Development of Methods of [illegible] Combine

sive covering rocks [illegible] create excessive [illegible] the [illegible] exploitation have been tried since [illegible] and each one has proved unsatisfactory. Finally the method of compulsory cave-in of blocks was adapted. In 1956 the [illegible]naya [illegible]toriya gornoy opytno-issledovatel'skoy stantsii (The [illegible] laboratory of the experimental-research sta[illegible] [illegible] of the [illegible] Combine elaborated several variations of this method [illegible] were tried out during mining operations. [illegible] a detailed description of [illegible] The blasting method of [illegible] ed chambers was elaborated by [illegible] mestorozhdeniy (The Chair of [illegible] of the Leningrad Mining Institute [illegible] these experiments it was [illegible] in the mine could be [illegible]

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Development of Methods of Exploitation in the Mine [illegible] of the Norilsk Combine

of the covering rocks is strictly observed, 2) a systematical exploitation of the blocks is observed; and 3) the time of preparation of the rock blasting is shortened, so that there is no delay between the termination of the exploitation and the blow up of the covering rocks. There are 2 photos, 5 tables, and 9 diagrams

ASSOCIATION: Rudnaya laboratoriya gornoy opytno-issledovatel'skoy stantsii Norilskogo kombinata (Ore Laboratory of the Experimental and Research Station of the Norilsk Combine) Kafedra razrabotki rudnykh mestorozhdeniy Leningradskogo gornogo instituta (The Chair of Exploitation of Ore Deposits of the Leningrad Mining Institute)

1. Mining industry--USSR
2. Ores--Production
3. Mining engineering

Card 3/3

SADOVSKIY, G.I.; PAKHOMOV, A.S.; SHABLYGIN, A.I.; DOROKHOV, M.I.; ZAYDMAN, L.A.; GRIGORYANTS, E.L.; VILLEM, E.Yu.

Improving mining technology in the "Zapolyarniy" Mine of the Noril'sk Combine. Gor. zhur. no.11:31-38 N '61. (MIRA 15:2)
(Noril'sk region--Mining engineering)

S/181/61/003/002/019/054
B102/B204

9.4300 (1147, 1158)

AUTHORS: Belov, K. P., Pakhomov, A. S., and Talalayeva, Ye. V.

TITLE: Measurement of the galvanomagnetic effect in ferrites near Curie point

PERIODICAL: Fizika tverdogo tela, v. 3, no. 2, 1961, 436-440

TEXT: When measuring the galvanomagnetic effect, the magnetostriction, and other phenomena, it is necessary to take the effect produced by magnetocaloric effect occurring in the adiabatic application of the magnetic field in the ferromagnetic specimen into account. For the purpose of excluding the error arising by this effect (which becomes considerable near Curie point), measurements are not carried out immediately after the application of the field (adiabatic measurement), but only some time later, when the temperature equilibrium between specimen and the surrounding medium has been established (isothermal measurement). Whereas in metallic ferromagnetics the isothermal conditions are easily realizable, this presents difficulties in the case of ferromagnetic semiconductors because of their low thermal conductivity, and when

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S/181/61/003 [illegible] 050
B102/B204

Measurement of the galvanomagnetic ...

measuring the galvanomagnetic effect, considerable errors may arise. In the present paper, the conditions occurring in the measurement of the galvanomagnetic effect are investigated, above all the effect produced by the adiabatic temperature increase occurring when applying the field. K. Zaveta assumed that the maximum of the galvanomagnetic effect of the paraprocess near Curie point, which the authors discovered in ferrites, is exclusively a consequence of the effect produced by a magnetocaloric effect. It is now shown that the conclusions drawn by Zaveta are incorrect. The paper by Zaveta (FTT, 2, 106, 1960) is first discussed in detail. For the change in state due to applying the field, Zaveta gave the following formula: $\Delta R/R = aH^{2/3} + bH$; here the first term makes the contribution of the "true" galvanomagnetic effect, and the second makes the contribution of the "wrong" galvanomagnetic effect. This formula is, however, wrong, and it ought to read: $\Delta R/R = aH^{2/3} + b'H^{2/3}$, because all even effects near the Curie point depend in the same manner on H (viz. $\sim H^{2/3}$). From this wrong formula there result also the wrong conclusions drawn by Zaveta. For the purpose of being able to estimate the effect

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produced by the magnetocaloric effect, it is necessary to compare a and b'. The sum of the coefficients (a+b') may be determined from the measurements of $\Delta R/R = f(H^{2/3})$. b' (which Zaveta calls b), is proved to be wrongly determined by Zaveta. The method he used is not at all suited for determining b'. Here, the equations $\Delta T = -\frac{T}{C_H}\left(\frac{\partial\sigma}{\partial T}\right)_H \Delta H$ and $\Delta R/R = -\xi\Delta T/k\varrho^2$ are used for calculating the "wrong" galvanomagnetic effect. Herefrom, $(\Delta R/R)_{T\to\Theta} = \frac{\xi}{C_H k\varrho}\left(\frac{\partial\sigma}{\partial T}\right)_H \Delta H$ is obtained for the Curie point (σ - specific magnetization). For Mn ferrite single crystals thus $(\Delta R/R)_\Theta = -6.9\cdot10^{-4}$ results from experimental determinations of the individual quantities (data obtained by other authors) and $(\Delta R/R)_\Theta = -44.2\cdot10^{-4}$ is obtained from the authors' own data. Thus, the "wrong" effect is smaller by a multiple than the "true" effect. The "magnetocaloric" temperature increase ΔT at Curie point is found to be 0.07°C and causes a change of 8.3% of the

Measurement of the galvanomagnetic ...

maximum resistance change ΔR. It follows herefrom that the maximum of the true galvanomagnetic effect of the paraprocess at Curie point actually exists and is not only due to an "adiabatic" increase of resistance. The existence of this maximum is proven also by the existence of breaks in the $\log \varphi(1/T)$-curves in the Curie point of these ferrites. It may occur only in such ferrites as have a low activation energy ε. M. A. Krivoglaz and S. A. Rybak are mentioned. There are 7 Soviet-bloc references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova, Fizicheskiy fakul'tet (Moscow State University imeni M. V. Lomonosov, Division of Physics)

SUBMITTED: May 10, 1960

Ground state of ferrites with three...

$$\hat{H} = -\frac{1}{2}\sum_{\substack{i=1\\ f_1, f_2}}^{3} I(f_1^{(i)}, f_2^{(i)})(\hat{S}_{f_1^{(i)}}\hat{S}_{f_2^{(i)}}) -$$

$$-\sum_{\substack{i\neq j;\ i,j=1\\ f,g}}^{3} I(f^{(i)}, g^{(j)})(\hat{S}_{f^{(i)}}S_{g^{(j)}}) - \sum_{\substack{k=1\\ f^{(k)}}}^{3}\mu_k(\mathbf{H}\hat{S}_{f^{(k)}}). \qquad (1)$$

From this and with partial magnetization $\vec{M}_i = \mu_i N_i \vec{\sigma}_i$ $(i = 1,2,3)$, the ground state energy of the system is obtained as

$$E = -E_0 - \sum_{\substack{i>j\\ i,j=1}}^{3} k_{ij}(\mathbf{M}_i\mathbf{M}_j) - \sum_{i=1}^{3}(\mathbf{H}\mathbf{M}_i), \qquad (6)$$

with $E_0 = \frac{1}{2}\sum_{i=1}^{3} N_i J_{ii} \sigma_i^2$ and $k_{ij} = K_{ij}/\mu_i\mu_j N_i N_j$. The K's and,

Card 2/4

Ground state of ferrites with three...

consequently, the k's are symmetrical (exchange interaction constants). With the Hamiltonian (1) and using N. N. Bogolyubov's variation theorem, equations can be derived for the temperature dependence of magnetization. The magnitude of the spin vectors is given by $\sum_{\alpha=1}^{3} (M_i^\alpha)^2 = M_{i0}^2 = \text{const}_i(\sigma)$, where $(i = 1,2,3)$. Extremum conditions for energy (6) in the form of $F = E - \frac{1}{2}\sum_{i=1}^{3} \lambda_i M_i^2$ (σ) are sought. The system of equations

$$\begin{aligned} \lambda_1 \mathbf{M}_1 + k_{12}\mathbf{M}_2 + k_{13}\mathbf{M}_3 &= -\mathbf{H}, \\ k_{21}\mathbf{M}_1 + \lambda_2 \mathbf{M}_2 + k_{23}\mathbf{M}_3 &= -\mathbf{H}, \\ k_{31}\mathbf{M}_1 + k_{32}\mathbf{M}_2 + \lambda_3 \mathbf{M}_3 &= -\mathbf{H}. \end{aligned} \qquad (10)$$

is obtained. With these equations the M_i^α and λ_i values corresponding to the above extremum can be found (σ). The Lagrange factors λ_i depend on

Card 3/4

SADOVSKIY, G.I.; PAKHOMOV, A.S.

Forced block caving with complete pillarless ore drawing; "Zapolyarnyy" Mine, Noril'sk Combine. Zap.LGI 44 no.1:110-117 '61. (MIRA 14:10)

(Mining engineering)

S/196/62/000/020/006/021
E194/E155

AUTHORS: Pakhomov, A.S., and Smol'kov, N.A.

