A millimicrosecond blocking ...

Referring i_{cg} into the primary (anode) circuit and denoting

$$[C_{ak} + C_{T1} + C_{12}(1+n) + C_{gk}(n+1)] = C_1,$$

$$\left[C_{T2} + C_{12}\left(1+\frac{1}{n}\right) + C_{gk} + C_{ag}\left(1+\frac{1}{n}\right)\right] = C_2,$$

$$C_{ag} + n(C_{gk} - C_{ag}) = C_\Delta; \quad C_1 + n^2 C_2 = C_n,$$

the total current in the strays is obtained

$$i_{cn} = C_n \dot{U}_a + C_\Delta \dot{U}_c.$$

Kirchhoff's equation for point a becomes

$$i_a + C_n \dot{U}_a + C_\Delta \dot{U}_c = nC\dot{U}_c + i_R + i_m \quad \text{or} \quad i_a = i_R + i_m + C_n \dot{U} + (nC - C_\Delta)\dot{U}_c.$$

This equation corresponds to the equivalent cct. given in Fig. 2.

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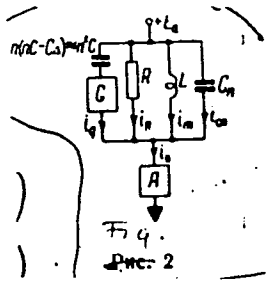
A millimicrosecond blocking ...

Fig. 2.



Фиг. 2

Since usually $C \geqslant C_n$ and $C_\Delta \ll C_n$,

$$nC - C_\Delta \approx nC \qquad (2)$$

is true. Assuming next the broken line approximation of the dynamic tube characteristics as cited by V.I. Rakov, and S.Ya. Shats (Ref. 2: Osnovy impul'snoy tekhniki (Principle of Impulse Techniques) Chast' III, izd. VMAKV im. A.N. Krylova, Leningrad, 1953) and their

A millimicrosecond blocking ...

displacement due to the voltage at the capacitor C (the increase of the capacitor voltage ΔU_c produces a displacement of the straight line sections in the abcissa direction equal to $\frac{1}{n}\Delta U_c$ and the displacement of inflection points by $\beta\frac{1}{n}\Delta U_c$, where $\beta = \frac{S_{a1}}{S_{a1} + S_{a2}}$,

$$C_n\dot{U} + \frac{1}{L}\int U dt + nC\dot{U}_c = S_{a1}\left(U - \frac{1}{n}U_c\right) \cdots \frac{U}{R};\ U = \frac{1}{n}U_c + \frac{1}{n}\frac{CU_c}{S_{a1}}.$$

is obtained which determines the law of the formation of the leading edge of the pulse. With the ramp triggering pulse (rate of increase v_0) of

$$U(t) = \frac{\frac{S_{g1}}{C} + \lambda_1}{(\lambda_1 - \lambda_2)(\lambda_1 - \lambda_3)} e^{\lambda_1 t} + \frac{\frac{S_{g1}}{C} + \lambda_2}{(\lambda_2 - \lambda_1)(\lambda_2 - \lambda_3)} e^{\lambda_2 t} + \frac{\frac{S_{g1}}{C} + \lambda_3}{(\lambda_3 - \lambda_1)(\lambda_3 - \lambda_2)} e^{\lambda_3 t}, \quad (3) \qquad (3)$$

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A millimicrosecond blocking ...

where λ_1, λ_2, λ_3 are the roots of the characteristic equation

$$\lambda^3 + \lambda^2 \frac{C_n S_{c1} - C S_{a1} - C S_{c1}}{C_n C} + \lambda \frac{S_{a1} l S_{g1} \left(\frac{1}{n} - 1\right) + C}{C_n L C} + \frac{S_{g1}}{C_n L C} = 0.$$

The graphs given show that the decrease in the rise time of the triggering voltage in the inductance and in the value of relaxation (working) capacitance leads to a slower rise time of the leading edge. The final value of the leading edge is at a certain $U = U_1' \approx \approx U_1$. To determine the law of formation of the pulse top the anode current is written as

$$i_a = S_{a1}\left(U_1 - \frac{1}{n} U_{c1}\right) - S_{a2}(U - U_1), \quad (12)(5) \qquad (5)$$

where the subscript 1 denotes the voltage corresponding to the termination of the leading edge. For the grid current

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A millimicrosecond blocking ...

$$i_g = \left[U - U_1 \frac{1+\beta}{C} \int i_g dt\right] S_{g2} + S_{g1}(U_1 - U_{c1}). \quad (6) \qquad (6)$$

is obtained, so that combining (5) and (6) the equation for the top pulse

$$LCC_n \ddot{U} + [LC_n S_{g2}(1+\beta) + LCS_{a2} + LCS_{g2}]\ddot{U} + \\ + [LS_{a2}(1+\beta) + LS_i S_{g1} + C]\dot{U} + S_{i2}(1+\beta)U = 0. \quad (7) \qquad (7)$$

is obtained. The solution of Eq. (7) for given boundary conditions (i_{m1}, U_{c1}, U_1) are given in Fig. 5

Fig. 5.

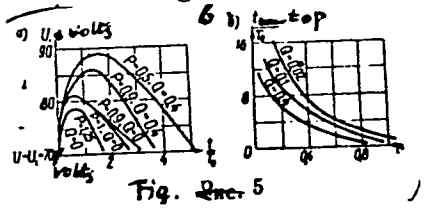

Fig. Enc. 5

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for different values of P and Q. It may be seen from the graph that reducing L and C results in some decrease of amplitude of the pulse and in a decrease of the duration of the top. The law of formation of the trailing edge is given by a differential equation of the third order similar to that for the leading edge. As shown in Fig. 6 which represents the solution of this equation, the trailing edge duration changes little for the values of P and Q contained between D and 1.

Fig. 6.

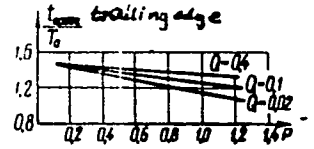

Fig. ~~Pис.~~ 6

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In order to determine optimal values of P and Q the overall pulse duration t_p was determined by the continuous solution of the differential equation of the blocking oscillator using the electronic computer MN-2, from which graphs of t_p against the parameter $\xi = \frac{U_{max}}{U_1}$ and of $\frac{t_p}{T_o}$ against P and Q are given. The dependence of the pulse duration on P and Q for $0.1 \leqslant P \leqslant 1$, and $0.1 < Q \leqslant 1$ can be approximated by

$$\frac{t_u p}{T_0} \approx 12 e^{-2(P+Q)} + 6 e^{-0.1P} \quad (8) \qquad (8)$$

and for $P > 1$ and $Q > 1$ by

$$\frac{t_u p}{T_0} \approx 12 e^{-2(P+Q)} + 6 e^{-0.2P}. \quad (8a) \qquad (8a)$$

S/108/60/015/011/004/012
D201/D303

A millimicrosecond blocking ...

It follows from Eq. (8a) that a small duration of pulses can be obtained having L and C small, provided the rise time of triggering voltage v_o is very fast. To prove the theory several experiments have been designed based on various types of tubes including 6N3P, 6N15P, 6N6P, 6E5P, 6S3P and 6S15P. The pulses were observed on a special oscilloscope having the velocity of the time base 300 cm/microsec. The parameters of ferrite cores were determined by comparing the transient characteristics of the transformer with those of an equivalent cct. The pulse parameters were determined from the formulae in the article; compared with experimental data the discrepancies did not exceed 20 %. Two examples of experimental results are given. 1) Tube 6N3P with the pulse slope $S = S_{a1} - S_{g1} = 4.7$ mA/V for n = 1. The rate of build-up of trigger voltage v_o = 100 V/microsec. C_n = 33 pF, duration of pulse required 50 nsec. The ferrite core used with limit working frequency $f_{lim} \approx 10$ Mc/s (ferrite type F-600). The values obtained were: L_f = 12 microhenry,

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S/108/60/015/011/004/012
D201/D303

A millimicrosecond blocking ...

$L = \frac{L_f}{P}$ = 17.2 microhenry, $C = \frac{C_n}{Q}$ = 165 nf. 2) Tube 6S15P: Pulse duration of the order of 5 nsec, $v_o = \frac{100V}{15\ nsec}$ (from a millimicrosec blocking oscillator), C_n = 40 pF, S = 30 mA/V. $L = \frac{L_f}{P}$ = 4.3 microhenry, $C_n = \frac{C_n}{Q}$ = 68 pF. There are 7 figures and 2 Soviet-bloc references.

ASSOCIATION: [Abstractor's note: Because of the photostat supplied the Association could not be determined]

SUBMITTED: December 18, 1959 (initially); March 18, 1960 (after revision)

Card 12/12 Rayon obshchestva radiotekhniki i electrosvyazi imeni A S Popova

SHATS, Solomon Yakovlevich; SUBASHIYEV, V.K., retsenzent; GOL'DSHTEYN, L.D., retsenzent; VLASOVA, Z.V., red.; KOROVENKO, Yu.N., tekhn. red.

