"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

L 53827-65 EWT(d)/EWT(l)/EEC(m)/EEC(f)/EWP(v)/EEC-4/EWP(k)/EWP(h)/EWA(h)/EWP(l)
ACCESSION NR: AP5009875 Pg-4/Pf-4/ UR/0115/65/000/002/0044/0046
Peb/Pg-4 621.374

AUTHOR: Levin, M. I.; Semko, Yu. I.; Solodov, Yu. S.; Mikhaylov, Ye. V. 36 B

TITLE: Encoding the output signals of pulse-supplied M-var sensors 10

SOURCE: Izmeritel'naya tekhnika, no. 2, 1965, 44-46

TOPIC TAGS: mutual inductance sensor, industrial process control 14

ABSTRACT: As the measurement process with a variable-mutual-inductance (M-var) sensor of a differential-transformer or ferrodynamic type supplied by commercial 50 cps has been slow, the authors suggest supplying the sensor with 4-msec sawtooth pulses. An experimental model had a measurement time of 2 msec, an output range of 0—0.5 v, and a basic error of ± 0.5%; varying the pulse tilt angle by ± 10% resulted in an additional error of ± 0.8%. Variation of the supply voltage of an analog-digital-converter by ± 20% did not introduce a noticeable error. Only a block diagram is given. Orig. art. has: 5 figures and 10 formulas.

Card 1/2

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

L 53827-65
ACCESSION NR: AP5009875

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: EC, IE

NO REF SOV: 000 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

L 59524-65 EWT(1)/EEC-4/EEC(t)/T/FCS(k) Pac-4/P1-4/Pj-4/P1-4 WP

ACCESSION NR: AP5018095 UR/0111/65/000/007/0004/0005
621.317.329:621.382.3

AUTHOR: Levin, M. I. (Engineer); Bulanov, S. F. (Engineer) 31 5

TITLE: Portable transistorized comparator

SOURCE: Vestnik svyazi, no. 7, 1965, 4-5

TOPIC TAGS: comparator, portable comparator, transistorized comparator

ABSTRACT: The development of a new comparator intended for measuring directional patterns of broadcasting antennas is reported. The instrument can measure a radio-field intensity within 3 mv/m — 3 v/m at 150—1600 kc with an error of 7% or less. The gain of the comparator receiver is calibrated at each operating frequency by means of a calibrating oscillator which also is a part of the comparator. The receiver gain is calibrated by a voltage applied to the ferrite-loop antenna. The superheterodyne receiver includes nine P402 transistors and seven P15 transistors; the ferrite-loop-antenna signal is applied directly to a frequency mixer. The comparator weight is 6 kg. A principal circuit diagram, some design details, and calibration procedure are given. Orig. art. has: 2 figures and 1 formula.

[03]

Card 1/2

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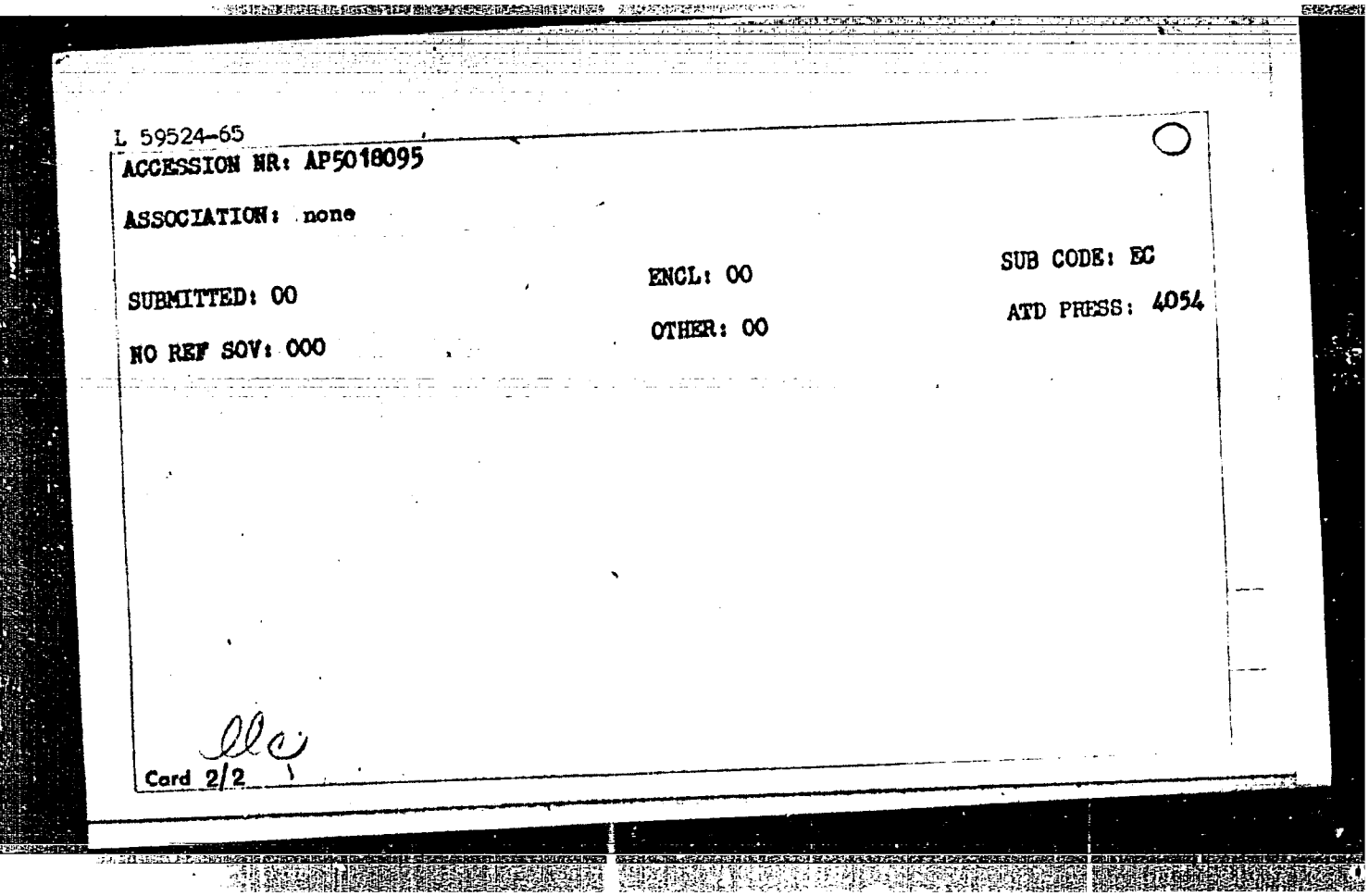
"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6



L 59524-65
ACCESSION NR: AP5018095

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: EC

NO REF SOV: 000 OTHER: 00 ATD PRESS: 4054

Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

L 63281-65 EWT(d)/T IJP(c)

ACCESSION NR: AP5014760 UR/0208/65/005/003/0542/0545
518:517.948

7
B

AUTHOR: Levin, M. I. (Tallin)

TITLE: On a single best quadratic formula with a weighted function

SOURCE: Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki, v. 5, no. 3, 1965, 542-545

TOPIC TAGS: quadratic equation, weighted function, Legendre polynomial, optimal operation

ABSTRACT: The following problem is studied: $L_2^{(n+1)}(M_{n+1})$ represents the set of all function $f(x)$ having an absolutely continuous n^{th} order derivative at the section $[0,1]$; the functions also satisfy the condition $\left\{\int_0^1 [f^{(n+1)}(x)]^2 dx\right\}^{1/2} \leq M_{n+1}$.

It is desired to find among formulae of the form $\int_0^1 x^\alpha f(x)\,dx = \sum_{i=0}^{n} (A_i f^{(i)}(1) + B_i f^{(i)}(0)) + R_n(f)$, where $\alpha > -1$, and $R_n(x^i) = 0$ $(i = 0, 1, \ldots, n)$, a single formula for which the

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L 63281-65

ACCESSION NR: AP5014760

quantity $R_n = \sup_{f \in L^{(n+1)}(M_{n+1})} |R_n(f)|$ assumes its minimum value. The general formula is written in terms of gamma functions with a series summation term. An application of Cramer's Rule yields a single best function. The author demonstrates the validity of the derivation by reaching the same conclusion through a different approach to the problem. It is shown that $R_n = M_{n+1} \frac{\Gamma(1+\alpha)}{\Gamma(n+2+\alpha)} \rho_{n,n}$.

An application of Tepler's theorem is combined with Legendre polynomials to yield the quantity $\rho_{n,n} = \left[\frac{1}{2n+2\alpha+3} - \Gamma^2(n+\alpha+2) \sum_{k=0}^{n} \frac{2k+1}{\Gamma^2(n+\alpha+2-k)\Gamma^2(n+\alpha+3+k)} \right]^{1/2}$,

which, after resubstitution in the general formula, gives the minimum R_n sought. Orig. art. has: 9 equations.

ASSOCIATION: none

SUBMITTED: 21Jul64 ENCL: 00 SUB CODE: MA

NO REF SOV: 002 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

KUTYAKOV, A.F., inzh. [deceased]; POCHATKOV, S.Ye., inzh.; LEVIN, M.I., inzh.

Device for measuring the width of the radiation band of radio stations. Vest. sviazi 25 no.3:7-11 Mr '65. (MIRA 18:5)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

L 34038-66
ACC NR: AP6013010 SOURCE CODE: UR/0410/66/000/001/0033/0040

AUTHOR: Levin, M.I. (Moscow); Semko, Yu. I. (Moscow)

ORG: none

TITLE: The determination of the parameters of periodic signals from the measurement of their instantaneous values

SOURCE: Avtometriya, no. 1, 1966, 33-40

TOPIC TAGS: signal analysis, electronic equipment, measuring instrument

ABSTRACT: The general properties of the method for the determination of periodic voltages and currents from the measurements of their instantaneous values have been studied. This approach makes it possible to determine amplitudes, phase shifts, and instantaneous and average values of the fundamental frequency as well as of the higher harmonics. The present article describes an analysis of the errors in the registration of the parameters in question. In the zero to several kilocycle band the error is from 0.1 — 0.5%. An interesting feature of this method is the increase in accuracy with the decrease in signal frequency. On the basis of the new method, the authors propose block diagrams for the possible design of fast digital devices and a.c. converters (automatic digital potentiometers, a.c. bridges, spectral analyzers, etc.). Orig. art. has: 11 formulas, 6 figures, and 1 table.

SUB CODE: 09, 14 / SUBM DATE: 18Sep65 / ORIG REF: 003 / OTH REF: 004

UDC: 621.317.312

Card 1/1

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I.; SEMKO, Yu.I.; SEMENOV, V.F.; SOLOLOV, Yu.S.; YEVTIKHIYEV, N.N.; MOZHEYKOV, A.A.

Measuring units of a centralized automatic control system. (MIRA 18:9)
Trudy MEI 52:133-146 '63.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

ILYUKOVICH, A.M.; LEVIN, M.I.