TITLE: Ferrites. Their structure and certain physical properties

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.20, 1962, 3, abstract 20 B 14. (In collection: 'Antiferromagnetizm i ferrity' ("Antiferromagnetism and ferrites"), M., AN SSSR, 1962, 119-213).

TEXT: Recent experimental and scientific observations of the crystalline structure and certain properties of ferrites are systematically presented, in three chapters. The first considers the detailed structure and properties of different crystalline lattices (structure of spinel, garnet, magnetoplumbite, rock salt, etc), the relationship between structure and sintering conditions and the composition of the initial charge, and also the crystal chemistry of ferrites. The second chapter presents the theory of magnetism of ferrites, the semi-classical theory of Néel, the theory of Yafet and Kittel (the generalised Néel's theory), and quantum theory. The third chapter, occupying half the total

Card 1/2

S/188/62/000/001/001/008
B125/B138

24.2200 (1121, 1158, 1164)

AUTHOR: Pakhomov, A. S.

TITLE: Influence of elastic deformation on magnetocaloric effect in the region of rotation fields

PERIODICAL: Moscow. Universitet. Vestnik. Seriya III. Fizika, astronomiya, no. 1, 1962, 3-6

TEXT: A uniformly extended ferromagnetic cubic crystal has a free energy of

$$U = U_{аниз} + U_{\sigma} = K_0 + K_1 \sum_{(i \neq k)} \alpha_i^2 \alpha_k^2 + K_2 \prod_{(i)} \alpha_i^2 - \frac{3}{2} \sigma \lambda_{100} \sum_{(i)} \left[\alpha_i^2 \gamma_i^2 - \frac{1}{3} \right] - \quad (1),$$

$$- 3\sigma \lambda_{111} \sum_{(i \neq k)} \alpha_i \alpha_k \gamma_i \gamma_k, \quad i, k = 1, 2, 3,$$

Card 1/6

where σ is stress, γ_i the direction cosines of stress; K_0, K_1 and K_2 the magnetic anisotropy constants of the crystal, λ_{100} and λ_{111} the saturation magnetostriction constants, α_i the direction cosines of the spontaneous magnetization vector I_s relative to the system of coordinates. The magnetocaloric effect

$$dT_{ep} = \frac{T}{\rho C_{p,H}} \left\{ \left(\frac{\partial K_1}{\partial T} \right)_H d \left(\sum_{(i \neq k)} \alpha_i^2 \gamma_k^2 \right) + \left(\frac{\partial K_2}{\partial T} \right)_H d \left(\prod_{(i)} \alpha_i^2 \right) - \right. \quad (3)$$

$$\left. - \frac{3}{2} \sigma \left(\frac{\partial \lambda_{100}}{\partial T} \right)_H d \left(\sum_{(i)} \left[\alpha_i^2 \gamma_i^2 - \frac{1}{3} \right] \right) - 3\sigma \left(\frac{\partial \lambda_{111}}{\partial T} \right)_H d \left(\sum_{(i \neq k)} \alpha_i \alpha_k \gamma_i \gamma_k \right) \right\},$$

Card 2/6

Influence of elastic deformation on ...

corresponds to the energy $dW = -dU$ (2) expended in rotating vector $\vec{I}_s$ through a certain angle; $C_{p_1 H}$ denotes the specific heat and the density of the ferromagnetics. The explicit form of (3) can be determined by the method of N. S. Akulov (Ferromagnetizm, GITTL, M. 148-149, 1939). Using the minimum condition $\partial U/\partial\theta = 0$; $\partial U/\partial = 0$ (4), (3) will furnishe expression

$$\Delta T_{\text{ир}} = \frac{T}{C_{p\rho} I_s}\left\{\left(\frac{\partial K_1}{\partial T}\right)(P_1K_1 + P_2K_2 + P_3\sigma\lambda_{100} + P_4\sigma\lambda_{111}) + \right. \tag{5}$$

$$+\left(\frac{\partial K_2}{\partial T}\right)(R_1K_1 + R_2K_2 + R_3\sigma\lambda_{100} + R_4\sigma\lambda_{111}) +$$

$$+\frac{3}{2}\sigma\left(\frac{\partial\lambda_{100}}{\partial T}\right)(Q_1K_1 + Q_2K_2 + Q_3\sigma\lambda_{100} + Q_4\sigma\lambda_{111}) +$$

$$\left.+3\sigma\left(\frac{\partial\lambda_{111}}{\partial T}\right)(S_1K_1 + S_2K_2 + S_3\sigma\lambda_{100} + S_4\sigma\lambda_{111})\right\}\left(\frac{1}{H} - \frac{1}{H_0}\right),$$

Card 3/6

Influence of elastic deformation on ...

for the total energy (θ and φ denote the polar angles of the vector $\vec{I}_s$ which is assumed to be constant). From this, by averaging all directions of the crystal axes in space, which can be done by the method of D'yakov G. P. ("Uch. zap. MGU", fizika, vyp. 162, 85 - 106, 1952), there follows formula

$$\Delta T_{sp} = -\frac{T}{c_p \rho I_s}[A + B\sigma + C\sigma^2]\left(\frac{1}{H} - \frac{1}{H_0}\right) = \Delta T_k + \Delta T_\sigma, \qquad (6)$$

with

$$A = \left(\frac{\partial K_1}{\partial T}\right)\left(\frac{16}{105}K_1 - \frac{32}{1155}K_2\right) + \left(\frac{\partial K_2}{\partial T}\right)\left(\frac{16}{1155}K_1 + \frac{16}{5005}K_2\right), \qquad (7),$$

$$B = \frac{8}{35}\left(\frac{\partial K_1}{\partial T}\right)(\lambda_{100} - \lambda_{111}) + \frac{8}{385}\left(\frac{\partial K_2}{\partial T}\right)(\lambda_{100} - 2\lambda_{111}) +$$
$$+ \frac{3}{2}\left(\frac{\partial \lambda_{100}}{\partial T}\right)\left(\frac{16}{105}K_1 + \frac{16}{1155}K_2\right) - 3\left(\frac{\partial \lambda_{111}}{\partial T}\right)\left(\frac{8}{105}K_1 + \frac{8}{1155}K_2\right), \qquad (8),$$

$$C = \frac{3}{2}\left(\frac{\partial \lambda_{100}}{\partial T}\right)\left(\frac{8}{35}\lambda_{100} - \frac{2}{5}\lambda_{111}\right) - 3\left(\frac{\partial \lambda_{111}}{\partial T}\right)\left(\frac{4}{35}\lambda_{100} - \frac{16}{315}\lambda_{111}\right), \qquad (9)$$

Card 4/

Influence of elastic deformation on ...

for the magnetocaloric effect in polycrystalline cubic ferromagnetics in a region of rotation fields. In (5) H_o and H denote the initial and final magnetizing fields, coefficients R_t, P_t, Q_t and S_t ($t = 1,2,3,4$) are complex combinations of the direction cosines of $\vec{H}$ and $\vec{\sigma}$. ΔT_k and ΔT_σ denote the σ-independent and dependent parts of the magnetocaloric effect The contribution of ΔT_σ to the total magnetocaloric effect can be found from (6) by using experimental figures for the anisotropic and magnetostriction constants. At room temperature the values for iron are given by $\Delta T_\sigma \approx \Delta T_k$ at $\sigma \approx 0.32$ kg/mm^2. In the elastic region of iron ΔT_σ is about 12 - 13% ΔT_k. Elastic deformation can double the magnetocaloric effect of nickel. With ferromagnetic cubic structures elastic deformations influence temperature changes mainly as a result of adiabatic magnetization. Lack of material made it impossible to check results of this paper against experimental data. The following monographs are mentioned: G. A. Lorents (Lektsii po termodinamike. GITTL, M., 1941); R. Bozort (Ferromagnetizm. IL. M., 1956). There are 11 references: 5 Soviet and 6 non-Soviet. The three

Card 5/6

34269
S/188/62/000/001/001/008
B125/B138

Influence of elastic deformation on ..

references to English-language publications read as follows: Stoner E., Rodes P. Phil Mag., 40, 481 - 522, 1949; Mc Keehan L. W. Phys Rev., 51, 137, 1937; Birss R. R., Lee E. W. Proc. Roy Soc., 76, No. 490, 502-506, 1960.

ASSOCIATION: Kafedra obshchey fiziki dlya biologo-pochvennogo i drugikh fakul'tetov (Department of General Physics for the Biology and Soil, and other Faculties)

SUBMITTED: March 8, 1961

Card 6/6

S/070/63/008/001/010/024
E132/E460

24,7900

AUTHORS: Gusev, A.A., Pakhomov, A.S.

TITLE: The temperature dependence of magnetization and paramagnetic susceptibility of ferrites which have three magnetic sub-lattices

PERIODICAL: Kristallografiya, v.8, no.1, 1963, 63-68

TEXT: A general model of a magnetically isotropic ferrite crystal, which has three magnetic sub-lattices with arbitrary cation distribution and arbitrary values of the spins and magnetic moments of the ions, has been examined theoretically using a variational method. Equations have been found for the temperature dependence of the magnetization in a quasi-classical approximation to the corresponding quantum-mechanical problem. These equations are analogous to the equations for the molecular field, on them is based the correctness of the application of the latter to ferrites with three magnetic sub-lattices since, for the coefficients of the molecular field, explicit expressions, containing the interatomic distances and the mean values of the integrals, for the exchange interaction between the ions in the ferrite are obtained. The method used here and the numerical

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S/070/63/008/001/010/024
E132/E460

The temperature dependence ...

estimates obtained for the six values of I_{ij} for the garnet $3Gd_2O_3 5Fe_2O_3$ (I_{ij} are the exchange interactions, the 1 and 2 suffixes denote the iron sub-lattices a and d and 3 the Gd sub-lattice c - the energies found are, in units of 10^{-14} erg: $I_{11} = -3.0$; $I_{22} = -1.2$; $I_{33} = 0$; $I_{12} = -4.9$; $I_{13} = -0.07$; $I_{23} = -0.17$) show the way in which the region of the Curie point (magnetization and specific heat jumps), the question of points of compensation, the temperature dependence of stable magnetic states and the fields critical for transitions between them can be further studied.