[Transistors and principles of their operation] Tranzistory i osnovy ikh primeneniia. Leningrad, Sudpromgiz, 1960. 135 p. (MIRA 15:5)

(Transistors)

S/108/60/015/06/03/006
B007/B014

AUTHORS: Mel'nikov, Yu. P., Member of the Society, Shats, S. Ya., Member of the Society

TITLE: A Millimicrosecond Blocking Generator

PERIODICAL: Radiotekhnika, 1960, Vol. 15, No. 6, pp. 36-44

TEXT: The millimicrosecond range is characterized by the fact that the time required for the formation of the pulse peak has the same order of magnitude as the time needed for the formation of the front. In this connection it is pointed out that the parameters of the circuit must not be divided into "large" and "small" ones, and that an analysis cannot be based on the assumption that the "rapid" processes (the front) are determined by "small", inert elements and the "slow" ones (the peaks) by "large" elements. The duration of all pulse sections is simultaneously dependent on all parameters of the circuit. It is pointed out that there is a range with optimum relations between the circuit parameters by means of which it is possible to obtain a pulse of the shortest duration with a sufficient amplitude. The authors studied the processes taking place

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A Millimicrosecond Blocking Generator

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in a millimicrosecond blocking generator, with special regard to the above-mentioned results. Next, a method is developed for the technical calculation of a blocking generator on the basis of this study. The authors used A. A. Raspletin's method of the dynamic characteristics of the blocking generator (Ref. 1), which were approximated by broken lines (Ref. 2). First, the pulse transformer is studied. The parameters of the pulse in the circuit under consideration are largely dependent on the properties of the transformer core. The equivalent-circuit diagram of the coil that has a ferrite core (Fig. 3; Ref. 3) is recommended for quantitative calculations. Recommendations are given for the selection of the winding and the core material. Next, the authors study a millimicrosecond blocking generator controlled by the inductance. It is shown that the inductance of the transformer may have values at which the shortest duration of the pulse with a sufficient amplitude is warranted for a given tube. The pulse is divided into various stages (front, peak, clip) according to the boundaries of the characteristic sections of the dynamic characteristics (Fig. 2). The formation of the front, the peak, and the clip is studied, and the pertinent formulas are

VB

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A Millimicrosecond Blocking Generator

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derived. Calculations have shown that the divergence in the determination of pulse parameters from these and exact formulas is 10 per cent at most. Fig. 6 shows how the pulse inductance should be chosen in order to obtain a pulse of shortest duration and with a sufficient amplitude. Calculation and experimental verification are demonstrated. From this it resulted that in most cases the divergence does not exceed 20 per cent. There are 6 figures and 5 Soviet references.

SUBMITTED: July 3, 1959 (initially)
September 9, 1959 (after revision)

Card 3/3

OVSISHCHER, Petr Il'ich; KOCHKINA, Nadezhda Nikolayevna; SHATS, S.Ya., kand. tekhn. nauk, retsenzent; MARTYNOV, A.P., inzh., retsenzent; SUKHOMEKHOV, V.P., nauchnyy red.; CHICHKANOVA, V.S., red. izd-va; KONTOROVICH, A.I., tekhn. red.; KRYAKOVA, D.M., tekhn. red.

[Handbook on transistor diodes and triodes] Spravochnik po poluprovodnikovym diodam i triodam. Leningrad, Gos. soiuznoe izd-vo sudostroit. promyshl., 1961. 239 p. (MIRA 14:8)
(Transistors—Handbooks, manuals, etc.)

YAKOVCHUK, Nikolay Stepanovich; CHELNOKOV, Valentin Yevgen'yevich; GEYFMAN, Mikhail Petrovich; BARSUKOV, Yu.K., kand.fiz.-matem. nauk, retsenzent; SHATS, S.Ya., kand.tekhn.nauk; VLASOVA, Z.V., red.; TSAL, R.K., tekhn.red.

[Junction transistors] Ploskostnye tranzistory. Leningrad, Gos.soiuznoe izd-vo sudostroit.promyshl., 1961. 262 p. (MIRA 14:7)
(Transistors)

LAPIN, V.I.; SHATS, S.Ya.

Generator of rectangular millimicrosecond pulses. Prib.i tekh.eksp. 6 no.5:86-89 S-O '61. (MIRA 14:10)

1. Leningradskaya voyenno-vozdushnaya inzhenernaya akademiya.
(Pulse techniques (Electronics))

34045
S/109/62/007/001/026/027
D201/D301

9,4310

AUTHORS: Chayka, Yu.D., and Shats, S.Ya.

TITLE: The shortest time in which a transistor can go out of saturation

PERIODICAL: Radiotekhnika i elektronika, v. 7, no. 1, 1962, 177 - 181

TEXT: In the present short communication the authors consider the shortest time in which a transistor can go out of saturation and the dependence of this time on currents flowing through the transistors. Considering the carrier distribution in the base region, the problem is equivalent to that of evaluating the minimum time required for the density of excess carriers at the collector junction to fall to zero level, together with determining the boundary conditions at which this minimum can be realized and the solution of diffusion equation at given boundary conditions. Considering the boundary conditions the minimum time is achieved by a step change of emitter junction carrier density, the diffusion time in this case

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The shortest time in which a ...

being determined only by the intrinsic speed of the diffusion process. Assuming the following: 1) The process of diffusion is described by a purely diffusion equation; 2) The emitter and collector efficiencies are equal to unity; 3) The life time of minority carriers is infinitely great; 4) The diffusion occurs as a steady state process, the problem is reduced to solving

$$\frac{\partial^2 p}{\partial x^2} = \frac{1}{D_p} \frac{\partial p}{\partial \tau} \qquad (2)$$

with initial distribution of minority-carriers

$$p(x, 0) = p(0, 0 \left[1 - \frac{x}{W} + \frac{p(W, 0)}{p(0, 0)} \frac{x}{W}\right] \qquad (3)$$

and boundary conditions

$$p(0, t) = 0; \quad \frac{\partial p}{\partial x}(W, t) = \frac{j_c + j_{c.o}}{qD_p}, \quad t \geqslant 0 \qquad (4)$$

in which j_c - collector junction current density during the initial

Card 2/4

The shortest time in which a ...

saturation state; $j_{c.o}$ - the increase of current density due to application of cut-off voltage. The solution of Eq. (2) results in

$$T = \tau \ln \frac{4}{\pi} \frac{I_{ca} + \frac{2}{\pi} I_{c.o}}{I_c + I_{c.o}}, \qquad (13)$$

in which I_{ca} is the collector current corresponding to the actual active operating current and τ is the dissipation time parameter. The results of experiments show the following: 1) The voltage step at the collector of a saturated transistor, after the emitter junction has been cut off, is in the common emitter configuration equal to the cut-off voltage, 2) Eq. (13) reflects quite well the effect of various factors affecting the duration of saturation; 3) The use of Eq. (13) is limited by the region of saturation at which the base current does not exceed the collector current by more than 2-3 times. Eq. (13) is also stated to be valid provided τ is taken as a geometrical mean of times τ_1 and τ_2 of the direct and reverse voltage response time of the transistor. There are 2 tables, 4 figures

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S/109/62/007/001/026/027
D201/D301

The shortest time in which a ...

and 5 Soviet bloc references.

SUBMITTED: April 14, 1961

Card 4/4

SHATS, Solomon Yakovlevich; PEROV, G.I., kand. tekhn. nauk, retsenzent; GOL'DSHTEYN, L.D., nauchnyy red.; SACHUK, N.A., red.; KOROVENKO, Yu.N., tekhn. red.

[Transistors in pulse techniques] Tranzistory v impul'snoi tekhnike. Leningrad, Sudpromgiz, 1963. 250 p. (MIRA 16:7)

(Transistors) (Pulse techniques (Electronics))

GOLUBEV, A.D.; SHATS, S.Ya.

Regularities in the characteristics of tubes with secondary emission. Izv. vys. ucheb. zav.; prib. 6 no.5:11-19 '63. (MIRA 16:11)

1. Rekomendovana Leningradskoy voyenno-inzhenernoy krasnoznamennoy akademiyey imeni A.F. Mozhayskogo.

GOLUBEV, A.D.; SHATS, S.Ya.

Design of amplifiers using a secondary emission tube. Izv.vys. ucheb.zav.; prib. 6 no.6:3-9 '63. (MIRA 17:3)

1. Rekomendovana Leningradskoy Krasnoznamennoy voyenno-vozdushnoy inzhenernoy akademiyey imeni A.F.Mozhayskogo.

SHATS, S.Ya.; KOLESNIKOV, L.P.; MATSKEVICH, V.I.; GARRIS, O.V.; YERMAKOV, M.M.; UDALOV, Ye.V.

A semiautomatic production line for manufacturing torsion springs for railroad cars. Prom.energ. 18 no.1:12 Ja '63. (MIRA 16:4)

(Car springs)

L 10281-63
ACCESSION NR: AP3001127 S/0108/63/018/006/0043/0050

AUTHOR: Shats, S. Ya., Member of the Society (see Association) 44

TITLE: Design of transistorized multistage video amplifiers

SOURCE: Radiotekhnika, v. 18, no. 6, 1963, 43-50

TOPIC TAGS: video amplifier, transistorized video amplifier

ABSTRACT: Parameters of noncompensated resistor-coupled transistorized amplifiers are determined theoretically for the optimum conditions of amplification. Deviations from the optimum conditions are investigated. The problem of rational selection of coupling resistors is explored. On the basis of the above analysis, a procedure for selecting the type of transistor and for designing the entire amplifier is outlined. Orig. art. has: 37 formulas, 2 figures, and 2 tables.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A. S. Popova (Scientific and Technical Society of Radio Engineering and Electrocommunications)

SUBMITTED: 03Sept62 DATE ACQD: 01Jul63 ENCL: 00
SUB CODE: CO NO REF SOV: 003 OTHER: 001

Card 1/1 gcn/lb

PIKULIK, V.G.; SHATS, S.Ya.

