

Hydraulic frictional resistance to flow of a steam/water SOV/96-58-6-14/24
mixture in a straight horizontal tube.

terms of generalised parameters. A hydrodynamic rig was set up to carry out investigations on the frictional resistance to flow of a steam/water mixture in a straight horizontal tube 30 mm diameter at pressures of 40 to 120 atm. with visual observation of the flow structure. A long section was used to stabilise the flow before the experimental section was reached. The speed range of the mixture was 0.3 to 5.9 m/sec and the steam content by volume was 0.75 to 0.98, both with and without heating at a rate of 70 - 75 thousand kcal/m². hr. Heating of the tube appeared to have no effect on the hydraulic frictional resistance. The results given in fig.4. show that for a given value of the generalised parameter z , derived earlier in the paper, the relative pressure-drop increases with reduction in the pressure of the steam/water mixture. The experimental data plotted in fig.6. are in satisfactory agreement with a generalised relationship given by Styrikovich for tubes 56 mm and 25.5 mm diameter. Experimental data for steam/water mixtures at pressures of 40 to 120 atm or for various initial steam contents by volume are given in fig.7. The curves demonstrate the inconsistencies that arise when extending directly to steam/water mixtures conclusions derived from tests on cold air/water mixtures. The last section of the paper is

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devoted to the derivation of formulae for calculating the loss of heat by friction in horizontal tubes. The existing standard formulae are replaced by new ones. There are 10 figures and 7 literature references (6 Soviet and 1 English)

ASSOCIATION: Power Institute of the Acad.Sci. USSR. (Energeticheskiy Institut AN SSSR)

1. Fluid flow--Friction 2. Fluid flow--Theory 3. Tubing--Performance

Card 3/3

AUTHORS: Kosterin, S.I. (Dr Tech.Sci.) SOV/96-58-10-14/25
Sheynin, B.I. (Cand Tech.Sci.)
Katarzhis, A.K. (Engineer)

TITLE: An experimental investigation of true steam contents during the flow of steam-water mixture in a slightly sloping tube. (Eksperimental'noye issledovaniye istinnykh parosoderzhaniy pri techenii parovodyancy smesi v slabonaklonnoy trube.)

PERIODICAL: Teploenergetika, 1958, No.10. pp. 55-60 (USSR)

ABSTRACT: A formula is given for the specific weight of a steam/water mixture moving in a sloping tube; it includes terms for the losses of head due to friction and acceleration. If steam content of a mixed flow is evaluated by measuring flow in an unheated tube and applying this formula, the result is not accurate because the frictional loss cannot be determined exactly. It is, therefore, better to measure the actual specific weight of the mixture. Previous attempts to do this are briefly reviewed. The method used for the present work was to cut off a volume of the mixture by means of two high-speed valves located at the ingoing and outgoing ends of the experimental section of tubing. A third valve was used as a by-pass. The requirements that the valves must meet are specified with particular reference to rate of closing. A sectional drawing of the valve used is seen in Fig.1., and its construction

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An experimental investigation of true steam contents during the SOV/96-58-10-14/25 flow of steam-water mixture in a slightly sloping tube.

is described. The valve is operated by a known weight falling from a certain height, the details being given in Table.1. The test rig is drawn schematically in Fig.2., and has an experimental section about 7.2 metres long. The valves carried contacts whereby the time of operation could be recorded on an oscillograph. The oscillogram reproduced in Fig.3. shows that the difference in operating time was 0.003 secs, and that the duration of closing was about 0.015 secs. Tests were made to ensure that the valves did not leak. After the valves had closed, the steam/water mixture was cooled, discharged and weighed. It is calculated that the error of determination of the true specific weight is 4.6% at 20 kg/m³ and 0.9% at 200 kg/m³. The construction of the rest of the apparatus is then described in more detail, and includes the method of introducing thermo-couples, as illustrated in Fig.4. Sight-glasses of optical quartz were provided to observe the flow structure. Brief characteristics of tests to determine true specific weights of steam/water mixture moving in a tube 29.9 mm internal diameter at a slope of 9°43'. are given in Table.2. The tests were made over a wide range of steam contents at pressures of 40, 70 and 120 atms. The steam contents by volume

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as functions of various parameters are plotted in Figs. 5, 6 and 7. The dotted lines are calculated by the standard methods of the Central Boiler Turbine Institute for making calculations on circulating water in steam boilers. It will be seen that in general, these calculated curves lie too low. This mainly because of the structure of the steam/water flow. The article concludes with a description of several typical and transitional forms of flow. There are 8 figures, 2 tables and 4 Soviet references.

ASSOCIATION: Power Institute, AS. USSR (Energeticheskiy
Institut AN SSSR)

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5 HEYAN, B.I.

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24(8) P. 2

PHASE I BOOK EXPLOITATION

Akademiya nauk SSSR. Energeticheskiy institut imeni
G. M. Krzhizhanovskiy

Teploenergetika, vyp. 1 (Heat Power Engineering, Nr 1) Moscow,
Izd-vo AN SSSR, 1959. 143 p. Errata slip inserted. No. of copies
printed not given.

Ed. of Publishing House: V. A. Kotov; Tech. Ed.: Yu. V. Rylyna;
Editorial Board: V. A. Baum, Doctor of Technical Sciences,
Professor (Resp. Ed.); G. Ye. Kholodovskiy, Doctor of Technical
Sciences; N. I. Yushchenkova, Candidate of Technical Sciences;
Z. L. Miropol'skiy, Candidate of Technical Sciences (Secretary);
and S. G. Poyarkov, Candidate of Technical Sciences.

PURPOSE: This work is intended for scientists and engineers working
in the field of steam boilers.

COVERAGE: This is a collection of 9 articles on the circulation of
water and water-vapor mixture in boilers, bubbling processes,
pulsation of pressure, temperature fields in combustion chambers,
radiation heat transfer between gray bodies, and the solution of
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nonlinear problems of mathematical physics. There is also an article describing processes occurring in the steam boiler of a solar heat energy station. References appear at the end of each article.

TABLE OF CONTENTS:

Kholodovskiy, G. Ye. Generalization of Experimental Data on the Circulation of Water in Boilers 3

The author presents a method for generalizing experimental data and establishes some relations between theoretical and practical data characterizing circulation processes in boilers.

Sheynin, B. I., and A. K. Katarzhis. Regions of Various Flow Forms of Vapor Mixture in Inclined Pipes 30

The authors describe experimental investigations of the flow of water-vapor mixture under pressures of 40, 70 and 120 atm. through pipes inclined at $5^{\circ}26'$ and $9^{\circ}43'$. Graphical representations of the results are given. The experiments
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were conducted at thermohydroelectric laboratories in cooperation with Heat and Electric Power Plant (TETs) No. 9.

Bartolomey, G. G., Ya. G. Vinokur, V. A. Kolokoltsov, and V. I. Petukhov. Experimental Investigation of Vapor and Gas Contents in a Bubbling Process

40

It was found that the distribution of volume vapor content and air content along the elevation of the bubbling volume at insignificant reduced velocities of vapor or air, and at low boiler water salt content, remains qualitatively the same under various pressures and characteristics of the perforated plate. An increase in the weight level at atmospheric pressure results in a decrease of vapor content. An increase in the reduced velocity of steam when the water is of low salt content increases the volume vapor content.

