MAKSIMOV, V.A., inzh.; ORLOV, V.G., gornyy inzh.; KOSTYLEV, A.D., kand. tekhn. nauk; GURKOV, K.S., kand. tekhn. nauk; KREYMER, V.I., inzh.; BELAN, N.A., inzh.; PONOMARENKO, Yu.F., kand. tekhn. nauk

Industrial testing of the BPM-1 boring and loading machine. Ugol' 40 no.2:43-46 F '65. (MIRA 18:4)

1. Aleksandrovskiy mashinostroitel'nyy zavod (for Maksimov). 2. Saranovskiy khromitovyy rudnik Zapadno-Ural'skogo soveta narodnogo khozyaystva (for Orlov). 3. Institut gornogo dela Sibirskogo otdeleniya AN SSSR (for Kostylev, Gurkov, Kreymer). 4. Kuznetskiy nauchno-issledovatel'skiy ugol'nyy institut (for Belan). 5. Institut gornogo dela imeni A.A.Skochinskogo (for Ponomarenko).

ACC NR: AR6015998 SOURCE CODE: UR/0271/65/000/012/A049/A050

AUTHOR: Ishchenko, A. V.; Orlov, V. G.

TITLE: Location of malfunctions in protection apparatus for automatic assembly equipment in steel reinforced column manufacturing plants

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika, Abs. 12A355

REF SOURCE: Sb. tr. Karagandinsk. n.-i., proyektno-konstrukt. i eksperim. in-t Giprouglegormash, no. 2, 1965, 210-216

TOPIC TAGS: remote control, test instrumentation, industrial plant, reliability engineering

ABSTRACT: The number of protective and interlocking circuits in heavy automatic systems may be large. For example, there are over 30 such elements in the extruding machine control systems, a part of the steel-reinforced column manufacturing facility. The large quantity of stand-by switches and large distances between various mechanisms makes it difficult to locate and repair malfunctions. The faults may be located reliably by using signaling relays and devices whose coils are connected in parallel with the stand-by switch contacts. The most widely used are the ES-21, ES-21U, and EP-2 relays and the ES-41 and SE-2 signaling devices. The latter utilize four dropping relays. The signalization circuit is introduced for the terminal stand-by switches utilizing the ES-41 devices. This and a circuit utilizing a stepping switch

Card 1/2 UDC: 62-75

ACC NR: AR6015998

are applicable in extruding machine protection circuits. The terminals of the stepping switch poles are connected to the terminal switch contacts. When any switch is activitated the relay loses current and locks its normally closed contact which deactivates the stepping switch relay whose closed contact locks the stepping switch coil circuit advancing the rotor brushes. The rotor brushes will advance until the faulty mechamism is located. They will stop at the corresponding terminals and remain there until the fault is removed and the relay circuit restored. This fault detection circuit with the stepping switch cannot locate the self-restoring stand-by switches, but the circuit with the signaling devices is able to do this. Therefore the best circuit is a combination of both the signaling devices and stepping switches. To locate the self-restoring failures it is advisable to use dropping relays. The stepping switches are to be used in all other cases. [Translation of abstract]
4 illustrationa and bibliography of 6 titles. B. U.

SUB CODE: 09, 13, 14

Card 2/2

MAKSIMOV, V.A., inzh.; ORLOV, V.G., inzh.; KOSTYLEV, A.D., kand. tekhn. nauk; GURKOV, K.S., kand. tekhn. nauk; KREYMER, V.I., inzh.; BELAN, N.A., inzh.

Testing the BPM-1 boring and loading machine at the Sarany chromite mine. Shakht. stroi. 8 no.5:17-21 My '64 (MIRA 17:7)

1. Aleksandrovskiy mashinostroitel'nyy zavod (for Maksimov). 2. Saranovskiy khromitovyy rudnik Zapadno-Ural'skogo soveta narodnogo khozyaystva (for Orlov). 3. Institut gornogo dela Sibirskogo otdeleniya AN SSSR (for Kostylev, Gurkov, Kreymer). 4. Kuznetskiy nauchno-issledovatel'skiy ugol'nyy institut (for Belan).

S/115/60/000/02/020/031
D002/D003

AUTHORS: Kukush, V.D., Orlov, V.G.

TITLE: Increase in Exactness of Electrical Calibration of Ponderomotive SFH Power Meters

PERIODICAL: Izmeritel'naya tekhnika, 1960, Nr 2, pp 45-46 (USSR)

ABSTRACT: The calibration block circuit recommended by A.I. Gullen [Ref 1] is compared to a circuit with "magic" coaxial T-connections as described by T. Marita and L.S. Sheingold [Ref 2]. The latter calibration method is recommended for absolute calibration of coaxial ponderomotive power meters. There are 2 diagrams and 2 English references.

Card 1/1

S/057/61/031/012/008/013
B104/B112

AUTHORS: Valitov, R. A., Kukush, V. D., Orlov, V. G.

TITLE: Experiment on direct conversion of the energy of an electromagnetic superhigh-frequency field into kinetic energy

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 31, no. 12, 1961, 1462-1466

TEXT: P. N. Lebedev was the first to demonstrate that the pressure of light (energy of an electromagnetic field) can be converted into potential energy (Izbrannyye proizvedeniya. Pod redaktsii A. K. Timiryazeva. Izd. tekhniko-teoreticheskoy literaturi, 1949). An attempt has now been made to convert the energy of a superhigh-frequency field into kinetic energy by utilizing the pondermotive forces acting upon a well conducting plate placed across a waveguide. For a circular traveling waveguide, in which a test specimen may move in a circle, the following equation of motion of the specimen is obtained:

$I\frac{d^2\alpha}{dt^2} + A\frac{d\alpha}{dt} + M_{fr} = M_p$, where I is the moment of inertia of the moving

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Experiment on direct conversion...

system, α the angle of rotation, A a proportionality factor relating the moment produced by the aerodynamic resistance to the angular velocity, M_{fr} the moment of frictional forces, and M_p the moment of pondermotive forces. With the solutions of this system the expected speeds of a real system are estimated. $M_p = 35 \cdot 10^{-3}$ dyne·cm is obtained for a power input of 40 w, an amplification factor of the traveling wave resonator of $N^2 = 10$, a reflection factor $|Q| = 0.5$ of the specimen, a λ/λ_w ratio of 0.75 (λ is the wavelength in free space and λ_w that in the waveguide), and a mean radius of 3.5 cm of the circular waveguide. $M_{fr} = 8.0 \cdot 10^{-5}$ dyne·cm is obtained for a coefficient of friction of 0.13 and a mass of the moving system of 50 mg. A is estimated by an empirical formula as being 0.245 dyne·cm·sec/rad. Thus, $\omega = 142 \cdot 10^{-3}$ rad/sec (n = 1.36 rpm). A device used for checking these results is described. It consists of a magnetron generator (1) (Fig. 1), an attenuator (2), a pondermotive wattmeter (3), a traveling wave resonator (4) with a moving system, a directional coupler (5), a detection section (6), and a load (7). The

moving system is a centrally supported pivoting arm with metal disks at the end. With a power input of 40 w and an amplification factor of 3, the disks placed at a distance equivalent to five half-wave lengths had a period of 47 sec. The acceleration time of the system was 10 sec. The period could be reduced to 15 sec using filaments instead of disks. The low efficiency of energy conversion (about 10^{-9}%) is attributed to losses on the waveguide walls. V. G. Mikhaylik participated in the experiments. There are 4 figures and 6 references: 4 Soviet and 2 non-Soviet. The two references to English-language publications read as follows: A. L. Cullen, Proc. IEE, 99, IV, 45 - 50, 1952; F. I. Tischler, IRE, 5, 51, 1957.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet im. A. A. Gor'kogo (Khar'kov State University imeni A. M. Gor'kiy)

SUBMITTED: December 12, 1960

Card 3/4 3

VALITOV, R.A.; KUKUSH, V.D.; ORLOV, V.G.

Ponderomotive power meter. Izm.tekh. no.7:32-37 Jl '62. (MIRA 15:6)
(Frequency measurements)

ACCESSION NR: AR3000176 S/0274/63/000/004/A067/A068

SOURCE: RZh. Radiotekhnika i elektrosvyaz', Abs. 4A427

AUTHOR: Kukush, V. D.; Mikhaylik, V. T.; Orlov, V. G.