Temperature error of induction watt-hour meters. Trudy inst. Kom. stand., mer. i izm. prib. no.74:101-110 '63. (MIRA 18:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut Komiteta standartov, mer i izmeritel'nykh priborov pri Sovete Ministrov SSSR.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I., inzh.; BILAIEV, S.F., inzh.

Portable transistorized comparator. Vest. sviazi 25 no.7:4-5 Jl '65. (MIRA 18:8)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallin)

Best quadrature formula with a weight function. Trudy Mat. i mat. fiz. 5 no.3:542-545 My-Je '65.
(MIRA 18:7)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

ACC NR: AP6015708 (A) SOURCE CODE: UR/0413/66/000/009/0110/0111

INVENTOR: Gayev, D. V.; Golubev, G. M.; Levin, M. I.; Malykhin, A. A.; Margulis, Yu. I.; Spiridonov, G. M.

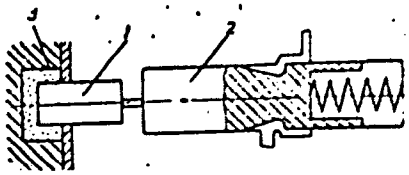
ORG: None

TITLE: A temperature control for an internal combustion engine. Class 42, No. 181406 [announced by the Central Scientific Research Diesel Institute (Tsentral'nyy nauchno-issledovatel'skiy dizel'nyy institut) and the Chelyabinsk Tractor Plant (Chelyabinskiy traktornyy zavod)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 110-111

TOPIC TAGS: temperature control, internal combustion engine component

ABSTRACT: This Author's Certificate introduces a temperature control for an air-cooled internal combustion engine. The control contains a contact type pickup. The thermal contact between the engine and the pickup is improved by setting the pickup in the engine cavity which is filled with an intermediate heat transfer agent such as an easily fusible inert salt.



1--pickup; 2--control; 3--engine cavity

SUB CODE: 21/ SUBM DATE: 09Feb65

UDC: 621.43-712-533.65

Card 1/1

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I., fel'dsher (Tallinn).

First aid in the treatment of burns under conditions prevailing at rural medical and obstetrical centers and health stations at industrial enterprises. Fel'd.i akush. no.1:14-17 Ja '54.
(MLRA 7:1)

(Burns and scalds)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallinn).

Eye injuries and first aid in such cases. Fel'd.i akush. no.3: 21-27 Mr '54. (MLRA 7:3)
(Eye--Wounds and injuries)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallinn)

Immobilization of injuries for transportation. Fel'd. i akush. no.11:10-13; contd. N '54. (MLRA 7:12)

(WOUNDS AND INJURIES
immobilization for transportation, splints)
(SPLINTS
for immobilizing of inj. for transportation)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallinn)

Immobilization for transportation in injuries of different parts of the skeleton. Fel'd. i akush. no.12:3-11 D '54. (MLRA 8:2)
(SPLINTS
for transportation immobilization in fractures)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallinn)

Bruises of soft tissues. Fel'd.i akush. no.4:3-9 Ap '55. (MLRA 8:7)
(MUSCLES, wounds and injuries,
ther.)
(SKIN, wounds and injuries,
ther.)
(WOUNDS AND INJURIES,
muscles & skin, ther.)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallinn)

Acute emphysema. Fel'd. i akush. 21 no.11:6-12 N '56. (MLRA 9:12)
(PULMONARY EDEMA)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I.

[Immobilization for transportation; for nonprofessional medical personnel] Transportnaia immobilizatsiia; dlia srednego meditsinskogo personala. Moskva, Medgiz, 1957. 85 p. (MLRA 10:6)
(FIRST AID IN ILLNESS AND INJURY)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I.

LEVIN, M.I. (Tallinn)

Care of patients with fractures. Med.sestra 16 no.9:18-23 S '57.
(FRACTURES) (MIRA 11:1)
(NURSES AND NURSING)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallinn)

System for registering, obtaining, storing, dispensing, and inventorying poisons and powerful drugs. Fel'd. i akush. 23 no.6:31-37 Je '58 (MIRA 11:6)
(DRUGS)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, Mikhail Ivanovich; VINOGRADOV, V.V., red.; SENCHILO, K.K., tekhn.red.

[Transportation of sick and injured persons; manual for subprofessional medical personnel] Transportirovka bol'nykh i postradavshikh ot travmy; posobie dlia srednego meditsinskogo personala. Moskva, Gos.izd-vo med.lit-ry, 1959. 95 p. (MIRA 13:1)
(TRANSPORT OF SICK AND WOUNDED)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallinn)

Acute carbon monoxide poisoning. Fel'd. i akush. 24 no.3:20-26 Mr '59. (MIRA 12:4)
(CARBON MONOXIDE--PHYSIOLOGICAL EFFECT)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallinn)

Periostitis and its treatment. Fel'd i akush. 24 no.4:14-20 Ap '59. (MIRA 12:5)
(PERIOSTEUM--DISEASES)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallinn)

Frostbite and its treatment. Fel'd. i akush. 24 no.10:8-15 O '59.
(MIRA 13:2)

(FROSTBITE)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallin)

Work of the feldsher medical center in the control of traumatism. Fel'd. i akush. 24 no.12:27-35 D '59. (MIRA 13:2)
(FIRST AID IN ILLNESS AND INJURY)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallinn)

Latent infections and their influence on the causation and development of various diseases. Fel'd. i akush. 25 no.11:7-14 N '60. (MIRA 13:11)
(INFECTION)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallin)

Care of patients with injuries of the spine and spinal cord.
Med. sestra 20 no:1:31-38 Ja '61. (MIRA 14:3)
(SPINE--WOUNDS AND INJURIES)
(SPINAL CORD--WOUNDS AND INJURIES)
(SURGICAL NURSING)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallin)

Bloodletting. Med. sestra 20 no.4:26-33 Ap '61. (MIRA 14:5)
(BLOODLETTING)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVI, M.I.; NOVIKOVA, Ye.I.; MINKOV, G.B.; OPTYAKOVA, A.F.; SHTEL'MAN, A.I.; KANATOV, Yu.V.

Serological studies in plague. Report No.1: Detection of antibodies in sera of experimentally infected animals by means of the passive hemagglutination on reaction. Zhur.mikrobiol., epid. i immun. 32 no.10:86-91 O '61. (MIRA 14:10)

1. Iz Astrakhanskoy i Elistinskoy protivochumnykh stantsiy.
(PLAGUE) (BLOOD—AGGLUTINATION)
(ANTIGENS AND ANTIBODIES)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallin)

Bursitis and its treatment. Fel'd. i akush. 26 no.9:9-16 S '61.
(MIRA 14:10)

(BURSITIS)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallin)

Method and technic of fangotherapy. Med. sestra 21 no.5:9-18 My '62.
(MIRA 15:5)

(BATHS, MOOR AND MUD)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallin)

Calcanean spurs. Fel'd. i akush. 27 no.2:22-26 F '62. (MIRA 15:3)
(HEEL BONE—DISEASES)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallin)

Acute thrombophlebitis of the lower extremities and its treatment.
Med.sestra 20 no.12:6-10 D '61. (MIRA 15:3)
(PHLEBITIS) (THROMBOSIS)
(EXTREMITIES, LOWER—DISEASES)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallin)

Thermal burns and the required first aid. Fel'd. i akush. 27 no.9:28-33 S'62. (MIRA 16:8)
(BURNS AND SCALDS) (FIRST AID IN ILLNESS AND INJURY)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.I. (Tallin)

Asepsis provided at medical centers. Med. sestra 22 no.10:
38-43 O'63 (MIRA 16:12)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

BALAKIN, V.I., red.; IVANCHENKO, N.N., red.; KOLLEROV, L.K., red.; LEVIN, M.I., red.; NIKITIN, M.D., red.

[Internal combustion engines; collection of papers dedicated to the memory of Professor Liudvig Karlovich Martens, Doctor of Technology] Dvigateli vnutrennego sgoraniia; sbornik rabot posviashchennyi pamiati doktora tekhnicheskikh nauk, professora Liudviga Karlovicha Martensa. Moskva, Mashinostroenie, 1965. 454 p. (MIRA 18:4)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

L 11449-66 EWT(m)/T DJ

ACC NR: AP6002949 (A) SOURCE CODE: UR/0286/65/000/024/0110/0110

INVENTOR: Gayev, D. V.; Golubev, G. M.; Levin, M. I.; Malykhin, A. A.; Margulis, Yu. I.; Spiridonov, G. M.

37
13

ORG: none

TITLE: A temperature regulator for an internal combustion engine. 44 55 Class 42, No. 177186 [announced by Central Scientific Research Diesel Institute (Tsentral'nyy nauchno-issledovatel'skiy dizel'nyy institut); and the Chelyabinsk Tractor Plant (Chelyabinskiy traktornyy zavod)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 110

TOPIC TAGS: internal combustion engine, air cooled engine, temperature regulator

ABSTRACT: This Author's Certificate introduces a temperature regulator for an air-cooled internal combustion engine. The unit contains a pickup with a sensing element which operates a spring slide valve to regulate the oil flow to the hydraulic clutch of the blower. The reliability of the device is improved by mounting the pickup on an engine component, e.g. on a cylinder head, and by making the sensing

Card 1/3 UDC: 621.43-543.2-533.65

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

L 14449-66

ACC NR: AP6002949

element in the form of a bellows with a long stroke. Additional balancing for the slide valve is provided by connecting the space above the valve to the supply line.

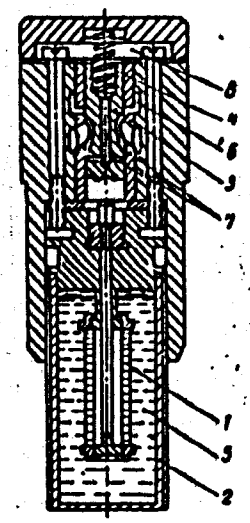
SUB CODE: 21/ SUBM DATE: 25Dec64

Card 2/3

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

L 11449-66
ACC NR: AP6002949



1 - sensing element; 2 - pickup; 3 - slide valve; 4 - spring; 5 - fluid; 6 - transfer section; 7 - channels; 8 - space above the slide valve.

BVK
Card 3/3

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

KLIPTSAN, N.M.; LEVIN, M.Kh.

Use of bronchography in the clinical treatment of pulmonary tuberculosis. Zdrav. Belor. 6 no. 5:43-45 My '60. (MIRA 13:10)

1. Tuberkuleznoye otdeleniye 4-y klinicheskoy bol'nitsy (glavnyy vrach Ye.M. Sel'dimirova) (for Kliptsan). 2. Belorusskiy Institut tuberkuleza (direktor M.N. Lomako) (for Levin).
(TUBERCULOSIS) (BRONCHI—RADIOGRAPHY)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.Kh.

