

OMAROV, T., student.

Optical orientation through vertical shafts with the aid of a
TG-3 theodolite. Gor. zhur. no.2:73-76 P '57. (MLBA 10:4)

1. Kazakhskiy gorno-metallurgicheskiy institut.
(Mine surveying) (Theodolites)

OMAROV, T.; KRYAKUNOV, N.A., dotsent

Using a support for automatic centering of a theodolite in an
arbitrary center of a wall mark. Sbor. nauch. trud. Kaz GMI no.19:
82-85 '60. (MIRA 15:3)

(Mine surveying)

OMAROV, T.B.; TULENKOVA, I.N.

Results of photographic observations of artificial earth
satellites. *Biul.sta.opt.nabl.isk.sput.Zem.* no.3:19 '58.
(MIRA 13:6)

1. Sotrudniki Astrofizheskogo instituta AN Kazakhskoy SSSR.
(Artificial satellites--Tracking)

OMAROV, T.B.; PANOVA, G.V.; SYSHCHENKO, T.Ye.; FIRAGO, B.A.; SHCHEGOLEV,
D.Ye.; LIYGANT, M.; SAVRUKHIN, A.P.

Results of photographic observations of artificial satellites.
Biul.sta.opt.nabl.isk.sput.Zem. no.10:17-24 '59.

(MIRA 13:3)

1. Astrofizicheskiy institut AN KazSSR (for Omarov). 2. Glavnaya
astronomicheskaya (Pulkovskaya) observatoriya AN SSSR (for Panova,
Syshchenko, Firago, Shchegolev). 3. Nachal'nik stantsii nablyudeni-
ya iskusstvennykh sputnikov Zemli, Institut fiziki i geofiziki AN
Tadzhiskoy SSR (for Savrukhin). 4. Nachal'nik stantsii Tartusskogo
gosudarstvennogo universiteta (for Liygant).

(Artificial satellites--Tracking)

Om ARCO, T. D

PHASE I BOOK EXPLOITATION

SOV/4605

Akademiya nauk SSSR. Astrofizicheskiy institut

Izvestiya, tom 10 (News of the Astrophysics Institute of the Academy of Sciences Kazakhskaya SSR) Alma-Ata, 1960. 100 p. 750 copies printed.

Editorial Board: G. M. Idlis, M. G. Karimov, Z. V. Karyagina (Secretary), D. A. Rozhkovskiy, and V. G. Pesenkov (Resp. Ed.); Eds.: L. S. Rzhondkovskaya, and M. Ya. Brailovskaya; Tech. Ed.: V. P. Prokhorov.

PURPOSE: This publication is intended for astrophysicists.

COVERAGE: This is a collection of 13 articles on problems in astrophysics. Individual articles discuss: the forces of gravity, radiative pressure, and inter-reaction of heavenly bodies; the distribution of surface brightness in reflecting nebulae; the relative motion of double stars with corpuscular emission; the photographic determination of the position of the sodium cloud released by the second Soviet cosmic rocket; the relationship between the decrease in the kinetic temperature of the corona and its monochromatic emission in the region of protuberances; the relationship between the velocities of moving sunspot protuberances and variations in their brightness; the ratio of photo-emulsion density to the polarization plane of light falling

Card 1/4

News of the Astrophysics Institute (Cont.)

SOV/4605

at different angles; airglow emissions in the red band spectrum as observed from Alma-Ata; brightness and polarization of the daytime sky observed in the almucantar of the sun in August 1956 in Alma-Ata; the effect of aerosols in the scattering of light in the near-surface layer; the results of an investigation of the absorption function in the μ water vapor band; the distribution of energy in the spectrum of the daytime sky. No personalities are mentioned. Each article is accompanied by a brief English summary and references.

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39003
S/503/62/013/000/001/002
D407/D301

34.4100

AUTHOR: Omarov, T.B.
TITLE: On the two-body problem with variable masses
SOURCE: Akademiya nauk Kazakhskoy SSR. Astrofizicheskiy
institut. Izvestiya, v. 13, 1962, 16 - 20

TEXT: Particular cases are considered of integrability of the equations of motion of the restricted two-body problem with variable masses. The equation of relative motion of 2 celestial bodies of variable mass, is formally written in the same way as the equation of motion of bodies of constant mass, viz.:

$$\frac{d^2 \vec{r}}{dt^2} = -GM(t) \frac{\vec{r}}{r^3} \quad (1)$$

It is recalled that the total mass $M(t)$ is a function of time, which is differentiable and monotonic. The increasing function $\tau = \tau(t)$ is

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On the two-body problem ...

S/503/62/013/000/001/002
D407/D301

introduced, as well as the notation $\vec{r}(t(\tau)) = \vec{\rho}(\tau)$. The motion of a material point of unit mass is considered, in the gravitational field of a central body of variable mass M , surrounded by a non-gravitational medium of "density" $\varphi(t)$. If the density satisfies the condition

$$\varphi(t) = -\frac{1}{2M(t)} \frac{dM}{dt} \quad (15)$$

then the equation of motion is identical with that of the two-body problem with constant mass. Thus, the motion of a material point in the gravitational field of a body of variable mass, surrounded by a non-gravitational medium, whose density is described by Eq. (15), takes place along the unperturbed conic section

$$r = \frac{p}{1 + e \cos \vartheta} \quad (16)$$

but with monotonously varying sectorial velocity. Further, it is assumed that the total mass of the system follows the law

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D407/D301

On the two-body problem ...

$$\frac{dM}{dt} = -\beta M^n \quad (17)$$

where β and n are positive constants ($n \neq 1$); if the total mass follows the exponential law, one arrives at I.V. Meshcherskiy's problem: to determine the motion (in empty space) of a point, attracted to the origin of coordinates, assuming that its mass increases linearly, the additional mass being zero. After effecting a space-time transformation, the two-body problem of variable mass reduces to integrating the equation

$$\frac{d^2 \vec{\rho}_1}{d\tau_1^2} = -GM_0 e^{-\frac{a-3}{a}\tau_1} \frac{\vec{\rho}_1}{\rho_1^3} - \frac{a-3}{2a} \frac{d\vec{\rho}_1}{d\tau_1} - \frac{a+1}{2a} \frac{d\vec{\rho}_1}{d\tau_1} \quad (27)$$

Thus, the relative motion of two bodies of variable mass, described by Eq. (1), the mass following an exponential law, is reduced by the method of mapping to a motion with monotonously changing sectorial

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On the two-body problem ...

S/503/62/013/000/001/002
D407/D301

velocity along an unperturbed conic section, an additional perturbation being the "friction" force with constant coefficients. [Abstractor's note: In the "SOURCE", the year should read 1961, and not 1962.]

Card 4/4

OMAROV, T.B.

Problem of two bodies with variable masses. Izv.Astrofiz.inst. AN
Kazakh.SSR 15:16-20 '62. (MIRA 15:6)
(Problem of two bodies)

OMAROV, T.B.

Importance of dynamic friction for galaxies and their clusters.
Izv.Astrofiz.inst. AN Kazakh.SSR 13:21-26 '62. (MIRA 15:6)
(Galaxies)

S/503/62/014/000/001/007
I023/I223

3,2200

AUTHOR: Omarov, T.B.

TITLE: Differential equation for the osculating elements
in the theory of motion of variable masses

PERIODICAL: Akademiya nauk Kazakhskoy SSR. Astrofizicheskiy
institut. Izvestiya. v.14. 1962, 66-71

TEXT: The following equation defines the motion:

$$\frac{d^2\vec{r}}{dt^2} = GM(t)\frac{\vec{r}}{r^3} + \frac{1}{2M} \frac{dM}{dt} \frac{d\vec{r}}{dt} + \vec{F} \quad (5)$$

where \vec{F} is small relative to the main central force. If
 $v_0^2 < 2GM_0/r_0$, the non-perturbed motion traces out an ellipse.

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S/503/62/014/000/001/007
I023/I223

Differential equation for...