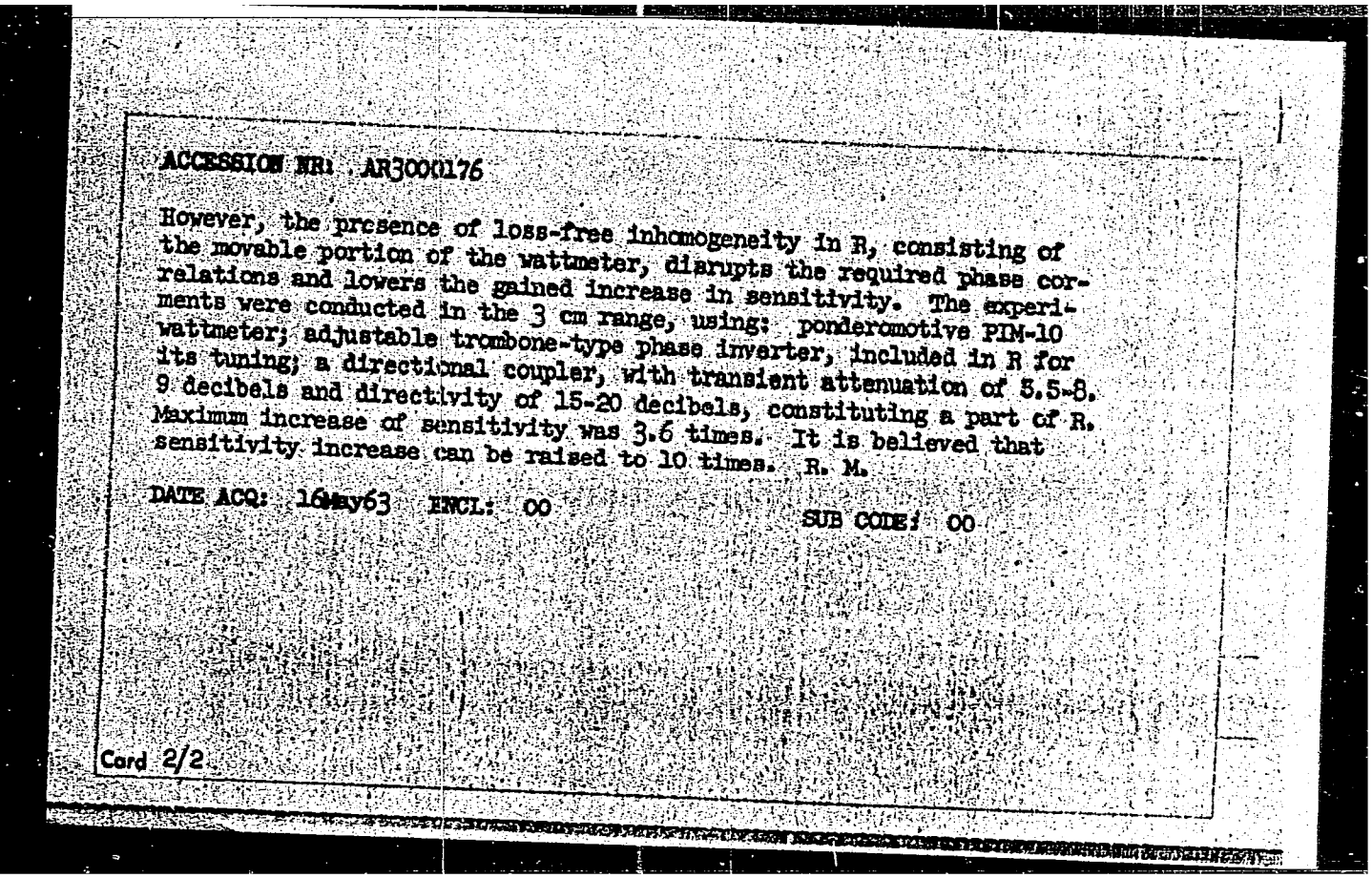
TITLE: Increasing the sensitivity of a ponderomotive wattmeter by means of a waveguide circuit of a traveling-wave resonator

CITED SOURCE: Uch. zap. Khar'kovsk. un.-t. Tr. Radiofiz. fak., v. 121, no. 5, 1962, 126-133

TOPIC TAGS: ponderomotive PIM-10 wattmeter; traveling-wave resonator; sensitivity increase

TRANSLATION: The wattmeter is included in the loop of traveling-wave resonator (R) connected with the principal channel over which the metered supershighfrequency power is transmitted. Maximum increase of sensitivity depends only on losses in R, and can be made sufficiently great.

Card 1/2



ACCESSION NR: AR3000176

However, the presence of loss-free inhomogeneity in R, consisting of the movable portion of the wattmeter, disrupts the required phase correlations and lowers the gained increase in sensitivity. The experiments were conducted in the 3 cm range, using: ponderomotive PIM-10 wattmeter; adjustable trombone-type phase inverter, included in R for its tuning; a directional coupler, with transient attenuation of 5.5-8.9 decibels and directivity of 15-20 decibels, constituting a part of R. Maximum increase of sensitivity was 3.6 times. It is believed that sensitivity increase can be raised to 10 times. R. M.

DATE ACQ: 16May63 ENCL: 00 SUB CODE: 00

Card 2/2

ACCESSION NR: AR4023751 S/0274/64/000/001/A056/A056

SOURCE: RZh. Radiotekhnika i elektrosvyaz', Abs. 1A357

AUTHOR: Orlov, V. G.; Kukush, V. D.

TITLE: Ponderomotive forces acting on a body in a waveguide

CITED SOURCE: Uch. zap. Khar'kovsk. un-t. v. 132, 1962, Tr. Radiofiz. fak, v. 7, 112-121

TOPIC TAGS: ponderomotive force, waveguide, Helmholz energy method, network theory, normalized susceptance, reflection coefficient, standing wave ratio

TRANSLATION: The ponderomotive forces acting on a well conducting body placed in a waveguide with an unmatched load are investigated theoretically and experimentally. The Helmholz energy method along with network-theory formulas are used to calculate the resultant

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ACCESSION NR: AR4023751

force acting on a plate mounted transversely to a rectangular waveguide operating in the H_{10} mode. The magnitude of the force depends not only on the incident power and on the normalized susceptance introduced by the body in the waveguide, but also on the reflection coefficient of the load and on the distance between the body and the load. For a definite distance and a short-circuited load, the resultant force can reverse sign. The appearance of an attractive force is due to the accumulation of energy because of multiple reflections between the body and the load, so that the amplitude of the wave which propagates from the load in the resonator turns out to be many times larger than the amplitude of the waves propagating from the generator. Experimental investigations of the dependence of the force on the length of the line between the disc and the load for fixed load SWR and disc susceptances were made with a metallic disc 0.02 mm thick at a frequency 9175 Mc. The experimental data agreed qualitatively and quantitatively with the theoretical results. The data obtained can be used for the development of new measuring

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ACCESSION NR: AR4023751

instruments based on the ponderomotive principle. Bibliography, 4 titles. N. B.

DATE ACQ: 03Mar64 SUB CODE: GE, CO ENCL: 00

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APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

ACCESSION NR: AR4023765 S/0274/64/000/001/A078/A078

SOURCE: RZh. Radiotekhnika i elektrosvyaz', Abs. 1A507

AUTHOR: Orlov, V. G.

TITLE: New types of ponderomotive microwave measuring instruments

CITED SOURCE: Uch. zap. Khar'kovsk. un-t, v. 132, 1962, Tr. Radiofiz. fak., v. 7, 122-134

TOPIC TAGS: ponderomotive microwave meter, ponderomotive microwave wattmeter, microwave instrumentation, microwave watthour meter

TRANSLATION: Instrument circuits for the measurement of microwave power, using the ponderomotive action of the electromagnetic field, are considered. The simplest instrument contains a conducting plate suspended in a waveguide. The electric field of the wave causes the plate to turn by an angle determined by the power of the wave.

