

SEROKA, Janusz, mgr inz.

Flowmeters for mass flow rate measuring. Inst lotn prace  
no.18:34-39 '63.

1. Opiniowal mgr inz. Wiktor Roth.

ACC NR: AP6030294

SOURCE CODE: PO/0102/66/000/007/0012/0019

AUTHOR: Seroka, Janusz (Master engineer)

ORG: none

TITLE: Design and research problems of turbine-type transmitters of flow meters

SOURCE: Technika lotnicza i astronautyczna, no. 7, 1966, 12-19

TOPIC TAGS: turbine, <sup>type</sup> transmitter, flow meter, flow meter transmitter

ABSTRACT: The specifications for the Soviet DR-2B, DRM, RTS-16, and RTMS transmitters (the last two used for aircraft fuel flow meters) and six Polish transmitters are given. Some results of the testing and investigating various flow meters and flow meter transmitters, carried out at the Institute of Aeronautics in Warsaw, are included. Orig. art. has: 5 figures.

SUB CODE: 14/ SUBM DATE: none/ ORIG REF: 007/ OTH REF: 006/ SOV REF: 001/

Card 1/1

UDC: 681.121.3

L 36166-66 EWP(k)/ENP(h)/ENP(v)/ENP(1) WVH

ACC NR: AT6015512

SOURCE CODE: PO/2532/65/000/025/0017/0023

AUTHOR: Seroka, Janusz --Seroka, Ya. (Master engineer)

ORG: none

TITLE: The problem of the time constant of the pickup of a turbine flow meter 4

SOURCE: Warsaw. Instytut lotnictwa. Prace, no. 25, 1965, 17-23

TOPIC TAGS: flow meter, time constant, turbine flow meter, TURBINE ENGINE

ABSTRACT: The theoretical considerations contained in the present paper are concerned with dynamic problems of the pickup unit of a turbine flow meter and are connected with the research work on flow meters in the Department of Aircraft Instruments of the I. L. (Institute of Aeronautics). The numerical data quoted are those published by flow-meter producing firms or from technical literature on the subject. This work was evaluated by Victor Roth, Master of Arts, Engineer. Orig. art. has: 7 figures, 1 table, and 16 formulas. [Author's abstract.] [KS]

SUB CODE: 2 / / SUBM DATE: none / ORIG REF: 005 / OTH REF: 002

Card 1/1/1/1

UDC: 681.121.89:532.575.57

ĖPSHTEYN, Ye.F.; MOSKALEV, A.N.; SERCGODSKIY, A.V.; PIGIDA, Ye.Yu.;  
TANTSURA, V.A.

Investigating the operation of a gasoline and air jet-piercing  
machine. Gor. zhur. no.4:35-37 Ap '65. (MIRA 18:5)

1. Dnepropetrovskiy gornyy institut (for Epshteyn). 2. Filial  
Instituta mekhaniki AN UkrSSR (for all except Epshteyn).

SOV/163-59-2-16/48

18(3)

AUTHORS:

Glinkov, M. A., Serokhvostov, A. L.

TITLE:

A Model Investigation of the Processes of Settling and Carrying-out of Dust in Steel-melting Furnaces (Issledovaniye na stende protsessov osedaniya i vynosa pyli v staleplavil'nykh pechakh)

PERIODICAL:

Nauchnyye doklady vysshey shkoly. Metallurgiya, 1959, Nr 2, pp 84-89 (USSR)

ABSTRACT:

The model of a steel-melting furnace was made of plexiglass on a scale of 1 : 15 (Fig 1). The air supply working as a model of the gas circulation could be blown in, as in the original, as a direct current with unilateral and double return flow. To imitate the coarse-grained dust, water was introduced into the tank of the model, and air was blown in by a series of tubes under the water surface. The drops carried away were collected in 14 measuring points (Fig 2) by means of rolls of filter paper. For the finer dust fraction, the metal level of the tank was represented by a metal foil with 25 openings by which overheated vapor was blown and then was absorbed in the measuring points by cartridges of powdered sugar. Figures 3-5 show the dust settling under

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SOV/163-59-2-16/48

A Model Investigation of the Processes of Settling and Carrying-out of  
Dust in Steel-melting Furnaces

different conditions of circulation. In direct blowing and with a unilateral return flow, the maximum of dust settling lies opposite to the flame. In the cross section, the dust settles for the most part in the lower section of the side walls. With the double return flow, the maximum of dust settling lies in the meeting point of the two flames. The settling of the coarse dust fraction proceeds more irregularly than that of the fine dust. By reversing the flame, the dust settling does not change, but it becomes more regular. In case of a gas return flow, only fine dust is carried out of the furnace. The maximum dust escape from the furnace is produced by direct blowing; the minimum in case of a double return flow. There are 5 figures.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: July 11, 1958

Card 2/2

GLINKOV, M.A.; SEROKHVOSTOV, A.L.

Mechanics of gases in the hearth of a uniflow and recirculating  
type steel smelting furnace. Izv. vys. ucheb. zav.; chern. met.  
5 no.7:188-195 '62. (MIRA 15:8)

1. Moskovskiy institut stali i splavov.  
(Smelting furnaces) (Gas flow)

GLENKOV, M.A.; SEROKHOVOSTOV, A.L.

Mixing of flows in blast furnace hearths with unidirectional flow and recirculation. Izv. vys. ucheb. zav.; chern. met. 6 no.3: 203-208 '63. (MIRA 16:5)

1. Moskovskiy institut stali i splavov.  
(Blast furnaces—Combustion) (Gas flow)



СЕРОКИНОВСКИЙ, А. Л.

Dust formation during the blowing of an open-hearth furnace bath  
by oxygen. Izv. vys. ucheb. zav.; chern. met. 7 no.6:52-55 '64.  
(MIRA 17:7)

1 Chelyabinskiy politekhnicheskiy institut.

TOLSTIKOV, V., komandir roty, starshiy leytenant; DUBININ, N., pod-  
polkovnik; KOTEL'NIKOV, A., kapitan; SAVECHENKOV, leytenant;  
SEROKHVESTOV, N., komandir roty, gvardii kapitan; DEMIDOV, A.,  
podpolkovnik; CHIRKOV, N., komandir roty, kapitan; DEBZHANOV-  
SKIY, S., komandir roty, gvardii kapitan; SOKOLOV, A.,  
mladshiy serzhant

Solution of tactical problems published in no. 8. Voen.vest. 38  
no.12:41-43 D '58. (MIRA 12:1)

(Tactics)

SINELOBOV, M.A.; SAMOYLOVA, S.A.; SEROKHVESTOV, V.V.

