Ultrasonic Processing (Cont.)   SOV/2261

Card 3/4

SLOBODYANNIKOV, Sergey Stepanovich; GUROV, S., red.; PAVLOVA, S.,
        tekhn.red.

    [Increasing the wear resistance of machine parts] Povyshenie
    stoikosti detalei mashin. Moskva, Mosk.rabochii, 1960. 91 p.
                                                (MIRA 13:7)
        (Friction) (Machinery--Maintenance and repair)
            (Mechanical wear)

S/711/60/014/000/013/013
D232/D301

AUTHORS: Garkunov, D.N., Slobodyannikov, S.S., and Khrushchov, M.M.

TITLE: In memory of Leonid Vladimirovich Yelin

SOURCE: Akademiya nauk SSSR. Institut mashinovedeniya. Treniye i iznos v mashinakh, v. 14, 1960, 290 - 291

TEXT: Yelin died in Odessa in 1957 at the age of 47. He graduated in Marine Mechanical Engineering in 1936 at the Odesskiy institut inzhenerov morskogo flota (Odessa Institute of Maritime Fleet Engineers) and obtained a Degree of Candidate of Technical Sciences in 1958. He subsequently took up a teaching appointment at the Department of Metal Technology at the above Institute. Whilst his activities were mainly pedagogical, he also carried out research on the friction and wear in machine components. His doctorate was obtained at the Institut mashinovedeniya Akademii nauk SSSR (Institute of Machine Sciences of the Academy of Sciences USSR). He put forward a new explanation for the possible causes of wear of metals in contact, having inhomogeneous mechanical properties, and without des-
Card 1/2

FEDOROV, Boris Fedorovich; SLOBODYANNIKOV, S.S., kand.tekhn.nauk, retsenzent; TOLSTOV, M.A., inzh., retsenzent; BOGOSLAVETS, N.P., tekhn.red.

[Mechanization and automation of fitting and assembling operations] Mekhanizatsiia i avtomatizatsiia slesarno-sborochnykh rabot. Moskva, Mashgiz, 1962. 310 p.

(MIRA 15:5)

(Assembly-line methods)   (Machine-shop practice)
(Automation)

YELIZAVETIN, M.A.; SATEL', E.A.; SLOBODYANNIKOV, S.S., kand.
     tekhn. nauk, retsenzent; GARKUNOV, D.N., doktor tekhn.
     nauk, red.

     [Technological methods for increasign the durability of
     machinery; increasing the operational properties and
     reliability of machine parts] Tekhnologicheskie sposoby
     povysheniia dolgovechnosti mashin; povyshenie ekspluatatsion-
     nykh svoistv i nadezhnosti raboty detalei mashin. Moskva,
     Izd-vo "Mashinostroenie," 1964. 438 p.   (MIRA 17:8)

SLOBODYANNIKOV, S.S., kand. tekhn. nauk, dotsent

Using electronic analog computer in solving the nonlinear
thermal problem of friction. Izv. vys. ucheb. zav.;
mashinostr. no.9:34-39 '65.   (MIRA 18:11)

MOLOTKOVS'KIY, G.Kh.; SLOBODYANS'KA, D.V.

The phenomenon of polarity and chlorophyll distribution in the shoots of certain plants. Dop.AN URSR no.6:417-420 '53.   (MLRA 7:1)

1. Chernivets'kiy derzhavniy universitet. Predstaviv diysniy chlen Akademii nauk Ukrains'koi RSR O.I.Dushechkin.
(Electrophysiology of plants) (Chlorophyll)

ϽᴌՕℬᴏᴏᴵ ᴀᴧᴠ ᴐᴧ ᴀᴵᴀ, ᴧᵛ.

MOLOTKOVSKIY, G.Kh.; MOLOTKOVSKIY, Yu.G.; SLOBODYANSKAYA, D.V.

Relation of the polarity of metamers of cereals to the activity of
oxidizing enzymes and to the vitamin C content. Bot.zhur.[Ukr.] 11
no.1:67-72 '54.   (MIRA 8:7)

1. Chernivets'kiy derzhavniy universitet, kafedra fiziologii roslin.
   (Ascorbic acid) (Grain) (Enzymes)

BLEYKHER, V.M.; SIOBODYANSKAYA, S.I.

Combination of Alzheimer's disease and atherosclerosis of
cerebral vessels. Zhur. nevr. i psikh. 65 no.4:552-557 '65.
                                        (MIRA 18:5)
1. Kafedra psikhiatrii (zaveduyushchiy - prof. Ya.P. Frumkin)
Kiyevskogo ordena Trudovogo Krasnogo Znameni meditsinskogo
instituta imeni Bogomol'tsa i Kiyevskaya psikhonevrologiche-
skaya bol'nitsa imeni Pavlova (glavnyy vrach P.N. Lepekhov).

KADUK, B.G.; SLOBODYANSKIY, L.E.

> Effect of the phase shift of harmonic components on the
> measurement error of electronic phase meter. Izm.tekh.
> no.8:54-55 Ag '62.   (MIRA 16:4)
>   (Electronic instruments—Testing)

Sposob priblizhennogo interirovaniya uravneniy s chastnymi proizvodnymi i yego primeneniye
k zadacham teorii uprugosti. Prikl matem. i mekh., 3 (1939), 75-82.

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

SLOBODYANSKIY, M. G.

Slobodyanskii, M. G. The determination of the deriva-
tives of the unknown functions in the solution of problems
by the method of finite differences. Akad. Nauk SSSR.
Prikl. Mat. Meh. 15, 245–250 (1951). (Russian)
In certain problems requiring the solution w of a partial
differential equation the desired quantity is not w itself but
one or more partial derivatives of w. When an approximate
solution is obtained by the use of a lattice and a difference
equation, the derivatives can be found by difference for-
mulas, but the degree of accuracy is less than for w itself.
The author shows how to set up partial differential equations
satisfied by the desired derivatives and which can be solved,
for a given lattice, to the same degree of accuracy as the
equation for w. The idea is applied to the torsion of a rod
of square cross section, and to the case of a square loaded
plate.   W. E. Milne (Corvallis, Ore.).

Source: Mathematical Reviews,   Vol 13   No.

SLOBODYAN. KIY, M

SOKOLOVSKII, V. V.

225T89

USSR/Physics - Elasticity Theory, Varia-   Jul/Aug 52
      tional Problem

"Evaluating the Error in the Approximate Solution of
Linear Problems Reduced to Variational Problems, and
Thus Determining the Two-sided Approximations in Sta-
tistical Problems of Elasticity Theory," M. G. Slobo-
dyanskiy, Moscow

"Prik Matemat i Mekh" Vol XVI, No 4, pp 449-464

Considers the problem of constructing the approx soln
and of evaluating the error in the case of linear
problems that reduced to variational problems. The
approx solns found and indicated evaluations of error

can be applied to a detn of 2-sided approximations
for stresses and other desired quantities in sta-
tistical elasticity problems. Considers in detail
the planar problem of the theory of elasticity and
the problem of flexure in a clamped plate.