A system of differential equations is derived giving the elements of the path, in general. A special case of two identical bodies, whose masses tend to increase in the presence of a cosmic cloud, assumed to be in static equilibrium relative to an inertial system of coordinates, is then investigated in detail.

Card 2/2

S/503/62/014/000/002/007
I023/I223

24.4/00

AUTHOR: Omarov, T.B.TITLE: The motion of two bodies with variable masses in
a nonstationary resistive mediumPERIODICAL: Akademiya nauk Kazakhskoy SSR. Astrofizicheskiy
institut. Izvestiya. v.14. 1962, 72-75TEXT: The motion of mass point m_0 in the field of a
central body of mass $M(t)$, surrounded by stationary, isotropic
medium of a varying density $\rho(t)$, whose resistance is propor-
tional to the velocity. The equation of motion is:

$$\frac{d^2 \vec{r}}{dt^2} = -GM(t) \frac{\vec{r}}{r^3} - \frac{\lambda}{m_0} \rho(t) \frac{d\vec{r}}{dt} \quad (1)$$

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S/503/62/014/000/002/007
I023/I223

The motion of two bodies with...

An equation for the time-dependence of the major semi-axis of the osculating ellipse is given. It is shown that the eccentricity remains practically constant.

Card 2/2

IDLIS, G.M.; KURMAKAYEV, Z Kh.; OMAROV, T.B.

Structure and dynamics of cosmic systems in the metagalaxy. Izv.
AN Kazakh. SSR. Ser. fiz.-mat.nauk no.1:3-14 '69. (MIRA 17:4)

OMAROV, T.B.

Correction to the article "Role of dynamic friction for galaxies
and their clusters. Izv. AN Kazakh. SSR. Ser. fiz.-mat.nauk no.1:103
'63. (MIRA 17:4)

OMAROV, T.B.

Motion of two bodies with corpuscular radiation. Astron. zhur.
40 no.5:921-928 S-0 '63. (MIRA 16:11)

1. Astrofizicheskiy institut AN KazSSR.

OMAROV, T.B.

Restricted problem of the perturbed motion of two bodies with
variable mass. Astron.zhur. 41 no.1:170-175 Ja-F '64.
(MIRA 17:4)

1. Astrofizicheskiy institut AN KazSSR.

ACCESSION NR: AP4017627

S/0033/64/041/001/0170/0175

AUTHOR: Omarov, T. B.

TITLE: The restricted problem of perturbed motion of two bodies with a variable mass

SOURCE: Astronomicheskij zhurnal, v. 41, no. 1, 1964, 170-175

TOPIC TAGS: astronomy, motion, perturbed motion, Newtonian interaction, perturbed motion mass dependence

ABSTRACT: The restricted problem of two bodies with a variable mass, when the Newtonian interaction involves a small additional force, is discussed in general form. To complete the differential equations for the elements of motion, the author proceeds from La Grange's concepts and, given $\phi(t) = \sqrt{GM(t)}$, arrives at an expression for $\psi(t)$ as a function of time:

$$\frac{d\psi(t)}{dt} = \frac{p^2}{s} \left\{ - \left(\sqrt{\frac{p}{GM(t)}} j_n - \frac{1}{2M} \frac{dM}{dt} s \sin \varphi \right) \times \right. \quad (1)$$

$$\left. \times (\cos \varphi - s \sin \varphi N) + \frac{p}{r} N \left[\sqrt{\frac{p}{GM(t)}} j_n - \frac{1}{2M} \frac{dM}{dt} (1 + s \cos \varphi) \right] \right\} \frac{r^2}{p^2}$$

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ACCESSION NR: AP4017627

$$N = 2 \frac{p^2}{r^2} \int_0^\pi \frac{r^2}{p^2} \cos \varphi d\varphi. \quad (2)$$

The additional force is shown to remain practically negligible throughout the period of motion relative to the modulus of the resultant of the two basic forces and, as a consequence, the corresponding vector equation transforms into an equation determining 6 osculating elements of motion. Orig. art. has: 35 formulas.

ASSOCIATION: ASTROFIZICHESKIY INSTITUT AKADEMII NAUK KAZSSR (Astrophysics Institute, Academy of Sciences of the KazSSR)

SUBMITTED: 10Apr63

DATE ACQ: 18Mar64

ENCL: 00

SUB CODE: AA •

NO REF SOV: 015

OTHER: 001

Card 2/2

L 19385-66 EWT(1) GW
ACCESSION NR: AT5013791

UR/2913/65/005/000/0205/0210

8
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AUTHOR: Omarov, T.B.

TITLE: Osculatory orbit of Armellini-Jeans

SOURCE: AN KazakhSSR. Astrofizichesky Institut. Trudy, v. 5, 1965. Kinematika i dinamika zvezdnykh sistem i fizika mezhzvezdnoy sredy; materialy Vsesoyuznogo soveshchaniya, sostoyavshegosya v Alma-Ata 10-16 oktyabrya 1963 goda (Kinematika i dinamika zvezdnykh sistem i fizika mezhzvezdnoy sredy; materialy Vsesoyuznogo soveshchaniya, sostoyavshegosya v Alma-Ata 10-16 oktyabrya 1963 goda) and dynamics of stellar systems and the physics of interstellar atmosphere; materials of the All-Union conference held in Alma-Ata from October 10-16, 1963, 205-210

TOPIC TAGS: two-body problem, Armellini Jeans theorem, orbit eccentricity, orbit major semiaxis, celestial mechanics, satellite orbit, variable mass satellite, osculatory orbit, double star

ABSTRACT: The limits of applicability of the Armellini-Jeans theorem (T.B. Omarov, Astron. zhurnal, v. XL, no. 5, 1963) concerning the behavior of the eccentricity and major semiaxis of an osculating elliptic orbit in the problem of two bodies with decreasing masses are analyzed. The theorem makes sense only as long as

$$\frac{1}{2} \frac{|M'|}{M} v \ll \frac{GM}{r^2}$$

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ACCESSION NR: AT5013791

However, this condition is satisfied in the important case of double stars. Noting that the problem of two bodies with variable masses represents a special case of aperiodic motion along a conic section perturbed by "friction", the author derives the generalized Jeans expressions

$$a = a_0 e^{-3 \int_0^t \gamma(t) dt}, \quad e = \text{const.}$$

(a = large semiaxis, φ = true anomaly). Orig. art. has: 35 formulas.

ASSOCIATION: Astrofizicheskiy institut AN KazakhSSR (Astrophysics Institut, AN KazakhSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: AA, ME

NO REF SOV: 003

OTHER: 002

LJC
Card 2/2

ACC NR: AR6035279

SOURCE CODE: UR/0269/66/000/009/0007/0007

AUTHOR: Omarov, T. B.

TITLE: Variable diagram of planetary systems

SOURCE: Ref. zh. Astronomiya, Abs. 9.51.71

REF SOURCE: Tr. Astrofiz. in-ta. AN KazSSR, v. 7, 1966, 26-31

TOPIC TAGS: planet, differential equation, planetary system, *practical astronomy*

ABSTRACT: A variable diagram of planet systems is analyzed. The differential equations of the motion of n planets in the vectorial form are converted to the equations of osculatory element of aperiodic motions along conical sections. The evolution of these elements was investigated for various special cases of mass change. Bibliography of 5 titles. [Translation of abstract] [NT]

SUB CODE: 03/

Card 1/1

UDC: 521.1

ACC NR: AP7005058

SOURCE CODE: UR/0031/66/000/010/0053/0061

AUTHOR: Omarov, T. B.; Ivanov, Yu. I.

ORG: None

TITLE: On intermediate motion in celestial mechanics of bodies of variable mass.

