

ACCESSION NR: AP4042499

S/0103/64/025/007/1134/1139

AUTHOR: Bakakin, A. V.; Bermant, M. A.; Yezerov, V. B.

TITLE: Application of systems with variable structure to the stabilization of a plant with changing parameters when displacement of a control element is constrained

SOURCE: Avtomatika i telemekhanika, v. 25, no. 7, 1964, 1134-1139

TOPIC TAGS: variable structure control system, plant stabilization, control system stability, second order differential equation

ABSTRACT: A study is made of the dynamics of an automatic control system with a variable structure. The system is described by a differential equation in the form

$$\ddot{\phi} - b(t)\dot{\phi} = a(t)\mu + F(t); \mu = u(\phi, \dot{\phi})K\omega,$$

where ϕ is the relative deviation of a controlled coordinate, μ is the relative deviation of the controller, $F(t)$ is a disturbing force, and K is a positive constant (gain factor) which is applicable to

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the stabilization of the unstable second-order plants with variable parameters. A phase representation of the system is given, from which it follows that the system is stable for arbitrary initial conditions and arbitrary values of K when there are no constraints upon μ . When μ is constrained by the condition $|\mu| < 1$, then it is shown that the control system is unstable for certain domains of initial conditions. It is shown how, in this case, by proper choice of gain factor K (of the controller), stability of the control system can be secured in the entire domain of variation of parameters of the controlled object and for arbitrary finite values of F. Orig. art. has: 5 figures and 14 formulas.

ASSOCIATION: none;

SUBMITTED: 25Apr63

ATD PRESS: 3070

ENCL: 00

SUB CODE: MA

NO REF SOV: 004

OTHER: 000

Card 2/2

L 2401-66 EWT(d)/EPF(n)-2/EWP(v)/EWP(k)/EWP(h)/EWP(l) IJP(c) WH/BC

ACCESSION NR: AP5022973 UR/0103/65/026/008/1336/1347 5/

62-501:519.25 03

AUTHOR: Bermant, M. A. (Moscow); Yemel'yanov, S. V.; Taran, V. A. (Moscow)

TITLE: The motion of variable structure systems under sliding conditions

SOURCE: Avtomatika i telemekhanika, v. 26, no. 8, 1965, 1336-1347

TOPIC TAGS: phase shifter, filter, automatic control system, automatic control design

ABSTRACT: Numerous papers have dealt in recent years with variable-structure automatic control systems in which the structure and regulator parameters vary in accordance with a chosen law as a function of the state of the system. Such systems (as well as those with discontinuously varying parameters) are capable of operating under sliding conditions. The present paper develops a general approach to the study of the dynamics of systems with variable structural analysis of systems with infinite amplifications and of relay systems developed by M. V. Meye-rov (Sintez struktur sistem avtomaticheskogo regulirovaniya vysokoy tochnosti, Fizmatgiz, 1959) and Ya. Z. Tsypkin (Teoriya releynykh sistem avtomaticheskogo regulirovaniya, Gostekhizdat, 1955). The authors discuss the choice of the

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switching function, the structural transformation of systems with variable structure, the equations of motions of such systems under sliding conditions, the existence conditions for sliding operations, the independence of the sliding motion of the systems on the parameters of the object, the use of switching phase-shifting filters, the transformation of the structure of the switching filters, the conditions for the existence of the sliding operation of systems with variable parameters containing switching filters, and the types of transient processes during sliding operation. Results show that the use of structural transformation methods, based on the analogy between the systems with variable structure and relay systems under sliding conditions, leads to a significantly simplified treatment of the variable systems under sliding conditions. Orig. art. has: 71 formulas and 4 figures.

ASSOCIATION: None

SUBMITTED: 18Mar64

ENCL: 00

SUB CODE: IE

NO REF SOV: 012

OTHER: 000

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Card 2/2

L 26067-66 EWP(k) /EWT(d)/EWP(h)/EWP(l)/EWP(v)

ACC NR: AP6004559

SOURCE CODE: UR/0103/66/000/001/0166/0184

AUTHOR: Bermant, M. A.; Boyarchenkov, M. A.; Epshteyn, V. I.

ORG: none

TITLE: The third all-union conference on automatic control (engineering cybernetics)

SOURCE: Avtomatika i telemekhanika, no. 1, 1966, 166-184

TOPIC TAGS: automatic control, scientific conference, cybernetics, automation, automatic control system, optimal automatic control, nonlinear automatic control system, pattern recognition, queueing theory, analog computer, remote control system, self adaptive control

ABSTRACT: The Third All-Union Conference on Automatic Control (Engineering Cybernetics) was held in Odessa (on board the ship "Admiral Nakhimov"), from 20 to 26 September 1965. Some 1100 Soviet scientists and 52 scientists from England, Bulgaria, Hungary, East Germany, Italy, Norway, the United States, Czechoslovakia, Finland, West Germany, Yugoslavia, and Japan attended the conference. Among the Soviet scientists were 20 academicians and corresponding members of the academy of sciences USSR and of the academies of Soviet republics, over 100 doctors of sciences, and some 400 candidates of sciences. In his introductory remarks at the plenary session, Academician V. A. Trapeznikov, director of the Institute of Automatics and Telemekhanics, reviewed the progress made during the past twelve years (since the Second All-Union Conference) in the theory of automatic control and its applications. He noted that the theory of automatic control, which once was a key discipline in automation, had become the

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UDC: 061.3(47):62-506.1

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ACC NR: AP6004559

general theory for controlling various complex processes and had acquired the name "engineering cybernetics." In a paper entitled "Automatic control and economics," presented at the plenary session, Trapeznikov stressed that theoretical studies in this field are intolerably far behind practical needs and proposed new economic criteria of automation. In a paper by Ya. Z. Tsypkin entitled "Adaptation, learning, and self-learning in automatic systems," also presented at the plenary session, the problems of adaptation and learning were analyzed from a certain unified point of view which made it possible to use the same approach to problems which earlier appeared to be quite distinct. The new concept presented, which is based on the iterative methods of stochastic approximations, made it possible not only to generalize the known results, but also to obtain new results in the fields of identification, control with incomplete information, etc. A large number of problems of adaptation and learning theory which require solution were formulated. Over two hundred scientific papers were presented in seventeen sessions. Papers presented at Session 1 dealt with formulation of new problems in the theory of multiloop and invariant systems and with wide application of new methods to the solution of classical problems of optimum control theory. A series of articles were dedicated to problems of optimum control of multiloop systems and to invariance and self-control problems in many-dimensional, essentially nonlinear, automatic systems. Attention

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ACC NR: AP6004559

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was paid to problems of the sensitivity of automatic control systems to external and parametric disturbances. The papers presented at Section 2 were concerned with frequency methods for studying the stability of continuous as well as discrete nonlinear systems, determining periodic regimes in many-dimensional nonlinear automatic control systems and systems with a variable structure. Almost all papers presented at Session 3 dealt with further development of statistical methods for the synthesis and analysis of control systems. Session 4 was dedicated to certain important particular problems of the well-established theory of optimum processes. In Session 5 two principal approaches to the solution of pattern recognition problem were presented: the probabilistic (statistical) and deterministic. Some papers dealt with comparisons of these two approaches. The papers presented in Session 6 were concerned with the following trends in the theory of discrete automatic control systems: 1) statistical dynamics of nonlinear discrete control systems; 2) stability and quality of nonlinear discrete systems; 3) methods for designing linear discrete systems. In Session 7 the majority of the papers were concerned with the synthesis of relay systems. Of particular interest were the papers on the synthesis of diagnostic systems and the reliability of relay devices. The papers presented in Session 8 (adaptive systems), dealt with 1) extremal systems and 2) systems with automatic adjustment of control parameters. In Session 9 (the application of computer technology to the control of manufacturing processes), the problems of selecting the parameters and the structure of computers for controlling continuous processes were analyzed. Session 10 was devoted to problems of the theory of designing large systems. The following main questions were considered: methods of Program Evaluation and Review Technique (PERT) systems, optimal distribution of time and resources in planes

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ACC NR: AP6004559

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of operation, and some problems of queueing theory. Session 11 was devoted to the problem of determining the characteristics and properties of control systems and their mathematical simulation (determining of equations describing the control plant). Session 12 dealt with applications of optimal and self-adapting systems to various manufacturing processes (chemical, metallurgical, mechanical). Great interest was shown in a paper by B. V. Vol'ter, I. Ye. Sal'nikov, and others entitled "Theoretical aspects of automatic control of polymerization reactors". Problems connected with establishing new principles for constructing the elements of automatic control on the basis of latest achievements in physics, chemistry, and biology and with developing new methods for designing and constructing these elements were analyzed in Session 13 (new elements). A large number of papers presented in Session 14 (devices for automation of manufacturing process) were concerned with various problems of automatic electric drives. The papers presented in Session 15 (methods and means for mathematical simulation were concerned mainly with the modern trends of designing analog computers and with problems of utilizing them in automatic control systems. Development of pneumatic elements for analog computers was also considered. Session 16 was primarily concerned with problems of the structural reliability of redundant systems and the reliability of elements. Various methods for estimating the reliability of systems and for developing redundant systems were presented. The papers of the last session were dedicated mainly to the theory and principles of designing complex remote control systems. Remote control systems with pneumatic elements were considered. [FSB: v.2, no.4]

SUB CODE: C9 / SUBM DATE: none

Card 4/4 CC

L 46028-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l) GD/BC

ACC NR: AT6017612 (N) SOURCE CODE: UR/0000/65/000/000/0126/0136

AUTHOR: Yemel'yanov, S. V.; Bermant, M. A.; Utkin, V. I.