225T89

SLOBODYANSKIY, M. G.

USSR/Mathematics - Variational Methods   11 Sep 52

"Evaluating the Error of the Unknown Function in
the Solution of Linear Problems by Variational
Methods," M. G. Slobodyanskiy

"Dok Ak Nauk SSSR" Vol 86, No 2, pp 243-246

Finds errors 1.2%-4.5% of the exact soln accord-
ing to various procedures in the variational
method of Galerkin and Ritz. Compare results of
other authors (S. G. Mikhlin, "Direct Methods in
Mathematical Physics," 1950; L. S. Leybenzon,
"Variational Methods for the Solution of Problems
in Elasticity Theory," 1943). Submitted by Acad
A. I Nekrasov 9 Jul 52.   235T81

SLOBODYANSKIY, M.G.

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Slobodyanskil, M. G. Estimates of errors of approximate solutions of linear problems. Prikl. Mat. Meh. 17 I - F/W (1953), 229–244. (Russian)

In many linear boundary-value problems, the determination of the unknown function, or of its derivatives up to a certain order, or of a linear operator of the unknown function, may be shown to be equivalent to the determination of the scalar product (f, v), where $Au=f$, $Av=\psi$, with f and ψ given elements of a real Hilbert space H, and u and v unknown elements of the linear manifold of H where the positive-definite, symmetric, linear operator A is defined. The author has given earlier a method for the construction of numerical approximations to (f, v) under such circumstances [Prikl. Mat. Meh. 16 (1952), 449–464; MR 14, 502]. The present paper contains further developments of this method, and numerical applications to boundary-value problems for ordinary differential equations, e.g.

$$Au = -\frac{d}{dx}\frac{du}{dx}+(1+x)u=1 \ (0<x<1),$$

with boundary conditions $u(0)=u(1)=0$.
    J . B. Diaz (College Park, Md.).

SLOBODYANSKIY, M.G.

Slobodyanskiĭ, M. G. On approximate solution of linear problems reducing to variational ones. Prikl. Mat. Meh. 17 (1953), 623–626. (Russian)

In the two papers reviewed above the author has been concerned with the question of constructing functionals whose maximum is the minimum of the functional [cf. K. O. Friedrichs, Nachr. Ges. Wiss. Göttingen. Math.-Phys. Kl. 1929, 13–20]

$$\int_\Omega F(u, u_x, \cdots)\,d\Omega - 2\int_\Omega fu\,d\Omega \quad \left(u_x \equiv \frac{\partial u}{\partial x}, \cdots\right),$$

where $F(u, u_x, \cdots)$ is a positive definite quadratic form in the variables $u, u_x, \cdots$. The present paper considers the case when F need not be a positive definite quadratic form, and an application is made to the following boundary-value problem:

$$\sum_{k=0}^{m} (-1)^k \frac{d^k}{dx^k}\left[p_k(x)\frac{d^k u}{dx^k}\right] = f(x)\,;\ a < x < b\,;$$

$$u(a) = \cdots = u^{(m-1)}(a) = 0,\ u(b) = \cdots = u^{(m-1)}(b) = 0,$$

where the coefficients p_k may change sign.

J. B. Diaz (College Park, Md.).

SLOBODYANSKIY, M. G.

Slobodyanskii, M. G. Approximate solution of some boundary problems for elliptic differential equations and estimates of the error. Dokl. Akad. Nauk SSSR (N.S.) 89 (1953), 221-224. (Russian)

K. O. Friedrichs [Nachr. Ges. Wiss. Göttingen. Math.-Phys. Kl. 1929, 13-20] has given a method for transforming the problem of minimizing certain integrals into the problem of maximizing certain other expressions, and has worked out some special cases when several independent variables occur. The author considers the boundary-value problem consisting of the equation

$$Au = \sum_{j=1}^{m} \sum_{k=1}^{m} \frac{\partial}{\partial x_j}\left(p_{jk}\frac{\partial u}{\partial x_k}\right) + cu = f, \text{ in } \Omega,$$

subject to the boundary conditions $u|_s = 0$, or

$$\left[\sum_{j=1}^{m} \cos(v, x_j)\sum_{k=1}^{m} p_{jk}\frac{\partial u}{\partial x_k}\right]_s = 0$$

on the boundary S of Ω. Under suitable hypotheses on

Nobodyan, I. N.

(the coefficients of the equation, the operator A is positive definite and the boundary-value problems considered lead to the minimization of the integral

$$F_r{}^A(u) = \int_\Omega \left(\sum_{j=1}^m \sum_{k=1}^m p_{jk} \frac{\partial u}{\partial x_j} \frac{\partial u}{\partial x_k} + cu^2 \right) d\Omega - 2 \int_\Omega fu \, d\Omega.$$

In order to be able to apply to this problem a method previously developed [Prikl. Mat. Meh. 16 (1952), 449–464; MR 14, 502], the author is led to construct (cf. reference to Friedrichs above) a functional whose maximum is the minimum of $F_r{}^A$. $J. B. Diaz.$

1

SLOBODYANSKIY, M. G.

USSR/Mathematics - Functionals   1 Aug 53

"Transforming the Problem of Minimum Functional Into the Problem of the Maximum," M. G. Slobodyanskiy

DAN SSSR, Vol 91, No 4, pp 733-736

States that in many linear problems reducing to variational problems the construction of the approximate solution (see M. G. Slobodyanskiy, Prikladn Matem i Mekh. 16, No 4 (1952); 17, No 2 (1953)) and the evaluation of its error require

272T70

the determination of the two-sided approximations for the functional. This problem reduces to the problem of finding the minimum of this functional. In order to do this one must construct a functional whose maximum equals the minimum of the given functional. Presented by Acad M. V. Keldysh 3 Jun 53.

272T70

SLOBODYANSKIY, M. G.

USSR/Mathematics - Elasticity Theory

Card 1/1

Author   : Slobodyanskiy, M. G.

Title   : General forms of solutions of equations of elasticity for singly connected
               and multi-connected regions, expressed in harmonic functions

Periodical : Prikl. mat. i mekh., 18, 55-74, Jan/Feb 1954

Abstract   : Studies representations of general solutions of equations of the type
               indicated in the title. Considers the Papkovich-Grodskiy solution and
               the symmetrical form relative to the variables x, y and z. Relates these
               forms to singly, doubly and multi-connected spaces, both finite and infin-
               ite. Analyzes solutions expressed with the aid of Newton potentials.

Institution :

Submitted   : June 29, 1950

124-57-2-2135

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 2, p 94 (USSR)

AUTHOR·   Slobodyanskiy, M.G.