Semenov, N. I. Pulsations of Pressure in the Flow of Gas-Liquid Mixtures in Pipes

46

The article describes experiments in pressure pulsation in

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four 14 m long pipes of different diameters-25.8, 47.4, 74.7 and 99.8 mm. The flow velocity changed from 0.2 to 5m/sec. The gas content changed from 0.05 to 0.95. Graphical representation of experimental results are given.

Miropol'skiy, Z. L., and R. I. Shneyerova. Investigation of a Flow of Vapor Water Mixture in Pipes by γ Radiation 53

In this article the authors describe problems in determining the average values of steam volume contents φ_{av} in pipes and in conduits of rectangular cross section. The results obtained are also valid for conduits of arbitrary geometrical shapes. Diagrams and graphs are given.

Khrustalev, B. A; and S. S. Filimonov. Temperature Fields in Combustion Chambers 62

Three kinds of furnace heating chambers were investigated. Experimental data show that under condition of approximate self-modeling temperature fields these chambers perform according to load. It is stated that the approximate independence of dimensionless temperature fields from the

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load occurs in various combustion chambers which differ from each other according to geometric characteristics and the type of combustion processes.

Shchegolev, D. M. Steam Boilers of a Solar Heat Energy Station 70

The author presents data on the performance of steam boilers operating on solar heat energy. General diagrams of a boiler and tables of principal characteristic are given.

Surinov, Yu. A. Investigation of Radiation Heat Transfer in Systems of Gray Bodies 79

The author develops a theory of radiation and radiation heat transfer. The equations appearing in this article permit a theoretical-probability interpretation. The article is divided into two parts: 1) Solution of a mixed problem on radiation heat exchange in a system of gray bodies in a diathermic medium, and 2) Solution of a mixed problem of radiation heat transfer in systems of gray bodies in an absorbing medium.

Card 5/6

SHEYNIN, B.I.; KATARZHIS, A.K.

Limits of flow forms of a steam-water mixture in an inclined
pipe. Teploenergetika [Energ. inst.] no.1:30-39 '59.
(MIRA 13:2)

(Pipe--Hydrodynamics)

67542

SOV/96-60-1-6/22

10.4000
AUTHORS:

Semenov, H. I., and Sheynin, B. I., Candidates of
Technical Sciences.

TITLE:

Referred Frictional-resistance Coefficients for the
Flow of Steam-water Mixture in Pipes

PERIODICAL: Teploenergetika, 1960, Nr 1, pp 33-37 (USSR)

ABSTRACT: A previous article published in Teploenergetika, Nr 6,
1958, has shown that the frictional resistance to the
flow of a two-phase mixture in a pipe may be represented
in relative units: pressure drop and resistance
coefficients. The frictional resistance may be calculated
by the usual formula (1), but certain modifications must
be made to it for the case of a steam-water mixture.
In particular, use should be made of the referred
resistance coefficient depending upon the volumetric
gas content, the Froude criterion and the relative
viscosity of the mixture. Graphs of the relative
frictional resistance as a function of the steam content
by weight of the mixture are plotted in Fig 1 for
pressures of 39, 69 and 117 atm. Experimental values
of steam content by volume and frictional resistance
factors are tabulated for slightly sloping tubes of

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Referred Frictional-resistance Coefficients for the Flow of
Steam-water Mixture in Pipes

30 mm internal diameter. The data are used to plot the graphs of Figs 2 to 4 of the resistance factor as a function of steam content by volume, whilst Fig 5 gives graphs of referred resistance coefficients as functions of gas content by volume when an air/water mixture flows in a horizontal pipe. These curves are plotted from the data of A. A. Armand. The shapes of the curves are discussed and it is concluded that at low steam-pressures the physical properties of a steam/water mixture are similar to those of an air/water mixture. As the pressure increases, the relative speed of the steam is reduced and the true dynamic head increases, so that the true resistance coefficient decreases to a value of unity. Therefore, the value of this true referred resistance coefficient may be considered as an index of the homogeneity of the mixture. The larger the value, the greater is the non-uniformity of the mixture. The maximum value of the true referred resistance coefficient

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SOV/96-60-1-6/22

Referred Frictional-resistance Coefficients for the Flow of
Steam-water Mixture in Pipes

corresponds to the region of high relative steam speed
observed when the two components of the two-phase
mixture flow at different rates and the hydro-dynamic
non-uniformity is greatest. There are 5 figures,
1 table and 4 Soviet references.

4

ASSOCIATION: Energeticheskiy institut AN SSSR. MOTsKTI
(Power Institute, Ac. Sc. USSR. Moscow Division Central
Boiler Turbine Institute)

Card 3/3

10/10/1957
SHEYNIN, B.M.; PUKHOVITSKAYA, Z.N.

Some economic questions of the baking industry in Leningrad. Khleb.i
kond.prom. 1 no.10:9-11 0 '57. (MIRA 10:11)

1. Leningradskiy trest khlebopekarnoy promyshlennosti.
(Leningrad--Bakers and bakeries)

755 71111 1. 12
CHERNYAVSKIY, M.I.; SHEYNIN, B.Ya.

Sanitary and hygienic effectiveness of cleaning metalwork by the hydrosand blasting method. Gig. i san. 22 no.9:80-82 S '57.

(MIRA 10:12)

1. Iz sanitarno-epidemiologicheskoy stantsii Kominternovskogo rayona Khar'kova.

(INDUSTRIAL HYGIENE

hygienic & sanitary aspects of cleaning of metals by hydrosand blasting)

KOSHKIN, M.L., prof.; SHEYNIN, B.Ya., kand.med.nauk; IDLINA, A.G., kand.med.
nauk; DUDCHENKO, I.I.

Natural ultraviolet radiation inside buildings and the disinfectant
effect of daylight. Vrach.delo no.1:69-72 Ja '58. (MIRA 11:3)

1. Kafedra obshchey gigiyeny Khar'kovskogo meditsinskogo instituta.
(AIR--PURIFICATION) (ULTRAVIOLET RAYS)

CHERNYAVSKIY, M.I., sanitarnyy vrach; SHEYNIN, B.Ya., sanitarnyy vrach;
BERINDKAYA, TS.I., epidemiolog

Control of influenza in industrial enterprise. Gig.i san. 25
no.1:72-74 Ja '60. (MIRA 13:5)

1. Iz Mediko-sanitarnoy chasti Khar'kovskogo zavoda transportnogo
mashinostroyeniya imeni V.A. Malysheva.
(INFLUENZA prev. & control)

SHCHELKUNOV, I. P.; RUDENKO, V. F.; SHEYNIN, B. Ya (Khar'kov)

Changes in the osteoarticular system of chippers and their relationship to working conditions. Gig. truda i prof. zab. no.12:28-34 '61. (MIRA 14:12)

1. Ukrainskiy institut usovershenstvovaniya vrachey, Ukrainskiy institut gigiyeny truda i profzabolevaniy i Medob'yedineniye No. 17.