54
B+1

ORG: none

14
TITLE: Construction of automatic control systems with variable structure and low sensitivity to rapid changes in a wide range of parameters of the controlled object

SOURCE: Vsesoyuznaya konferentsiya po teorii i praktike samonastraiivayushchikhsya sistem. 1st, 1963. Samonastraiivayushchiyesya sistemy (Adaptive control systems); trudy konferentsii. Moscow, Izd-vo Nauka, 1965, 126-136

TOPIC TAGS: nonlinear automatic control, automatic control parameter, *LINEAR AUTOMATIC CONTROL SYSTEM*

ABSTRACT: The paper proposes a direct method of calculating the control law of linear, second and third order control systems with variable parameters so that the dynamic properties of the systems remain unchanged. The transient response time is used as one of the system's dynamic criterions. The basic idea of the method is to find a subspace in the admissible state space of the system, such that the movement in it is independent of changes in the object parameters. By assuring that the system is stable in that subspace, and that for any initial state the system will get into that subspace, the problem would be solved. A direct solution, based on a controller with a variable structure is proposed. General formulas are derived and three examples are presented. Orig. art. has: 9 figures, 32 formulas.

SUB CODE: 13,12/ SUBM DATE: 22Nov65/ ORIG REF: 011

Card 1/1 *awm*

L 27547-66 EWT(d)/EWT(1)/EEC(k)-2/T/EWP(1)/EWA(h) IJP(c) BB/GG

ACC NR: AP6007598

SOURCE CODE: UR/0119/66/000/002/0031/0032

AUTHOR: Bermant, M. A. (Candidate of technical sciences); Boyarchenkov, M. A.
(Candidate of technical sciences) 75
65
B

ORG: none

TITLE: All-Union Conference on Engineering Cybernetics 16cSOURCE: Priborostroyeniye, no. 2, 1966, 31-32

TOPIC TAGS: cybernetics, cybernetics conference, computer design, miniaturization

ABSTRACT: Proceedings at the 3rd All-Union Conference on Automatic Control (Engineering Cybernetics), 20-26 September, 1965, in Odessa, are briefly reported. Over 200 reports were delivered before 1100 representatives of Soviet organizations, and a few foreigners (England, Bulgaria, Italy, Norway, USA, Finland, W. Germany, Japan, Yugoslavia, and Soviet Satellites). Academician V. A. Trapeznikov delivered a report on the "Automatic control and economics". Corresponding Member, AN SSSR, B. S. Sotskov reviewed the today's state of automatic and control systems and kindred problems. P. D. Lukovtsev and L. A. Sokolov described solions and their possible applications. L. A. Zalmanzon reported on the theory of jet pneumo automatic devices. Ye. V. Fudin spoke about pneumatic resistors and computers. M. A. Rozenblat -- magnetic operational elements. I. V. Prangishvili -- discrete logical and computing systems. M. A. Rakov, L. A. Sinitskiy, Yu. M. Shumkov, and

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ACC NR: AP6007598

10

V. P. Sigorskiy -- using multistable elements in automatic and computing equipment.
Ya. Ye. Belen'kiy and V. N. Mikhaylovskiy -- multiphase multivibrators. A. M. Baidas
-- ferromagnetic frequency multipliers. V. A. Viktorov -- level gages. N. P. Udalov
-- p-n-junction-based relays and temperature sensors. V. Yu. Kneller -- "Principles
of synthesizing of a-c-complex-quantity-to-number converters with coordinated digit
weighing". Doctor of technical sciences, D. V. Svecharnik -- combination selsyn.
R. K. Karpenko and G. Ya. Kabkov -- permanent-magnet stepping motors.

Org. art. has: no figures, formulas or tables.

SUB CODE: / SUBM DATE: none

Card 2/2 BLG

S. BERMAN, S.S.

5

Acid Refractory Mortar for Laying Silica Firebrick in High Temperature Furnaces. S. S. Berman. (Comptes Rendus (Doklady) de l'Academie des Sciences de l'U.R.S.S., 1946, vol. 64, pp. 803-804; British Abstracts, 1948, Section III, col. 75). The use of marshallite as an acid refractory mortar has been investigated. The most satisfactory mortar had the composition: ground quartzite 85%, marshallite 15%; sulphite-pulp wastewater (sp.gr. 1.26) 3% should be added. The mortar has been tested in an open-hearth furnace, and shows the following characteristics: absence of flowing of fused mortar from the joints of the arch, sintering of the mortar with the SiO₂ bricks resulting in the formation of a monolithic structure, less permeability of the arch to gases as compared with the arch when laid dry, and increase in time of furnace life.

650-514 METALLURGICAL LITERATURE CLASSIFICATION

150000 579 0000

TECHN. DIVISION

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BERMANT, Ye. Ye., inzh.; KUZNETSOV, M.S., inzh.

Planning and accounting of railroad haulage and wage system
for car shunting brigades. Stal' 21 no.6:563 Je '61.

(MIRA 14:5)

1. Zavod "Zaporozhstal".
(Railroads, Industrial—Accounting)
(Metallurgical plants—Equipment and supplies)

BERMANT, Ye.Ye., inzh.

Investigating the organization of industrial processes at the
"Zaporozhstal'" Plant. Stal' 23 no.1:90-94 Ja '63. (MIRA 16:2)

1. Zavod "Zaporozhstal'".
(Zaporozh'ye—Iron and steel plants—Management)
(Industrial organization)

BERMANT, Ye.Ye.

Economic analysis of the performance of an experimental
open-hearth furnace at the Zaporozhstal' Plant. Met. i
gornorud. prom. no.6:25-27 N-D '64.

(MIRA 18:3)

KORNEYEV, M.I., VASIL'YEV, I.V., kand. tekhn. nauk; BERMATOV, M.A., inzh.

Block of a 150 Mw. central heating steam-gas power unit. Teplo-energetika 12 no.2:12-15 F '65. (MIRA 18:3)

1. Tsentral'nyy kotloturbinnyy institut.

BERMEL', A. Ye.

Occupational bronchial asthma. Sov.med. 25 no.1:116-121 Ja '62.

(MIRA 15:4)

1. Iz kafedry obshchey i gospital'noy terapii (zav. -- deystvitel'nyy chlen AMN SSSR prof. Ye.M.Tareyev), sanitarno-gigiyenicheskogo fakul'teta I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova i kliniki (zav. - prof. A.L.Morozov) Instituta gigiyeny truda i professional'nykh zabolevaniy AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. A.A.Letavet).

(ASTHMA)

(OCCUPATIONAL DISEASES)

BERMENSEN, B., inghener.

Hydraulic mechanization in strip mining. Mast. ugl. 5 no.3:
12-14 Mr '56. (MLBA 9:7)

1. Nachal'nik Korkinskoy kontory gidromekhanizatsii.
(Chelyabinsk Basin--Strip mining) (Hydraulic mining)

PROSKURYAKOV, A.V., kand.tekhn.nauk, red.; POPOV, I.V., kand.ekonom.nauk, red.; TOMASHPOL'SKIY, L.M., kand.ekonom.nauk, red.; GOLOVINSKIY, G.P., kand.tekhn.nauk, red.; SOKOLOV, Yu.S., kand.ekonom.nauk, red.; CHUTKERASHVILI, Ye.V., kand.ekonom.nauk, red.; BERMEN'YEVA, S.I., red.; ZAKHAROVA, L.S., red.; KOLCHINA, V.I., red.; POSPELOV, Yu.S., red.; SMERTINA, N.I., red.; SOBOLEVA, N.M., tekhn.red.

