$

The lateral spread can be then calculated for a given draft, from the condition of constant volume of the deformed metal. The velocities v_x, v_y and v_z can be used also to construct trajectories of displacement of metal particles in the deformed region relative to the rolls, as has been described earlier (Ref.12: A.A.Pozdeyev, V.I.Tarnovskiy. Izv. VUZ. Chernaya metallurgiya, no.6, 1959). There are 12 references: 11 Soviet-bloc and 1 Russian translation of non-Soviet-bloc publication.

ASSOCIATION: Ural'skiy politekhnicheskiy institut
(Ural Politechnical Institute)

SUBMITTED: March 9, 1960

TARNOVSKIY, I. Ya.; PO[illegible], [illegible]

The physical nature of tensor representations in the theory of plasticity. Izv. vys. ucheb. zav.; chern. met. [illegible] no.[illegible] [illegible]
([illegible] [illegible])

1. Ural'skiy politekhnicheskiy institut.

18(7)

AUTHORS: Tarnovskiy, I. Ya., Pozdeyev, A. A., Kotel'nikov, V. P., Puchkov, S. G. SOV/163-59-2-23/48

TITLE: A New Method of Experimental Investigation of the State of Stress in the Working of Metals by Pressure (Novyy metod opytnogo issledovaniya napryazhennogo sostoyaniya pri obrabotke metallov davleniyem)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1959, Nr 2, pp 131 - 135 (USSR)

ABSTRACT: The method suggested is based on the investigation of the changes of artificial hollow spaces in metals under the influence of pressure. The signs of the stress which has acted on the metal can be determined in this way. Figure 1 gives an example. Two lead strips, one of which received a cylindric cavity bored in, were soldered up with Wood's alloy, and exposed to pressures in different directions. An expansion of the hollow space occurs by tensile stress, a narrowing by compressive stress. Lead strips with hollows were also soldered together and rolled (Fig 2). Figure 3 shows the deformations of the hollows after hammering.

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A New Method of Experimental Investigation of the State of Stress in the Working of Metals by Pressure SOV/163-58-2-23/48

There are 3 figures and 1 Soviet reference.

ASSOCIATION: Ural'skiy politekhnicheskiy institut (Ural Polytechnic Institute)

SUBMITTED: August 8, 1958

Card 2/2

18(7) SOV/163-59-2-24/48

AUTHORS: Tarnovskiy, I. Ya., Pozdeyev, A. A.

TITLE: The Setting of Tasks in the Theory of Metalworking by Pressure (K postanovke zadachi v teorii obrabotki metallov davleniyem)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1959, Nr 2, pp 136 - 139 (USSR)

ABSTRACT: The authors deal with two factors determining the state of stress and the flowing of the metal in compression processes: the equation of state and the boundary conditions. The equations of state normally apply to idealized metal properties since the consideration of all factors would lead to practically useless, complicated equations. Under simplifying assumptions, a relation between deformation and stress is obtained. As the compression processing is carried out at different temperatures, at different rates and possibly with structural changes of the metal, the mathematical formulation remains a difficult problem. The boundary conditions are to be sufficient for a unique solution of the problem, and must not contradict the setting of the task. In the compression processing of metals, the boundary conditions are often the unknowns required. In many tasks of forging, compressing, rolling, not all boundary conditions are known and often they must be ascertained by experiment. Recent investigations (Refs 6 and 7)

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show that the deformation much depends on the dimensions of the body to be deformed, i.e. on a form factor. Many bodies, the mechanical state of which is described by different equations of state, are deformed almost in the same way, which proves that the influence of the form factor exceeds that of the equation of state. This makes it possible to develop a unified theory of compression processing for different metals and alloys which are deformed under different temperature and rate conditions. There are 7 Soviet references.

ASSOCIATION: Ural'skiy politekhnicheskiy institut (Ural Polytechnic Institute)

SUBMITTED: July 14, 1958

TARNOVSKIY, I.Ya., prof.; POZDEYEV, A.A., inzh.; KRASOVSKIY, N.N., inzh.

Force determination in metalworking by pressure. Obr.met.davl. no.3:5-22 '54. (MIRA 12:10)

1. Ural'skiy politekhnicheskiy institut im. S.M.Kirova.
(Rolling (Metalwork)) (Forging)

BAAKASHVILI, V.S.; POZDEYEV, A.A.; TARNOVSKIY, V.I.

Physical equations describing the state of metals in heredity theory. Soob. AN Gruz. SSR 33 no.1:19-25 Ja '64. (MIRA 17:7)

1. Ural'skiy politekhnicheskiy institut imeni S.M. Kirova. Predstavleno akademikom G.D. Gniashvili.

TARNOVSKIY, V.I.; POZDEYEV, A.A.; TARNOVSKIY, I.Ya.

Considering the hardening in calculating the metal pressure on the rolls during sheet rolling. Izv. vys. ucheb. zav.; chern. met. 7 no.10:103-111 '64. (MIRA 17:11)

1. Ural'skiy politekhnicheskiy institut.

S/103/60/021/008/011/014
B012/B063

AUTHOR: Pozdeyev, A. D. (Ul'yanovsk)

TITLE: Selection of the Optimum Number of Pole Pairs and of the Main Dimensions of Electromagnetic Slipping Clutches With Massive Steel Armatures

PERIODICAL: Avtomatika i telemekhanika, 1960, Vol. 21, No. 8, pp. 1198-1205

TEXT: The present paper gives formulas for the calculation of p_0 (optimum number of pole pairs), D, and l_δ of electromagnetic clutches with massive steel armatures. Contrary to what was done in the papers of Refs. 4 and 5, the author considered the variability of the magnetic permeability, μ, with a change in the magnetic field strength. The results of calculations from these formulas are therefore independent of the choice of μ, and are clearly determined by the technical conditions, i.e., the moment M and the relative velocity n_s. The correctness of the formulas derived in the present

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paper was confirmed by the experiments described in the papers of Refs. 6 and 7. The present paper continues investigations published in previous papers (Refs. 4-7). It was theoretically found that inductor clutches must be larger for the same moments to be transferred than are clutches with variable poles. Inductor clutches are recommended for small diameters (D = 10 + 15 cm) and for such cases in which the dimensions are determined by the thermal conditions. On the strength of an examination and generalization of various publications, Fig. 4 gives the mean values of the permissible thermal stress, which may be used for calculations. Reference is made to papers by T. A. Glazenko (Ref. 5) and V. S. Sharov (Ref. 4). The author further refers to data of a publication by ENIMS (Ref. 11). There are 5 figures and 12 references: 10 Soviet, 1 British, and 1 German.