Relaxation oscillator on an avalanche transistor with grounded emitter and base. Radiotekhnika 18 no.11:57-61 N '63.
(MIRA 16:12)

1. Deystvitel'nyye chleny Nauchno-tekhnicheskogo obshchestva radiotekhniki i elektrosvyazi imeni Popova.

ACCESSION NR: AP4037399 S/0106/64/000/005/0046/0052

AUTHOR: Pikulik, V. G.; Shats, S. Ya.

TITLE: Using the avalanche characteristics of junction transistors in pulsed devices

SOURCE: Elektrosvyaz', no. 5, 1964, 46-52

TOPIC TAGS: transistor, avalanche transistor, P406 transistor, P407 transistor, avalanche transistor pulse generator

ABSTRACT: A review of practical circuits operating with avalanche transistors (Soviet types P406 and P407) is presented. Capacitor-type 1-mc and 5-mc relaxation oscillators with pulse-repetition frequency stabilized by delay lines were tested, as well as a 3-mc slave multivibrator and a 10-microsec pulse-packet generator with a fill frequency of 1.25 mc. A number of Soviet-make transistors were tested for 5,000 hrs in a simple avalanche-relaxation-oscillator

Card 1/2

ACCESSION NR: AP4037399

circuit; no appreciable change in parameters was detected. The avalanche-transistor circuits were taken from American sources (W. Shockley, et al., Proc. IRE, 1959, v. 47, no. 6, and elsewhere). Orig. art. has: 8 figures and 8 formulas.

ASSOCIATION: none

SUBMITTED: 18Jul63 DATE ACQ: 09Jun64 ENCL: 00

SUB CODE: EC NO REF SOV: 001 OTHER: 003

Card 2/2

L 13563-65 AFWL/ASD(a)-5
ACCESSION NR: AP4046687 S/0109/64/009/010/1854/1860

AUTHOR: Chayka, Yu. D.; Shats, S. Ya. B

TITLE: Effect of the injection level on the common-emitter frequency cutoff in transistors

SOURCE: Radiotekhnika i elektronika, v. 9, no. 10, 1964, 1854-1860

TOPIC TAGS: transistor, transistor frequency, transistor frequency cutoff

ABSTRACT: The effects of recombination phenomena, majority-carrier leakage through the emitter, excess charge in the base, etc., upon the cutoff frequency, at medium and high injection levels, are considered. It is established, on the basis of theoretical and experimental data, that the recombination rate is principally responsible for the nonmonotonous dependence of the cutoff frequency on the injection level. A comprehensive formula for the cutoff frequency is developed from the findings of W. Wester (Proc. IRE, 1954, 42, 6, 914),

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L 13563-65

ACCESSION NR: AP4046687

N. Fletcher (Proc. IRE, 1956, 44, 10, 1475), and A. Matz (Proc. IRE, 1958, 46, 3, 616); the formula is analyzed, and results are compared with some experimental data obtained from p-n-p and n-p-n transistors. Curves of the cutoff frequency vs. collector current, for 20, 50, and 60C, are presented. Orig. art. has: 2 figures and 35 formulas.

ASSOCIATION: none

SUBMITTED: 06Jul63 ENCL: 00

SUB CODE: EC NO REF SOV: 007 OTHER: 005

Card 2/2

PIKULIK, V.G.; SHATS, S. Ya.

Use of the avalanche properties of junction transistors in pulse systems. Elektrosv'az' 18 no.5:46-52 My '64
(MIRA 17:8)

L 38599-65 EWT(l)/EEC(k)-2/EWG(m)/T/EEC(b)-2/EWA(h) Pm-4/Pz-6/Peb IJP(c)

ACCESSION NR: AP5005984 S/0108/65/020/002/0052/0056

AUTHOR: Pikulik, V. G. (Active member); Shats, B. Ya. (Active member)

TITLE: Avalanche properties of industrial alloy-junction low-power transistors

SOURCE: Radiotekhnika, v. 20, no. 2, 1965, 52-56

TOPIC TAGS: transistor, alloy junction transistor, low power transistor, industrial transistor

ABSTRACT: The peculiarities of behavior of alloy transistors at high collector voltages are analyzed. The breakdown voltage and some other characteristics of P12-P407, P27-P28, P13-P16, P25-P26 transistors are tabulated. R-f types P12, P406, and P407 are recommended as most suitable for operating under avalanche conditions. Transistors with a collector-junction breakdown voltage close to the estimated average breakdown voltage U* should be used for avalanche application. Those transistors have pronounced avalanche characteristics whose

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L 38599-65
ACCESSION NR: AP5005984

collector-junction breakdown develops in the center. A simple relaxation oscillator with common emitter-base may be used for avalanche-wise selecting of transistors. P101-P103 silicon transistors have very nonuniform junctions. Often they exhibit an interlinking of junctions; this trouble was also detected in some P16B and P11 transistors. Orig. art. has: 3 figures, 8 formulas, and 1 table.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi (Scientific and Technical Society of Radio Engineering and Electrocommunication)

SUBMITTED: 29Apr63 ENCL: 00 SUB CODE: EC

NO REF SOV: 003 OTHER: 001

Card 2/2

SHATS, S. Ya.

Front compensation in multistage transistor video amplifiers. Radiotekhnika 20 no. 12:48-51 D '65 (MIRA 19:1)

1. Deystvitel'nyy chlen Nauchno-tekhnicheskogo obshchestva radiotekhniki i elektrosvyazi imeni Popova.

SHAFS, V.N., inzh.

Use of prestressing in hull structures. Sudostroenie 29 no.10: 52-54 O '63. (MIRA 16:12)

SHATS, V.Ya.; TOKAREVA, N.A.

Prolonged anticoagulant therapy under outpatient conditions. Kaz.med.zhur. no.5:84-86 S-O '62. (MIRA 16:4)

1. TSentral'naya poliklinika dorozhnoy klinicheskoy bol'nitsy stantsii Omsk (nachal'nik - S.F.Mel'nik, nauchnyy rukovoditel'- prof. M.E.Vinnikov).

(ANTICOAGULANTS (MEDICINE))

SHATS, V.Ya. (Leningrad)

Pelger's leucocyte anomaly and constitutional shift to the right of neutrophils. Vrach.delo no.3:133-135 Mr '63. (MIRA 16:4)

1. Kliniko-diagnosticheskaya laboratoriya (zav. - dotsent I.F.Grekh) Instituta onkologii AMN SSSR.
(LEUCOCYTES--ABNORMITIES AND DEFORMITIES)

SHATS, V.Ya.

Case of a unique leucocytic reaction simulating Pelger's nuclear anomaly. Probl. gemat. i perel. krovi 8 no.7:55-56 Jl '63. (MIRA 17:10)

1. Iz kliniko-diagnosticheskoy laboratorii (zav. - dotsent I.F. Grekh) Instituta onkologii (dir.- deystvitel'nyy chlen AMN SSSR prof. A.I. Serebrov) AMN SSSR.

SHATS, YA. YU.

Screw devices used in assembled parts; construction schemed and examples of their use. Moskva, Glav. red. aviatsionnoi lit-ry, 1946. 167 p. (51-46515)

TJ1338.S5

SVATS, YA. YU.

Uplotneniia podshipnikovykh uzlov; konstruktivnye skhemy. Moskva, Oborongiz, 1949. 132 p. diagrs.

Bibliography: p. [133].

Consolidation of bearing units; design diagrams.

DLC: TJ1061.S47

See: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

SHATS, Yakov Yudelevich, kandidat tekhnicheskikh nauk; LYKHOTA, V.I., inzhener, redaktor; D'YACHENKO, S.K., retsenzent, kandidat tekhnicheskikh nauk, dotsent; LYKHOTA, M.A., tekhnicheskiy redaktor

[Locking threaded joints] Stoporenie rez'bovykh soedinenii. Izd.2-oe, perer. Kiev, Gos.nauchno-tekhn.izd-vo mashinostroitel'noi lit-ry, 1955. 75 p. (MLRA 9:3)

(Screw threads)

SHATS, Ya.Yu., kand. tekhn. nauk, dots.

Kinematic dependence and "existence regions" for some types of coaxial transmissions. Izv. vys. ucheb. zav.; mashinostr. no.11/12:93-101 '58. (MIRA 13:3)

1.L'vovskiy politekhnicheskiy institut.
(Gearing)

Sov/4201

PHASE I BOOK EXPLOITATION SOV/4201

L'vov. Politekhnicheskiy institut

Mekhanika (Mechanics) L'vov, 1959. 69 p. (Series: Its: Doklady, tom 3, vyp. 1/2) 900 copies printed.

Editorial Board: A.I. Andriyevskiy, Doctor of Technical Sciences, Professor; Ya.P.Berkman, Honored Scientist and Technologist UkrSSR, Doctor of Chemistry, Professor; K.B. Karandeyev, Corresponding Member, Academy of Sciences USSR and Academy of Sciences UkrSSR, Doctor of Technical Sciences, Professor; M.S. Komarov (Resp. Ed.), Doctor of Technical Sciences, Professor; V.I. Kuznetsov, Doctor of Geology and Mineralogy; B.F. Levitskiy (Deputy Resp. Ed.), Candidate of Technical Sciences, Docent; V.B. Porfir'yev, Member, Academy of Sciences UkrSSR. Doctor of Geology and Mineralogy, Professor; V.A. Tikhonov (Resp. Secretary), Candidate of Technical Sciences, Docent; Tech. Ed.: T. Veselovskiy.

