66-1-16/26

AUTHORS: Frid, N. and Simonov, N., Engineers.

TITLE: Use of radio-active isotopes for measuring the level of ammonia in receiver tanks and other vessels. (Primeneniye radioaktivnykh izotopov dlya izmereniya urovnya ammiaka v resiverakh i drugikh sosudakh).

PERIODICAL: "Kholodil'naya Tekhnika" (Refrigeration Engineering), 1957, No.1, pp.53-55 (U.S.S.R.)

ABSTRACT: A combined team from the Moscow cold store No.12 and the Laboratory of the Metal Physics Institute of the Central Ferrous Metallurgy Research Institute developed a circuit for contactless measurement of the ammonia level by using radio-active cobalt. The task consisted of providing means for measuring the level in five circulation receivers and transmitting the data to the control post. It was considered adequate to indicate for each receiver tank five positions. Of the tanks three were of 900 mm and two of 800 mm dia. and the respective measuring levels were 200, 300, 500, 700 and 800 mm and 200, 300, 500, 600, 700 mm. The basic principle of the set-up is shown in Fig.1; on one side two radio-active sources were placed, whilst on the other side five counters were placed at the desired five levels. The radio-active sources were so designed that the top source

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Use of radio-active isotopes for measuring the level of ammonia in receiver tanks and other vessels. (Cont.) 66-1-16/26

could irradiate only the three top counters, whilst the bottom source could irradiate all the five counters; such a system ensures maximum accuracy with a minimum number of gamma radiation sources. The electrical circuit is shown in Fig.2, p.54. On the basis of the obtained results the authors consider that level meters of this design can also be applied for other apparatus of the refrigeration industry. There are four figures.

AVAILABLE:

Card 2/2

SIMONOV, N., inzh.

Automatic air separator. Mias.ind.SSSR 31 no.1:14-17 '60.
(MIRA 13:5)

1. Moskovskiy kholodil'nik No.12.
(Meat, Frozen)
(Refrigeration and refrigerating machinery)

SIMONOV, N., inzh.

Useful manual for operators of refrigerating machinery: "Refrigerating" by N.K.Pokrovskii. Reviewed by N.Simonov. Khol.tekh.37 no.4:68 Jl-Ag '60. (MIRA 13:11)
(Refrigeration and refrigerating machinery)
(Pokrovskii, N.K.)

SIMONOV, N., inzh.; YAROSHKIN, A., inzh.

Use of electronic liquid level indicators in cold storage warehouses. Khol.tekh. 37 no.5:9-13 S-O '60. (MIRA 13:10)

1. Moskovskiy kholodil'nik No.12 (for Simonov). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut kholodil'noy promyshlennosti (for Yaroshkin).

(Moscow--Cold storage warehouses)
(Liquid level indicators)
(Refrigeration and refrigerating machinery)

SIMONOV, N., inzh.

Automatic safety devices for protection against water hammer at the compressor section of Moscwo Cold Storage Warehouse No.12. Khol.tekh. 37 no.5:14-17 S-O '60. (MIRA 13:10)

1. Moskovskiy kholodil'nik No.12.
(Moscow--Compressors--Safety measures)

AUTHORS: Simonov, N.A. and Deryugin, N.V., Engineers. 111-58-7-5/27

TITLE: The Automation of Radio Receiving Centers (Avtomatizatsiya priyëmnykh radiotsentrov)

PERIODICAL: Vestnik svyazi, 1958, Nr 7, pp 7-10 (USSR)

ABSTRACT: The authors examine the basic principles of the construction of automated radio receiving centers and the nature of receiving equipment needed for such centers. They proposed the adaptation of a mixed remote-control and program control system, where in the latter, the control commands and signals are coded and recorded on tape and transmitted to the receiving center. The center would then be remotely controlled from a radio-bureau. Such a control system is described and represented in block form in Figure 1. Using this system, special receiving equipment of the type represented in Figure 2 is necessary. This consists of two superheterodyne receivers with double frequency conversion ultimately combining together in the 2nd IF stage. The system provides for a third heterodyne and AF amplifier for amplitude telegraph work. The preselector tuning scheme is shown in Figure 3.

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Automatic tuning of the selected wave length is carried out by selecting the frequency of the first heterodyne which is given a stable working regime by the use of quartz crystals and automatic re-tuning. Separation of the synchronic manipulating frequency is achieved automatically by synchronizing the quartz generators by means of automatic phase control.
There are three block diagrams.

1. Radio stations—Automation

SOV/5245

PHASE I BOOK EXPLOITATION

Ministerstvo svyazi SSSR. Tekhnicheskoye upravleniye

Novyye razrabotki v oblasti radiosvyazi i radioveshchaniya; informatsionnyy sbornik (New Developments in the Field of Radio Communication and Radio Broadcasting; Informational Collection) Moscow, Svyaz'izdat, 1959. 80 p. 11,500 copies printed. (Series: Tekhnika svyazi)

Resp. Ed.: A. S. Vladimirov; Ed.: V. I. Bashur; Tech. Ed.: G. I. Shefer.

PURPOSE: This collection of articles is intended for technical personnel concerned with the development and operation of radio communication and radio broadcasting.

COVERAGE: The book contains, according to the Foreword, information on new developments realized at the Gosudarstvennyy nauchno-issledovatel'skiy institut Ministerstva svyazi SSSR (State

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Scientific Research Institute of the Ministry of Communication USSR). Radio communication and radio broadcasting apparatus are described. Several articles are concerned with the development of new checking and measuring instruments. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress: (TK6563.R92)

JP/dfk/ec
6-15-61

Card 3/3

SIMONOV, N.A.

Automatically controlled radio communication lines. Vest. sviazi 20 no.5:3-5 My '60. (MIRA 13:12)

1. Nachal'nik laboratorii Nauchno-issledovatel'skogo instituta Ministerstva svyazi. (Radio lines)

RATNER, A.P. [deceased]; GUREVICH, A.M.; PREOBRAZHENSKAYA, L.D.; SIMONOV, N.F.

Investigation of the hydrolysis of Na_4UO_8. Trudy Radiev.inst. AN SSSR. 8:110-116 '58. (MIRA 12:2)
(Sodium peroxyuranate) (Hydrolysis)

PHASE I BOOK EXPLOITATION SOV/5084

International Conference on the Peaceful Uses of Atomic Energy. 2d, Geneva, 1958.

Doklady sovetskikh uchenykh. [v.8] Khimiya radioelementov i radiatsionnyye prevrashcheniy (Reports of Soviet Scientists. v. 8.: Chemistry of Radioelements and Radiation Transformations) Moscow, Atomizdat, 1959. 345 p. 8,000 copies printed. (Series: Its: Trudy)

Ed. (Title page): A. P. Vinogradov, Academician; Ed.: V. I. Labedinov; Tech. Ed.: B. I. Nikol'.

PURPOSE: This collection of articles is intended for scientists and engineers interested in the applications of radioactive materials in science and industry.

COVERAGE: The book contains 26 separate studies concerning various aspects of the chemistry of certain radioactive elements and the processes of radiation effect on matter. These reports discuss present-day methods of reprocessing irradiated nuclear fuel, research in the chemistry of mercury, thorium, uranium, plutonium, and americium, problems related to the adsorption and burying of radioactive waste, the radiolysis of aqueous solutions and of organic compounds, the mechanism of polymer chain grafting, and the effect of radiation on natural and synthetic rubbers. V. N. Prusakov edited the present volume. Most of the reports are accompanied by references. Contributors to individual investigations are mentioned in annotations to the Table of Contents.

TABLE OF CONTENTS:

SIMONOV, N.F., kand.sel'skokhozyaystvennykh nauk

Unused capacities for the production of wool in the Ukrainian Polesye and forest steppe. Zhivotnovodstvo 21 no.6:16-23 '59. (MIRA 12:8)

(Ukraine--Sheep)

SIMKOV, N. F.