TITLE: Two-way Approximations in Some Problems of the Theory of
          Elasticity and Potential Theory (Dvustoronniye priblizheniya
          v nekotorykh zadachakh teorii uprugosti i teorii potentsiala)

PERIODICAL: Tr. Mosk. energ. in-ta, 1955, Nr 17, pp 122-141

ABSTRACT: Examination of the application of methods set forth earlier by
          the author (Prikl. matem. i mekhanika, 1952, Vol 16, Nr 4; 1953,
          Vol 17, Nrs 2 and 5) to the problem of the approximate determina-
          tion. along the boundary of a region, of the normal derivative of
          a desired function in the three-dimensional problem of Dirichlet,
          An evaluation of the error of the approximation is indicated. The
          same methods are applied to the approximate determination of the
          derivatives of a displacement in the three-dimensional problems
          of the theory of elasticity. The well-known formulas of Somil'yan
          serve as the basis of the desired approximations. The author has
          focused his attention on the evaluation of the errors of the approx-
          imate solutions. The subject of developing effective methods to
Card 1/2   obtain approximate solutions that would satisfy the conditions

124-57-2-2135

Two-way Approximations in Some Problems (cont.)

imposed by the author is studied less in detail. In conclusion the abovestated methods are applied to a problem on the flexure of a lamina which is in equilibrium with composite contour conditions. Bibliography: 10 references.

1. Elasticity--Theory   2. Approximate computation

N. A. Kil'chevskiy

Card 2/2

USSR/Mechanics - Elasticity and Plasticity   FD-2479

Card 1/1   Pub 85-6/19

Author   : Slobodyanskiy, M. G.

Title   : On evaluations for eigenvalues of a self-conjugate operator

Periodical : Prikl. Mat. i Mekh., 19, 295-314, May-June 1955

Abstract   : In problems of the determination of eigenvalues of self-conjugate
               operators it is comparatively simple to find an upper bound. The
               question of the lower bound is a much more difficult one and has
               attracted the attention of many writers. In the present work the
               author turns his attention to the eigenvalues for an unbounded
               self-conjugate operator. The method is based on the construction
               of bilateral approximations of the Green function.

Institution: Institute of Mechanics, Acad Sci USSR

Submitted   : January 10, 1955

USSR/Mathematics - Approximation   FD-2854

Card 1/2   Pub. 85-7/16

Author   : Slobodyanskiy, M. G. (Moscow)

Title   : Construction of the approximate solution in linear problems

Periodical : Prikl. mat. i mekh., 19, Sep-Oct 1955, 571-588

Abstract   : The author makes certain evaluations for non-self-adjoint prob-
              lems. He considers Au-f, $A^* v = f'$, where A is an operator with
              region of definition A_D in a Hilbert space H, and A^* is the con-
              joint operator with region of definition A_D^*; here u,f,v,f' are
              elements of H. For the usual definitions see L. A. Lyusternik
              and V. I. Sobolev, Elementy funksional'nogo analiza, GITTL, 1951.
              The author remarks that in many linear problems, self-adjoint and
              non self-adjoint, the determination of the desired quantity u or
              of a certain linear operator L (u) can be reduced to determining
              the scalar product $(f,v) = (u,f')$ either by way of the introduction
              of special elementors f' or by way of the introduction of special
              form of constructed principal parts of the Green function (see
              author's "Determining the derivatives of desired functions by the
              method of finite differences," Prikl. mat. i mekh., 15, No 2, 1951;
              "Evaluation of error of approximate solution in linear problems

Card 2/2

FD-2854

reduced to variational problems and their application to the determination of two-sided approximations in static problems of elasticity theory," ibid., 16, No 4, 1952).

Institution   :

Submitted   : January 6, 1955

SLOBODYANSKIY, M. G.

Call Nr: AF 1108825

Transactions of the Third All-union Mathematical Congress (Cont.) Moscow,
Jun-Jul '56, Trudy '56, V. 1, Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp.
Segal, B. I. (Moscow). Approximate Solution of the Heat
Conductivity Equation.

196

Slobodyanskiy, M. G. (Moscow). Approximate Solution of
Linear Boundary Problems and Error Bounds.

197

Shamanskiy, V. Ye. (Kiyev). On the Approximate Solution
of Boundary Problems for Poisson (Laplace) Equations by
the Method Based on the Solutions of Problem on More
Simple Regions in Which the Given Region is Divided.

Yanov, Yu. I. (Moscow). On the Equivalency and Transfor-
mation of Program Charts.

197-198

Section of Mechanics Mathematical Problems

199-216

Card 64/80

SOV/42-13-6-21/33

AUTHOR: Slobodyanskiy, M.G.

TITLE: On the Construction of the Principal Part of the Green's Function for an Elliptic Differential Operator of Second Order (O postroyenii glavnoy chasti funktsii Grina dlya ellipticheskogo differentsial'nogo operatora vtorogo poryadka)

PERIODICAL: Uspekhi matematicheskikh nauk, 1958, Vol 13, Nr 6, pp 161-166 (USSR)

ABSTRACT: The author considers the operator

$$(1) \quad Lu = a_{ij} \frac{\partial^2 u}{\partial x_i \partial x_j} + b_i \frac{\partial u}{\partial x_i} + cu = f \quad (i,j = 1,2,\ldots,n).$$

Under certain assumptions on the coefficients a_{ij}, b_i and c the author gives a special form Ψ of the Green's function of (1) by which, in the neighborhood of a certain point, the expression $L[\Psi]$ gets the order $O\left[r^{-(n-1)+m}\right]$, where $m > 0$ and r is the distance of two points. This special form is necessary for the approximate solution of some problems of elasticity (see author [Ref 6,7]).
There are 8 references, 4 of which are Soviet, 2 American, 1 French, and 1 German.

Card 1/2

On the Construction of the Principal Part of the Green's   SOV/42-13-6-21/33
Function for an Elliptic Differential Operator of
Second Order

SUBMITTED: April 25, 1957

Card 2/2

VORONKOV, I.M., prof.; GERNET, M.M., prof.; DOBRONRAVOV, V.V., prof.;
    KOSMODEM'YANSKIY, A.A., prof.; LOYTSYANSKIY, L.G., prof.;
    SVESHNIKOV, G.N., prof.; SLOBODYANSKIY, M.G., prof.; YABLONSKIY,
    A.A., prof.; POGOSOV, G.S., dotsent

[Program in theoretical mechanics for majors in machinery
designing, mechanics, instrument designing, electrical engi-
neering, and construction at advanced technical institutions
(220 hours)] Programma po teoreticheskoi mekhanike dlia mashino-
stroitel'nykh, mekhanicheskikh, priborostroitel'nykh, elektro-
tekhnicheskikh i stroitel'nykh spetsial'nostei vysshikh tekhni-
cheskikh uchebnykh zavedenii (220 chasov). Moskva, Gos.izd-vo
"Vysshaia shkola," 1959. 10 p.   (MIRA 13:2)

1. Russia (1923- U.S.S.R.) Ministerstvo vysshego obrazovaniya.
            (Mechanics, Analytical)

24.4000

67596

SOV/179-59-5-17/41

AUTHOR: Slobodyanskiy, M.G.   (Moscow)

TITLE: Bending of a Plate of Variable Thickness

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh
            nauk, Mekhanika i mashinostroyeniye, 1959, Nr 5,
            pp 99-108 (USSR)

ABSTRACT: The paper is a continuation of previous work (Ref 3 and
            4). The basic equations governing the deflection and
            bending moments in an isotropic plate of variable
            thickness are stated and,with the aid of the boundary
            conditions, the problem of the deflection is reduced to
            the solution of a variational equation. The bending
            moments are determined in terms of special Green's
            functions and the bending of a square plate clamped at
            the edges is discussed. There are 7 references, 4 of
            which are Soviet and 3 English.