PURPOSE: This booklet is intended for scientific workers and engineers.

COVERAGE: The booklet contains 12 articles on vibrations, impact stresses, transmission and slider-crank mechanisms, fluid mechanics, and strength of reinforced-concrete beams. No personalities are mentioned. References follow several of the articles.

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Mechanics SOV/4201

AVAILABLE: Library of Congress

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SH:Th, Ya.Ya.

Relationship between the general and partial transmission ratios in a regular straight-line coaxial transmission. Dokl. LPI 3 no.1/2:15-17 '59. (MIRA 13:6)
(Gearing)

SHATS, Ya. Yu., kand.tekhn.nauk, dotsent

Determining sets of ordinary and planetary elementary-coaxial transmissions fulfilling a given kinematic condition. Izv.vys.ucheb.zav.; mashinostr. no.6:14-23 '59. (MIRA 13:5)

1. L'vovskiy politekhnicheskiy institut.
(Machinery, Kinematics of)

SHATS, Yakov Yudelevich; GUT'YAR, Ye.M., doktor tekhn. nauk, prof., retsenzent; IVANOV, P.I., kand. tekhn. nauk, red.; DANILOV, L.N., red. izd-va; EL'KIND, V.D., tekhn. red.

[Fundamentals of the design of coaxial gears] Osnovy proektirovaniia optimal'nykh soosnykh peredach. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1961. 202 p. (MIRA 15:1)
(Gearing)

SHATS, Yu. Yu., kand.tekhn.nauk, dotsent; KISEL'MAN, G.M., assistent

Kinematic synthesis of simple cam-lever mechanisms. Izv.vys. zav.; mashinostr. no.2:3-13 '61. (MIRA 14:3)

1. L'vovskiy politekhnicheskiy institut.
(Mechanical movements)

SHATS, Ya.Yu., kand.tekhn.nauk, dotsent; KESEL'MAN, G.M., assistent

Synthesis of simple cam-lever mechanisms satisfying a range of given conditions. Izv.vys.ucheb.zav.; mashinostr. no.6:16-27 '62. (MIRA 15:11)

1. L'vovskiy politekhnicheskiy institut.
(Mechanical movements)

BERKOVICH, David Moyseyevich; BESPALOV, K.I., red.; KOMAROV, M.S., red.; NEFEDOV, A.F., red.; RABINOVICH, A.N., red.; SHATS, Ya.Yu., red.; FURER, P.Ya., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

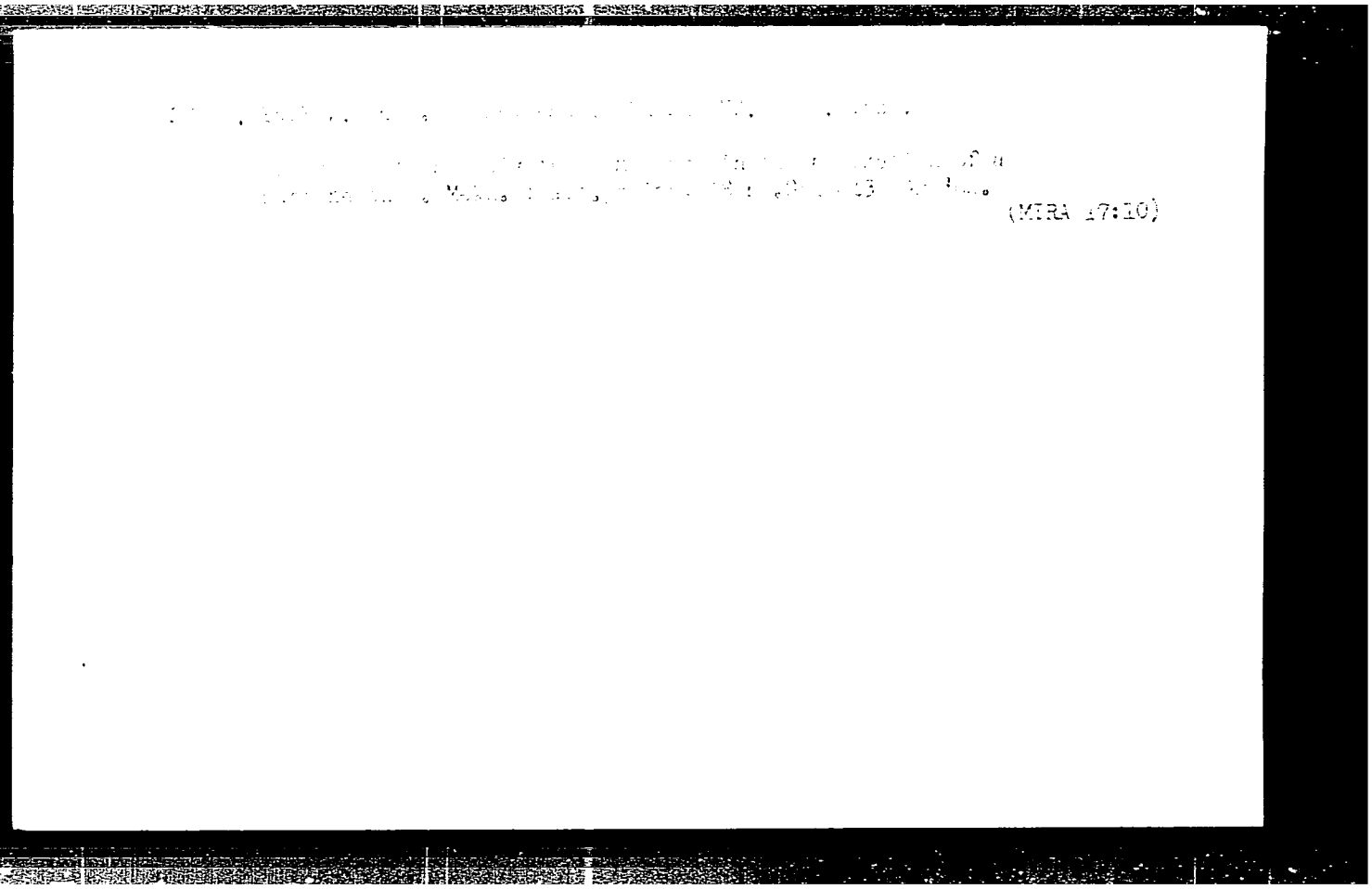
[Inertial forces in engineering and their balancing] Sily inertsii v tekhnike i ikh uravnoveshivanie. Moskva, Mashgiz, 1963. 99 p. (MIRA 16:4)
(Moment of inertia)
(Balancing of machinery)

SHATS, Yakov Yudelevich; PRAVNICHENKO, A.N., inzh., retsenzent; BYKOVSKIY, A.I., inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Packing of assembly bearings] Uplotneniia podshipnikovykh uzlov. Moskva, Mashgiz, 1963. 142 p. (MIRA 16:6)
(Packing (Mechanical engineering))
(Bearings (Machinery))

NEFEDOV, Aleksandr Fedorovich; DOLGOPOL'SKIY, N.A., inzh., red. vypuska; KOMAROV, M.S., otvetstvennyy redaktor; BESPALOV, K.I., red.; RABINOVICH, A.N., red.; SHATS, Ya.Yu., red.; FURER, P.Ya., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Mechanization of loading and unloading operations in automotive transportation] Mekhanizatsiia pogruzochno-razgruzochnykh rabot pri avtomobil'nykh perevoskakh. Moskva, Mashgiz, 1963 106 p. (MIRA 16:7)
(Transportation, Automotive--Freight)
(Loading and unloading--Equipment and supplies)