[Great Britain; economic survey] Velikobritaniia; ekonomicheski
obzor. Moskva, 1960. 658 p. (MIRA 13:5)

1. Moscow. Vsesoyuznyy institut nauchnoy i tekhnicheskoy infor-
matsii.

(Great Britain--Economic conditions)

OSTROUMOV, Vladimir Pavlovich; KARPUNIN, Vasilii Aleksandrovich; BERMISHEV, A.V., kand. tekhn. nauk, retsenzent; VOLKOV, S.D., kand. Fiz.-mat. nauk, red.; DUGINA, N.A., tekhn. red.

[Increasing the dynamic strength of springs] Povyshenie dinamicheskoi prochnosti pruzhin. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 110 p. (MIRA 14:10)
(Springs (Mechanism))

BERMUKHANOV, Sh.

Underground observations of a natural electric field. Izv.
vys. ucheb. zav.; geol. i razv. 7 no.12:116-118 D '64.
(MIRA 18:12)

1. Institut geologii AN Kirgizskoy SSR.

"APPROVED FOR RELEASE: 06/08/2000

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APPROVED FOR RELEASE: 06/08/2000

CIA-RDP86-00513R000205010017-5"

L 34005-66 ENT(d) IJR(c)
ACC NR. AR6017265

SOURCE CODE: UR/0058/65/000/012/H003/H003

28
B

AUTHOR: Bernachuk, M. B.

TITLE: Quasiharmonic oscillations of some nonlinear conservative systems

SOURCE: Ref. zh. Fizika, Abs. 12Zh16

REF SOURCE: Tr. uchebn. in-tov svyazi. M-vo svyazi SSSR, VYP. 22, 1964, 97-106

TOPIC TAGS: nonlinear vibration, quasiharmonic signal, nonlinear differential equation, differentiating circuit

ABSTRACT: The author considers nonlinear oscillating conservative systems in the case when the nonlinear element is an oscillation amplitude limiter (amplifier), and the reactive elements are linear. Exact solutions of differential equations of sixth order, describing the processes in certain systems of this type, consisting of an amplifier-limiter and differentiating networks are obtained. The characteristic of the nonlinear element is represented in the form of a high-degree polynomial. It is assumed that the differentiating networks differentiate in ideal fashion. The exact solution of the nonlinear equations is obtained by using quasiharmonic functions. An important property of the quasiharmonic functions is that they satisfy nonlinear differential equations. Formulas are obtained for the amplitude and period of oscillations. The period of the oscillations depends on the gain, and the amplitude of the oscillations on the gain and on the limitation coefficient. T. Yastrebtseva.

[Translation of abstract]

SUB CODE: 09/

L 39509-66 GD

ACC NR:AR6012298

SOURCE CODE: UR/0274/65/000/010/A010/A010

AUTHOR: Bernachuk, M. B.

3
B

TITLE: Quasi-harmonic oscillations in some nonlinear conservative systems

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz', Abs. 10A66

REF SOURCE: Tr. uchebn. in-tov svyazi. M-vo svyazi SSSR, vyp. 22, 1964, 97-106

TOPIC TAGS: oscillation, nonlinear theory

ABSTRACT: A generalized problem is considered of exciting the oscillations in a closed circuit that comprises a nonlinear amplifier-limiter and a linear quadripole exactly differentiating the input voltage $2n$ times ($n = 1, 2, 3, \dots$). Exact solutions of high-order nonlinear differential equations of such conservative systems are found; the form, period, and existence conditions of stationary oscillations are determined. The results may be useful for studying high-order equations in which, in addition to conservative terms, other terms due to inexact differentiation of a linear quadripole exist. Three figures. Bibliography of 3 titles. L. S.
[Translation of abstract]

SUB CODE: 09, 12

Card 1/1 vmb

UDC,538.56:621,372.061

L 02240-67 EWT(d)/T IJP(c)

ACC NR: AR6013682

SOURCE CODE: UR/0058/65/000/010/H003/H003

AUTHOR: Bernachuk, M. B.

30
B

TITLE: Use of a linear-power series for the description of discontinuous oscillations in generalized circuits

SOURCE: Ref. zh. Fizika, Abs. 10Zh19

REF. SOURCE: Tr. Uchebn. in-tov svyazi, vyp. 25, 1965, 67-76

TOPIC TAGS: nonlinear differential equation, approximate solution, series, oscillation, circuit design

ABSTRACT: A procedure is developed for solving nonlinear differential equations of generalized circuits, by expanding the solution of a linear-power series. Continuity conditions are imposed on the auxiliary function and its continuous derivatives, while discontinuity conditions are imposed on the discontinuous derivatives. This makes it possible to determine the coefficients of the series, the period of the oscillations, and the conditions of self-excitation. The solution procedure is illustrated with examples. [Translation of abstract]

SUB CODE: 09,12

Card 1/1

tdh

BERNACIAK, P.

Organization of repairs in Czechoslovak electric-power plants. p. 37.

ENERGETYKA. (Ministerstwo Gornictwa i Energetyki oraz Stowarzyszenie Elektrykow Polskich) Bytom, Poland.
Vol. 13, no. 2, Feb. 1959.

Monthly list of East European Accessions Index (EEAI), LC, Vol. 8, no. 6,
June 1959
uncla.

MANDYBUR, Kazimierz, mgr inz.; ~~BERNACIK, Antoni, mgr inz.~~

Testing of high-strength concrete reinforcing rods and wire rods made of low-alloy steels; A-III [Q min 40 kG (mm²) type hot-rolled wire rods. Biul inf inst metal zel no.2: 1-7 '64.

1. Division of Standards and Technical Elaboration of Technological Problems of the Institute of Iron Metallurgy, Gliwice.

TULCZYNSKI, Marian; BORON, Piotr; BERNACKA, Krystyna; BERNACKI, Eugeniusz

Studies on the hemopoietic system and of peripheral blood in patients operated under hypothermia. Polski przegl. chir. 31 no.1: 29-34 Jan 59.

1. Z I Kliniki Chorob Wewnętrznych A.M. w Białymstoku Kierownik: prof. dr M. Tulczynski i z II Kliniki Chirurgicznej A.M. w Białymstoku Kierownik: prof. dr T. Jankowski. Adres autora: Warszawa, ul. Lekarska 11.

(HYPOTHERMIA, eff.
on blood (Pol))

(BLOOD CELLS,
picture, eff. of hypothermia (Pol))

(HEMOPOIETIC SYSTEM, physiol.
eff. of hypothermia (Pol))

POLAND

BERNACKA, Krystyna and ZAGORSKI, Michal; First Clinic of Internal Diseases (I Klinika Chorob Wewnetrznych) of the AM [Akademia Medyczna, Medical Academy] in Bialystok (Director: Docent Dr med Beata BOGDANIKOWA) and the Radiology Department (Zaklad Radiologii) of the Wojewodztwo Hospital (Szpital Wojewodzki) im. J. Sniadeckiego (Director: Docent Dr. med. Stanislaw BOCZON)

"Pericardial Cyst. Case Report."

Warsaw, Polski Tygodnik Lekarski, Vol 18, No 18, 29 Apr 63, pp 627-629.

Abstract: [Authors' English summary] Authors describe a case of a cyst of the pericardium, located in the right diaphragmatic-pericardial corner, which had eluded medical detection one year before. In the differentiation, the authors considered echinococcus of the pericardium, tuberculoma of the lung, aneurysm of the heart, malignant tumor of the mediastinum, and granuloma of the mediastinum. There are 23 references, half in Polish, one in Russian, two in German, and the others to Western sources.

1/1

BOGDANIKOWA, Beata; DROZD, Jadwiga; BERNACKA, Krystyna

Immuno-electrophoresis of serum proteins soluble in perchloric acid. Pol. arch. med. wewn. 35 no.7:939-943 '65.

1. Z I Kliniki Chorob Wewnętrznych AM w Białymstoku (Kierownik: doc. dr. med. B. Bogdanikowa).

BERNACKA, Krystyna; KOSSAKOWSKI, Dominik

Anti-rheumatic drugs and acute phase tests in the treatment of chronic progressive rheumatism. Reumatologia (Warsz.) 2 no.3: 255-260 '64.

1. Z I Kliniki Chorob Wewnętrznych Akademii Medycznej w Białymstoku (Kierownik: doc. dr B. Bogdanikowa).

BOGDANIKOWA, Beata; BERNACKA, Krystyna; DROZD, Jadwiga

Immunoelectrophoresis of serumcoids in patients with progressive chronic polyarthrititis. Pol. arch. med. wewnet. 35 no.9:1319-1324 '65.