SUBMITTED: January 20, 1959

Card 1/1

SLOBODYANSKIY, M.G.(Moskva)

General and complete forms of sulutions of elasticity equations.
Prikl. mat. i mekh. 23 no.3:468-482 My-Je '59.   (MIRA 12:5)
(Elasticity)

SLOBODYANSKY, M.G.

report presented at the 1st All-Union Congress of Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb '60.

34334
S/124/62/000/002/009/014
D234/D302

24.4200

AUTHOR: Slobodyanskiy, M.G.

TITLE: Estimating natural frequencies of vibrations of a clamped plate of constant and variable thickness

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 2, 1962, 17-18, abstract 2V155 (V sb. Probl.mekhaniki sploshn. sredy.M., AN SSSR, 1961, 366-375)

TEXT: The frequencies of natural vibrations of a homogeneous plate of uniform thickness, rigidly clamped at its edge, are expressed in a simple manner in terms of the eigenvalues of the operator $A = \nabla^4$, determined on functions which satisfy conditions Eq.(1) at the edges of the plate. (ν being the normal to h, ω the deflection).

$$\omega\Big|_1 = \frac{\partial \omega}{\partial \nu}\Big|_1 = 0 \quad (1)$$

These eigenvalues coincide with characteristic numbers of the integral equation

$$\omega(x,y) - \lambda \int_S \int G(x,y; \xi, \eta)\omega(\xi,\eta)\, d\xi\, d\eta = 0$$

Card 1/4

Estimating natural frequencies ...

S/124/62/000/002/009/014
D234/D302

$$G_1(x,y;\xi,\eta) = \sum_{r=1}^{m} \sum_{k=1}^{m} b_{kr} \varphi_r(x,y) \varphi_k(\xi,\eta)$$ where b_{kr} are

constants and the functions $\varphi_k(x,y)$ satisfy the boundary conditions (1). For the difference $u = G - G_1$ the author uses an estimation obtained in a previous work by him (see Prikl. matem. i mekh. 1955, 19, no. 5, 571-588) Eq. (2)

$$|u|^2 \leq \int_S \int [q(x,y;\xi,\eta)]^2 d\xi d\eta \times \int_S \int [H(x,y;\xi,\eta)]^2 d\xi d\eta.$$

where $$\frac{\partial^2 q}{\partial\xi\partial\eta} = \delta; \quad \frac{\partial^2 H}{\delta\xi\partial\eta} = \delta - \nabla^4 G_1$$ and δ is the Dirac function.

Some methods of choice of q in the form of a function depending on parameters are indicated; the parameters must be chosen so as to make the value of the integral (2) a minimum. The method can be extended, with corresponding changes, to plates of variable thickness, which does not

Card 3/4

Estimating natural frequencies ...   S/124/62/000/002/009/014
                                       D234/D302

become zero anywhere. [Abstracter's note: Complete translation] .

Card 4/4

SLOBODYANSKIY, M.G. (Moskva)

Improvement of certain evaluations for stresses in problems
in the theory of elasticity. Izv. AN SSSR. Mekh. no.1:139-141
Ja-F '65.

(MIRA 18:5)

SLOBODYANSKIY, N.I., kand. sel'skokhozyaystvennykh nauk

Machines for the separation and drying of vegetable and melon seeds.
Izbor. i rats. 3 no. 4:12-14 Ap '58.   (MIRA 11:7)
                        (Seeds--Drying)

SLOBODYANYUK, A.,podpolkovnik

Some more on reconnaissance in a company. Voen.vest. 38 no. 11:
25-26 N '58.   (MIRA 11:12)
     (Military reconnaissance) (Scouts and scouting)

SLOBODYANYUK, A., podpolkovnik

Tank platoon in night reconnaissance; concerning the article by Lt.
Colonel A. Sokolov published in no. 8. Vcen.vest. 38 no.12:40-41
D '58.   (MIRA 12:1)

(Tank warfare) (Military reconnaissance)

SLOBODYANYUK, A., podpolkovnik

Shifting the tank company to a defense postition. Voen.vest. 39
no.12:27-31 D '59.   (MIRA 13:6)
        (Tank warfare)

SLOBODYANYUK, A., podpolkovnik

Avoid a routine approach. Voen.vest. 39 no.6:23-26 Je '60.
(MIRA 14:2)

(Tactics)

SLOBODYANYUK, A., podpolkovnik

Determining the passability of terrain. Voen.vest. 41 no.12:26-28
D '61.   (MIRA 15:3)
    (Winter warfare) (Tanks (Military science)—Cold weather operation)

PROZOROV, V., polkovnik; SLOBODYANYUK, A., podpolkovnik; DUBROVIN, K.,
    polkovnik zapasa

Defensive operations by rifle units. Voen. vest. 41 no.3:
37-39 Mr '62.   (MIRA 15:4)
                (Attack and defense (Military science))

SLOBODYANYUK, F.

Using resources of the province. Sil!bud. 7 no.4:6-8
Ag '59.   (MIRA 12:11)

1. Zastupnik golovi vikonkomu Sums'koi oblasnoi Radi deputativ
trudyashchikhsya.
                (Sumy Province--Farm buildings)

SLOBODYANYUK, I.

United States - Social Conditions

Militarization of economy and impoverishment of the workers of the U.S.A. I.
Slobodyanuk. V pom. profaktivu No. 5, 1952.

Monthly List of Russian Accessions, Library of Congress, April 1952. UNCLASSIFIED.

1. SLOBODYAN'UK I.

2. U SR (600)

4. Spain- Labor and Laboring Classes

7. The Spanish people in the fight against war and poverty. V pom. profakativu
   14 no.2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, unclass.

AID P - 5003

Subject   : USSR/Engineering

Card 1/1   Pub. 110-a - 5/17

Authors   : Levina, M. Ye., Kand. Tech. Sci., L. I. Slobodyanyuk, Eng.