SOURCE: AN KasSSR. Vestnik, no. 10, 1966, 53-61

TOPIC TAGS: celestial mechanics, variable mass system, motion equation, orbit calculation

ABSTRACT: Aperiodic motion of two bodies is considered where mass is a function of time. A system of equations is given for rates of change in the elements of an osculating orbit and it is shown that the transformed values of these osculating elements may be interpreted as disturbed Kepler elements of the representative motion

$$\frac{d^2 \vec{r}}{dt^2} = -GM_0 \frac{\vec{r}}{r^3} + \frac{M_0}{M} \vec{F},$$

where

$$\vec{F} = \vec{f} - \frac{1}{2M} \frac{dM}{dt} \frac{d\vec{r}}{dt}$$

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ACC NR: AP7005058

Particular attention is given to intermediate motion described by the equation

$$\frac{d^2 \vec{r}}{dt^2} = -GM(t) \frac{\vec{r}}{r^3} - a(t) \frac{d\vec{r}}{dt}$$

for which the actual motion may be interpreted either as aperiodic motion along a conic section about a center with mass $M(t)$ disturbed by the tangential force

$$\vec{F}_1 = - \left[\frac{1}{2M} \frac{dM}{dt} + a(t) \right] \frac{d\vec{r}}{dt}$$

or as aperiodic motion along a conic section about a center with mass $\mu(t)$ with perturbation by the central force

$$\vec{F}_2 = G [\mu(t) - M(t)] \frac{\vec{r}}{r^3}$$

where

$$\mu(t) = M(t_0) \exp \left\{ -2 \int_{t_0}^t a(t) dt \right\}$$

giving two different systems of osculating elements. Various methods are described for representing the solution of the initial equation of intermediate motion for dynamic problems in the form of osculating aperiodic motions along a conic section. The

Card 2/3

ACC NR: AP7005058

results are applied to equations of planetary motion and a system of differential equations is given defining the osculating elements of planetary orbits with regard to the effect of continuous loss of solar mass. Orig. art. has: 84 formulas.

SUB CODE: 03/ SUBM DATE: None/ ORIG REF: 08/ OTH REF: 01

Card 3/3

L 13644-63 EWT(m)/BDS AFFTC/ASD
ACCESSION NR: AP3003114

S/0056/63/044/006/1873/1875

53
52

AUTHOR: Kogan, V. S.; Omarov, T. G.

TITLE: Isotopic effect in the magnitude of the volumes of the unit cells of nitrogen isotopes /9

SOURCE: Zhurnal eksper. i teor. fiziki, v. 44, no. 6, 1963, 1873-1875

TOPIC TAGS: nitrogen isotope, relative volume change

ABSTRACT: The lattice parameters of nitrogen isotopes were determined at 20°K, with the aim of ascertaining whether the relative change in volume is a linear function of the relative change in mass. It was found that the same linear relationship prevails between these relative changes in nitrogen as in other molecular-gas isotopes. The slope of the corresponding lines for the isotopes of atomic gases (neon and helium) is somewhat larger than for molecular gases. Comparison with the presently available data for metals suggests that the slope of the line increases with decreasing binding force in the lattice. "The authors thank Academician of the Ukrainian Academy of Sciences B. G. Lazarev for interest in the work and for a discussion of its results." Orig. art. has: 2 figures, 2 formulas, and 1 table.

Card 1/2

Physicstechnical Inst. Academy of Sci.

L 23592-66 - FSS-2/EMT(1)/T IJP(c)
ACC NRI AF6005609

SOURCE CODE: UR/0233/65/000/103/0087/0089

AUTHOR: Kogan, V. S.; Omarov, T. G.

38
B

ORG: none

TITLE: Vacuum and low-temperature x-ray camera

SOURCE: AN AzerbSSR. Izvestiya. Soriya fiziko-tekhnicheskikh i matematicheskikh nauk, no. 3, 1965, 87-89

TOPIC TAGS: x ray diffraction camera, thermal expansion, ionic crystal

ABSTRACT: The camera was developed for taking x-ray pictures of easily oxidizable low-melting samples. In contrast to other such cameras now in existence, it combines the two operations of taking the pictures in a vacuum and in nitrogen vapor at a temperature of 78°K. Provision is made for setting up two samples simultaneously, and moving them successively into the path of the beam. Each sample is photographed on a separate frame without reloading. A detailed diagram of the camera is given and its operation is described. The camera was used for determining the average coefficient of thermal expansion in the range of 78-300°K, and also for studying the isotope effect in the values of the lattice parameters of ionic crystals at 78° and 300°K. In the first case, the same sample at two different temperatures (78° and 300°K) was photographed on two film frames. In the second case, samples differing in isotopic composition

Card 1/2

L 23592-66

ACC NR: AP6005609

sition were photographed at the given temperature (78° or 300°K). Photographing on the same film of two such x-ray diffraction patterns of samples with a small difference in lattice parameters permits the determination of this difference with a high degree of precision. Orig. art. has: 2 figures.

SUB CODE: 14,20/

SUBM DATE: 12Jan65/

ORIG REF: 003/

OTH REF: 000

Card 2/2 BK

OMAROV, T.R.

Spelling distortions in the geographical names of Kazakhstan; using the example of lakes in Kurgal'dzhino District, Tselinograd Province. Trudy Otd. geog. AN Kazakh. SSR no.10:115-116 '63. (MIRA 16:10)

OMAROV, T.R.

Mechanical composition of the bottom sediments in the 'Iakoi'
lake group. Trudy Otd. geog. AN Kazakh. SSR no. 11:179-191 '65.
(MIRA 18:8)

OMAROV, Ye.O. (Karaganga)

Use of the method of straight lines in the approximate solution of
a partial elliptic differential equation. Zhur. vych. mat. i mat.
fiz. 4 no.3:585-592 My-Js '64, (MIRA 17:6)

OMAROV, Ye.O.

Almost periodic solutions for linear partial differential
equations with constant coefficients having a free term. Izv.
AN Kazakh.SSR.Ser.mat.i mekh. no.8:28-36 '59. (MIRA 13:5)
(Differential equations, Linear)

OMAROV, Ye. O.

S/166/63/000/001/001/010
B112/B186AUTHOR: Omarov, Ye. O.

TITLE: Approximate solution by the method of straight lines to Dirichlet's problem for a partial differential equation of the elliptic type

PERIODICAL: Akademiya nauk Uzbekskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 1, 1963, 21 - 24

TEXT: The solution u to Dirichlet's problem for the equation $\partial^2 u / \partial x^2 + \partial^2 u / \partial y^2 + a \partial u / \partial x + b \partial u / \partial y + cu = f(x, y)$ (1) over a closed trapezoidal region D is approximated as shown in the figure. The approximate solutions have the form

$$u_n(x) = \sum_{s=1}^n (-1)^{s+1} \sqrt{\frac{2}{n+1}} \sin \frac{\pi ks}{n+1} \left[C_{s1} e^{v_{s1}x} + C_{s2} e^{v_{s2}x} + \tilde{\varphi}_s(x) \right]. \quad (10),$$

in which $\tilde{\varphi}_s(x)$ is a particular solution of an equation $\varphi_s'' + a\varphi_s' + \gamma_s\varphi_s = \tilde{\tau}_s$, and v_{s1}, v_{s2} are the roots of the characteristic

Card 1/2

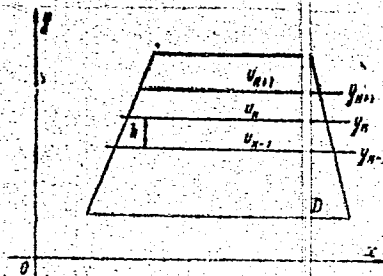
Approximate solution by the ...

S/166/63/000/001/010
B112/B186

equation $v^2 + av + \gamma_s = 0$. The coefficients a and γ_s are constants, the functions $\tilde{\tau}_s$ are determined by the boundary function. There is 1 figure.

ASSOCIATION: Karagandinskiy politekhnicheskii institut (Karaganda Polytechnical Institute)

SUBMITTED: September 19, 1962



Card 2/2

OMAROV, Ye.O.