1. Z I Kliniki Chorob Wewnetrznych AM w Bialymstoku (Kierownik: doc. dr. B. Bogdanikowa).

COUNTRY : Poland T
CATEGORY : Human and Animal Physiology, Thermoregulation
ABS. JOUR. : Rebiol., No. 5 1959, No. 21860
AUTHOR : Bernacki, E.
INST. :
TITLE : Hypothermia in the Light of Clinical Observations.
ORIG. PUB. : Polski tygod. lekar., 1958, 13, No. 18, 667--671
ABSTRACT : No abstract

Card: 1/1

BERNACKI, Eugeniusz

Behavior of quantitative aspects of circulating blood, hematocrit and erythrocyte count in hemorrhage from the upper segment of the digestive system. Polski przegl. chir. 30 no.5:469-471 May 58.

(GASTROINTESTINAL SYSTEM, hemorrhage,

upper segment, blood volume, hematocrit & erythrocyte count changes (Pol))

BERNACKI, Eugeniusz (Białystok, ul. Sienkiewicza 2 m. 20)

Malignant fibroma of the anterior abdominal wall. Polski tygod.
lek. 14 no.18:821-823 4 May 59.

1. (Z II Kliniki Chirurgicznej A. M. w Białymstoku; kierownik:
prof. dr med. T. Jankowski).

(ABDOMINAL WALL, neoplasms

fibroma of anterior wall, case report (Pol))

(FIBROMA, case reports

anterior abdom. wall. (Pol))

TULCZYNSKI, Marian; BORON, Piotr; HERNACKA, Krystyna; BERNACKI, Eugeniusz

Studies on the hemopoietic system and of peripheral blood in patients operated under hypothermia. Polaki przegl. chir. 31 no.1: 29-34 Jan 59.

1. Z I Kliniki Chorob Wewnętrznych A.M. w Białymstoku Kierownik: prof. dr M. Tulczynski i z II Kliniki Chirurgicznej A.M. w Białymstoku Kierownik: prof. dr T. Jankowski. Adres autora: Warszawa, ul. Lekarska 11.

(HYPOTHERMIA, eff.
on blood (Pol))

(BLOOD CELLS,
picture, eff. of hypothermia (Pol))

(HEMOPOIETIC SYSTEM, physiol.
eff. of hypothermia (Pol))

BENDARZEWSKI, Stanislaw; BERNACKI, Eugeniusz; STOCKI, Adam

Protein metabolism disorders in older patients during the treatment of fractures (preliminary communication). Chir.narz.ruchu ortop. polska 25 no.5:439-41 '60.

1. Z II Kliniki Chirurgicznej A.M. w Białymstoku, Kierownik: prof.dr T. Jankowski; Z Zakładu Urazowo-Ortopedycznego Studium Doskonalenia Lekarzy, Kierownik: prof.dr S. Lukasik; Z Laboratorium Szpitala Miejskiego nr 4 w Warszawie, Kierownik: dr C.Karwowski.

(BLOOD PROTEINS)

(FRACTURES in old age)

BERNACKI, Eugeniusz

The total volume of the blood and content of some of its components in normal subjects. Acta physiol. pol. 14 no.3:329-337 '63.

1. Z II Kliniki Chirurgicznej AM w Białymstoku Kierownik: prof. dr T. Jankowski.

(BLOOD VOLUME DETERMINATION)
(BLOOD PROTEINS) (BLOOD CELLS)
(HEMATOCRIT) (PLASM) (COLORIMETRY)
(DYE DILUTION TECHNIC)

POLAND

BERNACKI, E.; The Second Surgical Clinic AM (Academy of Medicine),
Bialystok (Z II Kliniki Chirurgicznej AM w Bialystoku).

"Evaluation of the Protein Reserve in the Treatment of Haemorrhages."

Warsaw, Polski Tygodnik Lekarski, Vol 17, No 52, 24 Dec 62, pp 2052-2055

Abstract: [Author's English summary modified / Protein deficiency has been demonstrated in 44 patients who had been admitted to the hospital because of acute haemorrhage from the upper part of the digestive tract. This deficiency could be shown only by determination of the total circulating protein, and not by the determination of the plasma protein alone. Plasma deficiency was noted in all patients with protein deficiency. The above condition was easier to compensate for in patients who had been operated on. This article contains four diagrams, four tables and ten references. Four of the references are Polish.

A/1

BERNACKI, Eugeniusz; DOWGIRD, Adam; SIERKO, Stanislaw

Hemodynamic differences and their relation to the source
of bleeding in experimental hemorrhage. Pol. przezl. chir.
35 no.10/11:1039-1041 '63.

1. Z II Kliniki Chirurgicznej AM w Bialymstoku Kierownik:
prof. dr T. Jankowski.

(BLOOD PRESSURE) (HEMORRHAGE, GASTROINTESTINAL)
(HEMOGLOBINOMETRY) (HEMATOCRIT)
(BLOOD PROTEINS)

BERNACKI, Eugeniusz; PASZKO, Wacław

Blood protein composition during the treatment of hemorrhagic
gastric and duodenal ulcers. Pol. tyg. lek. 20 no.4:129-131
25 Ja '65

1. Z II Kliniki Chirurgicznej Akademii Medycznej w Białymstoku
(Kierownik: prof. dr. med. Tadeusz Jankowski) i z I Kliniki
Chorob Wewnętrznych Akademii Medycznej w Białymstoku (Kierow-
nik: doc. dr. med. Beata Bogdanikowa).

BERNACKI, Eugeniusz; TYSZKIEWICZ, Stanislaw

A case of isolated tuberculosis of the gallbladder. Gruzlica
33 no.2:149-151 F '65

1. Z II Kliniki Chirurgicznej (Kierownik: prof. dr. med.
T. Jankowski) i z Zakładu Anatomii Patologicznej (Kierownik:
prof. dr. med. L. Komczynski) Akademii Medycznej w Białym-
stoku.

PTA

6

1482

631.312.053

Bernacki H. IMIER Type Plough Bodies.

"Korpusy pluga konstrukcji IMIER". Mechanizacja i Elektryfikacja Rolnictwa. No. 7-8, 1951, pp. 30-34, 8 figs.

Review of the theory of the function of a plough. Analysis of the work of tractor ploughs hitherto in use. Qualities required of the new type of plough. Short description of the mouldboard construction of the new type of plough. Analysis of the work of the new

plough, as compared with other types of ploughs hitherto in use, from the point of its efficiency in turning over, crumbling up and compounding the furrow slice, as well as of the neatness of the furrow and saving in tractive power.

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205010017-5

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205010017-5"

BERNACKI, H.

"Testing the Ostoja Meadow Flow," P. 85. (ROCZNIKI NAUK ROLNICZYCH, Vol. 66,
No. 2, 1953. Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,
No. 1, Jan. 1955 Uncl

BERNACKI, H.

AGRICULTURE

PERIODICAL: ROCZNIKI NAUK ROLNICZYCH VOL. 67, no. 3, 1958

BERNACKI, H. The problem of the speed of plowing. p. 357.

Monthly List of East European Accessions (EEAI) LC, Vol 8, no 4.
April 1959, Unclass

BERNACKI, I.

The problem of water in Rumania. p. 101
(HIDROTEHNICA. Vol. 2, no. 3, May/June 1957, Rumania)

SO: Monthly List of East European Accessions (EEAL) IC. Vol. 6, No. 12, Dec. 1957
Uncl.