Tomographic study of the lung cortex in children with chronic tuberculous intoxication. Probl.tub. no.4:30-34 '61.
(MIRA 14:12)

1. Iz rentgenoflyuorograficheskogo otdela (zav. M.Kh. Levin) Belorusskogo nauchno-issledovatel'skogo instituta tuberkuleza (dir. - kand.med.nauk M.N. Lomako).
(TUBERCULOSIS) (LUNGS--RADIOGRAPHY)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.Kh.

Tomographic image of the normal radix pulmonis in children.
Zdrav. bel. 8 no.1:30-33 Ja '62. (MIRA 15:3)

1. Iz Belorusskogo nauchno-issledovatel'skogo instituta tuberkuleza (direktor - kand.med.nauk M.N. Lomako).
(LUNGS--RADIOGRAPHY)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

ASHIMBAYEV, Tuymebay Ashimbayevich, nauchn. sotr.; BAYTULESHEV, Tursunbek Baytuleshevich, nauchn. sotr.; KOVALENKO, Tamara Ivanovna, nauchn. sotr.; SHIM, P.S., kand. ekon. nauk, otv. red.; LEVIN, M.L., red.

[Labor productivity of Kazakhstan's machinery industry and the factors of its growth] Proizvoditel'nost' truda v mashinostroenii Kazakhstana i faktory ee rosta. Alma-Ata, Nauka, 1965. 209 p. (MIRA 18:6)

1. Institut ekonomiki AN Kazakhskoy SSR (for Ashimbayev, Baytuleshev, Kovalenko).

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.L., inzhener; KRYLOV, V.A., inzhener.

Rapid installation of blast furnace equipment. Sbor.mat. o nov.tekh. v stroi. 15 no.7:1-6 Jl '53. (MLRA 6:7)
(Blast-furnaces)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

BUDANOV, G.V., otv.za vypusk; REZNIKOV, A.I., otv.za vypusk; LEVIN, M.L., red.; PEVZNER, A.S., red.izd-va; PERSON, M.N., tekhn.red.

[Cost manual for the assembling of equipment] TSennik na montazh oborudovaniia. No.2. [Equipment for woodworking, veneer, and match industries] Oborudovanie derevoobrabatyvaiushchego, fanernogo i spichechnogo proizvodstva. 1958. 32 p. (MIRA 12:4)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva.
(Woodworking machinery)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.L.

SIMACHEV, L.V., insh.; LEVIN, M.L., insh.

Erecting sintering factories. Mov. tekh. i pered. op. v stroi. 20 no.3:11-16 M '58. (MIRA 11:3)
(Sintering) (Precast concrete construction)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

BOYEV, Sergey Nikolayevich, akademik; SOKOLOVA, Iya Borosovna; PANIN, Viktor Yakovlevich; SHEVCHUK, T.I., red.; LEVIN, M.L., red.; ROROKINA, Z.P., tekhn. red.

[Helminths of ungulates of Kazakhstan; in two volumes] Gel'minty kopytnykh zhivotnykh Kazakhstana; v dvukh tomakh. Alma-Ata, Izd-vo Akad. nauk Kazakhskoi SSR. Vol.1. 1962. 373 p. (MIRA 15:10)

1. Akademiya nauk Kazakhskoy SSR (for Boyev).
(Kazakhstan—Parasites—Ungulata)
(Kazakhstan—Worms, Intestinal and parasitic)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

SOKOLOVA, Ye.I.[deceased]; BRAYNZAROVA, G.T.; BUCHANOVA, N.S.; ZHIKHAREVA, V.I.; ZAKUMBAYEV, A.K.; ISAYEVA, M.G.; IMAMBAYEVA, U.A.; KRIVOSHEYEV, Yu.O.; KUDAYBERGENOV, Zh.D.; RAKHMETCHIN, S.; TYUTYUKOV, F.M.; SHIM, P.S.; LAZARENKO, Ye.I.; GARANKINA, A.I.; D'YACHENKO, R.; PETUKHOV, R.M., kand. tekhn. nauk, nauchn. red.; SHUPLOVA, M.A., red.; LEVIN, M.L., red.; ROROKINA, Z.P., tekhn. red.

[Food industry of Kazakhstan] Pishchevaia promyshlennost' Kazakhstana. Alma-Ata, Izd-vo AN KazSSR, 1963. 172 p.

1. Akademiya nauk Kazakhskoy SSR, Alma-Ata. Institut ekonomiki.

(Kazakhstan--Food industry)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

MIKHAYLOV, Fedor Kuz'mich; SHAMSHATOV, Ibragim Shamshatovich; SAVOS'KO, V.K., kand. ist. nauk, otv. red.; LEVIN, M.L., red.

[Popular movement for the reclamation of the virgin lands in Kazakhstan, 1953-1960] Narodnoe dvizhenie za osvoenie tselinnykh zemel' v Kazakhstane, (1953-1960 gody). Alma-Ata, Izd-vo AN Kaz.SSR, 1964. 359 p. (MIRA 17:5)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

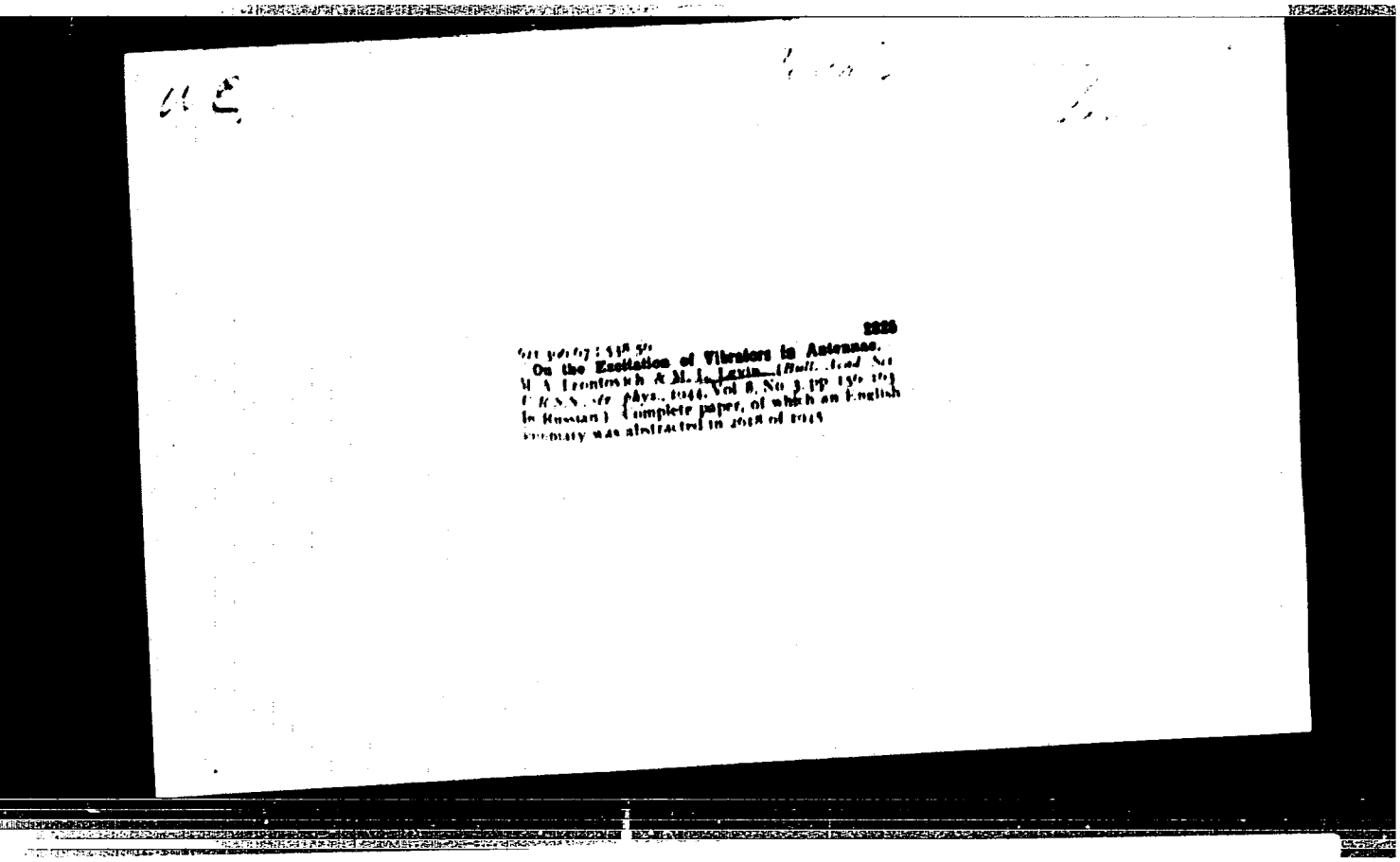
"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.L.; IPATOV, P.P., nauchnyy red.; ZVORYKINA, L.N., red. izd-va; OSENKO, L.M., tekhn. red.

[Assembly of industrial equipment in enterprises of the metallurgical industry; ore dressing, sintering, and blast-furnace plants] Montazh tekhnologicheskogo oborudovaniia predpriiatii metallurgicheskoi promyshlennosti; obogatitel'nye i aglomeratsionnye fabriki, domennye tsekhi. Moskva, Gosstroiizdat, 1962. 335 p. (MIRA 15:6)
(Iron and steel plants--Equipment and supplies)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6



1938

On the Excitation of Vibrators in Antennae.

M. A. Leontovich & M. A. Levin. (Bull. Acad. Sci. U.S.S.R., Ser. phys., 1944. Vol. 8, No. 3, pp. 159-164. In Russian.) Complete paper, of which an English summary was abstracted in 1944 and 1945

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.

Mbr., Physics Faculty, Moscow Order Lenin State Univ. im. M. V. Lomonosov, -1943-.