Title   : Turbine stage with constant uniform reaction

Periodical   : Teploenergetika, 9, 28-35, S 1956

Abstract   : The problem of designing a turbine stage with a constant
                pressure along the radius is discussed. The authors
                demonstrate theoretically that a solution is possible with
                the help of regular cylindrical blades, but only at the
                expense of an appropriate design of the main section of
                the turbine. These theoretical considerations are con-
                firmed by experimental data. Definite deductions must be
                made after the testing of a turbine with a revolving
                wheel. 7 diagrams. 3 references.

Institution : Khar'kov Polytechnic Institute

Submitted   : No date

SLOBODYANYUK, L. I. Cand Tech Sci -- (diss) " Study of turbine stages with

continuous reaction in absence of radial pressure gradients." Khar'kov, 1957.

12 pp (Min of Higher Education UkSSR. Khar'kov Polytechnic Inst im V. I. Lenin),

100 copies (KL, 43-57,89)

-36-

Translation from: Referativnyy zhurnal, Mekhanika, 1960, No. 4, p. 58, # 4606

AUTHORS: Levina, M.Ye., Slobodyanyuk, L.I.

TITLE: The Turbine Stage With Constant Reactivity and Without a Radial
              Pressure Gradient

PERIODICAL: Tr. Khar'kovsk. politekhn. in-ta, 1957, Vol. 24, pp. 51-68

TEXT: The axisymmetrical flow of an ideal fluid through a turbine stage is
analyzed in more details than in the previous article of the authors (Teploenergeti-
ka, 1956, No. 9, pp. 28-35 -RZhMekh, 1958, No. 1, 457); an infinite large number
of blades is assumed; a constant pressure along the radius is ensured owing to
special profiles of blades and limiting surfaces. An example of computing the
turbine stage and the results of measuring the pressure behind the guiding ring
cascade (without the impeller) are given, which confirm the possibility of obtain-
ing the constant pressure.
                                                          G.Yu. Stepanov

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

8(6), 14(6)   SOV/112-59-4-6581

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 4,
     pp 27-28 (USSR)

AUTHOR: Slobodyanyuk, L. I.

TITLE: Experimental Investigation of Stages Having a Lower Radial Pressure
     Gradient

PERIODICAL: Tr. Khar'kovsk. politekhn. in-ta, 1957, Vol 24, pp 189-198

ABSTRACT: Effect of the shape of end nozzle surfaces, runner blades, the height
     overlap and axial gap on radial pressure gradients in the axial gap of a turbine
     stage has been investigated. The tests were made on an experimental air
     turbine that had an average diameter of about 440 mm, an S-1 nozzle-blade
     profile and a T-1-25-21 runner-blade profile, $R_e = 1.8 \times 10^5$, and $M = 0.25$.
     It is demonstrated that a lower pressure gradient can be obtained in the axial
     gap if greater peripheral overlaps and shaped and skew ends in the nozzles and
     interblade channels of the runner are used.
     Soviet abstractor's note: The influence of a lower radial pressure gradient
     upon the stage efficiency is not indicated in the article.

Card 1/1   I.D.L.

SOV/143-59-4-12/20

14(6), 26(1)

AUTHOR: Slobodyanyuk, L.I., Candidate of Technical Sciences

TITLE: About the Influence of Some Constructive Parameters on the Work of a Turbine Stage

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - Energetika, 1959, Nr 4, pp 84-90 (USSR)

ABSTRACT: The article deals with the influence of some constructive parameters on the work and especially the efficiency of a turbine stage. In this connection the influence of the following constructive parameters is examined: 1) The distance between the guide blade ring and the rotor blade ring; 2) The overlapping of the rotor wheel over the guide wheel (the rotor blades are usually longer than the guide blades); 3) Play between the guide wheel and the rotor wheel housing. In the beginning the statical distribution of the pressure is examined in relation to the height of the blade for varying values of the parameters 2 and 3. This is explained by graphs. It was found, that a diminution of the distance between the ring of the

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SOV/143-59-4-12/20

About the Influence of Some Constructive Parameters on the Work
of a Turbine Stage

guide and the rotor blade effects a variation of the
conditions of the simple radial balance, which can
be seen in the reduction of the radial pressure gra-
dient. It was also found, that the distance between
the blade rings has no important influence on the ef-
ficiency if the play between the guide wheel housing
and the rotor wheel housing is constant and sufficient-
ly small (this is true under the conditions which
were examined). If the play is increased however, a
widening of the distance between the blade rings ef-
fects a drop in the efficiency of the stage. An in-
crease in the play with constant distance of the blade
rings has only a small effect on the parameters of the
stream along the radius, but it has a great influence
on the efficiency of the turbine stage. If some of
the dimensions of the overlapping of the blades are
enlarged, this has no effect on the efficiency of the
turbine stage, if the blade ring distance and the play
Card 2/3   between the housing of the wheels are kept sufficient-

SLOBODYANYUK, L.I.; SENDETSKIY, A.A.

Determining the heat conduction coefficient of building materials in conditions of a three-dimensional heat flow. Inzh.-fiz. zhur. 4 no.10:84-89 O '61.   (MIRA 14:10)

1. Gornometallurgicheskiy institut, Voroshilovsk.
              (Heat—Conduction)
              (Building materials)

SLOBODYANYUK, L.I., kand.tekhn.nauk; SPIRIDONOV, V.A., kand.tekhn.nauk

     Closed loop steam-turbine compressor installation. Teploenergetika
     8 no.4:25-27 Ap '61.   (MIRA 14:8)

    1. Alchevskiy gornometallurgicheskiy institut.
            (Steam turbines)

26.2124

29263
S/143/61/000/009/004/006
D224/D305

AUTHORS: Slobodyanyuk, L. I., Candidate of Technical Sciences,
             and Gogin, Yu. N., Engineer

TITLE: Cooling a compressor by injection of water into a
             cylinder

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Energetika,
             no. 9, 1961, 62-65

TEXT: The author derives expressions for calculating the quantity
of water necessary to inject into a cylinder to produce air com-
pression at a given exponent of the polytropic curve. The process
was checked experimentally. In the examples given cooling was from
138°C to 82°C and from 170°C to 126°C respectively which was still
higher by 18°C and 20°C respectively owing to an imperfection of
the injector, and insufficient pulverization of water. The quantity
of water $d\alpha$ necessary to convey the quantity of heat dq' is given
by

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Cooling a compressor by ...

S/143/61/000/009/004/006
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$$d\alpha = \frac{dq'}{r} = \frac{C_v}{r} \cdot \frac{k-n}{n-1} dT (1 + \alpha)$$

where r - latent heat of evaporation. Integrating, expanding $1 + \alpha$ into a series, and neglecting terms of a higher power, the quantity of water necessary to produce the desired polytropic process of cooling becomes

$$\alpha = \frac{1}{r} \cdot \frac{k-n}{k-1} AL_p + \frac{1}{2} \frac{1}{r} \cdot \frac{k-n}{k-1} AL_p^2 \quad [KG/KG] \quad (4)$$

The work per cycle of the compressor is equal to the sum of work of compression, delivery and suction,

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Cooling a compressor by ...