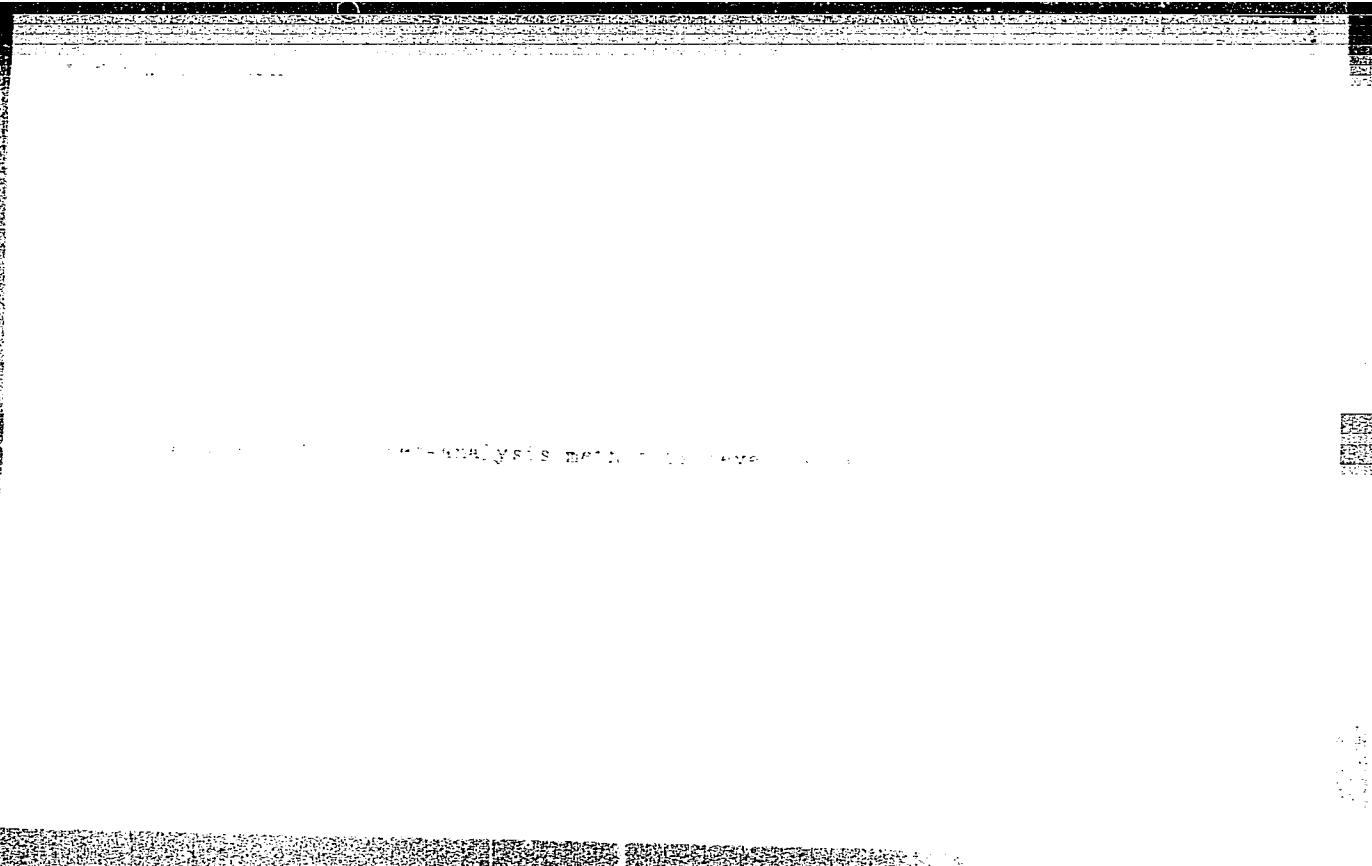
BERNACKI, K.; HERMANOWICZ, W.; SIKOROWSKA, C.

Neutralization of chlorophenol taste and odor by the use of chlorine dioxide at the Stettin waterworks. p. 145

GAZ, WODA I TECHNIKA SANITARNA. (Stowarzyszenie Naukowo-Techniczne Inzynierow i Technikow Sanitarnych, Ogrzewnictwa i Gazownictwa) Warszawa, Poland. Vol. 33, No. 3, March 1959.

Monthly List of East European Accession (EEAI) LC, Vol. 8, no. 7, July 1959

Uncl.



WEILNE LEICHER, Zsuzsa, dr.; BERNAD, Ilona, dr.; VACZO, Gyorgy, dr.

Use of passage-precipitating substances in the examination of
the digestive tract. Orv. hetil. 106 no. 26:1223-1225 27 Je'65.

1. Fovarosi Istvan Korhaz, Rontgenosztaly (foorvos: Weilne
Leicher, Zsuzsa, dr.).

GYURU, Geza, dr.; BERNAD, Ilona, dr.

A case of intrathoracic duplication of the esophagus, stomach and small intestine. Magy radiol. 14 no.1:40-44 Ja '62.

1. Fovarosi Istvan Korhas (igazgato: Katona Istvan dr.) Rentgenosztalyanak (foorvos: W. Lechner Zsuzsa dr.) kozlemenye.

(GASTROINTESTINAL SYSTEM abnorm)

CSABA, Gy.; BERNAD, Iren

The formation of thymus cysts and hassall's corpuscles in model experiments. Acta morph. acad. sci. hung. 11 no.4:403-414 '62.

1. Department of Histology and Embryology, University Medical School,
Budapest (Director: Prof. I. Toro).
(THYMUS GLAND) (TRANSPLANTATION)

CSABA, G.; TCRJ, I.; BERNAD, Iren; FISCHER, J.

The immunological competence of the thymus and spleen in newborn and adult rat. Acta biol. acad. sci. Hung. 14 no.4:301-309 '64.

1. Department of histology and embryology (Head: I. Toro), Medical University of Budapest, and biometrical division, mathematical research institute (Head: I. Juvancz), Hungarian Academy of Sciences, Budapest.

L 38570-66 EWP(v)/EWP(k)/EWP(h)/EWP(l)

ACC NR: AP6027693

SOURCE CODE: CZ/0057/66/000/004/0164/0165

AUTHOR: Bernad, Karel (Engineer; Ostrava)

16
B

ORG: none

TITLE: New design of a mechanical crusher of metal shavings

SOURCE: Hutnik, no. 4, 1966, 164-165

TOPIC TAGS: metallurgic machinery, blast furnace

ABSTRACT: Metal particles charged to blast furnaces must be crushed to a small size. A drum crusher designed at the Nova Hut works is described. The important feature of the design is that the 2 rotating drums move at different speeds in opposite rotations. The design is protected by Czechoslovak Patents No. 96375 and 102119. The material from which the drums are made is Cr-Mn steel. Maximum size of the materials fed to the crusher is 20 x 20 x 200 mm. The throughput of the unit is 60-115 tons in 8 hours. Orig. art. has: 3 figures. [JPRS: 36, 646]

SUB CODE: 13 / SUBM DATE: none

Card 1/1 FV

ZHUKOV, A.I.; BERNAD, V.V.

All-purpose unit for the odorization of gas in a gas pipeline.
Gaz. daln no.6:20-23 '64. (MIRA 17:8)

1. Krasnodarnefteproyekt.

BERNAD, V.V......

Preventing the formation of ice plugs in the tanks of railroad loading
ramps. Transp. i khran. nefti i nefteprod. no.11:17-19 '64.

(MIRA 18:1)

1. Krasnodarnefteproyekt.

BERNADINER, Ber Moiseyevich

(Voronezh State U), Academic degree of Doctor of Philosophical Sciences, based on his defense, 16 November 1954, in the Council of the Inst of Philosophy Acad Sci USSR, of his dissertation entitled: "Marxism-Leninism and the role of the popular masses in the development of society" and academic title of Professor. Chair: "Philosophy."

Academic degree and/or title: Doctor of Sciences and Professor

SO: Decisions of VAK, List no. 24, 26 Nov 55, Byulleten' MVO SSSR, No. 20, Oct 57, Moscow, pp 22-24, Uncl. JPRS/NY-471

38049. BERNADINER, G.

Perevozki kirpicha i shlakoblokov v konteynerakh. Myas. industriya SSSR,
1949, No. 6, s. 71-73.

1. NEKRASOV, A. D. and HERNADINER, G. P.
2. USSR (600)
4. Tanks
7. Construction of an underground sedimentation tank. Engs. Biul.stroi.tekh.
9 no. 22, 1952.

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

1. BERNADINE, G., NEKRASOV, A., ENG.
2. USSR (600)
4. Accidents. - Prevention
7. Safety engineering on the construction of, Mas. ind. SSSR, 23. No. 5, 1952

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Uncl.

~~BERNADINER, Grigoriy Petrovich; GORBATOV, Vladimir Ivanovich; BARANOV, L.A.,~~
redaktor; ~~YEVSEYeva, M.V.,~~ redaktor izdatel'stva; ~~NAGISHKINA, T.M.,~~
tekhnicheskiy redaktor

[Safety engineering in roofing work] Tekhnika bezopasnosti pri
proizvodstve krovel'nykh robot. Moskva, Gos.izd-vo lit-ry po
stroit. i arkhitekt., 1957. 21 p. (MIRA 10:8)
(Roofing--Safety measures)

~~BERNADINER, Grigoriy Petrovich; GORBATOV, Vladimir Ivanovich; YEVSEYEVA, M.V.,~~
redaktor izdatel'stva; STEPANOVA, E.S., tekhnicheskiy redaktor

[Safety manual for earthwork] Tekhnika bezopasnosti pri proizvodstve
zemlianykh rabot. Moskva, Gos.isd-vo lit-ry po stroit. i arkhit.,
1957. 31 p. (MLRA 10:9)
(Earthwork--Safety measures)

ROVENSKIY, I.I.; inzh.; BERNADO, V.F.; inzh.