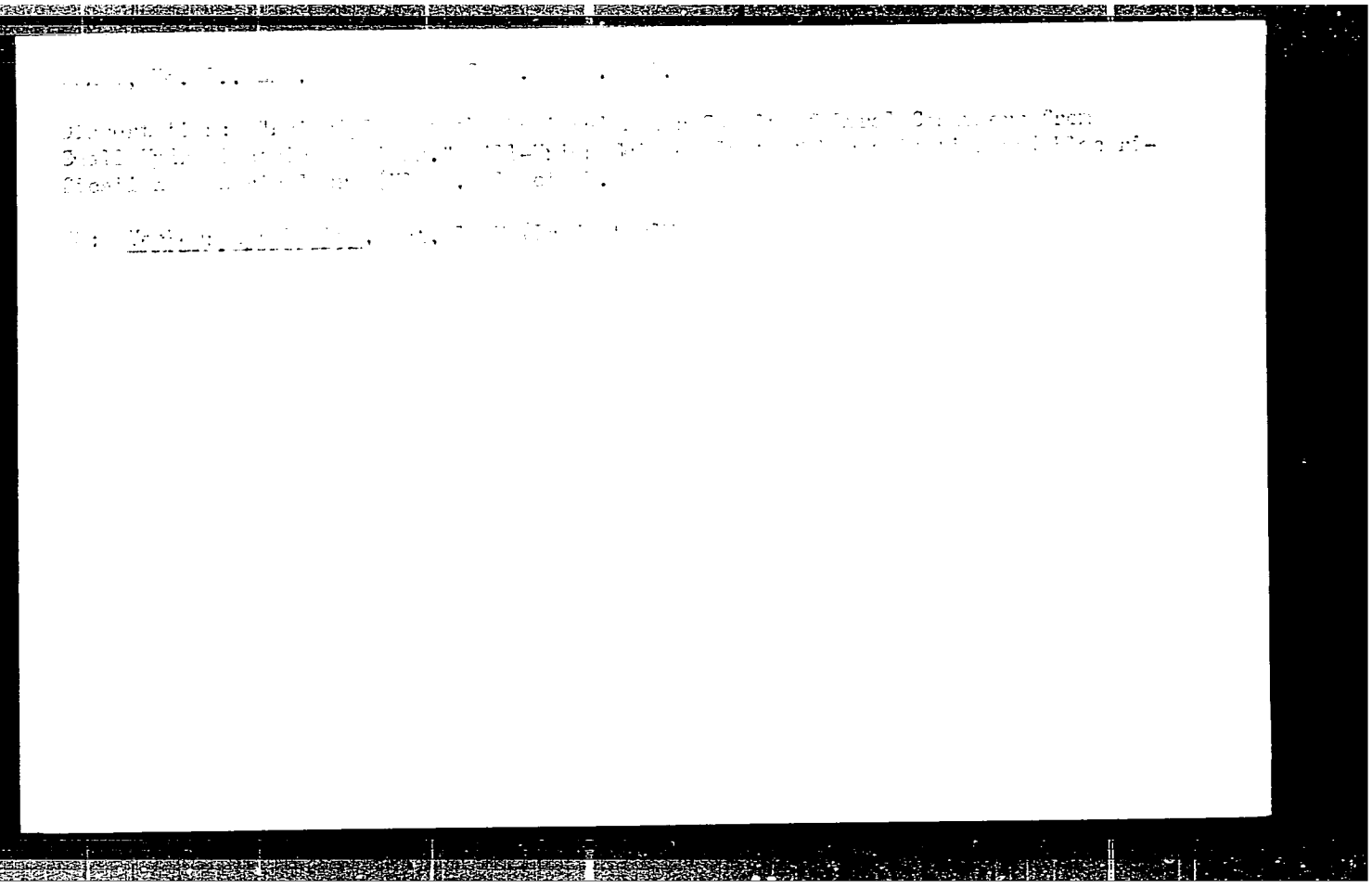


SHATS, Ya.Yu.

Tire-type rubber and plastic sealings. Mashinostroitel' no.12:30-31 D '64. (MIRA 18:2)

SHATS, Ya.Yu., kand. tekhn. nauk; KOTLYAROV, V.L., inzh.

Automatic control system for machine tools based on programming by electronic digital computers. Mekh. i avtom. proizv. 19 no.5:20-24 My '65. (MIRA 18:11)



SHATS, YE. L.

The maintenance of asynchronous electric motors and transformers;manual. Moskva, Biuro tekhn. informatsii, 1949. 168 p. (50-35054)

TK2785.S5

SHATS, Ye.L., kandidat tekhnicheskikh nauk; PESTRYAKOV, A.I., redaktor; MOISEYENKO, D.G., tekhnicheskiy redaktor; SOKOLOVA, N.N., tekhnicheskiy redaktor

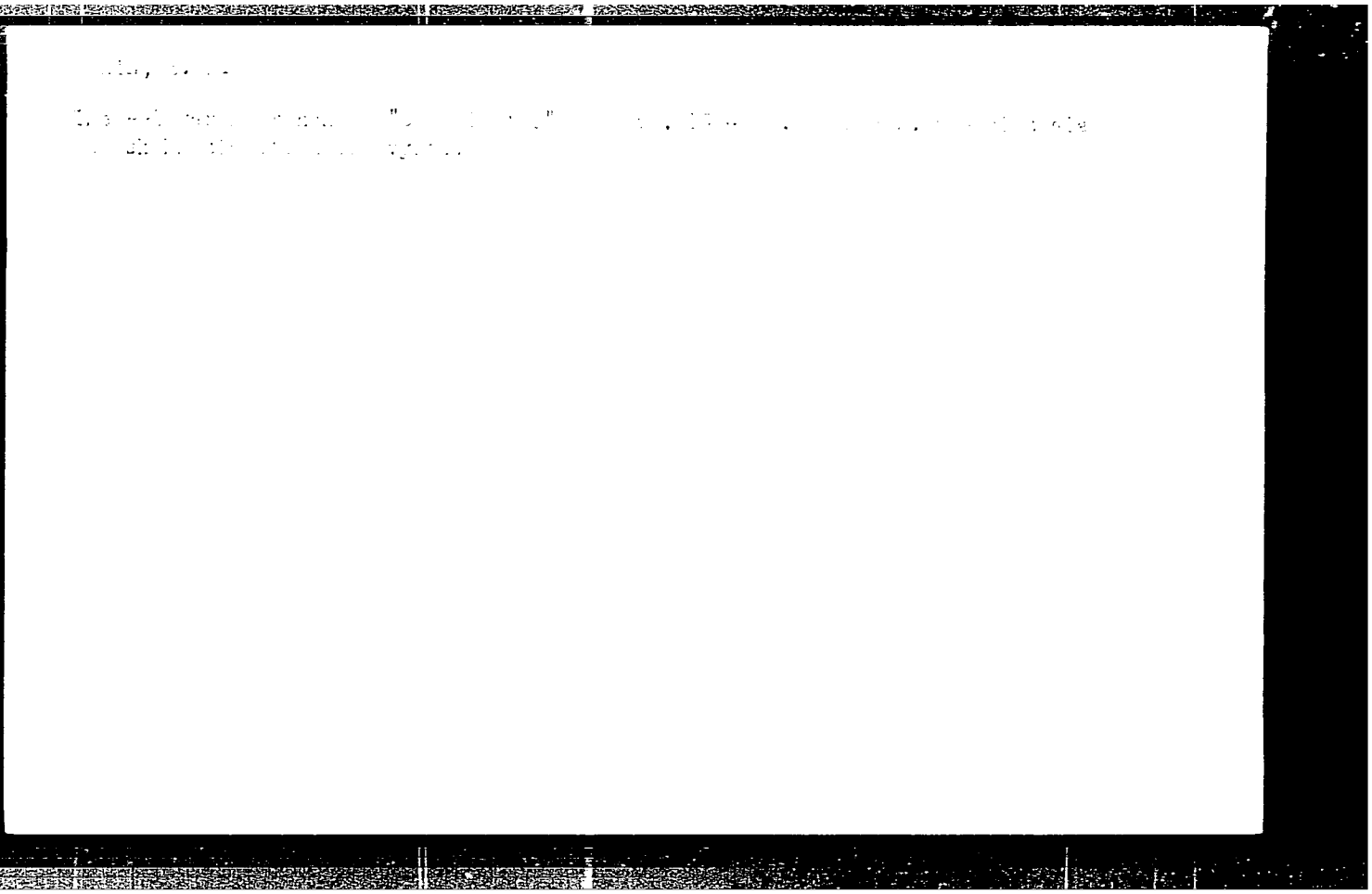
[Repair of electric machines and transformers] Remont elektricheskikh mashin i transformatorov. Moskva, Gos. izd-vo selkhoz. lit-ry, 1953. 284 p. (MLRA 7:8)
(Electric machinery--Maintenance and repair)

SHATS, YE. L.

S. A. Nacharyan

"Operation of the rural electric power station." S. A. Nacharyan, S. A. Strelkovskiy. Reviewed by Ye. L. Shats. Mekh. elek. sel'khoz. No. 1, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.



SHATS, Ye. L.

Experimental underground rural networks carrying 380/220 volts.
Biul. nauch.-tekh. inform. po elek. sel'khoz. no.1:50-51 '56.
(Electric lines--Underground) (MLRA 10:9)

EBIN, L.Ye.; GANELIN, A.M.; GILINSKIY, A.M.; GORNOVESOV, G.V.; ZLATKOVSKIY, A.P.; KAUFMAN, B.M.; KISELEV, N.A.; KULIKOV, P.Ye.; LEVIN, M.S.; SLAVIN, M.P.; SMIRNOV, B.V.; SMIRNOV, V.I.; SMIRNOVA, I.S.; TARASOVA, V.Ye.; CHEBOTAREV, V.I.; SHATS, Ye.L.; ENTIN, I.A.; IOSIPYAN, S.G., redaktor; SARKISYAN, A.M., redaktor; SMIRENSKIY, M.D., redaktor; TEPLITSKIY, Ya.S. redaktor; KOMAROVA, V.M., redaktor; GUREVICH, M.M., tekhnicheskiy redaktor.

[Rules for the operation of electric installations in rural areas] Pravila tekhnicheskoi ekspluatatsii sel'skikh elektroustanovok. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1957. 183 p. (MLRA 10:4)

1. Russia (1923- U.S.S.R.) Glvanoye upravleniye sel'skikh elektrostantsii.
(Electric power plants) (Electricity in agriculture)

SHATS, Yefim L'vovich; GANELIN, A.M., spetsredaktor; KOBYLYAKOV, L.M. redaktor; PEVZNER, V.I., tekhnicheskiy redaktor.

[Operation of rural electric installations] Ekspluatatsiia sel'skikh elektroustanovok. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1957. 495 p. (MLRA 10:_0

(Electric apparatus and appliances)

8(3) SOV/112-59-3-4794

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 3, p 69 (USSR)

AUTHOR: Shats, Ye. L.