Using the chemical action in the tapping of tar-impregnated wood.  
Gidroliz. i lesokhim.prom. 14 no.4:16-17 '61. (MIRA 14:5)

1. Nauchno-issledovatel'skiy tekhnokhimicheskiy institut.  
(Turpentine)

SEKOKLINOV, N.P.; YATSENKO, N.Z.

Tanks for retting jute fibers. Tekst.prom.14 no.3:49-50 Mr '54.  
(MLBA 7:5)

(Jute)

TONKEL, I., inzh.; BELENOV, I., inzh.; SEROKO, V., inzh.

How to protect the wood of birch from rot. Mast.lesa no.5:11  
My '57. (MIRA 10:10)

1. Tsentral'nyy nauchno-issledovatel'skiy institut lesosplava.  
(Birch) (Wood--Préservation)

TWOREK, Romuald; SEROKOWA, Danuta

Isolation of *Brucella suis* from a hare. *Przegl. epidem., Warsz.*  
10 no.4:369-370 1956.

1. Z Zakładu Epidemiologii PZH Kierownik: prof. dr. J. Kostrzewski.  
(BRUCELOSIS *suis*,  
in hare (Pol))  
(RODENTS, dis.  
brucellosis *suis* in hare (Pol))

TWOREK, Romuald; SEROKOWA, Danuta; MACHNICKA, Barbara

Brucellosis on a fox farm. Przegł. epidem., Warsz. 11 no.3:307-308 1957.

1. Z Zakładu Epidemiologii P. Z. H.

(BRUCELLOSIS, epidemiol.  
in foxes (Pol))

(ANIMALS, dis.  
brucellosis in foxes (Pol))

TWOREK, Romuald; SZROKOWA, Danuta, asyst. tech. Barbara Kreska

Essay of the evaluation of usefulness of opsonic phagocytosis  
reaction in laboratory diagnosis of brucellosis. Przegl. epidem.,  
Warsz. 13 no.3:263-271 1959

1. Z Zakładu Epidemiologii P. Z. H. Kierownik: prof. dr J. Kostrzewski.  
(BRUCELLOSIS, diag.) (PHAGOCYTOSIS)



TWOREK, Romuald; SEROKOWA, Danuta

Examination of cattle for Q fever by means of milk capillary agglutination reaction in north-eastern parts of Poland. Przegł. epidem., Warsz. 13 no.3:273-276 1959.

1. Z Zakładu Epidemiologii P. Z. H. Kierownik: prof. dr J. Kostrzewski.  
(MILK, microbiol.) (Q FEVER, prev. & control)

OSWALDO-RUSINOWA, Aldona; TWOREK, Romuald; SEROKOWA, Danuta, przy wspol-  
udziale rejonowego lek.wet. OLSZOWKA, Wiktor.

Investigations for the detection of brucellosis in state farms in  
the Warsaw region. Przegl.epidem.13 no.4:371-377 '59.

1. Z Działu Klinicznego PZH i II Kliniki Chorob Zakaznych A.M. w  
Warszawie. Kierownik: prof.dr.med. B. Kassur i Zakladu Epidemiolo-  
gii PZH. Kierownik: prof.dr.med. J. Kostrzewski.  
(BRUCELLOSIS epidemiol.)

21

- 1. "The Role of Animals in the Problem of Tumors," Prof. Dr. Aleksander ZARZYNSKI; pp 63-68.
- 2. "The Problem of Karamanov's," Stanislaw KIRKOR of the Research Office for Bacteriology, Parasitology and Infectious Diseases (Zaklad Bakteriologii, Parazytologii i Infekcyjnych ChOROBY) of the Institute for Veterinary Science (Instytut Weterynaryjny) in Saratov (Director: Prof. Dr. S. KIRKOR); pp 68-71.
- 3. "Observations on the Types of Vibrios Found in the Praepores of Bacteria," N. HOPEK and Z. RYKOWICZ of the Chair of Bacteriology and Pathology of Reproduction (Katedra Bakteriologii i Patologii Rozrodu) of the Institute of Veterinary Science (Instytut Weterynaryjny) of the Faculty of Veterinary Science (Wydział Weterynaryjny) of the State School of Rural Economy in Warsaw (Dzielnica Państw. Szkoły Wzrostu Rolniczego) at Warsaw (Summary); pp 71-72 (English summary); Prof. Dr. Roman HOPEK; pp 71-72 (English summary).
- 4. "Amplifications in Cattle," Dr. M. J. SAS PROPIWICKI; pp 72-79.
- 5. "Salmonellosis of Cattle in Poland during 1957-1960," Stanislaw KUJAWSKI of the Veterinary Research Office (Instytut Weterynaryjny) at Warsaw (Director: Dr. S. MOSZYNSKI); pp 79-83.
- 6. "Typhoid in Wild Animals in Poland During 1957-1960," Hanna LEWANDOWSKA of the Bacteriology Research Office (Instytut Bakteriologii) of the Polish Academy of Sciences (Instytut Bakteriologii PAN) at Warsaw (Director: Prof. Dr. J. KOZMINSKI); pp 83-84.
- 7. "Some Notes on Rhinitis aerophilum in Pigs," Stefan ŻUKIŁ of the General Bacteriology Research Office (Instytut Bakteriologii Ogólnej) of the Institute of Veterinary Science (Instytut Weterynaryjny) at Warsaw (Director: Prof. Dr. Stanislaw KUJAWSKI); pp 85-87.
- 8. "Attempts to Differentiate Strains of the Hemorrhagic Disease Virus on the Basis of the Adhesiveness," Jerzy MIRZEWICKI; pp 88-91.
- 9. "Notes on the Tuberculin Test in Horses," Polina M. KOZLOVSKA; p 91.
- 10. "Results of Control of Liver Fluke Disease in the

SEROKOWA, Danuta

Epizootic situation of rabies in Poland in 1959-1960 in relation to observations on rabies in wild animals during the post-war period. Przegl. epidem. 15 no.4:173-185 '61.

1. Z Zakladu Epidemiologii PZH Kierownik prof. dr J. Kostrzewski.

(RABIES epidemiol)

SEROKUROV, V.M.

Early maturity in young cattle of various body conformation types.  
Zhivotnovodstvo 23 no.2:70-74 F '61. (MIRA 15:11)

1. Direktor Katsmanskoy stantsii po plemennoy rabote i iskusstvennomu  
osemeneniyu sel'skokhozyaystvennykh zhivotnykh.  
(Bukovina—Cattle)

*СЕРОКУРОВА, Н.А.*  
MIRZOYAN, N.A.; SEROKUROVA, N.A.