(VIBRATION--PHYSIOLOGICAL EFFECT)
(BONES--DISEASES) (OCCUPATIONAL DISEASES)

SHEYNIN, B.Ya., kand.med.nauk; DIDENKO, S.Yu., inzh.; KUTEPOV, V.N.,
inzh.; ROMAIENKO, V.V., inzh.; SHAPIL'SKIY, A.V., inzh.

Sanitation of working conditions in manual welding. Svar.
proizv. no.2:37-38 F '62. (MIRA 15:2)

1. Ukrainskiy nauchno issledovatel'skiy institut gigiyeny
truda i profzabolevaniy.
(Electric welding--Hygienic aspects)

VYCHEGZHANIN, A. G., nauchnyy sotrudnik; SHEYNIN, B. Ya., nauchnyy
sotrudnik; KARAMYSHEV, V. B., nauchnyy sotrudnik; GETMANETS,
I. Ya., nauchnyy sotrudnik; MANOYLENKO, S. M., vrach (Khar'kov)

Influence of washing solutions and cooling and lubricating
liquids on the skin of machine shop workers. Vrach. delo no.6:
124-126 Je '62. (MIRA 15:7)

(MACHINERY INDUSTRY WORKERS--DISEASES AND HYGIENE)
(SKIN--DISEASES)

NEVEROVA-SKOBELVA, N.P.; PROVORNAYA, A.Ye.; SLAVINA, I.I.; SHEYNIN, B.Ye.

Increasing the impact toughness of OT4 and OT4-1 alloys by
heat treatment. Metalloved. i term. obr. met. no.2:45-49 F
'63. (MIRA 16:3)

(Titanium alloys, Heat treatment)

2c

Z 26109-65 EWT(l)/EWT(m)/EWP(w)/EWA(d)/EPR/T/EWP(t)/EWP(b) Ps-l IJP(c)
S/0149/64/000/004/012A/0129
ACCESSION NR: AP4047492 MJW/JD

AUTHOR: Livanov, V. A.; Bukhanova, A. A.; Kolachey, B. A.; Nevarova-Skobeleva, N. P.; Slavina, I. I.; Sheynin, B. Ye.; Shcharbina, L. V.

40
39
B

TITLE: Effect of hydrogen on the mechanical properties of titanium and OT4-1 alloy
16 27 16

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 4, 1964, 124-129

TOPIC TAGS: titanium, titanium alloy, titanium mechanical property, titanium alloy strength, hydrogen content, brittle failure/alloy OT4-1

ABSTRACT: The aim of this work was to study the influence of hydrogen on the mechanical properties of OT4-1 alloy, particularly on the impact strength, and to establish the maximum permissible hydrogen content at which the high resistance of the metal to brittle failure is still retained. For comparison, identical tests were carried out on technical-grade titanium, brand VT1-1. It was found that of all the properties studied, the impact strength of VT1-1 and OT4-1 was the most sensitive to changes in hydrogen content. The lower this content, the lesser the tendency of the titanium alloys toward brittle failure. The authors were unable to establish the maximum permissible hydrogen
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ACCESSION NR: AP4047492

content and indicate the need for further investigations in this direction. Heating of OT-4 to 900C followed by cooling in air or in water reduces the adverse effect of hydrogen on the impact strength (at the hydrogen contents studied, i.e., up to 0.01%). However, additional experiments are needed for a better understanding of the stability of the properties obtained during the heat treatment and in the course of natural and artificial aging. Orig. art. has: 5 figures and 5 tables.

ASSOCIATION: Kafedra metallovedeniya i tekhnologii termicheskoy obrabotki, Moskovskiy aviatsionnyy tekhnologicheskiy institut (Metal science and heat treatment department, Moscow aviation technology institute)

SUBMITTED: 30Aug63

ENCL: 00

SUB CODE: MM

NO REF SOV: 002

OTHER: 001

Card 2/2

YERSHOV, B.B.; FYABOV, V.P.; SHEYNIN, D.M.

Industrial volume-manometric gas analyzers of periodic action.
Zav. lab. 30 no.8:1023-1024 '64. (MIRA 18:3)

1. Spetsial'noye konstruktorskoye byuro analiticheskogo priboro-
stroyeniya AN SSSR.

SHEININ, G. A.

USSR/Furnace.

Mar 1947

"Two-chambered Furnace with Molten Slag Tapping," N. L. Gyvin and G. A. Sheinin,
11 pp

"Izv Vses Teplotekh Inst," No 3

Data on investigations of the very first two-chambered furnace with molten-slag
tapping in the Soviet Union. Complete construction details.

FA IT42

1. SHENKIN, G. A., Eng.
2. USSR (600)
4. Steam Engines--Fireboxes
7. "Cold" straightening-out of the corrugated fire tube of a locomobile, Rab. energ., 3, No. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

500 4711 E.
AID P - 3537

Subject : USSR/Electricity
Card 1/2 Pub. 29 - 1/27
Authors : Kisel'gof, M. L., Kand. Tech. Sci., and G. A. Sheynin,
Eng.
Title : Efficient methods of burning fuels with a small
volatile matter content
Periodical : Energetik, 11, 1-4, N 1955
Abstract : The authors find that burning fuels with little volatile
matter content is very uneconomical in the majority of
Soviet electric power stations. In the burning of
anthracite culm, which contains less than 8% volatile
matter, combustion is found to be incomplete. 20 to 30%
even 40% of the combustibles material is lost in
exhaust. The authors suggest a series of improvements
in burning methods to avoid this great annual loss in
fuel. Three tables, 2 diagrams, 4 drawings.

AID P - 3537

Energetik, 11, 1-4, N 1955

Card 2/2 Pub. 29 - 1/27

Institution : None

Submitted : No date

AUTHOR: Sheynin, G.A. SOV-91-58-9-27/29

TITLE: Mechanical Firing Systems for Steam Boilers with a Capacity of 4 to 6 t/hr. (O sistemakh mekhanicheskikh topok dlya parovykh kotlov paroproizvoditel'nost'yu 4-6 t/ch)

PERIODICAL: Energetik, 1958, Nr 9, p 39 (USSR)

ABSTRACT: In reply to a reader's query, the author lists the various mechanical firing systems which can best be used with steam boilers producing 4 to 6 tons of steam an hour. Three reference books on the subject are also suggested.

1. Boilers--Operation

Card 1/1

SHEYNIN, G.A., inzh.

"Furnaces of industrial boiler rooms" by S.V. Tatischev. Reviewed
by G.A. Sheinin. Elek.sta.29 no.3:95-96 Mr '58. (MIRA 11:5)
(Furnaces) (Tatischev, S.V.)

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SOV/91-59-10-24/29

AUTHORS: Sheynin, G.A., Grinev, S.M., and Lindorf, L.S.