TITLE: Experimental Rural Low-Voltage Underground Networks Using Power Cables (Opytnyye sel'skiye podzemnyye seti nizkogo napryazheniya s ispol'zovaniyem silovykh kabeley)

PERIODICAL: V sb.: Sovershenstvovaniye gibkikh shlangovykh kabeley. M., 1958, pp 70-73

ABSTRACT: Life of transmission-line wooden poles, even with the locally applied antiseptic, does not exceed 3-6 years under rural conditions. Longer life can be attained by using reinforced-concrete poles or derricks. Using underground cables is another solution. It is important for the areas where frequent lightning storms occur. Studies have shown that lighter-type low-voltage cables with a simplified insulation and plastic sheathing, without armor, can be used. Joints, branches, and consumer entrances are to be made on dry

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8(3) SOV/112-59-3-4794

Experimental Rural Low-Voltage Underground Networks Using Power Cables

cable forms. Experimental functioning during 1953-1956 of a 380/220-v network made of VRG cable was reliable. A second experimental network section was made with a new construction of cable: aluminum conductor, bitumenized-paper or polyvinyl-chloride plastic insulation, etc. These constructions represent a move toward lighter types of power cables; however, they are still complicated and expensive. Experience has shown that rural-type cables should be unarmored and should have polyvinyl-chloride insulation, 2-, 3-, 4-, and 5-cores, etc. The research into the underground rural cable network will be continued in the direction of studying the experience with constructing, operating, choosing a rational configuration of network, etc.

F.F.V.

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SHATS, Yefim L'vovich; ENTIN, Isaak Arkad'yevich; SHKOL'NIKOV, A.B., red.; PEVZNER, V.I., tekhn.red.

[Power equipment of repair and supply stations and state farms; arrangement, operation, and repair] Energosilovoe oborudovanie RTS i sovkhozov; ustroistvo, ekspluatatsiia i remont. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959. 351 p. (MIRA 12:8)
(Electric power plants--Equipment and supplies)
(Repair and supply stations) (State farms)

ANDREYEV, N.F., kand. tekhn. nauk; BLYUMBERG, V.A., inzh.; SHATS, Ye.L., kand. tekhn. nauk

Organizing the maintenance and repair of electric equipment in agriculture. Mekh. i elek. sots. sel'khoz. 17 no.2:38-39 '59. (MIRA 12:6)

1.Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy tekhnologicheskiy institut (for Andreyev, Blyumberg). 2.Vsesoyuznyy nauchno-issledovatel'skiy institut elektrifikatsii sel'skogo khozyaystva (for Shats).
(Electric machinery--Maintenance and repair)

SHATS, M.L.

Technological aspects of repairing electric motors, generators, and transformers. Sbor. nauch.-tekh. inform. po elek. sel'khoz no.6:3-5 '59. (MIRA 13:9)
(Electric machinery--Maintenance and repair)

SHATS, Ye.L., kand.tekhn.nauk

Repairing rural electric lines. Mekh.i elek.sots.sel'khoz. 17 no.6:43-44 '59. (MIRA 13:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut elektrifikatsii sel'skogo khozyaystva.
(Electric lines--Repairing)

DEVYATKOV, Aleksandr Fedorovich; VOLOTSKIY, N.P.; PISKUNOV, S.A.; SHATS, Ye.L.; KRYUKOV, V.L., red.; BALLOD, A.I., tekhn.red.; GOR'KOVA, Z.D., tekhn.red.

[Repair of electric machines and transformers] Remont elektricheskikh mashin i transformatorov. Moskva, Gos.izd-vo sel'khoz. lit-ry, 1960. 270 p. (MIRA 13:11)
(Electric machinery--Maintenance and repair)

SHATS, Ye.L.; BODIN, A.P.; KOROVIN, M.A., red.; SAYTANIDI, L.D., tekhn. red.

[Safety engineering in rural electric power systems; electrician's manual] Tekhnika bezopasnosti v sel'skikh elektroustanovkakh; pamiatka elektromontera. Moskva, Izd-vo M-va sel'.khoz. RSFSR, 1961. 39 p. (MIRA 14:11)

(Rural electrification--Safety measures)

BUDZKO, Igor' Aleksandrovich, doktor tekhn. nauk, prof., akad.; ZAKHARIN, Andrey Georgiyevich, doktor tekhn. nauk; EBIN, Lev Yefimovich, doktor tekhn. nauk, prof.; KANAKIN, N.S., inzh.; LEVIN, M.S., kand. tekhn. nauk; YAKOBS, A.I., kand. tekhn. nauk; GROYS, Ye.S., inzh.; ZUL', N.M., kand. tekhn. nauk; POYARKOV, K.M., kand. tekhn. nauk; MURADYAN, A.Ye., kand. tekhn. nauk; KRAUSP, V.R., kand. tekhn. nauk; SHATS, Ye.L., kand. tekhn. nauk; ICKHVIDOV, E.S., red.; BUL'DYAYEV, N.A., tekhn. red.

[Rural electric power distribution networks] Sel'skie elektricheskie seti. Moskva, Gosenergoizdat, 1963. 262 p. (MIRA 16:5)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Budzko).

(Rural electrification) (Electric power distribution)

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L 35073-65 EPF(c)/EPR/EWP(j)/EWT(m)/T Pc-4/Pr-4/Ps-4 RPL RM/WW

ACCESSION NR: AR5006368 S/0081/64/000/024/S031/S032

SOURCE: Ref. zh. Khimiya, Abs. 24S182

AUTHOR: Mikhant'yev, B. I.; Sklyarov, V. A.; Fedorov, Ye. I.; Avtonomova, M. D.; Shmygaleva, T. A.; V'yukova, V. P.; Shatsman, F. D.; Shevtsova, A. G.; Afanasov, I. P.

TITLE: Polymerization and copolymerization of simple vinyl ethers

CITED SOURCE: Tr. Labor. khimii vysokomolekul. soyedineniy. Voronezhsk. un-t, vyp. 2, 1963, 3-11

TOPIC TAGS: polymerization, copolymerization, vinyl ether, polymer, copolymer

TRANSLATION: The possibility of producing high-molecular polymers and copolymers of vinylbutyl ester was investigated. In the presence of ferric chloride at 50-70 mm pressure and 80-90°C vinylbutyl ester is polymerized to form a product with a molecular weight of 14,000. A polymer with a molecular weight of 6,400 is obtained at normal pressure and -3°C in the presence of BF_3. Vinylbutyl ester is copolymerized with divinyl in the presence of BF_3 or ferric chloride; BF_3 appears to be the better catalyst, in whose presence a polymer with the molecular weight of

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ACCESSION NR: AR5006368

10,400 is produced at -5°C. Chains of vinylbutyl ester predominate in the structure of the copolymer, and transverse bonds are present on account of the divinyl chains. The copolymerization of vinylbutyl ester with divinyl does not occur under the effect of phosphorus anhydride and ferric chloride. The polyvinylethyl ester is copolymerized with styrene (1:1) in the presence of ferric chloride and in the ratio of 1:2 in the presence of the dinitrile of azoisobutyric acid. The copolymers produced have a molecular weight of 58,000-76,000 and form films resistant to water and dilute solutions of acids and bases. Vinylbutyl ester is copolymerized with styrene in a 1:1 ratio ($FeCl_3$ as catalyst) and 1:8 ratio (BF_3 as catalyst); products with molecular weight of 21,000-50,000 are formed. The vinylphenyl ether is also copolymerized with styrene in ratios of 1:1 and 2:1 in the presence of the esterate of BF_3 (as catalyst), and is also copolymerized with heating in ratios of 1:1, 1:2, and 2:1 at 100-105°C. Solid copolymers are obtained with molecular weights of 48,500-92,000. Copolymers of N-vinylacridone and styrene are produced in mass and in emulsion; N-vinylacridone, styrene, and divinyl are produced in emulsion and also N-vinylacridone, styrene, divinyl and acrylonitrile. The products have molecular weights of 200,000-650,000. Of the rubber-like materials most plastic was the latter copolymer, containing N-vinylacridone, styrene, divinyl, and acrylonitrile in the ratio 1:16:29:22. N-vinylacridone reduces the solubility and increases the hardness of the copolymers. S. Bass

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SHATS-MSHVELIDZE, M.I.

Symptomatology of a decrudescent form of neuroachylic syndrome. Zhur. nevr. i psikh. 59 no.5:544-549 '59. (MIRA 12:7)

1. Klinika nervnykh bolezney (zav. - prof. P.M. Saradzhishvili) Tbilisskogo instituta usovershenstvovaniya vrachey.
(ACHYLIA GASTRICA,
decrudescent neuro-achylic synd. (Rus))

SHATS-MSHVELIDZE, M.I.

Clinical and anatomical analysis of a cerebral circulation disorder in endocarditis. Trudy Tbil. GIDUV 6:227-230 '62.
(MIRA 16:2)

(ENDOCARDITIS) (CEREBROVASCULAR DISEASE)

SARADZHISHVILI, Petr Mikhaylovich; SHATS-MSHVELIDZE, Mina Isaakovna; ZURABASHVILI, A.D., red.; KOBIDZE, L.K., red.izd-va; BOKERIYA, E.N., tekhn. red.

[Clinical syndromes of occlusive lesions of the cerebral vessels] Klinicheskie sindromy okkliuziruiushchikh porazhenii sosudov golovnogo mozga. Tbilisi, Izd-vo AN Gruz. SSR, 1963. 130 p. (MIRA 17:2)

SHATS-MSHVELIDZE, M.I.; MALASHKHIYA, Yu.A.