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ACCESSION NR: AR4023765

The error of this method does not exceed 2% for a matched load, but increases sharply with increasing VSWR and with increasing frequency deviation. Better results are obtained with two plates. In an instrument using the interaction with both the electric and magnetic field of the wave, a disc is placed in a waveguide and is connected to a torsion suspension by a quartz rod, which passes through the side wall of the waveguide. The force acting on the disc is

$$F = \frac{P}{2c} \frac{\lambda}{\lambda_b} .b^2,$$

where b is the normalized susceptance of the disc. If a bent waveguide section is used, with a radius of curvature equal to the distance from the center of the disc to the suspension filament, then a pointer indicator can be constructed. The principal error of such an instrument is 3--4%. The additional errors are determined by the VSWR and by the b(f) dependence. To increase the instrument sensitivity it is possible to use a circuit in which the generator is matched by means of a ferrite rectifier and the distance between the

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ACCESSION NR: AR4023765

disc and a short-circuiting plunger (used in place of the load) is adjustable. The measurement error in this case is 7--8%. Analogous apparatus can be used in a bent coaxial line. The dynamic wattmeter has an impeller, the bars of which pass through a slot cut in the broad wall of the waveguide. When energy passes through the waveguide, the impeller rotates. The angular velocity of rotation is proportional to the power. This instrument can serve as a watthour meter. Bibliography, 12 titles. V. R.

DATE ACQ: 03Mar64 SUB CODE: GE, SD ENCL: 00

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ACCESSION NR: AR4023764 S/0274/64/000/001/A077/A078

SOURCE: RZh. Radiotekhnika i elektrosvyaz', Abs. 1A506

AUTHOR: Valitov, R. A.; Kukush, V. D.; Orlov, V. G.

TITLE: Ponderomotive power measuring instrument

CITED SOURCE: Uch. zap. Khar'kovsk. un-t, v. 132, 1962, Tr. Radiofiz. fak., v. 7, 176-190

TOPIC TAGS: ponderomotive power meter, ponderomotive wattmeter, electric wattmeter errors, mechanical wattmeter errors, capacitive susceptance, microwave wattmeter

TRANSLATION: Two silver rectangular plates spaced $\lambda_b/4$ apart are glued to a rigid quartz rod in a vertical waveguide section. A mirror is glued to the same rod. The rotation angle is indicated by a light beam reflected from the mirror onto a scale. The calibra-

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ACCESSION NR: AR4023764

tion of the ponderomotive wattmeter is by two means: electric and mechanical. The electric calibration coefficient K_e determines the connection between the power and the rotation angle, and depends on the frequency:

$$K_e \sim [1 - (\lambda_0/\lambda_{cr})^2]^{1/2}.$$

In the case of mechanical calibration, one determines experimentally the per-unit torque of the suspension filament K_m:

$$P = \frac{K_m}{K_e}\Delta\theta.$$

To compensate for the capacitive susceptance of the plates, induc- tive posts were placed in the waveguide. The VSWR at $\theta = 45°$, in the 3.1--3.3 cm range, is then ≤ 1.12. The main error of the ponder- omotive wattmeter is determined by the calibration error and by the

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ACCESSION NR: AR4023764

angle-measurement error. Theoretically $(\Delta P/P)_{max} = 3.4\%$. A comparison with a precision calorimetric instrument at 9380 Mc at a VSWR equal to 1.05 yielded $\Delta P/P = 1.2\%$. The readings of several wattmeters differed by $\leq 0.5\%$. V. R.

DATE ACQ: 03Mar64 SUB CODE: GE, SD ENCL: 00

Card 3/3

ORLOV, V.G.

Absolute calibration of ponderomotive wattmeters with losses.
Izm. tekh . no.5:46-48 My'64 (MIRA 17:7)

L 8598-65 EWT(l) AFETR/ASD(a)-5/ESD(c)/RAEM(a)/ESD(dp)/ESD(t)/R2EM(t) JW
ACCESSION NR: AR4044070 S/0058/63/000/011/H037/H037

SOURCE: Ref. zh. Fizika, Abs. 11Zh288

B

AUTHOR: Orlov, V. G.; Kukush, V. D.

TITLE: The ponderomotive forces acting on a body in a waveguide

CITED SOURCE: Uch. zap. Khar'kovsk. un-t, v. 132, 1962, Tr. Radiofiz. fak., v. 7, 112-121

TOPIC TAGS: Helmholtz free energy, circuit theory, waveguide, force change, ponderomotive force

TRANSLATION: With the help of the Helmholtz energy method and the theory of circuits there are calculated the forces acting on a good conducting body located in a waveguide with a mismatched lead. The force acting on a good conducting disk in-

L 8598-65

ACCESSION NR: AR4044070

can change sign - act toward the generator. This is explained by the process of the accumulation of electromagnetic energy in the space between the disk and the load. The limiting value of the force acting on the disk in the direction of the load is equal to the force acting on a short-circuited plunger. The force acting toward the generator, even for not very large coefficients of reflection of the load, can be many times greater than the force acting toward the generator. The results of measurements of the ponderomotive forces acting on a thin (0.02 mm)

L 8533-65 EWT(d)/EWT(l)/EEC(b)-2/T/EWA(h) Pi-4/Pj-4/Pn-4/Pac-4 SSD/AFETR/
AFMD(t)/ASD(a)-5/AFWL/ESD(c)/RAEM(a)/ESD(gs)/ESD(t)/RAEM(t)
ACCESSION NR: AR4044071 S/0058/63/000/011/H037/H037

SOURCE: Ref. zh. Fizika, Abs. 11Zh89

AUTHOR: Orlov, V. G.

TITLE: New types of ponderomotive superhigh-frequency measuring instruments

CITED SOURCE: Uch. zap. Khar'kovsk. un-t., v. 132, 1962, Tr. Radiofiz. fak., v. 7, 122-134

TOPIC TAGS: ponderomotive wattmeter, SHF measuring instrument, waveguide wattmeter, waveguide, ponderomotive force, electromagnetic wave

TRANSLATION: There are described new variants of ponderomotive wattmeters in the centimeter and decimeter ranges. The waveguide wattmeter consists of a bent rectangular waveguide, in the plane of the cross section of which is placed a flat good

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L 8533-65
ACCESSION NR: AR4044071

angle of rotation of the system; the angle depends on the magnitude of the ponderomotive force appearing during passage of an electromagnetic wave. The sensitivity of the instrument increases with use of a mismatched load (Abstract 11Zh283). The accuracy of measurements in the working range of the waveguide is ~7%. The coaxial variant of the wattmeter has, instead of the disk, a ring placed on the central conductor of the coaxial line. The basis of the dynamic

L 12637-65 EWT(d)/EWT(1)/T/EEC(b)-2/EWA(h) Pn-4/Pac-4/Peb/Pi-4/Pj-4
ACCESSION NR: AR4044072 S/0058/63/000/011/H037/H038

SOURCE: Ref. zh. Fizika, Abs. 11Zh290

AUTHOR: Valitov, R. A.; Kukush, V. D.; Orlov, V. G.

TITLE: A ponderomotive power meter

CITED SOURCE: Uch. zap. Khar'kovsk. un-t, v. 132, 1962, Tr. Radiofiz. fak., v. 7, 176-190

TOPIC TAGS: ponderomotive power meter, power meter, waveguide, SHF field

TRANSLATION: There are described the circuit and design, there are investigated the basic characteristics, and there is conducted an analysis of errors of a ponderomotive power meter (PPM) of the centimeter range, developed at Khar'kov University.

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L 12637-65
ACCESSION NR: AR4044072

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stance of the plates and the resulting mechanical influence of the field on the plate the suspended material turns by an angle determined, for the given waveguide, plates, and treads of the suspension, by the power passing along the waveguide. Indication of the turn is done with the help of a light spot reflected from a mirror attached to the suspension. Gives the results of the calibration and input

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

of transient power, allow this instruments to be used during [illegible]
of other types.

SUB CODE: EE, EC ENCL: 00

Card 2/2

ORLOV, V.G.

ANTONYUK, I.D., inzhener; ORLOV, V.G.; SAMSONOV, A.V.; TSARENKO, A.P., redaktor; KHITROV, P.A., tekhnicheskiy redaktor

[Station master's manual] Posobie nachal'niku stantsii. Moskva, Gos.transp.zhel-dor. izd-vo, 1957. 406 p. (MLRA 10:9)
(Railroads--Stations)

ANTONYUK, Igor' Danilovich; ORLOV, Viktor Grigor'yevich; SAMSONOV, Aleksey Vasil'yevich; TSARENKO, A., red.; KHITROV, P.A., tekhn.red.