Hardening nodules of iron ore concentrates: Met: i gornorud: prom: no:
3:56-57 MyOJe '63: (MIRA 17:1)

i: Krivorozhskiy institut "Mekhanobrechermet".

PERKATA KAYA I G

1962

BERNADSKAYA, L. G.

USSR/Geology

Card 1/1

Author : Bernadskaya, L. G.; Lapchik, F. E; and Usenco, I. S.

Title : Effusers of Chernigov region (Dneper - Don depression)

Periodical : Dokl. AN SSSR, 95, 6, 1279 - 1282; 21 Apr 54

Abstract : The article tells about a lately discovered effusive stratum of soil under Dneper-Don river basin. The stratum rests on the pre-Cambrian crystalline base; its effusive thickness lies 1587-2751 meters deep. Petrographic and petrochemical analyses show the stratum to have great similarity with an Upper-Devonian stratum of the river Mokraya Volnovakha. This indicates that both strata formed about the same time.

Institution :

Submitted : 16 Feb 54

BERNADSKAYA, L. G.

6P
 Amphibole asbestos from Krivof Rog. Ya. N. Belevtsev, L. G. Bernadskaya, and I. S. Usenko. *Doklady Akad. Nauk S.S.S.R.* 104, 470-3 (1955).—Veinlets of cummingtonite-riebeckite fibers of 1 to 2 mm. length are abundantly developed in the amphibole-magnetite rocks of the Krivof Rog Fe ore deposits. Real asbestos is locally observed in veinlets with fibers of 5-15 mm. rarely up to 25 or even 50 mm. length. The mineral is of silver-gray or somewhat yellowish color, sporadically interspersed with blue riebeckite. The fibrous aggregates show apparently linear extinction. Quartz is often intergrown parallel to the fibers, and also idiomorphic crystals of magnetite are typical. D. of the amphibole is 3.34; $\gamma = 1.698$ to 1.702; $\alpha = 1.674$ to 1.678; $\gamma - \alpha = 0.024$; optically neg. The analysis corresponds to the crystallochem. formula $(Na_{0.1}Ca_{0.9})(Mg_{0.8}Fe_{1.2}Fe^{3+}_{0.1})_2(Al_{0.5}Si_{1.5}Fe^{3+}_{0.5}O_{10})(O_{10}OH_{1.5})$, i.e. of an Fe-rich cummingtonite. The low content in alkalis (only 0.23%) is in contrast to the high content in riebeckite, a typical Na-Fe³⁺ amphibole. The spectrochem. examn. established at accessory and trace elements: Cu, Zn, Ni, Ga, Sn. The x-ray analysis of powder diagrams of the cummingtonite asbestos is different from that for other cummingtonites from Krivof Rog and from Utterevik. The differential-thermal analysis curves show exothermic effects at 620 and 810°. The latter effect is evidently caused by an intense oxidation of the FeO in the silicate. The metasomatic-hydrothermal genesis of the asbestos of Krivof Rog is evident. W. F.

(2)

BERNADSKAYA, I.G. [Bernads'ka, I.H.]; LEBEDEV, T.S. [Lebedev, T.S.]

Rocks of the crystalline foundation of the Narovlya area
(Pripet Depression). Geol.zhur. 18 no.5:47-54 '58.
(MIRA 12:1)
(Narovlya region--Rocks, Crystalline and metamorphic)

USENKO, I.S.; BERNADSKAYA, L.G. [Bernads'ka, L.H.]; KOTLOVSKAYA, F.I.
[Kotlovs'ka, F.I.]

New data on the determination of the absolute age of post-Pro-
terozoic effusive rocks. Geol.szhur. 18 no.5:83-88 '58.
(MIRA 12:1)

(Geological time)

(Rocks, Igneous)

BERNADSKAYA, L. G.

Cand Geol-Min Sci, Diss -- "Volcanic rocks of the Dneprovsko-Donetsk depression". Kiev, 1961. 22 pp with diagrams, 21 cm (Min of Higher and Inter Spec Educ RSFSR. Kiev Order of Lenin State U imeni T. G. Shevchenko), 220 copies, Not for sale (KL, No 9, 1961, p 178, No 24292).
/61-52334/

BERNADSKAYA, Lyudmila Genrikhovna; SOBOLEV, V.S., akademik, otv.red.;
CHEKHOVICH, N.Ya., red.isd-va; RAKHLINA, N.P., tekhn.red.

[Volcanic rocks in the Dnieper-Donets Lowland] Vulkanicheskie
porody Dneprovsko-Donetskoi vpadiny. Kiev, Izd-vo Akad.nauk
Ukrainskoi SSR, 1961. 189 p. (Akademia nauk URSR, Kiev, Institut
geologichnykh nauk. Trudy no.12). (MIRA 14:12)
(Dnieper-Donets Lowland---Rocks, Igneous)

USENKO, I.S.; BERNADSKAYA, L.G. [Bernads'ka, L.H.]; LAS'KOV, V.A.
[Las'kov, V.O.]

Metallogeny of Paleozoic volcanic formations in the Ukraine.
Geol. zhur. 24 no.2:10-17 '64 (MIRA 18:2)

1. Institut geologicheskikh nauk AN UkrSSR i trest "Artemgeologiya".

BERNADSKAYA, Z.M.

"Immunization of the Pedigreed Young of Large Cattle against Piroplasmosis, Francailliosis, and Theileriosis, A.V. Bogoroditskiy, Z.M. Bernadskaya, Scientific Contributors, Uzbek Scientific Research Veterinary Experimental Station. 1p.

Report of experiments on natural and artificial immunization of calves against haemosporidian infections. Natural immunization resulted in losses of 4% due to piroplasmosis and francailliosis (?) and 16.2% due to theileriosis. With artificial immunization corresponding figures were 1% and 4%.

71T73

SO: Veterinariya; no. 3, March 1948

USSR/Medicine - Veterinary *BERNADSKAYA Z. M.* FD 323

Card 1/1

Author : Vyazkova, S. F., Candidate of Veterinary Sciences and Bernadskaya, Z. M.,
Scientific Associate

Title : New acaricidal preparation "khlorten"

Periodical : Veterinariya, 6, 54-57, June 1954

Abstract : "Khlorten" is a viscous, dark liquid which emulsifies well with water,
forming a white colored emulsion. Results of experiments on mites,
Hyalomma anatolicum, showed that "khlorten" emulsion is by far more
effective in destroying mites than any other insecticide. Three tables.

Institution : All-Union Scientific-Research Laboratory of Veterinary Sanitation and
Disinfection, Ministry of Agriculture of the USSR; Uzbek Scientific-
Research Veterinary Institute

Submitted :

VYAZKOVA, S.F., kandidat veterinarnykh nauk, starshiy nauchnyy sotrudnik.
BERNADSKAYA, Z.M., nauchnyy sotrudnik.

Chlorothen for tick bath for cattle. Veterinariia 33 no.6:72 Ja '56.
(MLRA 9:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut veterinarnoy
sanitarii i ektoparazitologii (for Vyaskova); 2. Uzbekskiy nau-
chno-issledovatel'skiy veterinarnyy institut (for Bernadskaya).
(Pyridine) (Ticks as carriers of disease)

USSR / Diseases in Animals. Diseases Caused by Protozoa R

Abs Jour: Ref Zhur-Biologiya, No 16, 1958, 74226

Author : Vyazkova, S. F.; Bernadskaya, Z. M.; Stepanov, A. M.

Inst : Not given

Title : Chlorten in Prophylaxis of Hemosporidiosis in Cattle

Orig Pub: Veterinariya, 1957, No 6, 58-59

Abstract: Bathing young cattle stock every seven days in a bath with 0.7 percent emulsion of chlorten prevented attacks of *Boophilus calcaratus* and assured prophylaxis of piroplasmosis, tularemia, and anaplasmosis, and significantly decreased the number of attacks on the animals of *Hyalomma detritum*. No harmful effect was noted on the animals' organi-

Card 1/2

1. BERNADSKIY, G. I.
2. USSR (600)
4. Technology
7. Pneumatic hand-operated instrument. Leningrad, Mashgiz, 1951

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

Bernadskiy, G. I.

N/5
741.43
.B5

Pnevmaticheskiy ruchnoy instrument (Pneumatic hand tool, by) G. I. Bernadskiy i
D. I. Sudakovich. Moskva, Mashgis, 1952.

320 p.

Cataloged from abstract.

FB 520221

Description of various types of pneumatic hand tools and characteristics of units
and parts. Information pertinent to theory, computation, and directives regarding
utilization and testing tools.