"Contribution to the Theory of the Excitation of Vibrations in the Aerial Vibrators,"

Zhur. Tekh. Fiz., 14, No. 9, 1944.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

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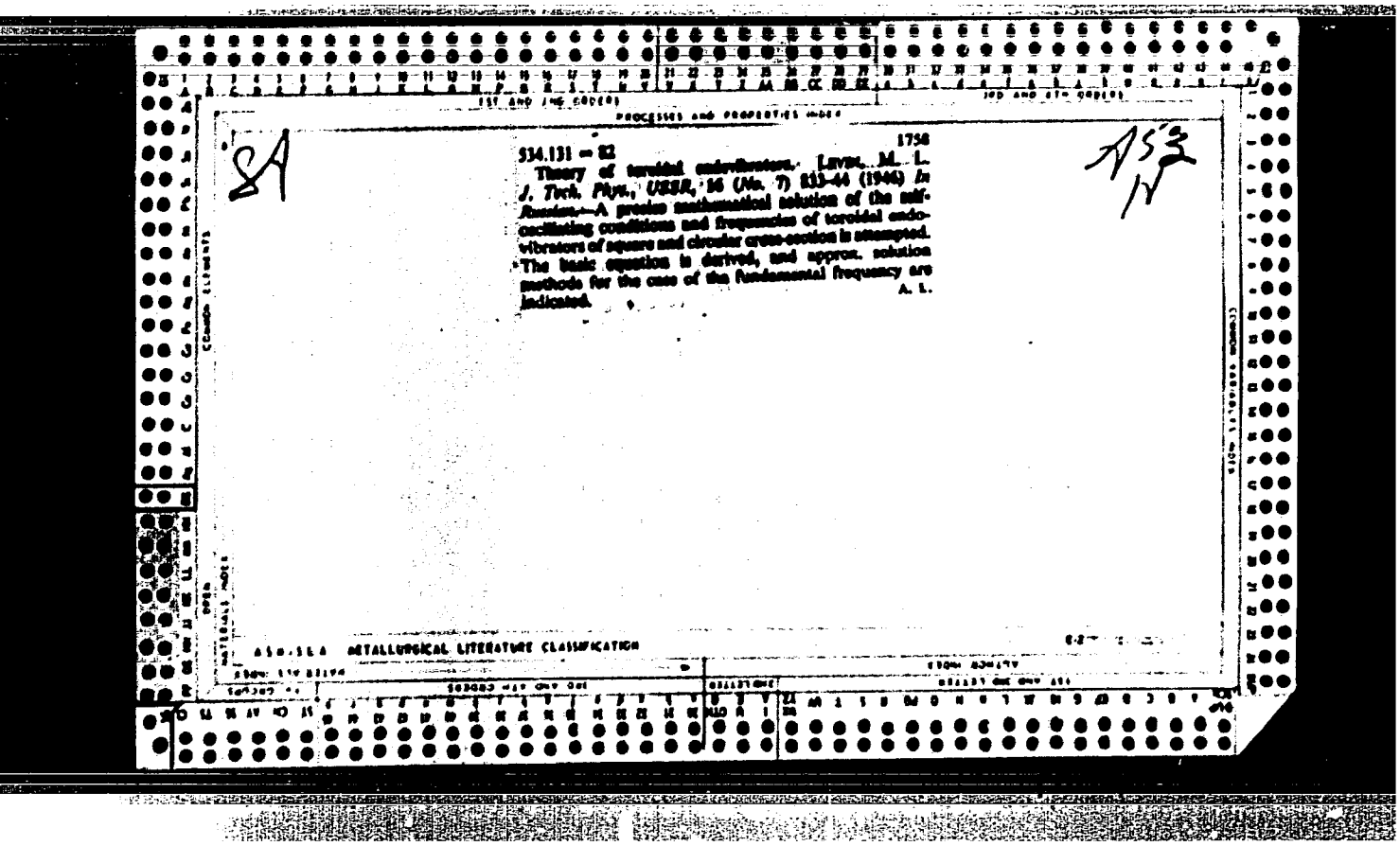

534.131 — 52 1758

Theory of toroidal endovibrators. Lavrik, M. L. *J. Tech. Phys., USSR*, 16 (No. 7) 813-44 (1946) *In Russian.*—A precise mathematical solution of the self-oscillating conditions and frequencies of toroidal endovibrators of square and circular cross-section is attempted. The basic equation is derived, and approx. solution methods for the case of the fundamental frequency are indicated. A. L.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

Levin M. L.

Levin, M. L. A contribution to the theory of antennas

The antenna is a thin perfect conductor of length l and variable radius $a=a_0f(s)$. If an external electromotive force $K(s)$ is applied to the conductor parallel to the axis the complex Poynting theorem may be written

$$\int K(s)J^* ds = \int_{S_R} \frac{1}{4\pi} \; H^* \; dS + 2i\omega \int_{V_R} \frac{HH^* \quad EE^*}{4\pi} \; dV$$

where V_R is the volume of the region bounded by the sphere S_R and the antenna. When $R\to\infty$ the surface integral is real and hence the reactive power is fully determined by the volume integral. If Q_0 is the reactive component for a cylindrical conductor of radius a_0 the corresponding Q for a conductor of variable radius (inscribed in the cylindrical one) may be found from

$$Q-Q_0=-(2k/c)\int_l [\,|\psi(s)|^2-k^{-2}|d\psi/ds|^2](\log f)ds$$

where $\psi(s)$ is the distribution function for the current along the axis of either conductor.

Source: Mathematical Reviews, Vol 8 No. 10

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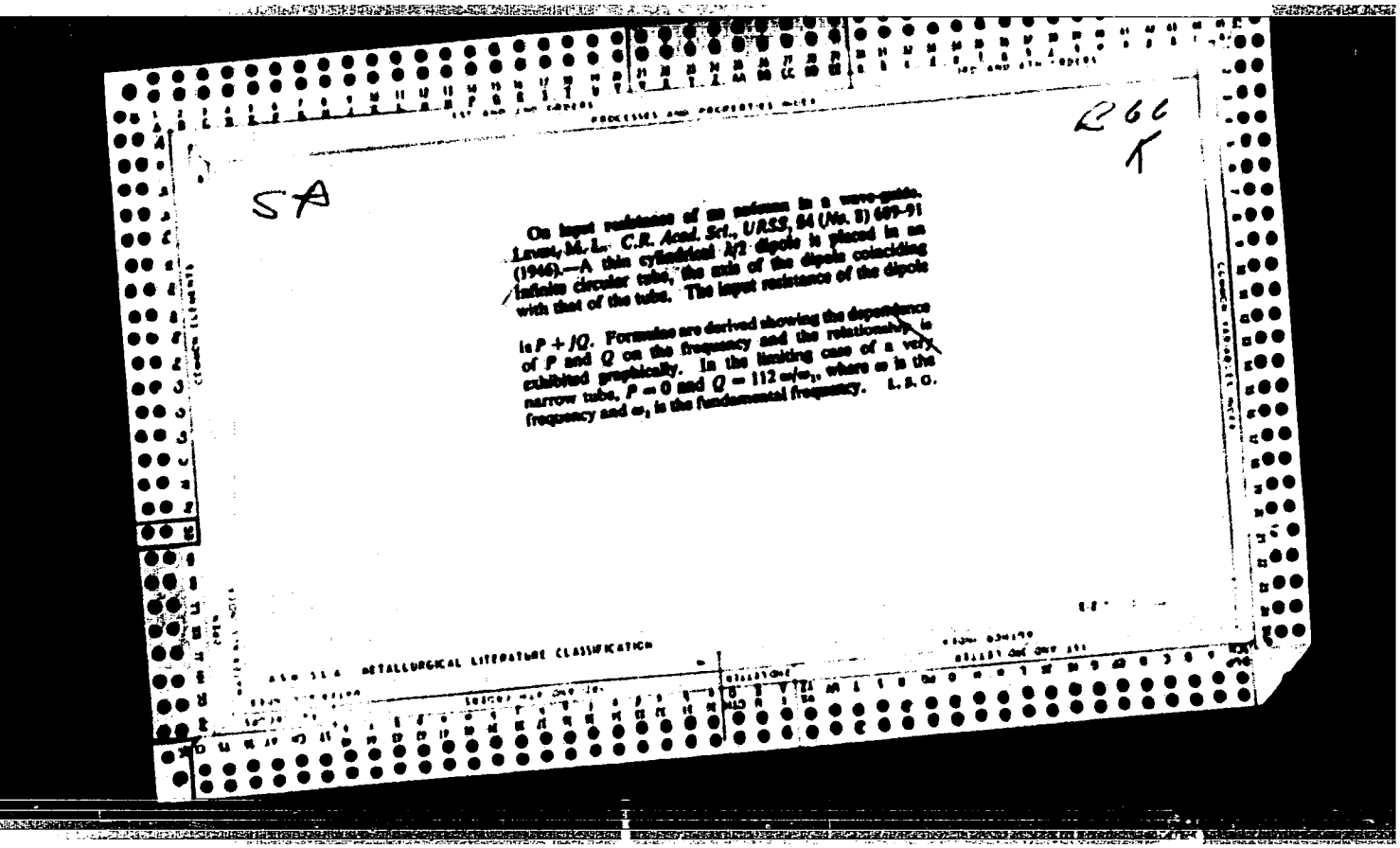

SA

On input resistance of an antenna in a wave-guide. Levin, M. L. *C.R. Acad. Sci., URSS*, 54 (No. 8) 689-91 (1946).—A thin cylindrical $\lambda/2$ dipole is placed in an infinite circular tube, the axis of the dipole coinciding with that of the tube. The input resistance of the dipole is $P + jQ$. Formulae are derived showing the dependence of P and Q on the frequency and the relationship is exhibited graphically. In the limiting case of a very narrow tube, $P = 0$ and $Q = 112 \omega/\omega_0$, where ω is the frequency and ω_0 is the fundamental frequency. L. S. O.

METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M.L.

GORELIK, G.S., LEVIN, M.L.

"Radar" (Radiolokatsiya). Gostekhizdat, 32 pp., 1947.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

PA 57105

LEVIN, M. L.

Feb 1947

USSR/Antennas - Constants
Antennas - Measurements

"A New Method of Determining the Characteristic Reactance of Thin Aerials," M. L. Levin, 18 pp

"Izv Ak Nauk Fiz" Vol XI, No 2

Mathematical treatment of subject.

57105

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

PA 4976

USSR/Electronics
Electrons - Emission
Conductivity

Oct 1947

"Electronic Emission Moving Along Circular Orbit in Space Bound by Metal Walls," M. L. Levin, Phys Tech Inst, Gor'kiy State U, 5½ pp

"Zhur Tekh Fiz" Vol XVII, No 10

Reports results of observations conducted on electronic emissions moving at constant speed on circular orbit: 1) inside of ideal conduit pipe with round cross section, so that the orbit lies in line with the lateral cross section and concentric with it; and 2) between two ideal conducting parallel planes, so that orbit lies on the same plane and

4976

USSR/Electronics (Contd) Oct 1947

equidistant from the two conducting planes. Submitted, 1 Feb 1946.

4976

LEVIN, M. L.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M. L.

Nov 1947

USSR/Physics
Antennas - Design
Antennas - Measurements

"The Theory of a Slit Antenna," M. L. Levin, Physico-technical Institute, Gor'kiy State University, 3 pp

"Dok Ak Nauk" Vol LVIII, No 6

Discusses the theory of a slit antenna, formed from two knife-edge conductors, from the standpoint of its capacity as a transmission line. Attempts to show that such an approach allows a relatively simple method of obtaining an equation for the theory of a slit antenna. Submitted by Academician M. A. Leyontovich 28 May 1947.