"Simmental Cattle Within the Sphere of Action of the Storozhinets State Breeding Farm and Methods of Improving Them."
Cand Agr Sci, Khar'kov Zootechnical Inst, Khar'kov, 1953.
(RZhBiol, No 2, Sep 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

So: Sum. No. 481, 5 May 55

SIMONOV, N. F.: Master Tech Sci (diss) -- "Investigation of the problems of organizing the shipping of packaged goods using palettes in railroad transport". Moscow, 1958. 15 pp (Min Transportation USSR, Moscow Order of Lenin and Order of Labor Red Banner Inst of Railroad Transport Engineers im I. V. Stalin), 150 copies (KL, No 7, 1959, 110)

SIMONOV, N.F., inzh.

Using pallets in package transportation of piece freight. Trudy MIIT no.118:45-73 '58. (MIRA 12:2)
(Railroads--Freight)

[illegible], D. A., [illegible]

Bast

Experience with the Stakhanov system in bast fiber mills, Tekst. prom., No. 2, 195[illegible].

Monthly List of Russian Accessions, Library of Congress
March 1952. UNCLASS FIED.

SIMONOV, N.F.; BRAGIN, V.S.

Industrial testing of the type "1500 x 1500 - 1500 mm" hammer crusher. Koks i khim. no.12:8-11 '63. (MIRA 17:1)

1. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy koksokhimicheskoy promyshlennosti.

SIKACH, A. I.

Resheniye nekotorykh krayevykh zadach dlya ellipticheskikh sistem lineynykh uravneniy. Dan, 44 (1944), 287-289.

SO: Mathematics in the USSR, 1917-1947
edited by Kurosh, A. G.,
Markushevich, A. I.,
Rashevskiy, P. K.
Moscow-Leningrad, 1948

Mathematical Reviews
Vol. 14 No. 7
July - August, 1953
Analysis.

Simonoff, N. Résolution de certains problèmes limites pour les systèmes elliptiques linéaires d'ordre quelconque. Moskov. Gos. Univ. Učenye Zapiski 30, Matematika 1, 31–84 (1946). (Russian. French summary)

The paper considers the boundary value problem in a domain $x_n > a(x_1, \cdots, x_{n-1})$, $x_1, \cdots, x_{n-1}$ unrestricted, $x_n > 0$ for certain elliptic systems with constant coefficients for p unknown functions $u_1(x_1, \cdots, x_n)$. Linear boundary conditions involving the values of u_i and their derivatives are prescribed along $x_n = 0$. The first part of the paper treats the formal solution of this problem which can be reduced, by Fourier transformations, to a system of ordinary differential equations. A more precise analysis is given for the "first" boundary value problem in which the values of the unknown functions and of some of their x_n derivatives are prescribed on $x_n = 0$. This problem is shown to to be correctly set provided that one imposes auxiliary conditions on the given boundary data and on the solutions, conditions requiring a sufficiently fast dying out at infinity. The cases of a single equation and of a system containing only derivatives of even order are considered separately. The paper contains many very formidable formulas and a detailed exposition cannot be given here. *L. Bers* (New York, N. Y.)

SIMONOV, N.I. (Chernovitsy)

Scientific heritage of Leonard Euler in the field of differential equations. Ist.-mat.issl. no.7:513-595 '54. (MLRA 8:6)
(Differential equations) (Euler, Leonard, 1707-1783)

SIMONOV, N. I.

SIMONOV, N. I. : "The development of the theory of differential equations by Leonard Euler." Min Higher Education. Moscow State U imeni M. V. Lomonosov. Mechanics and Mathematics Faculty. Moscow, 1956. (Dissertation for the Degree of Doctor in Physico-mathematical Science.)

Knizhnaya letopis', No. 31, 1956. Moscow.

SOV 54 - [illegible]

Translation from: Referativnyy zhurnal, Matematika, 1958, Nr 4, p 5 (USSR)

AUTHOR: Simonov, N.I.

TITLE: On the First Studies of J.D'Alembert and L. Euler on the Theory of Linear Systems of Differential Equations With Constant Coefficients (O pervykh issledovaniyakh Zh. Dalambera i L. Eylera po teorii lineynykh sistem differentsial'nykh uravneniy s postoyannymi koeffitsiyentami)

PERIODICAL: V. sb.: Istoriko-matematicheskiye issledovaniya, Nr 9, Moscow, Gostekhizdat, 1956, pp 799-903

ABSTRACT: It is known that D'Alembert in his treatise [illegible] dynamics of 1743 was the first to propose the so-called Euler method for the integration of a system of linear ordinary differential equations with constant coefficients. The author

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On the First Studies of J. D'Alembert (Cont.)

points out that in his work on the propagation of pulses through an elastic medium in 1747, Euler independently of D'Alembert came to the study of [illegible] systems with an arbitrary number of unknown functions and gave another method of integration, representing the unknown solutions in the form of trigonometric functions with undetermined coefficients—that is, essentially the method used today. This leads at once to the characteristic equation, the derivation of which by the D'Alembert method is less convenient.

S.S. Gershtein

Card 2/2

SIMONOV, N.I.; SMIRNOV, S.V.

Activities of the seminar on the history of mathematics at the Moscow State University. Vop.ist.est. i tekh. no.2:337-339 '56.
(MLRA 10:1)

(Moscow University)

PHASE I BOOK EXPLOITATION 608

Simonov, Nikolay Ivanovich

Prikladnyye metody analiza u Eylera (Euler's Applied Methods of Analysis) Moscow, Gostekhizdat, 1957. 167 p. 5,000 copies printed.

Ed.: Lapko, A. F.; Tech. Ed.: Yermakova, Ye. A.

PURPOSE: The book is written on the 250th anniversary of Euler's birth, and is intended for readers interested in certain of Euler's applied methods of analysis.

COVERAGE: The book presents those of Euler's applied methods of analysis which are related to the integration of ordinary differential equations. Special attention is paid to Euler's little-known results in this field. Discussed are certain special methods proposed by Euler for the approximate solution of algebraic and transcendental equations. In the introduction are mentioned Soviet mathematicians A. N. Krylov, F. N. Frankl' and G. K. Michaylov in connection with their reports and articles concerning Euler's scientific legacy. There are 76 references, 19 of which are Soviet (7 translations), 1 English, 9 German, 6 French and 41 Euler's Latin works.

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Euler's Applied Methods of (Cont.)

TABLE OF CONTENTS:

LK/fal
9/12/58

SIMONOV, N.I.

L. Euler's studies on the integration of linear equations and simultaneous linear equations with partial derivatives. Ist.-mat. issl. no.10:327-362 '57. (MIRA 11:1)
(Euler, Leonhard, 1707-1783)
(Differential equations, Partial)

FRAM I BOOK EXPLOITATION SOV/4326

Soveshchaniye po teorii invariantnosti i yego primeneniyu v avtomaticheskikh ustroystvakh. Kiyev, 1958

Teoriya invariantnosti i yeye primeneniye v avtomaticheskikh ustroystvakh; trudy soveshchaniya (Theory of Invariance and Its Applications to Automatic Devices; Transactions of the Conference Oct. 16-20, 1958) Moscow, 1959. 351 p. No. of copies printed not given.

Sponsoring Agency: Akademiya nauk Ukrainskoy SSR. Otdeleniye tekhnicheskikh nauk.

Resp. Ed.: V.S. Kulebakin, Academician; Editorial Commission: V.A. Bodner, Doctor of Technical Sciences, A.G. Ivakhnenko, Doctor of Technical Sciences, A.Yu. Izerlinskiy, Academician, Academy of Sciences UkrSSR, N.A. Kochanov, Candidate of Technical Sciences, P.I. Kuznetsov, Doctor of Physics and Mathematics, A.I. Kukhtenko, Doctor of Technical Sciences, B.N. Petrov, Corresponding Member, Academy of Sciences USSR, Yu.P. Popov, Doctor of Technical Sciences, G.M. Ulanov, Doctor of Technical Sciences, K.F. Teodorchik, Academician, Academy of Sciences UkrSSR, P.I. Chinayev, Candidate of Technical Sciences, and B.N. Chumakov, Candidate of Technical Sciences; Tech. Ed.: G.F. Krupich.