BERNADSKIY G.I.

SUDAKOVICH, D.I.; BERNADSKIY, G.I.; PETRUN'KIN, L.P., inzhener, laureat
Stalinskoy premii, retsenzent; SHESTINSKIY, N.N., inzhener, redaktor.

[Manual on mechanized hand tools] Spravochnik po mekhanizirovannomu
ruchnomu instrumentu. Leningrad, Gos. nauchno-tekhn. izd-vo mashinostroit.
i sudostroit. lit-ry [Leningradskoe otd-nie] 1954. 335 p. (MLRA 7:6)
(Tools)

BERNADSKIY, G.I., inzh.; SUDAKOVICH, D.I., inzh.; MEYTUS, M.E., nauchnyy
red.; ZHURAVSKIY, N.A., red.isd-va; VORONETSKAYA, L.V., tekhn.red.

[Machinery for finishing operations in construction; a manual]
Mashiny i mekhanizirovannye instrumenty dlia otdelechnykh rabot
v stroitel'stve; spravochnik. Leningrad, Gos.isd-vo lit-ry po
stroit., arkhit. i stroit.materialam, 1960. 212 p.

(MIRA 13:12)

(Building machinery)

SUDAKOVICH, David Isaakovich, inzh.; BERNADSKIY, Georgiy Ivanovich, inzh.;
KUZNITSYN, G.I., kand. tekhn. nauk, ~~retsensent~~; SHESTINSKIY, N.N.,
inzh., red.; DUDUSOVA, G.A. red. izd-va; SPERANSKAYA, O.V., tekhn.
red.

[Manual on portable power tools] Spravochnik po mekhanizirovannomu
ruchnomu instrumentu. Izd.2., dop. i perer. Moskva, Gos.nauchno-
tekhn. izd-vo mashinostroit. lit-ry, 1961. 335 p. (MIRA 14:6)
(Power tools)

LIBER, I.S.; YAKOVLEV, P.S.; BERNADSKIY, G.I., inzh., nauchnyy red.;
BESPALOV, I.V., red.izd-va; PUL'KINA, Ye.A., tekhn. red.

[Sanitary-engineering work in the construction of industrial
buildings and apartment houses] Proizvodstvo sanitarno-
tekhnicheskikh rabot v promyshlennom i grazhdanskom stroitel'-
stve. Leningrad, Gos. izd-vo lit-ry po stroit., arkhit. i
stroit. materialam, 1962. 318 p. (MIRA 15:3)
(Plumbing)

REBROV, A.S., inzh. [deceased]; USPENSKIY, V.P., inzh.; PLESHKOV, D.I., kand. tekhn. nauk; BELEN'KIY, V.I., inzh.; BERNADSKIY, G.I., inzh.; VALUTSKIY, I.I., inzh.; BAZANOV, A.F., kand. tekhn. nauk; KOGAN, I.Ya., kand. tekhn. nauk; RATNER, A.I.; VOROB'YEV, A.A., inzh.; BAUMAN, V.A., kand. tekhn. nauk; NOSENKO, N.Ye., kand. tekhn. nauk; FOKIN, M.V., inzh. [deceased]; VINOGRADOV, G.V., inzh.; GUSAKOV, M.A., inzh.; SUDAKOVICH, D.I., inzh.; Prinimali uchastiye: SIGAL', Ya.Ye., inzh.; TITOV, M.A., inzh.; OGIYEVICH, V.Ya., kand. tekhn. nauk; ZIMIN, P.A., kand. tekhn. nauk, retsenzent; LAPIR, F.A., inzh., retsenzent; PETROV, N.M., kand. tekhn. nauk, retsenzent; RYAKHIN, V.A., kand. tekhn. nauk, retsenzent; KHOLIN, N.A., inzh., retsenzent

[Construction machinery; a reference manual] Stroitel'nye mashiny; spravochnik. Izd.3., perer. i dop. Moskva, Mashinostroenie, 1965. 788 p. (MIRA 18:6)

HERNADSKIY, G.V., inzhener

Systematizing standards in machine building. Standartizatsiia
no.2:77 Mr-Ap '55. (MIRA 8:6)
(Standards, Engineering)

BERNADSKIY, I. F.

BERNADSKIY, I. F., SUSHKOV, V. T., BESPECHANSKIY, K. S., STARCHENKO, V.S.,
NOTKIN, B.A., VREDENSKIY, V. V., and BESCHINSKIY, L. I.,
Induction-Motor Set for Testing Internal Combustion Engines
(Stend dlya Ispytaniya Dvigatelyey Vnutrennego Sgoraniya s
Asinkhronnoy Mashinoy), pp. 9-11

An induction-motor arrangement for testing internal combustion motors leading to a considerable energy savings is suggested. This suggestion won a fifth prize at the Seventh All-Union Contest on Power Economizing. (Drawing, graph, diagram and table).

SO: PROMYSHLENNAYA ENERGETIKA, No. 10, Oct. 1952, Moscow (1502270)

BERNADSKIY, Ivan Fomich.

We are mechanizing the work on suburban kolkhozes Moskva Profizdat, 1954. 75 p.
(Rasskazy novatorov)

1. Farm mechanization - Russia.
2. Machine-tractor stations.

PIVEN', Ye.N.; KOZAKEVICH, A.M.; BERNADSKIY, V.A.; FATEYEV, F.G.

New system for regulating furnace pressure. Stek.i ker. 21 no.12:
23-24 D '64. (MIRA 18:3)

BERNADSKIY, Viktor Nikolayevich

(Leningrad State Pedagogical Inst imeni Gertsen), Academic degree of Doctor of Historical Sciences, based on his defense, 25 October 1954, in the Council of the Leningrad Order of Lenin State U imeni Zhdanov, of his dissertation: "Novgorod and Novgorodskaya Zemlya in the 15th century."

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VAK, List no. 17, 9 July 1955, Byulleten' MVO SSR, No. 17, Sept 1956, Moscow, pp 9-16, Uncl. JPRS/NY-435

BERNADSKIY V.N.

RAYEVSKIY, G.V.; BERNADSKIY, V.N.; LEBEDEV, B.F.; MARTYNOV, I.G.; TRUSHCHENKO,
A.A.

Industrial methods for manufacturing pipes. *Biul. stroi. tekhn.* 14 no.5:
10-13. No. 157. (MIRA 10:6)

1. Institut elektrosvarki imeni Ye.O. Patona Akademii nauk USSR.
(Pipe, Steel--Welding)

BERNADSKIY, V.N.

SOV-125-58-10-3/12

AUTHORS: Kirdo, I.V., and Bernadskiy, V.N.

TITLE: The High-Speed Contact Projection-Roller Welding of Low Carbon Steel (Skorostnaya kontaktnaya rel'yefno-rolikovaya svarka malouglerodistoy stali)

PERIODICAL: Avtomaticheskaya svarka, 1958, Nr 10, pp 22 - 35 (USSR)

ABSTRACT: Tests were carried out to raise the speed of projection contact welding of low carbon steel of 1.5 to 2 mm thickness used in the production of pipes up to 150 m in length. For this purpose, special high-power machines operating with a minimum loss of power were needed. B.Ye. Paton, Member Correspondent of the AS UkrSSR and Candidate of Technical Sciences V.K. Lebedev, together with engineers M.N. Sidorenko and R.M. Shirokovskiy, suggested a series of variants in the design of welding machines with rotating transformers, the most rational and economical of which was chosen to perform the tests (Figures 2,3). A special experimental installation (Figure 4) was used to develop the technology of continuous speed welding on pipe specimens of 100 - 150 m length. As a result of the

Card 1/2

The High-Speed Contact Projection-Roller Welding of Low Carbon Steel

SOV-125-58-10-3/12

experiments, optimum parameters for speed projection-roller welding of low-carbon steel of 2.0 mm thickness were determined. It was stated that contact projection roller welding at a rate of 20 - 27 m/min on continuous alternating current of 50 cycles frequency, ensures tight joints in low-carbon steel. In this method the welding contact is localized, and the heat zone is situated immediately between the sheets, thus preventing fusing-through and improving the roller work. The described method is recommended for welding long seams and for mechanized production. There are 5 sets of diagrams, 6 sets of photos, 6 tables and 11 references, 8 of which are Soviet, and 3 English.