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D224/D305

$$L_c = \frac{r}{A} \cdot \frac{k-1}{k-n}\alpha + RT_1 \left[\left(\frac{p_2}{p_1}\right)^{\frac{n-1}{n}} (1 + \alpha) - 1 \right] \qquad (5)$$

The author states that the relation between temperature and pressure of the air with the injection of water is the same as in an ordinary polytropic process. The change of temperature for various values of u (various quantities of water) is given by

$$T_2 = T_1 \left(\frac{p_2}{p_1}\right)^{\frac{n-1}{n}}$$

In conclusion, the author states that the injection of water into a compressor cylinder is an effective method of lowering the air

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Cooling a compressor by ...

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temperature. The disadvantage is the need to carry away moisture from the pressure water pipes by installing automatic water separators. The compressed air is usually forced (with long pipes and full air cooling) with humidity $\varphi = 1.0$, so that an injection of water cannot increase it. There are 2 figures and 1 table.

ASSOCIATION: Problemnaya laboratoriya promenergetiki Voroshilovskogo gornometallurgicheskogo instituta (Experimental Laboratory of Industrial Energetics of the Voroshilov Mining and Metallurgical Institute)

SUBMITTED: June 3, 1960

Card 4/4

SPIRIDONOV, V.A., kand.tekhn.nauk; SLOBODYANYUK, L.I., kand.tekhn. nauk

Waste regenerator systems with heat pumps for metallurgical
plants. Stal' 21 no. 1:87-91 Ja '61. (MIRA 14:1)

1. Voroshilovskiy gorno-metallurgicheskiy institut.
(Metallurgical plants--Equipment and supplies)
(Heat regenerators)

SLOBODYANYUK, L.I.; SENDETSKIY, A.A.

Determining the heat resistance of multilayer full-size samples of
structural railings subjected to a two-dimensional heat flow. Inzh.-
fiz. zhur. 7 no.1:112-116 Ja '64.   (MIRA 17:2)

1. Gornometallurgicheskiy institut, Kommunarsk.

SLOBODYANYUK, L.I., kand. tekhn. nauk; SENDETSKIY, A.A., inzh.

Determination of the heat resistance of single and multi-
layer materials in a three-dimensional thermal flow. Izv.
vys. ucheb. zav.; energ. 7 no.7:54-59 Jl '64 (MIRA 17:8)

1. Kommunarskiy gornometallurgicheskiy institut. Predstavlena
kafedroy teplotekhniki.

L 41586-65   EPF(c)/EPF(n)-2/EPA(s)-2/EWP(k)/EWP(z)/EWT(m)/FCS(f)/EPA(bb)-2/T-2/
EWP(b)/EWP(e)/EWP(w)/EWP(v)/EWP(t)   Pf-4/Pr-4/Pt-10/Pu-4   EM/WW/DJ/JD/JG
ACCESSION NR: AP5010064   63   UR/0143/65/000/003/0061/0066
                                                     61
                                                    B
AUTHOR: Slobodyanyuk, L. I. (Candidate of technical sciences, Docent); Omelyuk,
V. A. (Engineer)

TITLE: Cooling gas turbine rotor blades with a liquid-metal heat transfer agent

SOURCE: IVUZ. Energetika, no. 3, 1965, 61-66

TOPIC TAGS: gas turbine blade, liquid metal, gas turbine blade cooling, evaporative
cooling

ABSTRACT: The gain in gas turbine efficiency resulting from blade cooling with a
liquid metal is reduced by losses associated with heat removal from the primary
coolant by air bled from the compressor. Thus it is of interest to investigate the
problem of selecting the secondary coolant and means of heat removal from the liquid
metal used for blade cooling. Two methods of heat removal were investigated. In
the first method all the compressor air is passed through the lower part of a
specially designed blade (see Fig. 1 of the Enclosure) and is then used in the cycle.
In the second method the blades are cooled by the evaporation of atomized water
supplied to the blade roots. Heat balance equations were used to graph temperature
distribution along the blade height, and turbine efficiency for specific cases was

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L 41586-65
ACCESSION NR: AP5010064

calculated. The results show that the evaporative cooling leads to higher efficiency and less complex blade design. However, special equipment is needed to provide distilled cooling water. Orig. art. has: 6 formulas and 4 figures.   [AC]

ASSOCIATION: Sevastopol'skiy filial Odesskogo politekhnicheskogo instituta (Sevastopol Branch of the Odessa Politechnical Institute)

SUBMITTED: 30May64   ENCL: 01   SUB CODE: PR

NO REF SOV: 005   OTHER: 001   ATD PRESS: 3233

Card 2/3

L 11182-67   EWT(m) __DJ

ACC NR: AR6030389   SOURCE CODE: UR/0273/66/000/006/0002/0002

AUTHOR: Slobodyanyuk, L. I.

TITLE: Cycle with constant-volume heat supply and water injection

SOURCE: Ref. zh. Dvigateli vnutrennego sgoraniya, Abs. 6.39.6

REF SOURCE: Sb. Vopr. energ. gornometallurg. prom-sti. Khar'kov, Khar'kovsk. un-t, 1965, 52-55

TOPIC TAGS: internal combustion engine, thermodynamic efficiency, fuel injection

ABSTRACT: The author considers a theoretical air cycle with constant-volume heat supply and water injection. Water injection with a small increase in ϵ has little effect on the economy of the engine and cannot be justified due to excessive design complications. At the same time, an increase in water delivery results in incomplete vaporization which may promote cylinder wear. The efficiency of the cycle may be increased considerably by water injection into the cylinder with a significant increase in ϵ: for instance, water injection at $\alpha=62$ g/kg, $\epsilon=32$ and $n_t=0.625$, while $\epsilon=8$ and $n_t=0.496$ at the same temperature $T2=600°K$ without water injection. This shows that the design and operational complications associated with water injection into the cylinder may be justified only if there is a simultaneous significant increase in ϵ. Only in this case is it possible to realize a considerable increase in the thermal efficiency of the cycle. [Translation of abstract]

SUB CODE: 21

Card 1/1 $n_t \theta_n$ UDC: 621.432.016

22967
S/128/000/011/004/007
A033/A133

11500   also 1160,1496

AUTHORS: Fadeyev, V. G., Tsyganenko, G. I., Slobodyanyuk, L. Z.