ASSOCIATIONS: Institut kristallografii AN SSSR (Institute of Crystallography AS USSR) Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova (Moscow State University imeni M.V.Lomonosov)

SUBMITTED: June 26, 1962

Card 2/2

SADOVSKIY, G.I., kand.tekhn.nauk; PAKHOMOV, A.S., gornyy inzh.; FILIPPENKOV, A.I., gornyy inzh.

Ways of reducing the work in drawing and hauling ore in the "Zapolyarnyi" Mine. Gor.zhur. no.2:23-26 F '63. (MIRA 16:2)

1. Noril'skiy gorno-metallurgicheskiy kombinat.
(Noril'sk region—Mining engineering—Labor productivity)

PAKHOMOV A V,

133-58-3-16/29

AUTHORS: Pakhomov, A.V., Candidate of Technical Sciences and Rozhdestvenskiy, L.A., Candidate of Technical Sciences

TITLE: An Increase in the Productivity of the Mechanical Dressing of Heat-resistant Alloys (Povysheniye proizvoditel'nosti protsessa obdirki zharoprochnykh splavov)

PERIODICAL: Stal', 1958, Nr 3, pp 241-242 (USSR)

ABSTRACT: The output of a shop, in which ingots of heat-resistant steel were dressed, was increased by 15-20% due to the re-design of the cutting tool, using an attachable cutting edge from high-speed cutting steel RK 15. Optimum geometrical parameters of the cutting edge are given in Fig.1. There are 2 figures.

AVAILABLE: Library of Congress
Card 1/1

SOV/121-58-10-10/25

AUTHOR: Pakhomov, A. V.

TITLE: The Improvement in the Effectiveness of Cutting OKhN3M Steel by Jet Cooling (Povysh_eniye effektivnosti mekhanicheskoy obrabotki stali OKHN3M pri struynom okhlazhdenii)

PERIODICAL: Stanki i Instrument, 1958, 29, Nr 10, pp 28-29 (USSR)

ABSTRACT: Tests are reported, wherein the effect of the jet cooling on the tool life and surface finish was examined in turning the high tensile steel OKhN3M with carbide tipped tools. Hot rolled steel workpieces of 130 mm diameter and 900 mm length, heat treated to about 40 Rockwell C, were turned with 6% cobalt tungsten carbide tips of standard tool geometry. Comparing the ordinary method of drip cooling from above and of jet spray cooling from below, the cutting speed for jet cooling (assuming a tool life of one hour) can be increased from 100 to 130 m/min. Conversely, at 200 m/min jet cooling increases the tool life by 160% and at 300 m/min by 500%. The surface finish improves by

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SOV/121-58-10-10/25

The Improvement in the Effectiveness of Cutting OKhN3M Steel by Jet Cooling

jet cooling, reducing the height of surface irregularities by an average of 2 microns at all feeds and speeds tested. Jet cooling also reduces the cold work at the surface as expressed by the micro hardness. There are 5 illustrations including 4 graphs and 1 table.

Card 2/2

PAKHOMOV, A.P.

Forging dies made of hard alloys. Stan. i instr. 30 no.2:33-35 F '59.
(MIRA 12:3)

(Dies (Metalworking))

SOV/122-58-7-23/31

AUTHOR: Pakhomov, A.V., Candidate of Technical Sciences

TITLE: Improvement of Stability and Surface Finish of Parts Turned from 18KhGT Steel (Povysheniye stoykosti i chistoty obrabotki detaley iz stali 18KhGT pri tochenii)

PERIODICAL: Vestnik Mashinostroyeniya, 1958, Nr 7, pp 69-70 (USSR)

ABSTRACT: A method of turning is described whereby alternating current at 50 c.p.s. from 40 to 1 000 A at 2 to 4 V flows from the tool to the work. Current is regulated by a liquid rheostat and a high current transformer.(Figure 1). The current density A is calculated from $A = I/st$, where I is the current, s the feed in mm/rev and t the depth of cut in mm. Tests were made, cutting 18KhGT steel at 100 to 300 m/min with s from 0.07 to 0.29 mm/rev and t from 1 to 3 mm. Maximum tool life is obtained only with optimum current density which will vary with cutting speed. At 150 m/min, A was 120 A/mm^2 and at 150 - 300 m/min, A was $60 A/mm^2$. Figure 2 shows the micro-roughness (microns) of the surface against speed and against feed for various current densities. Above 300 m/min cutting speed, the applied electric current has little influence on surface finish. Under optimum conditions

Card1/2

Improvement of Stability and Surface Finish of Parts Turned from 18KhGT Steel

the micro-roughness of the turned surface was reduced by 33 to 50% through the applied current. The micro-hardness at the surface is increased by 10 to 15% by the action of the current. Figure 3 shows micro-hardness R_c (kg/mm^2) at various distances (micron) from the surface for different values of A and of feed and speed of cutting. These were obtained from taper sections.
Increase in tool life, using tool tips of hard alloy, is bound up with change in the impact resistance of the alloy which will increase on heating. The high current density at the tool tip causes considerable heating which, within limits, has a beneficial action on the shock resistance and spalling resistance of the tool. There are 3 figures.

Card 2/2

PAKHOMOV, A.V.

Increase the wear resistance of tools. Trakt. i sel'khozmash. no.3:40-41 Mr '59. (MIRA 12:4)
(Dies (Metalworking)) (Machine tools)

PAKHOMOV, A.V., kand.tekhn.nauk

New developments in machining parts of combines. Trakt. i sel'-khozmash. no.2:42-44 F '59. (MIRA 12:1)

1. Moskovskoye vysshaye tekhnicheskoye uchilishche.
(Combines (Agricultural machinery)) (Metal cutting)

PAKHOMOV, A.V., kand. tekhn. nauk

Machining 18XGT steel. Trakt. i sel'khozmash. no. 6:42-44 Je '58.
(MIRA 11:7)

(Steel)

SOV-117-58-8-12/28

AUTHORS: Pakhomov, A.V., Rozhdestvenskiy, L.A., Candidates of Technical Sciences

TITLE: A Cutter for the Stripping of Ingots of Heat-Resisting Steels (Rezets dlya obdirki slitkov iz zharoprochnykh staley)

PERIODICAL: Mashinostroitel', 1958, Nr 8, pp 30-32 (USSR)

ABSTRACT: Ingots of heat-resistant steels are subjected to preliminary mechanical processing in metallurgical plants. The ingots with a diameter of 300-400 mm and a length of 1,000 - 1,500 mm are stripped on special turning lathes by cutters made from steel R18 with a cutting speed of 3-5 m/min and abundant cooling. As a lubricating and cooling liquid, a water solution of 10 % emulsol and 15 % kerosene is used. If the supply of cooling liquid stops for a moment, the cutter is heated and gets out of order (Figure 1). The mechanical processing of heat-resistant steels is very difficult because of structural changes during plastic deformations and their low heat conductivity. The ingots have a hard casting skin on the surface and slag inclosures at a depth of 20-30 mm with high abrasive properties. In order to increase the productivity of the work and the resistance of the cutters, a special construction (Figure 2) has been developed. The steel used in the cutters

is RK15. The cutters have other geometric dimensions and are not welded but mechanically fastened. The resistance of the cutters in the new device is 2.5 times higher. The dependence of the temperature on the cutting speed is shown in Figure 4. There are 2 photos, 2 tables, 3 graphs, and 1 diagram.

1. Heat resistant alloys - Processing 2. Heat resistant alloys - Machining

PANKOV, A. V.

Dissertation: "Investigation of the Effect of an Electric Current, Introduced in the Cutting Area, and of the Cooling of a Liquid Jet Spray on the Strength of Hard-Alloy Cutters." Cand Tech Sci, Moscow Order of Labor Red Banner Higher Technical School imeni Bauman, 17 May 54. Vechernyaya Moskva, Moscow, 7 May 54.

SO: SUM 284, 26 Nov 1954

PAKHOMOV, A.V., kand. tekhn. nauk.

Increasing the durabitlity of hard alloy cutting tools. Mashinostroitel' no.9:31-33 S '57. (MLRA 10:9)
(Cutting tools)

PAKHOMOV, A.V.

122-2-18/33

AUTHOR: Pakhomov, A.V., Candidate of Technical Sciences.