Treating malaria patients with synthetic preparations Nos. 333 and 343. Med. paraz. i paraz. bol. supplement to no. 1:23 '57. (MIRA 11:1)

1. Iz Instituta malyarii i meditsinskoy parazitologii Ministerstva zdravookhraneniya Uzbekskoy SSR.  
(ANTIMALARIALS)

ГОРНЧИКОВ, П.Ф., инж.; СЕРОВ, ВЕНДИ, А.И., инж.

Multiple-purpose drill with a head for removing creasers from  
cylindrical parts. Mashinostroenie no.1:74 Ja-F '64.

(MIRA 17:7)

SEROPEGIN, I.M., dotsent

Swimming. Zdorov'e 5 no.7:9 J1 '59.  
(SWIMMING)

(MIRA 12:11)



SEROPIAN, E., dr.; GRECEANU, I., dr.

Contributions to the study of the diagnosis of allergic rhinitis.  
Med. intern., Bucur 12 no.7:1085-1092 JI '60.  
(HAY FEVER, diagnosis)

PAUNESCU, C., conf.; SEROPIAN, E., dr.; NESTOR, Georgeta, dr.; PAVEL, Irina,  
interna

Some aspects of the diagnosis and treatment of lupus nephropathy.  
Med. intern. 14 no.9:1087-1091 S '62.

1. Lucrare efectuata in Clinica medicala, Spitalul "Carol Davila",  
Bucuresti.

(LUPUS ERYTHEMATOSUS, SYSTEMIC) (GLOMERULONEPHRITIS)  
(NEPHROTIC SYNDROME) (PYELONEPHRITIS)

SEROPIAN, E.; GRECEANU, I.; BELOIU, D.

Criteria for appraising the value of diagnostic methods used for determining the etiology of respiratory allergies. Rumanian med. rev. 19 no.3:29-33 J1-S '65.

*Seropian, E.*

ROMANIA

SEROPIAN, E., MD, Cand Med Sci; MOLDOVAN, T., MD.

Section of Allergy Diseases of the "C. Davila" Hospital  
(Serviciul de boli alergice al Spitalului "C. Davila")  
- (for all)

Bucharest, Viata Medicala, No 6, 15 Mar 63, pp 407-418.

"Lethal Allergic Emergencies."

( 2 )

LUPU, N., Gh., Acad.; KELEMEN, A., Conf.; SEROPIAN, V.

Problems concerning methods of teaching clinical medicine in  
medical schools. Med. int., Bucur. 8 no.3: 323-328 July 56.

(EDUCATION, MEDICAL  
in Rumania, teaching of clin. med.)

SEROPIAN, E., dr.; CIOCIRLIC, D., dr.; GHERASIM, L., dr.

Contributions to the study of corticotherapy in exudative pericarditis (10 cases). Med. int., Bucur. 12 no.1:63-71 Ja '60.

(PERICARDITIS, therapy)

(ADRENAL CORTEX HORMONES, therapy)

LAZARESCU, Cl., ing.; DECULESCU, Evantia, arh.; SPAMATE, S., ing.; CRAPAN,  
N., ing.; SERGIAN, H., arh.

Designing out new types of furniture for combined rooms. Ind lemruului  
15 no.11:431-439 N '64.

SEROPIAN, Ye.; GRECHANU, I.; IOAN, A. (Bucharest)

Treatment of severe forms of bronchial asthma with ACTH and cortisone. Klin.med. 37 no.6:149-151 Je '59. (MIRA 12:8)

1. Iz terapevticheskoy kliniki Koltsya pri Institute usovershenstvovaniya i spetsializatsii vrachey (dir. - prof.B Teodoresku).

(ASTHMA, ther.

ACTH & cortisone alone & in combination (Rus))

(ACTH, ther. use

asthma, with & without cortisone (Rus))

(CORTISONE, ther. use

asthma, with & without ACTH (Rus))



SEROPIAN, E., dr.; GRECEANU, I., dr.

The value of cutaneous tests in allergological investigations. Med. intern., Bucur 13 no.2:249-257 F '61.

1. Lucrare efectuata in Clinica medicala Spitalul "Fundeni", directorul clinicii conf. C. Paunescu.

(ALLERGY diagnosis) (SKIN pharmacology)

SEROPIAN, E., dr., candidat in stinta medicala; IOAN, Al., dr.; PIRVULESCU, M., dr.

The coefficient of oxygen utilization in mitral stenosis. Med. intern.  
14 no.6:667-671 Je '62.

1. Lucrare efectuata in Clinica medicala "Coltea" (director: prof.  
B. Theodorescu).  
(MITRAL STENOSIS) (RESPIRATORY FUNCTION TESTS)  
(TISSUE METABOLISM)

PAUNESCU, C., conf.; SEROPIAN, E., dr.; COMOROSAN, S., dr.; OANCEA, R., dr.;  
SORIN, E., dr.; SAFIRESCU, Gh., dr.; PANAITESCU, Gh., dr.; SOIMU, I., dr.;  
GRECEANU, I., dr.; CIRJAN, M., chim.

Clinical and biochemical aspects of atherosclerosis in young persons.  
Med. intern. 14 no.8:937-944 Ag '62.  
(ARTERIOSCLEROSIS) (HYPERCHOLESTEREMIA)  
(LIPOPROTEINS)

SEROPIAN, E., dr., candidat in stiinte medicale; GRECEANU, I., dr.  
BELOIU, D., dr. (Bucuresti)

Criteria for evaluation of diagnostic methods for determining  
the etiology of some respiratory allergies. Med. intern.  
(Bucur.) 16 no.12:1465-1470 D '64

1. Lucrare efectuata in Serviciul de boli alergice, spitalul  
"Dr.C.Davilla".

SEROPIAN, E., dr.; BELOIU, D., dr.; GRECEANU, I., dr.

Exo-allergy to a posterior pituitary hormone preparation in cases of diabetes insipidus. Med. intern. (Bucur.) 16 no.12: 1489-1492 D '64

1. Lucrare efectuata in Serviciul de boli alergice, Spitalul "Dr.C.Davilla", Bucuresti.

SEROPIAN, A.M., inzh.

Achievements of the Special Construction Bureau "Industrial  
Instruments" in the manufacture of analytical instruments.  
Priborostroenie no.2:17-22 F '65. (MIRA 18:3)

SEROPIAN, K.A., kand.med.nauk

Prevention of venereal and skin diseases in the Albanian People's Republic [with summary in English]. Vest.derm. i ven. 32 no.4:53-55 JI-Ag '58 (MIRA 11:10)

1. Iz kafedry dermato-venorologii Tiranskogo meditsinskogo instituta Albaniya:

(VENEROLOGY DISEASES, prev. & control.  
in Albania (Rus))

(SKIN DISEASES, prev. & control.  
same (Rus))

SEROPYAN, K.A., kand. med. nauk; KIRCHIKU, K.; TSARIDA, M.; BASHA, Sh.;  
GOSTEVSKIKH, M.Ye.