SUBMITTED: February 29, 1960

S/148/61/000/003/006/015
A161/A133

AUTHORS: Tarnovskiy, I. Ya., Pozdeyev, A. A., Meandrov, L. V., Knasin, G. A.

TITLE: The dependence of the deformation resistance on the ductile properties of steel in hot pressure working

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, no. 3, 1961, 82 - 90

TEXT: Tests have been carried out with the upsetting of 16 different steel grades at 900 - 1,200°C and three different deformation rates: 0.05; 7.5 and 150 sec^{-1}. The article presents details of the experiment techniques, the data obtained in the form of graphs, and derivations of formulae. The graphs present the real stress value variations with the deformation degree, as well as with deformation rate at different temperatures. The growth of deformation resistance (i.e., hardening) of some steel grades at 1,100 - 1,200°C, and a low deformation rate were found to be so insignificant that the yield limit or ultimate strength could be used as deformation resistance characteristic, but at high deformation rates the steel behaviour was different, and the conclusion was drawn that the effect of the deformation degree should by all means be taken into account for all the steel types studied. The increase in the deformation rate also considerably raised the de-

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The dependence of the deformation resistance on ...

formation resistance. A formula was derived that expresses the behavior of the majority of the 16 steel grades with sufficient accuracy:

$$\sigma_{\pi n} = \sigma_0' + K \ln \left(1 + \frac{\xi_n}{\xi_0}\right) \qquad (2)$$

where $\sigma_{\pi n}$ is the deformation resistance during linear stressed state and ξ_0 rate; σ_0' - the deformation resistance at zero deformation-rate; ξ_0 - the deformation rate during static tests; ξ_n - any deformation rate; K - a coefficient that depends on the steel grade, temperature and deformation degree, in kg/mm^2. The coefficient presents in a physical sense the "tough resistance of metal to deformation". Its connection with the toughness factor is analysed; and a table is included giving the numerical values of K and σ_0' calculated for two of the stated steel grades (at different temperatures and deformation rates) - 18ХНВА (18KhNVA) and Х18Н12М2Т (Kh18N12M2T) steel. It is pointed out that the simplified ductility equation for flat employed usually in pressure working theory

$$\sigma_1 - \sigma_3 = 1.15\sigma_s \qquad (5)$$

does not sufficiently express the real properties of steel at high temperatures. The new equation of tough-ductile state derived from experimental data is

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The dependence of the deformation resistance on the ...

$$\sigma_1 - \sigma_3 = 1.15\sigma_s' + 4\mu'_{mean}\left|\frac{\varepsilon_i}{\varepsilon_j} 1\right| \qquad (6)$$

where μ'_{mean} is the mean (for the entire body volume) value of the toughness coefficient at the given deformation moment, and σ_s' - the extrapolated yield limit that accounts at any given moment for the degree of the preceding deformation of the body. Equations are derived also for the case of any stressed state. The numerical values of the K coefficient render it easy to find the toughness coefficient for heated steel also under different deformation conditions. There are 7 figures and 4 Soviet-bloc references.

ASSOCIATION: Ural'skiy politekhnicheskiy institut (The Ural Polytechnic Institute)

SUBMITTED: July 20, 1959

Card 3/3

POZDEYEV, Anatoliy Dmitriyevich; ROZMAN, Yakov Borisovich; KUZNETSOV, N.A., red.; BORUNOV, N.I., tekhn. red.

[Electromagnetic clutches and brakes with solid armatures] Elektromagnitnye mufty i tormoza s massivnym iakorem. Moskva, Gosenergoizdat, 1963. 103 p. (Biblioteka po avtomatike, no.82) (MIRA 16:12)
(Electric machinery) (Clutches (Machinery))

NIKOTIN, V.N., [illegible], A.A.

Systems for connecting speed variators of a d.c. motor for machine-tool drives. Stan. i instr. 36 no.7:14-17 Jl '65. (MIRA 18:8)

POZDEYEV, A.D.

Theory and calculation of the mechanical characteristics of an electromagnetic slip clutch with a massive grooved rotor. Trudy KhPI 30 no.1:211-231 '60. (MIRA 14:9)
(Clutches (Machinery))

L 08961-67 EWT(1)
ACC NR: AP6021062 (A,N) SOURCE CODE: UR/0292/66/000/003/0057/0061

AUTHOR: Pozdeyev, A. D. (Candidate of technical sciences) 25

ORG: none

TITLE: Characteristics of induction motors with solid steel rotor

SOURCE: Elektrotekhnika, no. 3, 1966, 57-61 29

TOPIC TAGS: electric motor, induction motor, electric inductance

ABSTRACT: Analytical relations are derived that describe torque, rotor current, rotor resistance and reactance vs. slip characteristics of a solid-rotor induction motor; variation in rotor permeability is allowed for. The theory of planar field is applied to the solid rotor thanks to a "criterion β" which is $\beta = \frac{R}{p}\sqrt{\frac{\omega\mu}{2\rho}} = \frac{\tau}{\pi\Delta}$,

where R is the rotor radius, p is the number of pole pairs, ω - frequency, μ - permeability. Techniques for calculating the above motor characteristics are recommended; corrections for calculating data in the low-slip range are given. Comparison between estimated and experimental characteristics of an I-2-30/4 induction motor confirms the validity of the author's analytical relations. Orig. art. has: 3 figures, 27 formulas, and 2 tables.