TITLE: Improved Tool Life in Turning with High Coolant Pressures (Povysheniye stoykosti reztsov pri tochenii s okhlazhdeniyem pod vysokim davleniyem)

PERIODICAL: Vestnik Mashinostroyeniya, 1958, No.2, pp. 55-56 (USSR)

ABSTRACT: Cutting accompanied by cooling with a thin atomised liquid jet under high pressure directed against the rear face of the tool has been described by the author in "Mashinostroitel'", 1957, No.9. Tests are reported designed to compare high-pressure with ordinary cooling when machining chrome nickel molybdenum steel with a carbide tool. The best tool geometry (5° negative rake, 10° front clearance) was found. The ranges of cutting speeds between 80 and 350 m/min., of feed rates between 0.07 and 0.29 mm/rev., and depths of cut between 1 and 5 mm were examined. High coolant pressure increases tool life at least 1 1/2 times. Thermocouple measurements have shown high-pressure cooling to reduce the cutting edge temperature by 100 °C. There are 3 figures.

AVAILABLE: Library of Congress

Card 1/1

IVANNIKOV, V.F., nauchnyy sotr.; PAKHOMOV, A.Ya., nauchnyy sotr.; UCHAYKIN, V.D., nauchnyy sotr.; FOMIN, I.P., nauchnyy sotr.; TIMOFEYEV, D.T., nauchnyy sotr.; TRET'YAKOV, G.P., red.; SEMENCHUK, S.I., red.; YASHCHEN'KINA, Ye.A., tekhn. red.

[Improve cultivation practices and increase sugar beet yields] Sovershenstvovat' agrotekhniku, povyshat' urozhai sakharnoi svekly. Kuibyshev, Kuibyshevskoe knizhnoe izd-vo, 1960. 52 p.
(MIRA 14:10)

1. Kinel'skaya selektsionnaya stantsiya Kuybyshevskogo sel'skokhozyaystvennogo instituta (for Ivannikov, Pakhomov, Uchaykin, Fomin, Timofeyev)

(Sugar beets)

VYDRIN, A.I.; GAPUS, I.Z.; [illegible], A.Ye.; SOLOTIN, V.D., inzh., retsenzent

[Mechanization of labor-consuming operations in the manufacture of steam turbines] Mekhanizatsiia trudoemkikh rabot v paroturbostroenii. Moskva, Mashinostroenie, 1964. 231 p. (MIRA 17:9)

PAKHOMOV, B., inzh.

Selecting the specific capacity of a vessel. Rech.transp. 22 no.1:29-30 Ja '63. (MIRA 16:2)
(Freighters) (Naval architecture)

PAKHOMOV, B.A., inzh.

Determinati[illegible] characteristics [illegible] ships made in the initial stages of design. Trudy LIVT no.14:35-40 '61. (MIRA 15:12)

(Naval architecture)

PAKHOMOV, B.A.

Machinery for laying slag ballast. Put' i put.khoz. 4 no.10: 9-10 O '60. (MIRA 13:9)

1. Nachal'nik Putevoy mashinnoy stantii-36, st. Bredy, Yuzhno-Ural'skoy dorogi.
(Railroads -Equipment and supplies)
(Ballast (Railroads))

PAKHOMOV, B.A., inzh.

Special towing section for suburban passenger and cargo transportation.
Rech.transp. 18 no.7:22-23 Jl '59. (MIRA 12:11)
(Inland water transportation)

PAKHOMOV, B.A., inzh.

Analysis of the correlations between length, width, and setting of harbor tugs. Mech. transp. 17 no.12:10-12 D '58. (MIRA 12:1)
(Tugboats)

UDLER, M.D., PAKHOMOV, B.A.

Reconditioning of the roadbed prior to the laying of reinforced concrete ties. Put' i put.khoz. 8 no.12:18-19 '64.

(MIRA 18:1)

1. Glavnyy inzh. sluzhby puti, Yuzhno-Ural'skaya doroga, Chelyabinsk (for Udler). 2. Zamestitel' nachal'nika sluzhby puti, Yuzhno-Ural'skaya doroga, Chelyabinsk (for Pakhomov).

PAKHOMOV, B.A., inzh.

Approximation method for the evaluation of modernization variants of power-propelled cargo carriers for inland navigation. Trudy LIVT no.5:35-47 '60. (MIRA 15:2)
(Freighters) (Naval architecture)

KARASEV, B.V.; PRISELKOV, Yu.A.; PAKHOMOV, B.G.

Use of a device of the "DA" type in combination with an atmospheric chamber for analyses of spectra of alpha particles. Vest.Mosk.un. Ser.2:Khim. 18 no.6:47-49 N-D '63. (MIRA 17:4)

1. Kafedra radiokhimii Moskovskogo universiteta.

BABAYAN, S.G.; PAKHOMOV, B.G.; MELIKHOV, I.V.; MERKULOVA, M.S.

Method of studying the kinetics of crystallization of supersaturated solutions. Radiokhimia 3 no.5:391-395 '61. (MIRA 14:7)
(Crystallization)

S/262/62/000/002/007/017
I008/I208

AUTHOR Pakhomov, B P

TITLE Investigation of the effect of combustion on the wear of the compression ring of a diesel engine

PERIODICAL Referativnyy zhurnal, otdel'nyy vypusk. 42. Silovyye ustanovki, no 2, 1962, 52, abstract 42.2.276. In collection "Radioakt. izotopy i yadern. izlucheniya v nar kh-ve SSSR, v 1" M., Gostoptekhizdat, 1961, 74-76

TEXT: The results of an investigation of the effect of the load and of the number of turns on the wear of the upper compression ring of a П-20 (D-20) diesel engine according to its height are given. For evaluation of the wear the method of radioactive isotopes was used. The investigations were carried out by means of a counting-rate meter developed by the author, which enables a rapid determination of small changes in the wear of the ring. A schematic diagram of the apparatus is given. Diagrams showing the dependence of the wear of the upper compression ring according to its height on the engines' load for different advancement angles of fuel injection, on the number of turns of the crank-shaft and on the temperature of the exhaust gases are included There are 4 figures.

[Abstracter's note. Complete translation.]

Card 1/1

PAKHOMOV, B.P.,inzh.; MARKOVSKIY, Ye.A.,inzh.; STETSENKO, V.I.,kand.tekhn.nauk

Performance of full-flow jet centrifugal oil cleaner of the D-14 engine. Trakt. i sel'khozmash. no.2:12-14 F '59. (MIRA 12:1)

(Tractors--Engines--Oil filters)

TIKHONOVICH, V.I.; PAKHOMOV, B.P.

Investigating the wear resistance of the overhead compression ring on D-14 diesel engines manufactured from high-strength cast iron. Nauch. trudy Inst. lit. proizv. AN URSR no.10: 94-99 '61. (MIRA 15:6)

(Diesel engines—Testing) (Mechanical wear)

TIKHONOVICH, V.I.; PAKHOMOV, B.P.

Wear resistance of piston rings from high-strength cast iron. Trakt. i sel'khozmash. 33 no.10:14-16 O '63. (MIRA 17:1)

1. AN UkrSSR.

PAKHOMOV, B.P.; TIKHONOVICH, V.I.

Wear of nodular cast iron rings during the running-in period.
Nauch. trudy Inst. lit. proizv. AN URSR 11:118-123 '62.
(MIRA 15:9)

(Piston rings) (Mechanical wear)

PAKHOMOV, B.P.

Counting-rate meter for investigating the wear of machine parts by the method of radioactive isotopes. Zav.lab. 28 no.11:1385-1388 '62. (MIRA 15:11)

1. Institut liteynogo proizvodstva AN UkrSSR.
(Testing machines) (Radioisotopes)

MARKOVSKIY, Ye.A., inzh.; PAKHOMOV, B.P., inzh.; TIKHONOVICH, V.I., inzh.; KRASNOSHCHEKOV, M.M., inzh.

Using high-strength cast iron in precision friction pairs. Mashinostroenie no.4:105-106 Jl-Ag '63. (MIRA 17:2)

1. Institut liteynogo proizvodstva AN UkrSSR.

KRASNOSHCHEKOV, M.M.; PAKHOMOV, B.P.; MARKOVSKIY, Ye.A.

Use of radioactive isotopes in studying the wear resistance of crank shafts. Trakt. i sel'khozmash. 32 no.2:36-38 F '62. (MIRA 15:2)

1. Institut liteynogo proizvodstva AN USSR.
(Tractors--Engines)
(Radioactive substances--Industrial applications)

PAKHOMOV, B.P.; TIKHONOVICH, V.I.

Effect of the speed of growth of pulsation loading on the wear resistance of high-strength cast iron. Struk.i svois.lit.splav. no.1:142-147 '62. (MIRA 15:5)
(Cast iron--Testing) (Mechanical wear)

TIKHONOVICH, V.I.; MARKOVSKIY, Ye.A.; PAKHOMOV, B.P.

Wear-in characteristics of high strength cast iron. Struk.i svois. lit.splav. no.1:148-151 '62. (MIRA 15:5)
(Cast iron--Testing) (Mechanical wear)

PAKHOMOV, B.P., inzh.; TIKHONOVICH, V.I., inzh.

Using radioisotopes in investigating the wear resistance of piston rings of tractor engines. Mashinostroenie no.3:104-108 My-Je '62. (MIRA 15:7)

1. Institut liteynogo proizvodstva AN USSR.
(Radioistopes—Industrial applications)
(Piston rings—Testing)

PAKHOMOV, B. P., nauchnyy sotrudnik; TIKHONOVICH, V. I. [Tykhonovych, V. I.], nauchnyy sotrudnik

Investigating the wear resistance of piston rings. Mekh. sil'. hosp. 12 no.10:24 O '61. (MIRA 14:11)

1. Institut liteynogo proizvodstva AN USSR.
(Piston rings)

PAKHOMOV, B.P.