Disorders of the nervous system in chronic tonsillitis. Zh. nevropat. psikhiat. Korsakov 63 no.3:377-380 '63 (MIRA 17:1)

1. Institut klinicheskoy i eksperimental'noy nevrologii AN Gruzinskoy SSR i kafedra nervnykh bolezney (zav. - prof. P.M. Saradzhishvili) Instituta usovershenstvovaniya vrachey, Tbilisi.

USSR/Electricity - Traction, Electric Dec 50
Signal Equipment

"Protecting Signal, Centralization and Blocking Devices Against the Influence of AC Traction," Docent N. Z. Shatsev, Cand Tech Sci, Mil Transp Acad

"Elektrichestvo" No 12, pp 45-50

Shatsev examines methods of protecting electric signal systems, semiautomatic blocking devices, line and rail circuits for automatic blocking, and centralization circuits from the influence [illegible]

[illegible] on USSR

[redacted] 178T30

USSR/Electricity - Traction, Electric Dec 50
(Contd)

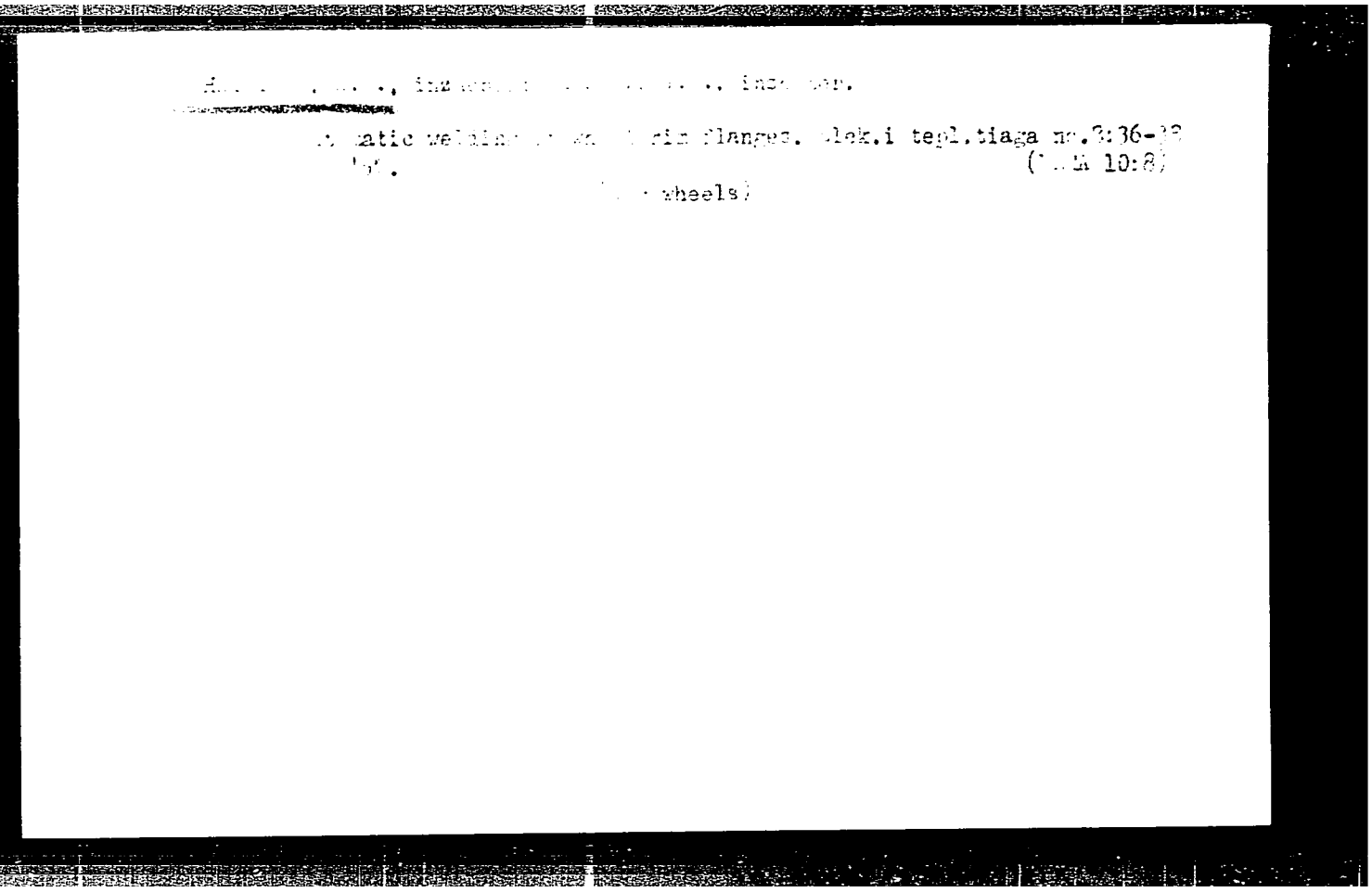
of single-phase elec traction, which, according to him will undoubtedly be introduced on USSR railroads. Submitted 12 Apr 50.

[redacted] 178T30

SHAISEVA, I.P.; FINKEL', A.A.

Sarcoma of the left atrium. Med. zhur. Uzb. no.6:74-75 Je'63
(MIRA 17:3)

1. Iz Tashkentskoy tuberkuleznoy bol'nitsy No.3.



KHROMOV, Gennadiy Andreyevich, SHATSILLO, Anton Adamovich, SHIRYAYEV, A.P., inzh.red.; BOBROVA, Ye.N., tekhn.red.

[Machining mounted wheel pairs of electric motor cars] Obtochka kolesnykh par elektrosektsii bez vykatki. Moskva, Gos. transp. zheldor. izd-vo, 1958. 27 p. (MIRA 11:9)
(Car wheels)

SHATSILLO, Anton Adamovich; RESHETOV, L.N., doktor tekhn. nauk, retsenzent; SIDOROV, N.I., inzh., red.; MEDVEDEVA, M.A., tekhn. red.

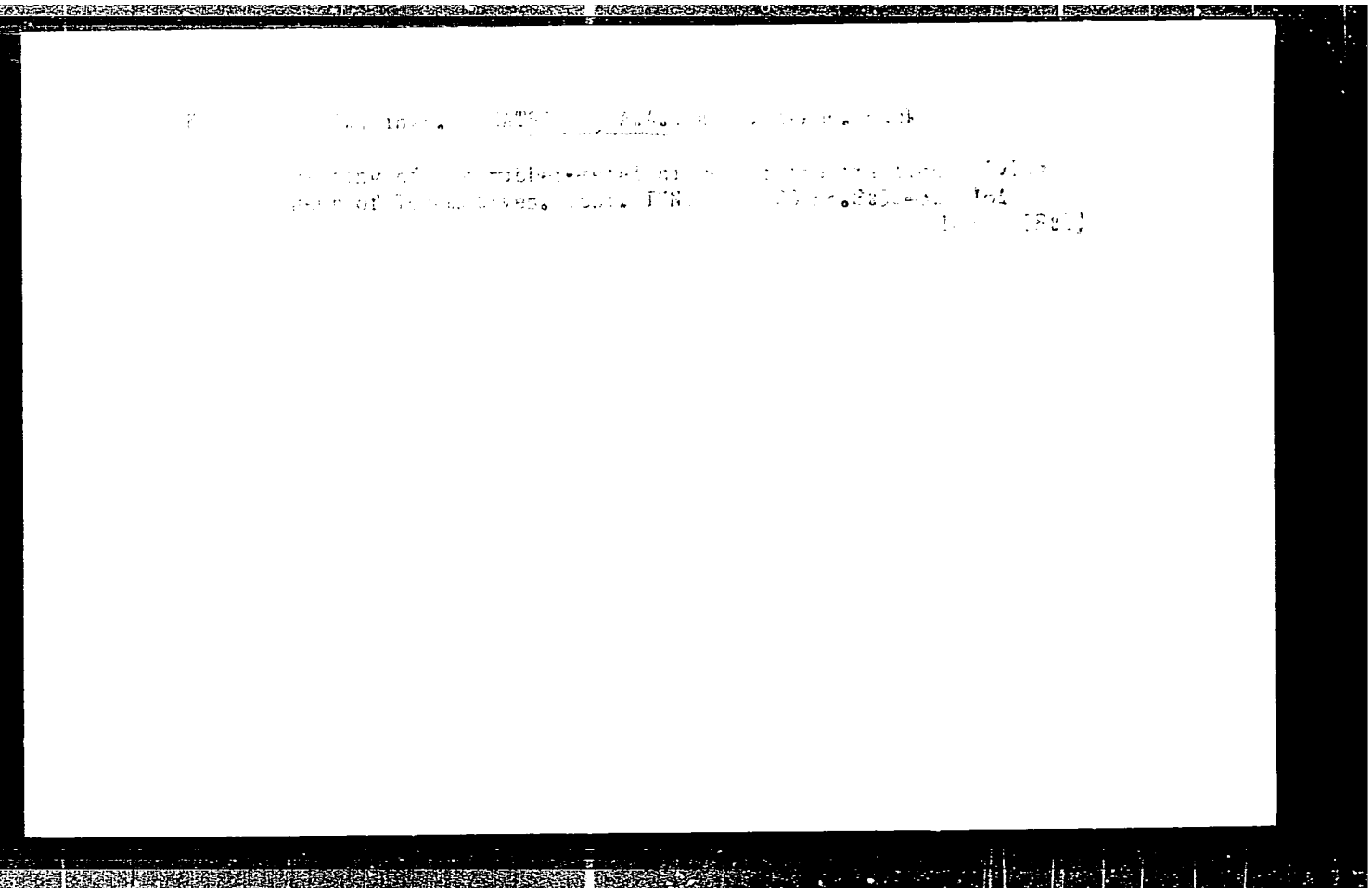
[Traction drives of electric rolling stock] Tiagovyi privod elektropodvizhnogo sostava. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1961. 221 p. (MIRA 14:12)
(Electric railway motors)

DUBROVSKIY, S.M., doktor ist. nauk, prof., otv. red.; SIDOROV, A.L., doktor ist. nauk, prof., red.; SHATSILLO, K.F., kand. ist. nauk, red.; BESTUZHEV, I.V., red. izd-va; GOLUB', S.P., tekhn. red.