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 008

UDC: 621.313.333

Card 1/1 nst

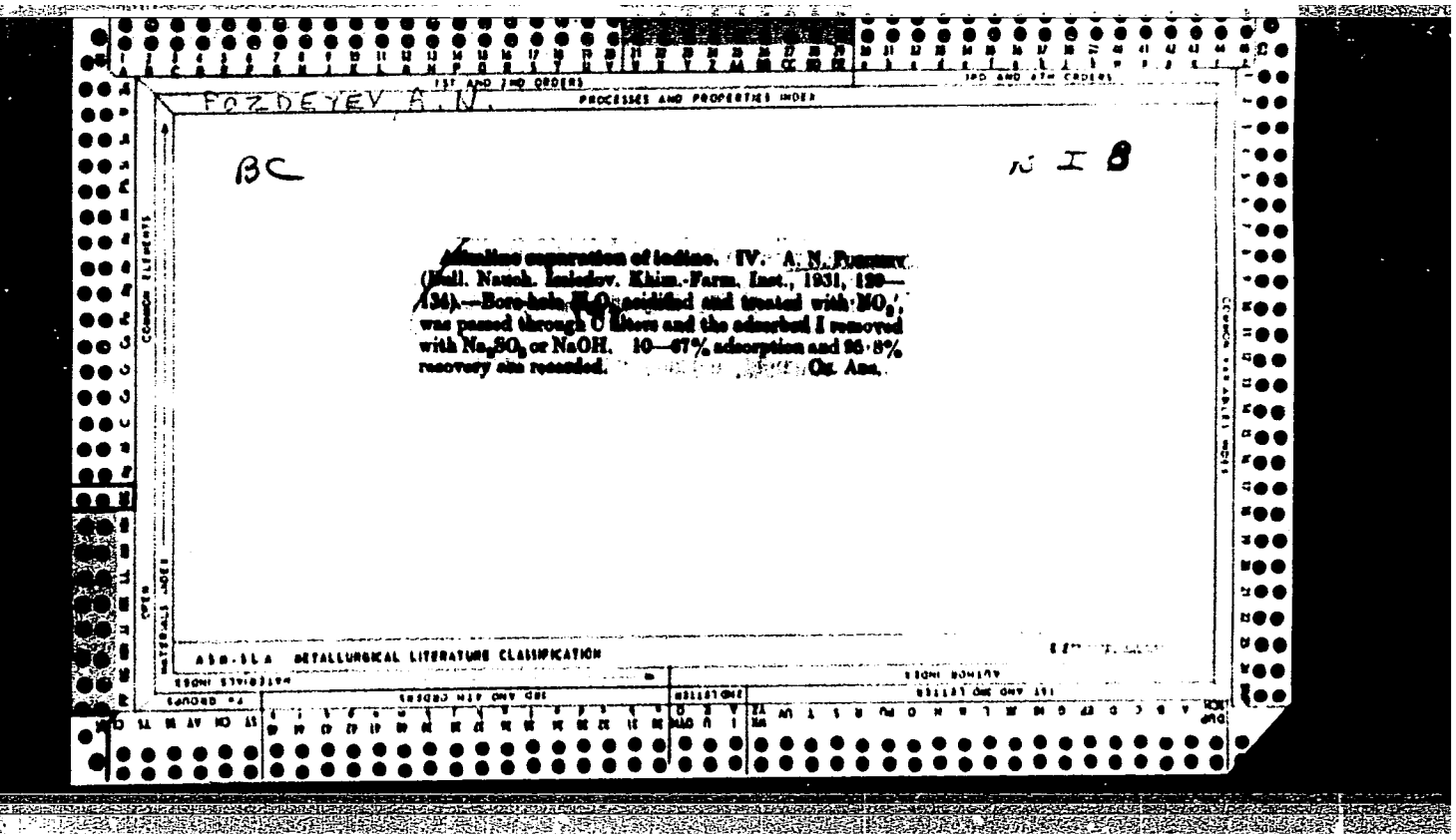
TARNOVSKIY, Iosif Yakovlevich; POZDEYEV, Aleksandr Aleksandrovich; GANAGO, Oleg Aleksandrovich; KOLMOGOROV, Vadim Leonidovich; TRUBIN, Valeriy Nikolayevich; VAYSBURD, Rual'd Arkad'yevich; TARNOVSKIY, Valeriy Iosifovich; GOROBINCHENKO, V.M., red. izd-va; BEKKER, O.G., tekhn. red.

[Theory of working metals by pressure; variational methods of calculating forces and deformations] Teoriia obrabotki metallov davleniem; variatsionnye metody rascheta usilii i deformatsii. [By] I.IA.Tarnovskii i dr. Moskva, Metallurgizdat, 1963. 672 p. (MIRA 17:1)

POZDEYEV, Anatoliy Dmitriyevich, aspirant

Calculating the mechanical characteristics of a magnetic sliding clutch equipped with a massive steel armature. Izv. vys. ucheb. zav.; elektromekh. 1 no.6:90-100 '58. (MIRA 11:9)

1. Kafedra elektrifikatsii promyshlennykh predpriyatiy Khar'kovskogo politekhnicheskogo instituta.
(Electric machinery)



FOZDEYEV, A. N.

BC

N I B

Alkaline separation of iodine. IV. A. N. Fozdeyev. (Bull. Nauch. Issledov. Khim.-Farm. Inst., 1931, 130—136).—Boro-halo, H_3O_3, acidified and treated with MO_3, was passed through C (above) and the adsorbed I removed with Na_2SO_3 or NaOH. 10—67% adsorption and 95·8% recovery also recorded. Ox. Abs.

A58-5LA METALLURGICAL LITERATURE CLASSIFICATION

POZDEYEV, A.V.

SOV/122-58-6-34/37

Scientific and Engineering Conference on Design and Construction Problems of Sea-going Merchant Vessels, Vest. Mash. No. 6, pp. 83-84, 1958

A.V. Pozdeyev discussed the prospects of the application of atomic installations in transport vessels. As a result of a discussion of the problem of selection of the appropriate propulsion machinery, it was established that for powers up to 10 - 12 000 hp, slow-running diesel engines should preferably be used. For higher powers, high-efficiency steam turbines and, according to development achievements, gas turbine plants are suitable.

Card 5/5 1. Ships--Design 2. Ships--Construction 3. Ships--Propulsion
4. Diesel engines--Applications

POZDEYEV, A.V., kand.tekhn.nauk.

Work on the development of atomic power plants for warships and the merchant marine in capitalist countries. Sudostroenie 24 no.1: 58-66 Ja '58. (MIRA 11:2)
(Atomic ships)

POZDEYEV, M. P.

CHERNOV, Aleksandr Dmitreyevich; POZDEYEV, Aleksey Vladimirovich, VASIL'YEV, Leonid Georgiyevich; LEVOCHKINA, L.I., tekhn. red.