Investigation of the wear of piston rings along their height in a diesel tractor engine with combustion chambers in the pistons. Trakt.i sel'khozmash. 31 no.9:7-10 S '61. (MIRA 14:10)

1. AN USSR.
(Piston rings) (Diesel engines)

PAKHOMOV, B.Ya.

Methodological fundamentals of measurement. Izm. tekh. no.1:
3-4 Ja '64. (MIRA 17:11)

S/044/62/000/009/034/069
A060/A000

AUTHOR: Pakhomov, B. Ya.

TITLE: On the nature of statistical laws

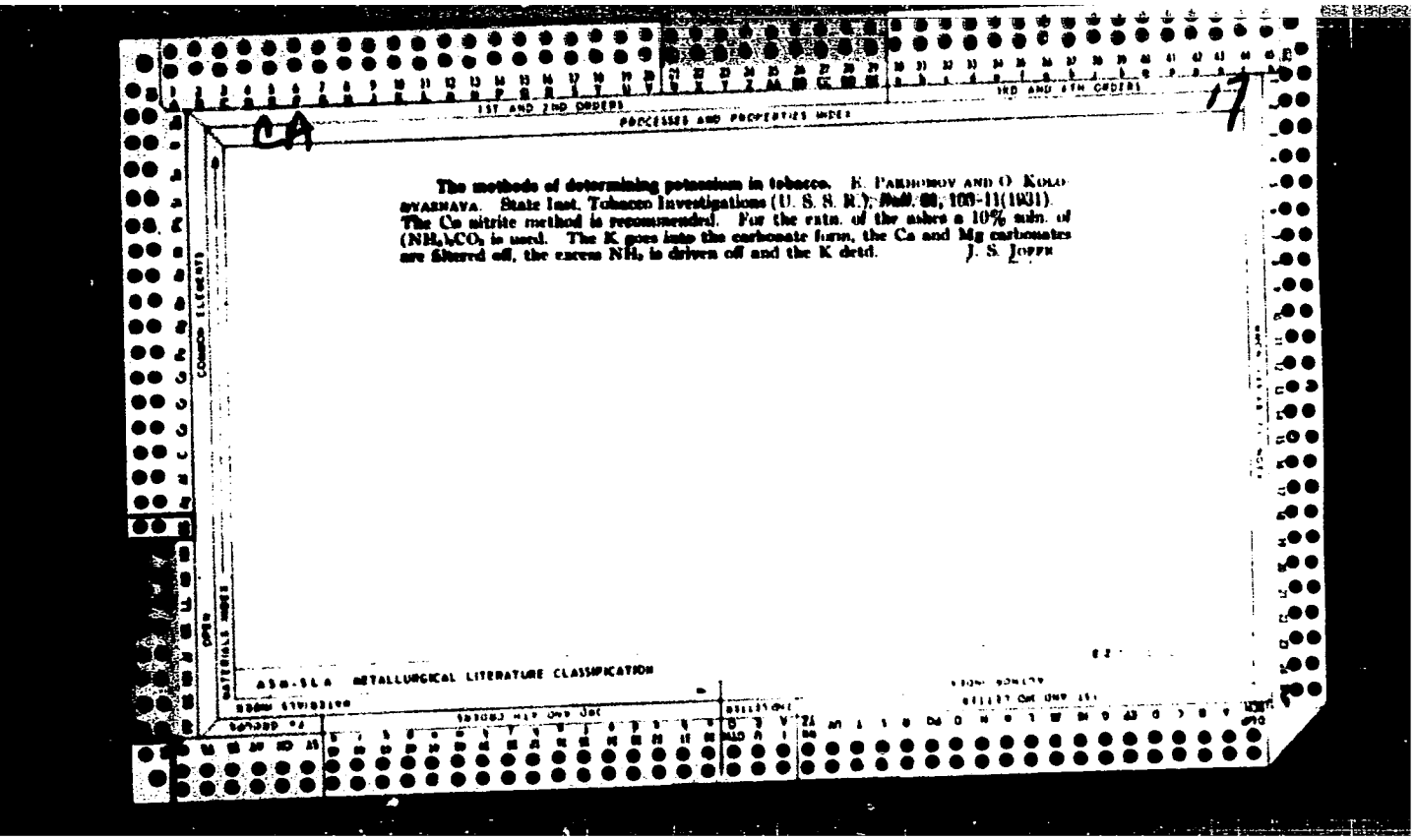
PERIODICAL: Referativnyy zhurnal, Matematika, no. 9, 1962, 1, abstract 9V3 ("Vopr. filosofii", 1961, no. 10, 105 - 119)

TEXT: The physical causes occasioning the phenomenon of stability of physical frequencies are investigated. Examples are cited. The nature of the statistical laws of physics is discussed.

N. I. Arbuzova

[Abstracter's note: Complete translation]

Card 1/1



1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

17

CA

The methods of determining potassium in tobacco. K. Pakhomov and O. Kolo gvarnava. State Inst. Tobacco Investigations (U. S. S. R.), Bull. 68, 109-11(1931). The Co nitrite method is recommended. For the extn. of the ashes a 10% soln. of $(NH_4)_2CO_3$ is used. The K goes into the carbonate form, the Ca and Mg carbonates are filtered off, the excess NH_3 is driven off and the K detd. J. S. Joffe

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PAKHOMOV, E., inzhener.

Gas-generator diesel locomotive. Tekh.mol.23 no.10:15 O '55.
(Diesel locomotives) (MLRA 9:4)

PAKHOMOV, E.A.; KORENEV, M.S., kand.tekhn.nauk, retsenzent; PETUSHKOVA, I.K., inzh., red.; VOROB'YEVA, L.V., tekhn.red.

[Results of testing and methods for designing air filters for diesel locomotive engines] Rezul'taty issledovaniia i metody rascheta vozdukho-cchistitelei dlia teplovoznykh dvigatelei. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1962. 97 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut zheleznodorozhnogo transporta. Trudy, no.237). (MIRA 15:8)

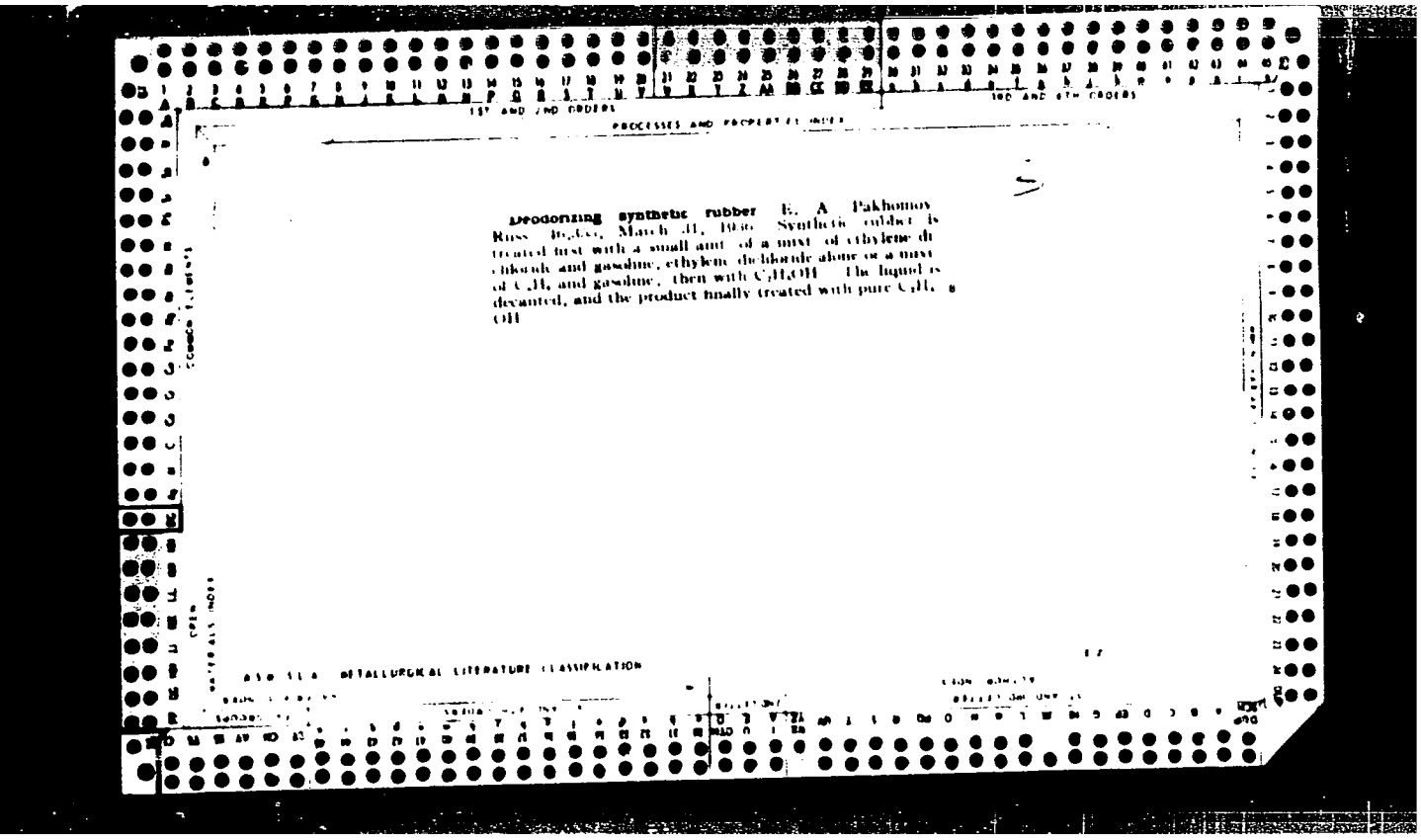
(Diesel locomotives--Equipment and supplies)
(Air filters)

CHANKIN, V.V., kand. tekhn. nauk; PAKHOMOV, E.A., kand. tekhn. nauk

Dynamics of the change in the concentration of impurities in diesel lubricants. Vest. TSNII MPS 23 no.6:31-34 '64. (MIRA 17:10)

PAKHOMOV, E.A., inzhener; ISAYEV, L.A., inzhener.