Use of the straight line method in the approximate solution of
the Dirichlet problem for an elliptic partial differential
equation. Trudy Sekt. mat. i mekh. AN Kazakh. SSR 2:45-48 '63.
(MIRA 16:10)

ACCESSION NR: AP4037266

S/0208/64/004/003/0585/0592

AUTHOR: Omarov, Ya. O. (Karaganda)

TITLE: Approximate solution of one elliptic type partial differential equation by the method of lines

SOURCE: Zhurnal vy*chislitel'noy matematiki i matematicheskoy fiziki, v. 4, no. 3, 1964, 585-592

TOPIC TAGS: elliptic differential equation, approximate solution, line method, boundary value problem, deflection equation

ABSTRACT: The solution of the boundary-value problem

$$\Delta^2 u + a\Delta u + bu = f(x,y), \tag{1}$$

$$u|_B = g_2(a), \quad \frac{\partial u}{\partial n}|_B = g_2(a), \tag{2}$$

to which many problems of mathematical physics are reduced, is

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ACCESSION NR: AP4037266

studied in a rectangle G by the method of lines with the assumption that the problem has a unique solution. The domain G is divided into rectangular strips by straight lines drawn parallel to the x -axis at a distance h from each other. The solution $u(x, y_k) = u_k(x)$ at $y = y_k$ of equation (1) is sought. The system of ordinary differential equations of the method of lines is derived approximating equation (1) with an accuracy on the order of $O(h^4)$. Boundary conditions (2) are approximated with an accuracy on the order of $O(h^2)$. The method of solving the system of ordinary differential equations is described and the explicit form of the solution $u_k(x)$ with $4n$ (n the number of equations) arbitrary constants is obtained. To determine the constants, a system of algebraic equations is written. The correctness and existence of the solutions of the algebraic equations in the rectangular domain are proved. As an illustration, the solution of the equation of deflections for an orthotropic plate fixed at the edges is studied. Orig. art. has: 2 figures and 19 formulas.

Card 2/3

Country : USSR U
Category= : General Problems of Pathology. Tumors. Compa-
rative Oncology. Human Tumors
Abs. Jour. : Ref Zhur-Biol, 1959, No 4, 18411
Author : Omarov, Yu. Sh.
Institut. : Dagestan Medical Institute
Title : A Case of Malignant Melanoma of the Adrenal
Gland with Multiple Skin Metastases
Orig. Pub. : Sb. nauchn. tr. Dagest. med. in-t, 1956, 6,
300-301
Abstract : No abstract.

Card: 1/1

26

OMAROV, Zh., ⁰ kand. vet. nauk

Localization of the synovial villi in the carpal and tarsal joints of horses. Trudy AZVI 10:445-449 '57. (MIRA 12:8)

1. Iz kafedry operativnoy khirurgii i topograficheskoy anatomii (zav.kafedroy doktor biol.nauk, zasluzhennyy deyatel' nauki Kaz SSR, prof. A.F.Naksimenko) Alma-Atinskogo soovetinstituta.
(Synovial membranes) (Horses--Anatomy)

PANIN, V.M., kand. veterin. nauk; OMAROV, Zh.O., dotsent

Amputation of horns in rams. Veterinariia 39 no.7:69-70 31 '62.

(MIRA 18:1)

1. Alma-Atinskiy zooveterinariyny institut.

AUTHOR:

Omarova, A.M.

90-50-5-2/10

TITLE:

Automation of the Lowering of Tools in Drilling of Oil wells (Avtomatizatsiya spuska instrumenta pri burenni neftyan'nykh skvazhin)

PERIODICAL:

Energeticheskiy Byulleten', 1958, Nr 5, pp 4-10 (USSR)

ABSTRACT:

Special braking devices are used in modern lifting winches of drilling installations. Hydrodynamic devices have been employed during the past years. The Plant KHEMZ has now developed an electric braking device which is a synchronous generator working under dynamic braking conditions. The problem of control of this braking device has not yet been solved in all technical details. Automatization of the lowering of tools is very important, especially in high-speed drilling. Increased well depth leads to increased stress on the hook of 10-15 times. The speed of tool lowering must be kept constant, however. The braking moment must be controllable within a wide range. Two circuit types of automatic braking control machines were tested under industrial conditions: a circuit with automatic relay control and a circuit of continuous control. A synchronous generator (MST-321-8/12) was used as a braking machine.

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90-58-5-2/10

Automation of the Lowering of Tools in Drilling of Oil Wells

The principal circuit of the automatic speed control is represented in Figure 2. The circuit contains a synchronous generator, an exciter unit, the feeding runner of the synchronous generator, and a tachogenerator used as a measuring element, the voltage of which is proportional to the lowering speed of the tools. The electromagnetic relays RU-1 and RU-2 are connected with the terminals of the tachogenerator. The relays start operating when the lowering speed of the tool is great enough. Figure 3 shows that the lowering is carried out with periodic fluctuations. For the lowering of heavy tools, the braking moment is changed by using the regulating rheostat RS. The principal circuit of the continuous regulation of the braking machine is represented in Figure 4. This circuit is a two-cascade magnetic amplifier feeding the winding of an exciter unit. The control winding is switched on when there is a difference between the assigned voltage and the tachogenerator voltage. The required lowering speed is fixed on the potentiometer. An increase in speed causes an automatic regulation by means of the tachogenerator voltage. Figure 5

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90-58-5-2/10

Automation of the Lowering of Tools in Drilling of Oil Wells

shows that autofluctuations arise in the system. For suppressing these fluctuations, a stabilizing device is used consisting of capacitors and resistors. The oscillogram in Figure 6 shows that the stabilizing device leads to an almost constant lowering speed. The static mechanic characteristics at various speeds are shown in Figure 7. It is clear that an increase in speed above the assigned value leads to an increase in the braking moment, which again establishes the constant speed. A comparison of the two circuits leads to the conclusion that preference is to be given to the circuit of continuous control, because it guarantees a constant speed. In the relay system, the lowering of tools is carried out under fluctuations. The presence of contacts in the main current chain reduces the reliability of the device. It is possible that the speed can be regulated according to the weight of the lowered tools. For this purpose, it is necessary to remove the locking potential from the circuit of continuous control.

There are 8 figures, and 2 Soviet references.

Library of Congress

1. Drilling machines-Equipment
2. Oil wells-Drilling
3. Petroleum-Production
4. Drilling machines-Automation

AVAILABLE:
Card 3/3

OMAROVA, A.M.

Studying periodic conditions in the control system for lowering
drilling tools. Izv. vys. ucheb. zav.; neft' i gaz 2 no.6:91-96
'59. (MIRA 12:10)

1. Energeticheskiy institut im. I.G. Yes'mana AN Azerbaydzhansko
y SSR.

(Hoisting machinery)

OMAROVA, A. M., Cand Tech Sci — (diss) "Development and research of systems for the automatic regulation of lowering instruments during the drilling of oil wells," L'vov, 1960, 22 pp (L'vov Polytechnical Institute) (IL, 33-60, 145)

OMAROVA, A.M.

Investigating transition processes in a system for automatically
controlling the starting of a drilling tool. Izv. Akad. Nauk Azerb. SSR.
Ser. fiz.-mat. i tekhn. nauk no. 1:97-104 '60. (MIRA 13:11)
(Automatic control)

KALEKENOV, D.K.; ~~GMAROVA~~, E.I.

Effect of the microelements boron, copper, and manganese on the
growth indices and yield of tobacco. Trudy Inst. bot. AN Kazakh.
SSR. 12:227-235 '62. (MIRA 15:5)
(Alma-Ata Province--Tobacco--Fertilizers and manures)
(Trace elements)

OMAROVA, K.D.

Mercury and amalgam electrodes in coulometry. Trudy Inst.khim.nauk
AN Kazakh.SSR 6:170-177 '60. (MIRA 14:4)
(Coulometry)

OMAROVA, K.D.

Using a mixture of hydrogen and nitrogen for the removal of
dissolved oxygen. *Zav.lab.* 27 no.5:551 '61. (MIRA 14:5)

1. Institut khimicheskikh nauk AN Kazakhskoy SSR.
(Oxygen) (Nitrogen) (Hydrogen)

1 1114-63

EWP(q)/EWT(m)/BDS AFTTC/ASD JD

S/032/63/021/005/005/022

54

AUTHOR: Omarova, K.D. and Kozlovskiy, M.T.