[Steam turbine installations on ocean-going transport vessels] Paroturbinnye ustanovki morskikh transportnykh sudov. Leningrad, Gos. soiuznoe izd-vo sudostroit. promyshl., 1958. 157 p. (Steam turbines) (MIRA 11:7)

ALKIMOVICH, A.V., inzh.; BAYEV, S.F., inzh.; MANASYAN, Yu.G., inzh.; MENSHUTKIN, V.V., inzh.; POZDEYEV, A.V., kand. tekhn. nauk; SHALIK, G.P., inzh.

Remarks on the article "Date on atomic power equipment and its use on ships." Sudostroenie 22 [i.e.23] no.10:63 O '57. (MIRA 11:2)
(Atomic ships)

POZDEYEV, A.V.

CHERNOV, A.D., inzhener; POZDEYEV, A.V., kandidat tekhnicheskikh nauk.

Ways of developing steam turbine plants on seagoing cargo ships. (MIRA 10:10)
Sudostroenie 23 no.1:19-26 Ja '57.
(Marine turbines) (Merchant ships)

L 1589-66 EWT(m)/EPF(c)/EPF(n)-2/T
AM5013203

BOOK EXPLOITATION UR/
629. 12.06:621.039

Pozdeyev, Aleksey Vladimirovich 44,55

Nuclear power installations on ships; means and prospects for development (Sudovyye atomnyye energeticheskiye ustanovki; puti i perspektivy razvitiya) Leningrad, Izd-vo "Sudostroyeniye", 64. 0819 p. illus., biblio. Errata slip inserted. 2,500 copies printed

TOPIC TAGS: nuclear powered ship, 19,44,55 nuclear power reactor, marine engineering, marine equipment, gas turbine engine, steam turbine

PURPOSE AND COVERAGE: The book examines the utilization problems of nuclear power installations on the ships of merchant marine. Presented are data from foreign literature on the construction of ships and nuclear power installations. The basic differences between the structure of a stationary and maritime nuclear power installation are set forth. The structures of ships, reactors, mechanisms and auxiliary equipments are described. Besides the normal operation, the book deals with the possible breakdown in nuclear power installations, its prevention and localization. In brief, the book presents the nuclear-physical and thermotechnical

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principles of the nuclear reactors. The book is intended for a wide circle of engineering and technical personnel in the shipbuilding industry and merchant marine. It can also be used by students of navigation schools, shipbuilding technical schools and universities.

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AM5013203

SUB CODE: ME,MS

SUBMITTED: 13Oct64

NR REF SOV: 117

OTHER: 126

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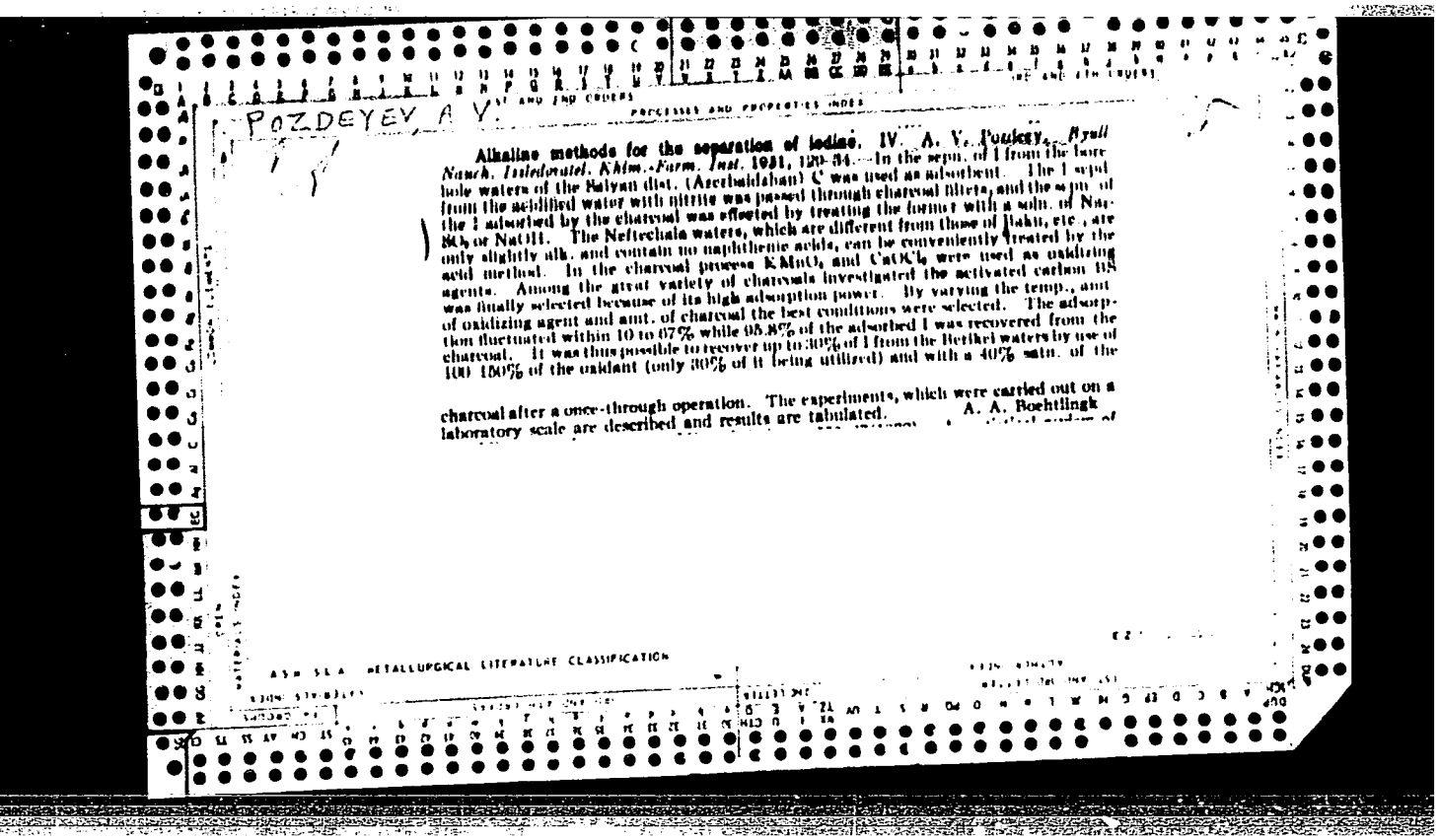

POZDEYEV, A. V.