On using combined firing in gas producer diesel locomotive engines. Trudy TSNII MPS no.135:101-113 '57. (MLRA 10:8)
(Diesel locomotives)



Deodorizing synthetic rubber K. A. Pakhomov Russ. 46,621, March 31, 1936. Synthetic caoutchouc is treated first with a small amt. of a mixt. of ethylene dichloride and gasoline, ethylene dichloride alone or a mixt. of C_2H_5 and gasoline, then with C_2H_5OH. The liquid is decanted, and the product finally treated with pure C_2H_5OH.

KHARLAMOV, Pavel Georgiyevich; KUZ'MICH, Vadim Dmitriyevich; PAKHOMOV, Erik Aleksandrovich; MEL'NIKOV, V.Ye., red.

[Air, oil, and fuel filters of diesel locomotives; their design, maintenance and repair] Vozdushnye, maslianye i toplivnye fil'try teplovozov; ustroistvo, obsluzhivanie i remont. Moskva, Transport, 1965. 66 p.
(MIRA 18:4)

AUTHOR: Pakhomov, [illegible]

TITLE: Ceramic Facings for the Scrapers of Runners

PERIODICAL: Ogneupory, 1960, No. 5, pp. 238-239

TEXT: Metal scrapers in grinding and mixing runners were subject to [illegible] wear and tear (3-4 days) and contaminated the charge with metal [illegible] particularly the case at the Semilukskiy ogneupornyy zavod (Semiluki Works of Refractories), where charges having a higher hardness (fire-c[illegible] to 85% of Al_2O_3) were processed. The author recommends in 1959 that ceramic facings be used instead of cemented iron plates, the former proved to withstand as much as two months. The figure shows the scheme how the ceramic facings are applied. The practice proved the advisability of using ceramic facings, since time is saved in exchanging them and the contamination of the charge with metal is lessened. There is 1 figure.

ASSOCIATION: Semilukskiy ogneupornyy zavod (Semiluki Works of Refract[illegible]

15(2)

AUTHOR: Pakhorov, F. F.

TITLE: On the Remodelling of the Vacuum C[illegible] of the "[illegible]" Conveyor Belt Press (O rekonstruktsii v[illegible] lentoch-nogo pressa "KEMA")

PERIODICAL: Ogneupory, 195[illegible], Nr 12, pp 5[illegible]2 - 5[illegible] (USSR)

ABSTRACT: The frequent blocking of the vacuum chamber by the [illegible] is a drawback which [illegible] it necessary [illegible] the press [illegible] thirty minutes for 1[illegible] - [illegible] minutes for [illegible] cleaning it. Thus the efficiency of the press is considerably reduced. According to the [illegible] given [illegible] works, a number of modifications was carried out [illegible] that it is no longer necessary to clean the chamber as frequently as before. Now the [illegible] of the conveyor belt press has been [illegible] to suggestions made by I. N. Shevyrev, completely remodelled (Figure [illegible]) so that the chamber is no longer blocked and is [illegible] a day. Air is sucked out of any quantity of [illegible] difficulties and the output of the press has [illegible]

Card 1/2

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012388

On the Remodelling of the Vac[illegible]
Conveyor Belt Press

increased. There is [illegible]

ASSOCIATION: Semilukskiy [illegible]
Refractories [illegible]

Card 2/2

SEL'KIN, D.N.; KIRICHEK, F., red.; PAKHOMOV, G., red.; REIKIN, A., spets.red.

[Production of meat and wool on our state farm] Proizvodstvo miasa i shersti v nashem sovkhoze. Alma-Ata, M-vo sel'khoz. Kazakhskoi SSR, 1959. 17 p. (MIRA 13:5)

1. Direktor Furmanovskogo sovkhoza Zapadno-Kazakhstanskoy oblasti (for Sel'kin).
(Kazakhstan--Sheep breeding)

PAKHOMOV, G.

USSR/Electronics - Dielectrics, Measurements of Jul 51

"Application of a Wave Guide for the Measurement of Dielectric Constant of Substances," N. Kotosonov, G. Pakhomov

"Zhur Tekh Fiz" Vol XXI, No 7, pp 802-807

Authors suggest new method for measuring dielec const by observation of Bruster angle in wave guide. Method is applied to measure dielec const of liquids in cm wave band. Application of wave guide for investigation of dielectrics was first done by N. N. Malov (cf. "Zhur Eksper i Teoret Fiz" Vol XVI, No 7, 1946). Authors were assisted by Prof P. V. Golubkov and Asst Prof B. M. Zamorozkov. Submitted 24 Jul 50.

LC 18Jul46

USSR/Electronics - Dielectrics, Jul 51
Measurements of (Cont'd)

LC 18Jul46

537.226.2 : 621.392.26 : 621.317.335.3

[illegible]. Application of a waveguide to measurement of the permittivity of materials. N. [illegible] and D. [illegible]. Z. Tekh. Fiz., 23, [illegible]-7 (No. 7, 1953). In Russian.

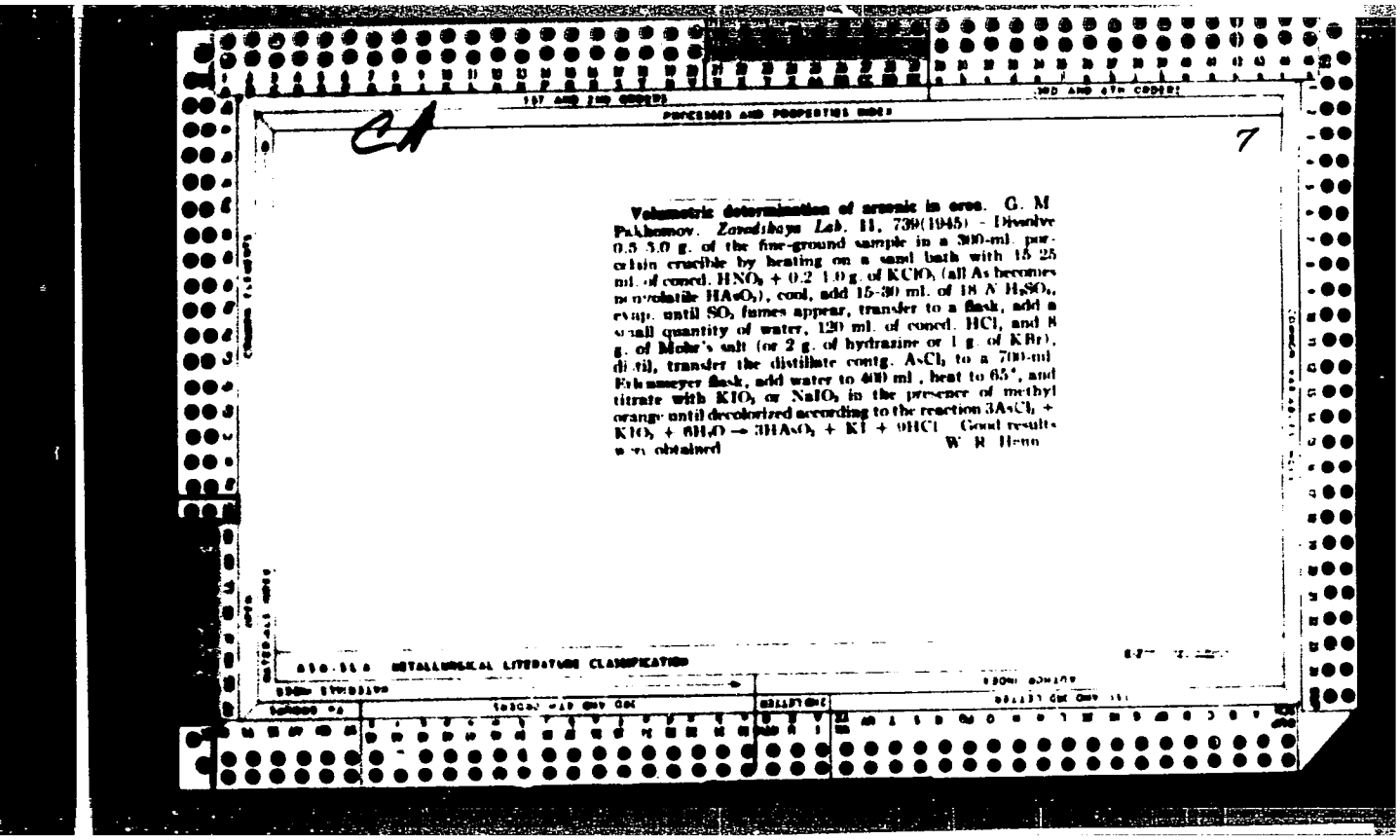
The method is used for liquids in the cm range and is based on observation of the Brewster angle. Experimental technique is fully described and illustrated by diagrams. Results are given for toluene, xylene and aniline. The method is very simple and is at present used for liquids only, but could be adapted for measurement of the permittivity and power factor of solids also. Its accuracy depends strictly on the accuracy of the Brewster angle reading.