TITLE: Correspondence with Readers

PERIODICAL: Energetik, 1959, Nr. 10, pp 36-37 (USSR)

ABSTRACT: I. Alkalinity of Boiler Feed Water. Question by A.I. Lekhtsiyer, Ishim, Tyumenskaya Oblast': We purify boiler feed water by sodium-cation method. Still, the alkalinity is too high. What is the permissible limit of alkalinity? Answer: The method mentioned does not decrease the alkalinity. To diminish it, potassium nitrate (KNO_3) or sodium nitrate ($NaNO_3$) should be used. II. Application of Insulated Cable for Lead-Ins. Question by Shkrobko, Chernigov: Is it permissible to use in town streets insulated cables PR $4mm^2$ or APR $10mm^2$ for lead-ins? Answer: Not allowed, because the insulation conceals the possible damages of the metal part of the cable that bears the load. III. Asynchronous Electric Motor with Two Rotors. Question by P.E. Battakov, Leninogorsk: How does an asynchronous electric motor with two concentric

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Correspondence with Readers

rotors work? Answer: A motor with two rotors is applied to obtain a rotation speed of over 3000 r.p.m. Depending on the number of poles, rotation speed of one of rotors may attain 6000 r.p.m. The power developed by the motor depends on the power of individually considered machines, and on direction of their fields rotation; it may be equal to the sum or to the difference of the individual motor power.

Card 2/2

Sheyning, G. A.

10V/75-14-4-30/30

Author: Billmeyer, G. H.

Title: Section of Analytical Chemistry of the VIII Mendeleev Congress on General and Applied Chemistry

Periodical: Zhurnal analiticheskoy khimii, 1959, Vol 14, No 4, pp 511-512 (USSR)

Abstract: Approximately 300 persons participated in the work of the Department of Analytical Chemistry, among them representatives of various scientific research institutes, higher schools and industrial enterprises in Russia, scientists from China, Bulgaria, the GDR, Poland, Hungary, and Italy. Approximately 70 reports were heard. In his opening speech G. P. Alimarin reported on the achieved results and on modern problems of analytical chemistry. V. V. Kabanov reported on the application of physico-chemical analysis in heterogeneous systems for the solution of a series of problems of analytical chemistry. I. Kurstov reported on modern aims in the use of organic reagents. A. I. Babkin reported at the example of halides and thiocyanate complexes the ways to increase the stability of complexes and the position of the corresponding complexes in the periodic system. V. M. Zakhova and M. M. Zhukova lectured on the stability of oxides of Cu, Co, and Ni as depending on the structure of the oxime molecule. V. V. Tolozana lectured on the double character of reaction of some compounds in the formation of complexes. The problem of the application of heteropolycyclic analytical chemistry was dealt with in the lectures of Z. F. Shakhova and co-workers, and A. I. Fogelin and M. A. Pukhobuzina. A large number of lectures dealt with the use of new organic reagents in analysis: A. I. Buzov and M. I. Kravtsov reported on the application of dialkyl and diaryl dithio-aryl reagents and tri-phenyl phosphine acid. R. P. Lastovskiy and his co-workers treated the properties of new complexones. The lectures of V. A. Masarskiy, G. F. Shitikova and A. I. Kuznetsov dealt with the photometric determination of a series of elements using fluorine derivatives. A. I. Cherkasov lectured on the use of halochromation in analytical chemistry. B. M. Hobkina and T. M. Malysina lectured on the determination of tantalum using differential spectrophotometry. Yu. I. Korchevskiy and I. A. Stolynova reported on new highly sensitive analysis methods using an ultraviolet microscope. Several lectures dealt with methodical and theoretical problems of spectrum analysis (G. F. Zakhary and G. A. Sheyning, Z. M. Yezhshizlo and co-workers). M. S. Pokuator and B. F. Nikonova treated the problems of mass spectrometry. Several lectures dealt with the determination of trace amounts of elements by X-ray fluorescence spectroscopy (G. I. Kuznetsov, Z. B. Bobdakovskaya and V. V. Kabanov). The results of the work in using fixed electrodes were reported by V. B. Zakhov and Yu. S. Lyalikov and co-workers. The lecture of E. K. Malysina and V. V. Kabanov treated the use of amperometric titration with two electrodes in the chemistry of uranium and thorium. M. M. Senyavin showed possibilities of predicting the conditions of chromatographic separation of elements based on their position in the periodic system. I. A. Belyavskaya reported on the use of ion exchange in the investigation of the state of substances in solutions. A. S. Serzhidob and V. K. Fetishev lectured on the chromatographic separation of a series of elements. G. R. Polyzimskiy reported on adapting the properties of some of the elements of the periodic system and associates reported on the chromatographic separation of multivalent elements in liquids of the organics. G. L. Sturabinskaya and associates treated the application of high polymers in chromatographic analysis.

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dealt with gas chromatography. Several lectures treated the use of radioactive isotopes for the chromatographic investigation of complex formation (D. I. Ryshchikov and associates), for the investigation of the co-precipitation mechanism of ions of rare metals with sulfides (I. A. Rudny) and for determining rare elements by means of isotopic dilution (I. P. Alimarin, G. K. Bilimovich). In the field of elementary organic microanalysis the lectures of B. D. Zakhov, E. F. Zolotarev and V. A. Kabanov with special reference to be mentioned, who treated the elaboration of methods for the simultaneous determination of several elements from one weighed portion of boron, fluorine and silicon-organic compounds.

KOGANOV, I.A.; SHEYNIN, G.M.

Grinding disk cams operating with a roller-type follower.
Stan. i instr. 34 no.11:27-28 N '63. (MIRA 16:12)

SHEYNIN, G.M., aspirant

Design of copying systems with stretched profiling devices. Izv. vys.
ucheb. zav.; mashinostr. no.1:168-179 '65. (MIRA 18:5)

BOGAYEV, I.A.; BOGLOV, A.P.; FEDOROV, Yu.N.; SHEYNIN, G.M.

Increasing the productivity of machining. Mashinostroitel' no.3:
12-13. Mr '65. (MIRA 18:4)

KOGANOV, I.A.; SHEYNIN, G.M.

Machining cylindrical cams with small radii of the profile curvature.
Stan. instr. 36 no.4129-30 Ap '65. (MIRA 18:5)

AID P - 3560

Subject : USSR/Electricity
Card 1/1 Pub. 29 - 24/27
Author : Sheynin, I. A.
Title : ~~Use of strong secondary blast for hand-fed furnaces~~
Periodical : Energetik, 11, 37, N 1955
Abstract : Replying to a question from a reader, the author explains that in hand-fed furnaces a strong blast is not efficient, because of the difficulty of regulating the even feeding of fuel.
Institution : None
Submitted : No date

SHEYNIN, I.A.

Burning Kizel coal in furnace with hand-fired chain grates. Energetik
4 no.9:36-37 S '56. (MIRA 9:10)
(Coal) (Boilers)

SHEYNIN, I.A.

Steaming the layer of fuel on chain grates. Energetik 4 no.10:
39-40 0 '56. (MLRA 9:11)

(Boilers)

30983
S/124/61/000/009/003/058
D234/D303

24.4100

AUTHOR: Sheynin, I.S.

TITLE: Passing of a linear system with several degrees of freedom through resonance

PERIODICAL: Referativnyy zhurnal. Mekhanika, no. 9, 1961, 16, abstract 9 ALL8 (Stroit. mekhan. i raschet sooruzh., 1960, ²no. 3, 40-44)

TEXT: A method of design is proposed for the vibrational transition process of a linear system subjected to variable forces with slowly varying amplitude and frequency. The problem is reduced to calculating a particular solution of a system of inhomogeneous linear equations which is constructed while making use of solutions corresponding to the motion of the system due to a unit pulse. In the calculations, use is made of tabulated Lommel [Abstracter's note: Transliterated] functions of a real variable. An example of calculation is compared with experimental data. [Abstracter's note: Complete translation]

Card 1/1

X

ACC NR: AP7000353 (A) SOURCE CODE: UR/0413/66/000/022/0118/0118

INVENTOR: Sheynin, I. S.; Noskov, L. D.