Intra-arterial injection of novocaine solutions in treating skin  
diseases. Vest. derm. i ven. 33 no.2:82 Mr-Apr '59. (MIRA 12:7)

1. Iz kliniki kozhno-venericheskikh bolezney meditsinskogo instituta  
g. Tirana (Albaniya).  
(SKIN--DISEASES) (NOVOCAINE)



SEROSHEVSKIY, Yu.; PALYUKH, O.; PALINSKA-VREZE, Z.

Significance of paratypy in clinical practice. Akush.i gin. 35 no.4:  
78-83 Jl-Ag '59. (MIRA 12:11)

1. Iz akushersko-ginekologicheskoy kliniki (dir. - prof. Yu. Sero-  
shevskiy) Meditsinskoy akademii v Lodzi.  
(CERVIX UTERI pathol.)



1. MARTSENIUK, G. SEROSHTAN, G.
2. USSR (600)
4. Grasses
7. Cultivating seeds of perennial grasses on irrigated plots. Kol'kh. proizv. (no. N '52.

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

SEROSHATAN, N.A.; TOCHENYY, P.A., red.; LIMANOVA, M.I., tekhn.red.

[Applying the law of value in collective farm production]

Ispol'zovanie zakona stoimosti v kolkhoznom proizvodstve.

Khar'kov, Khar'kovskoe knizhnoe izd-vo, 1959. 74 p.

(Collective farms)

(MIRA 13:1)

SEROSHIAN, Nikolay Antonovich; VEROB'YEV, Yevgeniy Nikhlaylovich;  
LETICHEVA, I.D., red.

[Important source for the increase of national wealth]  
Vazhnyi istochnik rosta obshchestvennogo bogatstva.  
Khar'kov, Frapor, 1964. 33 p. (MIRA 18:1)

BEREZHNOY, I.N.; SEROSHTAN, V.I.

Selective mining of refractory clays and kaolins by rotary excavators.  
Ogneupory 30 no.3:16-24 '65. (MIRA 18:5)

1. Trest "Ogneupornerud" (for Berezhnoy). 2. Nauchno-issledovatel'skiy gornorudnyy institut (for Seroshtan).

SEROSHTAN, V.I.; CHEREVKO, A.S.

Quick-removable device for measuring tension in cables.  
Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch.  
i tekh. inform. 18 no. 12:61-62 D '65 (MIRA 19:1)

SEROSTANOV, G.I., inzhener.

Experience in using traveling gantry cranes. Biul.tekh.inform.  
3 no.9:11-14 S '57. (MIRA 10:11)  
(Cranes, derricks, etc.) (Building)



SEROSTANOV, G., inzh.

Using gantry cranes in building large-panel apartment houses.  
Stroitel' no.2:8 F '58. (MIRA 11:2)  
(Cranes, derricks, etc.)

SEROSTANOV, G., inzh.

Assembling precast houses by mounting elements directly from trucks.  
Stroitel' no.7:3-4 Jl '58. (MIRA 11:9)  
(Precast concrete construction)

SEROSIMONOV, G. I.: Master Tech Sci (diss) -- "Investigation of methods of assembling large-panel frameless multi-story residence buildings by gantry cranes". Moscow, 1959. 26 pp (Min Higher Educ USSR, Moscow Order of Labor Red Banner Construction Engineering Inst Im V. V. Kuybyshev), 130 copies (KL, No 13, 1959, 107)

SEROSTANOV, G., inzh.

A rolled-panel house is being built. Stroitel' no.1:3-6 Ja '59.  
(MIRA 12:3)  
(Moscow--Apartment houses) (Concrete slabs)

SEROSTANOV, G., kand. tekhn. nauk.

Assembling houses of prefabricated room units. Zhil. stroi.  
no. 12:24-25 '59. (MIRA 13:4)  
(Lyublino--Precast concrete construction)

SEROSTANOV, G.I., kand. tekhn. nauk

What's new in blast-furnace construction. Prom. stroi. 37 no.11:32-36  
N '59. (MIRA 13:2)

1.Nauchno-issledovatel'skiy institut stroitel'noy promyshlennosti  
Minstroya RSFSR. (Blast furnaces) (Precast concrete construction)

SEROSTANOV, Grigoriy Ivanovich, kand. tekhn. nauk; LEONIDOV, N.K., inzh.,  
nauchnyy red.; SKVORTSOVA, I.P., red. izd-va; SHLENSON, P.G., tekhn.  
red.

[Mounting structural parts of a blast furnace with the BK-1425 crane]  
Montazh konstruksii domennoi pechi kranom BK-1425. Moskva, Gos. izd-  
vo lit-ry po stroit. arkhitekt. i stroit. materialam, 1961. 37 p.  
(MIRA 14:7)

(Blast furnaces—Design and construction)  
(Cranes, derricks, etc.)

SEROSTANOV, V.M.

Tool handling in machine construction plants. Avt. trakt. prom.  
no. 6:8-10 Je '54. (MLRA 7:7)

1. Stalingradskiy traktorny zavod.  
(Machinery industry) (Engineering--Tools and implements)



SEROSTANOV, V.M.

Reorganization of production accounting systems in foundries.  
Avt. trakt. prom. no.7:1-3 J1 '55. (MIRA 8:9)

1. Stalingradskiy traktorny zavod.  
(Foundries--Accounting) (Labor productivity)

SEROSTANOV, V.M.

Simplify record keeping in delivering parts and units to assembly plants. Avt. i trakt. prom. no.1:3-5 Ja '56. (MLRA 9:6)

1. Stalingradskiy traktornyy zavod.  
(Automobile industry--Accounting)

SEROTKIN, V. P.

Serotkin, V. P. "A new system of linking circular water supply systems,"  
San. tekhnika, Issue 2, 1948, p/ 82-91

SO: U-2888, Letopis Znurnal'nykh Statey, No. 1, 1949

STATION, T. S.

Calculated high-voltage body insulation of stator winding sections  
of electric motors. *Elek. tekhn.-elek. inform. Gos. nauch.-issl. inst.  
rach. tekhn. inform.* 18 no. 5333-35 My '65.

(MIRA 1965)

KAUGANBAYEV, N.K., dorozhnyy master (st. Besh-Arik, Kazakhskey dorogi);  
SEHOUS, T.P., dorozhnyy master (st. Svyatogorskaya, Dneprskoy dorogi);  
PASHUTIN, S.B.; KULISH, P.A.