[Manual for the stationmaster] Posobie nachal'niku stantsii. Izd.2., perer. i dop. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1960. 398 p. (MIRA 13:6)
(Railroads--Station service)

VINOGRADOVA, Yevgeniya Nikolayevna; MARTYNOV, Mikhail Stepanovich; ORLOV, Viktor Grigor'yevich; POTAPOV, Vladimir Pavlovich; BOROVOY, N.Ye., red.; KHITROVA, N.A., tekhn.red.

[Experience in the transportation of farm produce] Opyt perevozok sel'skokhoziaistvennykh gruzov. Moskva, Vses.izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1960. 55 p. (MIRA 13:10)

(Farm produce--Transportation)

PLADIS, Feliks Antonovich; ROSTOVSKAYA, Ye.P.; ORLOV, V.G.; POTAPOV, V.P., inzh., retsenzent; PREDE, V.Yu., inzh., red.; MEDVEDEVA, M.A., tekhn. red.

[Tables for determining the weight of freight by volume measurement and estimation] Tablitsy dlia opredeleniia vesa gruzov po obmeru i raschetu. Moskva, Transzheldorizdat, 1963. 126 p. (MIRA 16:5)
(Railroads--Freight--Tables)

ORLOV, V.G.

Tasks concerning the in- and outbound freight handling and storage. Zhel.dor.transp. 45 no.7:16-20 Jl '63. (MIRA 16:9)

1. Zamestitel' nachal'nika Glavnogo gruzovogo upravleniya Ministerstva putey soobshcheniya.
(Freight and freightage)

ORLOV, V.G.

New statute for the U.S.S.R. railroads. Zhel. dor. transp. 46 no.7:13-18 Jl '64. (MIRA 17:8)

1. Zamestitel' nachal'nika Glavnogo gruzovogo upravleniya Ministerstva putey soobshcheniya.

ORLOV, V.I.

Valuable experiment at the Irkutsk Experiment Station.
Zhivotnovodstvo 23 no.5:84 My '61. (MIRA 16:2)
(Irkutsk Province—Dairy cattle breeding)

L 10187-63 EDS-ESD-3
ACCESSION NR: AP3000471 S/0103/63/024/005/0683/0689

AUTHOR: Orlov, V. I. (Rostov-on-Don)

TITLE: An infralow-frequency magnetic oscillator 10 51

SOURCE: Avtomatika i telemekhanika, v. 24, no. 5, 1963, 683-689

TOPIC TAGS: infralow-frequency magnetic oscillator, low-frequency magnetic oscillator

ABSTRACT: A description is given of a magnetic oscillator which is an excited selective d-c amplifier using magnetic amplifiers. It is designed to generate sinusoidal oscillations from 0.01 to 10 cps. The selectivity of the amplifier is insured by the use of an L-type four-terminal network in the feedback circuit. The frequency of the generated oscillations and the required amplification are determined by the parameters of the selective feedback circuit and depend also on the time constant of the amplifier. An oscillator model designed for frequencies of 0.1 to 6 cps uses one amplification stage, and the magnetic amplifier is made on the basis of a coke differential circuit with internal positive feedback. The basic features of the magnetic amplifier are as follows: its cores are toroidal, each of them consisting of 16 permalloy rings, 30 x 42 x 0.2 mm in

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L 10487-63
ACCESSION NR: AP3000471

size; the number of turns is 6000, 1400, and 200 for control, operating, and feedback winding, respectively; and the current gain without negative feedback is 180 to 200. An investigation of the oscillator has led to the following conclusions: 1) the oscillator makes it possible to obtain infalow- and low-frequency oscillations which are virtually sinusoidal with discrete or smooth frequency variation; 2) the power supply of oscillator amplifier is insured by a transistorized static converter operating at a frequency of 500 to 2000 cps; 3) besides harmonic oscillations, the oscillator makes it possible to obtain oscillations of rectangular and trapezoidal shape; and 4) it can be used for tuning and investigating the dynamic characteristics of automatic control systems and utilized in adaptive systems with continuous modulation. Orig. art. has: 6 figures and 15 formulas.

ASSOCIATION: none

SUBMITTED: 10May62 DATE ACQ: 12Jun63 ENCL: 00

SUB CODE: GE NO REF SOV: 003 OTHER: 000

SS/GM
Card 2/2

ORLOV, Vladimir Ivanovich, laureat Leninskoy premii; ARZUMANOVA, N.A., red.; MARAKASOVA, L.P., tekhn. red.

[The mighty atom; impressions] Bogatyrskii atom; vpechatleniia. Moskva, Izd-vo "Sovetskaia Rossiia, 1962. 173 p. (MIRA 15:7)

1. Redaktsiya gazety "Pravda" (for Orlov).
(Atomic energy)

ORLOV, V.I.

Methods of raising the productivity of cement mills. TSement 29 no.5:20 S-O '63. (MIRA 16:11)

1. Azniitsement.

OBLOV, K.I., kandidat tekhnicheskikh nauk; TRUBIN, K.G., professor, doktor tekhnicheskikh nauk.

Changes in gas content during smelting of chromium-nickel-molybdenum steel. Sbor. Inst. stali no.35:102-121 '56. (MLRA 10:8)

1. Kafedra metallurgii stali.
(Nickel-chromium-molybdenum alloys)
(Gases in metals)

137-58-6-11681

Translation from Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 65 (USSR)

AUTHORS Trubin, K G., Trubetskov, K M., Orlov, V.I.

TITLE Use of Oxygen in the Open-hearth Scrap-and-ore Process (Primeneniye kisloroda v martenovskom skraprudnom protsesse)

PERIODICAL V sb. Primeneniye kisloroda v metallurgii. Moscow, Metallurgizdat, 1957, pp 68-94

ABSTRACT A detailed investigation at the Zaporozhstal' plant with open-hearth furnaces (200-t batch) having magnesite-chromite roofs has resulted in the recommendation that a heat regime be employed in which the air is enriched by O_2 by as much as 25%. When this is done, the output of the furnace rises by 26% and the unit nominal consumption of fuel diminishes by 17%. A further increase in the enrichment of the air to 30% carries with it a continuous increase in the productivity of the furnace of up to 46.0%. The duration of the heat is cut chiefly by saving on the melt-down and working periods. Here O_2 serves not only to intensify fuel combustion, but to increase heat gain from completion of the combustion of the CO, thus causing the open-hearth furnace to approximate the surface-blown

Card 1/2

137-58-6-11681

Use of Oxygen in the Open-hearth Scrap-and-ore Process

Bessemer process. During the working period there is an increase in the V_{heat} of the metal, which attains 60-80°C/hr. There is a corresponding rise in rate of addition of Fe ore, with an increase in rate of decarburization to 0.88%/hr. At increased flow, the temperature conditions of the brickwork do not go beyond the bounds of the set standards, and the efficiency of the furnace proper rises to 0.413. The use of O_2 for direct oxidation of impurities is most efficient at high initial [C]. Thus, when oxygen is blown in during the melt-down and working periods, the output of the furnace rises by 39% when the total unit consumption of O_2 is increased to 12 m^3/t. Oxygen blow into a bath with 0.5-0.6% C reduces the heat by 45-55 min. The quality of the steel remains virtually unchanged with the various methods of intensifying the heat.

1. Open hearth furnaces--Performance 2. Oxygen--Applications Yu.N.
3. Metals--Processing

Card 2/2

SOV/137-58-7-14361

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 59 (USSR)

AUTHORS: Kryakovskiy, Yu.V., Orlov, V.I., Yun Son Chol'

TITLE: Dust Formation in the Open Hearth in the Scrap-and-ore Process (Pyleobrazovaniye v martenovskoy pechi pri skrap-rudnom protsesse)

PERIODICAL: V sb.: Primeneniye kisloroda v metallurgii. Moscow, Metallurgizdat, 1957, pp 119-137

ABSTRACT: A study is made of the formation and carry-off of smelting dust in 185-t furnaces of the Zaporozhstal' Plant when O_2 is used directly in the bath and in the flame, and when as much as 25 and 30% O_2 is added to the air. The dust contents of the combustion products are determined by sampling them in the air uptakes by means of a water-cooled pipe, the inlet of which is mounted in line with the flow of flue gases, and by passing these gases through glass jars half full of distilled water, where the dust is trapped. The rate of suction is regulated by the vacuum in the system produced by an ejector pump. Lack of uniformity in the dust contents of the combustion products at various times during heats with and without oxygen is noted;

Card 1/2

SOV/137-58-7-14361

Dust Formation in the Open Hearth in the Scrap-and-ore Process

the maximum dust content in the combustion products was found during the pig-iron addition, the minimum during the period of deoxidation when the bath was quiet. The formation of dust when the flame was enriched by a limited amount of oxygen (25% O_2) differs only insignificantly from the formation of dust in heats without oxygen and does not exceed 2 kg/m^3 [should be g/m^3. Transl. Ed. Note]. When the jet of flame is enriched by 30% O_2, intensive formation of dust is observed: up to 8 g/cm^3 during melting and 5 g/m^3 during the working period. When the bath is blown with O_2, the dust content of the products of combustion sometimes rises to 26 g/m^3. Dust formation proceeds most intensively at elevated [C] both when O_2 is fed into the jet of flame and when it is blown into the metal. In all cases, the dust consists primarily (70-92%) of Fe oxides.