ASSOCIATION: Institut elektrosvariki imeni Ye.O. Patona AN USSR (Institute of Electric Welding imeni Ye.O. Paton, AS UkrSSR)

SUBMITTED: July 15, 1958

1. Steel--Spot welding 2. Spot welding--Equipment 3. Spot welds
--Effectiveness

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18(5,7)

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AUTHORS: Bernadskiy, V.N., Engineer and Zozulya, N.V., Candidate of Technical Sciences

TITLE: On the Production of Die-Welded Thin-Walled Heating Radiators

PERIODICAL: Avtomatichskaya svarka, 1959, Vol 12, Nr 6 (75)
pp 31-35 (USSR)

ABSTRACT: The article presents investigations with test samples of a not sectional panel heating radiator. By the Institut elektrosvariki imeni Ye.O. Patona (Institute of Electric Welding imeni Ye.O. Paton) together with the Institut teploenergetiki AN USSR (Institute of Heat-Power Engineering AS UkrSSR) several variants of a not sectional panel radiator for a water-heating system with a working pressure up to 4 atm. was constructed. The test sample of the radiator consists of two symmetrical pressed parts made of low carbon steel, 1,0 mm thick. They are connected at perimeter by gas-welding. The results of the tests showed, that the heat trans-

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On the Production of Die Welded Thin Walled Heating Radiators

fer coefficient of the panel radiator is about 25-35% higher than the one usually used standard sectional cast iron radiator. Also in building apartment houses, the not sectional panel steel radiator is of importance. The standard cast iron radiator needs 3.6-3.9 Kg metal for 1 m² living area. The panel steel radiator with a metal thickness of 1.75-2.0 mm needs not more than 1.9 - 2.2 Kg metal for the same area. It is supposed, that the not sectional panel steel radiator is going to become greatly important in national economy. There are 2 diagrams and 2 graphs.

ASSOCIATION: Ordena trudovogo krasnogo znameni institut elektro-svarki imeni Ye.O.Patona AN USSR (Institute of Electric Welding imeni Ye.O.Paton AN UkrSSR)(Bernadskiy) and Institut teploenergetiki AN USSR (Institute of Thermal-Power Engineering AS UkrSSR)(Zozulya).

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A004/A001

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AUTHOR: Bernadskiy, V.N.

TITLE: Projection-Roller Welding of Low-Carbon Steel

PERIODICAL: Mashinostroitel', 1960, No. 6, pp. 34-35

TEXT: The author reports of a new method of contact-roller welding of lap-welded joints, viz. projection-roller welding, which was developed by the Institut elektrosvarki im. Ye.O. Patona (Electric Welding Institute im. Ye.O. Paton). This method makes it possible to increase the welding speed of low-carbon steel sheets of 1.5 - 2.0 mm thickness up to 20 - 27 m/min, i.e. an increase by roughly 10 times. The difference between the projection-roller welding process and ordinary roller welding consists in the following: Prior to the welding a longitudinal projection is formed on the edge of one of the sheets or components which are to be joined. The axis of this projection is subsequently used as the welding seam axis. By its shape, the projection differs from the ordinary projection used for spot welding and represents a bent longitudinal ridge without tapering at the top. The dimensions of the projection are shown in Figure 1. Prior to the welding, the sheets to be joined are placed in such a

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Projection-Roller Welding of Low-Carbon Steel

way that the projection is directed with its top toward the welding zone, while its axis coincides with the roller surface (Figure 2). A characteristic feature of the new welding process is the possibility of using alternating current of industrial frequency (50 cps). This new process is a combination of resistance welding and flash welding. The flashing off is taking place between the lateral surfaces of the projection and the surface of the second sheet during the continuous reduction of the heat projection by the welding rollers (Figure 3). In the middle part of the seam welding takes place on account of resistance. In the course of the welding process the projection is completely reduced by the rollers and practically no traces of it can be detected on the outer surface. Figure 4 shows the welding installation used for projection-roller welding. The secondary turn 1 of the supply welding transformer of the МРП -600 (MRP-600) apparatus is connected to the primary turn 2, enveloping two identical revolving

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Figure 1

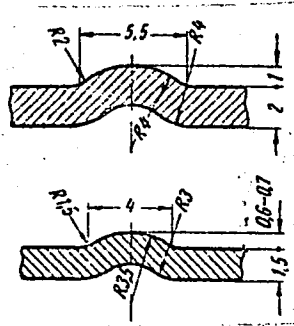
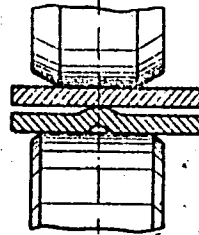


Figure 2



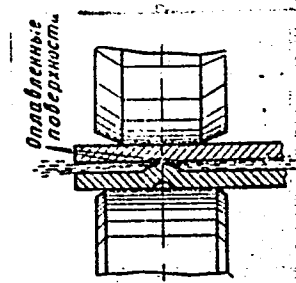
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transformers. The second contour of the revolving transformer is a copper sleeve on which a ring-shaped magnetic circuit 3 is mounted. Two electrode rings 4 of the ЭВ4 (EV4) alloy, 510-520 mm in diameter, are put on the sleeve flanges. This design ensures the supply of the welding current to the rollers by electromagnetic induction and not by sliding contacts, as it is the case with ordinary designs. The necessary pressing stress of the electrodes is caused by a pneumatic cylinder and a special balance suspension. The maximum pressing stress on one roller can be brought up to 2,759 kg. Numerous tests proved that projection-roller welding ensures high-quality firm and tight seams on the hot-rolled and cold-rolled pickled low-carbon steel grades 08K17 (08KP) and 10J with a thickness of 1.5, 1.75 and 2.0 mm at a speed of up to 20 m/min.

Figure 3



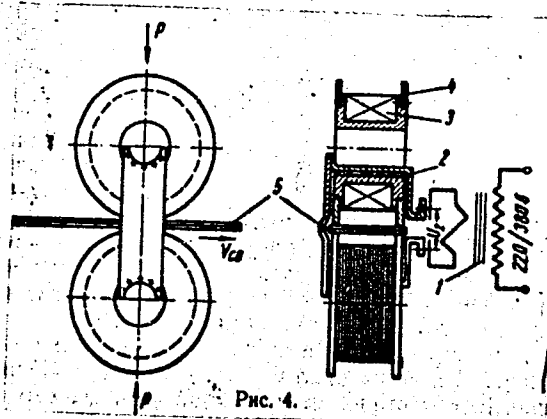
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Figure 4



There are 4 figures.

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A161/A029

AUTHORS: Bernadskiy, V.N.; Boyko, G.A.

TITLE: The Effect of External Cooling on the Quality¹⁴ of Joints²⁶ in Roller Welding

PERIODICAL: Avtomaticheskaya svarka, 1960, No. 8, pp. 73 - 80

TEXT: A new external cooling method for the resistance seam welding process is described, consisting in water cooling for the contact rollers and compressed air blast over the welding area. Steel structure in the joints (photos, Fig. 5) has a lower content of hard components than structure produced with conventional external cooling, and the hardness of these components is lower, though the structure is naturally less uniformly fine-grained than after normalization. The new cooling decreases the cooling rate of a joint and causes a kind of heat treatment from inside by heat remaining in the metal after welding and separating additionally through the effect of the passing shunting current. The essence of the system is illustrated in a diagram (Fig. 2,6). One cooling device has been produced and installed in the welding stand of a flat folding tube mill (Fig. 7, photo). These tubes are produced from low-carbon rimming "08Kh" (08kp) steel and

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The Effect of External Cooling on the Quality of Joints in Roller Welding

welded continually in up to 300 m lengths on this special mill. Later, on the assembly site, the flat tubes are expanded by compressed air into round shape. Abundant water cooling was used in the process and caused the formation of hard metal structure in the joints and deformation of the rollers. The new cooling system raises 1.3 to 1.6 times the mechanical strength of the joints. Engineer A.A. Trushchenko and the members of DTZ im. Lenina (DTZ im. Lenin) A.V. Toldayev, T.S. Shchegol', I.V. Alekseyeva and B.N. Parshin participated in the development of the system. There are 9 figures, 3 tables and 5 Soviet references. ✓

ASSOCIATION: Ordona Trudovogo Krasnogo Znameni Institut elektrosvariki im. Ye.O. Patona AN UkrSSR (Electric Welding Institute "Order of the Red Banner of Labor" im. Ye.O. Paton of the Academy of Sciences of the Ukrainianskaya SSR)

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BERNADSKIY, V.N.

Investigating the shaping and the strength of electrically
welded flat-folded pipe. Avtom. svar. 14 no.8:41-48 Ag '61.
(MIRA 14:9)

1. Ordena Trudovogo Krasnogo Znameni Institut elektrosvariki imeni
Ye.O. Patona AN USSR.

(Pipe, Steel--Testing) (Electric welding--Testing)