36T96

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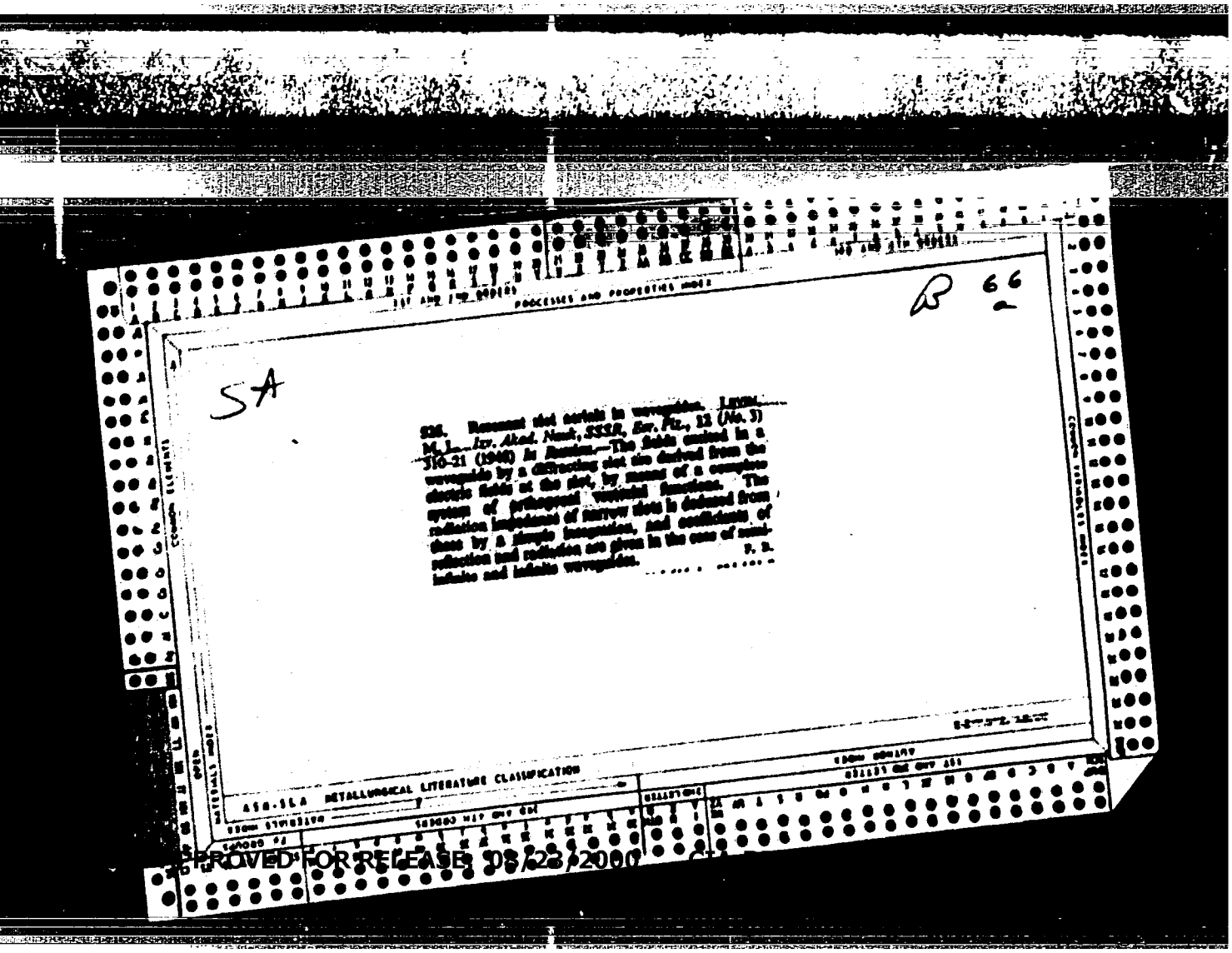


"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M. L.

May 1948

USSR/Radio
Wave Guides
Antennas

"Theory of an Annular Resonance Slit in a Wave Guide," M. L. Levin, PhysTech Inst, Gor'kiy State U, 14 pp

"Zhur Tekh Fiziki" Vol XVIII, No 5

Gives theory of a resonance slit antenna, shaped like a narrow λ- ring, cut at "bottom" of a semi-infinite wave guide of circular section. Shows that λ- ring slit can be made in resonance with existing wave. Submitted 10 Nov 1947.

75T102

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M. L.

May 1948

USSR/Radio
Wave Guides
Mathematics, Applied

"Excitation of a Semi-Infinite Radio Wave Guide Through a Slit in the Base," M. L. Levin, Phys Tech Inst, Gor'kiy State U, 4 pp

"Zhur Tekh Fiziki" Vol XVIII, No 5

A purely mathematical treatment of subject by method of vector analysis. Submitted 10 Nov 1947.

75T101

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M. L.

USSR/Physics — Nov 48

Waves, Electromagnetic

Wave Propagation

"Propagation of a Flat Electromagnetic Wave in an Alternately Laminated Medium," M. L. Levin, Physicotech Inst, Gor'kiy State U, 6 pp

"Zhur Tekh Fiz" Vol XVIII, No 11

Studies propagation of a flat transverse (primary) electromagnetic wave in an unlimited (in direction in which waves are propagating) medium which has periodic dielectric bands. Levin states it is sufficient to study only the case of one homogeneous flat wave as the local geometry for all

[redacted] 18/49T102

USSR/Physics (Contd) — Nov 48

principal waves is similar. Results obtained are general in character, and can be applied to other than electromagnetic waves. Submitted 6 Mar 48.

[redacted] 18/49T102

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M. L.

PA 68T97

USSR/Physics
Wave Guides
Antenna

May 1948

"Relationship Between Energy Coefficients Which Characterize Antenna Arrangements on Wave Guides," M. L. Levin, Phys Tech Inst, Gor'kiy State U, 3 pp

"Dok Ak Nauk SSSR" Vol LX, No 5

Discusses a semi-infinite cylindrical wave guide of arbitrary lateral cross-section having type of antenna arrangement at one end. Walls of wave guide and metallic part of antenna are considered ideal conductors. Mathematical formulas showing subject relationship. Submitted by Academician M. A. Leontovich 17 Mar 1948.

68T97

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M. L.

FA 35/49T104

USSR/Radio — Dec 48
Antennas, Slot
Mathematics - Applied

"The Natural Oscillations of Thin Metallic and Slit Antennas," M. L. Levin, Physicotech Inst, Gor'kiy State U, 4 pp

"Dok Ak Nauk SSSR" Vol LXIII, No 6

Problem of forced oscillations of thin metallic antennas, excited by side harmonic EMFs may be reduced to the solution of a certain integral-differential equation for current. Shows that same equation may be used to solve the problem of natural oscillations of thin antennas, since

[redacted] 35/49T104

USSR/Radio (Contd) — Dec 48

usual methods for solving the latter are applicable only for thin conductors of very special form. Submitted by Acad M. A. Leontovich, 16 Oct 48.

[redacted] 35/49T104

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

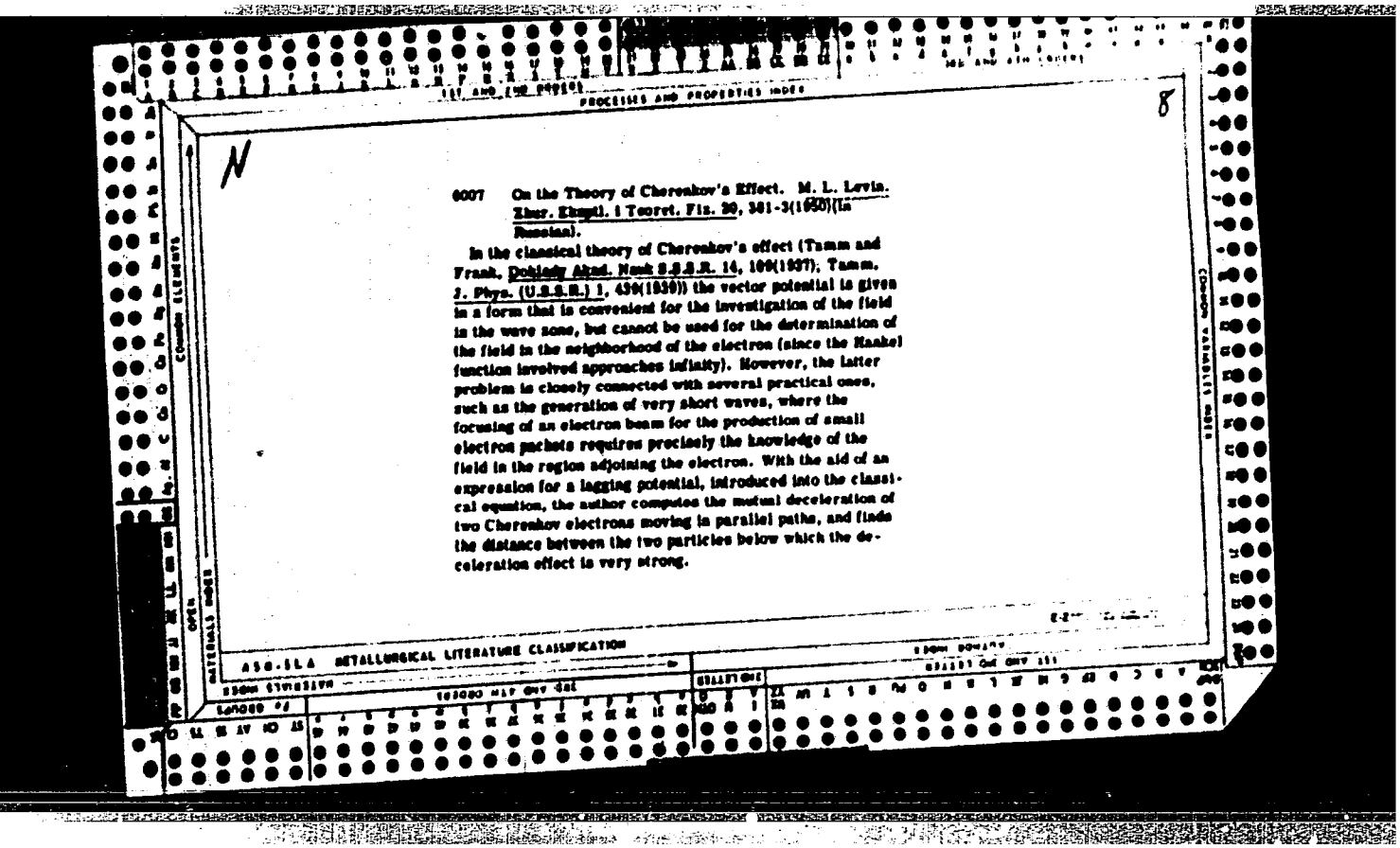
S.A. B. 64

3671. THE TELEGRAPH EQUATION FOR GENERALIZED TRANSMISSION LINES WITH SMALL LOSSES. M.E. Zhabotinskii, M.L.Levin and S.M.Rytov. J. Tech. Phys.. USSR 20 (No. 3) 25761 (1950) In Russian.