PURPOSE: This collection of papers is intended for engineers and other specialists working in various fields of automation.

COVERAGE: The collection includes reports and papers presented at the Conference on the Theory of Invariance and Its Applications to Automatic Devices which was called by the Otdeleniye tekhnicheskikh nauk (Department of Technical Sciences) and the Institut elektrotekhniki (Institute of Electrical Engineering) of the Academy of Sciences of the Ukraine and convened in Kiyev October 16-20, 1958. The papers presented are concerned with high-quality automatic control systems designed on the basis of compensating for the effects of disturbances or maintaining the invariance of the quality to be regulated with respect to the disturbances acting on the system. The reports treat the physical and mathematical foundations of invariance in automatic control systems, they also consider methods for designing and calculating invariant systems and problems connected with specific cases of practical applications of compensation in various automatic systems. On the basis of these reports it was established by the Conference that, by utilization of the conditions of compensation and the principle of invariance, it is possible to produce automatic systems and various arrangements which are more perfect from the viewpoint of quality of the regulation and control process, stability, simplicity of construction, and reliability of operation. The following members of the Kiyev Seminar on Automatic Control are mentioned as organizers of the conference: A.I. Kukhtenko, A.G. Ivakhnenko, Yu.G. Krmilov, O.M. Krykhanovskiy, N.N. Chumakov, B.A. Kochanov, and P.I. Chinayev. References accompany each article.

AUTHOR: Simonov, N.I SOV/42-13-5-12/15

TITLE: ~~The Development~~ of the Theory of Differential Equations by Leonhard Euler (Author's Report on his Doctoral Dissertation) (Razvitiye teorii differentsial'nykh uravneniy Leonardom Eylerom (avtoreferat doktorskoy dissertatsii))

PERIODICAL: Uspekhi matematicheskikh nauk, 1958, Vol 13,Nr 5,pp 223-228 (USSR)

ABSTRACT: The dissertation was maintained on October 19, 1956 at the mechanical-mathematical faculty of the Moscow State University. Official opponents: Corresponding member of the Academy of Sciences A.O. Gel'fond; corresponding member of the Academy of Sciences L.A.Lyusternik and Doctor of physical-mathematical sciences Professor S.A.Yanovskaya. The dissertation consists of a general introduction (formulation of the theme, methods of investigation, bibliography), a part consisting of 4 chapters on Euler's contributions to the theory of ordinary differential equations and a part containing 4 chapters on partial differential equations. The publication of the present summary comes very late since the dissertation is partly already known also in western countries (communication on the occasion of the International Congress on the History of Sciences at Florence in 1956).

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SIMONOV, N.I. [Symonov, M.I.]

Studies of ordinary differential equations made by Leonhard Euler.
Ist.-mat. zbir. 1:20-39 '59. (MIRA 14:2)
(Differential equations)

SIMONOV, N.I.

Leonard Euler's research on ordinary differential equations and the equations of mathematical physics. Trudy Inst.ist.est.i tekh. 28:138-187 '59. (MIRA 13:5)
(Differential equations)
(Euler, Leonard, 1707-1783)

SIMONOV, N.I. (Kiyev)

"Integral calculus" by L. Euler. Reviewed by N.I. Simonov. Vop. ist.est.i tekh. no.9:166-168 '60. (MIRA 13:7)
(Calculus integral)
(Euler, L.)

SIMONOV, N.I. (Kiyev); DOBROVOL'SKIY, V.A. (Kiyev); PUTYATA, T.V. (Kiyev)

Work of a meeting on the history of mathematics at the Institute of Mathematics of the Academy of Sciences of the Ukrainian S.S.R. Reviewed by V.A. Dobrovol'skii, T.V. Putiata, N.I. Simonov. Vop.ist.est.i tekh. no.9:189-191 '60. (MIRA 13:7)

(Mathematics)

SIMONOV, N.I. [Symonov, M.I.]

On the necessary and sufficient condition of selective invariance. Dop.AN URSR no.9:1155-1157 '60. (MIRA 13:10)

1. Institut matematiki AN USSR. Predstavleno akademikom AN USSR I.Z.Shtokalo.
(Differential equations, Linear.)

SIMONOV, N.I.

Necessary and sufficient conditions of selective invariancy. Ukr. mat. zhur. 12 no.2:219-223 '60. (MIRA 13:10)
(Matrices)

SIMONOV, N.I. [Symonov, N.I.]

Early studies on differential equations in the Petersburg Academy of Sciences. Ist.-mat. zbir. 4:104-111 '63.(MIRA 17:3)

KULEBAKIN, V.S., akademik, otv. red.; PETROV, B.N., akademik, otv. red.; BODNER, V.A., doktor tekhn. nauk, red.; VORONOV, A.A., doktor tekhn. nauk, red.; IVAKHNENKO, A.G., red.; ISHLINSKIY, A.Yu., akademik, red.; KOSTYUK, O.M., kand. tekhn. nauk, red.; KRASSOV, I.M., kand. tekhn. nauk, red.; KUNTSEVICH, V.M., kand. tekhn. nauk, red.; KUKHTENKO, A.I., red.; RYABOV, B.A., doktor tekhn. nauk, red.; SIMONOV, N.I., doktor fiz.-mat. nauk, red.; ULANOV, G.M., doktor tekhn. nauk, red.; FEDOROV, S.M., kand. tekhn. nauk, red.; TSYPKIN, Ya.Z., doktor tekhn. nauk, red.; CHINAYEV, P.I., kand. tekhn. nauk, red.; KHUTOVA, I.N., kand. tekhn. nauk, red.; RUTKOVSKIY, V.Yu., kand. tekhn. nauk, red.

[Invariancy theory in automatic control systems; transactions] Teoriia invariantnosti v sistemakh avtomaticheskogo upravleniia; trudy. Moskva, Nauka, 1964. 503 p. (MIRA 18:2)

1. Vsesoyuznoye soveshchaniye po teorii invariantnosti i yeye primeneniyu v avtomaticheskikh ustroystvakh. 2d, Kiev, 1962. 2. Chlen-korrespondent AN Ukr.SSR (for Ivakhnenko, Kukhtenko).

KOROLENKO, Vvladislav Tikhonovich; SINONOV, Nikolay Konstantinovich.
KRIVONOSOVA, N., red.

[Best grain crop varieties in Uzbekistan] Luchshie sorta zernovykh kul'tur Uzbekistana. Tashkent, Izd-vo "Uzbekistan," 1964. 86 p. (MIRA 18:3)

SIMONOV, N.N., inzh.

Cargo truck coupling. Khol. tekh. 38 no. 1:45-46 Ja-F '61.
(MIRA 14:4)
(Moscow--Cold storage warehouses) (Car couplings)

SIMONOV, N.N.

Experience in the operation of the automated Cold Storage Warehouse No.1 in Moscow. Ser.III: Nov.mash., obor. i sred.avtomatiz. no.59: 77-82 '63. (MIRA 16:12)

1. Moskovskiy kholodil'nik No.12.

SEMENOV, N.

SEMENOV, Nikolai Nikolaevich, and N.N. SEMENOV.

K teorii iskrovogo vosplameneniia gazovykh vzryvchatykh smesei. (Zhurnal fizicheskoi khimii, 1 49, v.23, no.11, p. 1361-1174, tables, diagrs., bibliography)

Title tr.: On the theory of explosive gaseous mixtures.

QD1.Z5 1949

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

.: M.V, M.N., nauchnyy sotrudnik.

Power used in drilling hard rocks. Trudy MPI 33:279-285 '56. (MLRA 10:9)

(Boring) (Electricity in mining)

AUTHOR: None Given. 24-1-25/26

TITLE: New methods of investigation of the processes of disruption of rocks by mechanical methods. (Novyye metody issledovaniya protsessov razrusheniya gornykh porod mekhanicheskimi sposobami).