A.S.

1. Open hearth furnaces--Performance 2. Particles (Airborne)--Determination
3. Oxygen--Applications

Card 2/2

ORLOV, V.I., kand.tekhn.nauk; IVANOV, R.M., inzh.; YERININ, Kh.D., inzh.

Gas content in open-hearth furnace baths. Sbor. Inst. stali no.37:98-123 '57. (MIRA 11:3)

1.Kafedra metallurgii stali Moskovskogo instituta stali im. I.V. Stalina.
(Open-hearth furnaces)
(Gases in metals)

ORLOV, V. I

136-1-14/20

AUTHOR: Orlov, V.I.

TITLE: Adoption of Bright Annealing Under Production Conditions (Osvoyeniye svetlogo otzhiga v proizvodstvennykh usloviyakh)

PERIODICAL: Tsvetnyye Metally, 1958, No.1, pp. 71 - 76 (USSR)

ABSTRACT: This article is based on research work carried out at the Kol'chuginsk Works from 1952 to 1957, with the participation of I.N. Ivanov, I.A. Morosnikov, Ye.K. Peredel'skiy, Z.L. Sergeyeva, V.L. Plokhov, V.G. Sushin, Ye.N. Rogova, E.M. Zabegina, M.M. Aleyner, A.S. Krasnenkov, A.S. Shlyakov, the present author and others. In laboratory experiments on the bright annealing of cupronickel tubes promising results were obtained with producer gas and after various tests a satisfactory producer was designed (Fig.1). In the annealing plant (Fig.2), pairs of tubes are directly heated by the passage through them of an electric current which the thermal expansion of the tubes automatically switches off at the appropriate temperature. A protective atmosphere of producer gas is maintained. The author describes the surface quality of the treated tubes and their mechanical properties in relation to ГОСТ 2203-43 and TY 4214-53. He discusses the micro-structure of the tube ends. The bright annealing procedure adopted for MH 70/30 tubes was found to be suitable for production conditions,

Card 1/2

ORLOV, V.I.

LAPITSKIY, V.I., doktor tekhn. nauk, prof.; MARINOV, A.I., insh.; OYKS, G.N., doktor tekhn. nauk, prof.; OLEKSENKO, V.V., insh.; ORLOV, V.I., kand. tekhn. nauk; RUDICHEV, K.P., insh.; STUPAR', M.I., kand. tekhn. nauk, dots.

Reducing the inhomogeneity of large rimming steel ingots (up to 18 t.). Izv. vys. uchab. zav.; chern. met. no.2:19-33 F '58. (MIRA 11:5)

1. Dnepropetrovskiy metallurgicheskiy institut, Moskovskiy institut stali i zavod "Zaporozhstal'."

(Steel ingots)

ORLOV, V.I., kand.tekhn.nauk, dotsent

Possibilities of using OR-type steam turbines for heating railroad terminals. Trudy DIIT no.26:109-113 '58. (MIRA 11:7)
(Steam turbines) (Railroads--Stations--Heating and ventilation)

ORLOV, V.I., inzh.

Reactive motion of macroparticles on the surface of molten steel. Izv.vys.ucheb.zav.; chern.met. 2 no.7:13-17 Jl '59. (MIRA 13:2)

1. Ural'skiy politekhnicheskiy institut. Rekomendovano kafedroy teorii metallurgicheskikh protsessov Ural'skogo politekhnicheskogo instituta.
(Liquid metals) (Surface chemistry)

PHASE I BOOK EXPLOITATION SOV/4344

Soveshchaniye po teorii liteynykh protsessov, 4th

Kristallizatsiya metallov; trudy soveshchaniya (Crystallization of Metals; Transactions of the Fourth Conference on the Theory of Casting Processes) Moscow, Izd-vo AN SSSR, 1960. 325 p. 3,200 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya. Komissiya po tekhnologii mashinostroyeniya.

Resp. Ed.: B. B. Gulyayev, Doctor of Technical Sciences, Professor; Ed. of Publishing House: V. S. Rzheznikov; Tech. Ed.: S. G. Tikhomirova.

PURPOSE: This book is intended for metallurgists and scientific workers. It may also be useful to technical personnel at foundries.

COVERAGE: The book contains the transactions of the Fourth Conference (1958) on the Theory of Casting Processes. [The previous 3 conferences dealt with hydrodynamics of molten metals (1955), solidification of metals (1956), and shrinkage processes in castings (1957)]. General problems in the crystallization of metals, including the crystallization of constructional steels, alloy steels with special properties, cast iron, and of nonferrous alloys, are discussed. Recognition is given to D. K. Chernov and N. T. Gudtsov and their students, B. B. Gulyayev and A. G. Spasskiy, for their contributions to the understanding of the basic problems involved in the theory of crystallization of ferrous and nonferrous metals and alloys. Academician A. V. Shubnikov is also mentioned in connection with his work on the planning of research on crystal formation. References accompany several of the articles.

II. CRYSTALLIZATION OF CONSTRUCTIONAL STEEL

3/

Orlov, V.I

ORLOV, V.I., kand.tekhn.nauk; TRUBIN, K.G., doktor tekhn.nauk

Gas content in ingots and rolled products of chromium-nickel-molybdenum steel. Sbor.Inst.stali no.39:23-39 '60.
(MIRA 13:7)

1. Kafedra metallurgii stali Moskovskogo ordena Trudovogo Krasnogo Znameni instituta stali im. I.V.Stalina.
(Chromium-nickel steel--Metallurgy)
(Gases in metals)

ORLOV, V.I., kand.tekhn.nauk

Change of gas content in the bath of an open-hearth furnace during the deoxidation and metal holding period. Sbor.Inst. stali no.39:73-79 '60. (MIRA 13:7)

1. Kafedra metallurgii stali Moskovskogo ordena Trudovogo Krasnogo Znameni instituta stali im. I.V.Stalina.
(Open-hearth process) (Gases in metals)

ABROSIMOV, Yevgeniy Vasil'yevich; ANSHELES, Il'ya Iosifovich; KUDRIN, Viktor Aleksandrovich; KRYAKOVSKIY, Yuriy Vasil'yevich; ORLOV, Vladimir Ivanovich; YAVOYSKIY, V.I., prof., doktor tekhn. nauk, nauchnyy red.; GROMOV, N.D., red. izd-va; MIKHAYLOVA, V.V., tekhn. red.

[Metallurgy of steel; general course] Metallurgiia stali; obshchii kurs. By E.V.Abrosimov i dr. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1961. 679 p. (MIRA 14:10)
(Steel—Metallurgy)

ORLOV, V.I.; YESIN, O.A.; SHURYGIN, P.M.; SHERSTOBITOV, M.A.

Investigation of processes in the interaction of chromium oxide with silicon, manganese and iron by the electromotive force method. Izv.vys.ucheb.zav.; chern.met. 4 no.5:28-36 '61. (MIRA 14:6)

1. Ural'skiy politekhnicheskiy institut.
(Chromium alloys—Electrometallurgy) (Electromotive force)

GRIGOR'YEV, V.P.; LUZGIN, V.P.; ABROSIMOV, Ye.V.; ORLOV, V.I.; YAVOYSKIY, V.I.; GURSKIY, G.L.; GONCHAROV, I.A.; STARKOV, P.A.

Materials balance in the scrap metal-iron ore process. Izv. vys. ucheb. zav.; chern. met. 5 no.5:63-67 '62. (MIRA 15:6)

1. Moskovskiy institut stali zavod "Zaporozhstal'".
(Steel--Metallurgy)

S/133/62/000/012/002/012
A054/A127

AUTHORS: Abrosimov, Ye.V., Orlov, V.I., Luzgin, V.P., Lebedev, Ya.I., Dashevskiy, Yu.A.