The strict solution of the problem of wave propagation in a space bounded by real conductors requires Maxwell's equations to be solved for free space and conductors, the boundary conditions at the conductor surface being common for both regions. For ideally conducting line conductors the wave is pure traverse. This case requires that certain "electrode configuration" conditions be satisfied. These conditions were formulated by Leonovich [Izv. Akad. Nauk, SSSR, Ser. Phys., 8, 16 (1944)]. Using his method, the case of a finite conductivity is considered in which the telegraph equations for conductors with resistance are derived and their limits stated. A generalization of the theory shows that even for ideal conductivity there are waves (apart from the fundamental) which are not purely transverse, although very nearly so. The required electrode configuration in this generalization is not as strict as in the former case and the field of application is correspondingly wider. B.F.Kraus

A10-11A METALLURGICAL LITERATURE CLASSIFICATION

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6



6007 On the Theory of Cherenkov's Effect. M. L. Levin. Zhur. Eksptl. i Teoret. Fiz. 20, 381-3(1950)(In Russian).

In the classical theory of Cherenkov's effect (Tamm and Frank, Doklady Akad. Nauk S.S.S.R. 14, 109(1937); Tamm, J. Phys. (U.S.S.R.) 1, 439(1939)) the vector potential is given in a form that is convenient for the investigation of the field in the wave zone, but cannot be used for the determination of the field in the neighborhood of the electron (since the Hankel function involved approaches infinity). However, the latter problem is closely connected with several practical ones, such as the generation of very short waves, where the focusing of an electron beam for the production of small electron packets requires precisely the knowledge of the field in the region adjoining the electron. With the aid of an expression for a lagging potential, introduced into the classical equation, the author computes the mutual deceleration of two Cherenkov electrons moving in parallel paths, and finds the distance between the two particles below which the deceleration effect is very strong.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

Journal of Technical Physics
USSR, Vol. 19, No 5, 1951

Levin, M.L. (Physico-technical Institute, Gorki State University). Theory of ring resonance slit in a wave guide. 639-52

Slyusarev, G.G. and Chulanovski, V.M. (Scientific Research Physics Institute, Leningrad State University). Illumination of a spectrograph slit by a non-absorbing extended light source. 665-72

Journal: G, TRSPL, Vol. 1, No. 5

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

Journal of Technical Physics
USSR, Vol. 15, No 5, 1945

Levin, M.L. (Physico-technical Institute, Gorki State University). The excitation of a semi-infinite radio wave guide through an opening in its bottom, 653-6

"A theory is given of a resonating slot antenna having the form of a narrow ring cut at the 'bottom' of a semi-infinite wave guide of a circular cross section. Assuming that the wave guide is furnished at the end with a reflector, increasing the direction of the radiation of the slot, the 'external conductivity' of the radiation is calculated. The 'internal' conductivities of the radiations characterizing the excitation of waves in the guide are found. The work of the slot antenna as a receiving antenna is calculated. The effective excitation cross sections for the plain H and E waves of the guide are calculated. The question of matching by means of a ring slot of two wave guides with different radii of cross sections is examined. The characteristic (total) conductivity of the ring slot is investigated. It is shown that the ring slot actually can be tuned to resonance with a wave exciting it."

Source: GTRSPL. Vol. 1, No. 5

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M. L.

USSR/Electronics - Antenna, Slot Jul 51

"Theory of Slot Antenna in Circular Wave Guide," M. L. Levin, Physicotech Inst, Gor'kiy State U

"Zhur Tekh Fiz" Vol XXI, No 7, pp 772-786

Subject problem was studied by A. A. Pistolkors (cf. "Zhur Tekh Fiz" Vol XVII, pp 365 and 377, 1947). Levin fills gaps in Pistolkors' work by studies of external cond of radiation, necessary for coordination of slot antenna and wave guide. Levin also finds some deficiences

LC 189T43

USSR/Electronics - Antenna, Slot (Contd) Jul 51

in results of Pistolkors' 2d article and derives the correct formulas. Submitted 26 Jul 48, revised in 1951.

LC 189T43

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

USSR/Electronics - Antenna, Slot Jul 51

"Derivation of the Basic Equation of the Theory of Slot Antennas," M. L. Levin, Physicotech Inst, Gor'kiy State U

"Zhur Tekh Fiz" Vol XXI, No 7, pp 787-794

Subject problem was previously treated by Ya. N. Feld (cf. "Fundamentals of the Theory of Slot Antennas," Moscow, 1948). Levin demonstrates that derivation of subject basic eq is included in derivation of eqs in theory of metallic antennas. He concludes metallic and slot-type antennas have same structure of basic eqs. Submitted 3 Jun 49.

LC 189T44

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

USSR/Electronics - Antenna, Slot Jul 51

"Slot Antenna With Directing Equipment," M. L. Levin, Physicotech Inst, Gor'kiy State U

"Zhur Tekh Fiz" Vol XXI, No 7, pp 795-801

Radiation characteristic of single slot, cut in plane screen or in wall of wave guide, has same characteristic as metallic equiv of slot, i.e., undirectional. For direction of radiation a passive metallic dipole should be placed perpendicular to slot. Depending on tuning of this dipole radiation may be damped or directed. Submitted 3 Jun 49

LC 189T45

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M. L.

PA 194T97

USSR/Physics - Sound Scattering Aug 51

"Sound Scattering in Slightly Nonuniform Medium," M. L. Levin

"Zhur Tekh Fiz" Vol XXI, No 8, pp 937-939

Levin found 2 errors in Raleigh's No 296 of "Theory of Sound" (translated into Russian and published in 1944) which he attempts to correct. He states that Raleigh in his eqs neglected to consider the nonuniformity of the medium of propagation. Submitted 31 Jan 51.

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Levin, M. L. On the geometrical meaning of the conditions for the existence of transverse electric and transverse magnetic fields in curvilinear coordinate systems. Doklady Akad. Nauk SSSR (N.S.) 79, 589–590 (1951). (Russian)

Let (u, v, w) be a curvilinear coordinate system in space $\mathbf{r}=\mathbf{r}(u, v, w)$, such that there can exist an electromagnetic field in which either the electric or the magnetic vector has no longitudinal w-component. It is then known that the metric coefficients e_u, e_v, e_w, defined by $e_u^2=(\mathbf{r}_u)^2$, etc., must satisfy the conditions $e_w=1$, $\partial(e_u/e_v)/\partial w=0$. It is deduced that the w-surfaces are either concentric spheres or parallel planes.

F. V. Atkinson (Ibadan)

Source: Mathematical Reviews, Vol No.

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LEVIN, M. L.

USSR/Electronics - Wave Guides 1 Aug 53

"Passive Emitting Systems in Wave Guides," M. L. Levin, Tyumen State Pedagog Inst

DAN SSSR, Vol 91, No 4, pp 807-811

Generalizes results of his previous work (Iz AN SSSR, Ser Fiz 12, 310 (1948)) for the case of an arbitrary nonresonant emitting system, consisting of passive metallic antennas and diffractional emitters; i.e. apertures cut into the wall of the wave guide. Presented by Acad M. A. Leontovich 6 Jun 53.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

Dissertation: "Theory of Slit Antennas in Waveguides." Cand Phys-Math Sci, Moscow State Pedagogical Inst, Moscow, 1954. Referativnyy Zhurnal--Fizika, Moscow, Jul 54.

SO: SUM No. 356, 25 Jan 1955

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LEVIN, M. L.

621.372.41 : 621.396.822

2977 62

Thermodynamical Consideration of Equilibrium Electrical Fluctuations. M. L. Levin. (*Uspekhi fiz. Nauk*, March 1954, Vol. 52, No. 3, pp. 485–494.)

Expressions are derived for the mean energy of electrical fluctuations in an *LCR* circuit maintained at a given temperature and for the spectral density of the fluctuation e.m.f. Similar expressions published earlier by Gorelik and Ginzburg are discussed.

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LEVIN, M.L.

538 566 621 396.67 621 372.413

8881. ON THE THEORY OF THIN AERIALS IN RESONANT CAVITIES. A. V. Gaponov and M. L. Levin. Dokl. Akad. Nauk SSSR (N.S.) 91 (1953), 317–320. In Russian.

Oscillations on a number of aerials are discussed where there is interaction because of immersion in the same cavity. The interaction is small when the aerials are thin and hence a perturbation method is used. Mathematical Reviews

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USSR/Physics - Heat radiation FD-3048

Card 1/1 Pub. 153 - 17/23

Author : Levin, M. L.; Rytov, S. M.

Title : Thermal radiation of a thin rectilinear antenna

Periodical : Zhur. tekh. fiz., 25, February 1955, 323-332

Abstract : On the basis of the general theory of electrical fluctuations (S. M. Rytov, Teoriya elektricheskikh fluktuatsiy i teplovogo izlucheniya [Thermal radiation etc.], Moscow, 1953) and the theory of thin antenna (M. A. Leontovich and M. L. Levin, ZhTF, 14, 481, 1944 and Izv. AN SSSR, Ser. fiz., 8, 157, 1944) the authors consider the thermal radiation of a thin cylindrical straight conductor both at nonresonant and at resonant frequencies. They find the spectral intensities for density of energy flow and for total radiated power, and obtain an expression for the reduced characteristic (diagram of directivity) of thermal radiation; they also calculate the distribution of the fluctuational current along the antenna and its radiation resistance. In conclusion they generalize all these results to the case of a conductor of variable cross section. Three references: e.g. M. L. Levin, DAN SSSR, 54, 599, 1946 and Izv. AN SSSR, Ser. fiz., 11, 117, 1947.

Submitted : October 8, 1954

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

USSR/Electronics - Thermal noises FD-3155

Card 1/2 Pub. 153 - 11/26

Author : Levin, M. L.

Title : Induced thermal noises in antennas

Periodical : Zhur. tekh. fiz., 25, No 13 (November), 1955, 2313-2318

Abstract : Earlier the author, with S. M. Rytov (ibid., 25, 323, 1955), considered thermal fluctuational currents in a thin antenna which are created by self heated antenna, and found from the formulas of antenna theory (M. A. Leontovich and M. L. Levin, ibid., 14, 481, 1944) the role of the exciting lateral field to be played by random driven Nyquist emf which is delta-correlated along the conductor, the latter fact being very essential: namely because of the delta-correlation comparatively simple expressions were obtained for the mean square quantities. In the present work the author considers, along with the mentioned natural thermal currents, also induced currents caused by external heated bodies. He notes that the general electrodynamic theory of thermal radiation (S. M. Rytov, Teoriya elektricheskikh fluktuatsiy i teplovogo izlucheniya, Moscow, 1953) permits one to calculate also the external field of heated bodies and the correlation of field vectors at various points of space, thus permitting in principle the finding of induced currents by same method as in the case of natural ones; however, there are great

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computational difficulties due to the fact that the external fluctuational field of a heated body is not delta-correlated along the antenna. He claims that such difficulties can be obviated if one utilizes the electrodynamic theorem of interaction, as is done in the present work. Seven references: e.g. Ya. L. Al'pert, V. L. Ginzburg, Ye. L. Feynberg, Rasprostraneniye radiovoln [Propagation of radio waves], Moscow, 1953; S. M. Rytov, ZhETF, 10, 180, 1940; and translations into Russian of D. Slater's Transmission of ultrashort waves and J. Stratton's Theory of electromagnetism.

Institution :

Submitted : May 20, 1955

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M. L.
USSR/Physics - Radiation

FD - 3165

Card 1/1 Pub. 153 - 21/26

Author : Levin, M. L.