Alkaline methods for the separation of iodine. IV. A. V. Pozdeyev. *Ryull Nauch. Issledovatel. Khim.-Farm. Inst.* 1931, 129-34.—In the sepn. of I from the Surakhan waters of the Salyan dist. (Azerbaidzhan) C was used as adsorbent. The I sepd. from the acidified water with nitrite was passed through charcoal filters, and the sepn. of the I adsorbed by the charcoal was effected by treating the former with a soln. of Na_2CO_3 or NaOH. The Neftechala waters, which are different from those of Baku, etc., are only slightly alk. and contain no naphthenic acids, can be conveniently treated by the acid method. In the charcoal process $KMnO_4$ and $CaOCl_2$ were used as oxidizing agents. Among the great variety of charcoals investigated the activated carbon BS was finally selected because of its high adsorption power. By varying the temp., amt. of oxidizing agent and amt. of charcoal the best conditions were selected. The adsorption fluctuated within 10 to 67% while 95.8% of the adsorbed I was recovered from the charcoal. It was thus possible to recover up to 30% of I from the Berikei waters by use of 100-150% of the oxidant (only 30% of it being utilized) and with a 40% satn. of the charcoal after a once-through operation. The experiments, which were carried out on a laboratory scale are described and results are tabulated.

A. A. Boehtlingk

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION

AUTHOR: Pozdneyev, A. Ya., Engineer SOV/91-59-2-18/33

TITLE: Closing Up the Blebs in the Flange of the Oil-Filled 110 kv Lead-In with a Paste Made of Cast-Iron Filings and Glue BF-2 (Zadelka rakovin vo flantse maslonapolnennogo vvoda 110 kv pastoy iz chugunnykh opilok i kleya BF-2)

PERIODICAL: Energetik, 1959, Nr 2, p 27 (USSR)

ABSTRACT: An emergency repair of the leaking flange of one of the 110 kw lead-ins was performed in the Agdamskaya substation of 110/35/10 kw of Azenergo (Power Administration of Azerbaydzhan SSR), while a 20,000 kwa transformer was being assembled. The flange was ulcerated with caverns reaching 30 mm in diameter. Two pastes, a thin and a dense, were prepared from cast iron filings and glue BF-2. The flange was cleaned and washed in aviation gasoline, whereupon the

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Closing Up the Blebs in the Flange of the Oil-Filled 110 kv Lead-In with a Paste Made of Cast-Iron Filings and Glue BF-2

thin paste was applied to the caverns, then the dense paste was "fixed in". After about seven hours, the pastes solidified, the flange was put back and no more leaking ensued. There is one photo.

Card 2/2

GERTSENSHTEYN, B. Ya., inzhener; POZDEYEV, B.G., inzhener; SAVINA, N.A., inzhener.

Amplifier restricter. Vest.sviazi 7 no.10:14-18 O '47. (MLRA 9:1)

1.Leningradskoye otdeleniye TSentral'nogo nauchno-issledovatel'skogo instituta Ministerstva svyazi.
(Radio relay systems) (Amplifiers, Electron)

POZDEYEV, B. G.

"Use of a System of Logarithmic Measurements in Wire Communications and Broadcasting Techniques"

Vestnik Svyazi, No 4, 1952, pp 12-15

Translation M-1341, 10 Dec 56

BEZLADNOV, Nikoay L'vovich; GLIKMAN, Semen Yevseyevich; POZDEYEV, Boris Georgiyevich; SAVINA, Nina Aleksandrovna; MASHAROVA,V.G., redaktor SOKOLOVA,R.Ya., tekhnicheskiy redaktor

[Station apparatus for radio diffusion] Stantsionnye ustroistva veshchaniia po provodam. Moskva, Gos.izd-vo lit-ry po voporsam sviazi i radio, 1955. 491 p. (MIRA 9:2)
(Radio--Apparatus and supplies)

POLEVEV, Boris Georgiyevich; DOGADIN, V.N., otvetstvennyy red.; GALOYAN, M.A., red.; MAZEL', Ye.I., tekhn.red.

[SVR-ADU radio equipment] Apparatura SVR - ADU. Moskva, Gos. izd-vo lit-ry po voprosam sviazi i radio, 1957. 47 p. (MIRA 11:4) (Radio)

POZDEYEV, B.

Plate voltage supply for gas-filled tube rectifiers and power amplifying tubes. Radio no.1:59-60 Ja '60.
(MIRA 13:5)

(Electric relays)
(Radio--Transmitters and transmission)

[illegible], M. P.

USSR/Radio Broadcasting
Modulation

Oct [illegible]

"Amplification Limiters," B. Ya. Gertsenshteyn, B. T. Kozdoyev, P. A. Savine, engr, Leningrad Branch of the Central Research and Investigation Institute, Ministry of Communications, 5 pp

"Vestnik Svyazi - Elektrosvyaz'" No 10 (91)

Correct regulation of the dynamic ranges of broadcast transmission is one of the basic requirements for transmission of high frequencies. Manual control results in overvoltage, which causes nonlinear distortion. As a result, the author recommends an automatic means of control. Presents circuit diagrams and formulas for calculating the regulatory characteristics of automatic control.

PA 29T89

FD-2691

USSR/Electronics-Literature

Card 1/1 Pub. 90-11/11

Author :

Title : New Books

Periodical : Radiotekhnika, 10, 80, Aug 1955

Abstract : A list, accompanied by brief abstracts, of five Soviet books on radio engineering subjects published in 1955. Two of these are Obobshcheniye Teorii Tsepey na Volnovyye Skhemy (Generalization of the Theory of Circuits for [Micro] Wave Systems) by M. S. Neyman, 192 pp, Moscow/Leningrad: and Stantsionnyye Ustroystva Veshchaniya po Provodam (Wire Broadcasting Station Equipment) by N. L. Bezladnov, S. Ye. Glikman, B. T. Pozdeyev, and N. A. Savina, 492 pp, Moscow.

POZDEYEV, A.D. (Ul'yanovsk)

Selection of an optimum number of pole pairs and of the main dimensions of electromagnetic slip couplings with solid steel rotors. Avtom. i telem. 21 no.8:1198-1205 Ag '60.
(MIRA 13:9)

(Electromagnetism) (Couplings)

POZDEYEV, I. G.