F. K. CZARNECKI

TSUKANOV, V.P., tekhnik; PAKHOMOV, G.A., inzh.

High-speed controller for electric arc furnaces. Prom. energ. 18 no.5:16-20 My '63. (MIRA 16:6)

(Electric furnaces)
(Electric controllers)



PROCESSES AND PROPERTIES INDEX

7

Volumetric determination of arsenic in ores. G. M. Pukhonov. *Zavodskaya Lab.* 11, 739(1945) - Dissolve 0.5-5.0 g. of the fine-ground sample in a 300-ml. porcelain crucible by heating on a sand bath with 15-25 ml. of concd. HNO_3 + 0.2-1.0 g. of $KClO_3$ (all As becomes nonvolatile $HAsO_3$), cool, add 15-30 ml. of 18 N H_2SO_4, evap. until SO_3 fumes appear, transfer to a flask, add a small quantity of water, 120 ml. of concd. HCl, and 8 g. of Mohr's salt (or 2 g. of hydrazine or 1 g. of KBr), distil, transfer the distillate contg. $AsCl_3$ to a 700-ml. Erlenmeyer flask, add water to 400 ml., heat to 65°, and titrate with KIO_3 or $NaIO_3$ in the presence of methyl orange until decolorized according to the reaction $3AsCl_3 + KIO_3 + 6H_2O \rightarrow 3HAsO_3 + KI + 9HCl$. Good results were obtained. W. R. Heun

METALLURGICAL LITERATURE CLASSIFICATION

PAKHOMOV, G.N.

Survey of modern developments in zinc electrolysis. TSvet. met. 31 no.4:16-29 Ap '58. (MIRA 11:5)

1. Gintsvetmet.
(Zinc—Electrometallurgy)

PAKHOMOV, G.N., aspirant

Decimal system for a uniform marking of cars of a railroad network. Vest. TSNII MPS 17 [i.e. 19] no. 7:45-47 '60.
(MIRA 13:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta Ministerstva putey soobshcheniya.
(Railroads--Cars)

USSR/Electronics - Voltmeters

Card 1/1 : Pub. 89 - 26/26

Authors : Pakhomov, Gu.

Title : A tube-type voltmeter

Periodical : Radio 12, 60-62, Dec 1954

Abstract : A millivoltmeter, containing two amplifier stages, for measuring A-F voltage values is described. A rectifier, assembled on a bridge system on germanium diodes and associated with a milliammeter, is inserted in the plate circuit of the 2nd stage. A detailed schematic diagram of the millivoltmeter indicating the types of tubes used in the amplifier stages, the layout and values of resistances and capacitances, the position of the milliammeter, switches, etc., is presented. The structural design of the instrument is shown and its assembly on the chassis, scale graduations and the method of checking its performance are explained. Diagrams; drawings.

Institution : .....

Submitted : .....

PAKHOMOV, I.; GUSACHENKO, V.

First administrative conference of active workers in Moscow medical supplies plants. Med.prom. 11 no.9:63-65 S '57. (MIRA 10:12)
(MOSCOW--MEDICAL SUPPLIES)

ZHAROVA, T.N., inzh. po ratsionalizatsii; PAKHOMOV, I.; LIL'CHITSKIY, E., inzh. po tekhnicheskoy informatsii

Readers' letters. Inform.biul.VDNKH no.5:24 My '64. (MIRA 18:5)

1. Glavnyy inzh. Odesskogo ordena Trudovogo Krasnogo Znameni zavoda tyazhelogo kranostroyeniya imeni Yanvarskogo vosstaniya (for Pakhomov). 2. Odesskiy ordena Trudovogo Krasnogo Znameni zavod tyazhelogo kranostroyeniya imeni Yanvarskogo vosstaniya (for Lil'chitskiy).

PAKHOMOV, I.

Remote control of wire broadcasting stations using the carrier frequency of shortwave FM transmitters. Radio no.10:27-28 O '62. (MIRA 15:10)

1. Nachal'nik otdela radiofikatsii Ministerstva svyazi UkrSSR.

(Wire broadcasting) (Remote control)

ACC NR: AR7001772 SOURCE CODE: UR/0169/66/000/010/D018/D018

AUTHOR: Pakhomov, I. B.; Ryabchenko, F. M.; Bystritskaya, P. M.; Shestyuk, V. A.; Filatov, K. Ye.

TITLE: Regional works of correlation method of wave refraction (CMWR) in the trans-Volga region of Saratov

SOURCE: Ref. zh. Geofizika, Abs. 10D111

REF SOURCE: Tr. Nizhne-Volzhsk. n.-i. in-t geol. i geofiz. vyp. 3, 1965, 156-165

TOPIC TAGS: seismic prospecting, seismograph, seismology, hodograph, wave refraction data correlation, seismic station/SPEN-1 seismograph, PSL-1 CMWR seismic station, Ural-2 electric power machine

ABSTRACT: A description is given of the method of field observations and interpretations and results of surveys made since 1958 in the border area of the Caspian depression. A study was made of the topography of the basement in order to find large out croppings and structures of the subsalt stratum and upheavals of the platform type. The seismological characteristics of the region are presented. The

Card 1/3 UDC: 550.834.3

ACC NR: AR7001772

methodology of refraction correlation observations consisted in a continuous longitudinal profiling with a system of counter and overtaking hodographs, which ensured a complete correlation of reference waves, and also in a nonlongitudinal profiling, used only for mapping of the basement relief. In longitudinal profiling, each 5.7 and 11.4 km long station was surveyed from 13—15—21 explosion points. The hodographs were 30 km long and in the area of tracking of the refracted wave, they were 70 km long. On nonlongitudinal profiles, the station was 11.4 km long, and the distance from the explosion point to the profile (on the perpendicular) was 50—60 km. Waves were recorded by SPEN-1 seismographs (100 m from each other) and a 60 channel PSL-1 refraction correlation station with a filtration opening toward Hr, and with a steep right cut of the 27-cps frequency curve. On the territory of the trans-Volga area of Saratov, four main waves were found:— T_1 from the surface of the salt; T_2 from the subsalt bed to the depression; T_3 from the surface of the basement (?); T_4 from the interface in the thickness of the basement (?) [SIC]. Structural diagrams over two horizons were composed: The surface of the carbonaceous sediments of Lower Permian age, which has a monoclynal dip to the South and the South East toward the Caspian depression; the surface of the basement, characterized by a rather sharp dislocation with a general dip to the

Card 2/3

ACC NR: AR7001772

South. On the whole, the outer part of the border zone shows an irregular dip of the basement toward the Caspian depression, while the inner part is a salt dome tectonic formation. T. Polyakova. [Translation of abstract] [GC]

SUB CODE: 08/

Card 3/3

PAKHOMOV, I.D., kand. tekhn. nauk

Guiding technical materials on the indices of physical and mechanical properties of wood. Der. prom. 12 no.12:25-26 D '63. (MIRA 17:3)

PAKHOMOV, I.D., kand.tekhn.nauk

"Wood and wood products" by D.M.Orlov. Reviewed by I.D. Pakhomov.
Der. prom. 10 no.7:29 Jl '61. (MIRA 14:7)
(Wood)

L 63826-65 EWT(d)/EWT(m)/EWP(j)/T/EWP(h)/EWP(1) RM

ACCESSION NR: AP5018518 UR/0304/65/000/004/0029/0031

873.9.620.169 27

[redacted] 22

B

TITLE: Improving the productivity and service characteristics of jib cranes mounted on pneumatic tire wheels

SOURCE: Mashinostroyeniye, no. 4, 1965, 29-31

TOPIC TAGS: crane, 14 construction machinery

44 55

ABSTRACT: Efforts are being made by the Odesskiy zavod im. Yanvarskogo vosstaniya (Odessa Factory) to improve the quality of its jib cranes K-161 and similar units. Between the years 1962 and 1965 a number of improvements in design and in the manufacturing methods have been systematically introduced. These resulted in the lengthening of the service guarantee from 12 to 15 months and produced a saving of 400 000 rubles. Further tests are being conducted. Scientific investigations are carried out in cooperation with the Institut problem lit'ya AN UkrSSR (Institute for Casting Problems of the AN UkrSSR). 19,55 Standard parts manufactured by other plants are being incorporated in the cranes. A Service Reliability Department has been created at the factory for laboratory tests and for studying failures both in the laboratory and in the field. The plant, in cooperation with the