ORG: none

TITLE: A method for determining the breaking of the bond between reinforcement and concrete in building structures. Class 42, No. 188744

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 22, 1966, 118

TOPIC TAGS: reinforced concrete, concrete, structural engineering, structure stability, *BONDING PROPERTY*

ABSTRACT: An Author Certificate has been issued for a method for determining the breaking of the bond between reinforcement and concrete in building structures by using sensors to register the acoustic impulse originating in the broken-bond area between the reinforcement and concrete. To determine the location of this area, the difference in the sonic-wave travel of the acoustic impulse to pickups located on opposite sides of the test structure is measured.

SUB CODE: 13, 14/ SUBM DATE: 11 Sep64/

Card 1/1

UDC: 666.982:693.554:620.171.2-868.6

SHEYNIN, I. S.

Cand Tech Sci - (diss) "Several problems of passage through resonance of a linear system containing several degrees of freedom." Moscow, 1961. 14 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Order of Labor Red Banner Construction Engineering Inst imeni V. V. Kuybyshev); 180 copies; price not given; bibliography on pp 13-14 (18 entries); (KL, 6-61 sup, 228)

S/196/62/000/001/013/013
E194/E155

AUTHOR: Sheynin, I.S.

TITLE: The law of change of speed on starting a machine
with an induction motor

PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika,
no. 1, 1962, 3, abstract LK 15. (Tr. Tsent. n.-i.
in-ta stroit. konstruksii. Akad. str-va i
arkhitekt. SSSR. no.2, 1961, 161-175)

TEXT: The article defines the dynamic load of machines
driven by squirrel-cage induction motors. The effect of resonance
during starting and stopping is considered from the standpoint of
designing vibro-isolators. It is shown that on passing through
resooance the value of the maximum amplitude depends greatly on
the value of the angular acceleration at the instant when the
frequency of the disturbing force coincides with the natural
frequency of the system. Therefore, instead of determining the
total starting time, it is desirable to be able to find the
direct angular acceleration at the instant of passing through
Card 1/2

S/194/61/000/012/024/097
D201/D303

AUTHOR: Sheynin, I. S.

TITLE: The mathematical analogue solution of resonance problems

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 12, 1961, 13, abstract 12B75 (Tr. Tsent. n.-i in-ta stroit. konstruktsiy. Akad. str-va i arkhitekt. SSSR, 1961, no. 2, 176-188)

TEXT: It is pointed out that at present several project organizations and construction offices have at their disposal series produced mathematical analogues (MA). It is, therefore, thought advantageous to study the possibility of MA solutions of problems of resonance as applied to the vibration proof installations and to engineering structures. The MA could also be used as an electronic simulator for checking the theoretical results obtained in a general form. The general principles of MA and solutions on it of differential equations are given. The MA solution of inhomogeneous

Card 1/3

The mathematical analogue ...

S/194/61/000/012/024/097
D201/D303

linear differential equations with constant coefficients

$$\sum_{l=1}^n (M_{ml} \ddot{x}_l + R_{ml} \dot{x}_l + C_{ml} x_l) = F_m, \quad (m = 1, 2 \dots, n)$$

is considered, where x_l = the generalized system coordinates;
 M_{ml} , R_{ml} and C_{ml} = the parameters of the oscillating system (some
of them may be equal to zero); F_m = the input disturbance of the
form

$$F_m(t) = P_m(t) \sin [\varphi_m(t)]$$

where $P_m(t)$ = amplitude and $\sin t$ = phase. The L.H.S. of the
Card 2/3

1961.

Calculating resonances in linear systems. Trudy TSNISK no.2:
1961. (MIRA 1618)

(Vibration) (Resonance)

21098

S/119/61/000/003/001/006
B116/B206

9.7200 (also 1034)

AUTHOR: Sheynin, I.S.

TITLE: Block of unsteady functions for analog computers

PERIODICAL: Priborostroyeniye, no. 3, 1961, 1 - 4

TEXT: The block described in the article was elaborated for solving systems of differential equations on analog computers, i.e., equations with links, which are unsteady functions with points of unsteadiness of first order, as well as links which are oscillating aperiodic time functions. The block transforms the voltage x applied in the form of a monotonously changing time function into a voltage y taken off at the instrument output, y being an unsteady function with points of unsteadiness of first order. The derivatives of x and y with respect to time are in linear correlation at all points except the points of unsteadiness, that is, the $x(t)$ and $x(y)$ curves show tangents at the same points (except at the points of unsteadiness), whereby the tangents of their angle of inclination to the t -axis ($t = \text{time}$) differ from each other by k times ($k = \text{const}$ for the pro-

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S/119/61/000/003/001/006
B116/B206

Block of unsteady functions ...

cess in question): $dy/dt = k dx/dt$. The jump y_{pi} of the function can be adjusted according to the conditions of the problem to be solved. The block (Fig. 1) consists of a summator amplifier (1) and an automatic device (2). Any d.c. operation amplifier 5 can be used as (1). When the voltage x at the input of the automatic device reaches a certain value, the latter responds and applies at the input of the summator amplifier the constant voltage y_{pi} of any previously adjusted amount and sign. This voltage is maintained at the output of the automatic device up to the next response (at which it changes by a specific value and becomes equal to y_{pi+1}). An alternating voltage x and one of the constant voltages y_{pi} is thus applied at the input of the summator amplifier. The voltage $y = k(x + y_{pi})$ is taken off at the output of the summator amplifier and thus also at the block output. k is the amplification factor of the summator amplifier and depends on the ratio of the resistances R in its feedback circuit. Fig. 2 shows the basic circuit diagram of the block, i.e., mainly that of the automatic device since that of the summator amplifier

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B116/B206

Block of unsteady functions ...

is standardized. This device consists of cells of the same type, the number of which equals that of the points of unsteadiness of the function. The first number of the cell index is the cell number, and the second is the number of the individual part (e.g., R_{14} is the resistance R_4 from the first cell). The number before the relay number is the contact group number of the relay in question. At a certain input voltage each cell is intended to apply a certain cutoff voltage at the input of the summator amplifier and to take from its output all previously applied cutoff voltages. For this purpose, each cell is provided with an electron tube $\Lambda(L)$, two relays $P(R)$, and two voltage dividers $\Delta(D)$ and R_{n6} . The electron tube operates as a valve and an amplifier. As a valve, it is closed until the voltage at the block input reaches a certain value. As an amplifier, it warrants a quicker response of the relay P_{n1} after the opening of the tube. The relay P_{n1} has only one working-contact group $1P_{n1}$, which closes the circuit of the relay P_{n2} . In the circuit diagram, the entire commutation is performed by the contact groups of the relay

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S/119/61/000/003/001/006

B116/B206

Block of unsteady functions ...