Letters to the editor. Put' i put.khoz. 6 no.3:31 Mr '62.  
(MIRA 15:3)

1. Dezhurnyy po stantsii i obshchestvennyy avtoinspektor, stantsiya  
Kul'bakino, Odesskoy dorogi (for Pashutin). 2. Pomoshchnik  
uchastkovogo revizora po bezopastnosti dvizheniya poyezdov,  
st. Kaliningrad, Litovskoy dorogi (for Kulish).  
(Railroads)

SEROV, G.D.

Recording of the typhoid fever phage titer growth reaction  
using an indicator medium. Zhur.mikrobiol., epid. i immun.  
42 no.12:87-89 D '65. (MIRA 19:1)

GALKIN, Mikhail Fedorovich; SOLITSEV, Yuriy Porfir'yevich; SEROV,  
Gennadiy Vladimirovich; SOKOLOV, A.N., red.; KATSMEL'SON,  
N.Ye., red.izd-va; GVIRTZ, V.L., tekhn. red.

[Improved procedure for the smelting of 1Kh18N9TL steel]  
Usovershenstvovanie tekhnologii vyplavki stali 1Kh18N9TL  
Leningrad, 1962. 20 p. (Leningradskii dom nauchno-  
tekhnicheskoi propagandy. Obmen poredovym opytom. Seriya:  
Liteinoe proizvodstvo, no.4) (MIRA 15:10)  
(Chromium-nickel steel--Metallurgy)

LUKANIN, A.A.; STRAKHOV, V.M.; KOBOBYNIKOV, V.V.; SEROV, G.V.; MASHIN, V.G.

Influence of the quality of the carbon reducing agent on production indices of 75% ferrosilicon. Stal' 24 no.11:1004-1006 N '64.

(MIRA 18:1)



MIZIN, V.G., inzh.; SAFONOV, B.P., inzh.; SEROV, G.V., inzh.; KOROBENNIKOV,  
V.V., inzh.; FISHMAN, B.D., inzh.; STRAKHOV, V.M., inzh. NIKITIN, Yu.K.

Production of 75% ferrosilicon with coke from a charge with  
an increased content of gas coal. Stal' 25 no.2:133-135  
F '65. (MIRA 18:3)

1. Kuznetskiy zavod ferrosplavov i Kuznetskiy filial Vostochnogo  
nauchno-issledovatel'skogo uglekhimicheskogo instituta.

SEROV, I.

Our experience in organizing wood turning. Politekh.obuch. no.2:90-92  
F '59. (MIRA 12:3)

1. Pedagogicheskiy institut, g. Gor'kiy.  
(Turning)

SEROV, I.A. (Yaroslavl', Grazhdanskaya ul., d. 17-A, kv.64)

Connections between nerves of the internal auditory meatus of the temporal pyramid in man [with summary in English]. Arkh.anat. gist. i embr. 35 no.1:48-51 Ja-~~V~~'58. (MIRA 11:4)

1. Iz kafedry normal'noy anatomii (zav. - prof. A.V.Votrin)  
Yaroslavskogo gosudarstvennogo meditsinskogo instituta.  
(EAR MIDDLE, innervation,  
connection between nerves (Rus))

VASIL'YEV, G.Ya.; SHVARTS, A.G.; SEROV, I.A.; MESROPOV, Yu.D.; Priniĭali  
uchastiye: BARANOV, S.B.; BISEROVA, A.A.; GINZBURG, L.V.;  
GGROKHOV, N.D.; KARAPETYAN, D.A.; KEPERSHA, L.M.; MAMEDOVA; M.M.

Manufacture of diaphragms at the Baku tire factory. Kauch.i rez.  
21 no.1:45-47 Ja '62. (MIRA 15:1)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti  
i Bakinskiy shinnyy zavod.  
(Baku—Tires, Rubber)

BERGV, I.A., kand. med. nauk

Case of persistent stapedia artery in man. Zhur. ush., nos. 1  
gor. bol. 24 no. 185-86 Ja-F '64. (MIRA 18:3)

1. Iz otorinolaringologicheskogo otdeleniya gorodskoy detskoy  
bol'nitsy g. Vladimira.

L 40172-06 EnI(m)/EWP(j) LJP(c) DJ/RM

ACC NR: AP6021204

(A)

SOURCE CODE: UR/0138/66/000/003/0016/0018

AUTHOR: Epshteyn, V. G.; Vasil'yev, G. Ya.; Serov, I. A.; Kurakin, K. A.; Iyapina, L. A.; Polyak, M. A.ORG: Yaroslavl Technological Institute (Yaroslavskiy tekhnologicheskii institut)

TITLE: New type of softener with an aromatic base

SOURCE: Kauchuk i rezina, no. 3, 1966, 16-18

TOPIC TAGS: rubber chemical, petroleum product, plasticizer

ABSTRACT: In order to broaden the source of raw materials for the rubber industry, an extract named "azaroplast" (Azerbaydzhan aromatic plasticizer),<sup>15</sup> obtained from the furfural purification of lubricating oils of Baku crudes, was tested as a softener. Azaroplast was tested in comparison with other commonly used softeners in standard mixes based on NK natural rubber<sup>12</sup> and butadiene-styrene<sup>15</sup> SKS-30ARK<sup>12</sup> rubber and in a tread mix consisting of 70% SKS-30ARK and 30% NK. The tests showed azaroplast to surpass the other softeners in plasticizing effect. The vulcanization rate of mixes containing azaroplast was practically the same as that of mixes with the other softeners. Vulcanizates of standard mixes based on NK and SKS-30ARK and containing azaroplast had increased strength characteristics. Replacement of mazut with azaroplast in tread mixes will permit a considerable increase in the extrusion rate and produce higher strength

Card 1/2

UDC: 678.049.37.004.12

L 40172-00

ACC NR: AP6021204

0

characteristics. Orig. art. has: 3 figures and 2 tables.

SUB CODE: 11/ SUBM DATE: 07Oct64/ ORIG REF: 004/ OTH REF: 002

Card 2/2 *flh*

SEKHOV, I.B.

Wages of workers employed in the machine shops of alcohol plants.  
Spir. prom. 23 no.3:24 '57. (MLRA 10:6)

1. Korostyshevskiy spirtovoy zavod.  
(Wages)



FISHKOV, Il'ya Alekseyevich; SEROV, I.D., red.; ZAKHARIKOV, A.N.,  
red.izd-va; MURASHOVA, V.A., tekhn.red.