TITLE: Coulometric determination of thallium at a controlled potential

PERIODICAL: Zavodskaya Laboratoriya, v. 29, no. 5, 1963, 528-530

TEXT: A method of coulometric determination of thallium is described, based on the Lingane method, and the possibility of using the MacNevin and Baker method with a mercury electrode is shown. The relative error in determination of 0.2 - 2.0 mg Tl is 0.48 - 11.5%. There are 3 figures and 1 table. The most important English-language references are: (1) J.J. Lingane, J. Am. Chem. Soc., 67, 1916 (1945) and (2) W.M. MacNevin and V.B. Baker, Anal. Chem., 24, 986 (1952).

ASSOCIATION: Kazakhskiy politekhnicheskiy institut i Kazakhskiy gosudarstvennyy universitet im. S. M. Kirova (Kazakh Polytechnical Institute and Kazakh State University)

KOZLOVSKIY, M.T., akademik; OMAROVA, K.D.; LEVITSKAYA, S.A.

Amalgam polarography with stationary dropping mercury electrodes as a variant of coulometric analysis. Vest. AN Kazakh. SSR 20 no.2:81-84
F '64. (MIRA 18:1)

1. AN Kazakhskoy SSR (for Kozlovskiy).

OMAROVA, Kh.Sh.

Treatment of patients suffering from chronic gastritis with the slightly mineralized water of the Turgen' Spring. Izv. AN Kazakh. SSR Ser. med. nauk no.2:85-88'63. (MIRA 16:10)

(STOMACH — INFLAMMATION)

(E. KAZAKHSTAN — KAZAKHSTAN DISTRICT — MINERAL WATERS)

OMAROVA, Kh.Sh.

Effect of the slightly mineralized water of the Turgan'
Spring on the secretory activity of the stomach. Izv. AN
Kazakh. SSR. Ser. med. nauk no.3:90-93 '63.
(MIRA 1':1)

5(4)

SOV/79-29-5-5/75

AUTHORS:

Sumarokova, T., Gmarova, R.

TITLE:

On the Interaction of Tin Chloride With Esters. 1. (O vzaimodeystvii khlorного olova so slozhnymi efirami.1.)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 5, pp 1430 - 1437 (USSR)

ABSTRACT:

In the present paper the systems $\text{SnCl}_4 - \text{CCl}_3\text{COOC}_2\text{H}_5$ and $\text{SnCl}_4 - \text{CH}_2\text{ClCOOC}_2\text{H}_5$ by means of physico-chemical analysis conductiometry, viscosimetry, volumetry and cryoscopy were investigated. The operational methods, the preparation and purification of tin chloride were described previously (Refs 12 and 16). The results obtained by determination of the viscosity and the values $B_{\frac{g}{g}}$ calculated from the equation

$\eta = A e^{\frac{B}{RT}}$ (Refs 17-19) are presented in table 1. Table 2 gives the determination results of the density. In figure 1 the diagrams property - composition of the system $\text{SnCl}_4 - \text{CCl}_3\text{COOC}_2\text{H}_5$ are shown. The determination results of viscosity, specific conducti-

Card 1/3

On the Interaction of Tin Chloride With Esters.1.

SOV/79-29-5-5/75

vity and density for the system $\text{SnCl}_4 - \text{CH}_2\text{ClCOOC}_2\text{H}_5$ are given in table 3 and 4, the calculated values of the corrected conductivity, temperature coefficient of the conductivity, and of the constant B are presented in table 5. Figure 2 gives the diagrams property - composition of this system. On investigating the behavior of tin chloride with respect to ethyl trichloro- and ethyl monochloro-acetate the following was found: In the system $\text{SnCl}_4 - \text{CCl}_3\text{COOC}_2\text{H}_5$ the components react with one another until the compound $\text{SnCl}_4 \cdot 2\text{CCl}_3\text{COOC}_2\text{H}_5$ is formed. In this system the electric conductivity is practically not existing. In the system $\text{SnCl}_4 - \text{CH}_2\text{ClCOOC}_2\text{H}_5$ the reaction between the components is carried on up to the formation of the compounds $\text{SnCl}_4 \cdot 2\text{CH}_2\text{CClCOOC}_2\text{H}_5$ and $\text{SnCl}_4 \cdot 3\text{CH}_2\text{ClCOOC}_2\text{H}_5$. The latter determines the electric conductivity of the system. As can be seen from figures 4 and 5 the complex acids $\text{SnCl}_4 \cdot 2\text{R}'\text{COOH}$ are considerably stronger than $\text{SnCl}_4 \cdot 2\text{RCOOR}'$. From the comparison of

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On the Interaction of Tin Chloride With Esters. 1.

SOV/19-29-5-5/75

the behavior of ethyl- and ethyl-monochloro-acetate with the behavior of ethyl-trichloro-acetate with respect to tin chloride it can be seen that the electric conductivity then appears in the systems formed from tin chloride and esters, if the compound $\text{SnCl}_4 \cdot 3\text{RCOOR}'$ is formed in the solution. There are 5 figures, 5 tables, and 24 references, 19 of which are Soviet.

ASSOCIATION: Institut khimicheskikh nauk Akademii nauk Kazakhskoy SSR
(Institute of Chemical Sciences of the Academy of Sciences,
Kazakhskaya SSR)

SUBMITTED: April 18, 1958

Card 3/3

5(4)

AUTHORS: Sumarokova, T., Omarova, R., Kuz'menko, N.

SOV, '79-29-5-6/75

TITLE: On the Interaction of Tin Chloride With Esters. 2. (O vzaimodeystvii khlornogo olova so slozhnymi efirami. 2.)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 5, pp 1437 - 1442 (USSR)

ABSTRACT: In the present paper the influence exercised by the length of the aliphatic alcohol radical upon the acid-basic properties of esters was investigated. Viscosity, density and electric conductivity of the systems $\text{SnCl}_4 - \text{CH}_3\text{COOC}_8\text{H}_{17}$ and $\text{SnCl}_4 - \text{CH}_3\text{COOC}_{16}\text{H}_{33}$ were investigated. The results obtained on the determination of the properties as well as the calculated temperature coefficients of the electric conductivity, the corrected conductivity and the constant B for the system $\text{SnCl}_4 - \text{CH}_3\text{COOC}_8\text{H}_{17}$ which was investigated at 25 and 50°, are given in table 1. In figure 1 the diagrams property-composition are presented. By physico-chemical analysis it could be concluded that the components of the system react with one another, thus forming a complex compound $\text{SnCl}_4 \cdot 2\text{CH}_3\text{COOC}_8\text{H}_{17}$. The system $\text{SnCl}_4 - \text{CH}_3\text{COOC}_{16}\text{H}_{33}$ was in-

Card 1/3

On the Interaction of Tin Chloride With Esters. 2.

SOV/79-29-5-6/75

investigated at 40, 50, 60 and 70°. The determination results are listed in tables 2 and 3, the calculated values of the corrected electric conductivity, the temperature coefficient of the conductivity and the constant B in table 4. The diagrams property-composition can be seen in figure 2. On the strength of the physico-chemical analysis it could be concluded that a complex compound $\text{SnCl}_4 \cdot 2\text{CH}_3\text{COOC}_{16}\text{H}_{33}$ is formed in the system. It was separated in free state. Its melting point is 56°. The electric conductivity in the system indicates the existence of this compound. Figure 3 compares the values of the electric conductivity at 50° in the systems $\text{SnCl}_4 - \text{CH}_3\text{COOC}_2\text{H}_5$ (Ref 4), $\text{SnCl}_4 - \text{CH}_3\text{COOC}_8\text{H}_{17}$ and $\text{SnCl}_4 - \text{CH}_3\text{COOC}_{16}\text{H}_{33}$. The value of the corrected conductivity of octyl acetate solutions is seen to be far smaller than in octyl acetate and especially ethyl acetate solutions. This can be explained by the fact that the formation of the complex compounds $\text{SnCl}_4 \cdot 3\text{RCOOR}'$ is a secondary redox reaction. It proceeds via the stage of the formation of complex acids $\text{SnCl}_4 \cdot 2\text{RCOOR}'$ which become weaker on lengthening

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On the Interaction of Tin Chloride With Esters. 2.