P_{n2} . The contacts $1P_{n2}$ apply the voltage taken from the divider at R_{n6} to the input of the summator amplifier. The contacts $2P_{n2}$ and $3P_{n2}$ take off the anode voltage from all previous cells. Instead of $2P_{n2}$ and $3P_{n2}$, only one pair $2'P_{n2}$ may be used, as indicated by dashes for the tube \mathcal{L}_1 . The voltage divider $\mathcal{A}_n(D_n)$ with the resistances $R_{n1} - R_{n5}$ (in Fig. 2, only the divider of the first cell is shown) serves for applying the negative displacement closing the tube to the grid of the tube $\mathcal{L}_n(L_n)$. The amount of this displacement is adjusted by means of R_{n3} . The block built up according to the basic circuit diagram shown here has stood the test very well. An additional device for reproducing multi-period nonlinear potential functions is described next. A device that transforms voltages of the form $U_{\text{output}} = U_{\text{dr}} = U_{\text{input}} - nT$ must be connected in front of the input of a nonlinear amplifier calculated for reproducing one period. n is an integer, and T is the period (the voltage is shown in

Card 4/3

21098
S/119/61/000/003/001/006
B116/B206

Block of unsteady functions ...

the form of a sum $nT + U_{dr}$). By this formula, the output voltage is expressed as a sawtooth function of the input voltage with the "sawtooth" height T. The device reproducing this formula is a sawtooth converter. The block diagram shown in Fig. 4 consists of two elements: the sawtooth converter (1) and the nonlinear amplifier (2). There are 4 figures.

Legend to Fig. 1: Block circuit diagram of the block of unsteady functions. 1) d.c. amplifier with feedback, 2) automatic device, 3) input, 4) output, 5) d.c. operation amplifier, 6) block of unsteady functions.

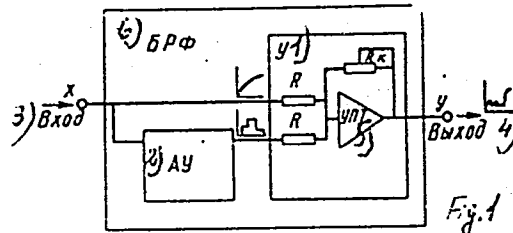
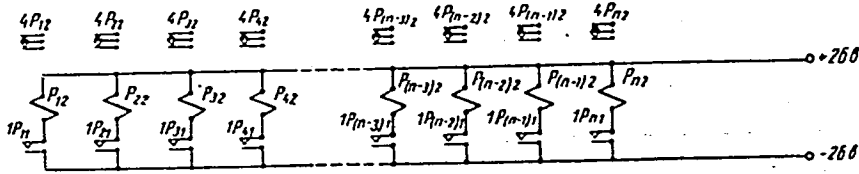


Fig. 1

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Block of unsteady functions ...

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S/119/61/000/003/001/006
B116/B206



Legend to Fig. 2: Basic circuit diagram of the block of unsteady functions. 1) input, 2) to dividers, 3) d.c. amplifier, 4) d.c. operation amplifier, 5) output.

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S/119/61/000/003/001/006
B116/B206

Block of unsteady functions ...

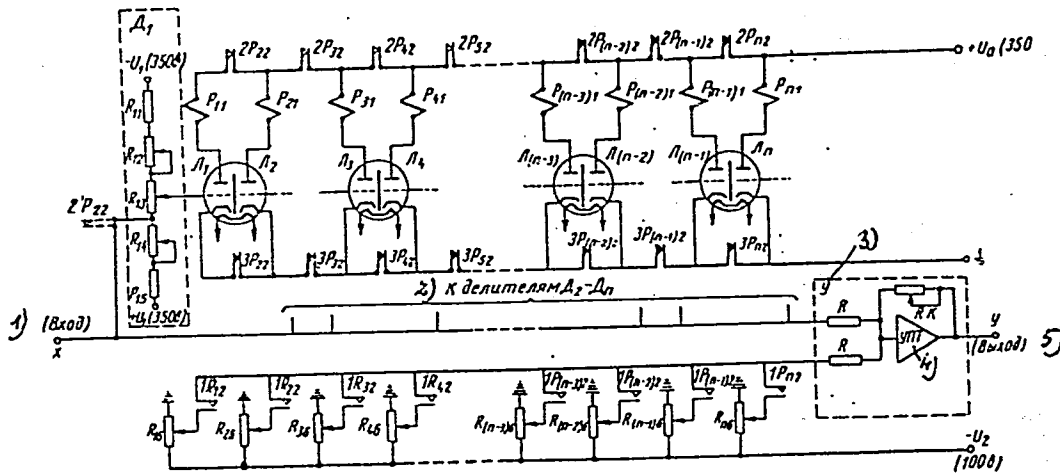
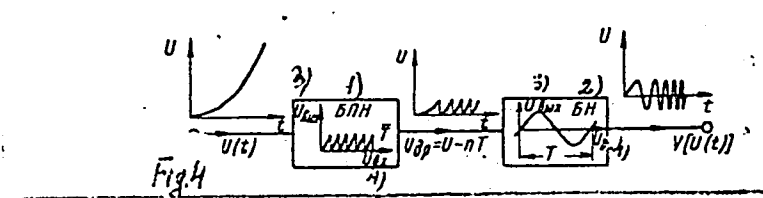


Fig 2 CONT.

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Block of unsteady functions ...

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S/119/61/000/003/001/006
B116/B206



Legend to Fig. 4: Block circuit diagram of the device for reproducing multi-period nonlinear voltage functions. 1) sawtooth converter, 2) nonlinear amplifier, 3) U_{output} , 4) U_{input} .

Card 8/8

L 15762-63 BDS
ACCESSION NR: AR3002645

8/0124/63/000/005/A019/A019

SOURCE: Rzh. Mekhanika, Abs. 5A111

47

AUTHOR: Sheynin, I.S.

TITLE: The use of analog computers in calculating systems passing through resonance

CITED SOURCE: Stroit. mekhan. i raschet sooruzh., no. 5, 1961, 26-27

TOPIC TAGS: analog computer, resonance, perturbation, imbalance, rotational motion, rotation

TRANSLATION: A method is proposed for obtaining, on analogue computers, the electrical voltage of variable frequency and amplitude which corresponds to the perturbing action occurring during the starting up and shutting down of a rotary machine with imbalance which varies with time (for example the operation of a centrifuge with periodic motion).

Such voltage of a very complex form is produced directly by a series of analogue computers as a result of the solution of a homogeneous linear

Card 1/2

L 15762-63

ACCESSION NR: AR3002645

differential equation of the second order, with variable coefficients of a special form. The block diagram of the solution and the circuit parameters are given. The necessity for creating special generators of variable voltage of complex form is eliminated by this method.

The proposed technique permits the detailed investigation, using analog computers, of various systems-- acted upon by rotating masses with variable imbalance -- in their passage through resonance. K. Frolov

DATE ACQ: 14Jun 63

SUB CODE: CP

ENCL: 00

Card 2/2

SHEN, N. (Leningrad)

Dynamic stresses from die forging process. Stroj. mezh. i
mesh. sooruzh. 5 no.6849-51 '63 (MIRA 1787)

SHEYNIN, I.Ye., inzhener.

On the problem concerning the sign of reactive power. Elektrichestvo
no.4:85 Ap '54. (MLRA 7:5)

(Electric capacity)

SHEYNIN, L.