BELOV, S.P.; POZDEYEV, I.G.

Perforation of Meckel's diverticulum by a fishbone. Khirurgiia 33 no.3:122 Mr '57. (MLRA 10:6)
(INTESTINES--WOUNDS AND INJURIES)

POZDEYEV, K. A.

"The Problem of the Sensitivity of the Chemoreceptors of the Spleen to Serum and Bacterial Antigens in Animals With Unchanged and Changed Immunological Reactivity." Cand Med Sci, Kazan' Medical Inst, Kazan', 1954. (RZhBiol, No 2, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

POZDEYEV, K.A., starshiy nauchnyy sotrudnik

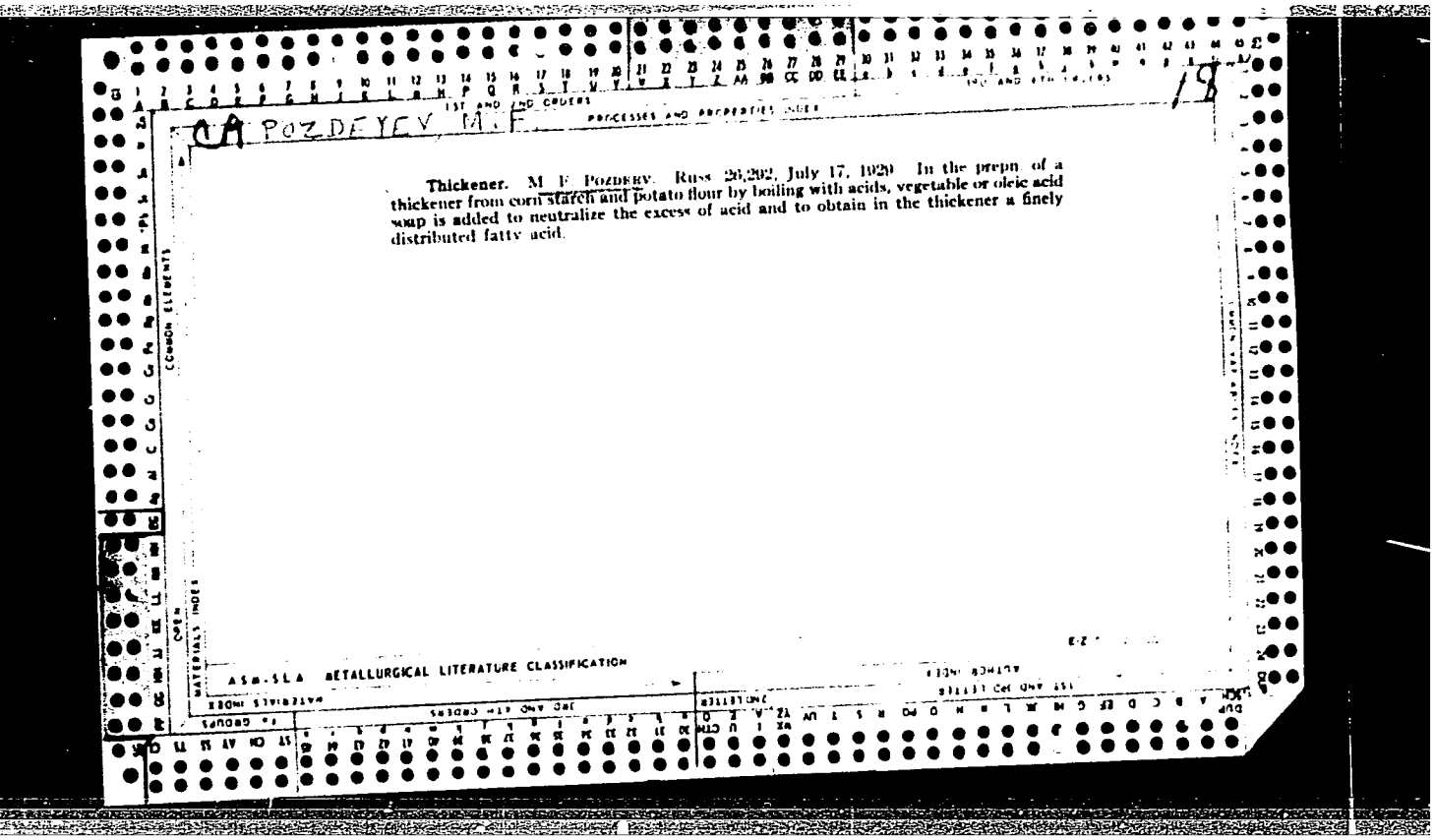
Change in the antigenic properties of tissues infected by the virus of foot-and-mouth disease. Uch. zap. KVI 89:61-70 '62.
(MIRA 18:8)

1. Laboratoriya Nr. 2 (zav. - prof. Kh.G.Gizatullin) Kazanskogo veterinarnogo instituta.

POZDEYEV, K.A., starshiy nauchnyy sotrudnik; IGNAT'YEVA, O.A., mladshiy nauchnyy sotrudnik