PERIODICAL: Izvestiya Akademii Nauk, Otdeleniye Tekhnicheskikh Nauk, 1958, No.1, p.143 (USSR).

ABSTRACT: Over 160 investigations are proceeding in the Soviet Union relating to the breaking up of rocks. At the Institute of Mining (Institut Gornogo Dela) a conference was held between September 25 and 27, 1957 with the participation of establishments of the Ac.Sc. and other research institutes as well as representatives of over fifty organisations.
Doctor of Technical Sciences, Prof. M. M. Protod'yakonov presented a paper on the aims of the conference; the first day was to be devoted to methods of investigation of processes of drilling blast holes and wells.
N. N. Simonov in his paper "Technique of investigation of the power consumed for drilling shot holes in the case of forced feeding of the drilling bit" and
M. G. Krapivin in his paper "Technique of investigation of the operation of the tool bit of an electric drill"

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New methods of investigation of the processes of disruption of rocks by mechanical methods.

reported on the work proceeding in the Novocherkassk Polytechnical Institute (Novocherkasskiy Politekhnicheskiy Institut).
A. A. Volkov, Khar'kov Mining Institute (Khar'kovskiy Gornyy Institut) read the paper "Prospects of application of electrical methods of measuring the parameters of the drilling process" using an induction torsion dynamometer developed by this author. The application of wire strain gauges, piezo-electric and inductive pick-ups and of stroboscopic photography was considered in the paper "Methods and techniques of investigation of certain elements of the process of drilling and operation of drilling apparatus" by Ye. F. Yepsheyn, Dnepropetrovsk Mining Institute (Dnepropetrovskiy Gornyy Institut).
S. G. Kaloshin, Institute of Mining, Ac.Sc. Kazakh SSR (Institut Gornogo Dela Akademii Nauk Kazakhskoy SSR) described the study by means of stereophotography of the profile of a channel formed in the rock during the impact of the drill. The paper of V. I. Dusev, Moscow Institute of Non-Ferrous Metals and Gold (Moskovskiy Institut Tsvetnykh Metallov i Zolota) dealt with the technique of

New methods of investigation of the processes of disruption of rocks by mechanical methods.

investigation of the effectiveness of disruption of rocks in the case of impact-swivelling drilling by means of drilling bits of various designs. During the discussion of the above papers O. D. Anisimov, Tomsk Polytechnical Institute (Tomskiy Politekhnicheskiy Institut) described a stand for operating rotational, impact-swivelling, impact-rotational methods of drilling. M. M. Protod'yakonov pointed out that for a number of asymptotic relations evaluation of experimental data on logarithmic coordinate grids is inapplicable and he proposed the use of rectified curves by applying shifted hyperbolas. In his paper "Methods of investigation of the mechanical properties of rocks at high pressures" M. P. Volorovich, Institute of Physics of the Earth, Ac.Sc. USSR (Institut Fiziki Zemli Akademii Nauk SSSR) gave a general review of investigations carried out outside the Soviet Union, in addition to expressing certain views himself. R. M. Eyveles (VNIIBurneft') read a paper on the methods of synchronisation of recordings of a large number of metering instruments when studying rapid non-repetitive processes (impact of a blade edge on rock) and also for studying elementary acts of disruption on a

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New methods of investigation of the processes of disruption of rocks by mechanical methods.

transparent material (glass) by means of polarised light and high speed filming (to 4000 frames per second). In his paper "Technique of investigations of the execution organ of the Kiev mechanised heading machine" K. B. Shlyapin, VNII-Transport Construction (VNII Transportnogo Stroitel'stva) dealt with experimental work under mine conditions. V. P. Fomichev described in his paper the technique of laboratory investigations of the force of feeding the cutting bit during cutting of mined coal. Members of the Institute of Building Materials and Structures of the Armenian SSR, Ac. Sc. (Institut Stroitel'nykh Materialov i Sooruzheniy AN Armyanskoy SSR) presented two papers, namely, "Technique of investigation of the process of splitting natural stones by blades with wedges during static and dynamic operation" (A. A. Abramyan) and "Technique of investigation of friction and wear during cutting of rocks" (K. S. Vardanyan). In the discussions R. L. Zagorskiy, All-Union Coal Research Institute VUGI (Vsesoyuznyy Nauchno-Issledovatel'skiy Ugol'nyy Institut VUGI) described briefly a test stand for planetary

New methods of investigation of the processes of disruption of rocks by mechanical methods.

cutting of rocks and Chumak, All-Union Research Institute for the Organisation and Mechanisation of Mine Construction VNIIOMShS (Vsesoyuznyy Nauchno-Issledovatel'skiy Institut Organizatsii i Mekhanizatsii Shakhtnogo Stroitel'stva VNIIOMShS), described a test stand for investigating vibro-impact drilling. In the resolutions it was mentioned that, in spite of known achievements in the field of developing experimental methods and techniques for studying processes of disruption of rocks, utilisation of the latest achievements in physics is lagging. For instance, radio-active isotopes, semi-conducting instruments etc. are not being used on an adequate scale. It was also pointed out that most institutes were forced to design and build strain gauge apparatus and a number of metering instruments on a very small scale and evidently it will be necessary to organise centralised manufacture of such apparatus.

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(Note: This is an almost complete translation).

AVAILABLE: Library of Congress.

KOSTIUCHENKO, V.N. (Moskva); SIMONOV, N.N. (Moskva)

Experimental study of a shock wave in air following an underwater explosion in a shallow reservoir. PMTF no.1:135-137 My-Je '60. (MIRA 14:8)

(Underwater explosions) (Shock waves)

SIMONOV, M.N., inzh.

Settlement by blasting of a road embankment fill at the bottom of a silt bog. Vzryv. delo no.45:156-167 '60. (MIRA 14:1)
(Road construction) (Blasting)

[redacted]

[redacted] for the removal of frost accumulation from the batteries of air conditioners and coolers. Khol. tekh. 42 no.4: 53-53 Jl-Ag '65.

[redacted] automatic counter of the operating time of equipment. Ibid.:54
(MIRA 18:9)

[redacted] Moskovskiy kholodil'nik No.12.

L 4076-65 EWT(d)/EWA(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l) Pf-4

ACCESSION NR: AP5012323 UR/0286/64/000/022/0008/0008

20
19
B

AUTHOR: Simonov, N. S.; Strakhal', V. A.; Rebrik, B. M.; Ostrovskiy, V. I.; Fomin, A. G.

TITLE: Self-propelled unit for vibration drilling. Class 5, No. 166287

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 22, 1964, 8

TOPIC TAGS: mining machinery

Translation: This inventor's certificate introduces a self-propelled vibration drilling assembly mounted on a motor vehicle. The device includes a hoisting tower, winch, generator and vibrator. In order to cut down on the number of additional operations and to speed them up, the tower is of the open type, Π -shaped and equipped with a transverse support brace. It also has a flexible element of constant length for suspending the vibrator during folding and raising the tower. 2. A unit of this description equipped with a carriage which is a connecting element between the penetration equipment and the guides of the tower so that the device may be used for impact sounding. 3. A unit of this