[Characteristics of the agrarian system in Russia in the period of imperialism; materials]Osobennosti agrarnogo stroia Rossii v period imperializma; materialy. Moskva, Izd-vo Akad. nauk SSSR, 1962. 351 p. (MIRA 15:9)

1. Sessiya Nauchnogo soveta po probleme "Istoricheskiye predposylki Velikoy Oktyabr'skoy sotsialisticheskoy revolyutsii," Moscow, 1960. 2. Institut istorii Akademii nauk SSSR, Moskva (for Dubrovskiy, Sidorov).

(Land tenure)



KHROMOV, G.A., inzh.; SHATSILLO, A.A., kand. tekhn. nauk; BLINOVA, Z.A., kand. tekhn. nauk; VINITSKIY, L.Ye., kand. tekhn. nauk

Service life of the rubber-metal hinged shock absorbers of locomotives. Vest. TSNII MPS 24 no.5:35-38 '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut elektromekhaniki i Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta.

MARTYNOV, V.S.; SHATSILLO, E.N.

Building an earth dam on noncohesive silt-loam soils. Trudy VODGEO no.6:26-36 '64. (MIRA 18:3)

NESIN, Aleksandr Yakovlevich; SHATSILLO, O.I., inzh., red.; KUBNEVA, M.M., tekhn.red.

[Automatic selective circuit air breakers with high commutative capacity; from the experience of the S.M.Kirov "Elektrosila" factory] Avtomaticheskie vozdushnye selektivnye vykliuchateli s vysokoi kommutatsionnoi sposobnost'iu; iz opyta zavoda "Elektrosila" im. S.M.Kirova. Leningrad, Leningr.dom nauchno-tekhn. propagandy, 1959. 23 p. (Obmen peredovym opytom. Ser.Energetika, no.2). (MIRA 13:2)

(Electric circuit breakers)

KUSHCH, Pavel Pavlovich; RYBAKOV, Nikolay Timofeyevich; SEMENOVA, Gloriya Moritsevna; SHATSILLO, O.I., red.; FREGER, D.P., izd.red.; BELOGUROVA, I.A., tekhn.red.

[Program control of electric and steam heated drying ovens; from experience of the S.M.Kirov "Elektrosila" Factory] Programmnoe upravlenie paroelektricheskimi pechami; iz opyta zavoda "Elektrosila" im. S.M.Kirova. Leningrad, 1960. 16 p. (Leningradskii Dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom, no.34. Seriia: Energetika, No.2) (MIRA 14:1)
(Drying apparatus) (Automatic control)

LARCHENKO, Anatoliy Afanas'yevich; SHATSILLO, O.I., inzh., red.; GVIRTS, V.L., tekhn.red.

[Automatic control of gas operated industrial and central-heating boiler systems] Avtomatizatsiia otopitel'nykh i promyshlennykh gazifitsirovannykh kotel'nykh. Leningrad, 1960. 25 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Energetika, vyp.1). (MIRA 14:3)
(Automatic control) (Boilers)

MIKHAYLOV, Viktor Alekseyevich; SHATSILLO, O.I., inzh., red.; FREGER, D.P., red. izd-va; BELOGUROVA, I.A., tekhn. red.

[Using ultrasonic techniques for cleaning, degreasing, and pickling parts] Primenenie ul'trazvuka, dlia ochistki, obezzhirivaniia i travleniia detalei. Leningrad, 1961. 19 p. (Leningradskii Dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Elektricheskie metody obrabotki metalla, no.2) (MIRA 14:7)
(Ultrasonic waves—Industrial applications)

KRYLOV, Nikolay Pavlovich; SHATSILLO, O.I., inzh., red.; FOMICHEV, A.G., red. izd-va; GVIRTS, V.L., tekhn. red.

[Performance of a gas-fired boiler system; experience in operating the thermal electric power plant of the "Krasnoe Znamia" Factory] Rabota kotel'noi na gazovom toplive; iz opyta TETs fabriki "Krasnoe znamia." Leningrad, 1961. 21 p. (Leningradskii Dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Energetika, no.1) (MIRA 14:6)

(Boilers)

ESTERKIN, Rakhmiyel' Iosifovich; SHATSILLO, O.I., inzh., red.; FREGER, D.P., red. izd-va; GVIRTS, V.L., tekhn. red.

[Experience in adjusting boiler units operating on gas fuel] Opyt naladki kotloagregatov na gazoobraznom toplive. Leningrad, 1961. 22 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Energetika, no.2)
(Boilers)

MOSKALEV, Vladimir Iosifovich; GERMANOV, Aleksandr Aleksandrovich; SHATSILLO, O.I., red.; FOMICHEV, A.G., red. izd-va; BELOGUROVA, I.A., tekhn. red.

[Description of systems using three-phase magnetic amplifiers for controlling the power supply of electric furnaces] Opisanie ustanovok s ispol'zovaniem trekhfaznykh magnitnykh usilitelei (TMU) dlia reguliruemogo pitaniia elektricheskikh pechei. Leningrad, 1961. 20 p. (Leningradskii Dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Promyshlennaia energetika i gazifikatsiia prompredpriiatii, no.3) (MIRA 14:10)

(Electric furnaces) (Magnetic amplifiers)
(Electric power supply to apparatus)

IVANOV, Yuriy Vasil'yevich, doktor tekhn. nauk; LYAKHOVER, Lidiya Moiseyevna, inzh.; SLOUSHCHER, Kal'man Mironovich, inzh.; SHATSILLO, O.I., inzh., red.; FOMICHEV, A.G., red. izd-va; GVERTS, V.L., tekhn. red.

[Experiment in the change-over to gas of the boiler units of industrial enterprises and electric power plants; from practices of the gazification of Leningrad industries] Opyt perevoda na gaz kotloagregatov promyshlennykh predpriiatii i elektrostantsii; iz opyta gazifikatsii leningradskoi promyshlennosti. Leningrad, 1961. 31 p. (Leningradskii Dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Energetika, no.7) (MIRA 14:9)

(Gas burners) (Boilers)

FEL'DMAN, Yuliy Azar'yevich, kand. tekhn. nauk; SHATSOVA, Sulamif' Abramovna, kand. khim. nauk; MIKHAYLOV, Viktor Alekseyevich; SHATSILLO, O.I., inzh., red.; SHILLING, V.A., red. izd-va; BELOGUROVA, I.A., tekhn. red.

[Accelerating processes of the electrodeposition of metals in acoustical baths] Intensifikatsiia protsessov elektroosazhdeniia metallov v akusticheskikh vannakh. Leningrad, 1961. 19 p. (Leningradskii Dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Elektricheskie metody obrabotki metallov, no.8) (MIRA 14:12)

(Electroplating)

KUZ'MIN, Nikolay Vasil'yevich, kand. tekhn. nauk; SHATSILLO, O.I., red.; FREGER, D.P., red. izd-va; GVIRTS, V.L., tekhn. red.

[Ways of improving the operational and economic efficiency of low-pressure boiler systems] Puti povysheniia proizvoditel'nosti i ekonomichnosti kotel'nykh ustanovok nizkogo davleniia. Leningrad, 1961. 37 p. (Leningradskii Dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Energetika, no.6) (MIRA 14:9)
(Boilers)

STASKEVICH, Nikolay Lukich, kand. tekhn. nauk; SHATSILLO, O.I., inzh., red.; FOMICHEV, A.G., red. izd-va; BELOGUROVA, I.A., tekhn. red.

[Using slit burners in boiler change-over to gas fuel]Pereoborudovanie na gazovoe toplivo kotlov s pomoshch'iu shchelevykh gorelok. Leningrad, 1962. 21 p.(Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Energetika i gazifikatsiia prompredpriiatii, no.4) (MIRA 15:8)

(Boilers--Firing) (Gas burners)

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AUTHOR: Shatsillo, S. A.

TITLE: Liquid-level gauge

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ABSTRACT: A new pressure-drop-type liquid-level gauge is described (see Enclosure 1). Two sealed chambers 1 and 2 are connected with the tank by hoses 12 and 13. Standard sensitive diaphragms 3 and 4 (protected by screens 6 and 7) are connected by a steel tube 5. The diaphragm unit is filled with Hg so that with the max compression of one diaphragm, the other is expanded to the max permissible degree. The diaphragm 3 actuates the core of a differential transformer that supplies a secondary instrument. The above equipment is fastened to a common movable plate 9 which is hinged at 11 to another plate 10. The latter is

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