TITLE: Casting the stern post of the atomic icebreaker "Lenin"

PERIODICAL: Liteynoye proizvodstvo, no. 11, 1960, 27 - 29

TEXT: The authors point out that the development of the electroslag
welding method has made it possible to facilitate the manufacturing processes of
large-size body-type castings. The introduction of this method stimulated the
development and fabrication of the low-alloyed $\_$-2 (SL-2) and $\_$-30 (SL-30)
grade steels possessing a good weldability. A typical example of the utilization
of such a technology is the casting of the stern post of the atomic icebreaker
"Lenin", composed of 9 parts joined by electroslag welding (Fig. 1). While this
structure cast in one piece would have required 135 tons of metal, the fabrication
by combined casting and welding consumed only 123 tons of liquid metal; the maxi-
mum weight of the separate castings did not exceed 25 tons, the maximum overall
dimensions of the blanks being 5.5 x 1.7 m. The nine stern post parts were made
from SL-2 steel, cast in dry sand molds. The coating mixture was prepared of 85%
Millerovo sand and 15% clay paste with a humidity of 6 - 7%, a gas permeability of

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S/128/60/000/011/004/007

Casting the stern post of the atomic icebreaker "Lenin"   A033/A133

150 units, compression strength of 0.45 - 0.55 and rupture strength of 1.5 - 2.0 kg/cm². The core mixture was composed of 60.4% Millerovo sand, 30.2% spent mixture, 9.4% clay paste and 4.0% KT binder. This mixture had a humidity of 5.5 - 6.5%, a gas permeability of 90 units, a compression strength of 0.45 - 0.50 and a rupture strength of 2.5 - 3.0 kg/cm². The cores of the solid parts of the stern post (2, 4. 5, 7, and 8 in Fig. 1) were coated with a mixture composed of 67% Millerovo sand, 13% clay paste and 20% marshallite, of 90 units gas permeability, compression strength 0.45 - C.55, rupture strength 1.5 - 2.0 kg/cm² and a humidity of 6 - 7%. Most of the parts were molded in the ground or in caissons. Round chills were placed in the joining spots between structural ribs and casting bodies which proved to be a good remedy against hot cracks in steel castings. Owing to the impossibility of ensuring the feed of the castings by shrinkage heads only, internal chills made of screens 6 - 8 mm in diameter and pieces of SL-2 steel were placed into the solid parts of the castings. The utilization of shrinkage heads and chills made it possible to increase the output of serviceable products to 78.5%. The gate system was so calculated as to allow the metal feed by a great number of feeders which ensured a relatively rapid filling of the molds with metal and excluded the possibility of warming up one of the metal parts. To ensure a directed solidification of the castings independently of the metal feed, the

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S/123/60/000/011/004/007

Casting the stern post of the atomic icebreaker "Lenin"   A033/A133

feeders were positioned in two and even three rows, so that, at the beginning, the lower parts of the castings were filled. The castings were cooled in the molds for 35 - 90 h. After the shrinkage heads and pouring gates had been removed the castings were subjected to normalization at 940 - 960°C and 900 - 920°C with subsequent tempering at 600 - 620°C and cooling in the air. To prevent the formation of cracks, which were detected during the gas cutting of shrinkage heads on the first castings, the further cutting of shrinkage heads was effected after annealing at 950°C with subsequent slow cooling in the furnace. Welding was carried out with YOHИ -13/45A (UONI-13/45A) electrodes. There are 9 figures.

Card 3/4

KHOMENKO, G.I., professor; KHERSONSKAYA, R.Ya., kandidat meditsinskikh
    nauk; BIRKOVSKAYA, Ye.A.; SLOBODYANYUK, M.I.

    Rating various methods of influenza therapy for adults. Sov.med. 19
    no.4:48-52 Ap 55.   (MLRA 8:6)

    1. Iz Instituta infektsionnykh bolezney Akademii meditsinskikh nauk
    SSSR (dir.-chlen-korrespondent Akademii meditsinskikh nauk SSSR
    prof. I.L.Bogdanov), Kiyev.
            (INFLUENZA, ther.,
                in adults)

SLOBODYANYUK, M.I. (Kiyev)

Diagnostic role of cytological analysis and examinations of viruses
in influenza. Vrach.delo no.6:605-609 Je '57.   (MLRA 10:8)

1. Institut infektsionnykh bolezney AMN SSSR
        (INFLUENZA)   (CELLS)

SLOBODYANYUK, M. I., Cand Med Sci (diss) -- "The results of cytoscopic and

viroscopic investigations in terms of features of the clinical course and type

of grippe virus". Kiev, 1960. 15 pp (Kiev Order of Labor Red Banner Med

Inst im Acad A. A. Bogomolets), 200 copies (KL, No 11, 1960, 138)

SLOBODYUNYUK, M.I. [Slobodianiuk, M.I.]; BUZHIYEVSKAYA, T.I. [Buzhiievs'ka, T.I.]

Materials on the cytological diagnosis of influenza in children.
Ped., akush. i gin. 22 no.4:3-5 '60.   (MIRA 14:5)

1. Kiyevskiy Institut infektsionnykh zabolevaniy AMN SSSR (direktor -
prof. I.L.Bogdanov).
                              (INFLUENZA)

MOROZKIN, N.I., prof.; BITENBINDER, Ye.A., kand.med.nauk; KOLESNIKOV, G.F.,
kand.med.nauk; SLOBODYANYUK, M.I. (Kiyev)

Differential diagnosis of influenza. Vrach. delo no.1:112-116 Ja '62.
(MIRA 15:2

1. Institut infektsionnykh bolezney AMN SSSR.
(INFLUENZA)

KHOMENKO, G.I., prof.; MITCHENKO, I.K., dotsent; SLOBODYANYUK, M.I.;
OSEDKO, N.A.

Modern therapy for infectious hepatitis. Vrach. delo no.2:
105-109 F'64   (MIRA 17:4)

1. Kafedra infektsionnykh bolezney (zav. - prof. G.I.Khomenko)
Kiyevskogo instituta usovershenstvovaniya vrachey.

SLOBODYANYUK, M.I. (Kiyev); BUZHIYEVSKAYA, T.I. (Kiyev)

Use of fluorescence microscopy for early diagnosis of influenza.
Sbor.nauch.trud. Inst.infek.bol. no.4:185-187 '64.

(MIRA 18:6)

SLOBODYANYUK, M.S.

Resolution of the Central Committee of the CPSU and of the Soviet of Ministries of the U.S.S.R. in action. Sov.zdrav. 22 no.2:10-13 '63.   (MIRA 16:2)

1. Predsedatel' Vinnitskogo oblastnogo Soveta deputatov trud-yashchikhsya, Vinnitsa.
(PUBLIC HEALTH)

SLOBODYANYUK, P.

Devices for dismounting and mounting rear axle reductors. Avt.
transp. 36 no.8:50 Ag '58.   (MIRA 11:9)
(Automobiles--Axles)

SLOBODYANYUK, P.

Guide cones for setting spring bolts. Avt. transp. 37 no.12:45
D '59.   (MIRA 13:3)
            (Motortrucks--Springs)

SLOBODYANYUK, S.A.