Card 1/2

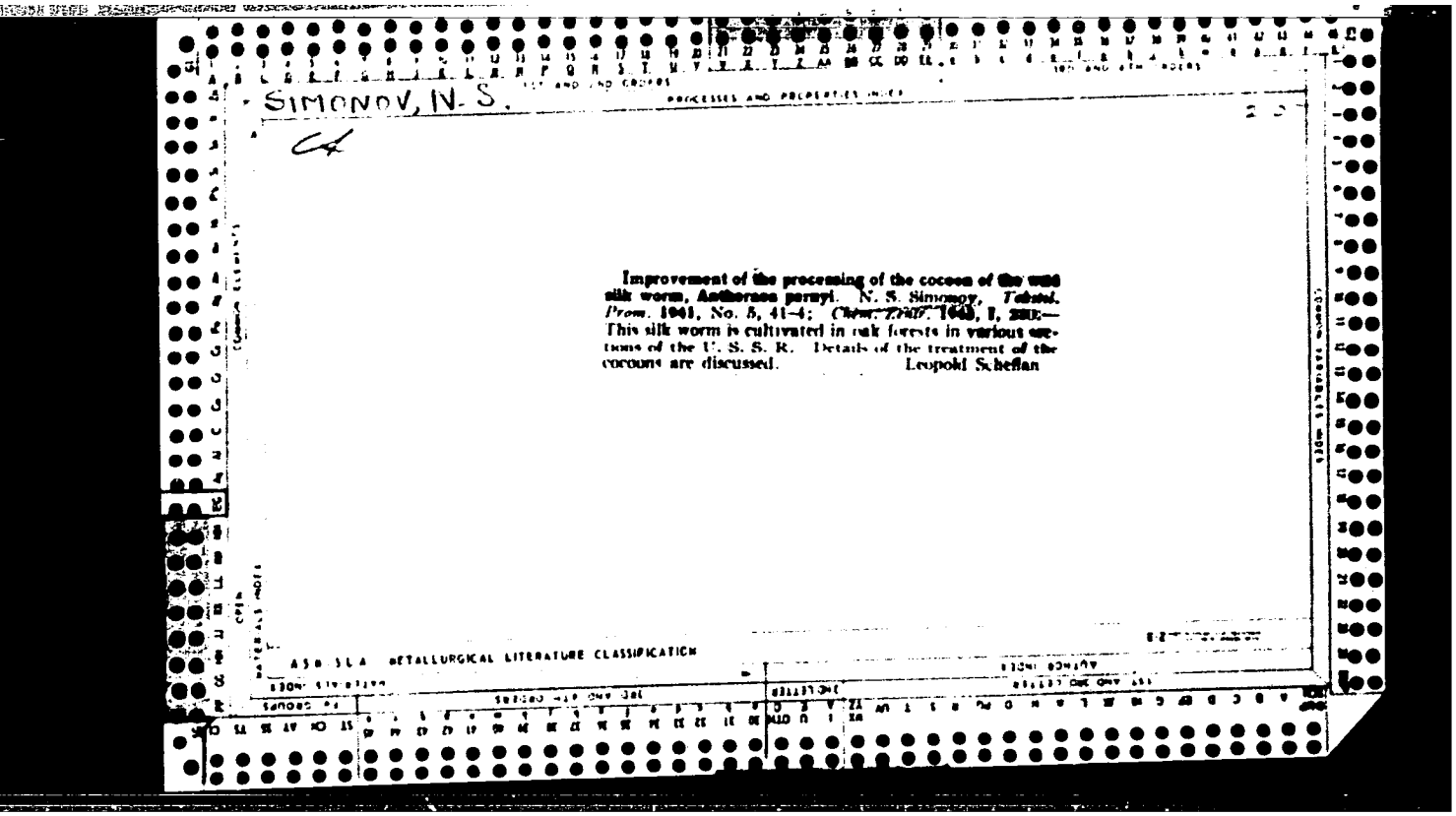
L 40763-65
ACCESSION NR: AP5012323

description in which the winch is equipped with a normally open brake which has a spring contactor so that the unit may be used for cable percussion drilling.

ASSOCIATION: Vsesoyuznyy proyektno-izyskatel'skiy i nauchno-issledovatel'skiy institut "GIDROPROYeKT"im. S. Ya. Zhuka (All-Union Institute of Preliminary Study and Design and of Scientific Research "GIDROPROYeKT")

SUBMITTED: 00	ENCL: 00	SUB CODE: IE
NO REF SOV: 000	OTHER: 000	JPRS

Card 2/2



SIMONOV, N. S.

C4

Improvement of the processing of the cocoon of the wild silk worm, Antheraea pernyi. N. S. Simonov, *Tekstil. Prom.* 1941, No. 5, 41–4; *Chem. Zentr.* 1943, I, 2312.—This silk worm is cultivated in oak forests in various sections of the U. S. S. R. Details of the treatment of the cocoons are discussed. Leopold Scheflan

ASB SLA METALLURGICAL LITERATURE CLASSIFICATION

SIMONOV, N. S., Engineer

"Cocoons of Chinese Oak Silkworm and Their Rational Utilization." Sub 21 Apr 47, Moscow Textile Inst

Dissertations presented for degrees in science and engineering in Moscow in 1947

SO: Sum.No. 457, 18 Apr 55

1. SIMONOV, N. S.

2. USSR (600)

4. Silkworms

7. Controlled culture of oak silkworms. Dokl. Ak. sel'khoz. 17, No. 9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

SIMONOV, N.S., kandidat tekhnicheskikh nauk; TUMAYAN, S.A., kandidat tekhnicheskikh nauk.

Raising the uniformity of raw silk by numbers. Tekst.prom.14 no.1:17-19 Ja '54. (MLRA 7:2) (Silk)

SIMONOV, N.S.; IVANOV, Yu.D.

The PMShB-2 rewinding machine. Biul. tekhn.-ekon. inform. no.3:50-52 '58. (MIRA 11:10)
(Reels (Textile machinery))

SIMONOV, P.

Improving the performance of truck-mounted cranes. Na stroi. Mosk. 2 no.7:12-14 Jl '59. (MIRA 12:10)

1.Glavnyy inzhener tresta Mosstroymekhanizatsiya No.2.
(Cranes, derricks, etc.)

SIMONOV, P.

Industrial methods of installing sanitary engineering equipment.
Na stroi. Ros. no.8:35-36 Ag '61. (MIRA 14:9)

1. Upravlyayushchiy trestom Yuzhuralsantekhmontazh.
(Chelyabinsk--Sanitary engineering)

SIMONOV, P., starshiy nauchnyy sotrudnik

Feelings are within our control. Znan.sila 37 no.2:20-24 F '62. (MIRA 15:3)

1. Institut vysshey nervnoy deyatel'nosti i neyrofiziologii AN SSSR.

(PSYCHOLOGY, PHYSIOLOGICAL)

[illegible], I.

353[illegible]. Radost' Starogo Se[illegible]. (O Peredovikakh K[illegible]za Im. Stal'ina, Zakarpat. Obl.). Ocherk. Sov. Ukraina, 3, 1949, S. [illegible]-74.

SO: Letop. Zh. Zhurnal'nykh Statey Vol. 34, Moskva, 1949

SIMONOV, P.A. (Moscow)

First Russian methematical journals, the carriers of progressive methodological ideas. Mat.v shkole no.3:13-20 My-Je '55. (MLRA 8:7)
(Mathematics--Periodicals)

ANAN'YEV, N.A.; SIMONOV, P.K.

[Public health system in Ryazan Province; November 1917-November 1957] Zdravookhranenie Riazanskoi oblasti; noiabr' 1917-noiabr' 1957 gg. Riazan', Priokskaia pravda, 1957. 110 p. (MIRA 14:7)
(RYAZAN PROVINCE—PUBLIC HEALTH)

SIMONOV, P.K.