A qualitative evaluation of agricultural land. Vop.ekon. no.6:
153-154 Je '60. (MIRA 13:6)
(Land-Classification)

SHEYNIN, L.

Rock piles and Xmas trees. Vest. Mosk. un. Ser. 5: Geog. 18
no.4:69 J1-Ag'63. (MIRA 17:2)

PREYS, V.F., kandidat tekhnicheskikh nauk; SHISHOV, V.; SHEYNIN, L., glavnyy tekhnolog oruzheynogo zavoda; SHKARUPA, V.; TYLKIN, M.N., redaktor; PULIN, L.I., tekhnicheskiiy redaktor

[Mechanization and automatization of production; the experience of the Tula machine construction plant] Mekhanizatsiya i avtomatizatsiya proizvodstva; iz opyta Tul'skikh predpriyatii mashinostroeniya. [Tula] Tul'skoe kn-vo, 1956. 95 p. (MIRA 9:9)

1. Glavnyy tekhnolog Tul'skogo zavoda Ministerstva putey soobshcheniya (for Shishov). 2. Glavnyy inzhener Tul'skogo kombaynovogo zavoda (for Shkarupa)

(Automatic control)

(Tula--Machinery industry)

SOV/112-57-5-10865

Translation from: Referativnyy zhurnal. Elektrotehnika, 1957, Nr 5, p 183 (USSR)

AUTHOR: Sheynin, L. B.

TITLE: Experience with Operation of a Roll-Machining Automatic Line
(Opyt ekspluatatsii avtomaticheskoy linii obrabotki valikov)

PERIODICAL: V sb.: Avtomatizatsiya tekhnol. protsessov v mashinostr. Obrabotka
metallov i obshchiye vopr. avtomatizatsii. M., 1956, pp 201-207

ABSTRACT: Bibliographic entry.

Card 1/1

BASKAKOV, S.; ISACHENKO, I.; SHEYNIN, L.

Sixty years. Pozh.delo 3 no.1:6-7 Ja '57.

(MIRA 10:4)

1. Predsedatel' Soveta Dobrovol'nogo pozharnogo obshchestva Kiyeva i Kiyevskoy oblasti (for Baskakov).
2. Predsedatel' Mogilevskogo Dobrovol'nogo pozharnogo obshchestva (for Isachenko).
3. Zamestitel' nachal'nika GorOPO Mogileva (for Sheynin).
(Kiev--Fire prevention)
(Mogilev--Fire prevention)

KORSAKOV, Vladimir Sergeyevich, prof., doktor tekhn.nauk; SHEYNIN, L.B.,
inzh., retsenzent; SASOV, V., dotsent, kand.tekhn.nauk, red.;
MOROZOVA, M.N., red.izd-va; MODEL', B.I., tekhn.red.

[Design and manufacture of attachments in the machine-tool
industry] Raschet y konstruirovaniye prispособleniy v mashino-
stroenii. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry,
1959. 215 p. (MIRA 12:8)
(Machine tools--Attachments)

SHEYNIN, L.B.

Zones of state purchasing prices for agricultural products and
the two principles of their determination. Vop. geog. no. 54:
143-149 '61. (MIRA 15:3)

(Agricultural prices)

IVANOV, K.I., red.; BELOTSERKOVSKIY, M.Yu., red.; BOLYSHEV, N.N., red.;
GEDYMIN, A.V., red.; GLAZOVSKAYA, M.A., red.; GOLOVENKO, S.V.,
red.; ZVORYKIN, K.V., red.; IGNAT'YEV, G.M., red.; KUZNETSOV,
G.A., red.; LEBEDEV, N.P., red.; LEBEDEV, P.N., red.;
RAKITNIKOV, A.N., red.; SHEYNIN, L.B., red.; GREBTSOV, P.P.,
red.; YER'AKOV, M.S., tekhn. red.

[Accounting for and the evaluation of agricultural land]
Uchet i otsenka sel'skokhoziaistvennykh zemel'. Pod red. K.I.
Ivanova. Moskva, Izd-vo Mosk. univ., 1963. 385 p.

(Farm--Valuation) (Soils--Classification) (MIRA 16:7)
(Cadasters)

SHEYNIN, L.B.

"Geography of state retail prices for consumers' goods" by
A.K. Prosandeev. Reviewed by L.B. Sheinin. Vest. Mosk. un.
Ser. 5: Geog. 18 no.2:78-79 Mr-Apr '63. (MIRA 16:3)

(Prices) (Sheinin, L.B.)

ARTAMONOV, P. A., kandidat khimicheskikh nauk; STERLIN, B. YA., kandidat tekhnicheskikh nauk; SLASHCHEV, N. S., inzhener; RUMSH, D. I., inzhener; ZELIKSON, T. I. inzhener; SHEYNIN, L. I. inzhener; ARAPOV, L. V.

Regeneration of a used catalyst with preliminary degreasing. Masl.-zhir. prom. 18 no.6:17-19 Je '53. (MLRA 6:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut shirov (for Artamonov, Sterlin). 2. Moskovskiy gidrozavod (for Slashchev, Rumsh, Zelikson, Sheynin, Arapov);

(CA 47 no.22:12839 '53)

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(4)

Chem Abs v43
1-25-54
Apparatus, Plant
equipment, and
unit operations

Use of continuous vacuum filters in the manufacture of a catalyst. P. A. Artamonov, N. S. Slashehev, and L. I. Shelmin (Moscow Hydro-Factory). *Mashinostroitel'skaya Prom.* 18, No. 9, 5-8(1953).—NiCO₃(I) and CuCO₃(II) suspension is fed by gravity flow into a semicircular trough contg. a half-submerged drum-shaped filter. The filter is subdivided into several sections which are intermittently connected with a vacuum line by means of a slide valve, as the drum rotates. The mother liquid is drawn in through the filter cloth, and water, flowing on the outside of the drum, cleans the catalyst, which is then scraped off by knives, dried, etc. Most rapid sedimentation of I and II occurs when they are obtained from Ni and Cu sulfate soln. contg. 9-10 g. of metals per l. at 50°. Under these conditions, 70% of the mother liquid was removed after a 4-5 hr. sedimentation period. The catalyst removed from the filter contained 0.88-0.97% of Na₂SO₄. The temp. of the wash water should be from 36 to 60°. The diagrams of apparatus and data are given in 2 tables.

6-15-54
800

SAMARIN, D.A.; ARKHANGEL'SKIY, V.V., red.; VOLKOV, A.M., red.; KLYKOV, A.A.,
red.; RUDIN, M.Z., red.; KHERSONSKIY, Kh.N., red.; SHEYNIN, L.R.,
red.; SHAVERDOVA, A.I., red.; MANINA, M.P., tekhn.red.

[The angler; almanac] Rubolov - sportsmen; almanakh. Moskva, Gos.
izd-vo "Fizkul'tura i sport." Vol.11. 1959. 270 p.

(MIRA 14:3)

(Fishing)

SHYMIN, Lev Romanovich

Proklyatoye kleyno. [Moskva] Izdvo. "Znaniye", 1960.

107 p.

SHEYNIN, M.