SOV/79-29-5-6/75

of the radical. A similar rule was found in the systems formed from tin chloride and carboxylic acids (Refs 16,17). There are 3 figures, 4 tables, and 17 references, 13 of which are Soviet.

ASSOCIATION: Institut khimicheskikh nauk Akademii nauk Kazakhskoy SSR
(Institute of Chemical Sciences of the Academy of Sciences,
Kazakhskaya SSR)

SUBMITTED: April 18, 1958

Card 3/3

AZERHAYEV, I.N., akademik; MOLCHANOVA, T.Kh.; OMAROVA, R.G.

Thiocyanogen and chlorine derivatives of acetylene glycols.
Vest. AN Kazakh. SSR 21 no.12:44-48 D '65. (MIRA 12:11)

OMAROVA, S. R.

Omarova, S. R. -- "Electrochemical and Catalytic Properties of Platinum-Palladium Alloys." Cand Chem Sci, Kazakh State U, Alma-Ata 1953.
(Referativnyy Zhurnal--Khimiya, No 1, Jan 54)

So: SUM 168, 22 July 1954

USSR/Chemistry - Physical chemistry

Card 1/2 Pub. 22 - 33/54

Authors : Sokol'skiy, D. V., Act.Memb., Acad. of Sc., Kaz. SSR; and Omarova, S. R.

Title : Electrochemical and catalytic properties of a Pt-Pd alloy (1:10)

Periodical : Dok. AN SSSR 102/5, 977-979, Jun 11, 1955

Abstract : Experiments were conducted at various temperatures and different alkali-acid concentrations to determine the electrochemical and catalytic properties of Pt-Pd alloys. The alloy was obtained through combined electrochemical deposition in a $PdCl_2$ $PtCl_4$ mixture. It was found that the hydrogenation of the double as well as triple bond in the Pt-Pd alloy takes place at a considerably high rate. The established greater catalytic activity

of the alloy tested is explained by the increase in the number of

Institution : The S. M. Kirov State University, Kazakhstan

Submitted : January 18, 1955

Card 2/2 Pub. 22 - 33/54

Periodical : Dok. AN SSSR 102/5, 977-979, Jun 11, 1955

Abstract : activated-adsorbed hydrogen on the surface of the alloy. The property of such catalyst was found to be similar to the properties of skeletal catalyst.

SECRET. No. four USSR references: (1931-1952). Table; graphs.

S/08./60/009/018/001/009
A006/A001

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 8, p. 64, # 72588

AUTHORS: Omarova, S. R., Sokol'skiy, D. V. A ✓

TITLE: Study of the Catalytical Properties of Pd-Ag Alloys

PERIODICAL: Uch. zap. Kazakhsk. un-ta, 1958, Vol. 44, pp. 40 - 46

TEXT: A study was made of kinetics of hydrogenation of dimethyl acetylenyl carbinol and allyl alcohol on Pd-Ag alloys of 4:1, 3:2 and 3:7 composition. It is shown that the order of reaction for a triple and double bond is the same (zero) at all the temperatures (50, 40, 30, 20°C). The rate of hydrogenation of a triple bond is in all cases higher than that of a double bond. In hydrogenation of a triple bond on Pd-Ag alloys silver centers participate in the activation of a non-saturated compound. On Pd-Ag alloys the di-phase-dissolved hydrogen does not participate in hydrogenation reactions of bonds $> C = C <$ and $- C \equiv C -$.

The author's summary

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

Card 1/1

OMAROVA, Y.A., (Moskva)

Study of gas exchange in mice with the aid of a modified open system, Pat.fiziol. i eksp.terap 2 no.4:52-54 JI-Ag '58

(MIRA 11:12)

1. Iz laboratorii obshchey farmakologii (zav. - prof. G.A. Ponomarev) Instituta farmakologii i khimioterapii AMN SSSR.

(BASAL METABOLISM

modified open system for determ. in rats (Rus))

OMAROVA, V. A.

"Material on the Pharmacology of Aminazine Obtained from Research on the Gas Exchange and Certain Biochemical and Physiological Indices."

report presented at the 147th meeting of the Pharmacology and Toxicology Section of the Moscow Society of Physiologists, Biochemists and Pharmacologists, 22 Apr. 1958.

~~All-Union Institute for Research in Pharmaceutical Chemistry~~

(Farmakologiya i Toksikologiya, 21, no 6, Nov-Dec 56, p. 618)

AMS USSR, Inst. Pharmacology & Chemotherapy

OMAROVA, Y.A.

Pathways of aminazine excretion. Farm. i toks. ZI no. 6:14-18 B-D '58.
(MIRA 12:1)

1. Laboratoriya obshchey farmakologii (zav. - prof. G.A. Ponomarev)
Instituta farmakologii i khimioterapii AMN SSSR.
(CHLORPROMAZINE, in urine,
after parenteral admin. in rats (Rus))

OMAROVA, V.A.

Citric acid level in the blood serum of animals under normal conditions and following administration of thiorazine [with summary in English]. Ukr.biokhim.zhur. 30 no.6:897-902 '58.

(MIRA 11:12)

1. Laboratoriya obshchey farmakologii Instituta farmakologii i khimioterapii ANU SSSR, Moskva.

(CITRIC ACID) (PHENOTHIAZINE) (BLOOD--ANALYSIS AND CHEMISTRY)

OMAROVSKIY, Aleksandr Grigor'yevich; GRINGAUZ, S., redaktor; YAKOVIEVA,
Ye., tekhnicheskiy redaktor

[Heavy industry is the basis of the development of Soviet
national economy] Tiazhelaya industriya-osnova razvitiya narod-
nogo khoziaistva SSSR. (Moskva) Moskovskii rabochii, 1955. 95 p.
(Russia--Industries) (MIRA 9:2)

OMAROVSKIY, A.G.

Some characteristics of distribution of the machine-building industry
of the U.S.S.R. Izv.AN SSSR.Ser.geog. no.3 40-49 My-Je '56.

(MLRA 9:11)

1. Nauchno-issledovatel'skiy ekonomicheskly institut Gosplana SSSR.
(Industries, Location of)
(Machinery industry)

OMAROVSKIY A G.

AUTHOR: Omarovskiy, A.G., Candidate of Technical Sciences. 122-1/34

TITLE: Problems of the regional distribution of the engineering industry in the USSR (Voprosy rayonirovaniya mashinostroitel'noy promyshlennosti SSSR)

PERIODICAL: "Vestnik Mashinostroyeniya" (Engineering Journal), 1957, No.1, pp. 3 - 11 (U.S.S.R.)

ABSTRACT: Misgivings about the major lines of organisation of the engineering and metal-working industries are expressed. One major inadequacy is the result of the tendency to establish self-contained plants which possess every type of engineering facility from design offices and experimental shops to large and comprehensive tool shops and plastic component factories. The tool output produced by the undertakings of the Ministry of the Machine Tool and Tool Industry supplies the needs of Soviet Engineering only to the extent of 45-50%. The remainder is manufactured by the engineering plants themselves. It is reported that a thread milling cutter produced by the large "Russkiy Dizel" diesel engineering manufacturing plant costs 3.8 times more than the standard price list value and a "home-produced" tap costs 5.6 times more. The provision of the entire supply of standard tools made by special factories is estimated to be capable of saving between 3 and 4 billion Roubles per annum. The capital outlay to achieve this volume of tool manufacture would, it is thought, pay for itself in a single year. A

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Problems of the regional distribution of the engineering industry
in the USSR. (Cont.)