By the communal building system. Zdrav.Ros.Feder. 1 no.6:10-11 Je '57. (MLRA 10:8)

1. Zaveduyushchiy Ryazanskim oblastnym otdelom zdravookhraneniya
(PUBLIC HEALTH, RURAL)
(RYAZAN PROVINCE--CONSTRUCTION INDUSTRY)

RABINOVICH, R.I. Prinimali uchastiye: ALEGLAN, L.K., kand. sel'khoz. nauk; BARABANOVA, N.N.; BOSENKO, K.S.; VINNIK, V.V.; GRIGORCHUK, Ye.V.; GUMEROV, A.Kh.; DOBROCHASOV, D.F.; ZAMURAYEV, I.V.; ZAYTSEVA, A.G., kand. sel'khoz. nauk; KOL'TSOV, N.A.; LEVITIN, Kh.Z., kand. biol. nauk; LISITSKIY, B.Ya.; MATYASH, G.P.; MENTOV, A.V.; RABINOVICH,R.I.; SAL'NIKOV, V.V.; SVECHNIKOV, I.V.; SIMONOV, P.K.; SMIRNOV, V.V.; SMIRNOV, L.P.; SMIRNOVA, V.I.; STEPANOVA, V.I.; TARASOV, A.A.; FILATOVICH, V.V., kand. sel'khoz. nauk; FEDOROV, N.G., kand. tekhn. nauk; TSAPLIN, M.F.; KHROMOV, L.V.; DAVYDOVA, I., red.; PAL'MINA, N., tekhn. red.

[Sverdlovsk in Agricultural Exhibition of 1959] Sverdlovskaia sel'khoziaistvennaia vystavka. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1960. 131 p. (MIRA 14:10)

1. Sverdlovsk. Sverdlovskaya oblastnaya sel'skokhozyaystvennaya vystavka, 1959.
(Sverdlovsk--Agricultural exhibitions)

SIMONOV, P.K.; KRASIK, Ye.D. (Ryazan')

Improvement of psychiatric service and the organization of psychoprophylactic work in Ryazan Province. Zhur. nerv. i psikh. 60 no. 12:1657-1660 '60. (MIRA 14:4)
(RYAZAN PROVINCE--PSYCHIATRY)

SIMONOV, P.K. (Ryazan')

Principles of the organization of antialcoholism work in a network of somatic and psychoneurological institutions. Trudy Gos. nauch.-issl. inst. psikh. 38:377-383 '63. (MIRA 16:11)

*

SIMONOV, P.M., inzhener (Sverdlovsk).

Inaccuracies in the instructions of the Main Administration of the Railroad Car Industry. Zhel.dor.transp.38 no.12:68-69 D '56.
(MLRA 10:2)

1. Zamestitel'nachal'nika slushby vagonnogo khozyaystva Sverdlovskoy dorogi.
(Railroads--Cars)

ALEKHIN, S.V., prof., doktor tekhn.nauk (g.Leningrad); ZOLOTNIKOV, I.M., dotsent, kand.tekhn.nauk (g. Leningrad); SIMONOV, P.M., inzh. (g.Sverdlovsk)

Lengthening the service life of rolling stock wheels. Zhel.-dor. transp. 43 no.9:58-61 S '61. (MIRA 14:8)

1. Zamestitel' nachal'nika sluzhby vagonnogo khozyaystva Sverdlovskoy dorogi (for Simonov).
(Car wheels--Maintenance and repair)

SIMONOV, P.M.; KROPANEV, A.I.; TIUNOV, V.Ye.; VASIL'YEV, P.T.; TURTSEVA, I.M.; SAKALDINA, Ye.D.; DYLDIN, Yu.N.; BRAYLOVSKIY, N.G., inzh., red.; MEDVEDEVA, M.A., tekhn. red.

[Advanced method for car inspection and repair in trains; experience of the technical inspection point of the Sverdlovsk-Sortirovochnaya Station of the Sverdlovsk Railroad] Peredovoi metod osmotra i remonta vagonov v poezdakh; opyt raboty punkta tekhnicheskogo osmotra stantsii Sverdlovsk-Sortirovochnyi Sverdlovskoi dorogi. Moskva, Transzheldorizdat, 1963. 39 p. (MIRA 17:3)

SIMONOV, P.P.

Some characteristics of steam generation during the evaporation of highly concentrated salt solutions. Trudy Azerb. ind. inst. no.17: 123-142 '57. (MIRA 11:9)

(Steam) (Sea-water)

10(4), 5(4)

AUTHORS: Makinskiy, I. Z., Simonov, P. P. SOV/152-59-3-19/25

TITLE: On the Problem of the Influence of the Salt Content of the Liquid on the Ascending Velocity of Gas and Vapor Bubbles (K voprosu o vliyanii solesoderzhaniya zhidkosti na skorost' pod"yema puzyr'kov gaza i para)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, 1959, Nr 3, pp 83-90 (USSR)

ABSTRACT: The experiments were partly carried out with single bubbles introduced from below from calibrated glass nozzles into a 1500 mm high glass tube filled with the liquid to be investigated, partly by bubbling up the surface of the liquid through boiling or pressing air through. Solutions with varying concentration of NaCl, Na_2SO_4, $MgCl_2$ and $MgSO_4$ were investigated. A number of experiments was carried out under the addition of isoamyl alcohol for the purpose of investigating the effect of surface-active substances. In order to determine the influence of insoluble colloids, disperse $Mg(OH)_2$ was formed out of an addition of NaOH and $MgSO_4$. With increasing NaCl-content

Card 1/4

the capability of the air bubbles to unite decreases and ceases at approximately 5 g/l so that a large number of fine, slowly ascending air bubbles forms. At a salt content of more than 25 g/l the capability of uniting returns and becomes especially conspicuous at contents over 40 g/l. For the ascending velocity w of a gas bubble the simplified formula $w = 3.63\sqrt{\frac{d}{k}}$ is set up (w = the ascending velocity in m/sec, d = the diameter of the gas bubble in m. V. Levich (Ref 3) suggested another formula: $w \simeq \frac{1}{36}\frac{d^2}{\mu}\gamma_{Fl}$ (γ_{Fl} = specific weight of the liquid, μ is not explained). Experiments showed that in the case of lower salt contents the ascending velocity follows the formula by Levich, in the case of higher salt contents, however, it passes over into the curve according to the first formula after a steep descend. The delay in velocity cannot only be explained by viscosity. Surface-active substances accumulate in the cover of the gas bubble and the velocity of

the bubble approaches that of a solid body. By proper dosing of isoamyl alcohol the velocity can be reduced to a constant value (~15 cm/sec), independent of the salt concentration; it will correspond to that of a solid ball. It is also possible to assume the solution to be a solution of water in salt. It becomes obvious that with increasing salt content the conditions of circumflowing deteriorate to begin with, later, however, as soon as the composition of the surface film approaches that of the liquid the effect of the salt content decreases. In the surface film a supersaturation occurs under the formation of insoluble colloids which reduce the velocity. In the case of bubbles of a diameter being more than 1 mm deviations occur as a result of deformation. On boiling, the bubbling also depends on the tendency of the vapor bubbles towards flowing together. NaCl shows with colloidal $Mg(OH)_2$ an intensified bubbling between 5-10 g/l, where flowing together ceases. The explanation for this: the colloidal parts form quasi-solid bubble covers which render flowing

On the Problem of the Influence of the Salt Content of the Liquid on the Ascending Velocity of Gas and Vapor Bubbles

together more difficult at certain salt concentrations. At higher salt contents the colloids coagulate, no formation of covers takes place and the bubbles can flow together again. The same problem had already been investigated by A. Frumkin, V. Levich, B. Gorodetskaya and others. The effect of substances solved out of the wall of the vessel was detected by T. A. Kryukova (Ref 4) and S. A. Durov (Ref 5). There are 6 figures, 2 tables, and 7 Soviet references.

ASSOCIATION: Azerbaydzhanskiy industrial'nyy institut im. M. Azizbekova (Azerbaydzha[illegible] Industrial Institute [illegible]eni M. Azizbekov)

SUBMITTED: December 22, 1958

[redacted], F. F., C[redacted] Tech Sci -- "Effect of high [redacted] of boiler water upon the performance of the water volume and the removal of salts with the steam." [redacted] Baku, 1958 (Min of Higher and Secondary Specialized Education USSR. Azerbaydzhan Order of Labor Red Banner Inst of Petroleum and Chemistry im M. Azizbekov). (KL, 1-61, 107)

MAKINSKIY, I.Z.; SIMONOV, P.P.