Card 1/2

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012388

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ACCESSION NR: AP5018518

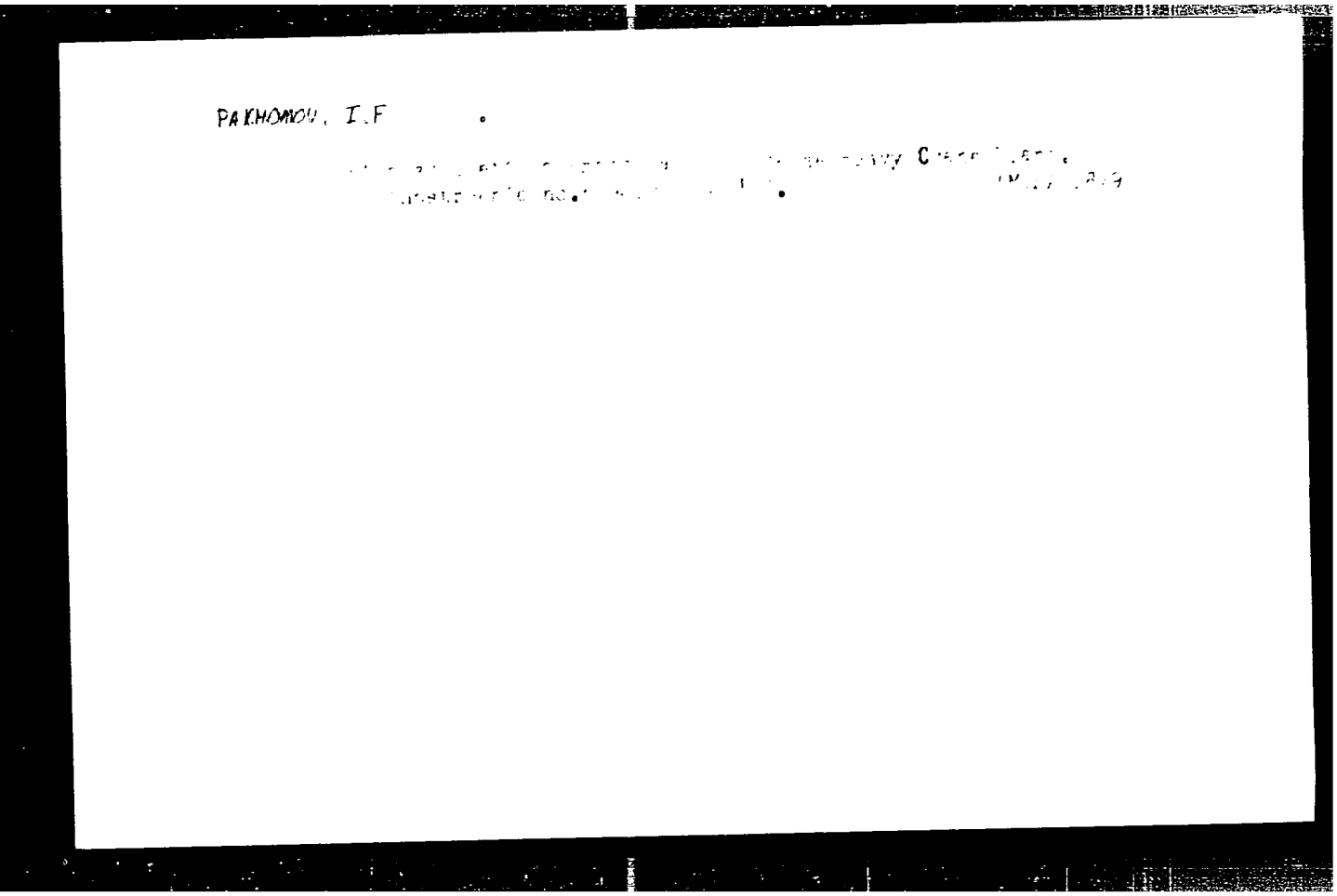
Odesskiy politekhnicheskiy institut (Odessa Polytechnical Institute), collects service data from the operators and from inspectors. Recommendations are issued regarding the design and method of operation. At present, tests are conducted on the undercarriage, pneumatic tires, load limiting devices, parts made of plastics, and the gear transmission assembly. When all planned improvements are incorporated in the cranes, it is expected that the guarantee will be extended to a period of 18 months and that the saving will be 800 000 rubles.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: IE

NO REF SOV: 000 OTHER: 000

Card 2/2



PAKHOMOV, I.I.

Conference on the use of antibiotics in the national economy.
Med.prom.12 no.3:62-64 Mr '58. (MIRA 11:4)
(ANTIBIOTICS)

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Brief news. Med.prom. 12 no.9:64 3 of cover S '58 (MIRA 11:10)
(DRUG INDUSTRY)

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New drugs produced by Moscow plants in 1958. Med.prom. 12 no.4:54-55 Ap '58. (MIRA 11:5)
(DRUGS)

SKALABAN, D.Kh.; PAKHOMOV, I.I.

For the fulfillment of the seven-year plan ahead of time.
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Innovators and inventors in the compaign to put into practice the resolutions of the June Plenum of the Central Committee of the CPSU. Med.prom. 13 no.10:3-5 O '59. (MIRA 13:2)

1. Upravleniye meditsinskoy i parfyumernoy promyshlennosti Moskovskogo gorodskogo sovnarkhoza.
(MOSCOW--DRUG INDUSTRY)

S/549/62/000/110/003/004
B192/B382

AUTHORS: Lebedev, Ye.N. and Pakhomov, I.I., Candidates of Technical Sciences

TITLE: Optical simulation of the relative motion of objects in space

SOURCE: Moscow. Vysshoye tekhnicheskoye uchilishche. [Trudy] no. 110. 1962. Optiçeskiye i optiko - elektronnyye pribory. 60 - 67

TEXT: Some theoretical problems of simulating the angular rotations of the object under observation in an optical simulator system are considered. The simulator is based on the method of epidiascopic projection of a model of the object under observation onto the screen of a training device. The model of the object under observation has a "suspension" system, as shown in Fig. 1. The model can rotate about any of the three axes which intersect at its centre of gravity. The coordinate system $Ox_M y_M z_M$ is attached to the model. The relative positioning of the suspension system, the optical projector and the screen are illustrated in

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Fig. 2, where the centre of the screen $\Im$ coincides with the origin of the coordinate system $Ox_1y_1z_1$ attached to the controlled object (the operator's cabin) which can be regarded as fixed. The suspension system is arranged so that the point of intersection of the rotation axes of the model coincides with the centre of the screen; on the other hand, when the optical axis of the projector Ox_M coincides with the axis Ox_1 and the rotation angles of the model are zero relative to the suspension axes, the coordinate system $Ox_My_Mz_M$, the intersection point coincides with the coordinate system $Ox_1y_1z_1$. The position of the two bodies relative to a fixed coordinate system $Ox_3y_3z_3$ is defined by three angles: the angle of pitch ϑ, the angle of bank γ and the angle of yaw ψ. The directional cosines of the axes of the controlled object in the coordinate system $Ox_1y_1z_1$ and the object under observation in the coordinates $Ox_2y_2z_2$ relative to the fixed coordinate system $Ox_3y_3z_3$ are

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determined in terms of the angles of pitch, bank and yaw for the two objects. The directional cosines between the axes of the $Ox_1y_1z_1$ and $Ox_2y_2z_2$ systems are also determined and the cosines of the angles between the axes of the fixed system in the coordinates $Ox_1y_1z_1$ and the coordinate system $Ox_{\Pi}y_{\Pi}z_{\Pi}$ are found (see Fig. 2). These cosines can be expressed in terms of the rotation angles of the projector. The position of the model $Ox_My_Mz_M$ relative to the coordinate system $Ox_{\Pi}y_{\Pi}z_{\Pi}$ is determined by using the Euler angles: the angle of precession Ψ, the nutation ϑ and the rotation angle φ. The rotation angles of the model of the object under observation with respect to the three suspension axes can be determined, provided the cosines between the coordinate transformation axes (axes of the system $Ox_2y_2z_2$) and the axis of the coordinate system $Ox_My_Mz_M$ are known.
There are 5 figures.

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Fig. 1:

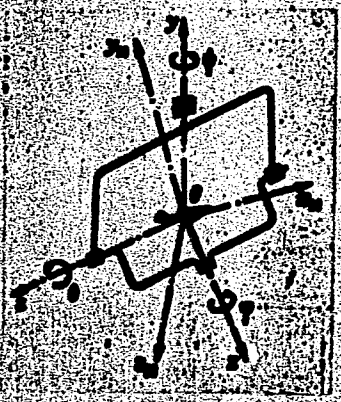
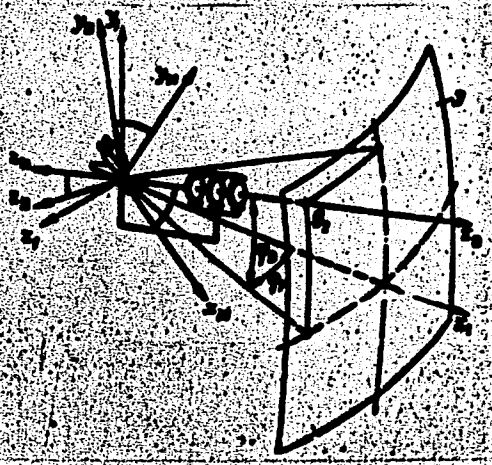


Fig. 2:



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PAKHOMOV, I.I., kand.tekhn.nauk

Three-component systems of variable magnification with a linear relationship between translocations of the components. [Trudy] MVTU no.110:68-99 '62. (MIRA 16:6)
(Optics)

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Conference of efficiency promoters and inventors. Med.prom.SSSR 12 no.5:63-3 of cover My '58. (MIRA 11:5)
(MEDICAL SUPPLIES) (COSMETICS INDUSTRY)