On shortcomings in designing equipment.   Avtom.,telem.i sviaz'
no.6:35   Je '57.   (MIRA 10:7)
                        (Railroads-Signaling)

ACC NR: AR6028110   SOURCE CODE: UR/0372/66/000/005/V044/V045

AUTHOR: Slobodyanyuk, T. F.

TITLE: A method of minimizing microprograms

SOURCE: Ref. zh. Kibernetika, Abs. 5V318

REF SOURCE: Sb. Kibernet. tekhnika. Kiyev, Nauk. dumka, 1965, 72–80

TOPIC TAGS: computer program, algorithm, arithmetic unit

ABSTRACT: The inclusion into a digital computer program of a large number (up to 40%) of rather complex operations required for computing elementary functions makes necessary the conversion of these operations into a class of elementary operations executed directly by the arithmetic unit of the machine. An algorithm is proposed for reducing the number of microcommands corresponding to individual branches in a flow chart by which a microprogram is made. Reduction of the number of microcommands in a branch is accomplished by making a connection between the registers of the arithmetic unit or by adding new registers or signals. A serial portion of the microprogram is converted into a series-parallel one in order to obtain maximum speed. The conversion algorithm is successively applied to all branches of the microprogram in order to obtain a new minimized microprogram equivalent to the initial one. The following sub-routines were minimized: 1) root extraction, 2) conversion from a decimal to binary number system, 3) conversion from a binary to decimal number system,

Card   1/2   UDC: 681.142.001.3:51

L 36047-66   EWT(d)/EWP(1)   IJP(c)   GG/BB/GD

ACC NR: AT6017032   SOURCE CODE: UR/0000/65/000/000/0072/0080

AUTHOR: Slobodyanyuk, T. F.

ORG: None

TITLE: A method of minimizing microprograms

SOURCE: AN UkrSSR. Kiberneticheskaya tekhnika (Cybernetic techniques). Kiev,
Naukova dumka, 1965, 72-80

TOPIC TAGS: algorithm, computer program, minimization

ABSTRACT: The author proposes an algorithm for minimizing individual edges,
i.e., for reducing the number of microcommands which correspond to individual
edges. This reduction is achieved by adding some type of coupling in the opera-
tional registers, and introducing new registers or new signals, which enables
the device to use less cycles to execute an operation, which, in turn, reduces the
microprogram of the operation. The construction of an algorithm is described in
detail. The algorithm serves to minimize the following subprograms: 1) evolution;
2) conversion from a decimal system of notation to a binary system; and 3) con-
version from a binary system to a decimal system. The results obtained during
the minimization of microprograms using the algorithm discussed are tabulated.

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L 36047-66

ACC NR: AT6017032

An analysis of the results shows that the application of the algorithm a) reduced the time for the execution of the microprogram by 6—12%; b) reduced the dimensions of the microprogram by 23—39%; and c) for some microprograms it reduced the amount of equipment required in the operational section. Orig. art. has: 2 figures and 1 table.

SUB CODE: 09/ SUBM DATE: 28Jul65/ ORIG REF: 004/ OTH REF: 000

Card 2/2

SLOBODYANYUK, V.

Before you become an engineer.... Obshchestv. pit. no.3:7-8
Mr '63.   (MIRA 16:6)

1. Sekretar' komiteta Leninskogo Kommunisticheskogo soyuza
molodeshi fakul'teta inzhenerov-tekhnologov obshchestvennogo
pitaniya Leningradskogo instituta sovetskoy torgovli im.
F. Engel'sa.
          (Restaurants, lunchrooms, etc.—Vocational
                                        guidance)

SLOBODYANYUK, V. V.

ZHUKOV, A.V.; SLOBODYANYUK, V.V.; GRINBERG, S.M., redaktor; PYATAKOVA, N.D.,
tekhnicheskiy redaktor

[Natural drying of material by means of axial ventilators; work
practices of Ukrainian brick factories] Estestvennaia sushka syrtsa
s primeneniem osevykh ventiliatorov; iz opyta raboty kirpichnykh
zavodov USSR. Moskva, Gos.izd-vo lit-ry po stroit.materialam.
(MLRA 10:7)
1957. 34 p.
(Brick--Drying)   (Fans. Electric)

SLOBODYANYUK, V.Ye.; KOZLOVA, M.M.

High-yield straw pulp. Bum.prom. 37 no.9:24-25 S '62.
(MIRA 15:9)

1. Zaveduyushchiy proizvodstvom Poninkovskogo tsellyulozno-
bumazhnogo kombinata (for Slobodyanyuk). 2. Rukovoditel'
nauchno-issledovatel'skoy gruppy Poninkovskogo tsellyulozno-
bumazhnogo kombinata (for Kozlova).
(Straw) (Paper industry)

SLOBODZEYSKIY, M.

Our control practice. Den. i kred. 17 no.11:47-48 N '59.
(MIRA 12:12)

(Odessa--Banks and banking) (Stores or stock-room keeping)

SLOBOZHANSKIN, A.D. (Leningrad, ul. Voskova, d.15/17, kv.79)

Cholangiomanometry in duodenal stasis. Vest.khir.   no.8:30-35
'61.
(MIRA 15:3)

1. Iz 2-y gospital'noy khirurgicheskoy kliniki (nach. - prof.
Ye.V. Smirnov) Voyenno-meditsinskoy ordena Lenina akademii
im. S.M. Kirova.
(BILIARY TRACT)   (DUODENUM--DISEASES)

KRASNOGORSKIY, N.N.; PRATUSEVICH, R.M.; IVANOVA, M.A.; KUROVA, O.V.;
    SLOBODZHINSKAYA, I.S.

Characteristics of unconditioned radiating reflexes in acute
poliomyelitis in children. Pediatriia no.1:58-65 Ja-F '54.
                                                        (MLRA 7:3)

1. Iz otdela fiziologii i patofiziologii vysshey nervnoy deyatel'-
nosti cheloveka Instituta eksperimental'noy meditsiny Akademii
meditsinskikh nauk SSSR i nervnoy kliniki Nauchno-issledovatel'-
skogo pediatricheskogo instituta.   (Poliomyelitis) (Reflexes)

SLOBODZIAN, Eustachy

Problem of bone transplantation in surgical treatment of spinal
tuberculosis. Postepy chir. 2:80-84 1955.

1. Z Sanatorium Przeciwgruzliczego im. J. Krasickiego w Otwocku.
Dyr. dr. J. Majewska-Szulc, Kierow. naukowy prof. dr. A. A. Gruca.
        (TUBERCULOSIS, SPINAL, surgery,
            bone grafting (Pol))
        (BONES, transplantation,
            in spinal tuberc. (Pol))

SLOBODZIAN, Eustachy

Results of the excision of tuberculous foci from the hip joint in
children. Gruzlica 29 no.6:561-568 Je '61.

1. Z Sanatorium Gruzlicy Kostno-Stawowej im. J. Krasickiego w Otwocku
Dyrektor: dr med. J. Sowinski.

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