Supplying steam to petroleum refineries. Izv.vys.ucheb.zav.; neft' i gaz 3 no.2:87-94 '60. (MIRA 13:6)

1. Azerbaydzhanskiy institut nefti i khimii im. M.Azizbekova.
(Steam)

MAKINSKIY, I.Z.; SIMONOV, P.P.

Supplying steam to chemical plants and petroleum refineries.
Izv. vys. ucheb. zav.; neft' i gaz 5 no.3:75-78 '62.
(MIRA 16:8)

1. Azerbaydzhanskiy institut nefti i khimii imeni M. Azizbekova.

SIMONOV, P.P.; MAMEDOV, M.M.

Supplying steam to chemical plants and petroleum refineries. Izv.-vys.ucheb. zav.;neft' i gaz 5 no.5:85-88 '62. (MIRA 16:5)

1. Azerbaydzhanskiy institut nefti i khimii imeni M.Azizbekova i Azerbaydzhanskaya energeticheskaya sistema.
(Feed water) (Evaporating appliances)

SIMONOV, P.S.; VORONETS, V.S., nauchnyy red.; SKLIVANOV, V.A., red.izd-va; GOL'BERG, T.M., tekhn.red.

[Safety instructions for operators of motor-driven, rubber-tired, and crawler cranes] Pamiatka po tekhnike bezopasnosti dlia mashinista avtomobil'nykh pnevmokolesnykh i gusenichnykh kranov. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1960. 22 p. (MIRA 14:4)
(Cranes, derricks, etc.)

ACCESSION NR: AR4023358 S/0284/64/000/002/0028/0029

SOURCE: RZh. Voprosy* tekhnicheskogo progressa i organizatsii proizvodstva v machinostroyenii, Abs. 2.35.168

AUTHOR: Panov, V. D.; Simonov, P. V., Vul'fovich, E. A.

TITLE: A system for coding the blueprint data of parts in machine building which are solids of revolution

CITED SOURCE: Tr. Proyektn. tekhnol. i n.-i. in-ta. Volgo-Vyatsk. sovnarkhoz, vy*p. 2, 1963, 11-28

TOPIC TAGS: coding blueprint data. machine part coding, axially symmetric part, technological process automation, computer-controlled machine tools

TRANSLATION: In the automatic planning of technological processes, the memory (M) of the electronic computer (EC) receives in digital code information about the geometry and dimensions of each part together with the characteristics of its workpiece and other necessary data. By means of coding one prepares the algorithms and programs for the EC. The proposed coding system was developed

Card 1/3

ACCESSION NR: AR4023358

after an analysis of parts drawings prepared by the leading machine-building plants in Gor'kiy. To prevent inefficient use of the M, the authors established maximum parameters for certain initial data (particularly for the sizes of the workpieces and parts). Such limitations permitted the coding of drawings of gears, flanges, bushings, smooth and slitted axes, and shafts whose outer diameters and lengths do not exceed 4,000 mm, and which have no more than 15 outer and 7 inner surfaces. Only a few parts fail to meet these requirements. The coding system covers three groups of information. The first group contains information about the individual cylindrical and annular outer and inner surfaces, about the diameters and other linear dimensions, and about the accuracy and smoothness of the processed surfaces. The second group consists of information concerning the characteristics of individual surfaces or of such groups as, e.g., teeth, slits, key and other slots, grooves, threads, openings along directions other than the basic axis of the part, etc. This group include also information concerning the relative positions of various surfaces, their thermal treatment, etc. The third group includes information about the characteristics of the entire part, the changes in its mechanical properties, or external

Card 2/3

ACCESSION NR: AR4023358

appearance. A coded card is prepared for each part; it contains complete information about the part and its workpiece. All data from this card are transferred to punch cards or punched tape which is then fed into the M of the EC. The order of compiling the algorithm is given. There are 12 figures and 5 tables.
N. Prikhod'ko.

DATE ACQ: 06Mar64 SUB CODE: IE, ML ENCL: 00

Card 3/3

1. SLUCHEVSKIY, I. V.

2. USSR (600)

4. Sluchevskii, I. F.

7. Wrong concept of "higher nervous activity" which contradicts the philosophic basis of I. P. Pavlov's theory; comment on Professor I. F. Sluchaevskiy's article. Zhur. nevr. i psikh. 52, no. 11, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

[redacted], P. V.

AT-1336 /On the meaning of "higher nervous activity in man"/ O terminie "vyssheia nervnaia deiatel'nost'' cheloveka".
Voprosy Filosofii, (4): 213-215, 1953.

ZHGUN, A.A. (Moscow); SIMONOV, P.V. (Moscow)

Significance of individual peculiarities of higher nervous activity in selecting a sleep therapy method. Klin. med. 31 no.11:18-23 N '53. (MLRA 6:12)

(Sleep) (Nervous system)

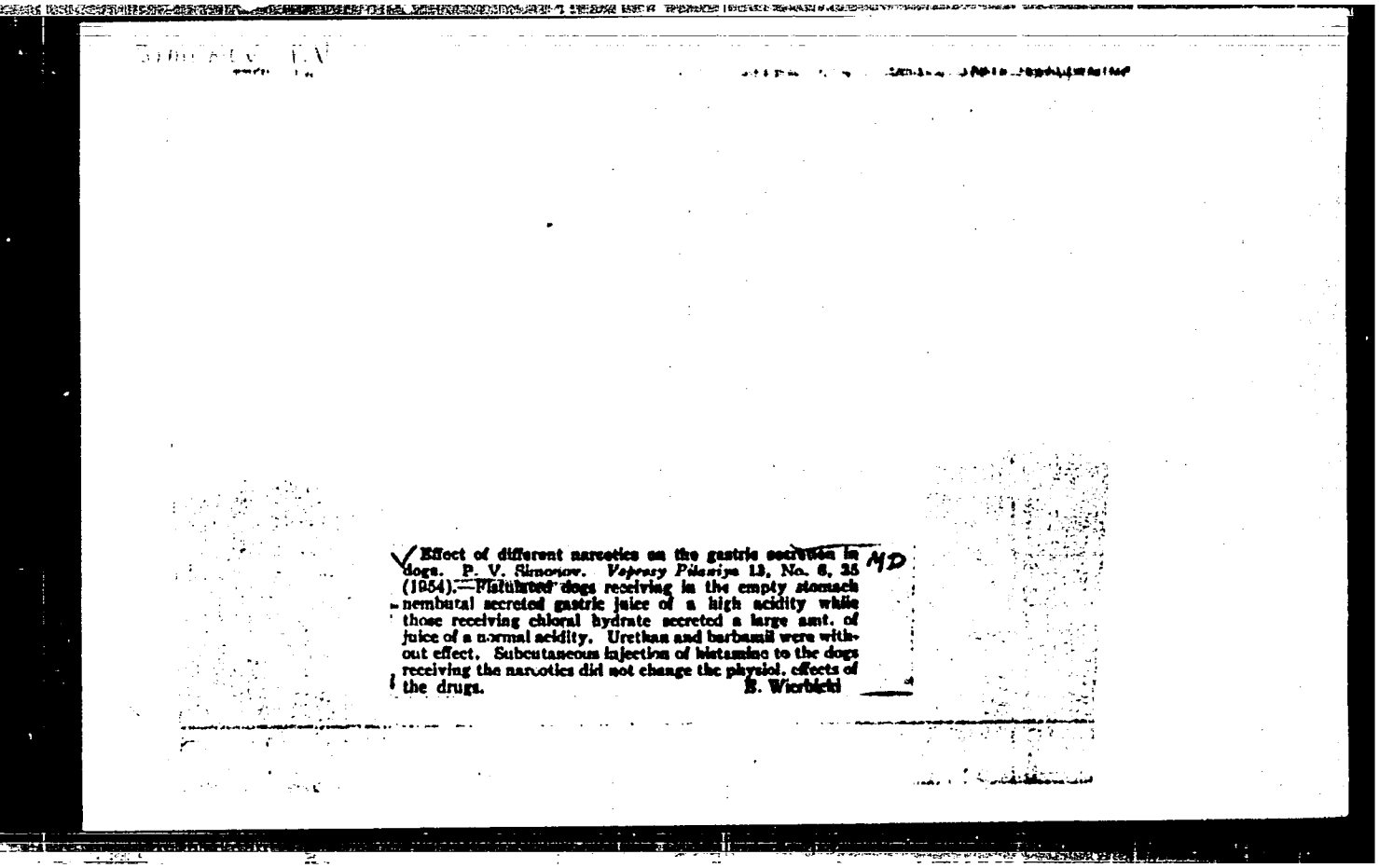
SIMONOV, P.V. (Moskva)

Experimental investigations on coditioned reflex sleep in rabbits. Zhur.vys.nerv. deiat. 4 no.4:551-557 Jl-Ag '54. (MLRA 8:3)

(REFLEX, CONDITIONED,
sleep prod. by conditioned reflex in rabbits)
(SLEEP,
conditioned reflex sleep in rabbits)

SIMINOV, P.V.