TITLE: Improving the surface of chrome-nickel-molybdenum steel sheet slabs

PERIODICAL: Stal', no. 12, 1962, 1,086

TEXT: 9.3-ton top-poured chrome-nickel-molybdenum slabs frequently have surface defects (of 467 test slabs 215 showed transversal cracks and 194 had scales). Several methods were tested to improve the slab surface; one of them involved reduction of the partial oxygen pressure in the ingot mold by adding nitrogen at a pressure of 3 - 6 atm, which, however, did not improve the surface quality. The best results were obtained with pouring through intermediate spouts, 30 and 35 mm in diameter (to reduce the impact of the metal jet) into molds with double lacquer coating. In such molds an intensive gassing takes place, which prevents the sputtering metal and the creasing surface skin from sticking to the mold walls. This gassing also produces a reducing mold atmosphere, preventing oxidation. Favorable results were also obtained in some cases with a glass cloth

Card 1/2

Improving the surface of chrome-nickel-molybdenum ....

fixed on the broad ingot mold side, which floats on the metal surface, and being lifted with the metal level, passes over into the slag, entraining metal drops deposited on it. The 0.29 mm thick cloth was glued into strips 2.2 - 2.5 mm thick by liquid glass. It should be considered that steels containing up to 2.5% chromium can be poured through a 30-mm spout only if heated to 1,630 - 1,640°C before reduction and if their ductility is decreased by reducing the aluminum added to the ladle to 150 g/ton.

Card 2/2

ORLOV, V.I., OBUKHOVA, G.I.

Continuous action settler for the purification of neutralization residues. Gidroliz. i lesokhim.prom. 15 no.2:31-32 '62.

(MIRA 18:3)

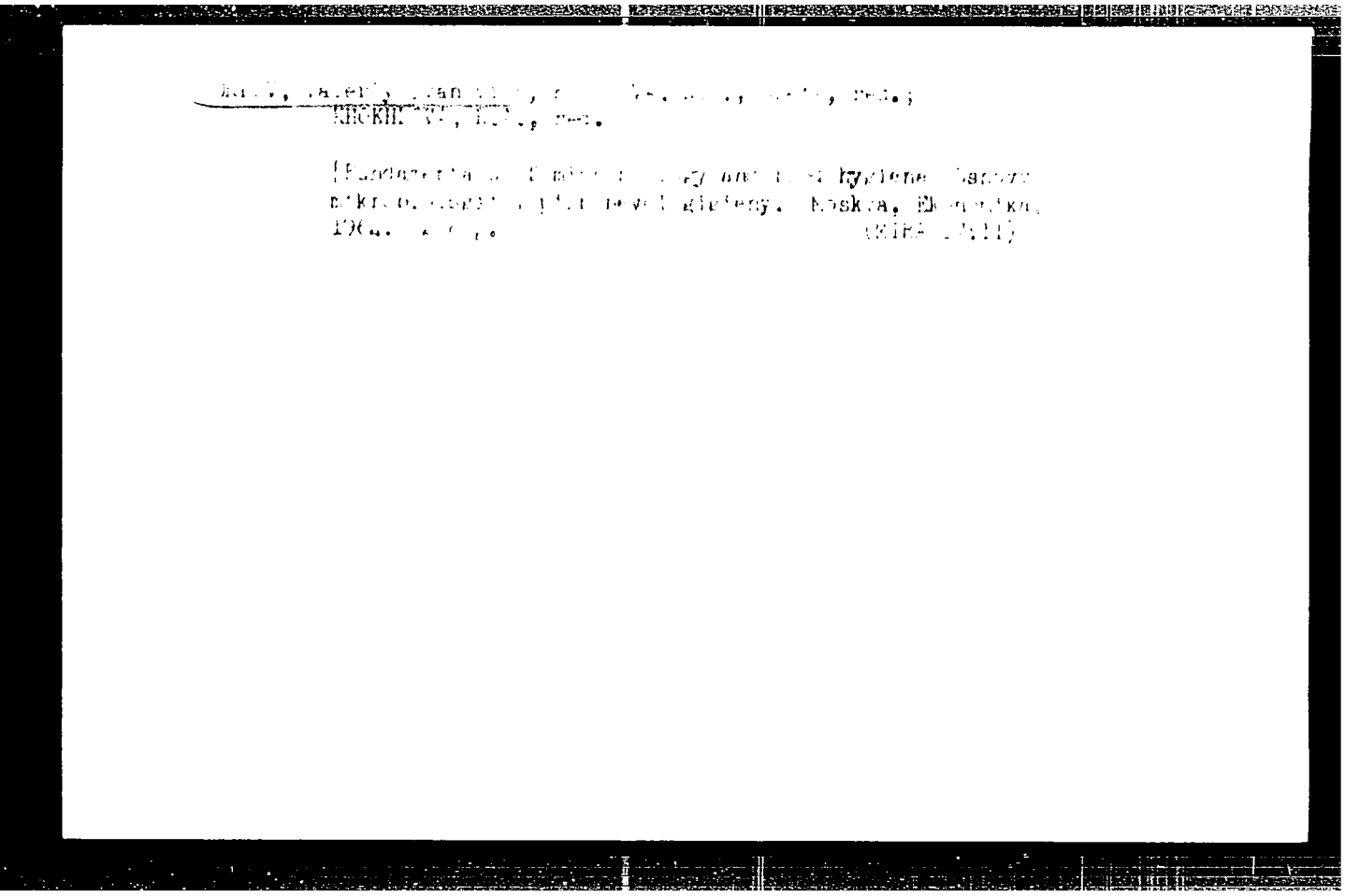
1. Severnyy nauchno-issledovatel'skiy institut promyshlennosti.

BOGDANOVSKIY, S.S., inzh.; ORLOV, V.I., inzh.; ROMANCHUK, V.V., inzh.

Measuring the metal level in pouring ladles. Lit. proizv. no.11:36-37 N '65. (MIRA 18:12)

PODOBEDOV, Nikolay Sergeyevich; [illegible], V.I., red.

[General physical geography and geography of [illegible]
Fizicheskaia geografiia i geografiia [illegible]
[illegible].



ORLOV, V. I.

"Central District of the Northwestern Part of the Area between Ob' and Irtysh Rivers (Physicogeographical Review)." Thesis for degree of Cand. Geographical Sci. Sub 26 Jun 50, Moscow State Pedagogical Inst imeni V. I. Lenin

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950.

MINTS, A.A.; ORLOV, V.I.; ROSTOVTSEV, M.I.

Coordination conference on "The geography of the Soviet Union."
Izv. AN SSSR, Ser. geog. no.5:62-64 S-O '57. (MIRA 11:2)
(Geographical research)

ORLOV, V.I.

"Izvestiia," no.1, 1956, of the Omsk Section of the Geographical Society of the U.S.S.R. Izv. AN SSSR. Ser. geog. no.6:156-157 N-D '57. (MIRA 11:1)

(Omsk--Geography--Periodicals)

Orlov, V I

26-10-37/44

AUTHOR: Orlov, V.I., Candidate of Geographical Sciences, Moscow

TITLE: A Publication Newly Restored (Vozrozhdennoye izdaniye)

PERIODICAL: Priroda, 1957, No 10, pp 120-121 (USSR)

ABSTRACT: The author gives a critical report of a geographical magazine entitled: "Izvestiya Omskogo Otdela Geograficheskogo Obshchestva Soyuza SSR" vol. 1 (8), 1956, Omsk, which contains articles on the history of geographical sciences, on the natural resources of the region, on physical geography and geology and a review of the activities of young naturalists. The object of the issue is to disseminate knowledge about Siberia and the practical utilization of its natural resources. It is a continuation of the "Zapiski", a geographical magazine that was formerly published by the Geographical Society in Omsk and discontinued in 1930.

ASSOCIATION: Omsk Section of the USSR Geographic Society (Omskiy otdel geograficheskogo obshchestva SSSR)

AVAILABLE: Library of Congress

Card 1/1

ORLOV, V.I., kandidat geograficheskikh nauk.