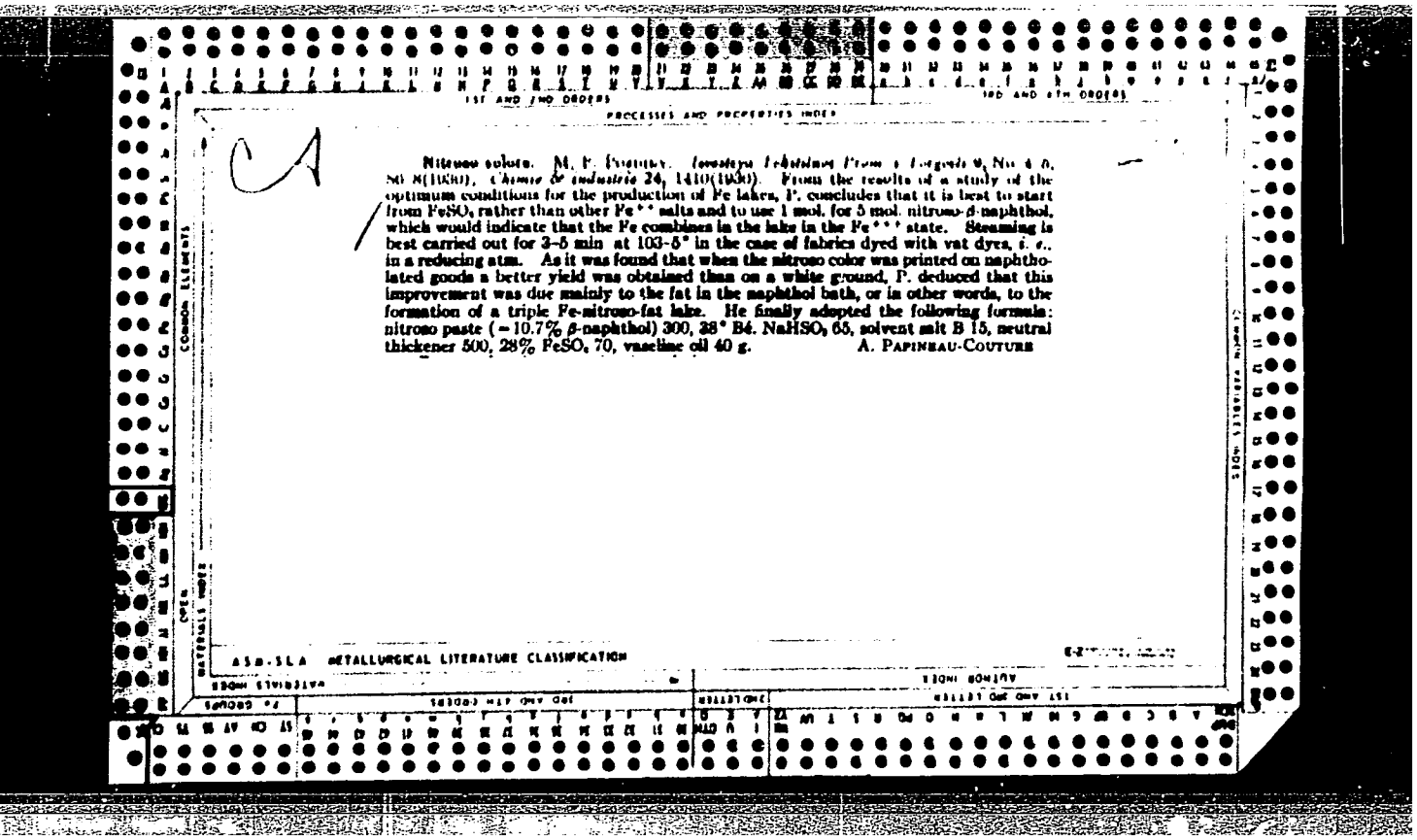
Use of the method of indirect hemagglutination reaction in the diagnosis of brucellosis. Uch. zap. KVI 89:75-78 '62. (MIRA 18:3)

1. Laboratoriya Nr. 2 (zav. - prof. Kh.C.Gizatullin) Kazanskogo veterinarnogo instituta.

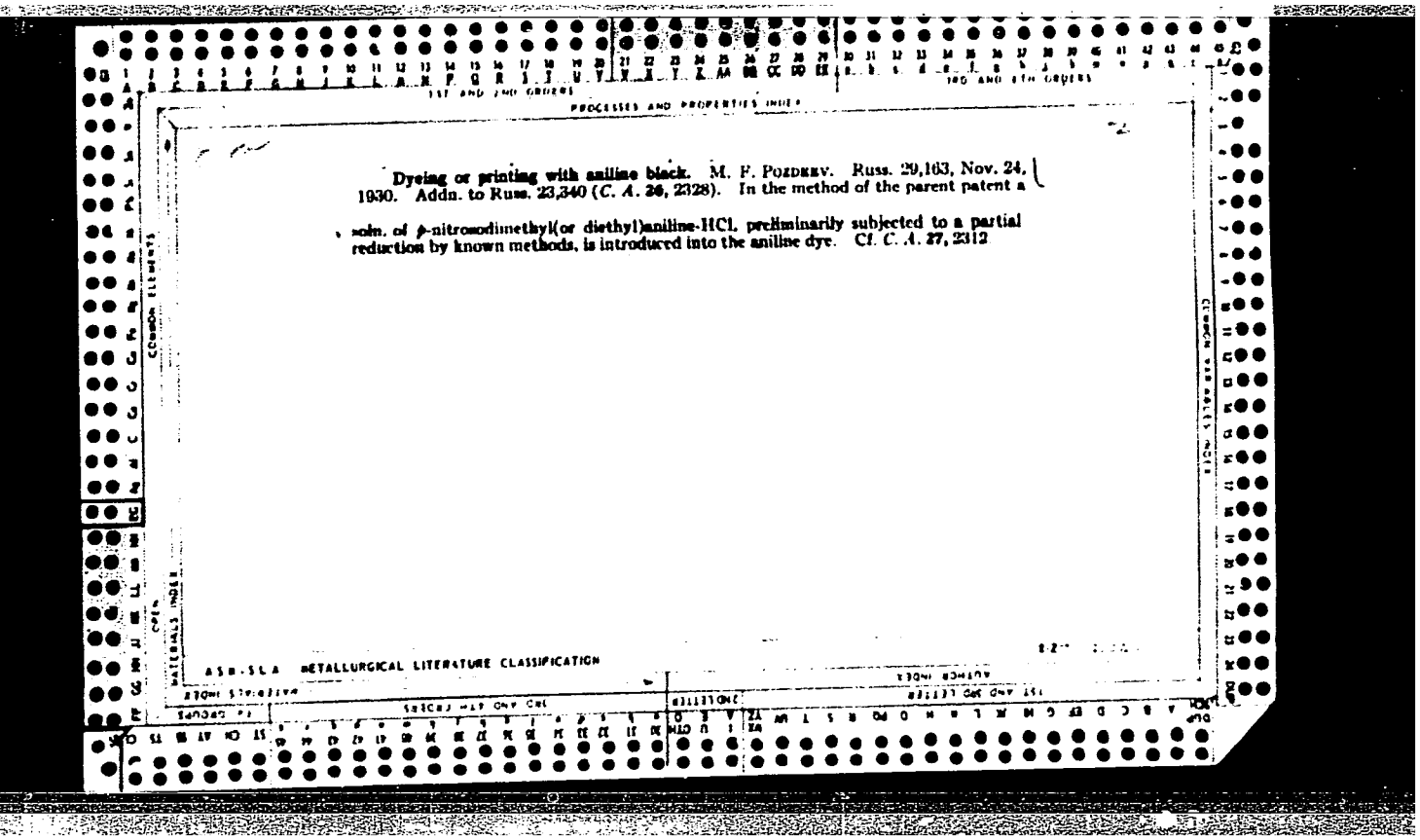


POZDEYEV, M.F.