I.P.Pavlov's theory concerning the protective-salutary role of inhibition. Est.v shkole no.5:20-27 S-O '54. (MLRA 7:9)
(Inhibition)



✓Effect of different narcotics on the gastric secretion in dogs. P. V. Simonov. *Voprosy Pitaniya* 13, No. 6, 25 (1954).—Fistulated dogs receiving in the empty stomach nembutal secreted gastric juice of a high acidity while those receiving chloral hydrate secreted a large amt. of juice of a normal acidity. Urethan and barbamil were without effect. Subcutaneous injection of histamine to the dogs receiving the narcotics did not change the physiol. effects of the drugs. B. Wierbicki

MD

Simonov P. V.

USSR/Medicine - Pharmacophysiology FD-851

Card 1/1 Pub.30 - 2/18

Author : Simonov, P. V.

Title : The dependence of the action of soporifics on the functional condition of the central nervous system when this condition has been altered by the administration of caffeine

Periodical : Farm. i toks. 17, 10-14, Jul/Aug 54

Abstract : Research was conducted on the development of inhibition in rabbits and white mice when small (0.001-0.005 g), medium (0.01-0.05 g), and large (0.5g) doses of caffeine are administered prior to or simultaneously with soporifics. Different effects were obtained with various size doses. The time interval between injections was found to be significant. The results are illustrated by two actograph records, and two charts. Eight Soviet references are cited.

Institution : Physiology Laboratory (Director - Prof. E. A. Asratyan) of the Academy of Sciences USSR and Main Military Hospital imeni N. N. Burdenko

Submitted : --

Translation M-727, 25 Aug 55

"[illegible] the [illegible] of the Central Nervous System by a Typical Stimulant -- [illegible]." Cand [illegible] Sci, [illegible] Moscow State [illegible] Inst [illegible] I. V. [illegible]alin, Moscow, [illegible]. ([illegible], [illegible] 7, Feb 55)

SO: Sum. No. 631, 2[illegible] Aug 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14)

"Concerning the Influence of Cervical Vagosympathetic Novocain Blockade on the Course of Acute Radiation Sickness in Dogs," by A. N. Gamaleya, A. A. Gyurdzhiyan, A. A. Zhgun, and P. V. Simonov, Main Military Hospital imeni Academician N. N. Burdenko, Ministry of Defense USSR, Meditsinskaya Radiologiya, Vol 1, No 6, Nov/Dec 56, pp 3-5

Ten pairs of dogs were subjected to total X-ray irradiation by doses causing acute radiation sickness (600-700 r). Three to four hours after irradiation novocain blockade was produced by 30-70 ml of a freshly prepared 0.5% solution of novocain.

The results showed that cervical vagosympathetic novocain blockade did not exert any positive influence on the course of acute radiation sickness at a severe stage in dogs, and so cannot be regarded as a therapeutic agent in overcoming radiation injuries during the severe stage of acute radiation sickness. (U)

SUM. 1922

51. Effect of Ionizing Radiation on the Activity of Penicillin Studied

"The Effect of Ionizing Radiation on the Activity of Penicillin," by Col A. N. Gamaleya, Medical Service; Capt A. A. Gyurdzhian, Medical Service, Candidate of Medical Sciences; Capt P. V. Simonov, Medical Service, Candidate of Medical Sciences; and L. A. Belyayeva, Voyenno-Meditsinskiy Zhurnal, No 11, Nov 56, pp 33-36.

The presented data is based on clinical observations and animal experiments.

The following findings were obtained:

Desiccated penicillin and a solution of it in 0.5% novocain are resistant to the action of X-rays in doses from 100 to 100,000 r. Therapeutic doses of penetrating radiation do not lower the concentration of penicillin in the blood serum of irradiated patients. General external X-irradiation of a rabbit with a dose of 1,000 r does not lower the concentration of penicillin in the blood serum of the animal. The presence of radioactive phosphorus (P 32) and iodine (I 131) (beta and gamma irradiation) in doses from 10-20 mc (internal irradiation) does not reduce the concentration of penicillin in the blood serum of the experimental animal. (U)

Sum 1424

2969. SIMONOV P. V. Exp. Lab. of the N.N. Burdenko Army Hosp., Moscow *Significance of the functional state of the central nervous system for animal resistance to oxygen lack (Russian text)* Arkh. Patol. 1956, 18/5 (50—55) Tables 3

400 mice were used in experiments to study the influence of caffeine (I), bromide (II) and both together on oxygen lack. It was found that subminimal non-stimulating doses of I, II and I + II in certain doses prolong the survival of mice in oxygen lack. I does not show this protective action if injected after respiratory stimulation; in this case I + II is more effective than II alone. The reason for the protective action of subminimal doses of I, II and I + II is their inhibitory action on the CNS. The intensity of inhibition is of importance. Inhibition by injecton of subminimal doses of I, II and I + II lengthens survival. Supraliminal inhibition with large doses of I accelerates their death. References 13. Sbitneva — Moscow

SIMONOV P.V.

3985. SIMONOV P.V. * Justification of the application of pharmacotherapeutic methods in the treatment of pathological inertness of the excitatory process in the CNS (Russian text) Z.NEVROPAT.PSIKHIAT.(Mosk.) 1956, 56/1 (3)

A detailed study on the effects of caffeine and bromides was made. Not only is the proper dosage of importance but the typological characteristics of the patient's higher nervous activity must also be taken into consideration. The effects of small, medium and large doses are thoroughly explained. Observations were also made on rabbits under the influence of caffeine and bromides. Actograms taken on these occasions register the external manifestations of the cortical processes of excitation and inhibition. Subminimal doses of caffeine intensify inhibition. Medium doses of caffeine evoke protracted excitatory processes without subsequent inhibition. Bromides when applied independently increase and accelerate the excitatory process, but when administered in combination with subminimal doses of caffeine have the tendency of diminishing the excitation. From this it may be concluded that caffeine makes the focus of inert excitation susceptible to bromides and ensures the development of protective inhibition in the pathologic points, in the foci of excitation in accordance with Pavlov's theory.

Hádlík - Brno (VIII, 2)

SIMONOV, P.V.

The principles of pharmacotherapy in cases with focal obstruction of the stimulability of the central nervous system. P. V. Simonov. *Zhur. Nevropatol. i Psikhiatrii im. Korsakova* 56, 3-10('56).—Patients suffering from ulceration and hypertonicity were used as subjects. A cause and effect relation exists between the therapeutic properties of caffeine-Br^- mixts. with sleep-inducing substances and the ability of caffeine to augment the inhibiting effects of these therapeutic substances. It appeared as though the caffeine (1) renders the focus of obstructed stimulation susceptible to the action of the Br^- and the sleep-inducing drugs by heightening the body's functional mobility, (2) increases the specificity of the process of stimulation, and (3) augments the coming into play of the protective therapeutic inhibition. B. S. I.

1