Refrigeration and Refrigerating Machinery

Cold out of heat. Tekh. molod., No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified

KARTAMYSHEV, P. (Leningrad); SHEYNIN, M. (Leningrad)

Precise, clear, convenient. Grazhd.av. 18 no.2:20 F '61.
(MIRA 14:3)

(Landing aids(Aeronautics)

SHEYMIN, M.

School on the upsurge. Prof.-tekh. obr. 19 no.6:21 Je '62.
(MIRA 15:7)

1. Zamestitel' direktora po uchebno-proizvodstvennoy rabote
Izhevskogo remeslennogo uchilishcha No.3, Udmurtskoy ASSR.
(Vocational education)

SHEYNIN, M., inzh.

Learning by mistakes of others. Grazhd. av. 20 no.6:14-15
Je '63. (MIRA 16:8)

(Flight training)

SHEYNIN, N., Inzh.

What systems are needed? Av. i kosm. 47 no.3:65-68 Mr '65.
(MIRA 18:3)

1. Nachal'nik nauchno-issledovatel'skoy laboratorii Vysshogo
aviatsionnogo uchilishcha grazhdanskoy aviatsii.

SHEYNIN, M. P.

AID P - 4770

Subject : USSR/Aeronautics - accelerometer
Card 1/1 Pub. 135 - 28/31
Authors : Belikov, V. I., Col. and M. P. Sheynin
Title : For wider use of load factor indicator
Periodical : Vest. vozd. flota, ³⁴ 8, 93, Ag 1956
Abstract : The authors suggest the use of an accelerometer during the execution of aerobatics.
Institution : None
Submitted : No date

SHEYNIN, M.

84-11-10/36

AUTHOR: Sheynin, M., Engineer (Leningrad)

TITLE: Apparatus to Examine Pilot's Physical Condition and Fitness (Pribory dlya ob'yektivnoy otsenki sostoyaniya i podgotovlennosti pilotov)

PERIODICAL: Grazhdanskaya aviatsiya, 1957, Nr 11, pp.9-10 (USSR)

ABSTRACT: Although it is generally up to the instructor to judge the extent of nervous tension in a pilot, the Soviet Civil Air has developed two scientific devices to help the instructor in evaluating the pilot's condition. One device indicates the tension of the pilot's grip on the wheel. The device consists of a rubber glove and a tube leading to a rheostatic pressure meter; the pressure meter is connected with the electric network of the plane. Experiments with this device have shown that less experienced pilots have a 2 to 2.6 times heavier grip on the wheel when landing, climbing, or

Card 1/2

Apparatus to Examine Pilot's Physical Condition and Fitness (Cont.) 84-11-10/36

facing any change in flight conditions. Throbbing of the arteries, accelerated breathing, and similar phenomena of hyper-tension are registered by another electric device. This consists of a rubber sleeve put on the left arm of the pilot and a rubber pad placed on the chest; both parts of the apparatus are equipped with meters. The control of arterial pressure in the sleeve is achieved by an electro-optical pen, which registers the changes, apparent especially during climbing and landing operations. The entries are made on a photographic paper, which indicates also the speed, altitude and landing shock. Two photographs and nine diagrams accompany the article. The photographs show the two devices, whereas the diagrams represent the meters. Oscillograms show the physical condition of the pilot, such as pulse, breathing or pressure; the last two diagrams compare the tensions during a normal grip and a medium-heavy grip on the wheel.

AVAILABLE: Library of Congress

Card 2/2

SOV/84-60-1-26/76

3(7)

AUTHORS: Sheynin, M., Chief Engineer, and Yakovlev, A.,
Senior Instructor

TITLE: Radar Probing of the Atmosphere ↗

PERIODICAL: Grazhdanskaya aviatsiya, 1960, Nr 1, p 14 (USSR)

ABSTRACT: The authors recommend a wider use of radar for atmospheric soundings. In 1956 they proposed the specific utilization of radar reflectors dropped by aircraft or scattered from signal rockets. From the returns appearing on the radar screen (svetoplan) it would be possible to calculate the speed and direction of airflow and wind in relation to the height and level of approach. A wide-range screen would be required - in conventional units, the distance between the rings must be 30-50 km. Radar ↗ reflectors would be particularly useful for studying vertical currents and turbulence at all atmospheric levels. Tests conducted with the TsAO GUGMS showed

Card 1/2

Radar Probing of the Atmosphere

SOV/84-60-1-26/76

that the ground radar method used to record the mean quadratic velocity of cloud movement can be applied to the atmosphere. Vertical soundings can be taken when radar reflectors are scattered above and below the cloud-zone. Periodic photographs are taken from the screen. ✓

ASSOCIATION: Vyssheye aviatsionnoye uchilishche GVF (Higher Aviation College of the Civil Air Fleet)

Card 2/2

SOV/84-60-2-33/59

1(

AUTHOR: Trekhin, V., Pilot-Instructor for Ground Trainers,
Sheynin, M., Engineer, (Leningrad)

TITLE: From Easy Stages to More Difficult Ones

PERIODICAL: Grazhdanskaya aviatsiya, 1960, Nr 2, pp 17-18 (USSR)

ABSTRACT: This article is a set of instructions on how to use ground trainers and mock-ups, beginning with TL-5, ERK-DGMK and PSP-48 trainers, and more advanced, unspecified ones. The authors call upon all concerned to cease the manufacture of inferior make-shift trainers, and do away with the unfounded distrust toward good, standard trainers. They want the industry to produce special trainers for the Tu-104, Il-18 and An-10, for training in OSP (Instrument Landing Equipment) landing.⁹ Technical data contained in this article is as follows: The Higher Aviation School of GVF, using the standard PTU-0 television

Card 1/2

SOV/84-60-2-33/59

From Easy Stages to More Difficult Ones

sets, has worked out two television arrangements for trainers. One such arrangement provides an imitation of visual flights, enables the trainee to watch the runway when coming out of clouds, after having flown over the short-range precision approach radar. The other arrangement enables the pilot in the trainer to perform a landing approach using the radar navigator. It is also intended for training the dispatchers, so as to give them an idea of a landing approach from the pilot's position. A cartoon on page 17 scoffs at the training subunit commanded by L. Nozadze, Gruzinskoye territorial'noye upravleniye (Georgian Territorial Administration), where an available trainer for An-2 aircraft stands unused. There is 1 drawing. ✓

ASSOCIATION: Vyssheye aviatsionnoye uchilishche GVF (Higher Aviation School of the GVF), Leningrad.

Card 2/2

FESENKO, N.G.; ROGOZHKIN, V.I.; FESENKO, Ye.A.; SHEYNIN, M.S.

Conditions of dissolved gases and hydrobiology of the TSimlyansk Reservoir during the first winter's stagnation, 1952-1953. *Gidrokhim.mat.*25:98-114 '55. (MIRA 9:6)

1. *Gidrokhimicheskiy institut Akademii nauk SSSR, Novocherkassk i Dono-Kubanskaya nauchnaya rybokhozyaystvennaya stantsiya Vsesoyuznogo nauchno-issledovatel'skogo instituta rybolovstva i okeanografii, Rostov-na-Donu.*

(TSimlyansk Reservoir--Fresh-water biology)

FESENKO, Ye.A., kand.biol.nauk; SHEYNIN, M.S.

Food supply of the larvae of commercial fishes in the Don River and
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