[Postwar struggle of the Communist Party for the restoration  
and development of the socialist national economy, 1945-1953]  
Bor'ba Kommunisticheskoi partii za vosstanovlenie i razvitie  
sotsialisticheskogo narodnogo khoziaistva v poslevoennyi  
period, 1945-1953 gody; materialy k lektsiiam po kursu "Istoriia  
KPSS." Moskva, Gos.izd-vo "Vysshiaia shkola," 1960. 121 p.  
(MIRA 14:12)

(Communist Party of the Soviet Union)  
(Russia--Economic conditions)

BERGV, I. I.

Reforestation

Methods of producing forest stock on excessively moist lands. Les. khoz. 5  
no.7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, <sup>1952</sup> September 1953, Unclassified.

L 52169-65 EWG(j)/EWP(e)/EWT(m)/EPP(c)/EWP(1)/EWG(m)/EPR/EWP(b) Pr-4/Ps-4 WW/

WH  
ACCESSION NR: AP5015482

UR/0286/65/000/008/0016/0017  
536.5

38  
B

AUTHOR: Abrosimov, B. V.; Nagornyy, V. G.; Vyatkin, S. Ye.; Demin, A. V.;  
Serov, I. V.

TITLE: A method for determining the maximum temperature in heat treatment of carbonaceous material. / Class 12, No. 170040

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 8, 1965, 16-17

TOPIC TAGS: carbon, temperature measurement *gm*

ABSTRACT: This Author's Certificate introduces a method for determining the maximum temperature in heat treatment of a carbonaceous material. A sample of the material is heated under a load of no less than 15 kg/cm<sup>2</sup> and the maximum temperature is determined from the point where the sample begins to be deformed.

ASSOCIATION: none

SUBMITTED: 05Feb63

ENCL: 00  
NO REF SOV: 000

SUB CODE: IE  
OTHER: 000

*at*  
Cof 1/1

POPOVA, L.; BUSH, G., inzh.; BARANOVA, P.; KUZNETSOV, P.; MER, N.;  
LADYGIN, A.; PREOBRAZHENSKIY, Yu.; STEPANOV, V.; BELINSKENE, A.;  
SHUBIN, V.; SEROV, K.; MANTYAN, K.

From speeches at a conference in Riga. Izobr.i rats. no.4:6-9  
Ap '62. (MIRA 15:4)

1. Uchenyy sekretar' nauchno-metodicheskogo soveta po rabote narodnykh universitetov kul'tury Pravleniya Vsesoyuznogo obshchestva po rasprostraneniyu politicheskikh i nauchnykh znaniy (for Popov).
2. Rizhskiy myasokonservnyy kombinat (for Bush). 3. Predsedatel' L'vovskogo dorozhnogo soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov (for Baranova).
4. Prorektor universiteta tekhnicheskogo tvorchestva Amurskoy oblasti (for Kuznetsov).
5. Glavnyy inzh. lokomotivnogo depo Moskva-Sortirovochnaya, zamestitel' rektora nardcnogo universiteta (for Mer).
6. Predsedatel' soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov Novo-Kramatorskogo mashinostroitel'nogo zavoda (for Ladygin).
7. Predsedatel' Litovskogo respublikanskogo soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov (for Belinskene).
8. Zamestitel' dekana universiteta tekhnicheskogo tvorchestva pri Leningradskom Dvortse kul'tury imeni Kirova (for

(Continued on next card)

POPOVA, L. --- (Continued) Card 2.

Shubin). 9. Obshchestvennyy rektor universiteta novoy tekhniki pri Vsesoyuznom zaochnom institute inzhenerov transporta, Moskva (for Serov). 10. Obshchestvennyy direktor Kirovakanskogo instituta tekhnicheskogo tvorchestva molodykh ratsionalizatorov (for Mamyan). 11. Obshchestvennyy direktor Kiyevskogo universiteta po povysheniyu tekhnicheskikh znaniy izobretateley i ratsionalizatorov (for Stepanov). 12. Obshchestvennyy rukovoditel' Bashkirskogo instituta novatorov stroitel'noy industrii (for Preobrazhenskiy).  
(Riga--Technical education--Congresses)

SEROV, Konstantin Alekseyevich; ROZENBAUM, M.G., inzhener, konsul'tant;  
VOLOBUYEV, S.Kh., inzhener, konsul'tant; KORNILOVA, M., redaktor;  
RAKOV, S., tekhnicheskiiy redaktor

[High speed shaft sinking] Skorostanai prokhodka shadhtnykh  
stvolov. [Moskva] Izd-vo VTxSPS Profizdat, 1954. 62 p. (MLRA 8:7)

1. Brigadir kompleksnoy brigady prokhodchikov shakhty "Ignat'-  
yevskaya" g. Stalino (for Serov).  
(Shaft sinking) (Donets Basin--Coal mines and mining)

SEROV, K.A.

Big success of Donets miners. Mast.ugl. 3 no.5:5-7 My '54. (MLRA 7:6)

1. Brigadir prokhodchikov shakty "Ignat'yevskaya" tresta Stalin-shakhtoprokhodka. (Donets Basin--Coal mines and mining)  
(Coal mines and mining--Donets Basin)

MAL'Y, T.Ye.; MOZHEVNIKOV, A.M.; SEROV, K.F., red.; SOLOV'YEVA, N.P.,  
red.; NIKOL'SKIAYA, K.G., tekhn. red.

[Disk brakes] Diskovyi tormoz; uchebnoe posobie po distsipline  
"Avtotormoza" dlia studentov V i VI kursov spetsial'nostei "Vago-  
nostroenie i vagennoe khoziaistvo," "Teplovozy i teplovozhnoe kho-  
ziaistvo," "Elektrifikatsiia zheleznodorozhnogo transporta." Mo-  
skva, 1962. 30 p. (MIRA 15:12)

1. Moscow. Vsesoyuznyy zaochnyy institut inzhenerov zheleznodo-  
rozhnogo transporta.

(Railroads--Brakes)



TRESVIATSKIY, S.G.; GRIKOV, V.V.; VOLODIN, P.L.; SEROV, K.M.

High-temperature vacuum kilns for calcinating high-strength  
refractories. Ogneupory 25 no.7:313-316 '60. (MIRA 13:8)  
(Refractory materials) (Kilns)

*Grunkin, M.N.*  
GRUNKIN, M.N., kandidat ekonomicheskikh nauk; SEROV, K.P., redaktor;  
ILLYUMINARSKIY, K.L., redaktor; SMIRNOV, P.S., tekhnicheskii  
redaktor

[Planning in industrial establishments] Planirovanie na promyshel'nom  
predpriyatii. [Leningrad] Lenizdat, 1957. 81 p. (MLRA 10:9)  
(Russia--Industries)

SEROV, L.