Title : Letter to the editor. The influence of the curvature of the surface of a convex metal body upon the radiation of a source located on this surface

Periodical : Zhur. tekh. fiz., 26, No 13 (November), 1955, 2395-2396

Abstract : If a source of harmonic electromagnetic field, e.g., metal pin or diffraction antenna, is placed on the surface of an ideally conducting convex body all dimensions of which (including the radius of curvature of the surface) are large in comparison with the wave length, then the radiation of this source is usually calculated in accordance with the "reflector" formulas obtained by replacement of the surface of the body by a plane screen. In the present note the author evaluates the order of errors due to such a substitution. Conclusion: since the solid angle of radiation region in order of magnitude equals $L/R \sim 1/(kR)^{1/3}$ for a certain mean cross-section, then the engergy also radiated by any source situated at a point about surface will differ from the energy radiated by the same source into the half-space by a quantity possessing relative order $(kR)^{-1/3}$; the author found this result earlier (ibid., 21, 772, 1951) for the case of longitudinal slot in a round cylinder. Here, R is the radius of curvature of normal cross-section of the surface of the body, L is the width of the region of half-shadow, and k is the wave number.

Submitted : February 1, 1955

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

FD-2883

USSR/Physics - Electromagnetic energy

Card 1/1 Pub. 146 - 20/26

Author : Levin, M. L.

Title : Elementary derivation of a formula for the electromagnetic energy in a dispersing medium

Periodical : Zhur. eksp. i teor. fiz., 29, August 1955, 252

Abstract : The author assumes a substance with dielectric and magnetic susceptibility respectively $\epsilon(w)$ and $\mu(w)$ to fill a flat condenser of capacity $C(w) = \epsilon(w)C_0$ and a thin solenoid of inductance $L(w) = \mu(w)L_0$ forming an oscillatory circuit; the vacuum values C_0 and L_0 are so selected that the frequency w is the natural one: $w^2 = 1/L(w)C(w)$. The author finally obtains the desired result: $w_e = (E^2/16\pi)\cdot d(\epsilon w)/dw$, and $w_m = (H^2/16\pi)\cdot d(\mu w)/dw$, respectively the mean densities of the electrical and magnetic energies of a sinusoidal field in a medium with dispersion, as earlier obtained by means of Fourier integral apparatus by S. M. Rytov and F. S. Yudkevich (ibid., 10, 887, 1940) and by S. M. Rytov (ibid., 17, 930, 1947). Two references.

Institution : Tyumenskiy Pedagogical Institute

Submitted : February 9, 1955

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN,M.L.; GINZBURG,V.L.

Application of thermodynamics to electric fluctuations. Usp. fiz. nauk 56 no.1:146-148 My '55. (MLRA 8:6)
(Electromagnetic theory) (Thermodynamics)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

LEVIN, M. L.

USSR/ Physics - Thermal radiation

Card 1/1 Pub. 22 - 13/49

Authors : Levin, M. L.

Title : On the electrodynamic theory of thermal radiation

Periodical : Dok. AN SSSR 102/1, 53-56, May 1, 1955

Abstract : It is shown that finding the fluctuating field of a radiating heat body can be reduced to finding the quadratures, if a solution of the diffractional problem of the body is known. A radiating body in free space (vacuum) and a radiating body in a wave guide are considered. Three USSR references (1951-1954).

Institution : .....

Presented by : Academician M. L. Leontovich, December 25, 1954

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LEVIN, M. L. and RYTOV, S. M.

"On the transition to the Geometrical Approximation in the Theory of Elasticity"
Abstracted for inclusion in the Second International Congress on Acoustics,
Cambridge, Mass., 17-24, Jun 1956

D Sc, Ivanovo Pedagogical Institute
D. Sc, P. N. Lebedev Physical Institute of the Academy of Sciences, USSR

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LEVIN, M. L.

J-2

Category : USSR/Acoustics - Sound vibrations and waves

Abs Jour : Ref Zhur - Fizika, No 1, 1957 No 2108

Author : Levin, M.L., Rytov, S.M.
Inst : Acoustics Institute, Academy of Sciences USSR
Title : On the Transition to the Geometric Approximation in the Theory of Elasticity

Orig Pub : Akust. Zh., 1956, 2, No 2, 173-176

Abstract : It is shown that the linearized equations of the theory of elasticity, presented in the geometric approximation, in addition to yielding the Eikonal equation and the law of conservation of energy flux in the compression and shear waves, also result in a law for the variation of the polarization of the shear waves along the corresponding rays. This polarization law turns out to be the same as for electromagnetic waves.

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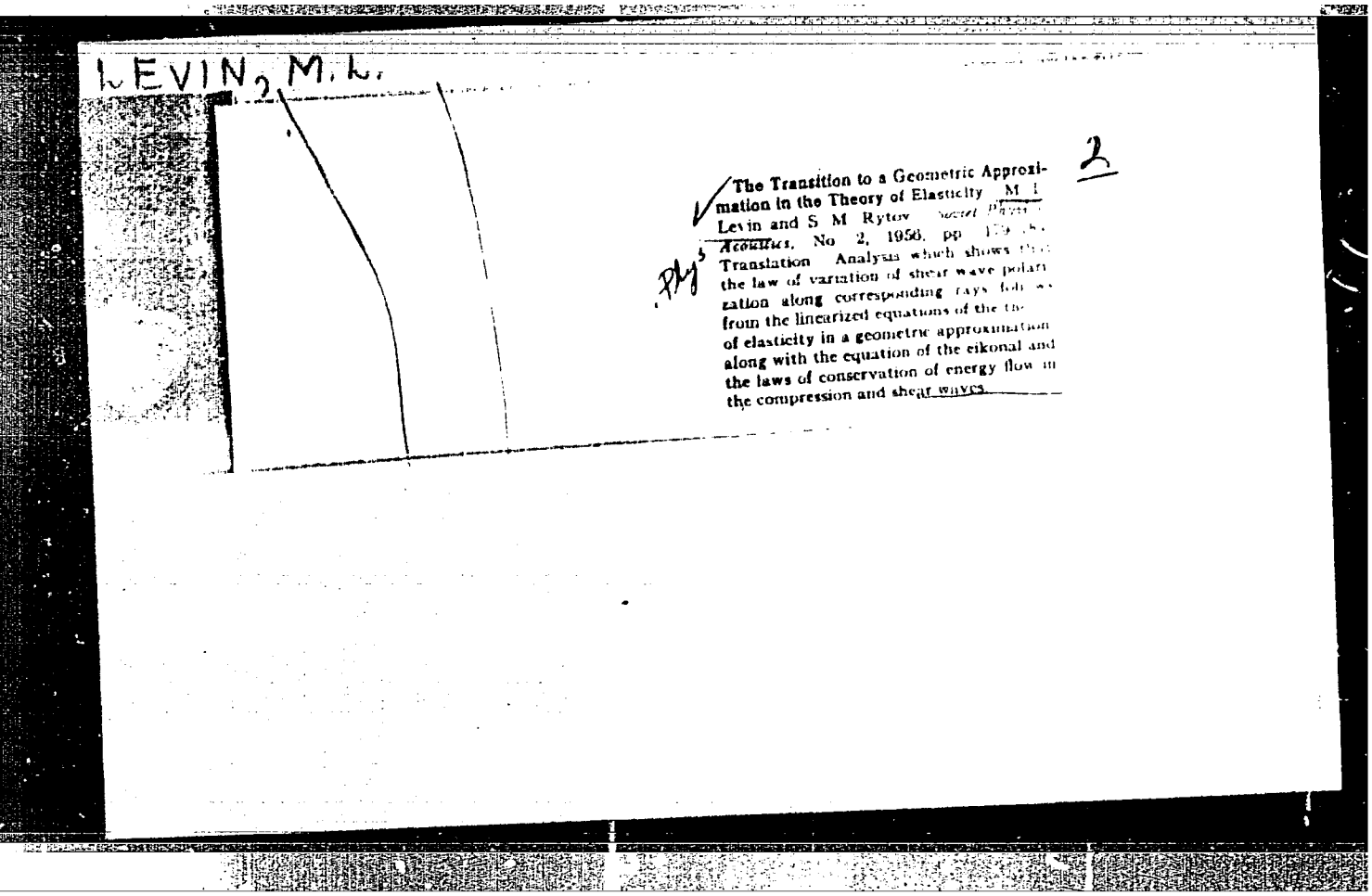

LEVIN, M.L.

2

The Transition to a Geometric Approximation in the Theory of Elasticity. M. L. Levin and S. M. Rytov. Soviet Physics - Acoustics, No. 2, 1956, pp. 179-186. Translation. Analysis which shows that the law of variation of shear wave polarization along corresponding rays follows from the linearized equations of the theory of elasticity in a geometric approximation along with the equation of the eikonal and the laws of conservation of energy flow in the compression and shear waves.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

SUBJECT USSR / PHYSICS
AUTHOR LEVIN,M.L.
TITLE The Thermal Radiation of Bodies with Good Conductivity.
PERIODICAL Zurn.eksp.i teor.fis,31, fasc.2, 302-316 (1956)
Issued: 10 / 1956

This radiation is here investigated by the method of the electrodynamic theory of thermal fluctuations.

The thermal field in the wave zone: The determination of the thermal radiation of heated bodies may be considered as a problem of phenomenological dynamics if as sources of this radiation chaotic foreign fields or equivalent foreign flows with the correlation radius zero are introduced. Because of the reciprocity theorem of electromagnetism the problem can be considerably simplified if the solution of the corresponding auxiliary diffraction problem is known. At first an expression for the spectral density of bodies with good conductivity is given. The exact solutions of the diffraction problems represent functional series which, if inserted into the dimensionless direction- and polarization function, result in a series for the suitable determination of G. In this case, however, attention is confined to cases in which all dimensions of the body are either large or small compared with the wavelength. The approximated solutions of the diffraction problem (geometric optics, quasisteady approximation) can be used which result in finite analytical expressions for G. At first the shortwave radiation of a thin plate and of a body of revolution with symmetry center is computed. If, however, the wavelength is large compared with the dimensions of

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LEVIN, M.L.

I-3

Category : USSR/Radiophysics - Statistical phenomena in radiophysics

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 1793

Author : Levin, M.L., Ginzburg, V.L.
Title : On the Application of Thermodynamics to Electrical Fluctuations

Orig Pub : Uspekhi fiz. nauk, 1956, 56, No 1, 146-148

Abstract : Last articles of a discussion (Referat. Zh. Fizika, 1954, 13 431, 13 432). M.L. Levin discusses in his article the example cited by V.L. Ginzburg and representing, in Levin's opinion, the only physical argumentation of the previous answer by Ginzburg (Referat. Zh. Fizika, 1954, 13432): a thin (compared with the thickness of the skin layer) conductor at the temperature of $0.1^{\circ}K$, for which the classical frequency region lies below 10^{10} cycles. Levin indicates, that, since the thickness of the skin layer δ at such temperatures is less than the mean free path l at such temperatures even for meter waves, it makes no sense to speak of the conductivity σ of a thin conductor. This is why Levin considers that this example by Ginzburg is unsuccessful and does not refute his earlier statements.