Snow "growth". Priroda 46 no.2:125-126 F '57. (MLRA 10:3)

1. Institut geografii Akademii nauk SSSR, Moskva.
(Snow)

POLOVINKIN, Aleksandr Aleksandrovich, prof. [deceased]; ORLOV, V.I., kand. geograf.nauk, red.; UTENKOV, N.A., kand.geograf.nauk, red.; VASIL'YEVA, O.S., red.; CHUVALDIN, A.M., red.kart; MAKHOVA, N.N., tekhn.red.

[Principles of general geography; a textbook for pedagogical institutes] Osnovy obshchego zemlevedeniia; uchebnik dlia pedagogicheskikh institutov. Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1958. 494 p. (MIRA 12:1)
(Geography)

ORLOV, V.I.

Data on ravines in west Siberian lowlands. Geog.sbor. no.10:169-171 '58. (MIRA 12:1)
(West Siberian Plain--Geology, Structural)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

POLOVINKIN, Aleksandr Aleksandrovich, prof. [deceased]; ORLOV, V.I., kand.geograf.nauk; SMIRNOV, S.M., kand.geologo-mineralog. nauk; VASIL'YEVA, O.S., red.; CHUVALDIN, A.M., red.kart; MAKHOVA, N.N., tekhn.red.

[Physical geography; teachers' manual] Fizicheskaia geografiia; posobie dlia uchitelei. Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv.RSFSR, 1959. 551 p. (MIRA 12:8)
(Physical geography)

SOV/26-59-2-51/53

AUTHOR: Orlov, V.I., Candidate of Geographic Sciences

TITLE: Complicated Forms of a Snow Mantle (Slozhnyye formy snezhnogo pokrova)

PERIODICAL: Priroda, 1959, Nr 2, pp 126-127 (USSR)

ABSTRACT: The author explains that strange forms of a snow mantle are due to several factors, such as the formation of the area, obstacles, certain weather conditions and, above all, the action of the wind. He cites instances such as snow banks (Figure 1 and 2), he has seen himself and interprets the way they were formed. More intricate forms are the result of various factors and are subject to fast changes. The author concludes that the investigation of the complicated forms the snow cover assumes sometimes may be useful with respect to the arrangement and design of snow fences and other means of protection from snow. There are 2 photographs.

ASSOCIATION: Institut geografii AN SSSR - Moskva (Institute of Geography of the AS USSR - Moscow)

3 (5)
AUTHOR: Orlov, V. I.

SOV/20-126-2-38/64

TITLE: On the Maximum Quaternary Glaciation of the West-Siberian Lowland (O maksimal'nom chetvertichnom oledenenii Zapadno-Sibirskoy nizmennosti)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 2, pp 363-366 (USSR)

ABSTRACT: The occurrence of the loose quaternary sediments in the lowland named in the title contradicts the current conception (Refs. 2, 3, 6, 10 and others), that quaternary glaciation is confined to those terrains in which moraines are preserved. Nevertheless, these sediments occur everywhere in the Zapadno-Sibirskaya (West-Siberian) Lowland. Their greatest masses are confined to the depressions. Elsewhere, they are not very thick. They are best developed in the north of the lowland within the last Zyryanskoye glaciation (Ref 5). Farther to the south the hilly moraine-like deposits are scarcely preserved. The geological and geomorphological work was handicaped because of somewhat incorrect reconstructions of the history of the quaternary deposits in many regions of the lowland. If the northern region of the lowland was glaciated

Card 1/3

(as we know for certain) then, besides direct traces of glacial action, also indirect indices must still remain preserved. The latter are illustrated on a map (Fig 1). Based on extensive material on the direct and indirect action of the ancient glaciation, the author draws a separation line of the quaternary maximum glaciation, from the neighbourhood of the town of Serov (or somewhat more to the south, according to S. G. Boch and I. I. Krasnov) towards the south-west, north of the village of Yurginskoye and farther eastwards through the district of the town of Tary until the lower course of the River Chulym (in accordance with the conclusions of the Academicians I. P. Gerasimov and V. A. Obruchev). In any case, this border runs in the area between Ob' and Yenisey more to the south than has been hitherto assumed. There are 1 figure and 12 Soviet references.

On the Maximum Quaternary Glaciation of the West-Siberian Lowland

SOV/20-126-2-38/64

ASSOCIATION: Institut geografii Akademii nauk SSSR (Institute for Geography of the Academy of Sciences, USSR)

PRESENTED: December 8, 1958, by D. I. Shcherbakov, Academician

SUBMITTED: December 2, 1958

Card 3/3

ORLOV, V.I.

Origin and morphology of lake depressions in the West Siberian Lowland. Izv.Vses.geog. ob-va 92 no.3:227-234 My-Je '60. (MIRA 13:6)

(Siberia, Western--Lakes)
(Siberia, Western--Geology, Structural)

ORLOV, Vasiliy Ivanovich; KONSHINA, V.A., red.; PASHCHENKO, O.V., red.kart; SHVARTSBREYM, L.D., tekhn. red.

[Western Siberia; studies on nature and economy. Textbook for teachers] Zapadnaia Sibir' (ocherki o prirode i khoziaistve); posobie dlia uchitelia. Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1961. 190 p. (MIRA 15:4)
(Siberia, Western--Economic geography)

ORLOV, V.I.

On the ridged relief of Western Siberia. Geog. v shkole 25 no.6:63-66 N-D '62. (MIRA 15:12)
(Siberia, Western--Physical geography)

ORLOV, V.I.

Some characteristics of uneven peat bog formations in the Igarka Region. Izv. Vses. geog. ob-va 94 no.1:75-79 Ja-F '62. (MIRA 15:3)

(Igarka region--Peat bogs)

ORLOV, V.I.

New data on ravine formation. Izv. Vses. geog. ob-va 94 no.4:331-333 Jl-Ag '62. (MIRA 15:9)
(Siberia, Western--Valleys)

ORLOV, V.I. (Moskva)

To drain or to flood? Priroda 52 no.6:58-64 '63. (MIRA 16:6)
(Siberia, Western--Peat bogs) (Ob' Valley--Reservoirs)

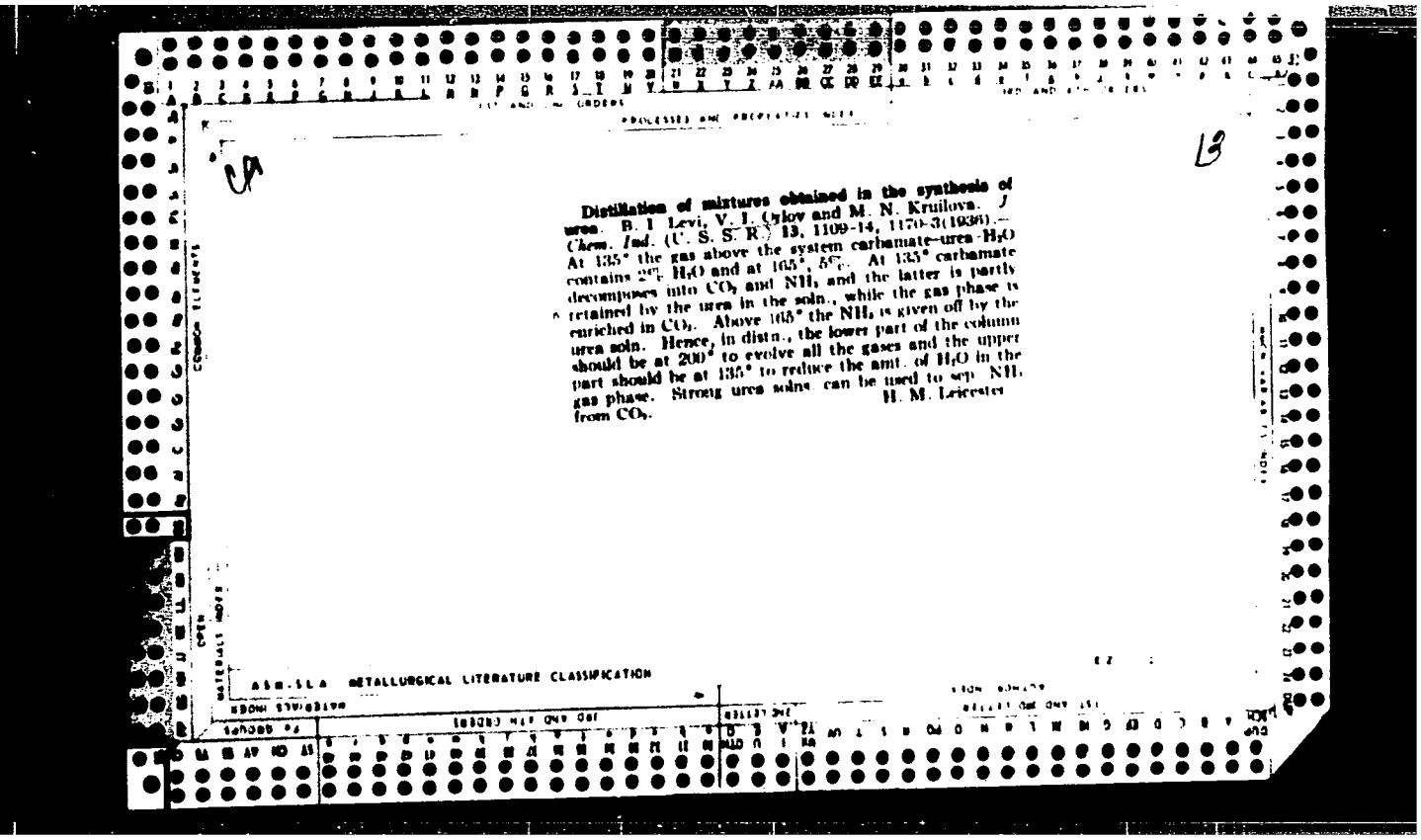
ORLOV, V.I., kand. geograf. nauk (Moskva)