Central factory laboratories of synthetic fiber plants. Khim.  
volok. no.5:78 '65. (MIRA 18:10)

L. Starshiy inzh. Nauchno-issledovatel'skogo instituta tekhniko-ekonomicheskikh issledovaniy po khimii Gosudarstvennogo komiteta Khimicheskoy i neftyanoy promyshlennosti pri Gosplane SSSR.

ACC NR: AP7008894

SOURCE CODE: UR/0091/66/000/003/0001/0006

AUTHOR: Serov, L. S. (Chief project engineer)  
ORG: Planning Department, Leningrad Division, State Thermal Power Planning Institute  
TITLE: Pilot model of 500 megawatt power unit  
SOURCE: Energetik, no. 8, 1966, 4-6  
TOPIC TAGS: steam boiler, steam turbine, electric power plant  
ABSTRACT: A 500 megawatt power unit is being assembled at the Nazarovskaya Regional Electric Power Station. It is the pilot model for a large series of units for high power electric stations planned to be built to utilize the rich coal deposits of the Kansk-Achinsk Basin. The unit consists of two 800 ton-per-hour steam boilers and a single shaft steam turbine of 500 megawatts capacity designed for steam parameters of 240 atmospheres (at the turbine at 560°C with one intermediate heating of the steam to 565°C. One of the principle new features of the turbine unit is its usage of a central system of coal powder preparation with preliminary drying of the coal in steam dryers heated by off flow steam from the turbine. The advantages of this system are fuel economy due to increased thermodynamic efficiency and increased reliability due to constant moisture content of the fuel. A cross sectional diagram of the six-level building in which the unit is placed is presented. The main body and coal grinding plant are built of precast reinforced concrete. The unit was designed for maximal usage of standard plans for a coal burning regional power station and maximal usage of unified reinforced concrete parts for construction of thermal electric power station with the least number of standard dimensions. Orig. art. has: 3 figures. [JPRS: 38,330]

Card 1/1

UDC: 621.18:62-135

0929 1699

ACC NR: AP7003051

SOURCE CODE: UR/0096/66/000/011/0004/0008

14

AUTHOR: Serov, L. S. (Engineer)  
ORG: Leningrad Section, VGPI Thermoelectric Project (Leningradskoye otdeleniye VGPI Teploelektroproyekt)

TITLE: First model of 500 megawatt power unit  
SOURCE: Teploenergetika, no. 11, 1966, 4-8

TOPIC TAGS: electric power plant, steam power plant

ABSTRACT: The plan decisions are presented for installation of the first model of the 500 megawatt power unit installed at the Nazarovskaya Regional Electric Power Station. The primary point of discussion before construction of the unit was preparation of the fuel. A centralized fuel powder preparation system with preliminary drying of the coal in steam dryers heated by off-flow steam from the turbine was adopted. One stage of steam reduction in cooling is used, designed for 30% steam generating plant load. The reduction unit automatically switches on when temperature before the turbine reaches 252 atm. The complex design of the steam generating unit and turbine are said to be suitable only for a first, experimental model. Cross sectional diagrams of the main building housing the steam generating and turbine plant, of the central powder mill plus a diagram of the operation of the central powder mill are presented. Although the unit is controlled by computer, it was designed so that the operator has sufficient information at hand to control manually when necessary. Also, the individual devices are autonomous in their control in case of a failure in the control system. In order to facilitate

Card 1/2

UDC: 621.18+621.165.001.12

0955 1986

L 10389-67

ACC NR: AP7003051

The work of the operator, a mnemonic system is used to combine many of the 3900 control parameters for easier comprehension. Water supplies from the Chula River, single pass during high water periods and with partial reflux during low water periods. [JPRS: 39,183]

SUB CODE: 10 / SUBM DATE: none

Card 2/2

JB

SEROV, L.Ya.

Watercourse losses in a mountain river. Trudy Otd. geog. AN Kazakh.  
SSR no.8:235-237 '61. (MIRA 14:8)  
(Malaya Almaatinka River--Runoff)

SEROV. M.F., veterinarnyy vrach; P'YANKOV, B.F.

Epizootic sterility in cattle. Veterinariia 34 no.1188-92 N '57.  
(MIRA 10:12)

(Sterility in animals)  
(Cattle--Diseases and pests)



KORABLEV, Mikhail Dmitriyevich; LEBEDEVA, Yuliya Aleksandrovna; SHESTERIKOVA, Lyudmila Pavlovna. Prinizjali uchastiye: MIROSHNIKOV, I.P.; red.; SEROV, M.F.; NIKIFOROV, A.M.. KANEVSKAYA, M.D., red.; ANDRIANOV, B.I.; tekhn.red.

[Local anti-aircraft defense in rural districts] MPVO v sel'skoi mestnosti. Pod red. I.P.Miroshnikova. Moskva, Izd-vo DOSAAF, 1959. 198 p. (MIRA 12:12)

1. Glavnyy agronom Glavnoy gosinspektsii po karantinu i zashchite rasteniy Ministerstva sel'skogo khozyaystva SSSR (for Nikiforov). (Air defenses)

SEROV, M.F.

Complex of mucous membrane diseases in cattle. Veterinaria 36  
no.2:88-91 F '59. (MIRA 12:2)  
(Cattle--Diseases and pests) (Mucous membrane)

SEROV, M. F. Vet. Zh.

"Virus abortion of sheep."

Veterinariya, Vol. 37, no. 10, 1960, p. 78

NAKHMANSO, V.M.; OSIDZE, D.F.; SEROV, M.F.; ALEKSANDROVA, V.T.;  
SOLOV'YEV, S.; MALYSHEV, N.; IVANENKO, N.M.; POTATURKIN, V.;  
CHIZHOV, A.I.; MIKHAYLOV, N.N.

In the Soviet Union. Veterinariia 39 no.1:88-96 Ja '63.

(MIRA 16:6)

(Veterinary medicine)

SE ROV, M.I. —

2000

Serov, M. I. Remark on the number of zeros of the solution of a linear differential equation of the second order. Uspehi Matem. Nauk (N.S.) 6, no. 6(46), 182-183 (1951). (Russian)

The equation  $y'' + q(x)y = \lambda y$  is considered with  $q(x)$  a complex-valued function of the real variable  $x$  and  $\lambda$  complex. Let  $u = \text{Im } q(x)$  be continuous in the interval  $(A, B)$ , finite or infinite, and not equal to a constant in any segment of this interval. Let the sum of the number of points in the interval where  $u$  is a maximum or minimum be  $n$ . Then it is shown that for no value of  $\lambda$  can a solution of the differential equation have more than  $2n + 3$  zeros in the interval  $(A, B)$ . The proof uses the equation

$$\text{Im } \lambda \int_a^b |y_0|^2 dx = \int_a^b u(x) |y_0|^2 dx,$$

valid for a solution  $y_0(x)$  which vanishes at  $a$  and  $b$ .  
*N. Levinson* (Cambridge, Mass.).