122-1-1/34

similar situation exists in the manufacture of fastenings and other standard components, of castings, forgings, pressings, plastic components and others. The much greater degree of specialisation in the engineering industry of the West is reported with examples. Lack of specialisation is regarded as the greatest lag in the development of Soviet engineering manufacture. The pressure of events which has forced engineering plants to manufacture their own tools and often also their own machine tools and automatic production lines has been caused by a major fault in planning. The modern trend of standardisation in tooling and in the components built into engineering products has not found its reflection in the USSR in the production of these items by specialised manufacturing plants.

One of the main reasons for the failure to achieve the economies possible by specialisation has been the lack of attention to the location of industry. The uncertainties and cost of transport and communications have forced many plants to adopt domestic manufacture of specialised semi-manufactured materials, standard components and ordinary tools. Different branches of engineering are ruled by different considerations which apply to their location. In most cases (with the exception of the heaviest engineering equipment manufacture, whose location is dictated almost

Card 2/4 entirely by resources or use) the location of different stages of

Problems of the regional distribution of the engineering industry in the USSR. (Cont.)

122-1-1/34

the production process in different places is a powerful instrument in production economy.

Of the total quantity of machinery and engineering products installed in the main economic regions of the USSR between 50% and 70% is transported from other regions. This internal traffic has been rising instead of falling. In the North-west region, the percentage of machinery imported from other regions went up from 34% in 1939 to 43% last year. The remoter regions of the USSR, namely Eastern Siberia, Kazakhstan and the Far Eastern region, import each year 600 000 tons of machinery and equipment. The cost of transport is borne by the State and amounts to between 300 and 400 million Roubles (about 20% of the total value). For instance, after the establishment in 1932 of the Kuznetsk Metallurgical Plant in Siberia, not a single large or medium-size metallurgical plant has been built either in the Far East or in Central Asia. There is no motor-car production, chemical engineering equipment construction, nor instrument manufacture east of the Urals.

In the re-planning of the location of industry two tendencies
Card 3/4 will certainly be pursued. One is the division of the whole

Problems of the regional distribution of the engineering industry in the USSR. (Cont.)

122-1-1/34

territory of the USSR into a larger number of regions than the two (European and Asiatic) or three (Western, Central and Eastern) hitherto adopted.

The other tendency, dictated more by political than by economic or industrial considerations, is the movement of industry towards the East. Such a movement has ample justification in the availability of vast natural resources. There is evidence that no solution has been found yet to the problem of transporting willing, able and skilled industrial personnel to remote regions.

Card 4/4 There is 1 map.

AVAILABLE: Library of Congress

OMAROVSKIY, A.G., kand.ekonomicheskikh nauk.

Specialization of industrial production and zoning of the
machinery industry of the U.S.S.R. Vest.mash. [37] no.11:89-95
N 157. (MIRA 10:10)
(Machinery industry)
(Economic zoning)

SOV/122-58-6-28/37
AUTHOR: Omarovskiy, A.G., Candidate of Technical Sciences
TITLE: ~~The Economics of the Repair of Machinery and the Location of Repair Shops~~ (Ekonomika remonta mashin i razmeshcheniye remontnykh predpriyatiy)
PERIODICAL: Vestnik Mashinostroyeniya, 1958, Nr 6, pp 68-71 (USSR)
ABSTRACT: Excessive manual labour is used in the Soviet union for the repair of plants and machinery. Typical examples quoted include 540 man hours rated for the major overhaul of an engine and screw-cutting lathe compared with less than 400 man hours spent in the manufacture of the same lathe. The major overhaul of a lorry consumes 2-3 times more man hours than its manufacture. The organisation of repair work is discussed with reference to foreign practice of specialised repair shops and the provision of "sealed maintenance" facilities. Successful examples of Soviet repair organisations such as railway repair shops and power plant machinery repair shops are quoted. The creation of further specialised repair shops and the organisation of co-operation between specialised shops is advocated. It is stated that the manufacture of spare parts in

Card 1/2

SOV, 122-58-6-28/37

The Economics of the Repair of Machinery and the Location of Repair Shops

specialised plants for tractors, motor-cars and agricultural machinery alone would save the national economy 2 billion roubles per annum.

There are 4 Soviet references.

1. Machines--Maintenance

Card 2/2

OMAROVSKIY, A. G.

The structure of Soviet industrial production. Vop. ekon. no. 12:
60-70 D '58. (MIRA 11:12)
(Russia--Industries)

25(5)

PHASE I BOOK EXPLOITATION

SOV/2171

Omarovskiy, Aleksandr Grigor'yevich, Candidate of Economic Sciences

Mashinostroyeniye v 1959-1965 godakh; razvitiye mashinostroitel'noy promyshlennosti SSSR po semiletnemu planu. (Machine Manufacturing During 1959-1965; Development of the Machine-manufacturing Industry in the USSR in the Seven Year Plan) Moscow, izd-vo "Znaniye," 1959. 31 p. (Series: Vsesoyuznoye obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy. Seriya III, 1959, vyp. 14) 57,000 copies printed.

Sponsoring Agency: Vsesoyuznoye obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy.

Ed.: Z.S. Bogatyrenko; Tech. Ed.: Ye. V. Savchenko.

PURPOSE: This booklet is intended for general readers interested in the progress of the Soviet machine-manufacturing industry.

Card 1/2

Machine Manufacturing During 1959-1965; (Cont.)

SOV/2171

COVERAGE: The author of this booklet briefly describes the importance of a sound, well-equipped machine-manufacturing industry to the over-all strength of the USSR. The present and future objectives of the industry geared to the Seven Year Plan for the development of the Soviet economy are outlined and discussed. Emphasis is placed on the major branches of the industry. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

Machine Manufacturing as the Basis for Technological Progress	3
Objectives of USSR Machine Manufacturing in the Seven Year Plan	8
Development of the Major Branches of USSR Machine Manufacturing During the 1959-65 Period	13
Soviet Machine Manufacturers in the Struggle for Fulfillment of the Seven Year Plan Ahead of Schedule	30

AVAILABLE: Library of Congress

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9-21-59

25(5)

PHASE I BOOK EXPLOITATION

SOV/2104

Omarovskiy, Aleksandr Grigor'yevich

Spetsializatsiya proizvodstva i razmeshcheniye mashinostroitel'noy promyshlennosti SSSR (Production Specialization and Territorial Distribution of the Machine Building Industry in the USSR) Moscow, Mashgiz, 1959. 178 p. 3,500 copies printed.

Reviewers: N.A. Orlov, Professor, and L. Ya. Berri, Doctor of Economical Sciences, Professor; Ed.: A.A. Khotseyev, Candidate of Economical Sciences; Ed. of Publishing House: A.A. Salyanskiy; Tech. Ed.: A.P. Uvarova; Managing Ed. for Literature on the Economics and Organization of Production (Mashgiz): T.D. Saksaganskiy.

PURPOSE: This book is intended for plant managers and economists, personnel of planning organizations, and instructors in economic vuzes.

COVERAGE: The book discusses problems of production specialization and the distribution of machinery manufacturing establishments in

Card 1/3

Production Specialization (Cont.)

SOV/2104

the USSR. The following aspects are reviewed: mechanics of industrial location with emphasis on machinery manufacturing, structure of machinery manufactures output of other than basic products and the effect of division of labor on the degree of specialization, and the problems of future specialization and distribution of the machinery manufacturing industry of the USSR. No personalities are mentioned. There are 51 Soviet references.

TABLE OF CONTENTS:

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Ch. IX. Specialization and Distribution of Machinery Manufacturing Plants Under the New Conditions of Industry Administration	123
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Card 3/3

JG/bg
8-18-59

OMAROVSKIY, A. G.

30(5);25(5)

PHASE I BOOK EXPLOITATION

SOV/2224

Moscow. Nauchno-issledovatel'skiy ekonomicheskiy institut

Voprosy planirovaniya i razmeshcheniya promyshlennosti; sbornik statey
(Problems in the Planning and Distribution of Industry; Collection of
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Resp. Ed.: P. M. Alampiyev, Doctor of Economic Sciences; Ed.: P. V.
Kuznetsov; Tech. Ed.: Ye. S. Gerasimova.