Conquest of the West Siberian Plain; a map of the dynamics of nature. Priroda 54 no.5:79-85 My '65.

(MIRA 18:5)

ORLOV, V.I.

Dynamics of [illegible] in the [illegible] of the
forest [illegible] in the west Siberian plain. Izv. Vses. geog.
ob.-va 97 no.2:128-135 Mr-Ap '65. (MIRA 18:



Distillation of mixtures obtained in the synthesis of urea. B. I. Levi, V. I. Oglov and M. N. Kruilova. *Chem. Ind.* (U. S. S. R.) 13, 1109-14, 1170-3(1936).—At 135° the gas above the system carbamate–urea–H_2O contains 2% H_2O and at 165°, 5%. At 135° carbamate decomposes into CO_2 and NH_3, and the latter is partly retained by the urea in the soln., while the gas phase is enriched in CO_2. Above 165° the NH_3 is given off by the urea soln. Hence, in distn., the lower part of the column should be at 200° to evolve all the gases and the upper part should be at 135° to reduce the amt. of H_2O in the gas phase. Strong urea solns can be used to sep. NH_3 from CO_2.

H. M. Leicester

ORLOV, V. I. [Co-author]

See: DESHEVAIA, A. S. "Mercuric-Organic Disinfectants," 1947.

SO: SIRA, SI 90-53, 15 December 1953

ORLOV, V. I. PA 34T48

USSR/Medicine - Insecticides Nov 1947
Medicine - Agriculture

"Development of the Agricultural Insecticide Industry in Thirty Years," V. I. Orlov, Candidate in Technical Sciences, K. A. Gar, Candidate in Agricultural Sciences, M. G. Gabriyelova, Candidate in Technical Sciences, 3½ pp

"Khimicheskaya Promyshlennost'" No 11

Historical account of development in the insecticide industry. Persons important in chemical research work in insecticides are listed and some examples are presented of the technological progress and development of insecticide products.

34T48

FD-868

USSR/Chemistry - Agricultural

Card 1/1 Pub.50 - 1/24

Author : Vol'fkovich, S. I., Mel'nikov, N. N., Orlov, V. I.

Title : The chemical industry in the fight to increase yields and preserve crops (Concerning the opening of the All-Union Agricultural Exposition).

Periodical : Khim. prom., No. 6, 321-331 (1-11), Sep 1954

Abstract : Review general trends in USSR agricultural chemistry and current production plans and other developments in fertilizers, insecticides, fungicides, herbicides, and plant growth stimulants. Six references, all USSR, all since 1940. Three figures.

Institution :

Submitted :

Summary of parts of article in W-31206, 13 May 57

CRLL 6 J

USSR/Inorganic Chemistry - Complex Compounds. C.

Abs Jour : Ref Zhur - Khimiya, No 9, 1957, 30284

Author : Kuperman, M.Ye., Orlov, V.I., Krutitskaya, S.N., Trushkina, N.I.

Inst :

Title : Investigations of Arsenous Compounds of Copper and Zinc.

Orig Pub : Sb. Issledovaniya po prikladnoy khimii, M.-L., Izd-vo AN SSSR, 1955, 236-243

Abst : Under laboratory conditions were prepared $Cu_3(AsO_3)_2 \cdot Cu(OH)_2$, $Cu(AsO_2)_2$, $Cu_3(AsO_4)_2 \cdot Cu(OH)_2$, $Cu_3(AsO_4)_2$, $Zn_3(AsO_3)_2$, $Zn(AsO_2)_2$, $Zn_3(AsO_4)_2$ and $Zn_3(AsO_4)_2 \cdot Zn(OH)_2$. A determination was made of the amounts of As_2O_3 or As_2O_5 and CuO or ZnO, dissolved in solutions of NH_3 and CH_3COOH at 25 and 70°.

Card 1/1

KUPERMAN, M.Ye.; ORLOV, V.I.; KRUTITSKAYA, M.N.; TRUSHKINA, N.I.

Aqueous suspensions of powder and paste-type DDT and hexachlorocyclohexane compounds used for spraying. [Trudy] NIUIF no.156: 187-199 '55. (MLRA 9:10)

(DDT (Insecticide)) (Benzene hexachloride)

KUPERMAN, M.Ye.; ORLOV, V.I.; KRUTITSKAYA, M.N.; TRUSHKINA, N.I.

Aqueous suspensions of 15% and 20% DDT compounds used for spraying. [Trudy] NIUIF no.156:199-201 '55. (MLRA 9:10)

(DDT (Insecticide))

ORLOV, V.I., kandidat tekhnicheskikh nauk.

Insecticide-fungisides at the 58th International Agricultural Fair in Verona. Khim.prom.no.6:377-379 S '56. (MLRA 10:2)
(Agricultural chemicals--Exhibitions)

ORLOV, V I.

"Methods of Obtaining Powdered Poisonous Chemicals," by S. M. Shogam and V. I. Orlov, Khimicheskaya Promyshlennost', No 8, Dec 56, pp 474-476

The authors ran tests on a laboratory scale to determine optimum conditions for pulverizing insecticide materials consisting of the chemical agent and a filler (clay, talc, etc.). The chemical agents used were DDT in combination with chlorotene or with hexachlorocyclohexane.

If rod mills are used in place of ball mills, the pulverization process is intensified and there is less lumping of the product even when liquids are used. The use of rod mills also makes it possible to prepare concentrated powders for use as aqueous suspensions without the necessity of adding expensive surface-active agents such as sulfonol or OP-7. It is only necessary to add 15% sulfite liquor to obtain satisfactory powders containing up to 30% technical grade hexachlorocyclohexane. Preparation of dusts containing agglomerizing fillers such as kaolin can be carried out in rod mills without separation of the product.

Sum. 1305

ORLOV, V.I., kandidat tekhnicheskikh nauk.

At the fair in Verona. Nauka i zhizn' 23 no.10:53-54 O '56.
(MLRA 9:11)
(Verona, Italy--Agricultural exhibitions)

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Investigation of new inorganic insecticides and fungicides and the development of combined preparations (formula, application and technology). [Trudy] NIUIF no.164:37-38 '59. (MIRA 15:5)
(Insecticides) (Fungicides)

SHOGAM, S.M.; ORLOV, V.I.; EPSHTEYN, T.B.; SIDOROVA, S.V.; FEN'KOVA, I.Ye.

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[Trudy] NIUIF no.165:36-45 '59. (MIRA 13:8)
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SHOGAM, S.M.; ORLOV, V.I.

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Comparative fungicidal activity of some basic copper and zinc salts.
[Trudy] VIUIF no.167:186-192 '60. (MIRA 13:8)
(Copper salts) (Zinc salts) (Fungicides)

KRUTITSKAYA, M.N., ORLOV, V.I., IVANOVA, B.S., ANDREYEVA, Ye.I., GOLYSHIN, N.M., ZUBOV, M.F.

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(Zinc chromates) (Fungicides)

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(Plants, Protection of)

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