Ginzburg emphasized in his article that the basic statement contained in Levin's earlier articles reduces to the fact that "in the quantum frequency region one cannot assume the resistance to be independent of the frequency, even if the skin effect is not taken into account". Contradicting this,

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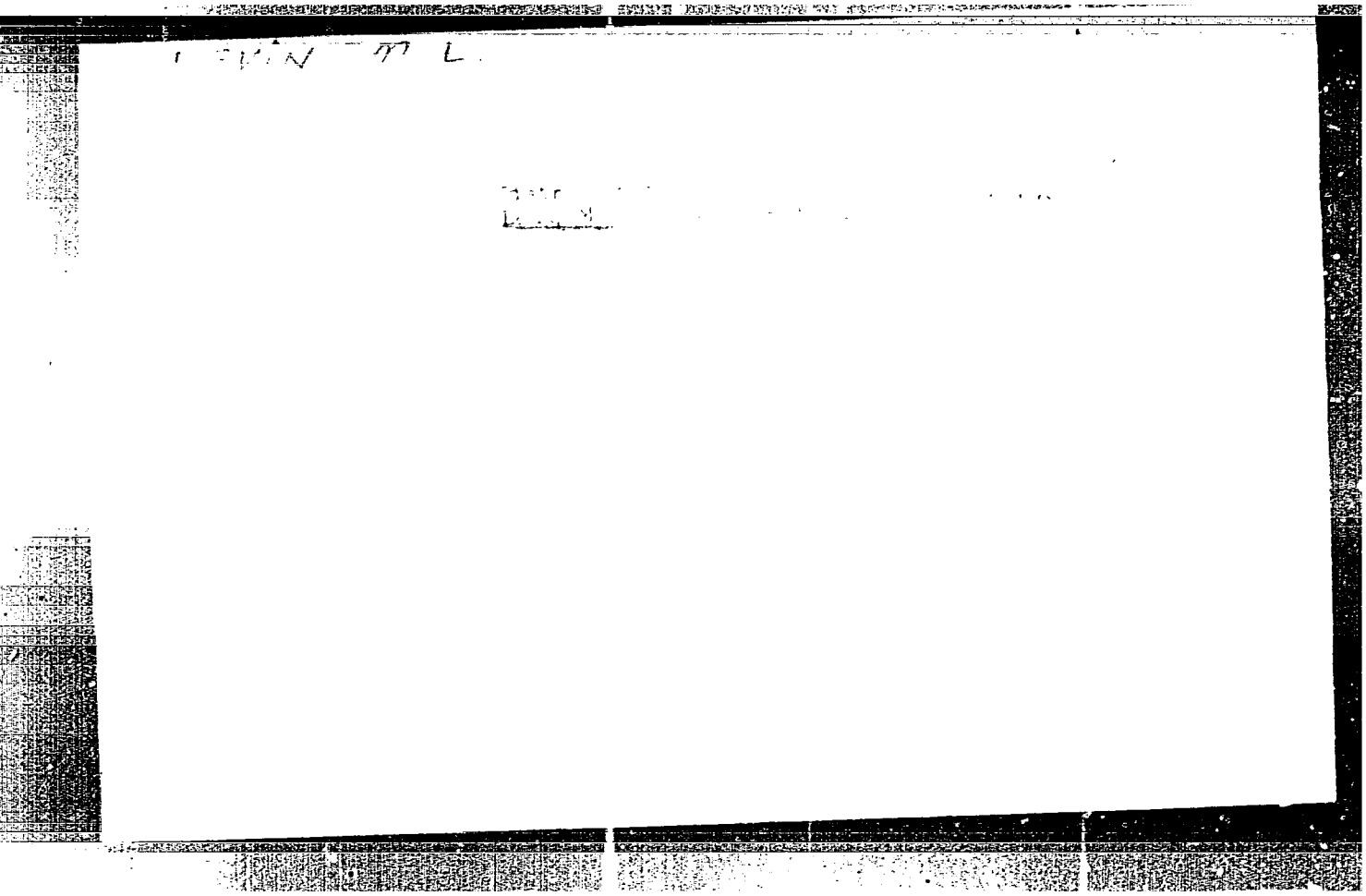

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

SOV/106-13-9-11/26

AUTHOR: Levin, M. L.

TITLE: Letter to the Editor (Pis'mo v redaktsiyu) On the Effective Index of Refraction of Some Artificial Media (Ob effektivnom pokazatele prelomleniya nekotorykh iskusstvennykh sred)

PERIODICAL: Radiotekhnika, 1958, Vol. 13, Nr 9, pp. 66-67 (USSR)

ABSTRACT: This is a note directing attention towards the assertion found in the paper by A. L. Mikaelyan (Ref 1). Mikaelyan maintains that it is possible to produce artificial media with $n_{eff}<1$ with the help of small ideally conducting ellipsoids. However, in the example given by A. L. Mikaelyan (Ref 1) an incorrect formula (A) was obtained because of errors in the numerical computation. It is pointed to the fact that in artificial media consisting of arbitrarily small ideally conducting particles n_{eff} is always greater than unity. This is due to the fact that in such a medium no dispersion of long waves is found and hence at $n_{eff}<1$ the group velocity (which in this case is equal to the phase velocity) is greater than the light velocity in empty space. Hence the formula of the [illegible] must [illegible] in ideally conducting media. There is 1 Soviet reference.

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77243
SOV/89-8-2-8/30

AUTHOR: Levin, M. L.

TITLE: Stability of Plasma Bursts in a Waveguide. Letter to the Editor

PERIODICAL: Atomnaya energiya, 1960, Vol 8, Nr 2, pp 134-135 (USSR)

ABSTRACT: To put into practice the method of radiation acceleration of plasma bursts proposed by Veksler (Atomnaya energiya, II, Nr 5, 427 (1952)), one must discuss its stability in the field of the accelerating wave. The author studied only configurations whose dimensions are small compared to the wavelength. The field over its volume is then quasi-stationary, and while the electric vector causes an electrostatic inflation, the magnetic vector produces in the conducting plasma forces of contraction. From this standpoint it is advantageous to perform the acceleration using symmetrical H-wave fields in a circular waveguide having only longitudinal magnetic components along its axis. With this situation in mind, the author

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Stability of Plasma Bursts in a Waveguide. Letter to the Editor

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discusses the deformations of a perfectly conducting plasma configuration in a quasi-stationary uniform magnetic field. The configuration is assumed to be represented all the time by a homogeneous spheroid whose axis is parallel to the outside field. Volume of the spheroid V and the ratio q of the polar to the equatorial semiaxis are used as generalized coordinates. The author found the magnetic part of the potential energy $W_M(V,q)$ following Stratton (see ref.) and the hydrodynamic part $W_H(V)$ from Poisson's equation pV^γ = = const. Together with the equation for kinetic energy K he obtained a set of equations:

$$W_M = \frac{2}{3}\frac{PV}{1-M(q)}; \quad W_H = \frac{PV_0}{\gamma-1}\left(\frac{V_0}{V}\right)^{\gamma-1};$$

$$K = \frac{m}{90}\left(\frac{3V}{4\pi q}\right)^{2/3}\left\{(q^2+2)\frac{\dot{V}^2}{V^2} + 4(q^2-1)\frac{\dot{V}}{V}\frac{\dot{q}}{q} + \right.$$

$$\left. + 2(2q^2+1)\frac{\dot{q}^2}{q^2}\right\}.$$

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where $P = 3H_0^2/16\pi$ is average magnetic surface pressure

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over a sphere (H_o = effective amplitude of the outside field); M(q) is demagnetization factor (= 1/3 for a sphere); $V_e = \frac{4\pi}{3} a^3$ is "equilibrium" volume for which p = P; m is mass of the burst. Equilibrium cannot exist due to the term W_M, and the author investigates the beginning stages of the deformations when the velocities are small compared to the sound velocity in the plasma, and the simplifications still lead to a meaningful solution. Starting with a spherical volume V_o at rest and writing $q = 1 + \eta$, $V = V_o(1 + x)$ one obtains as solutions:

$$\eta = \frac{3}{2} v \left(\frac{t}{\tau}\right)^2; \quad x = -\frac{15}{2} v (1 - v^{-\gamma}) \left(\frac{t}{\tau}\right)^2. \quad (1)$$

$$v_p = cv(5v^{-\gamma} - 3)\frac{t}{\tau}; \quad v_E = cv(5v^{-\gamma} - 6)\frac{t}{\tau}. \quad (2)$$

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Where v_p is velocity of the poles; v_E, velocity of

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equatorial points; $C = (\frac{PV_e}{m})^{1/2}$, isothermal sound velocity; $\tau = a/c$; $\nu = V_o/V_e$. At t approximately equal to τ, sonic self-oscillations start taking place, substantially affecting the stability. When the plasma configuration is displaced from the axis of the tube, the radial force acting on the burst as a whole is:

$$F_r = \frac{VH_0^2}{4\pi} \frac{\varkappa^2 + Mk^2}{1 - M^2} r,$$

where k is wave number; $\varkappa$ is critical wave number. This defocusing force F_r is large compared to the accelerating force F_z for even small displacement r. In case of a symmetrical E-wave with an effective amplitude on the tube axis E_o, the radial force is given by:

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Stability of Plasma Bursts in a Waveguide. Letter to the Editor

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$$F_r = -\frac{VE_0^2(1+M)\varkappa^2 - 2M\lambda^2}{8\pi M(1-M^2)} r_0$$

which for $k^2 < \frac{1+M}{2M^2}\varkappa^2$ (for a sphere $k < \sqrt{6}\,\varkappa$) is a focusing force. There are 2 references, 1 Soviet, 1 U.S. The U.S. reference is: J. A. Stratton, Electromagnetic Theory, M. Gostekhizdat, 1948.

SUBMITTED: June 20, 1959

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520017-6

B/137/61/000/012/011/149
A006/A101

AUTHOR: Levin, M.L.

TITLE: Experience in assembling an electric steelmelting furnace

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 12, 1961, 51, abstract 12V308 ("Montazhn. i spetsializir. raboty v str-ve", 1961, no. 7, 5 - 7)

TEXT: The author describes the assembly of 80-ton steelmelting furnaces at the Lipetsk Metallurgical Plant. Characteristics of the furnaces and accessory equipment are given. The assembly operations were divided into several sections: assembly of the furnace, assembly of the cranes and the charge-section equipment; assembly of pipelines; assembly of other equipment in the teeming section. The work was performed during 24 hours of the day; during the third shift preparatory work was carried out. An average number of 30 workers were occupied with the assembly. The equipment was delivered to the assembly site by rail-road transportation inside the building. A graph was plotted, providing the completion of the assembly within 45 days. Special attention was paid to the adjusting of individual components during the assembly and to the precision of

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