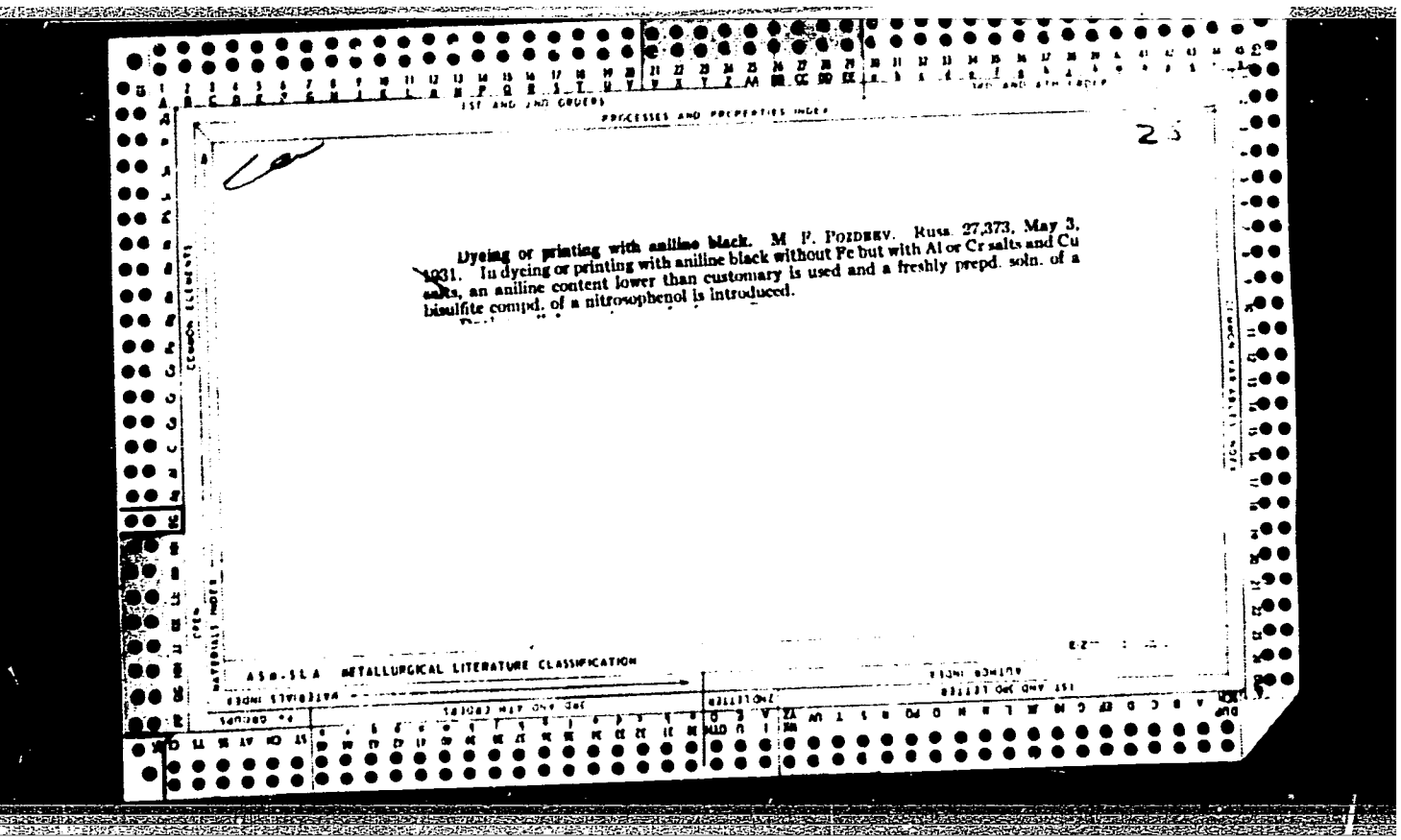
Thickener. M. F. Pozdeyev. Russ. 26,202, July 17, 1929. In the prepn. of a thickener from corn starch and potato flour by boiling with acids, vegetable or oleic acid soap is added to neutralize the excess of acid and to obtain in the thickener a finely distributed fatty acid.



Nitroso colors. M. P. [illegible]. *[illegible]* 8(1930). *Chimie & industrie* 24, 1410(1930). From the results of a study of the optimum conditions for the production of Fe lakes, P. concludes that it is best to start from $FeSO_4$ rather than other Fe^{++} salts and to use 1 mol. for 5 mol. nitroso-β-naphthol, which would indicate that the Fe combines in the lake in the Fe^{+++} state. Steaming is best carried out for 3–5 min at 103–5° in the case of fabrics dyed with vat dyes, *i. e.*, in a reducing atm. As it was found that when the nitroso color was printed on naphtholated goods a better yield was obtained than on a white ground, P. deduced that this improvement was due mainly to the fat in the naphthol bath, or in other words, to the formation of a triple Fe-nitroso-fat lake. He finally adopted the following formula: nitroso paste (= 10.7% β-naphthol) 300, 38° Bé. $NaHSO_3$ 65, solvent salt B 15, neutral thickener 500, 28% $FeSO_4$ 70, vaseline oil 40 g. A. PAPINEAU-COUTURE



Dyeing or printing with aniline black. M. F. Pozdnev. Russ. 29,163, Nov. 24, 1930. Addn. to Russ. 23,340 (*C. A.* **26**, 2328). In the method of the parent patent a soln. of *p*-nitrosodimethyl(or diethyl)aniline-HCl, preliminarily subjected to a partial reduction by known methods, is introduced into the aniline dye. Cf. *C. A.* **27**, 2312



Dyeing or printing with aniline black. M. P. Pozdeev. Russ. 27,373, May 3, 1931. In dyeing or printing with aniline black without Fe but with Al or Cr salts and Cu salts, an aniline content lower than customary is used and a freshly prepd. soln. of a bisulfite compd. of a nitrosophenol is introduced.