*Snow*

Source: Mathematical Reviews,

Vol 13 No. 10

HOUSEHOLDER, A.S.; ZHIDKOV, N.P. [translator]; SEROVA, M.I. [translator];  
LYUSTERNIK, L.A., redaktor; KLIMENKO, S.V., tekhnicheskiiy redaktor

[Principles of numerical analysis. Translated from the English]  
Osnovy chislennogo analiza. Perevod s angliiskogo N.P.Zhidkova i  
M.I.Serova. Pod red. L.A.Liusternika. Moskva, Izd-vo inostrannoi  
lit-ry, 1956. 320 p. (MIRA 9:11)  
(Numerical calculations)

68797

~~16(1)~~ 16.3400

S/020/60/131/01/006/060

AUTHOR: Serov, M.I.

TITLE: Certain Properties of the Spectrum of a Non-selfadjoint Differential Second-order Operator

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 1, pp 27-29 (USSR)

ABSTRACT: The author considers

$$(1) y'' + p(x)y' + [q(x) - \lambda]y = 0, p(x + 1) = p(x),$$

$$q(x + 1) = q(x)$$

As it is well-known [Ref 1] there exists for every  $\lambda$  a solution  $y(x)$  with the property  $y(x + 1) = sy(x)$ , where  $s$  is one of the roots  $s_1, s_2$  of the equation

$$(2) s^2 - F(\lambda)s + \exp \left[ - \int_0^1 p(x)dx \right] = 0 .$$

The author denotes  $\lambda$  as a point of the type " + " , if  $|s_1|, |s_2|$  are both larger or both smaller than 1, otherwise  $\lambda$

Card 1/2

X

68797

Certain Properties of the Spectrum of a  
Non-selfadjoint Differential Second-order Operator

S/020/60/131/01/006/060

is a point of the type " - " .

The author formulates several properties which are connected  
with these notions, e.g. if

$$\int_0^1 \operatorname{Re} p(x) dx = 0, \text{ then the set of}$$

the points of the type " + " is empty. Similar problems are  
treated for operators which are defined on  $[0,1]$  by (1) and  
by the boundary conditions

$$(3) \quad y(1) = e^{it} y(0) ; \quad y'(1) = e^{it} y'(0) .$$

There are 3 references, 2 of which are Soviet, and 1 German.

PRESENTED: November 11, 1959, by A.N. Kolmogorov, Academician

SUBMITTED: November 18, 1959

X

Card 2/2



32190

S/044/61/000/000/009/049  
C111/C444

/4 4650

AUTHOR: Serov, M. I.

TITLE: On the spectrum of a non-selfadjoint operator

PERIODICAL: Referativnyy zhurnal, Matematika, no. 11, 1961, 21;  
abstract 11B103. (Uch. zap. Yelabuzhsk gos ped in ta  
1959, 7, 23 - 39)TEXT: The point  $\lambda_0$  is called a point of the spectrum of the  
equation

$$y'' + p(x)y' + [q(x) - \lambda]y = 0, \quad (1)$$

where  $p(x)$ ,  $q(x)$  are continuous complex functions with the period 1,  
if (1) for  $\lambda = \lambda_0$  possesses a solution bounded on  $-\infty < x < \infty$ . With  
different words: That set is called the spectrum which is formed by  
all eigenvalues  $\lambda_n(t)$  of the operator  $L_t(y)$ , if  $t$  changes from 0 up  
to  $2\pi$ ; thereby  $L_t(y)$  is determined by the equation (1) and by the  
boundary conditions:

$$y(1) = e^{it}y(0), \quad y'(1) = e^{it}y'(0).$$

Theorem 1: For certain  $j, h$  let be  $\lambda_j(t_1) = \lambda_h(t_2)$ .

Card 1/4

32190

S/044/61/000/011/009/049  
C111/C444

On the spectrum of a non-selfadjoint.

a) If  $\int_0^1 \operatorname{Re} p(x) dx \neq 0$ , then  $t_1 = t_2 = 2k\pi$  and the operators  $L_{t_1}$  and  $L_{t_2}$  and consequently their spectra are identical.

b) If  $\int_0^1 \operatorname{Re} p(x) dx = 0$ , then besides of the identity of the operators it is possible that  $t_1 - t_2 = 2k\pi + i \int_0^1 p(x) dx$ . In this case the operators  $L_{t_1}$  and  $L_{t_2}$  are not identical, but their spectra are still identical.

The point  $\lambda$  is of the type (+), if the multipliers of (\*) lie both inside or both outside of the unit circle;  $\lambda$  is of the type (-) if one of the multipliers lies inside and the other one outside of the unit circle. Let be

Card 2/4  $\int_0^1 \operatorname{Re} p(x) dx \neq 0$

X

S/044/61/000/011/009/049  
C111/C444

On the spectrum of a non-selfadjoint...

Then there exists in every neighborhood of a spectral point a point of the type (+) as well as other points of the type (-), and every domain of the points of the type (-) is unbounded. From this fact one obtains several statements on the possible topological structure of the spectrum. One also investigates certain metrical properties of the spectrum; it is especially shown that every component of the spectrum has a non-empty intersection with the stripe

$$\min \operatorname{Im} \left[ q(x) - \frac{p(x)^2}{4} - \frac{p'(x)}{2} \right] <$$

$$< \operatorname{Im} \lambda < \max \operatorname{Im} \left[ q(x) - \frac{p(x)^2}{4} - \frac{p'(x)}{2} \right].$$

By using the ideas of I. M. Gel'fand (Dokl. ANSSSR, 1950, 23, 6) it is shown: For every continuous function, vanishing outside of an interval, there holds the expansion:

$$f(x) = \int_0^{2\pi} \left[ \sum_{n=0}^{\infty} a_n(t) \varphi_{n,j}(x) \right] dt,$$

where

$$a_n(t) = \int_{-\infty}^{+\infty} f(x) \overline{\varphi_{n,j}(x)} dx$$

Card 3/4

On the spectrum of a non-selfadjoint,.. S/044/61/000/011/009/049  
C111/C444

and  $y_{n,t}(x)$  is the normed system of the eigenfunctions of  $L_t$ ,  $z_{n,t}(x)$  is the normed system of the eigenfunctions of the adjoint operator. The sets of the values  $t$ , for which  $L_t, L_t^*$  possess multiple eigenvalues, and for which the corresponding systems of the eigenfunctions eventually are incomplete, are sets of measure zero. X

[Abstracter's note: Complete translation.]

Card 4/4