PURPOSE: This book is intended for economists, party workers, and
engineering and technical personnel of the machinery-manufacturing industry.

COVERAGE: This collection of articles discusses problems connected with
planning and distribution of Soviet industries. The first two articles
present the problems and advantages of specialized production planning
in machinery manufacturing, emphasizing the importance of specialization
and cooperation in the development of Soviet industry. Electric power
systems and the relation of proper distribution of electric power stations

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to the overall electrification of the national economy are discussed in the third article. Several articles deal with the machinery-manufacturing industry and its development. The following six factors influencing the distribution of machinery-manufacturing plants are pointed out: 1) proximity of raw material, 2) power engineering resources, 3) transportation links, 4) qualified workers, engineers, and technicians, 5) presence of scientific, research, and design organizations, and 6) contact with users. The development of Soviet economic regionalization and the factors affecting it are also presented. These factors include production scale and structure, technical progress in industry, the existence and distribution of natural resources, manpower resources, and the development of transportation links. Another article is devoted to the effectiveness of capital investments in the development of the national economy. Problems in the amortization of fixed industrial assets are examined. The planning of new amortization norms and classification and revaluation of fixed assets are discussed. The final article traces the development of the organic chemistry industry in the United States and gives data on the chemical production of major European countries and Japan. No personalities are mentioned. There are no references.

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AUTHOR: Omarovskiy, A.G.

TITLE: Changes in the Geography of Soviet Machine Building

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geograficheskaya, 1959, Nr 2, pp 38 - 49 (USSR)

ABSTRACT: The author gives the comparative figures of Soviet machine building and machine building in Tsarist Russia and sets forth the geographical shifts of the industrial centers due to production increase. He mentions a number of plants and adds considerations concerning the proper distribution of machine building plants in the future. During the current Seven-Year-Plan, the production of the machine building and metal machining industries will be nearly doubled. Side by side with this continual growth will come a more rational distribution of the machine building plants throughout the Soviet Union. In Tsarist Russia nearly all

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machines were manufactured in the districts of central Russia, in Petrograd and in the Ukraine. In the Urals and the Volga region, in Kazakhstan and Central Asia, Siberia and the Far East less than one tenth of these products were manufactured. Under the Soviet regime machine building was considerably developed in the old industrial regions, which were transformed into bases of technical re-equipment of all branches of national economy. In the Central District a powerful automobile industry was established, represented by the automobile plants of Moscow, Gor'kiy and Yaroslavl' and also by a large number of plants producing units, assemblies, parts and semi-finished products for the main automobile plants. Machine-tool manufacturing is an important industrial branch in this district, with the Moscow plants Zavod "Krasnyy proletariy" (Plant "Krasnyy Proletariy") Zavod imeni Ordzhonikidze (Plant

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imeni Ordzhonikidze), Zavod shlifoval'nykh stankov (Polishing Machine Plant), Zavod liteynogo oborudovaniya (Casting Equipment Plant) and a number of plants located in other cities. The tool industry, highly developed in this district, is represented by the plants "Prozor", "Kalibr" and by a large number of important tool shops at the machine building plants. In the Central District, a complex of plants of the power machine engineering and electro-technical industries has been established. In Moscow, Penza and other cities a considerable number of plants produce various devices, watches, computers, etc. In this district the production of machines and equipment for the light and food industries, construction, agriculture is also well developed. There are also plants for the production of refrigerators, vacuum cleaners, sewing and other domestic machines. Machines for the textile

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industry are produced in Moscow, Ivanovo, Kholmogory, sewing machines in Podolsk and Tula, agricultural machines in Lyubertsy, Tula, Ryazan', Penza, Boshetsk and other places. In the Central Economic District large machine building centers have been formed, which are represented by groups of plants; Moscow and its environs is a large zone of various machine building plants. In the Gorkiy Oblast' automobile and machine tool production predominates while in the Penza Oblast' - the production of devices, computers, chemical and agricultural machinery. In Leningrad and its suburbs a large complex of machine building plants has been created. It comprises machine tool and turbine production, electro-technical industries, production of devices, shipbuilding, the production of machines for the fuel, metallurgical, chemical and other industries. The production of power equipment, in which Leningrad

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is leading in the Soviet Union, has been organized at the Metallicheskiy zavod imeni Stalina (Metal Plant imeni Stalin) (turbines) and at the Zavod imeni Kirova (Plant imeni Kirov) (generators). In close cooperation, these plants produce most of the equipment for thermal and hydraulic power plants. They produce turbines and generators of a capacity of 100,000 to 150,000 kw; the production of more powerful units is under way. Leningrad is particularly important in the production of control-measuring devices of the highest precision, computers, heat control and electric measuring devices, electron microscopes, TV transmitting and receiving apparatus. In the Center, about 2 million tons of cast iron and more than 2.5 million tons of steel are being produced. In the North, a metal supply base is being created in the form of the Cherepov-

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etskiy metallurgicheskiy zavod (Cherapovets Metallurgical Plant). A large complex of machine building plants has been built in the Ukraine. Here are located the most metal-consuming branches of machine building, the production of metallurgical, mining and chemical equipment, diesel locomotives, freight and tank cars, tractors and agricultural machinery, metal-cutting lathes, building and road construction machines etc.. The production of electrotechnical items, devices etc. is also well developed in this region. The presence of a powerful coal-metallurgical base and the proximity to the consumers of the ready product are favorable conditions for the development of these branches of machine building in the Ukraine. Side by side with the development in the old industrial regions, large plants and entire groups of machine building enterprises were established in new areas in the Urals

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and the Volga region, in Siberia, the Far East, in Central Asia etc. The Urals has been transformed into one of the largest machine building districts of the country, and now occupies third place, after the Central and the Ukrainian districts. Here dozens of machine building plants have been built, which manufacture machines and equipment for industry, agriculture, the transport business and construction. The largest Soviet plant, the Ural'skiy zavod tyazhlogo mashinostroyeniya - "Uralsmash" (Ural Heavy Machine Building Plant), produces machines and equipment for the metallurgical, oil extracting, chemical, coal and ore mining, etc, industries. During the 25 years of its existence, the plant has supplied machines and equipment for blast and open-hearth furnaces, large rolling mills, powerful excavators, crushing and grinding machines, drilling installations, etc. About 75% of the Soviet cast iron is

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molten in furnaces equipped by "Uralmash". On milling equipment with the trade-mark "UDEM", 12 million tons of ready-shaped and sheet metal can be produced per year. This represents more than a fourth of the Soviet production of rolled material. Up to 30% of Soviet ferrous and non-ferrous metal ore is processed on the crushers, grinders and sintering belts made by this plant. In the Urals, are the Chelyabinskiy traktorny zavod (Chelyabinsk Tractor Plant), which is the largest of its kind in the Soviet Union and produces heavy caterpillar tractors, the Tagil'skiy and Ust'-Katavskiy vagonostroitel'nyye zavody (Tagil and Ust'-Katav RR Car Construction Works), the Miasskiy avtomobil'nyy zavod (Miass Automobile Plant), and also plants of mining, chemical, electric engineering, electrotechnical, instrument, machine building and machine tool manufacturing. In 1955, 6.4 times more

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machines and equipment were produced in the Urals than in 1940. A new large center for machine building industries has been built in the Volga region. To satisfy the needs of the developing oil and gas industries, plants for the production of chisels, electric motors and manometers have been constructed. In this region, a modern machine-tool industry has also been created, which is represented by a number of plants producing thousands of different machines. The following agricultural plants are working: Stalingradskiy traktornyy zavod (Stalingrad Tractor Plant), Syzranskiy kombaynovyy zavod (Syzran' Combine Plant), Kuybyshevskiy zavod elektrodol'nykh mashin i separatorov (Kuybyshev Electric Milking Machine and Separator Plant) and many plants for the production of spare parts and the repair of agricultural machinery. To develop river transport,

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